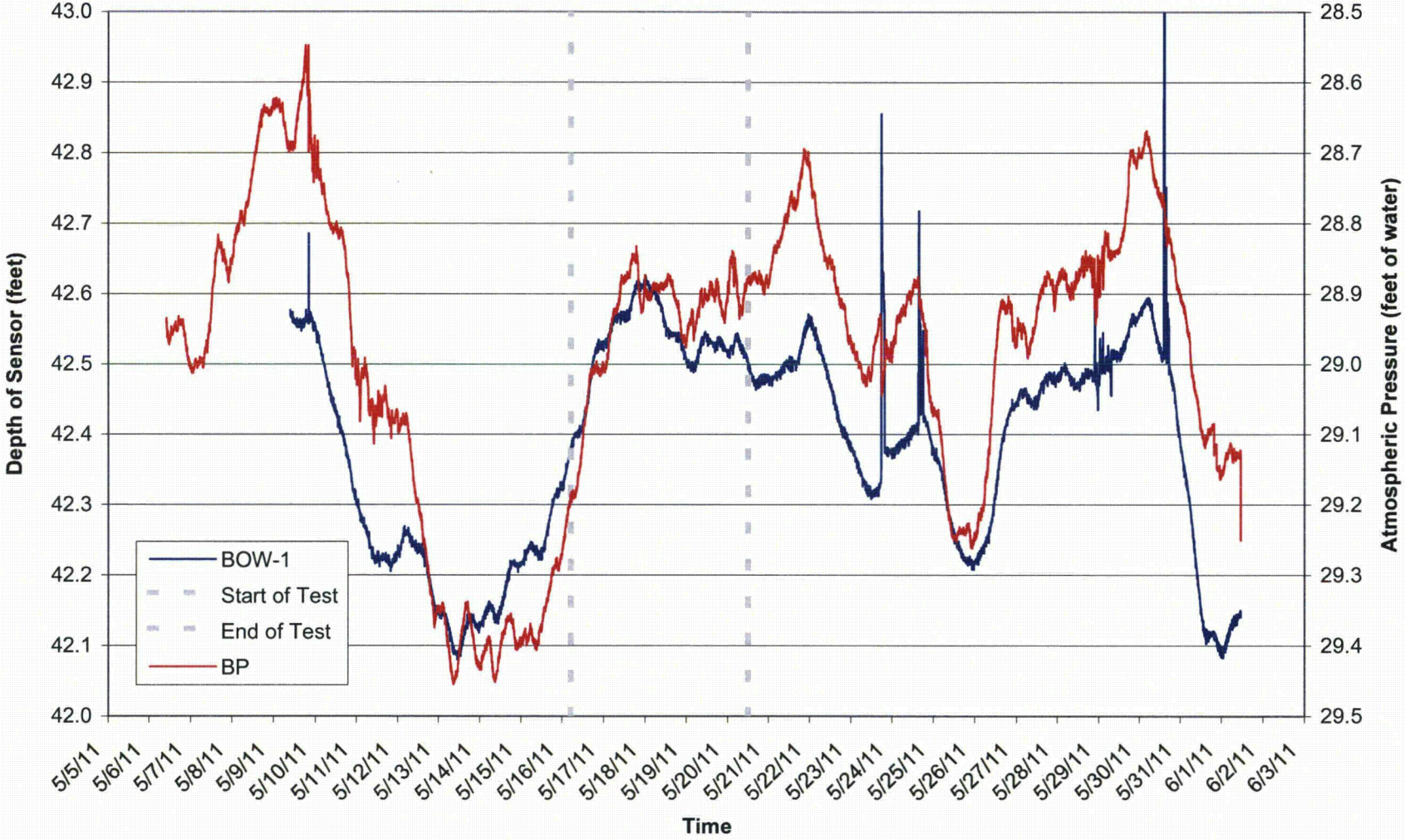
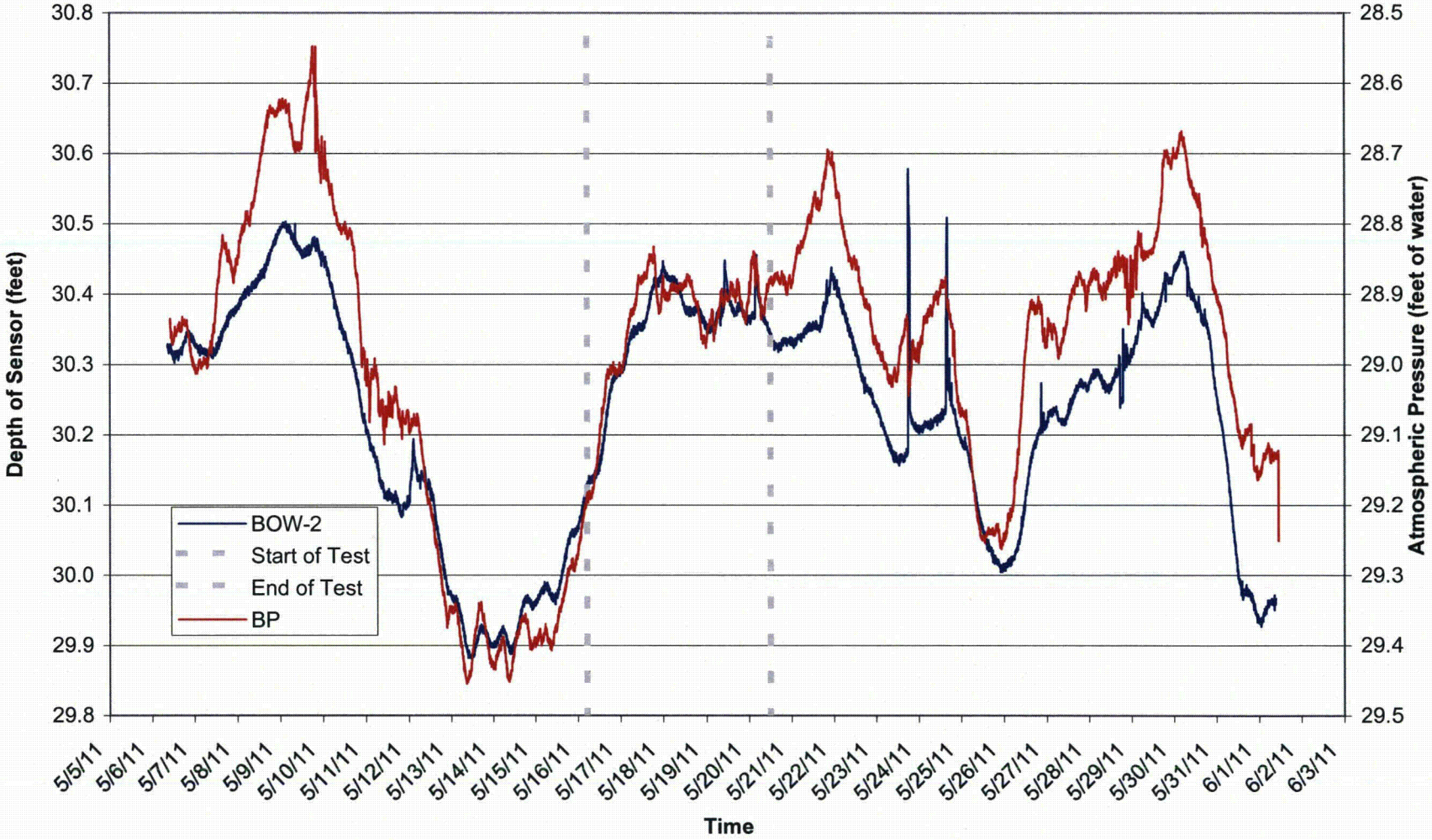
Appendix B

GROUNDWATER LEVELS AND BAROMETRIC PRESSURE DATA

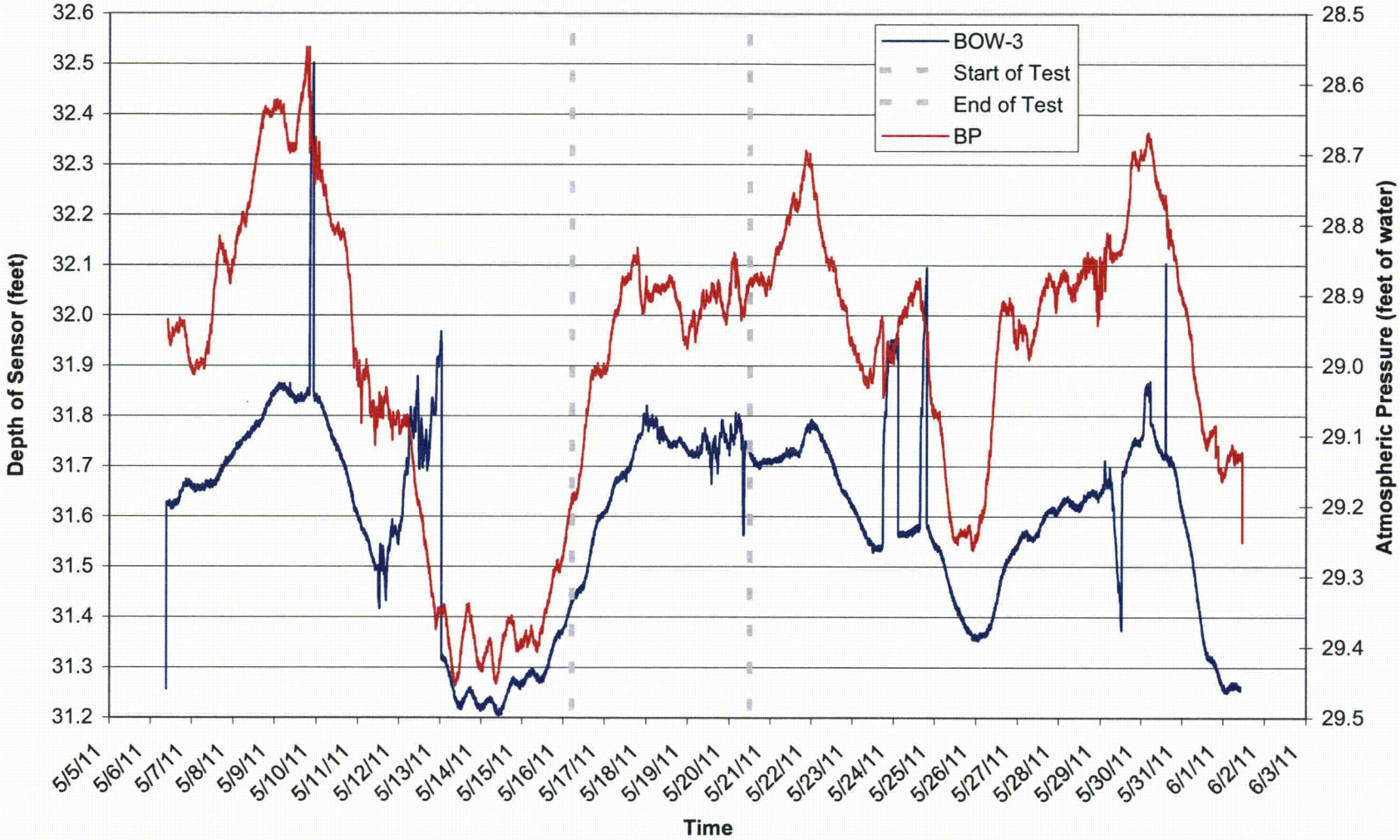
Graph B1 - Groundwater Levels and Barometric Pressure vs. Time in BOW-1



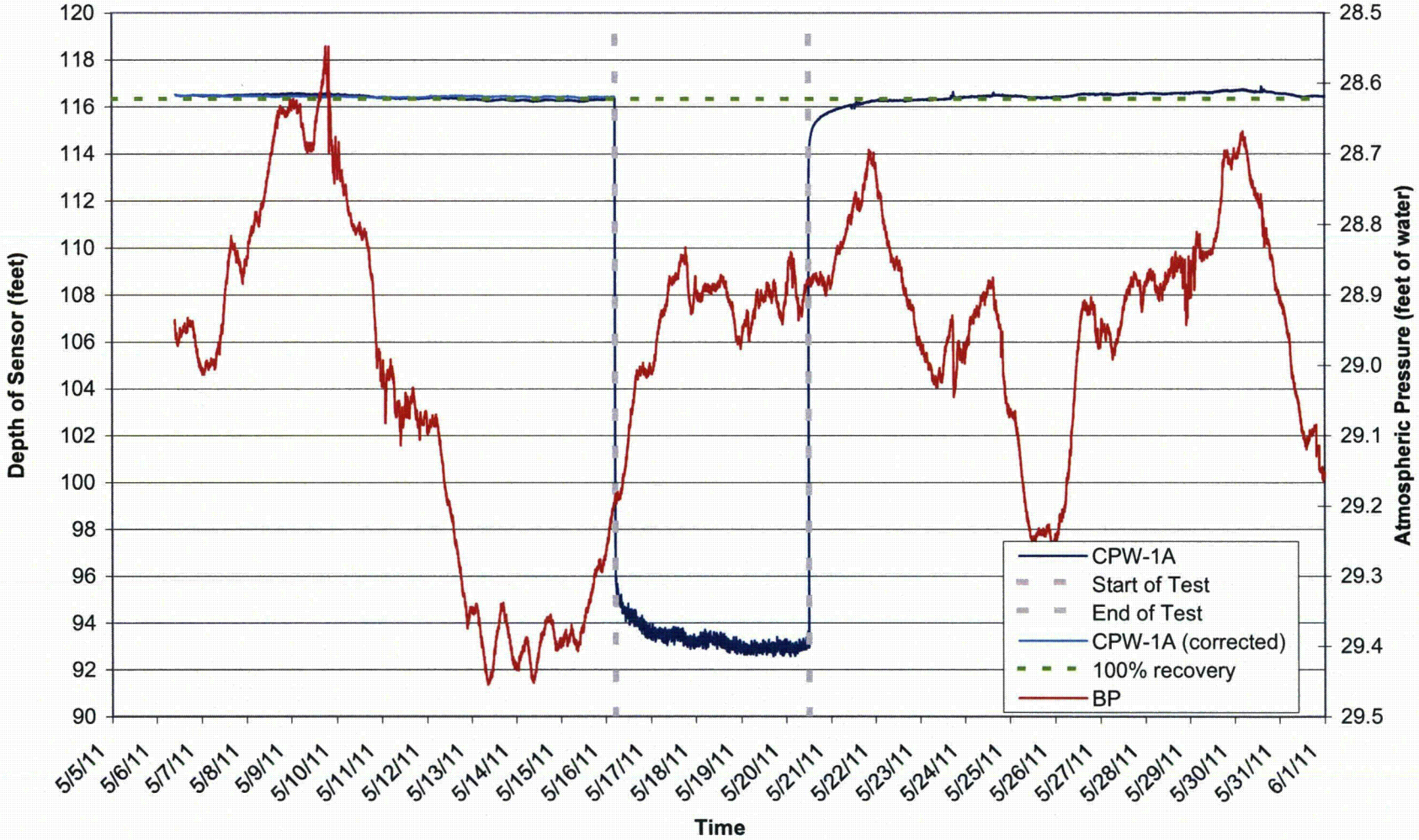
Graph B2 - Groundwater Levels and Barometric Pressure vs. Time in BOW-2



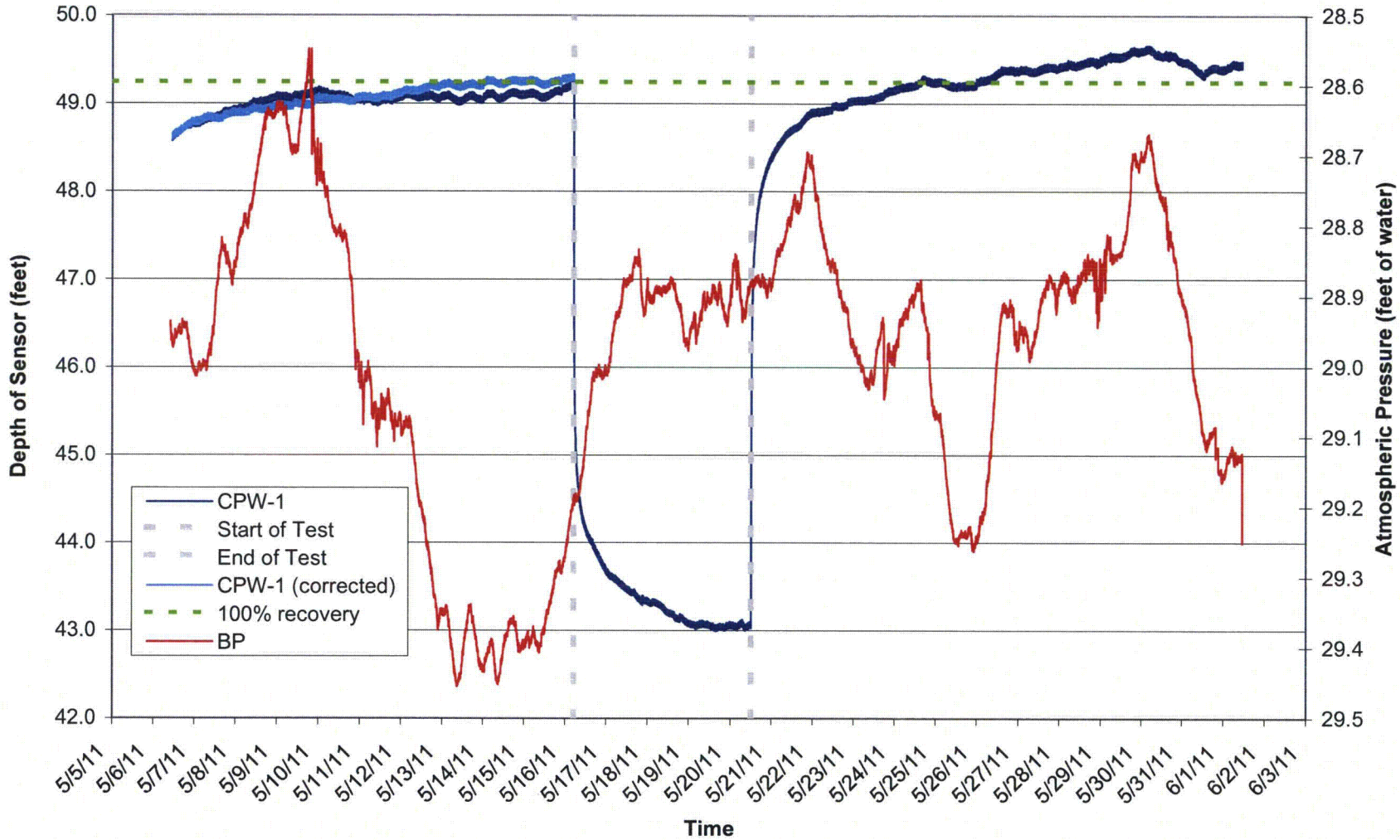
Graph B3 - Groundwater Levels and Barometric Pressure vs. Time in BOW-3



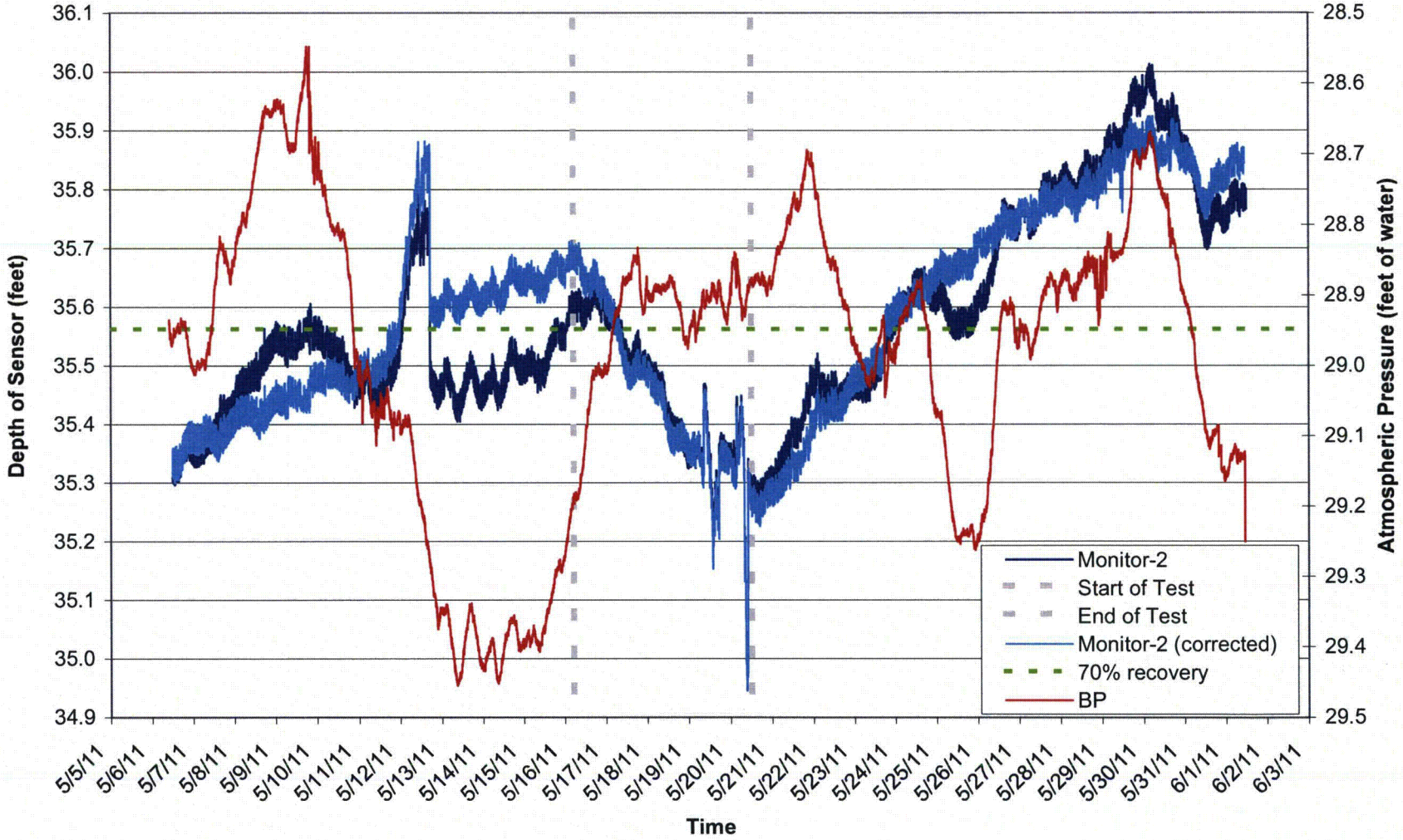
Graph B4 - Groundwater Levels and Barometric Pressure vs. Time in CPW-1A (Pumping Well)



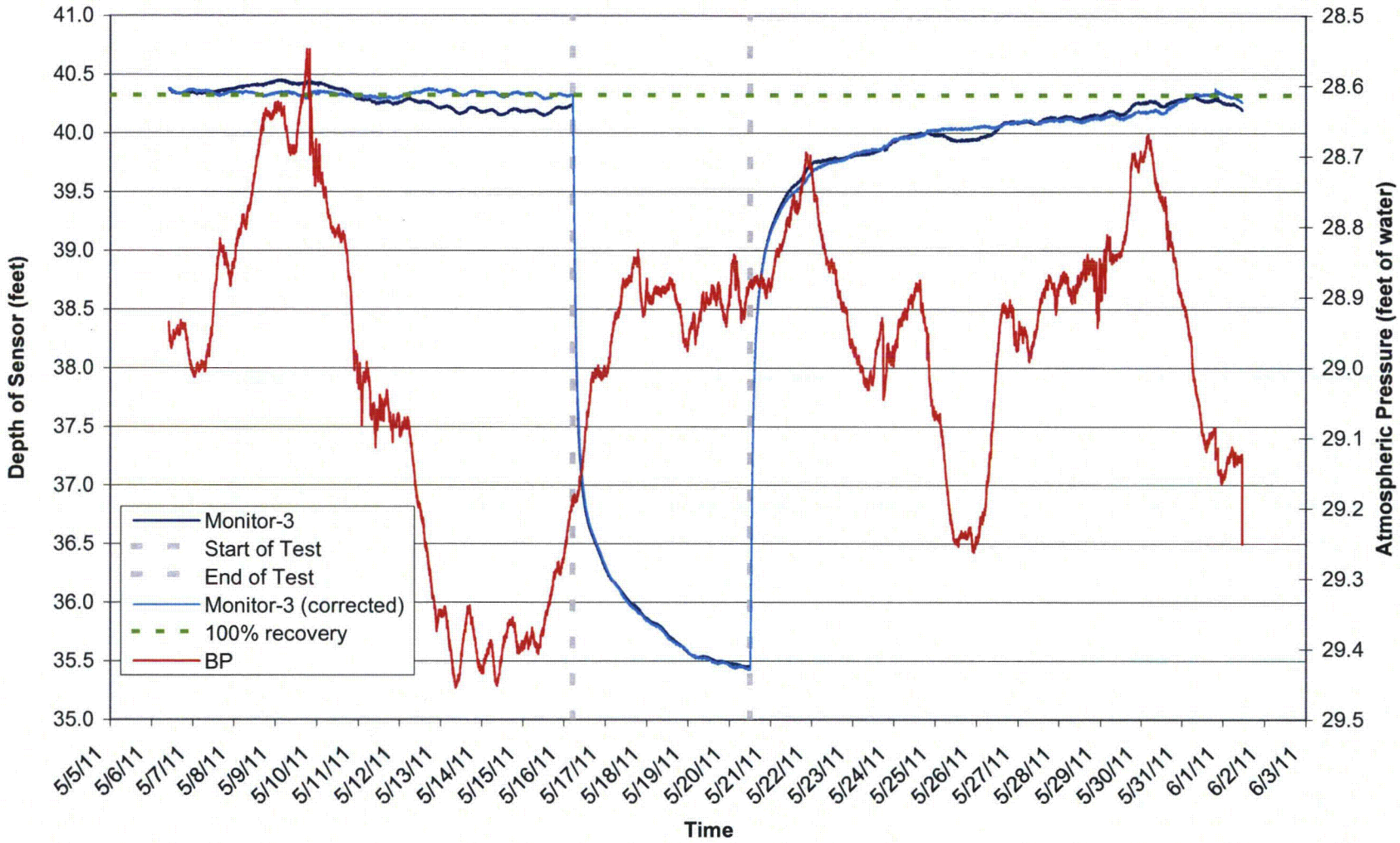
Graph B5 - Groundwater Levels and Barometric Pressure vs. Time in CPW-1



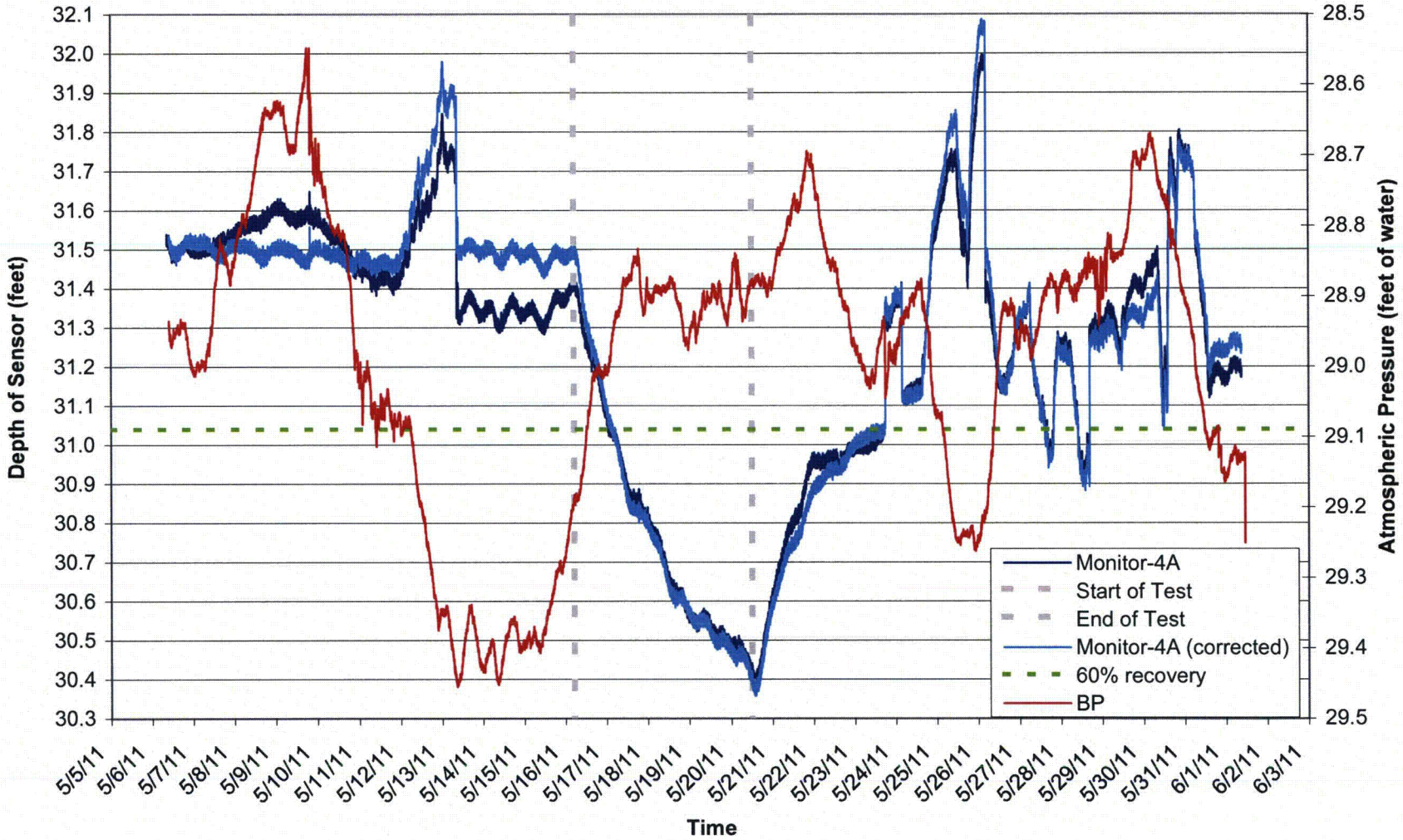
Graph B6 - Groundwater Levels and Barometric Pressure vs. Time in Monitor-2



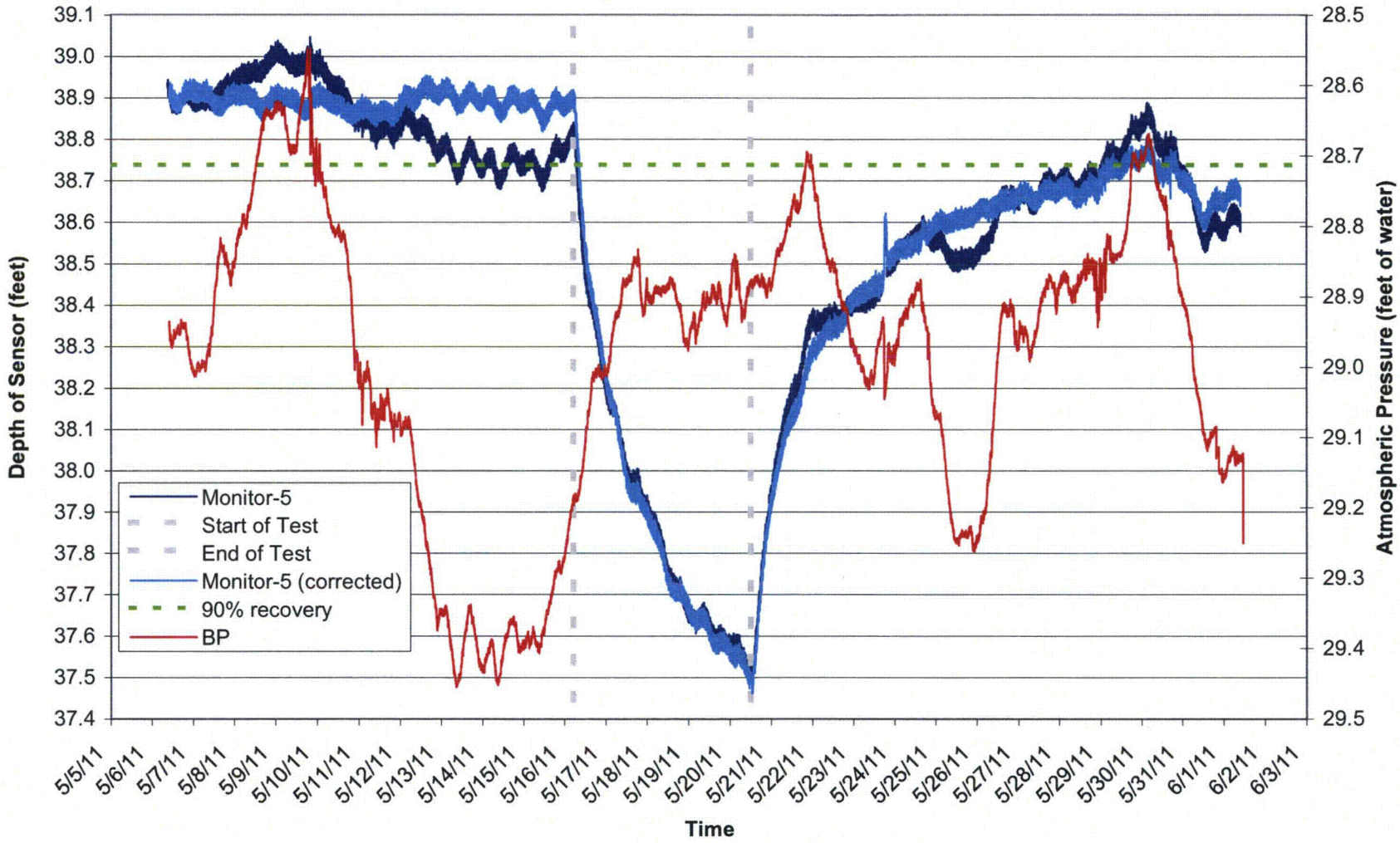
Graph B7 - Groundwater Levels and Barometric Pressure vs. Time in Monitor-3



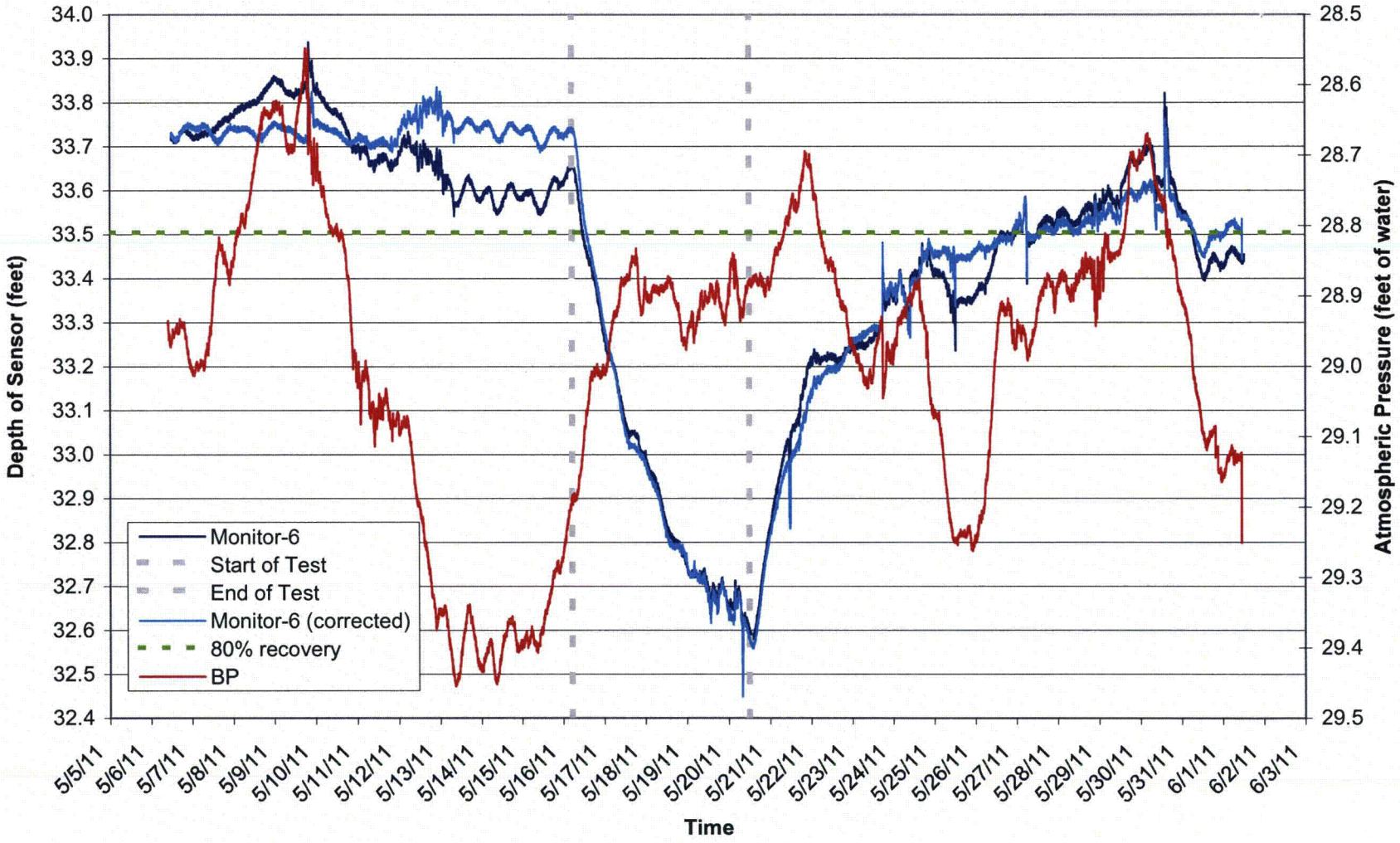
Graph B8 - Groundwater Levels and Barometric Pressure vs. Time in Monitor-4A



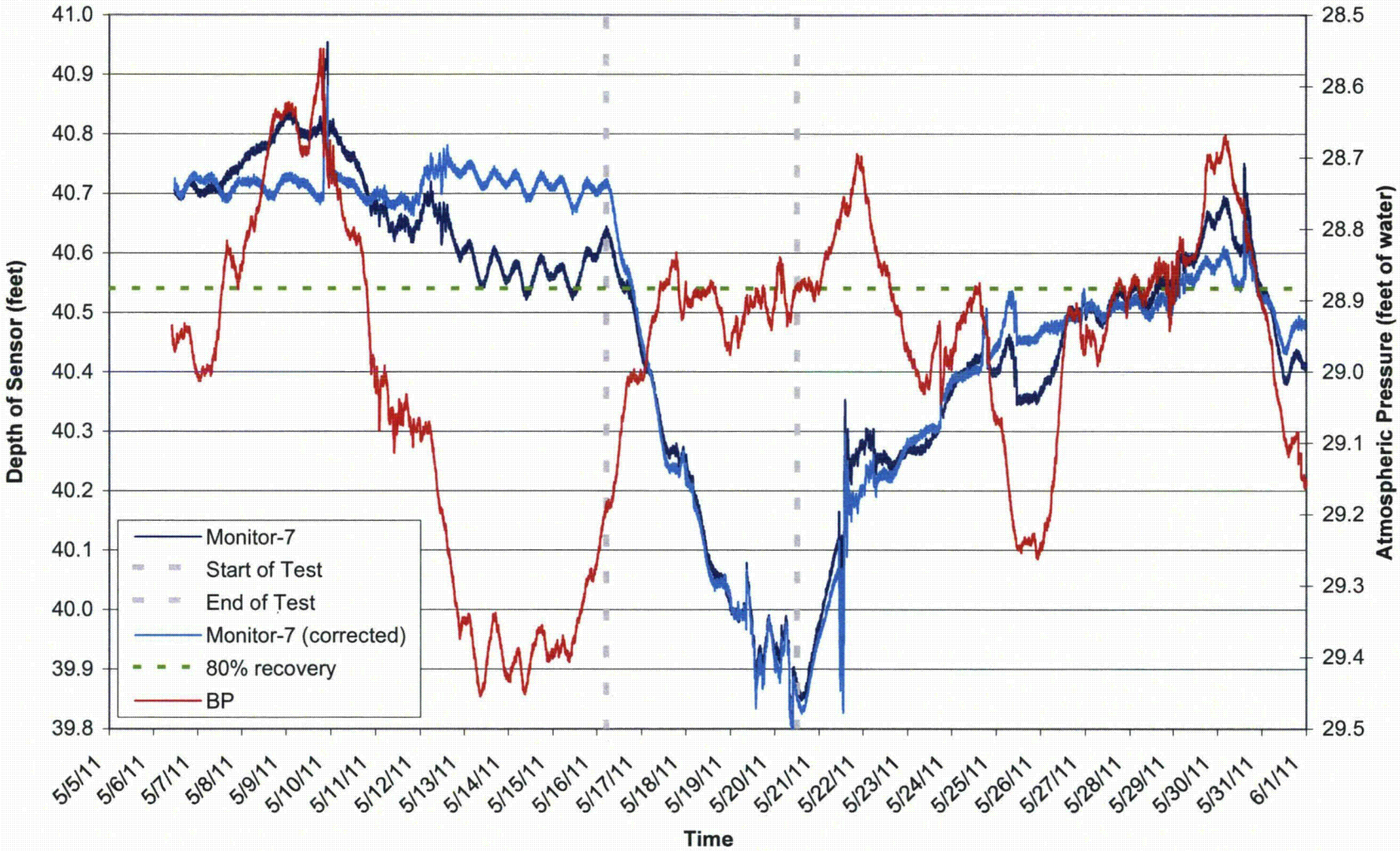
Graph B9 - Groundwater Levels and Barometric Pressure vs. Time in Monitor-5



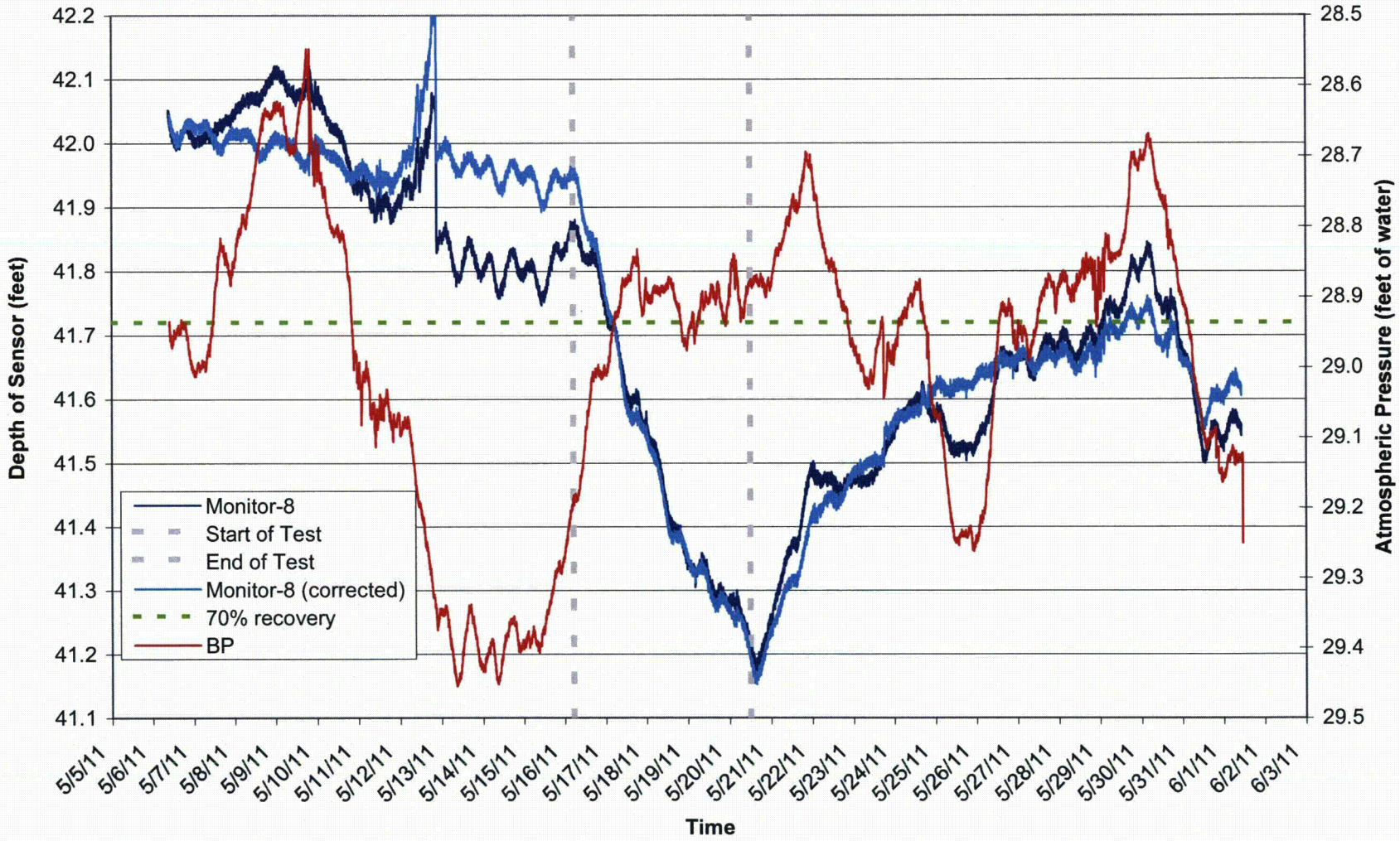
Graph B10 - Groundwater Levels and Barometric Pressure vs. Time in Monitor-6



Graph B11 - Groundwater Levels and Barometric Pressure vs. Time in Monitor-7



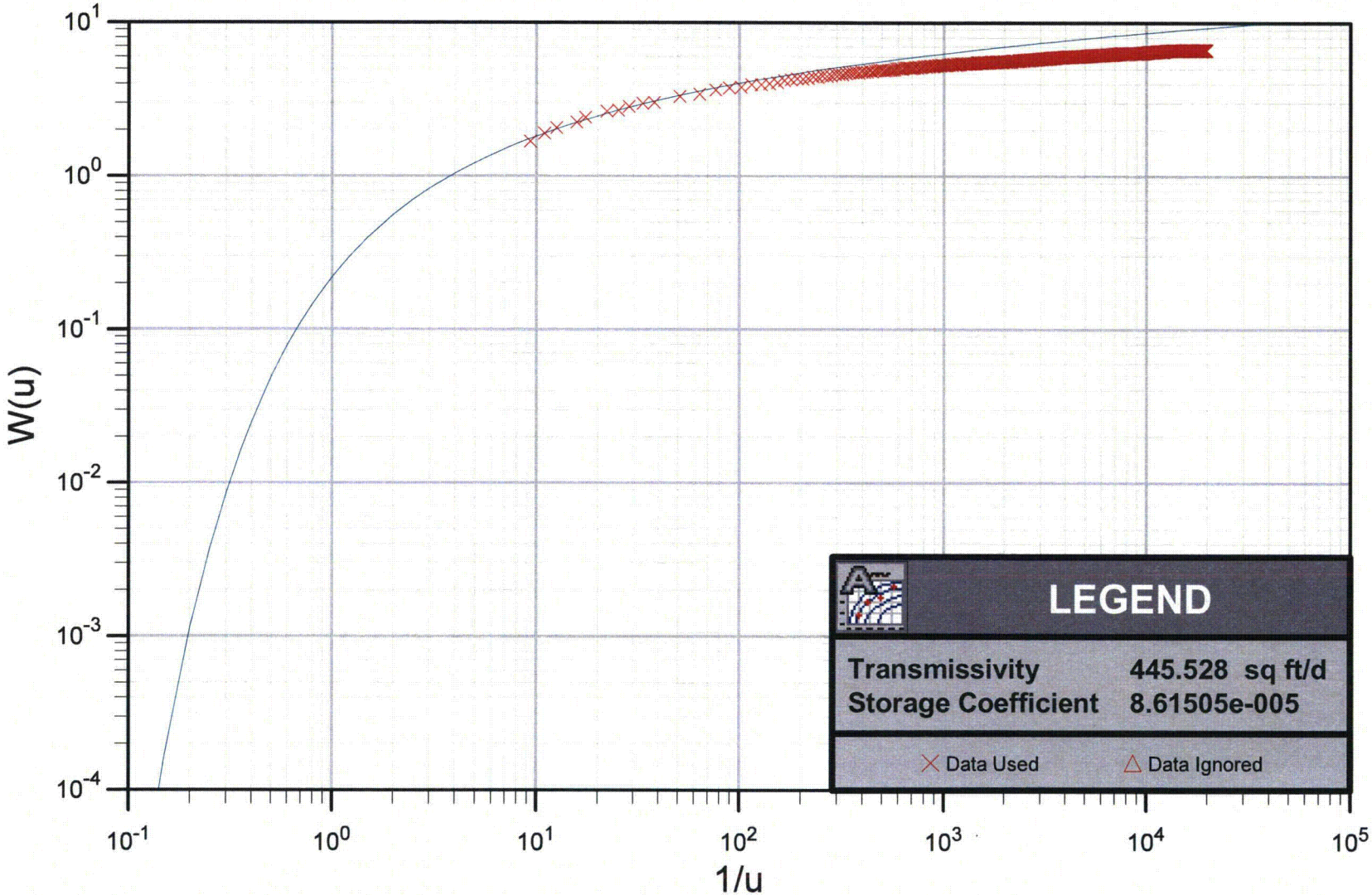
Graph B12 - Groundwater Levels and Barometric Pressure vs. Time in Monitor-8



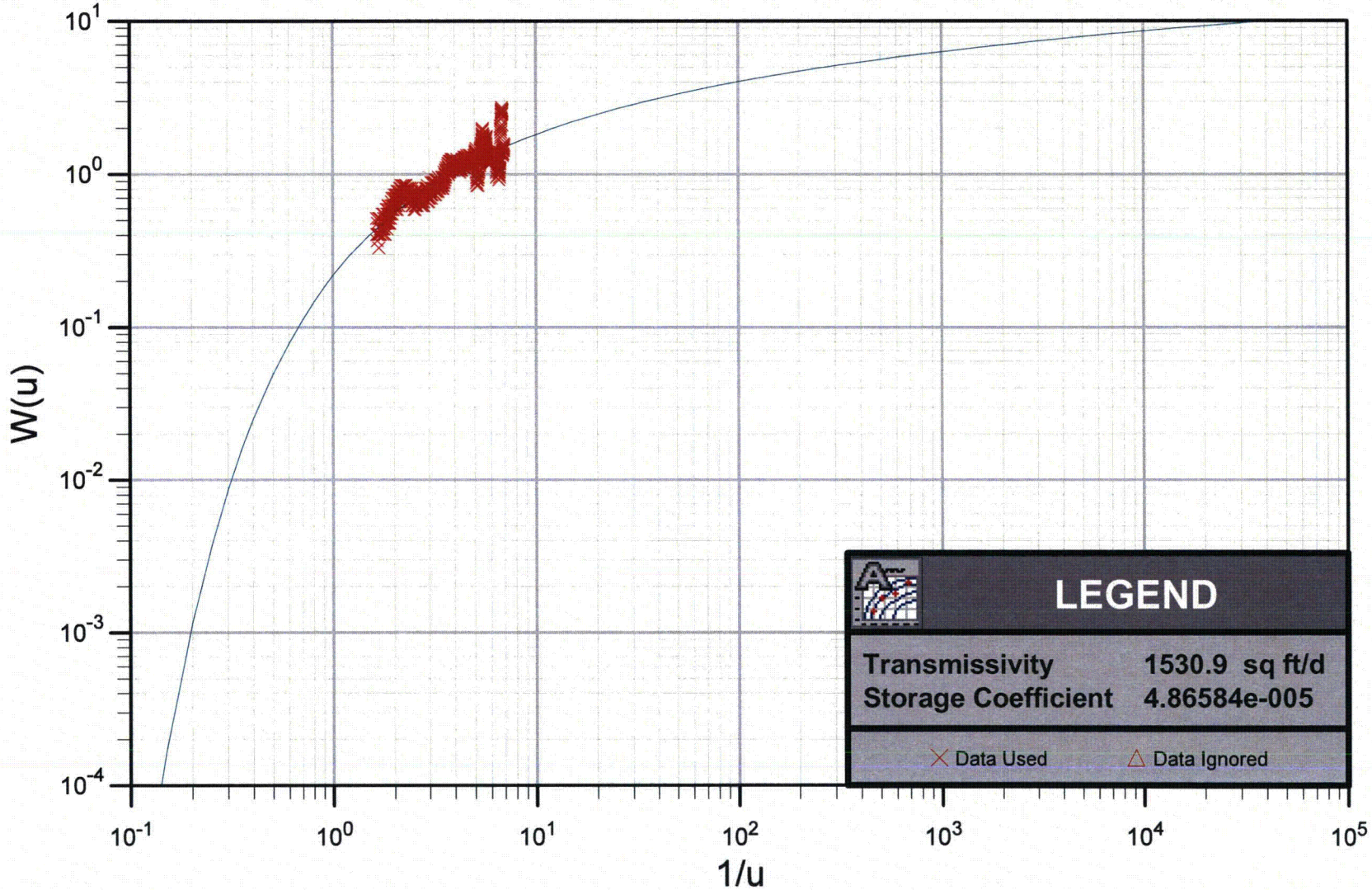
Appendix C

TYPE CURVE MATCHES

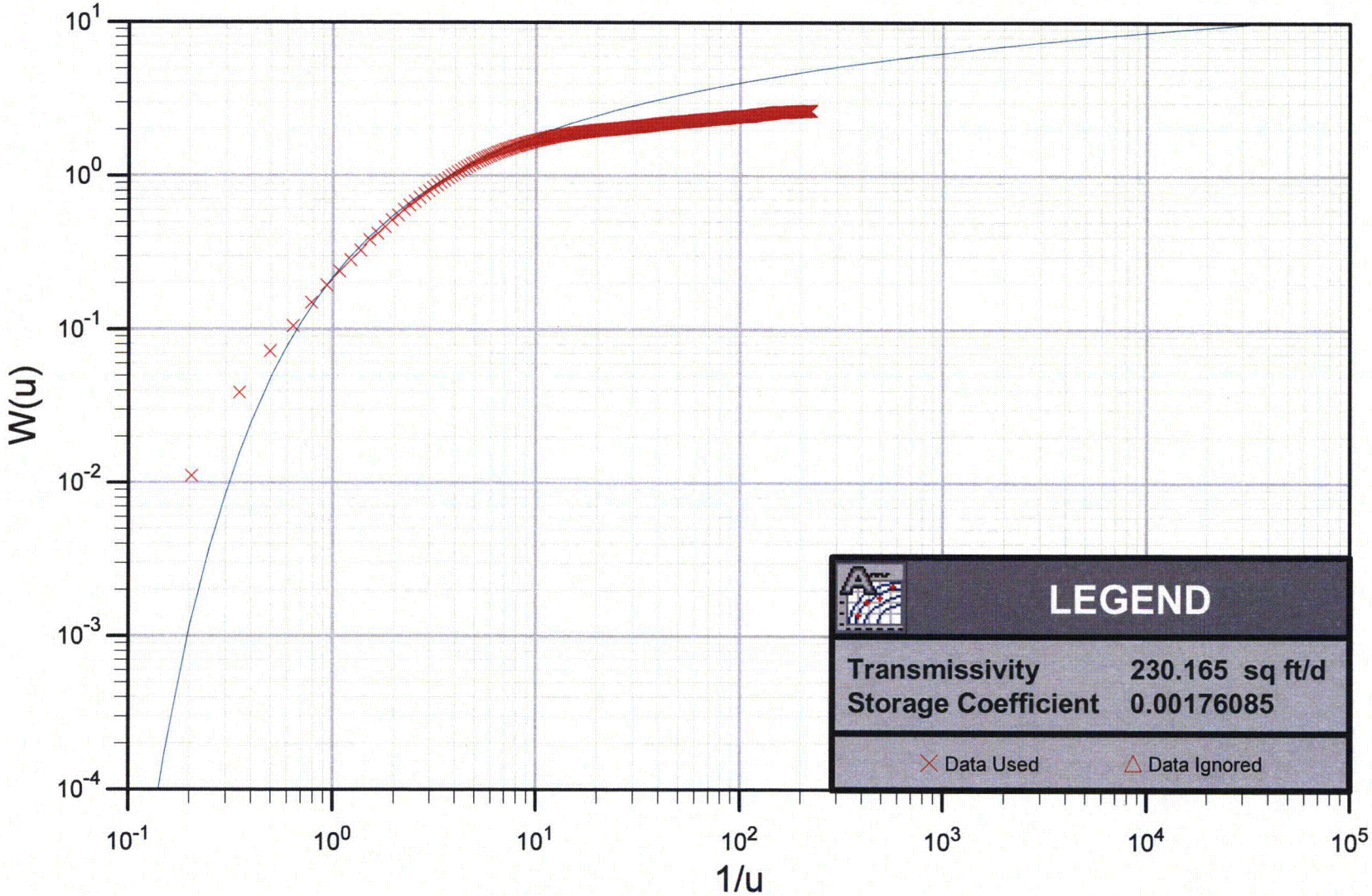
Graph C1 - CPW-1, Theis Drawdown



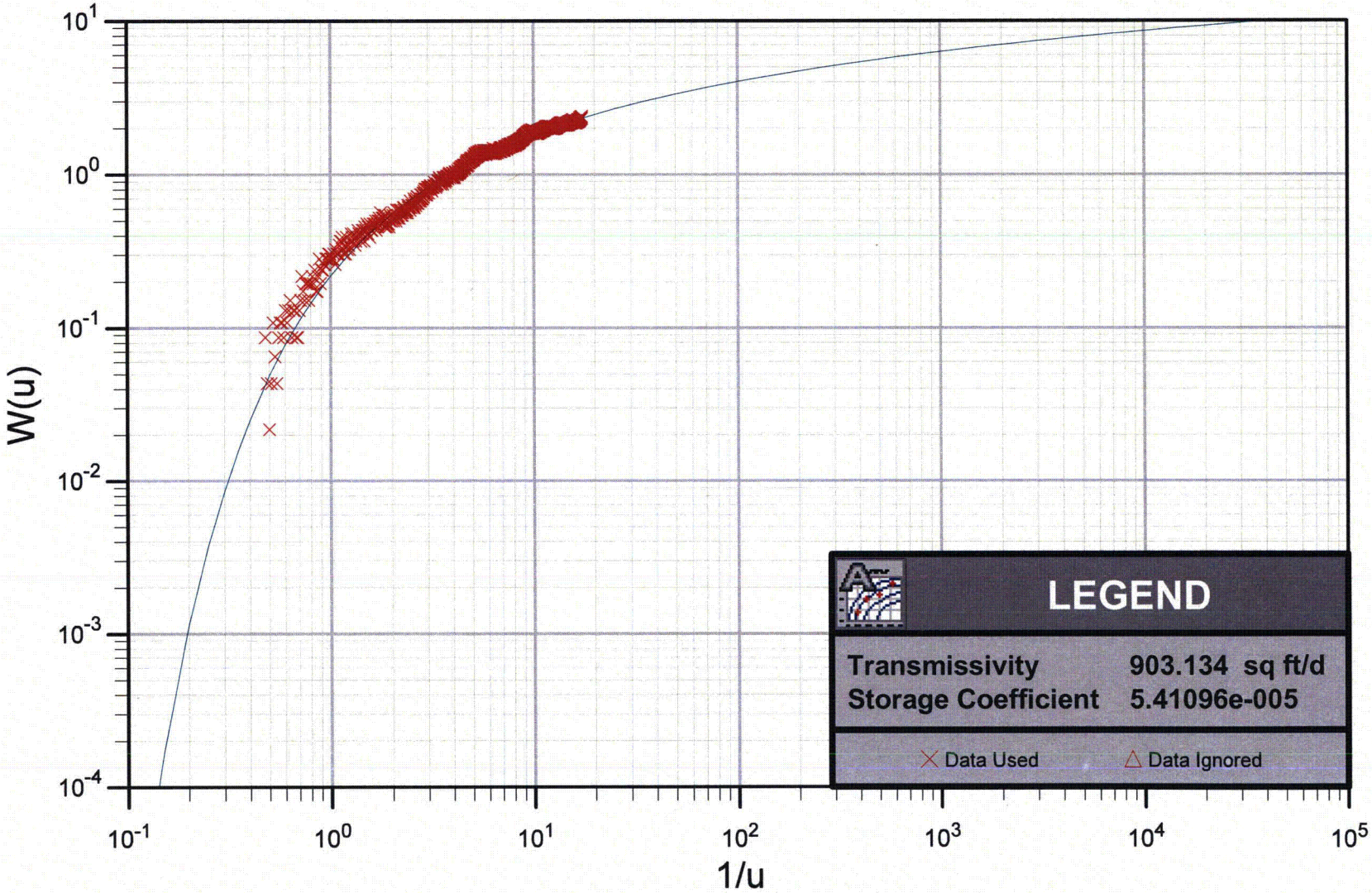
Graph C2 - Monitor-2, Theis Drawdown



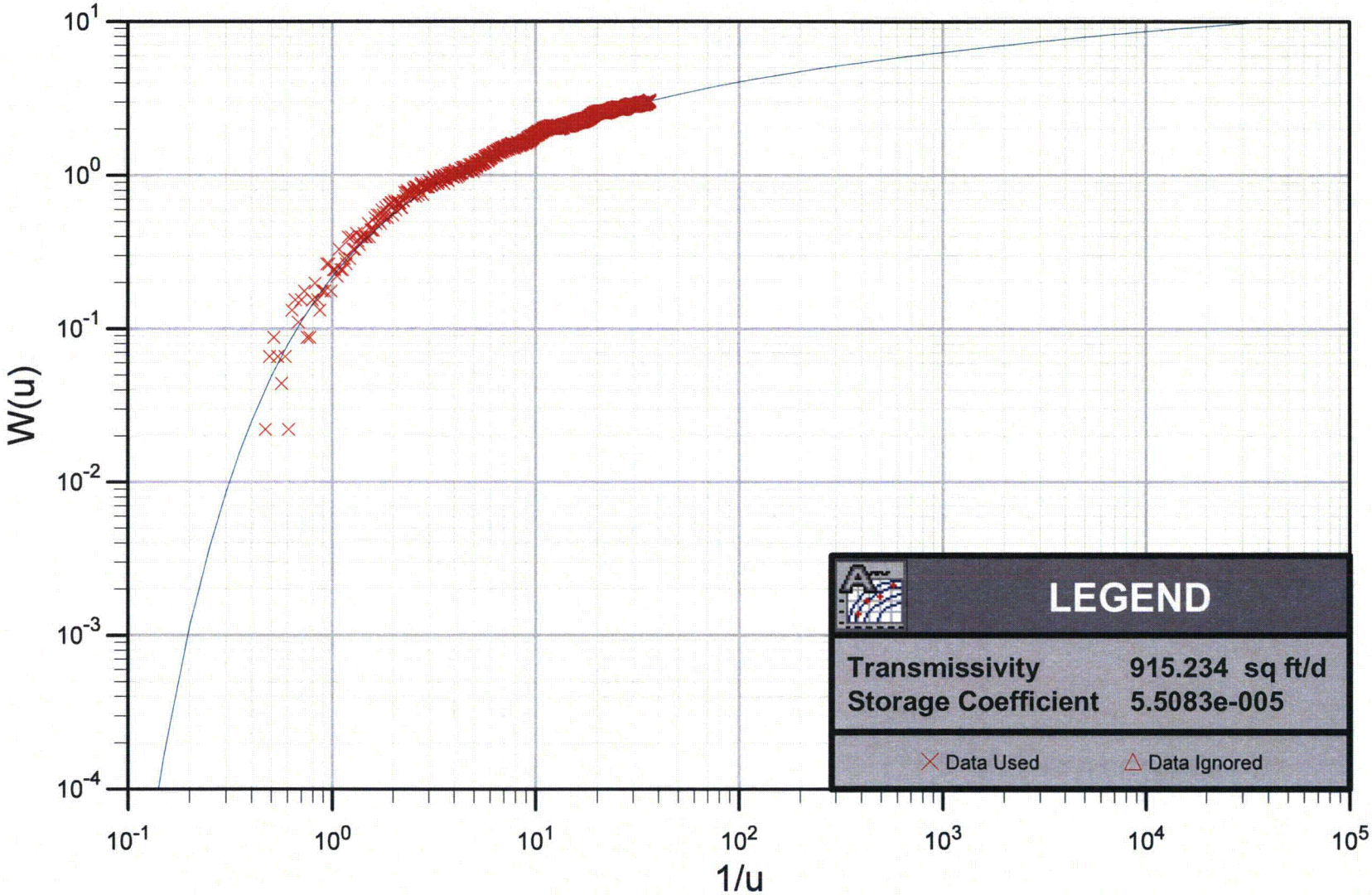
Graph C3 - Monitor-3, Theis Drawdown



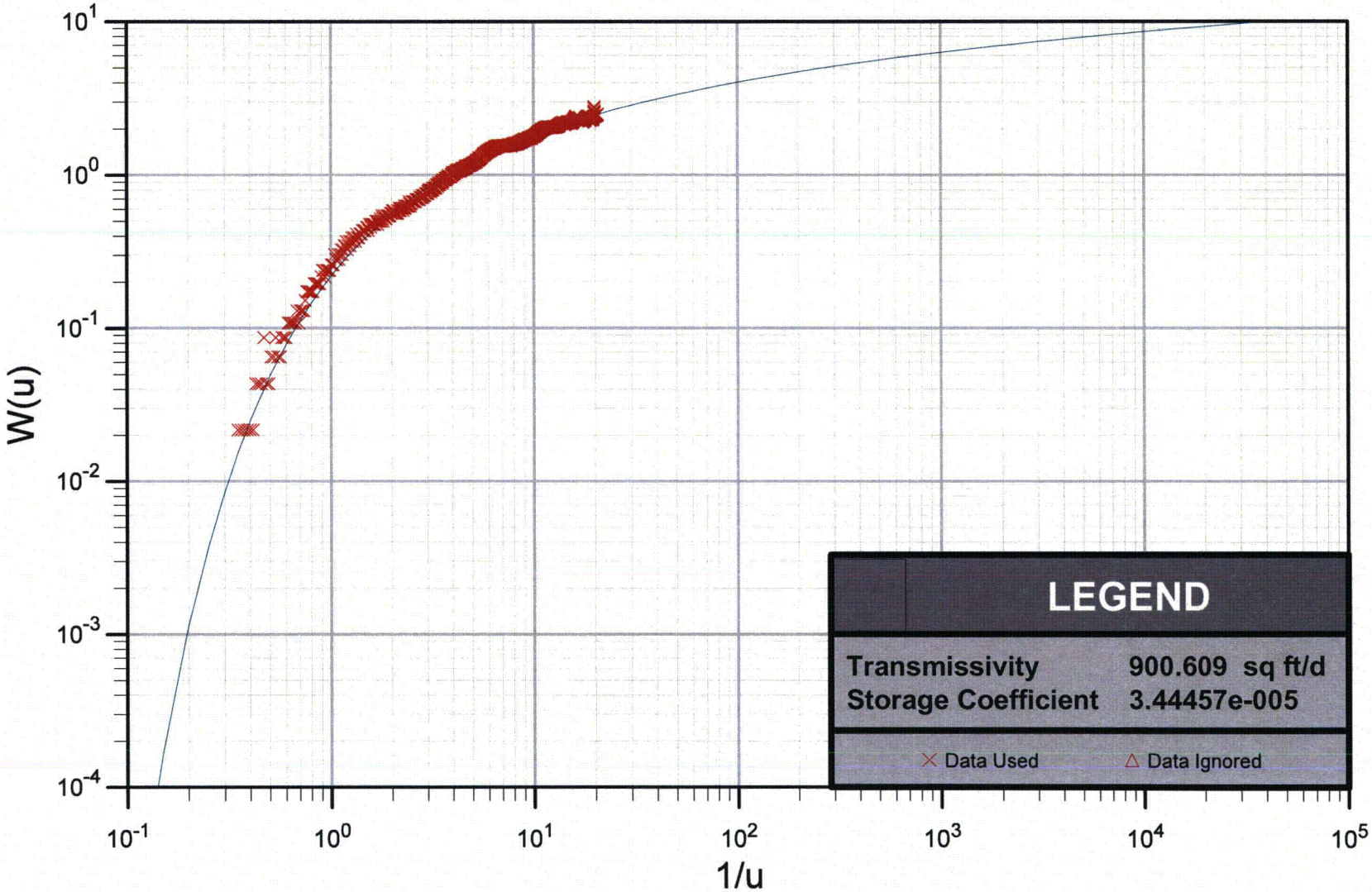
Graph C4 - Monitor-4A, Theis Drawdown



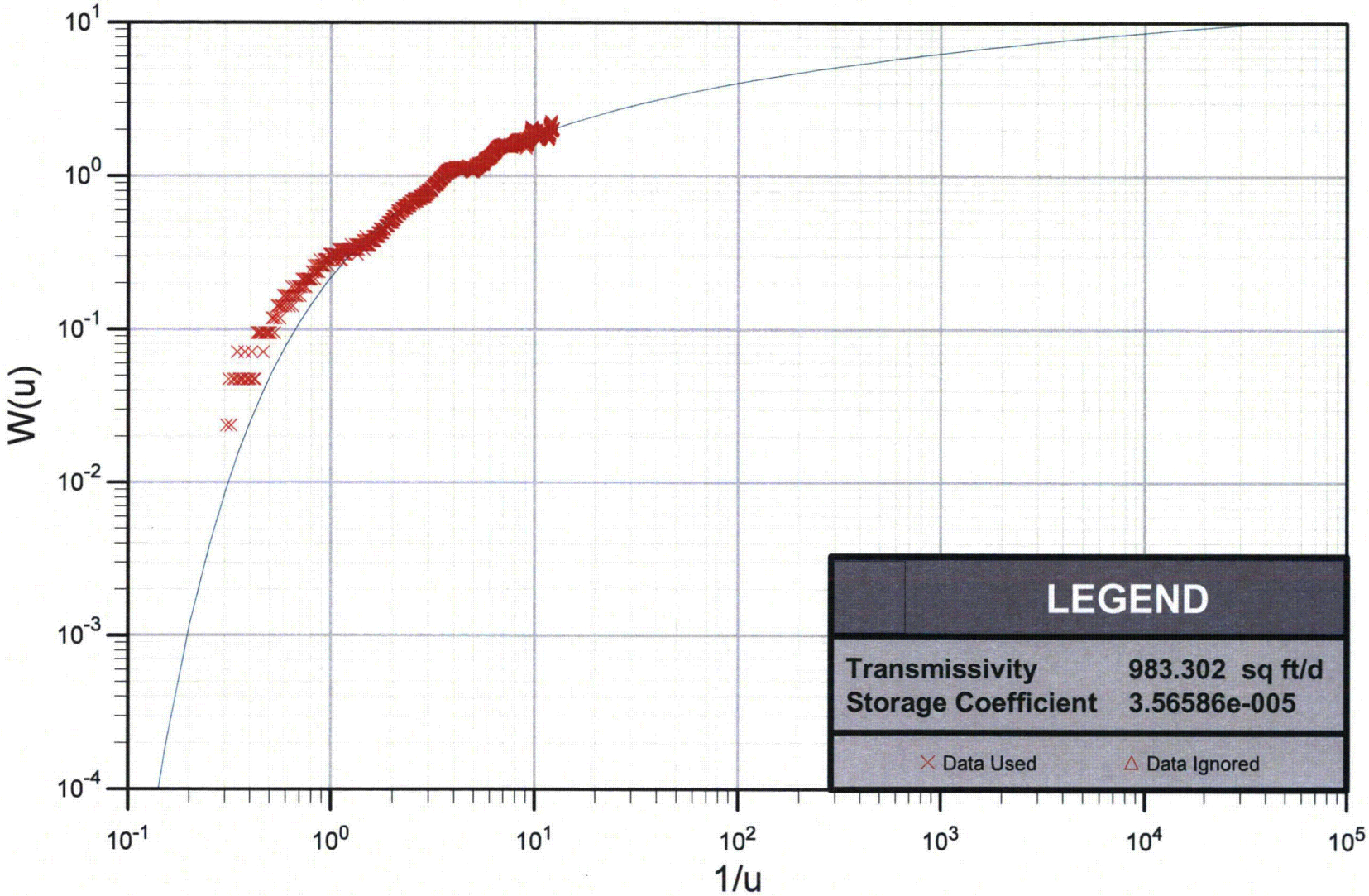
Graph C5 - Monitor-5, Theis Drawdown



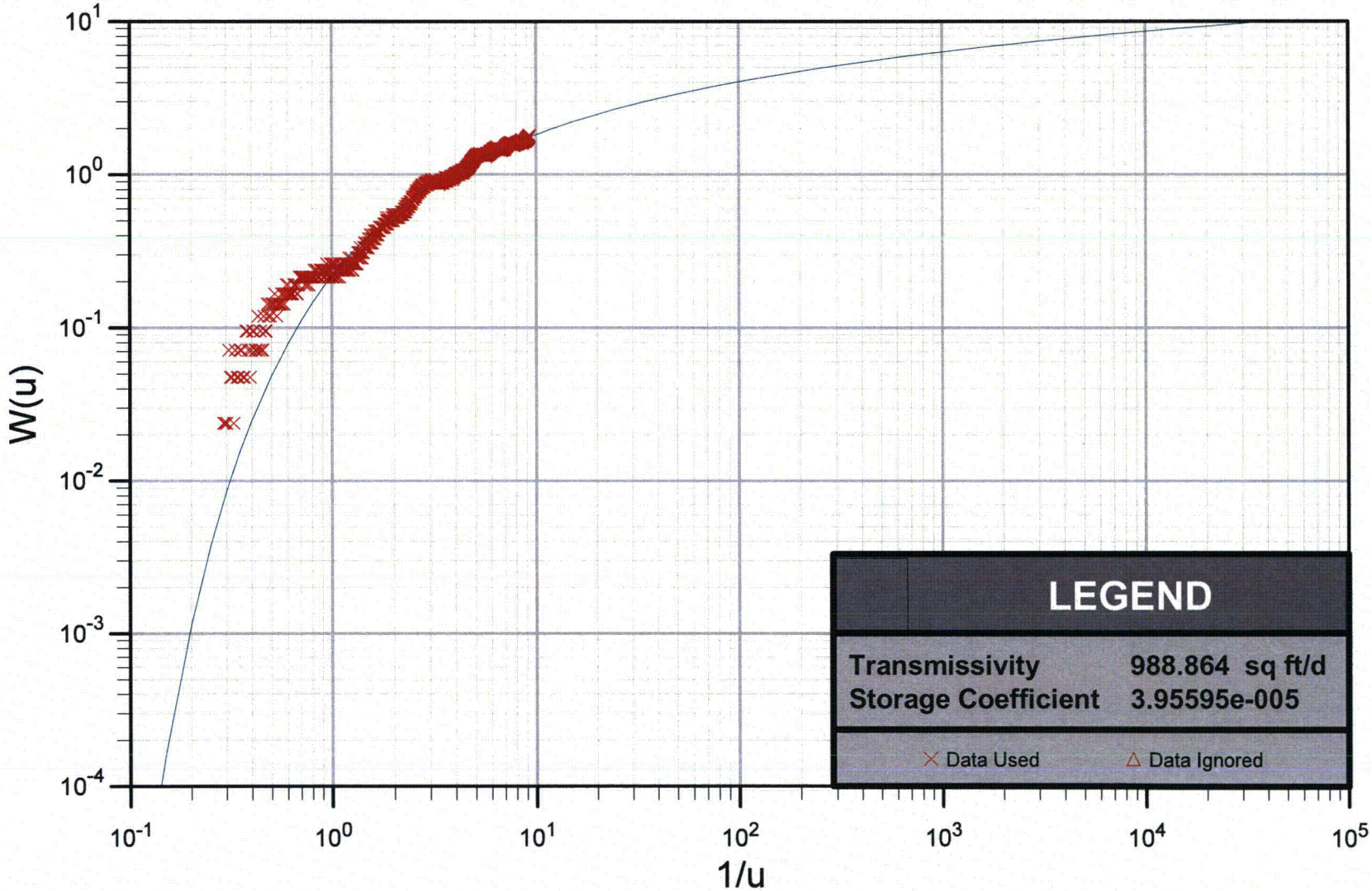
Graph C6 - Monitor-6, Theis Drawdown



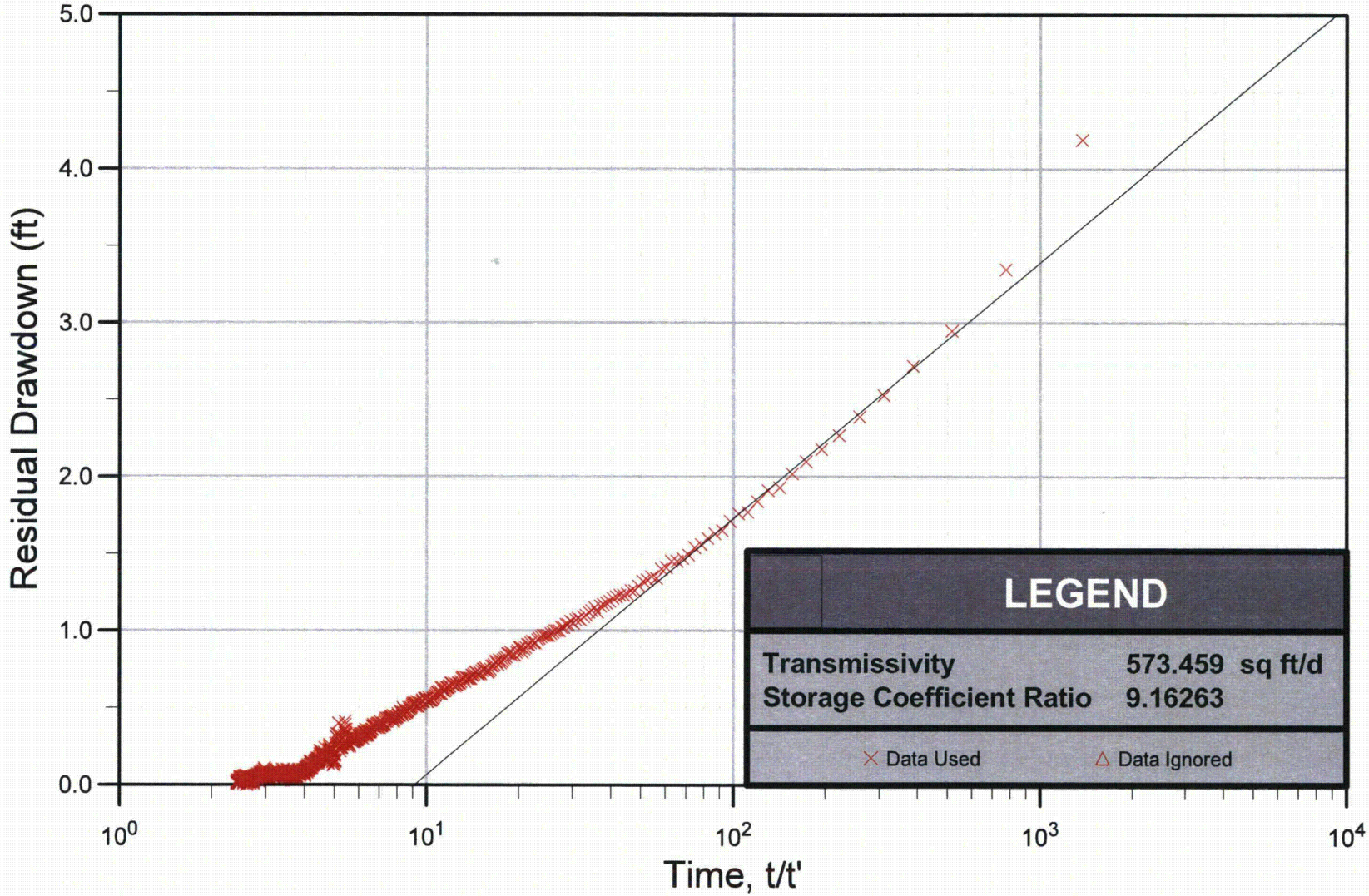
Graph C7 - Monitor-7, Theis Drawdown



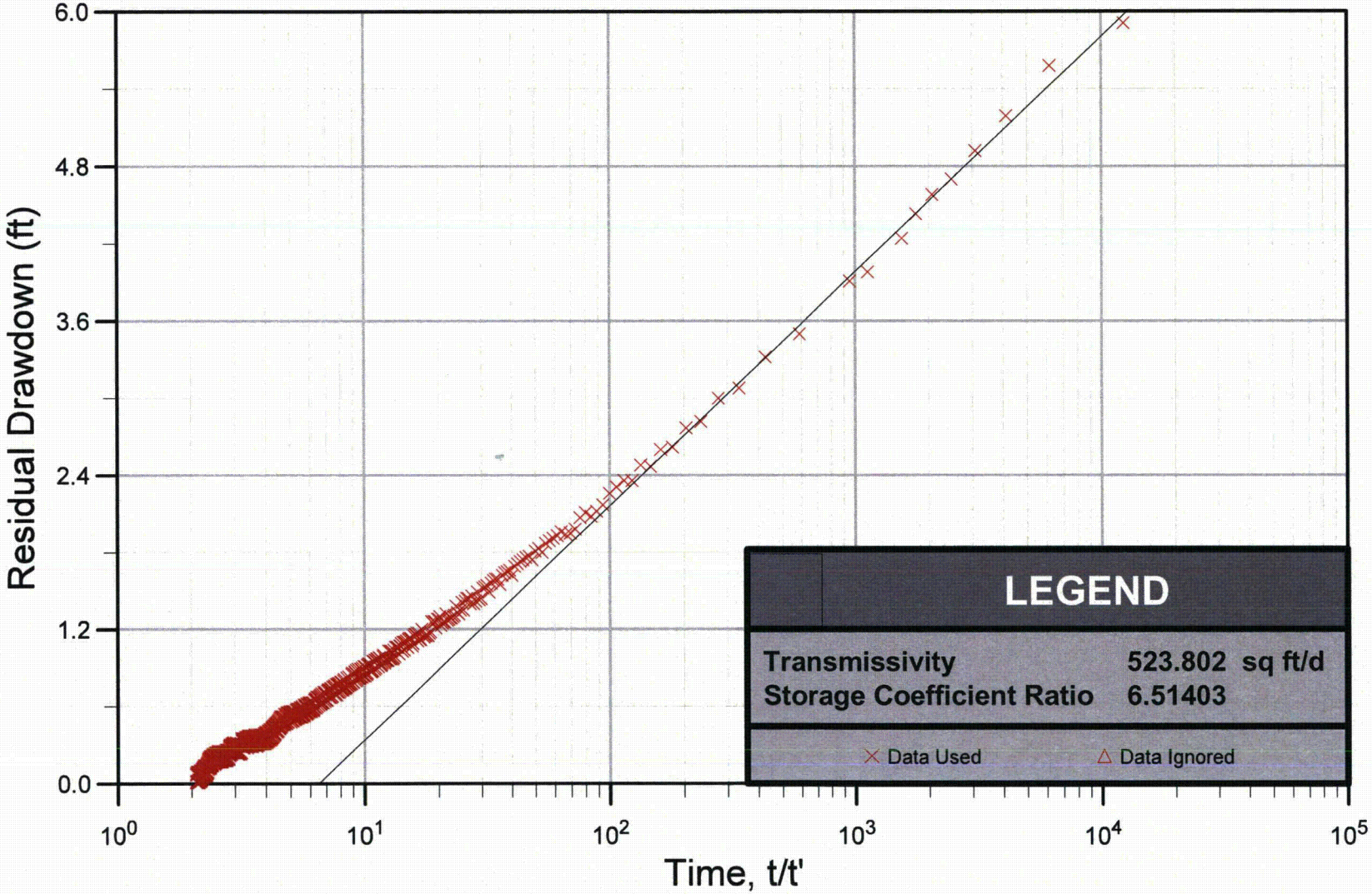
Graph C8 - Monitor-8, Theis Drawdown



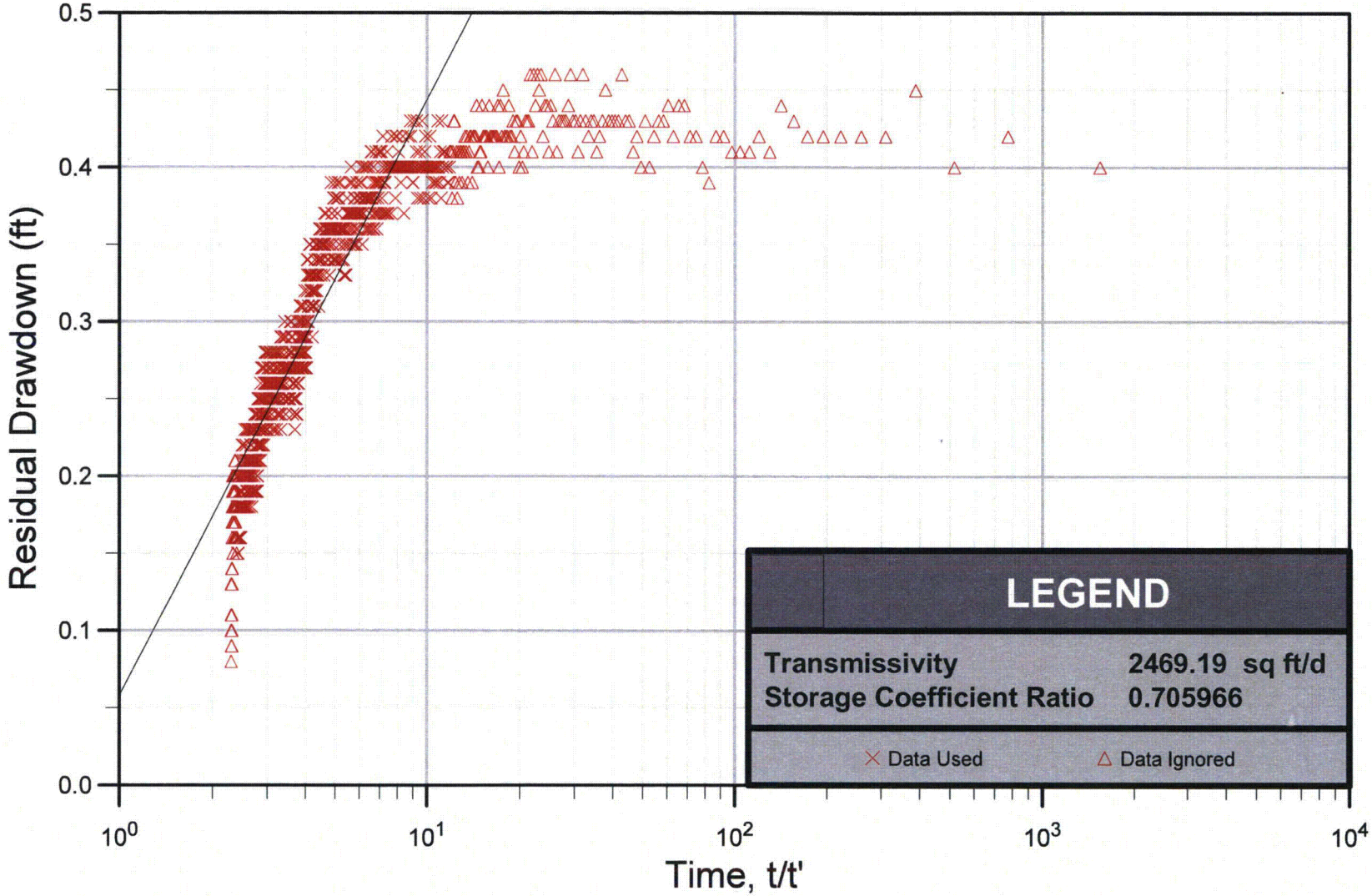
Graph C9 - CPW-1A, Theis Recovery



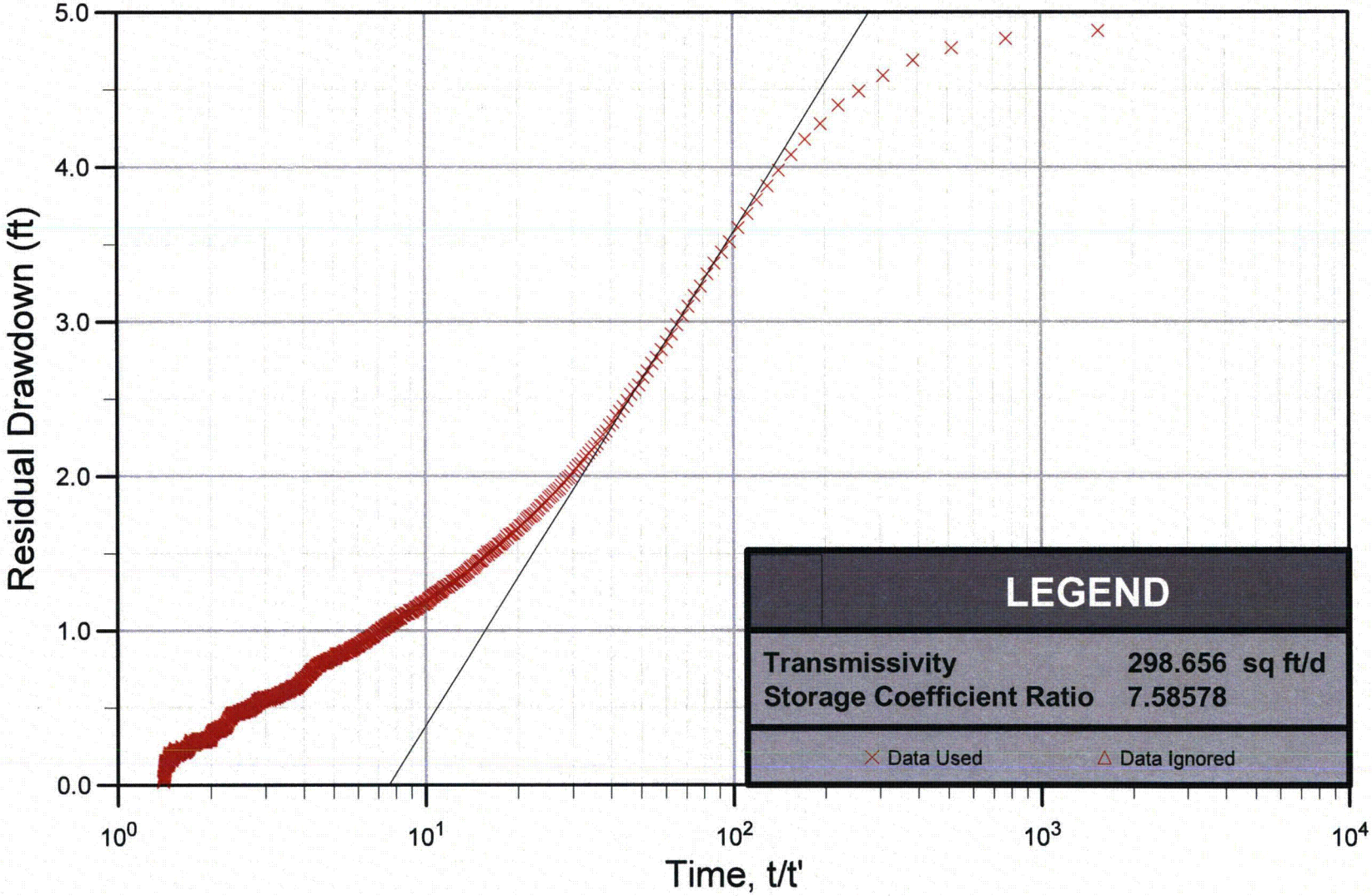
Graph C10 - CPW-1, Theis Recovery



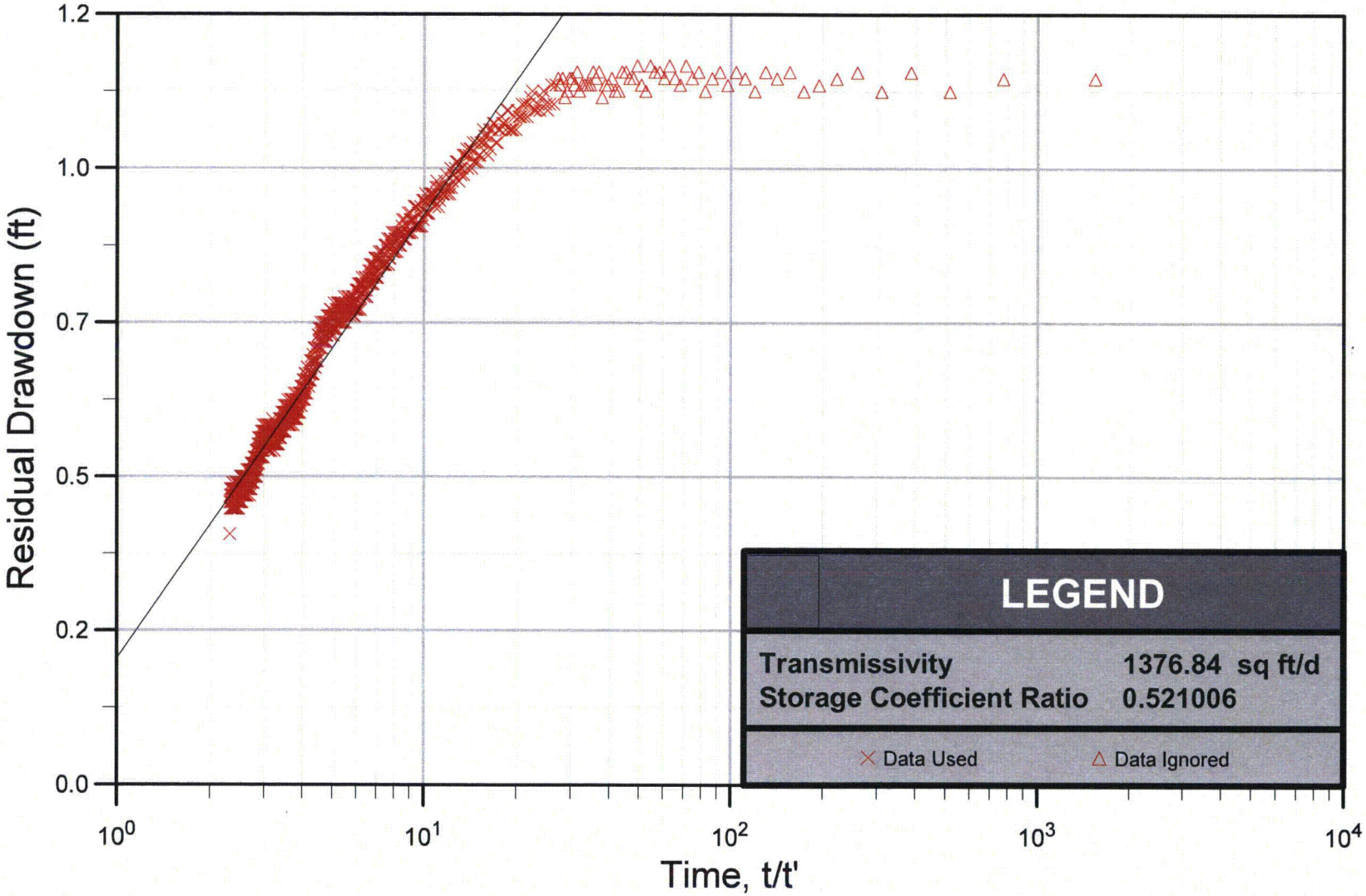
Graph C11 - Monitor-2, Theis Recovery



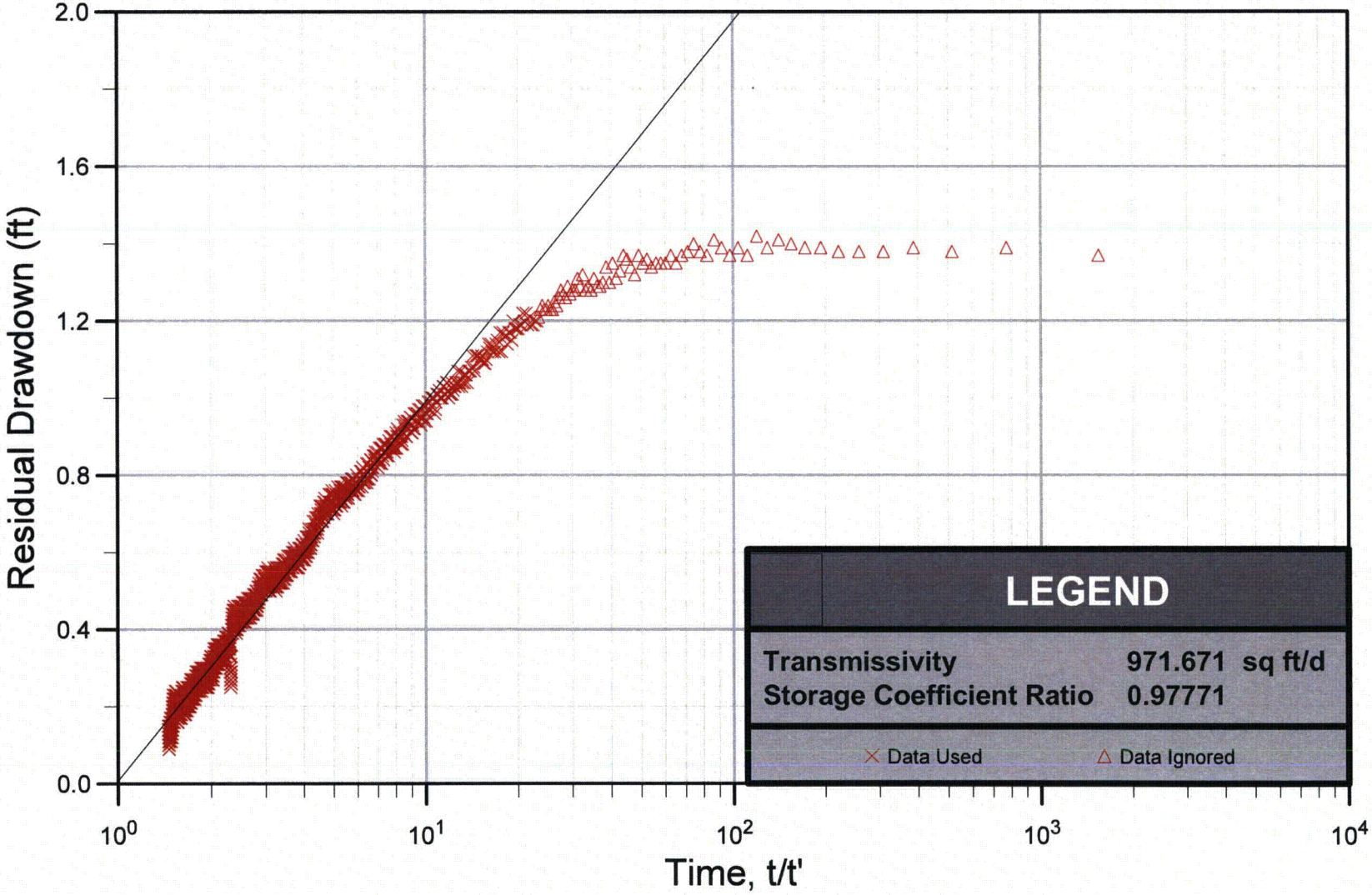
Graph C12 - Monitor-3, Theis Recovery



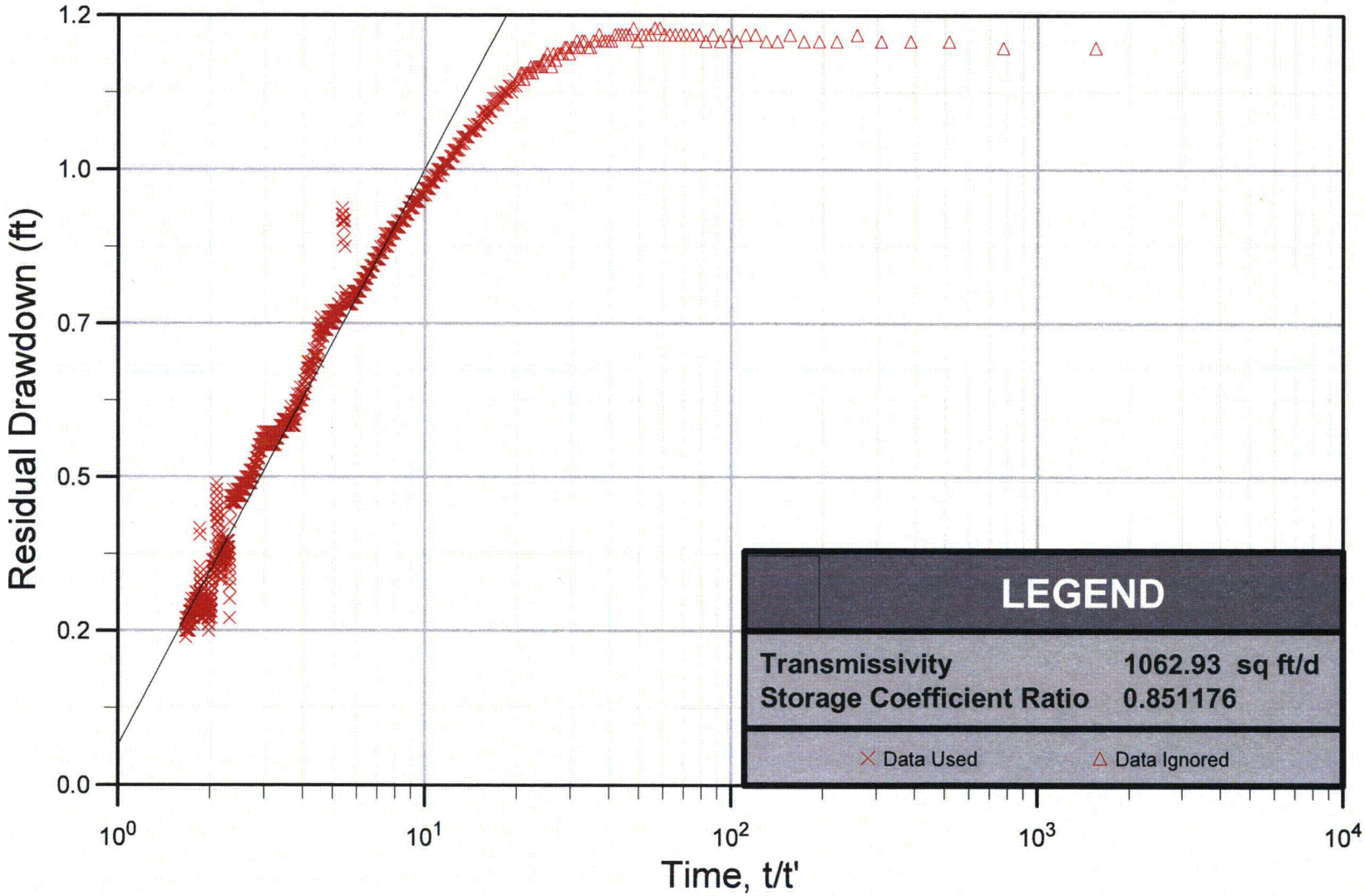
Graph C13 - Monitor-4A, Theis Recovery



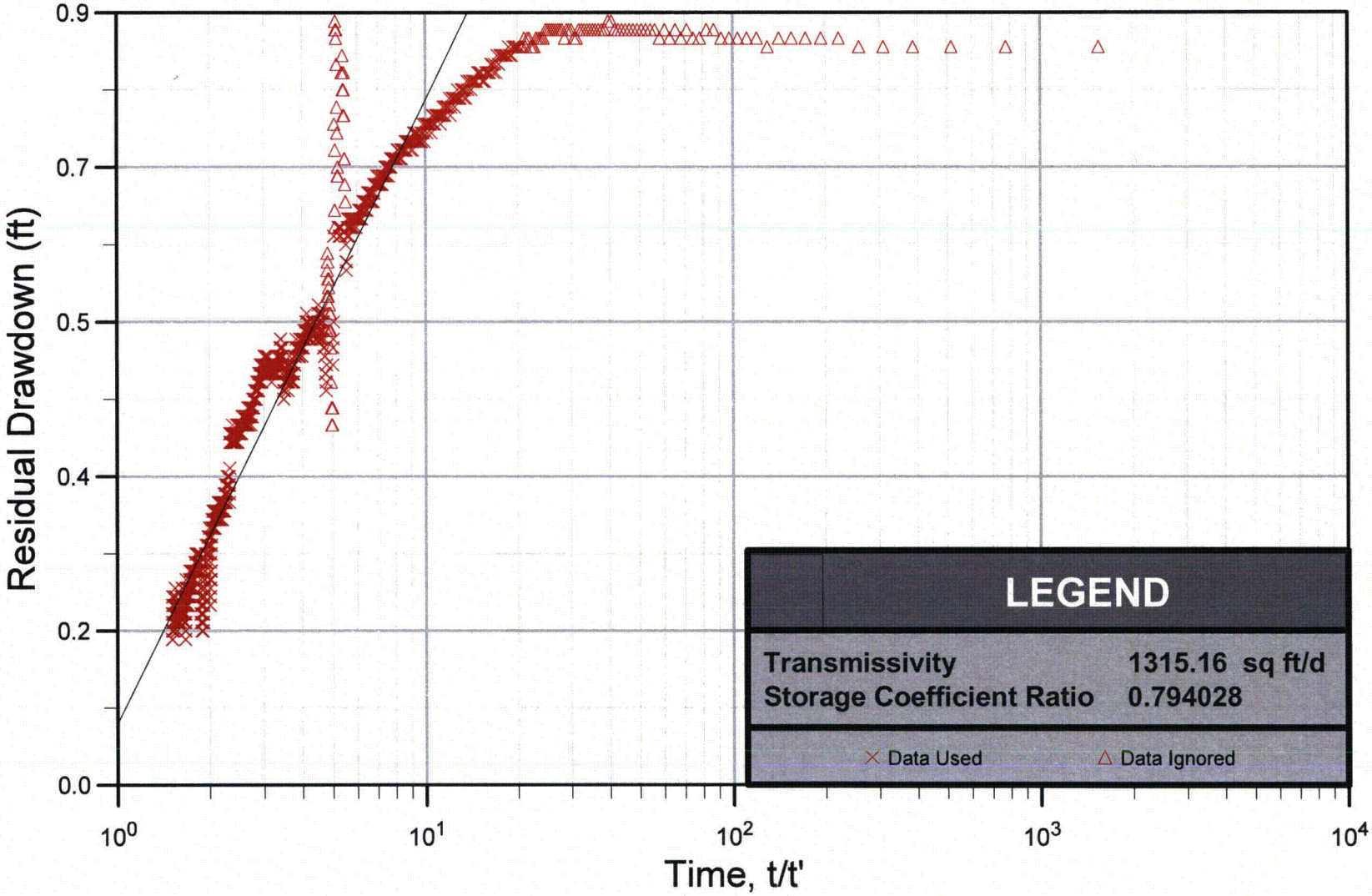
Graph C14 - Monitor 5, Theis Recovery



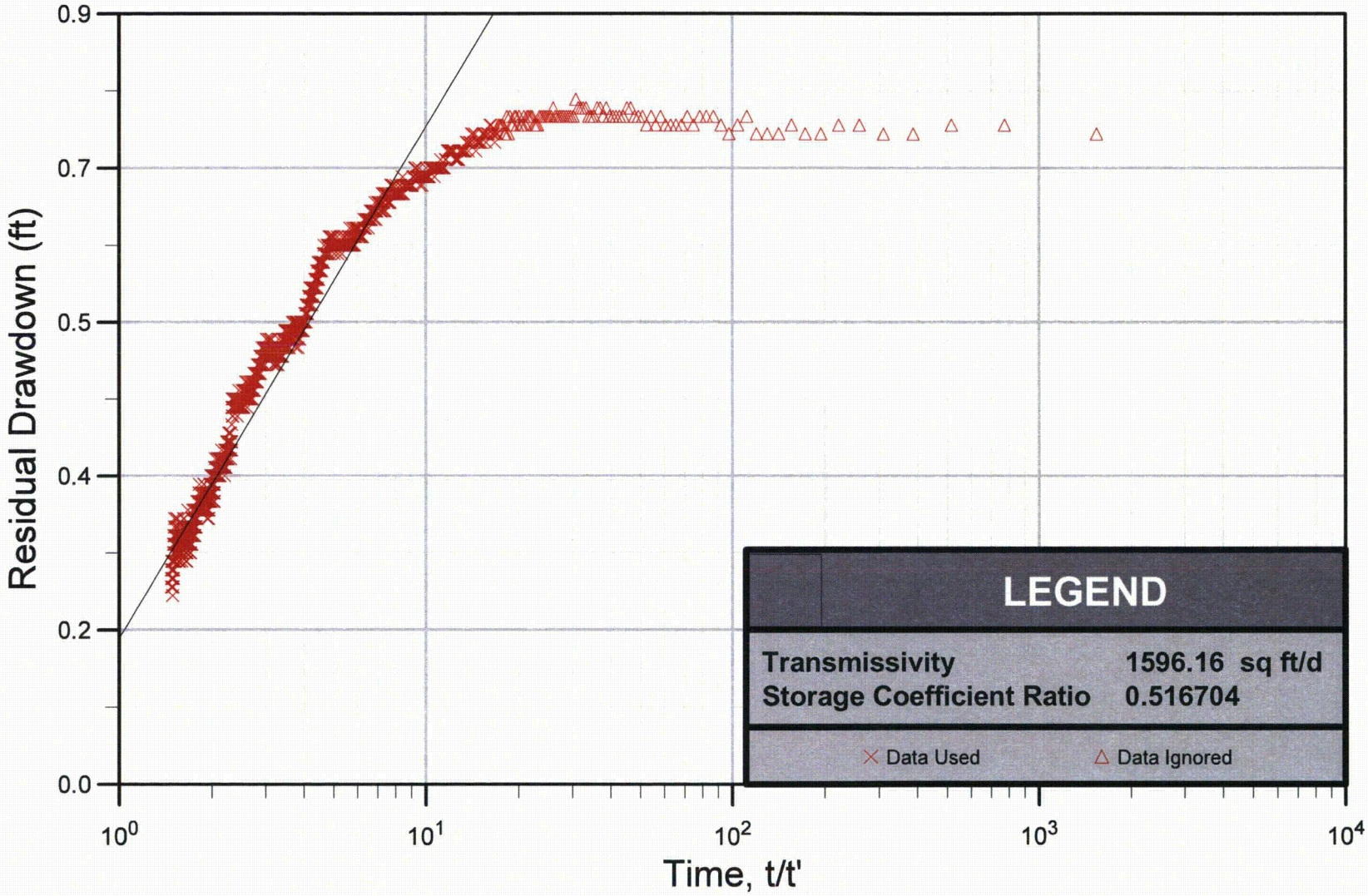
Graph C15 - Monitor-6, Theis Recovery



Graph C16 - Monitor-7, Theis Recovery



Graph C17 - Monitor-8, Theis Recovery



Appendix D (on CD ROM)

WATER LEVEL DATA

Appendix G

Mineralogical and Particles Size Distribution Analyses

MINERALOGY, INC.

TABLE I

X-RAY DIFFRACTION ANALYSIS

Client:	PTS Laboratories, Inc.	MI#:	11182
PTS File #	41269; Marsland Core Project	Sample Type:	Sediment samples
PO#	11-133	Date:	06.06.11

X-Ray Diffraction Results

	Sample ID	M1454c				M1624c			
	Run #	Run 1	Run 2	Run 3	Run 4	Run 1	Run 2	Run 4	Run 5
	Lab ID	11182-01	11182-02	11182-03	11182-04	11182-05	11182-06	11182-07	11182-08
Mineral Constituents	Chemical Formula	Relative Abundance (%)							
Quartz	SiO_2	15	11	63	29	15	14	54	23
Plagioclase Feldspar	$(Na,Ca)AlSi_3O_8$	9	8	4	5	11	10	4	5
K-Feldspar	$KAlSi_3O_8$	2	2	8	5	5	3	8	4
Calcite	$CaCO_3$	47	35	trc		13	1	1	
Dolomite	$(Ca,Mg)(CO_3)_2$				3			2	
Siderite	$FeCO_3$			1					
Pyrite	FeS_2			1					1
Magnetite	alpha-Fe_3O_4		1	trc		2			
Magnesium Vanadium Oxide	beta-$Mg(VO_3)$			2					
Kaolinite	$Al_2Si_2O_5(OH)_4$			1	2			trc	2
Chlorite	$(Fe,Al,Mg)_6(Si,Al)_4O_{10}(OH)_8$				2		trc		2
Illite/Mica	$KAl_2(Si_3AlO_{10})(OH)_2$	2	5	2	6	5	12	3	8
Mixed-Layered Illite/Smectite	$K_{0.5}Al_2(Si,Al)_4O_{10}(OH)_2 \cdot 2H_2O$		38	18	48	49	60	28	55
Montmorillonite	$Na_{0.3}(Al,Mg)_2Si_4O_{10}(OH)_2 \cdot xH_2O$	25							
TOTAL		100	100	100	100	100	100	100	100
% Illite Layers in ML Illite/Smectite	(+/- 5%)		45%	10%	25%	10%	25%	15%	20%

PTS Laboratories, Inc.

Crow Butte Resources, Inc.
PTS File No: 41269

PARTICLE SIZE SUMMARY

(METHODOLOGY: ASTM D422/D4464M)

PROJECT NAME: Marsland Core
PROJECT NO: N/A

Sample ID	Depth, ft.	Median Grain Size mm	Particle Size Distribution, wt. percent						Silt & Clay
			Gravel	Sand Size			Silt	Clay	
				Coarse	Medium	Fine			
M-1454c Run 1	N/A	0.056	0.00	0.00	24.31	18.80	47.25	9.64	56.89
M-1454c Run 2	N/A	0.027	0.00	0.00	8.58	24.41	46.36	20.65	67.01
M-1454c Run 3	N/A	0.075	0.00	0.00	2.74	47.49	29.85	19.92	49.77
M-1454c Run 4	N/A	0.007	0.00	0.00	0.00	0.45	60.15	39.40	99.55
M-1624c Run 1	N/A	0.049	0.00	0.00	7.50	29.12	54.65	8.73	63.38
M-1624c Run 2	N/A	0.065	0.00	0.00	26.37	22.12	34.96	16.54	51.50
M-1624c Run 4	N/A	0.711	0.00	0.00	69.05	14.89	11.56	4.50	16.06
M-1624c Run 5	N/A	0.005	0.00	0.00	0.00	1.28	50.88	47.85	98.72

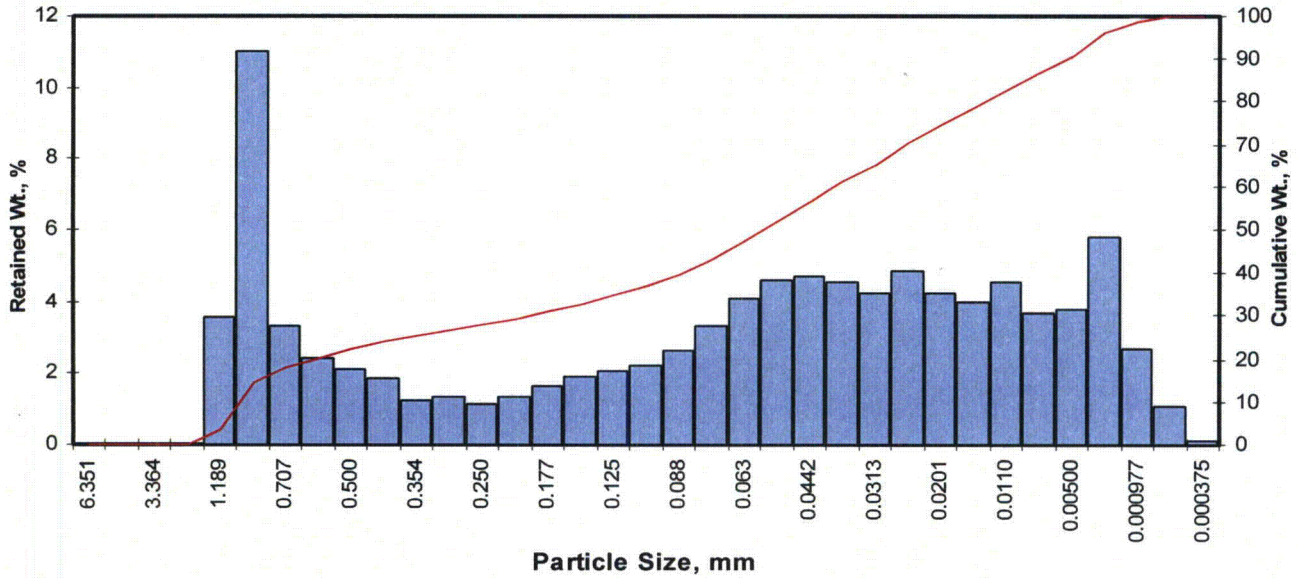
(1) Based on Mean from Trask

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Crow Butte Resources, Inc.	**PTS File No:**	41269
Project:	Marsland Core	**Sample ID:**	M-1454c Run 1
Project No:	N/A	**Depth, ft:**	N/A

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	3.58	3.58	3.58
0.0331	0.841	0.25	20	11.00	11.00	14.59
0.0278	0.707	0.50	25	3.31	3.31	17.90
0.0234	0.595	0.75	30	2.42	2.42	20.32
0.0197	0.500	1.00	35	2.14	2.14	22.46
0.0166	0.420	1.25	40	1.85	1.85	24.31
0.0139	0.354	1.50	45	1.22	1.22	25.53
0.0117	0.297	1.75	50	1.34	1.34	26.87
0.0098	0.250	2.00	60	1.13	1.13	28.00
0.0083	0.210	2.25	70	1.36	1.36	29.36
0.0070	0.177	2.50	80	1.63	1.63	30.99
0.0059	0.149	2.75	100	1.89	1.89	32.88
0.0049	0.125	3.00	120	2.06	2.06	34.94
0.0041	0.105	3.25	140	2.23	2.23	37.17
0.0035	0.088	3.50	170	2.62	2.62	39.80
0.0029	0.074	3.75	200	3.31	3.31	43.11
0.0025	0.063	4.00	230	4.09	4.09	47.20
0.0021	0.053	4.25	270	4.59	4.59	51.79
0.00174	0.0442	4.50	325	4.73	4.73	56.52
0.00146	0.0372	4.75	400	4.54	4.54	61.06
0.00123	0.0313	5.00	450	4.23	4.23	65.30
0.000986	0.0250	5.32	500	4.87	4.87	70.17
0.000790	0.0201	5.64	635	4.23	4.23	74.40
0.000615	0.0156	6.00		3.98	3.98	78.38
0.000435	0.0110	6.50		4.53	4.53	82.91
0.000308	0.00781	7.00		3.67	3.67	86.58
0.000197	0.00500	7.65		3.77	3.77	90.36
0.000077	0.00195	9.00		5.78	5.78	96.14
0.000038	0.000977	10.00		2.69	2.69	98.83
0.000019	0.000488	11.00		1.08	1.08	99.91
0.000015	0.000375	11.38		0.09	0.09	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	-0.19	0.0448	1.137
10	0.04	0.0383	0.972
16	0.36	0.0307	0.781
25	1.39	0.0150	0.381
40	3.52	0.0034	0.087
50	4.15	0.0022	0.056
60	4.69	0.0015	0.039
75	5.69	0.0008	0.019
84	6.65	0.0004	0.010
90	7.58	0.0002	0.005
95	8.73	0.0001	0.002

Measure	Trask	Inman	Folk-Ward
Median, phi	4.15	4.15	4.15
Median, in.	0.0022	0.0022	0.0022
Median, mm	0.056	0.056	0.056
Mean, phi	2.32	3.50	3.72
Mean, in.	0.0079	0.0035	0.0030
Mean, mm	0.200	0.088	0.076
Sorting	4.443	3.146	2.924
Skewness	1.526	-0.207	-0.090
Kurtosis	0.187	0.418	0.849
Grain Size Description (ASTM-USCS Scale)		Fine sand (based on Mean from Trask)	

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	24.31
Fine Sand	200	18.80
Silt	>0.005 mm	47.25
Clay	<0.005 mm	9.64
	Total	**100**

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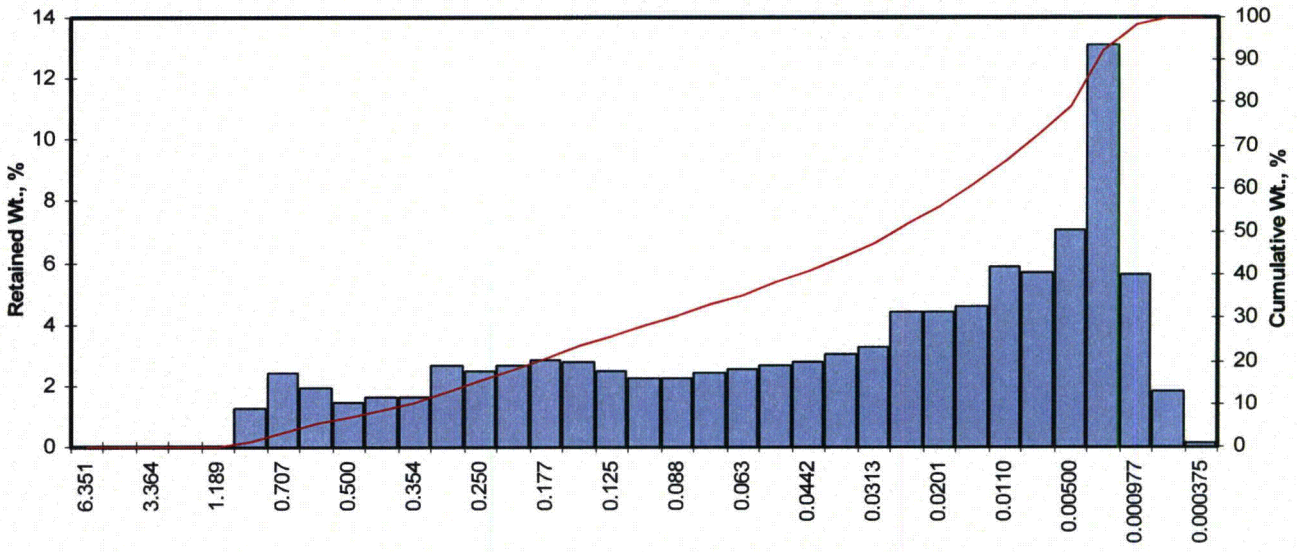
Phone: (562) 907-3607 Fax: (562) 907-3610

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Crow Butte Resources, Inc.	**PTS File No:**	41269
Project:	Marsland Core	**Sample ID:**	M-1454c Run 2
Project No:	N/A	**Depth, ft:**	N/A

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
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0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	1.24	1.24	1.24
0.0278	0.707	0.50	25	2.40	2.40	3.64
0.0234	0.595	0.75	30	1.92	1.92	5.56
0.0197	0.500	1.00	35	1.42	1.42	6.98
0.0166	0.420	1.25	40	1.60	1.60	8.58
0.0139	0.354	1.50	45	1.64	1.64	10.22
0.0117	0.297	1.75	50	2.63	2.63	12.85
0.0098	0.250	2.00	60	2.46	2.46	15.31
0.0083	0.210	2.25	70	2.67	2.67	17.98
0.0070	0.177	2.50	80	2.82	2.82	20.80
0.0059	0.149	2.75	100	2.77	2.77	23.57
0.0049	0.125	3.00	120	2.49	2.49	26.06
0.0041	0.105	3.25	140	2.26	2.26	28.32
0.0035	0.088	3.50	170	2.26	2.26	30.58
0.0029	0.074	3.75	200	2.41	2.41	32.99
0.0025	0.063	4.00	230	2.55	2.55	35.54
0.0021	0.053	4.25	270	2.63	2.63	38.17
0.00174	0.0442	4.50	325	2.80	2.80	40.97
0.00146	0.0372	4.75	400	3.04	3.04	44.01
0.00123	0.0313	5.00	450	3.28	3.28	47.29
0.000986	0.0250	5.32	500	4.40	4.40	51.69
0.000790	0.0201	5.64	635	4.43	4.43	56.12
0.000615	0.0156	6.00		4.61	4.61	60.73
0.000435	0.0110	6.50		5.86	5.86	66.59
0.000308	0.00781	7.00		5.69	5.69	72.28
0.000197	0.00500	7.65		7.07	7.07	79.35
0.000077	0.00195	9.00		13.10	13.10	92.45
0.000038	0.000977	10.00		5.63	5.63	98.08
0.000019	0.000488	11.00		1.79	1.79	99.87
0.000015	0.000375	11.38		0.13	0.13	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	0.68	0.0246	0.625
10	1.47	0.0142	0.362
16	2.06	0.0094	0.239
25	2.89	0.0053	0.135
40	4.41	0.0018	0.047
50	5.20	0.0011	0.027
60	5.94	0.0006	0.016
75	7.25	0.0003	0.007
84	8.13	0.0001	0.004
90	8.75	0.0001	0.002
95	9.45	0.0001	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	5.20	5.20	5.20
Median, in.	0.0011	0.0011	0.0011
Median, mm	0.027	0.027	0.027
Mean, phi	3.82	5.10	5.13
Mean, in.	0.0028	0.0012	0.0011
Mean, mm	0.071	0.029	0.029
Sorting	4.523	3.031	2.845
Skewness	1.091	-0.034	-0.032
Kurtosis	0.178	0.448	0.826
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

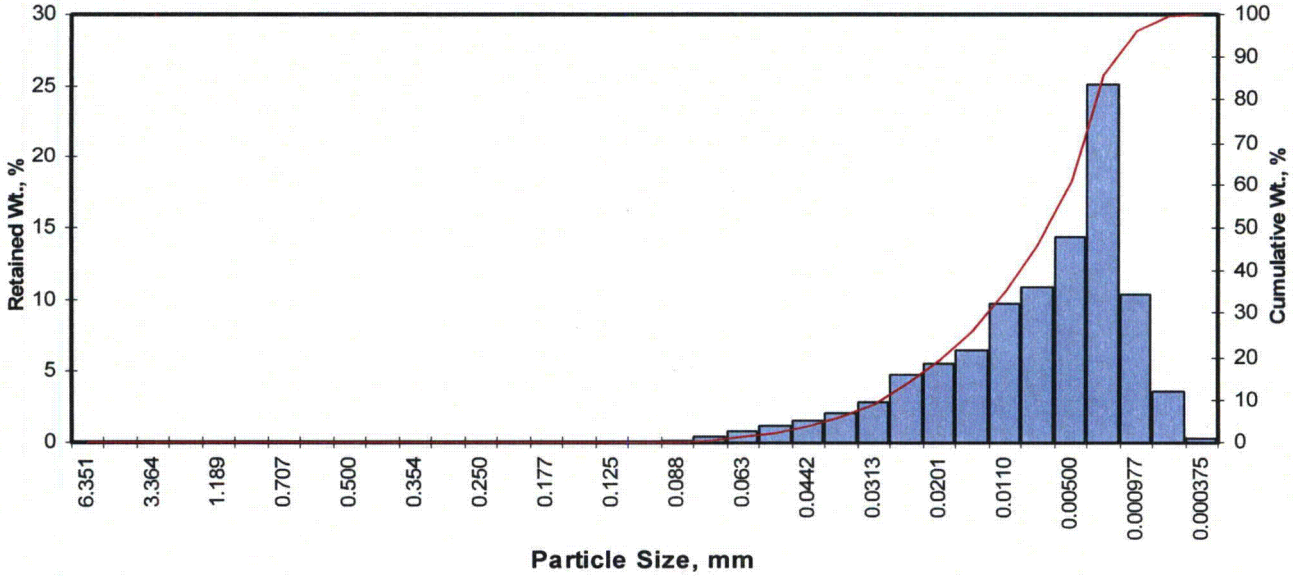
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	8.58
Fine Sand	200	24.41
Silt	>0.005 mm	46.36
Clay	<0.005 mm	20.65
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Crow Butte Resources, Inc.	**PTS File No:**	41269
Project:	Marsland Core	**Sample ID:**	M-1454c Run 4
Project No:	N/A	**Depth, ft:**	N/A

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.00	0.00	0.00
0.0070	0.177	2.50	80	0.00	0.00	0.00
0.0059	0.149	2.75	100	0.00	0.00	0.00
0.0049	0.125	3.00	120	0.00	0.00	0.00
0.0041	0.105	3.25	140	0.00	0.00	0.00
0.0035	0.088	3.50	170	0.08	0.08	0.09
0.0029	0.074	3.75	200	0.36	0.36	0.45
0.0025	0.063	4.00	230	0.77	0.77	1.22
0.0021	0.053	4.25	270	1.14	1.14	2.36
0.00174	0.0442	4.50	325	1.55	1.55	3.91
0.00146	0.0372	4.75	400	2.10	2.10	6.01
0.00123	0.0313	5.00	450	2.87	2.87	8.88
0.000986	0.0250	5.32	500	4.78	4.78	13.66
0.000790	0.0201	5.64	635	5.62	5.62	19.28
0.000615	0.0156	6.00		6.45	6.45	25.73
0.000435	0.0110	6.50		9.67	9.67	35.40
0.000308	0.00781	7.00		10.90	10.90	46.30
0.000197	0.00500	7.65		14.30	14.30	60.60
0.000077	0.00195	9.00		25.10	25.10	85.70
0.000038	0.000977	10.00		10.40	10.40	96.10
0.000019	0.000488	11.00		3.62	3.62	99.72
0.000015	0.000375	11.38		0.28	0.28	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	4.63	0.0016	0.040
10	5.08	0.0012	0.030
16	5.45	0.0009	0.023
25	5.96	0.0006	0.016
40	6.71	0.0004	0.010
50	7.17	0.0003	0.007
60	7.62	0.0002	0.005
75	8.42	0.0001	0.003
84	8.91	0.0001	0.002
90	9.41	0.0001	0.001
95	9.89	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	7.17	7.17	7.17
Median, in.	0.0003	0.0003	0.0003
Median, mm	0.007	0.007	0.007
Mean, phi	6.72	7.18	7.18
Mean, in.	0.0004	0.0003	0.0003
Mean, mm	0.009	0.007	0.007
Sorting	2.348	1.727	1.661
Skewness	0.984	0.008	0.022
Kurtosis	0.233	0.524	0.876
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

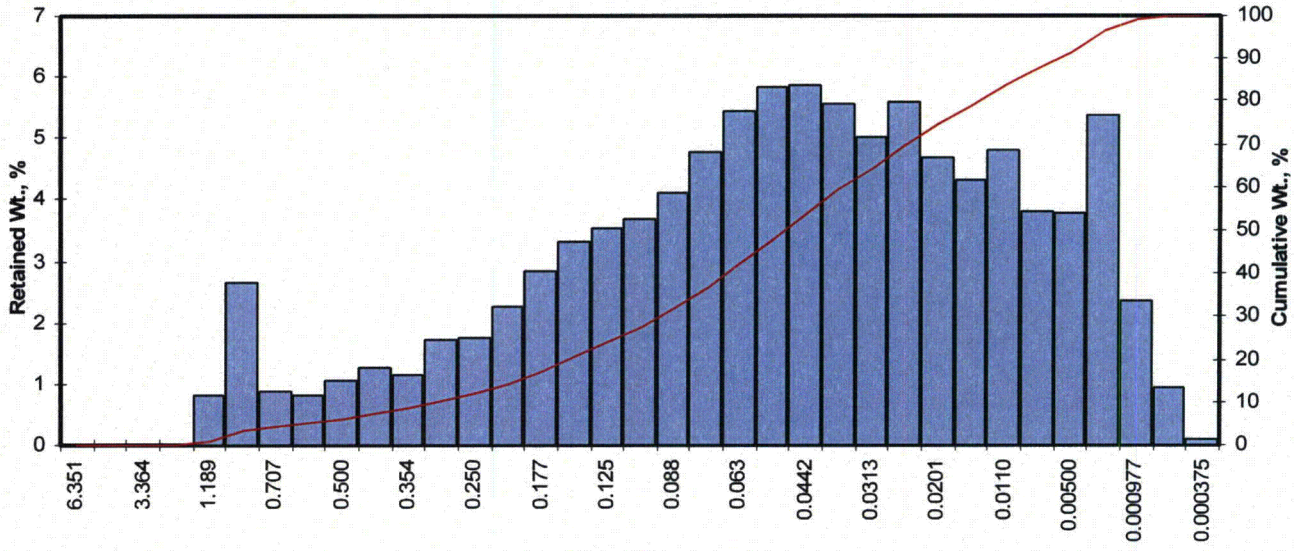
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	0.45
Silt	>0.005 mm	60.15
Clay	<0.005 mm	39.40
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Crow Butte Resources, Inc.	**PTS File No:**	41269
Project:	Marsland Core	**Sample ID:**	M-1624c Run 1
Project No:	N/A	**Depth, ft:**	N/A

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.81	0.81	0.81
0.0331	0.841	0.25	20	2.66	2.66	3.47
0.0278	0.707	0.50	25	0.89	0.89	4.36
0.0234	0.595	0.75	30	0.81	0.81	5.17
0.0197	0.500	1.00	35	1.05	1.05	6.22
0.0166	0.420	1.25	40	1.28	1.28	7.50
0.0139	0.354	1.50	45	1.16	1.16	8.66
0.0117	0.297	1.75	50	1.72	1.72	10.38
0.0098	0.250	2.00	60	1.76	1.76	12.14
0.0083	0.210	2.25	70	2.25	2.25	14.39
0.0070	0.177	2.50	80	2.84	2.84	17.23
0.0059	0.149	2.75	100	3.32	3.32	20.54
0.0049	0.125	3.00	120	3.52	3.52	24.06
0.0041	0.105	3.25	140	3.69	3.69	27.75
0.0035	0.088	3.50	170	4.10	4.10	31.85
0.0029	0.074	3.75	200	4.77	4.77	36.62
0.0025	0.063	4.00	230	5.44	5.44	42.06
0.0021	0.053	4.25	270	5.83	5.83	47.89
0.00174	0.0442	4.50	325	5.87	5.87	53.75
0.00146	0.0372	4.75	400	5.54	5.54	59.29
0.00123	0.0313	5.00	450	5.02	5.02	64.31
0.000986	0.0250	5.32	500	5.58	5.58	69.89
0.000790	0.0201	5.64	635	4.69	4.69	74.58
0.000615	0.0156	6.00		4.33	4.33	78.91
0.000435	0.0110	6.50		4.81	4.81	83.72
0.000308	0.00781	7.00		3.79	3.79	87.50
0.000197	0.00500	7.65		3.77	3.77	91.27
0.000077	0.00195	9.00		5.38	5.38	96.65
0.000038	0.000977	10.00		2.34	2.34	98.99
0.000019	0.000488	11.00		0.93	0.93	99.92
0.000015	0.000375	11.38		0.08	0.08	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	0.70	0.0243	0.616
10	1.70	0.0122	0.309
16	2.39	0.0075	0.191
25	3.06	0.0047	0.120
40	3.91	0.0026	0.067
50	4.34	0.0019	0.049
60	4.79	0.0014	0.036
75	5.68	0.0008	0.020
84	6.54	0.0004	0.011
90	7.43	0.0002	0.006
95	8.58	0.0001	0.003

Measure	Trask	Inman	Folk-Ward
Median, phi	4.34	4.34	4.34
Median, in.	0.0019	0.0019	0.0019
Median, mm	0.049	0.049	0.049
Mean, phi	3.84	4.46	4.42
Mean, in.	0.0027	0.0018	0.0018
Mean, mm	0.070	0.045	0.047
Sorting	2.472	2.073	2.231
Skewness	0.980	0.060	0.068
Kurtosis	0.165	0.902	1.238
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

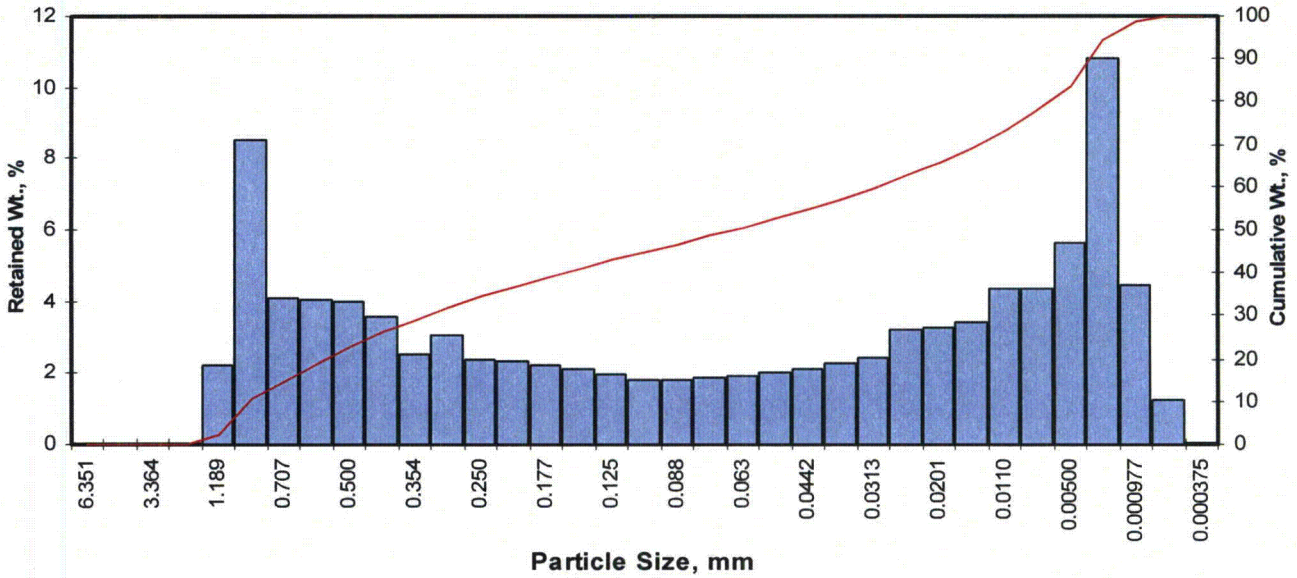
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	7.50
Fine Sand	200	29.12
Silt	>0.005 mm	54.65
Clay	<0.005 mm	8.73
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Crow Butte Resources, Inc.	**PTS File No:**	41269
Project:	Marsland Core	**Sample ID:**	M-1624c Run 2
Project No:	N/A	**Depth, ft:**	N/A

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	2.23	2.23	2.23
0.0331	0.841	0.25	20	8.51	8.51	10.74
0.0278	0.707	0.50	25	4.07	4.07	14.81
0.0234	0.595	0.75	30	4.04	4.04	18.85
0.0197	0.500	1.00	35	3.97	3.97	22.82
0.0166	0.420	1.25	40	3.55	3.55	26.37
0.0139	0.354	1.50	45	2.54	2.54	28.91
0.0117	0.297	1.75	50	3.04	3.04	31.95
0.0098	0.250	2.00	60	2.40	2.40	34.35
0.0083	0.210	2.25	70	2.31	2.31	36.66
0.0070	0.177	2.50	80	2.24	2.24	38.91
0.0059	0.149	2.75	100	2.14	2.14	41.05
0.0049	0.125	3.00	120	1.98	1.98	43.03
0.0041	0.105	3.25	140	1.83	1.83	44.86
0.0035	0.088	3.50	170	1.79	1.79	46.65
0.0029	0.074	3.75	200	1.85	1.85	48.50
0.0025	0.063	4.00	230	1.93	1.93	50.43
0.0021	0.053	4.25	270	2.00	2.00	52.43
0.00174	0.0442	4.50	325	2.13	2.13	54.56
0.00146	0.0372	4.75	400	2.28	2.28	56.84
0.00123	0.0313	5.00	450	2.43	2.43	59.27
0.000986	0.0250	5.32	500	3.22	3.22	62.49
0.000790	0.0201	5.64	635	3.24	3.24	65.73
0.000615	0.0156	6.00		3.39	3.39	69.12
0.000435	0.0110	6.50		4.36	4.36	73.48
0.000308	0.00781	7.00		4.35	4.35	77.83
0.000197	0.00500	7.65		5.63	5.63	83.46
0.000077	0.00195	9.00		10.80	10.80	94.26
0.000038	0.000977	10.00		4.44	4.44	98.70
0.000019	0.000488	11.00		1.22	1.22	99.92
0.000015	0.000375	11.38		0.08	0.08	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	-0.09	0.0418	1.062
10	0.21	0.0341	0.867
16	0.57	0.0265	0.672
25	1.15	0.0177	0.450
40	2.63	0.0064	0.162
50	3.94	0.0026	0.065
60	5.07	0.0012	0.030
75	6.67	0.0004	0.010
84	7.71	0.0002	0.005
90	8.47	0.0001	0.003
95	9.17	0.0001	0.002

Measure	Trask	Inman	Folk-Ward
Median, phi	3.94	3.94	3.94
Median, in.	0.0026	0.0026	0.0026
Median, mm	0.065	0.065	0.065
Mean, phi	2.12	4.14	4.08
Mean, in.	0.0090	0.0022	0.0023
Mean, mm	0.230	0.057	0.059
Sorting	6.777	3.570	3.187
Skewness	1.022	0.056	0.092
Kurtosis	0.255	0.296	0.687
Grain Size Description (ASTM-USCS Scale)		Fine sand (based on Mean from Trask)	

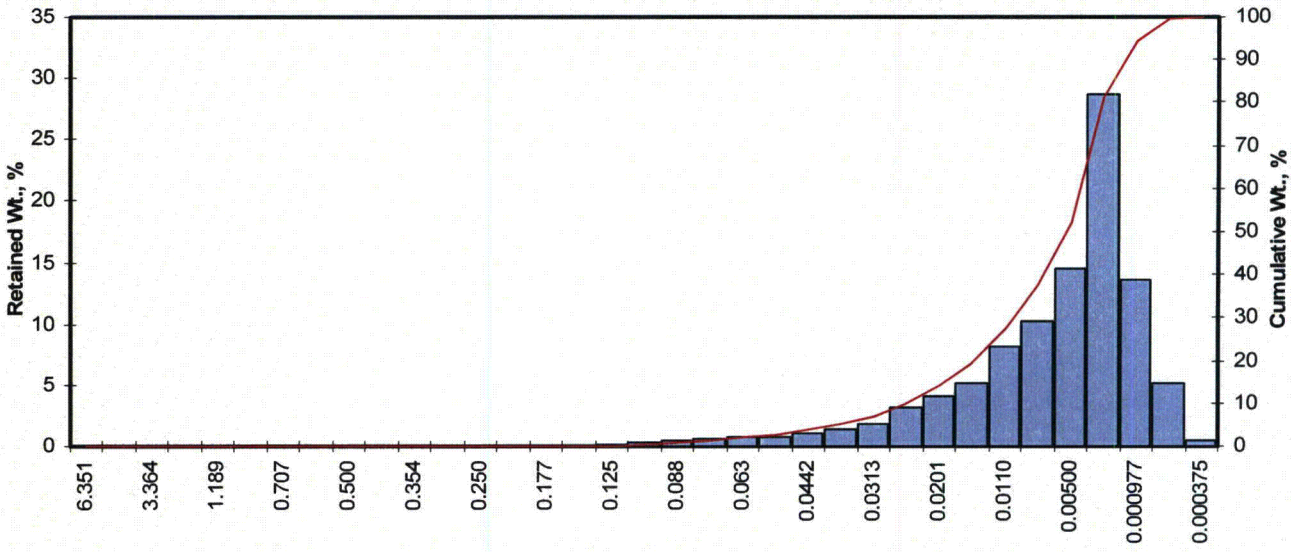
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	26.37
Fine Sand	200	22.12
Silt	>0.005 mm	34.96
Clay	<0.005 mm	16.54
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Crow Butte Resources, Inc.	**PTS File No:**	41269
Project:	Marsland Core	**Sample ID:**	M-1624c Run 5
Project No:	N/A	**Depth, ft:**	N/A

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.00	0.00	0.00
0.0070	0.177	2.50	80	0.00	0.00	0.00
0.0059	0.149	2.75	100	0.01	0.01	0.01
0.0049	0.125	3.00	120	0.08	0.08	0.09
0.0041	0.105	3.25	140	0.24	0.24	0.33
0.0035	0.088	3.50	170	0.39	0.39	0.72
0.0029	0.074	3.75	200	0.56	0.56	1.28
0.0025	0.063	4.00	230	0.70	0.70	1.98
0.0021	0.053	4.25	270	0.81	0.81	2.79
0.00174	0.0442	4.50	325	0.99	0.99	3.78
0.00146	0.0372	4.75	400	1.31	1.31	5.09
0.00123	0.0313	5.00	450	1.80	1.80	6.89
0.000986	0.0250	5.32	500	3.15	3.15	10.03
0.000790	0.0201	5.64	635	4.11	4.11	14.14
0.000615	0.0156	6.00		5.11	5.11	19.25
0.000435	0.0110	6.50		8.22	8.22	27.47
0.000308	0.00781	7.00		10.20	10.20	37.66
0.000197	0.00500	7.65		14.50	14.49	52.15
0.000077	0.00195	9.00		28.70	28.69	80.84
0.000038	0.000977	10.00		13.60	13.59	94.43
0.000019	0.000488	11.00		5.15	5.15	99.58
0.000015	0.000375	11.38		0.42	0.42	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	4.73	0.0015	0.038
10	5.32	0.0010	0.025
16	5.77	0.0007	0.018
25	6.35	0.0005	0.012
40	7.10	0.0003	0.007
50	7.55	0.0002	0.005
60	8.02	0.0002	0.004
75	8.72	0.0001	0.002
84	9.23	0.0001	0.002
90	9.67	0.0000	0.001
95	10.11	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	7.55	7.55	7.55
Median, in.	0.0002	0.0002	0.0002
Median, mm	0.005	0.005	0.005
Mean, phi	7.10	7.50	7.52
Mean, in.	0.0003	0.0002	0.0002
Mean, mm	0.007	0.006	0.005
Sorting	2.277	1.731	1.680
Skewness	1.008	-0.027	-0.037
Kurtosis	0.207	0.553	0.928
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	1.28
Silt	>0.005 mm	50.88
Clay	<0.005 mm	47.85
	Total	**100**

Appendix H

Flora and Fauna Lists

Appendix H-1

Plant Species List

PLANT SPECIES LIST

Scientific Name	Common Name
EQUISETACEAE	
Equisetum laevigatum	Smooth horsetail
PINACEAE	
Pinus ponderosa	Ponderosa pine
RANUNCULACEAE	
Anemone patens	Pasque-flower
Clematis ligusticifolia	Western clematis
Ranunculus abortivus	Early wood buttercup
Thalictrum dasycarpum	Purple meadowrue
PAPAVERACEAE	
Argemone polyanthemos	Prickle poppy
FUMARIACEAE	
Corydalis aurea	Golden corydalis
ULMACEAE	
Ulmus americana	American elm
Ulmus pumila	Siberian elm
CANNABACEAE	
Humulus lupulus	Common hop
URTICACEAE	
Urtica dioica	Stinging nettle
CACTACEAE	
Coryphantha vivipara	Pincushion cactus
Opuntia fragilis	Brittle prickly pear
CARYOPHYLLACEAE	
Arenaria hookeri	Hooker sandwort
Cerastium arvense	Prairie chickweed
Paronychia jamesii	James nailwort
Stellaria media	Common chickweed
CHENOPODIACEAE	
Chenopodium album	Lamb's-quarters
Chenopodium fremontii	Fremont goosefoot
Chenopodium leptophyllum	Maple-leaved goosefoot
CHENOPODIACEAE	
Kochia scoparia	Kochia
Salsola iberica	Russian thistle
AMARANTHACEAE	
Amaranthus graecizans	Tumbleweed
Amaranthus retroflexus	Rough pigweed
POLYGONACEAE	
Polygonum convolvulus	Wild buckwheat

PLANT SPECIES LIST

Scientific Name	Common Name
Polygonum ramosissimum	Bushy knotweed
MALVACEAE	
Malva rotundifolia	Common mallow
Sphaeralcea coccinea	Red false mallow
VIOLACEAE	
Viola canadensis	Canada violet
Viola nuttallii	Yellow prairie violet
SALICACEAE	
Populus deltoids	Plains cottonwood
Salix exigua	Coyote willow
CAPPARACEAE	
Cleome serrulata	Rocky mountain beeplant
BRASSICACEAE	
Arabis holboellii	Rockcress
Brassica kaber	Charlock
Capsella bursa-pastoris	Shepherd's purse
Chorispora tenella	Blue mustard
Descurainia pinnata	Tansy mustard
Descurainia sophia	Flixweed
Draba reptans	Whote whitlowwort
Erysimum asperum	Western wallflower
Erysimum repandum	Bushy wallflower
Lesquerella ludoviciana	Bladderpod
Sisymbrium altissimum	Tumbling mustard
Thlaspi arvense	Penny cress
PRIMULACEAE	
Androsace occidentalis	Western rock jasmine
SAXIFRAGACEAE	
Ribes odoratum	Buffalo currant
ROSACEAE	
Prunus americana	Wild plum
Prunus virginiana	Chokecherry
Rosa acicularis	Prickly wild rose
Rosa arkansana	Prairie wild rose
Rosa woodsii	Western wild rose
FABACEAE	
Astragalus gracilis	Slender milkvetch
Astragalus missouriensis	Missouri milkvetch
Lupinus argentus	Silvery lupine
Medicago falcata	Yellow lupine
Medicago sativa	Alfalfa
Melilotus alba	White sweetclover

PLANT SPECIES LIST

Scientific Name	Common Name
Melilotus officinalis	Yellow sweetclover
Oxytropis lambertii	Purple locoweed
Psoralea argophylla	Silver-leaf scurf pea
Psoralea esculenta	Breadroot scurf pea
Psoralea lanceolata	Lemon scurf pea
Vicia americana	American vetch
ONAGRACEAE	
Gaura coccinea	Velvety gaura
Oenothera caespitosa	Gumbo lily
Oenothera nuttallii	White-stemmed evening primrose
CORNACEAE	
Comandra umbellata	Bastard toadflax
EUPHORBIACEAE	
Croton texensis	
Euphorbia podperae	
VITACEAE	
Parthenocissus vitacea	Woodbine
ACERACEAE	
Acer negundo	Box elder
ANACARDIACEAE	
Rhus amomatica	Aromatic sumac
Toxicodendron rydbergii	Poison ivy
ZYGOPHYLLACEAE	
Tribulus terrestris	Puncture vine
LINACEAE	
Linum perenne	Blue flax
Linum rigidum	Stiffstem flax
POLYGALACEAE	
Polygala alba	White milkwort
APIACEAE	
Lomatium nuttallii	Wild parsley
APOCYNACEAE	
Apocynum cannabinum	Hemp dogbane
ASCLEPIADACEAE	
Asclepias speciosa	Showy milkweed
SOLANACEAE	
Solanum rostratum	Buffalo bur
CONVOLVULACEAE	
Convolvulus arvensis	Field bindweed
Convolvulus sepium	Hedge bindweed
POLEMONIACEAE	

PLANT SPECIES LIST

Scientific Name	Common Name
Phlox andicola	Moss phlox
BORAGINACEAE	
Cryptantha jamesii	James' cryptantha
Lappula redowskii	Low stickseed
Lithospermum incisum	Narrow-leaved puccoon
LAMIACEAE	
Mentha arvensis	Field mint
Monarda pectinata	Spotted beebalm
PLANTAGINACEAE	
Plantago patagonica	Buckhorn
OLEACEAE	
Fraxinus pennsylvanica	Green ash
SCROPHULARIACEAE	
Penstemon albidus	White beardtongue
Penstemon angustifolius	Narrow beardtongue
Penstemon glaber	Smooth beardtongue ?
Penstemon grandiflorus	Large beardtongue
Verbascum thapsus	Common mullein
CAMPANULACEAE	
Campanula rotundifolia	Harebell
RUBIACEAE	
Galium aparine	Catchweed bedstraw
CAPRIFOLIACEAE	
Symphoricarpos occidentalis	Western snowberry
ASTERACEAE	
Achillea millefolium	Yarrow
Agoseris glauca	False dandelion
Antennaria rosea	Rose pussytoes
Artemisia campestris	Western sagebrush
Artemisia frigida	Fringed sagebrush
Artemisia ludoviciana	White sage
Chrysopsis villosa	Golden aster
Cirsium undulatum	Wavyleaf thistle
Cirsium vulgare	Bull thistle
Crepis runcinata	Hawk's-beard
Echinacea angustifolia	Purple coneflower
Erigeron pumilus	Low fleabane
Grindelia squarrosa	Curly-top gumweed
Gutierrezia sarothrae	Broom snakeweed
Helianthus annuus	Common sunflower
Helianthus petiolaris	Plains sunflower

PLANT SPECIES LIST

Scientific Name	Common Name
Lygodesmia juncea	Skeleton-weed
Ratibida columnifera	Prairie coneflower
Ridbeckia hirta	Black-eyed susan
Senecio plattensis	Prairie ragwort
Taraxacum officinale	Dandelion
Townsendia exscapa	Easter daisy
Tragopogon dubius	Goatsbeard
COMMELINACEAE	
Tradescantia occidentalis	Prairie spiderwort
JUNCACEAE	
Juncus balticus	Baltic rush
CYPERACEAE	
Carex filifolia	Thread-leaved sedge
Carex hystericina	Bottlebrush sedge
Carex lanuginose	Wooly-headed sedge
Carex nebraskensis	Nebraska sedge
Carex rossii	Ross' sedge
POACEAE	
Agropyron cristatum	Crested wheatgrass
Agropyron intermedium	Intermediate wheatgrass
Agropyron pectiniforme	Smooth crested wheatgrass
Agropyron smithii	Western wheatgrass
Agropogon scoparius	Little bluestem
Aristida longiseta	Red threeawn
Bouteloua gracilis	Blue grama
Bromus inermis	Smooth brome
Bromus japonicus	Japanese brome
Bromus tectorum	Cheatgrass
Buchloe dactyloides	Buffalo-grass
Cenchrus longispinus	Field sandbur
Elymus canadensis	Canada wild rye
Festuca octoflora	Six-weeks fescue
Hordeum jubatum	Foxtail barley
Hordeum pusillum	Little barley
Koeleria pyramidata	Junegrass
Oryzopsis hymenoides	Indian ricegrass
Panicum capillare	Witchgrass
Poa compressa	Canada bluegrass
Poa pratensis	Kentucky bluegrass
Poa sandbergii = *(P. secunda)*	Sandberg bluegrass
Setaria glauca	Yellow foxtail

PLANT SPECIES LIST

Scientific Name	Common Name
Setaria viridis	Green foxtail
Sitanion hystrix	Squirreltail
Stipa comata	Needle-and-thread
Stipa viridula	Green needlegrass
Triticum aestivum	Wheat
LILIACEAE	
Allium textile	White wild onion
Calochortus nuttallii	Mariposa lily
Leucocrinum montanum	Mountain lily
Smilacina stellata	Spikenard
Yucca glauca	Yucca
Zigadenus venenosus	Death camass
IRIDACEAE	
Sisyrinchium montanum	Blue-eyed grass

Appendix H-2

Mammal Species List

MAMMAL SPECIES LIST

Order/Common Name	Scientific Name	Documented Status[1]
CARNIVORES		
Carnivora		
Raccoon	*Procyon lotor*	D
Long-tailed weasel	*Mustela frenata*	D
Mink	*Mustela vison*	D
Black-footed ferret	*Mustela nigripes*	*
Badger	*Taxidea taxus*	C
Eastern Spotted skunk	*Spilogale putorius*	E
Striped skunk	*Mephitis mephitis*	D
Coyote	*Canis latrans*	C
Swift fox	*Vulpes velox*	R
Red fox	*Vulpes vulpes*	D
Bobcat	*Lynx rufus*	D
Mountain lion	*Puma concolor*	R
BIG GAME MAMMALS		
Artiodactyla		
Mule deer	*Odocoileus hemionus*	C
White-tailed deer	*Odocoileus virginianus*	C
Pronghorn	*Antilocapra americana*	C
Elk	*Cervus elaphus*	C
Bighorn sheep	*Ovis canadensis*	D
Bison	*Bison bison*	D
Moose	*Alces alces*	R
SMALL MAMMALS		
Chiroptera		
Keen myotis	*Myotis keeni*	E
Little brown myotis	*Myotis lucifugus*	E
Fringe-tailed myotis	*Myotis thysanodes pahasapensis*	E
Long-eared myotis	*Myotis evotis*	E
Long-legged myotis	*Myotis volans*	E
Western small-footed myotis	*Myotis ciliolabrum*	E
Silver-haired bat	*Lasionycteris noctivagans*	E
Eastern red bat	*Lasiurus borealis*	E
Big brown bat	*Eptesicus fuscus*	E
Hoary bat	*Lasiurus cinereus*	E
Townsend's big-eared bat	*Corynorhinus townsendi*	E
Insectivora		

MAMMAL SPECIES LIST

Order/Common Name	Scientific Name	Documented Status[1]
Masked shrew	*Sorex cinereus*	E
Dwarf shrew	*Sorex nanus*	E
Merriam shrew	*Sorex merriami*	E
Least shrew	*Cryptotis parva*	E
Eastern mole	*Scalopus aquaticus*	D
Lagomorpha		
White-tailed jackrabbit	*Lepus townsendii*	C
Black-tailed jackrabbit	*Lepus californicus*	D
Eastern cottontail	*Sylvilagus floridanus*	D
Desert cottontail	*Sylvilagus auduboni*	D
Rodentia		
Black-tailed prairie dog	*Cynomys ludovicianus*	C
Thirteen-lined ground squirrel	*Spermophilus tridecemlineatus*	C
Spotted ground squirrel	*Citellus spilosoma*	D
Least chipmunk	*Tamias minimus*	D
Eastern fox squirrel	*Sciurus niger*	C
Northern pocket gopher	*Thomomys talpoides*	E
Plains pocket gopher	*Geomys bursarius*	E
Olive-backed pocket mouse	*Perognathus fasciatus*	E
Silky pocket mouse	*Perognathus flavus*	E
Hispid pocket mouse	*Chaetodipus hispidus*	E
Ord kangaroo rat	*Dipodomys ordii*	D
Beaver	*Castor canadensis*	C
Plains harvest mouse	*Reithrodontomys montanus*	E
Western harvest mouse	*Reithrodontomys megalotis*	E
White-footed mouse	*Peromyscus leucopus*	D
Deer mouse	*Peromyscus maniculatus*	D
Northern grasshopper mouse	*Onychomys leucogaster*	E
Eastern woodrat	*Neotoma floridana*	E
Bushy-tailed woodrat	*Neotoma cinerea*	E
Norway rat	*Rattus norvegicus*	E
House mouse	*Mus musculus*	D
Meadow vole	*Microtus pennsylvanicus*	D
Prairie vole	*Microtus ochrogaster*	D

MAMMAL SPECIES LIST

Order/Common Name	Scientific Name	Documented Status[1]
Muskrat	*Ondatra zibethicus*	D
Meadow jumping mouse	*Zapus hudsonicus*	D
Porcupine	*Erethizon dorsatum*	C

1 C Confirmed during field surveys in 2011.
D Documented in the 1982 baseline study.
E Expected to occur - historical or recent evidence.
R Reported by knowledgeable individual(s).
* Extirpated previously; historical records only.

Appendix H-3

Bird Species List

BIRD SPECIES LIST

Common Name	Scientific Name	Status[1]
GAVIIFORMES		
Common loon	*Gavia immer*	R
Arctic loon	*Gavia arctica*	R
Pacific loon	*Gavia pacifica*	E
PODICIPEDIFORMES		
Red-necked grebe	*Podiceps grisegena*	R
Horned grebe	*Podiceps auritus*	D
Eared grebe	*Podiceps caspicus*	D
Clark's grebe	*Aechmophorus clarkii*	E
Western grebe	*Aechmophorus occidentalis*	D
Pied-billed grebe	*Podilymbus podiceps*	E
PELECANIFORMES		
American white pelican	*Pelicanus erythrorhynchos*	D
Double-crested cormorant	*Phalacrocorax auritus*	D
CICONIFORMES		
Great blue heron	*Ardea herodias*	C
Little blue heron	*Egretta caerulea*	E
Green heron	*Butorides virescens*	R
Cattle egret	*Bubulcus ibis*	R
Great egret	*Ardea albus*	R
Snowy egret	*Egretta thula*	R
Black-crowned night heron	*Nycticorax nycticorax*	E
Yellow-crowned night heron	*Nyctanassa violacea*	R
American bittern	*Botaurus lentiginosus*	D
White-faced ibis	*Plegadis chihi*	R
ANSERIFORMES		
Trumpeter swan	*Cygnus buccinator*	D
Tundra swan	*Cygnus columbianus*	R
Canada goose	*Branta canadensis*	C
Brant	*Branta bernicla*	R
Greater white-fronted goose	*Anser albifrons*	D
Snow goose	*Chen caerulescens*	D
Ross's goose	*Chen rossii*	E
Wood Duck	*Aix sponsa*	C
Mallard	*Anas plantyrhynchos*	C
American black duck	*Anas rubripes*	R
Gadwall	*Anas strepera*	D
Northern pintail	*Anas acuta*	D
Green-winged teal	*Anas crecca*	D

BIRD SPECIES LIST

Common Name	Scientific Name	Status[1]
Blue-winged teal	*Anas discors*	C
Cinnamon teal	*Anas cyanoptera*	D
American wigeon	*Mareca americana*	D
Eurasian wigeon	*Anas penelope*	E
Northern shoveler	*Anas clypeata*	D
Redhead	*Aythya americana*	D
Ring-necked duck	*Aythya collaris*	D
Canvasback	*Aythya valisineria*	D
Lesser scaup	*Aythya affinis*	D
Common goldeneye	*Bucephala clangula*	D
Barrow's goldeneye	*Bucephala islandica*	R
Bufflehead	*Bucephala albeola*	D
Long-tailed duck	*Clangula hyemalis*	R
White-winged scoter	*Melanitta fusca*	R
Surf scoter	*Melanitta perspicillata*	R
Black scoter	*Melanitta nigra*	R
Ruddy duck	*Oxyura jamaicensis*	D
Hooded merganser	*Lophodytes cucullatus*	D
Common merganser	*Mergus merganser*	D
Red-breasted merganser	*Mergus serrator*	R
FALCONIFORMES		
Turkey vulture	*Cathartes aura*	C
Northern goshawk	*Accipiter gentilis*	D
Sharp-shinned hawk	*Accipiter striatis*	D
Cooper's hawk	*Accipiter cooperi*	C
Red-tailed hawk	*Buteo jamaicensis*	C
Red-shouldered hawk	*Buteo lineatus*	R
Broad-winged hawk	*Buteo platypterus*	R
Swainson's hawk	*Buteo swainsoni*	C
Rough-legged hawk	*Buteo lagopus*	C
Ferruginous hawk	*Buteo regalis*	C
Golden eagle	*Aquila chrysaetos*	C
Bald eagle	*Haliaeetus leucocephalus*	C
Northern harrier	*Circus cyaneus*	C
Osprey	*Pandion haliaetus*	R
Mississippi kite	*Ictinia mississippiensis*	E
Gyrfalcon	*Falco rusticolus*	E
Prairie falcon	*Falco mexicanus*	D
Peregrine falcon	*Falco peregrinus*	C
Merlin	*Falco columbarius*	D
American kestrel	*Falco sparverius*	C
GALLIFORMES		

BIRD SPECIES LIST

Common Name	Scientific Name	Status[1]
Sharp-tailed grouse	*Pedioecetes phasianellus*	D
Northern bobwhite	*Colinus virginianus*	R
Ring-necked pheasant	*Phasianus colchicus*	C
Wild turkey	*Meleagris gallopavo*	C
Gray partridge	*Perdix perdix*	D
GRUIFORMES		
Sandhill crane	*Grus canadensis*	D
Virginia rail	*Rallus limicola*	D
Sora	*Porzana carolina*	D
American coot	*Fulica americana*	D
CHARADRIIFORMES		
Semipalmated plover	*Charadrius semipalmatus*	R
Mountain plover	*Charadrius montainus*	E
Piping plover	*Charadrius melodus*	R
Snowy plover	*Charadrius alexandrinus*	R
Killdeer	*Charadrius vociferus*	C
American golden plover	*Pluvialis dominica*	R
Black-bellied plover	*Pluvialis squatarola*	D
Hudsonian godwit	*Limosa haemastica*	E
Marbled godwit	*Limosa fedoa*	D
Whimbrel	*Numenius phaeopus*	R
Long-billed curlew	*Numenius americanus*	C
Upland sandpiper	*Bartramia longicauda*	C
Greater yellowlegs	*Tringa melanoleuca*	D
Lesser yellowlegs	*Tringa flavipes*	D
Solitary sandpiper	*Tringa solitaria*	D
Willet	*Tringa semipalmata*	D
Spotted sandpiper	*Actitis macularia*	D
Wilson's snipe	*Gallinago delicata*	D
Short-billed dowitcher	*Limnodromus griseus*	R
Long-billed dowitcher	*Limnodromus scolopaceus*	D
Red knot	*Calidris canutus*	R
Sanderling	*Calidris alba*	D
Dunlin	*Calidris alpina*	E
Semipalmated sandpiper	*Calidris pusillus*	D
Western sandpiper	*Calidris mauri*	R
Least sandpiper	*Calidris minutilla*	D
White-rumped sandpiper	*Calidris fuscicollis*	R
Baird's sandpiper	*Calidris bairdii*	D
Pectoral sandpiper	*Calidris melanotos*	R
Stilt sandpiper	*Calidris himantopus*	D
Buff-breasted sandpiper	*Tryngites subrufficollis*	R

BIRD SPECIES LIST

Common Name	Scientific Name	Status[1]
Black-necked stilt	*Himantopus mexicanus*	E
American avocet	*Recurvirostra americana*	D
Wilson's phalarope	*Phalaropus tricolor*	D
Red-necked phalarope	*Phalaropus lobatus*	D
Parasitic jaeger	*Stercorarius parasiticus*	R
Black-headed gull	*Chroicocephalus ridibundus*	R
Herring gull	*Larus argentatus*	R
California gull	*Larus californicus*	R
Ring-billed gull	*Larus delawarensis*	D
Franklin's gull	*Larus pipixcan*	D
Bonaparte's gull	*Larus philadelphia*	R
Sabine's gull	*Xema sabini*	E
Caspian tern	*Hydroprogne caspia*	E
Forster's tern	*Sterna forsteri*	D
Common tern	*Sterna hirundo*	R
Least tern	*Sterna antillarum*	R
Black tern	*Chlidonias niger*	D
COLUMBIFORMES		
Mourning dove	*Zenaidura macroura*	C
Rock dove	*Columba livia*	C
Inca dove	*Columbina inca*	E
Eurasian collared dove	*Streptopelia decaocto*	C
CUCULIFORMES		
Yellow-billed cuckoo	*Coccyzus americanus*	D
Black-billed cuckoo	*Coccyzus erythropthalmus*	D
STRIGIFORMES		
Barn owl	*Tyto alba*	D
Eastern screech-owl	*Megascops asio*	D
Great horned owl	*Bubo virginianus*	C
Snowy owl	*Bubo scandiacus*	R
Burrowing owl	*Athene cunicularia*	C
Long-eared owl	*Asio otus*	R
Short-eared owl	*Asio flammeus*	D
Northern saw-whet owl	*Aegolius acadicus*	D
CAPRIMULGIFORES		
Common poorwill	*Phalaenoptilus nuttallii*	D
Common nighthawk	*Chordeiles minor*	C
APODIFORMES		
Chimney swift	*Chaetura pelagica*	D
White-throated swift	*Aeronautes saxatalis*	D
Broad-tailed hummingbird	*Selasphorus platycercus*	R

BIRD SPECIES LIST

Common Name	Scientific Name	Status[1]
Rufous hummingbird	*Selasphorus rufus*	R
CORACIIFORMES		
Belted kingfisher	*Ceryle alcyon*	C
PICIFORMES		
Northern flicker	*Colaptes auratus*	C
Red-bellied woodpecker	*Melanerpes carolinus*	R
Red-headed woodpecker	*Melanerpes erythrocephalus*	C
Lewis' woodpecker	*Melanerpes lewis*	D
Red-naped sapsucker	*Sphyrapicus nuchalis*	E
Yellow-bellied sapsucker	*Sphyrapicus varius*	R
Hairy woodpecker	*Picoides villosus*	C
Downy woodpecker	*Picoides pubescens*	D
PASSERIFORMES		
Eastern kingbird	*Tyrannus tyrannus*	C
Western kingbird	*Tyrannus verticalis*	C
Cassin's kingbird	*Tyrannus vociferans*	R
Scissor-tailed flycatcher	*Tyrannus forficatus*	R
Ash-throated flycatcher	*Myiarchus cinerascens*	E
Great crested flycatcher	*Myiarchus crinitus*	D
Eastern phoebe	*Sayornis phoebe*	D
Say's phoebe	*Sayornis saya*	C
Black phoebe	*Sayornis nigricans*	D
Willow flycatcher	*Empidonax traillii*	D
Least flycatcher	*Empidonax minimus*	D
Hammond's flycatcher	*Empidonax hammondii*	R
Cordilleran flycatcher	*Empidonax occidentalis*	E
Eastern wood-pewee	*Contopus virens*	D
Western wood-pewee	*Contopus sordidulus*	C
Olive-sided flycatcher	*Contopus cooperi*	R
Horned lark	*Eremophila alpestris*	C
Violet-green swallow	*Tachycineta thalassina*	D
Tree swallow	*Tachycineta bicolor*	D
Bank swallow	*Riparia riparia*	C
Northern rough-winged swallow	*Stelgidopteryx serripennis*	D
Barn swallow	*Hirundo rustica*	C
Cliff swallow	*Petrochelidon pyrrhonota*	C
Purple martin	*Progne subis*	R
Gray jay	*Perisoreus canadensis*	R
Blue jay	*Cyanocitta cristata*	C
Stellar's jay	*Cyanocitta stelleri*	R

BIRD SPECIES LIST

Common Name	Scientific Name	Status[1]
Black-billed magpie	*Pica hudsonia*	D
American crow	*Corvus branchyrhynchos*	C
Common raven	*Corvus corax*	C
Pinyon jay	*Gymnorhinus cyanocephalus*	C
Clark's nutcracker	*Nucifraga columbiana*	R
Black-capped chickadee	*Poecile atricapillus*	C
Tufted titmouse	*Baeolophus bicolor*	R
White-breasted nuthatch	*Sitta carolinensis*	C
Red-breasted nuthatch	*Sitta canadensis*	C
Pygmy nuthatch	*Sitta pygmaea*	C
Brown creeper	*Certhia americana*	D
American dipper	*Cinclus mexicanus*	R
House wren	*Troglodytes aedon*	C
Winter wren	*Troglodytes troglodytes*	R
Bewick's wren	*Thryomanes bewickii*	R
Marsh wren	*Cistothorus palustris*	D
Canyon wren	*Catherpes mexicanus*	R
Rock wren	*Salpinctes obsoletus*	D
Northern mockingbird	*Mimus polyglottos*	C
Gray catbird	*Dumetella carolinensis*	D
Brown thrasher	*Toxostoma rufum*	C
Sage thrasher	*Orescoptes montanus*	R
American robin	*Turdus migratorius*	C
Wood thrush	*Hylocichla mustelina*	D
Hermit thrush	*Catharus guttatus*	D
Swainson's thrush	*Catharus ustulatus*	D
Gray-cheeked thrush	*Catharus minimus*	D
Veery	*Catharus fuscenscens*	D
Eastern bluebird	*Sialia sialis*	C
Mountain bluebird	*Sialia currucoides*	C
Townsend's solitaire	*Myadestes townsendi*	D
Blue-gray gnatcatcher	*Polioptila caerulea*	R
Golden-crowned kinglet	*Regulus satrapa*	R
Ruby-crowned kinglet	*Regulus calendula*	D
American pipit	*Anthus rubescens*	E
Bohemian waxwing	*Bombycilla garrulus*	D
Cedar waxwing	*Bombycilla cedrorum*	D
Northern shrike	*Lanius excubitor*	D
Loggerhead shrike	*Lanius ludovicianus*	C
European starling	*Sturnus vulgaris*	C
White-eyed vireo	*Vireo griseus*	R

BIRD SPECIES LIST

Common Name	Scientific Name	Status[1]
Bell's vireo	*Vireo bellii*	D
Yellow-throated vireo	*Vireo flavifrons*	R
Blue-headed vireo	*Vireo solitarius*	R
Plumbeous vireo	*Vireo plumbeus*	E
Red-eyed vireo	*Vireo olivaceus*	D
Philadelphia vireo	*Vireo philadelphicus*	R
Warbling vireo	*Vireo gilvus*	D
Black and white warbler	*Mniotilta varia*	D
Prothonotary warbler	*Protonotaria citrea*	R
Tennessee warbler	*Vermivora peregrina*	D
Orange-crowned warbler	*Vermivora celata*	D
Nashville warbler	*Vermivora ruficapilla*	D
Northern parula	*Parula americana*	R
Yellow warbler	*Dendroica petechia*	C
Magnolia warbler	*Dendroica magnolia*	R
Cape May warbler	*Dendroica tigrina*	R
Yellow-rumped warbler	*Dendroica coronata*	D
Townsend's warbler	*Dendroica townsendi*	R
Black-throated green warbler	*Dendroica virens*	R
Cerulean warbler	*Dendroica cerulea*	R
Blackburnian warbler	*Dendroica fusca*	R
Chestnut-sided warbler	*Dendroica pensylvanica*	R
Blackpoll warbler	*Dendroica striata*	D
Palm warbler	*Dendroica palmarum*	R
Ovenbird	*Seiurus aurocapillus*	D
Northern waterthrush	*Seiurus noveboracensis*	D
Mourning warbler	*Oporornis philadelphia*	R
MacCillivray's warbler	*Oporornis tolmiei*	R
Common yellowthroat	*Geothlypis trichas*	C
Yellow-breasted chat	*Icteria virens*	D
Golden-winged warbler	*Vermivora chrysoptera*	E
Hooded warbler	*Wilsonia citrina*	R
Wilson's warbler	*Wilsonia pusilla*	D
American redstart	*Setophaga ruticilla*	D
House sparrow*	*Passer domesticus*	D
Bobolink	*Dolichonyx oryzivorus*	C
Eastern meadowlark	*Sturnella magna*	D
Western meadowlark	*Sturnella neglecta*	C
Yellow-headed blackbird	*Xanthocephalus xanthocephalus*	D
Red-winged blackbird	*Agelaius phoeniceus*	C
Orchard oriole	*Icterus spurius*	D

BIRD SPECIES LIST

Common Name	Scientific Name	Status[1]
Baltimore oriole	*Icterus galbula*	E
Bullock's oriole	*Icterus bullockii*	D
Rusty blackbird	*Euphagus carolinus*	R
Brewer's blackbird	*Euphagus cyanocephalus*	C
Common grackle	*Quiscalus quiscula*	C
Brown-headed cowbird	*Molothrus ater*	C
Western tanager	*Piranga ludoviciana*	D
Scarlet tanager	*Piranga olivacea*	D
Northern cardinal	*Cardinalis cardinalis*	R
Rose-breasted grosbeak	*Pheucticus ludovicianus*	E
Black-headed grosbeak	*Pheucticus melanocephalus*	R
Blue grosbeak	*Passerina caerulea*	D
Indigo bunting	*Passerina cyanea*	D
Lazuli bunting	*Passerina amoena*	D
Dickcissel	*Spiza americana*	R
Evening grosbeak	*Coccothraustes vespertinus*	D
Purple finch	*Carpodacus purpureus*	R
Cassin's finch	*Carpodacus cassinii*	R
House finch	*Carpodacus mexicanus*	D
Pine grosbeak	*Pinicola enucleator*	E
Gray-crowned rosy finch	*Leucosticte tephrocotis*	R
Common redpoll	*Carduelis flammea*	R
Pine siskin	*Carduelis pinus*	D
American goldfinch	*Carduelis tristis*	C
Lesser goldfinch	*Carduelis psaltria*	E
Red crossbill	*Loxia curvirostra*	C
White-winged crossbill	*Loxia leucoptera*	R
Green-tailed towhee	*Pipilo chlorurus*	R
Spotted towhee	*Pipilo maculatus*	C
Lark bunting	*Calamospiza melanocoryx*	C
Savannah sparrow	*Passerculus sandwichensis*	D
Grasshopper sparrow	*Ammodramus savannarum*	C
Vesper sparrow	*Pooecetes gramineus*	C
Lark sparrow	*Chondestes grammacus*	C
Black-throated sparrow	*Amphispiza bilineata*	R
Dark-eyed junco	*Junco hyemalis*	D
American tree sparrow	*Spizella arborea*	D
Chipping sparrow	*Spizella passerina*	C

BIRD SPECIES LIST

Common Name	Scientific Name	Status[1]
Clay-colored sparrow	*Spizella pallida*	C
Brewer's sparrow	*Spizella breweri*	D
Field sparrow	*Spizella pusilla*	R
Harris' sparrow	*Zonotrichia querula*	R
White-crowned sparrow	*Zonotrichia leucophrys*	D
White-throated sparrow	*Zonotrichia albicollis*	R
Fox sparrow	*Passerella iliaca*	R
Lincoln's sparrow	*Melospiza lincolnii*	D
Swamp sparrow	*Melospiza georgiana*	R
Song sparrow	*Melospiza melodia*	D
McCown's longspur	*Calcarius mccownii*	D
Lapland longspur	*Calcarius lapponicus*	D
Chestnut-collared longspur	*Calcarius ornatus*	D
Snow bunting	*Plectyrophenax nivalis*	D

1 C Confirmed during field surveys in 2011.
D Documented in the 1982 baseline study.
E Expected to occur - historical or recent evidence.
R Reported by knowledgeable individual(s).

Appendix H-4

Amphibian and Reptile Species List

HERP SPECIES LIST FOR DAWES AND SIOUX COUNTIES, NEBRASKA

Common Name	Scientific Name	Status[1]
AMPHIBIANS		
Eastern tiger salamander	*Ambystoma tigrinum*	
Great plains toad	*Bufo cognatus*	D
Woodhouse's toad	*Bufo woodhousii*	D
Western chorus frog	*Pseudacris triseriata*	D
Plains spadefoot toad	*Spea bombifrons*	C
Northern leopard frog	*Rana pipiens*	C
Bullfrog	*Rana catesbeiana*	D
REPTILES		
Lesser earless lizard	*Holbrookia maculata*	
Great short-horned lizard	*Phrynosoma hernandesi*	
Northern prairie lizard	*Sceloporus undulatus garmani*	
Many-lined skink	*Eumeces multivirgatus*	R
Bullsnake	*Pituophis catenifer sayi*	D
Eastern yellow-bellied racer	*Coluber constrictor flaviventris*	D
Plains garter snake	*Thamnophis radix*	D
Red-sided garter snake	*Thamnophis sirtalis parietalis*	D
Plains hognose snake	*Heterodon nasicus nasicus*	
Prairie rattlesnake	*Crotalus viridis viridis*	
Western terrestrial garter snake	*Thamnophis elegans*	R
Central plains milk snake	*Lampropeltis triangulum*	R
Northern water snake	*Nerodia sipedon*	R
Common snapping turtle	*Chelydra serpentina*	C
Painted turtle	*Chrysemys picta*	D

1. C Confirmed during field surveys in 2011.
   D Documented by Nebraska Game and Parks Commission or during 1982 baseline study for Crow Butte Mine.
   R Rare but possible

Appendix H-5

Fish Species List

FISH SPECIES LIST

Family/Common Name	Scientific Name	Status[1]
CATOSTOMIDAE		
River carpsucker	*Carpiodes carpio*	R
Longnose sucker	*Catostomus catostomus*	R
White sucker	*Catostomus commersoni*	C
CENTRARCHIDAE		
Green sunfish	*Lepomis cyanellus*	C
Bluegill	*Lepomis macrochirus*	D
Smallmouth bass	*Micropterus dolomieui*	R
Largemouth bass	*Micropterus salmoides*	D
Rock Bass	*Ambloplites rupestrinis*	D
Black crappie	*Pomoxis nigromaculatus*	D
CYPRINIDAE		
Common carp	*Cyprinus carpio*	D
Plains minnow	*Hybognathus placitus*	D
Flathead chub	*Platygobio gracilis*	R
Common shiner	*Luxilus cornutus*	D
Golden shiner	*Notemigonus crysoleucas*	D
Red shiner	*Cyprinella lutrensis*	C
Sand shiner	*Notropis stramineus*	D
Fathead minnow	*Pimephales promelas*	D
Longnose dace	*Rhinichthys cataractae*	D
Creek chub	*Semotilus atromaculatus*	D
CYPRINODONTIDAE		
Plains topminnow	*Fundulus sciadicus*	D
ESOCIDAE		
Northern pike	*Esox lucius*	C
HIODONTIDAE		
Goldeye	*Hiodon alosoides*	R
ICTALURIDAE		
Black bullhead	*Ameiurus melas*	D
Channel catfish	*Ictalurus punctatus*	R
Stonecat	*Noturus flavus*	R
PERCICHTHYIDAE		
White bass	*Morone chrysops*	D
PERCIDAE		
Walleye	*Sander vitreus*	D
SALMONIDAE		
Rainbow trout	*Oncorhynchus mykiss*	D
Brown trout	*Salmo trutta*	D
Brook trout	*Salvelinus fontinalis*	D

1 C Confirmed during field surveys in 2011.
D Documented during 1982 and 1996 baseline studies.
R Reported by knowledgeable individual(s).

Appendix H-6

Macroinvertebrate Species and Relative Abundance

BENTHIC MACROINVERTEBRATE COMMUNITY VALUES IN APRIL 1982 AND SEPTEMBER 1996

Sampling Locations

	Streams																Impoundments										
Parameter/ Sample	E-1	E-2	E-3	S-1	S-2	S-2	S-3	S-4	WC-1	WC-2	W-1	W-2	W-1a*	B-1*	C-1*	SL-1*	1	2	3	4	5	6	7	8	9	10*	11*
Sampling Method**	P	P	P	S	P	S	S	P	P	P	P	P	H	D	D	D	P	P	P	P	P	P	P	P	P	D	D
Density (Org./m^2)	13090	1745	3399	706	5729	897	5896	3062	5435	428	352	5818	786	560	1711	840	15	7237	8972	4792	4731	138	980	276	10242	710	689
Diversity ()	0.49	1.0	1.02	3.18	0.19	1.34	1.15	1.84	1.33	1.16	1.03	1.14	2.10	2.55	3.37	2.95	0	0.93	0.93	1.21	1.06	0	1.60	0	1.69	2.19	2.09
No. of Taxa	11	9	7	22	5	8	16	9	8	4	3	7	10	11	21	19	1	8	8	9	6	1	7	1	13	9	8
Community Structure (% Occurrence)																											
Taxon																											
Chironomidae	0.9	17.5	82.0	10.7	98.1	18.0	14.1	45.5	71.8	42.9	47.8	72.4	9.6	5.8	0.6	0.0	0.0	3.8	19.2	12.3	87.7	48.4	100	37.4	33.6	0.0	3.1
Oligochaeta	0.0	1.8	5.0	3.6	0.8	3.2	0.2	36.0	14.4	50.0	47.8	19.7	1.9	0.0	2.6	0.0	100	89.8	78.3	81.3	3.6	39.1	0.0	39.5	19.1	0.0	0.0
Ephemeroptera	0.0	0.0	0.0	20.3	0.0	65.2	6.8	0.0	0.0	0.0	0.0	7.9	6.8	36.5	10.7	6.4	0.0	0.0	0.0	0.9	0.0	4.7	0.0	16.6	7.0	4.5	1.6
Trichoptera	0.0	0.0	0.5	37.1	0.5	0.4	0.5	0.0	0.0	0.0	4.3	0.5	79.5	5.8	0.6	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0
Ceratopogonidae	94.5	56.1	0.0	0.5	0.0	0.4	0.2	1.0	8.7	7.1	0.0	0.3	0.0	0.0	0.0	0.0	0.0	1.7	0.6	0.0	0.0	0.0	0.0	4.2	14.5	0.0	0.0
Simulidae	0.0	0.0	0.0	8.6	0.0	11.6	76.8	0.0	0.0	0.0	0.0	0.0	0.0	28.8	1.9	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0

* September 24, 1996 Sample Stations

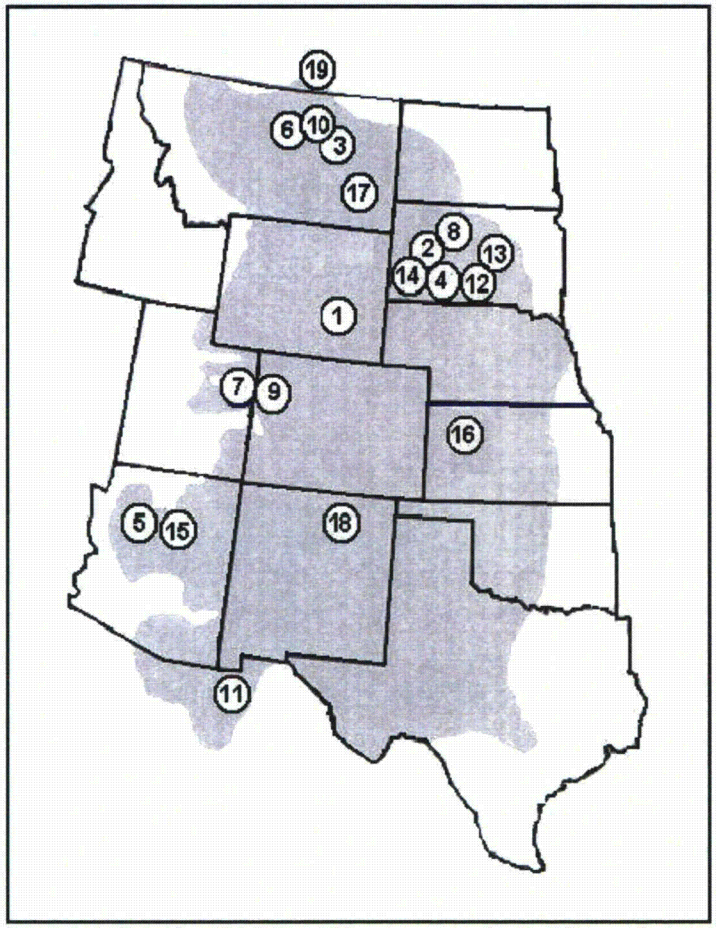
** P = Ponar Dredge Sample; S = Surber Sample; H = HESS Sample; D = Dip Net Sample

Org./m^2 Organisms Per Square Meter

Appendix H-7

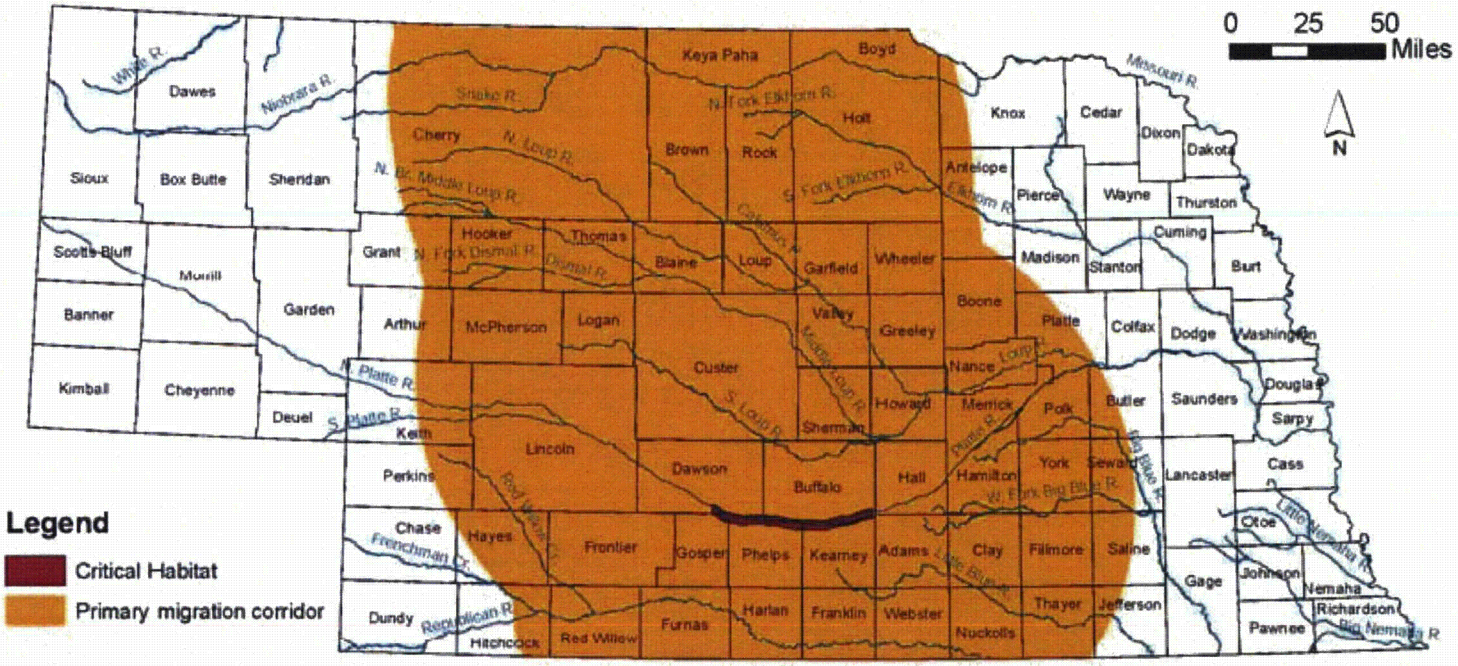
Range Maps for State and Federally Listed Threatened and Endangered Species for Dawes County, Nebraska

Black-footed Ferret Reintroduction Sites



1) Shirley Basin, WY, 1991
2) Badlands NP, SD, 1994
3) UL Bend NWR, MT, 1994
4) Conata Basin, SD, 1996
5) Aubrey Valley, AZ, 1996
6) Ft. Belknap Indian Reservation, MT, 1997
7) Coyote Basin, UT, 1999
8) Cheyenne River Indian Reservation, SD, 2000
9) Wolf Creek, CO, 2001
10) BLM 40-complex, MT, 2001
11) Janos, Mexico, 2001
12) Rosebud Indian Reservation, SD, 2004
13) Lower Brule Indian Reservation, SD, 2006
14) Wind Cave NP, SD, 2007
15) Espee Ranch, AZ, 2007
16) Logan County, KS, 2007
17) Northern Cheyenne Indian Reservation, MT 2008
18) Vermejo Park Ranch, NM 2008
19) Grasslands NP, SK, Canada, 2009

Whooping Crane (*Grus americana*): Primary migration corridor and USFWS-designated Critical Habitat

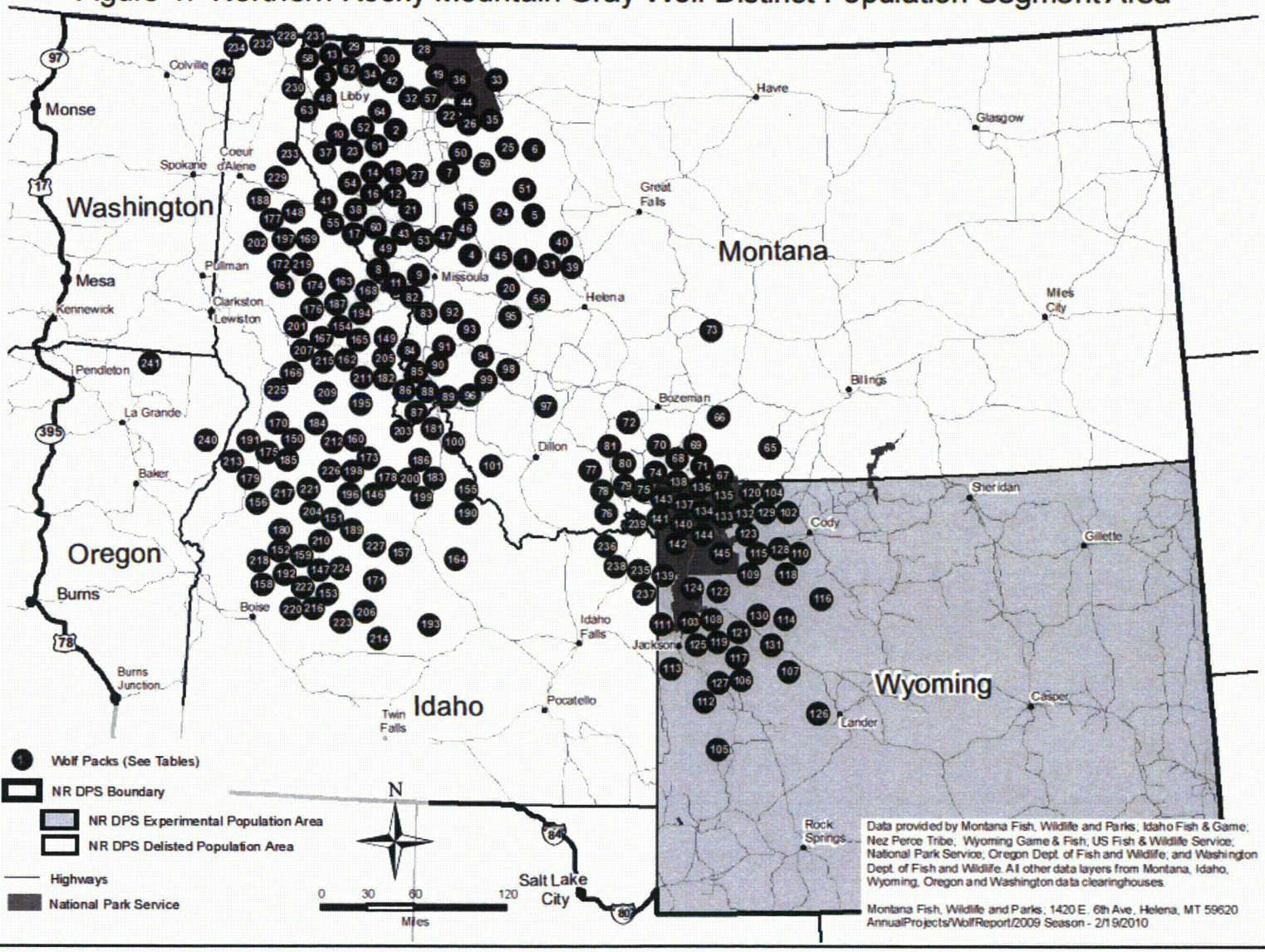


The primary migration corridor is the area identified by the U.S. Fish and Wildlife Service (USFWS) as encompassing 95% of documented Whooping Crane migratory stopovers between 1975 and 2007. Whooping Cranes have been documented far outside of this corridor in Nebraska. Data source: U.S. Fish and Wildlife Service. State-specific Nebraska flyway for Whooping Crane. Vector digital data. Unpublished shapefile received October 27, 2008 from Martha Tacha, USFWS, Region 6, Grand Island, Nebraska.

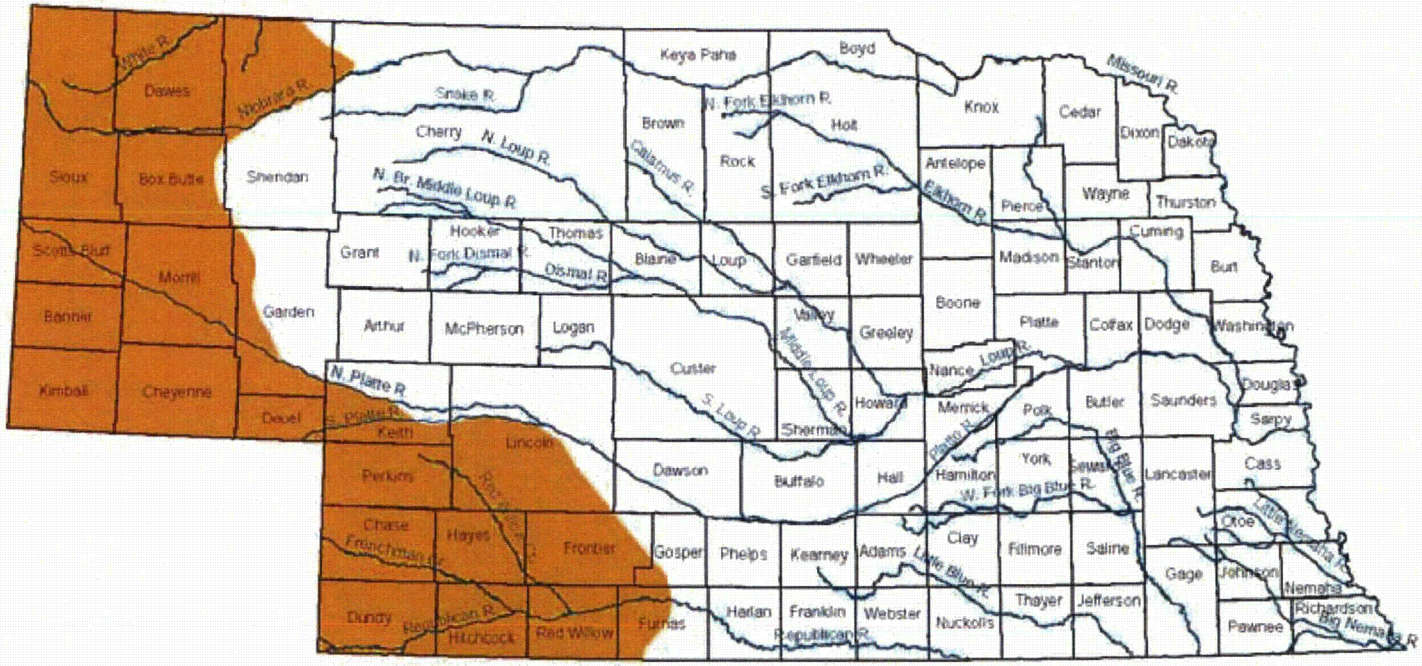
Critical Habitat areas are considered essential for the conservation of a listed species. Data source: U.S. Fish and Wildlife Service, Region 2. 2003. Whooping Crane critical habitat. Vector digital data. Downloaded October 29, 2008 from http://crithab.fws.gov.

Map produced by the Nebraska Natural Heritage Program, Nebraska Game and Parks Commission, November 2008.

Figure 1: Northern Rocky Mountain Gray Wolf Distinct Population Segment Area



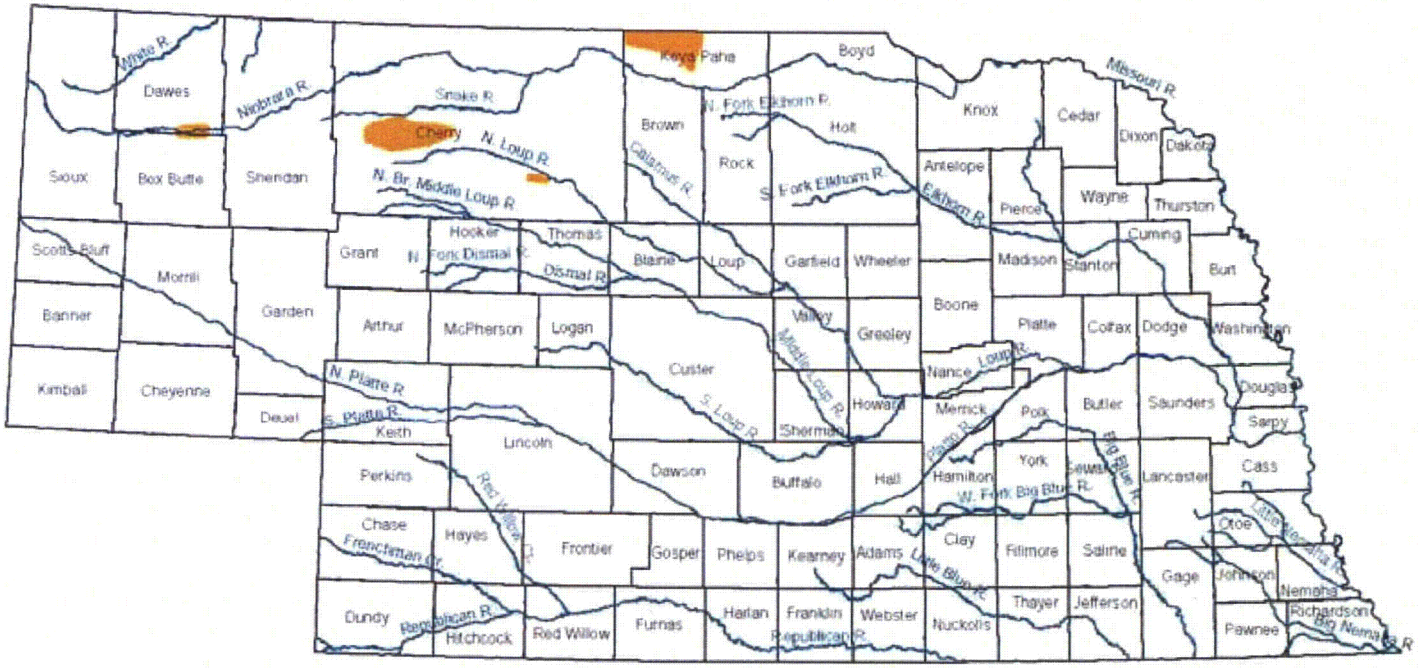
Estimated Current Range of Swift Fox (Vulpes velox)



0 25 50 Miles

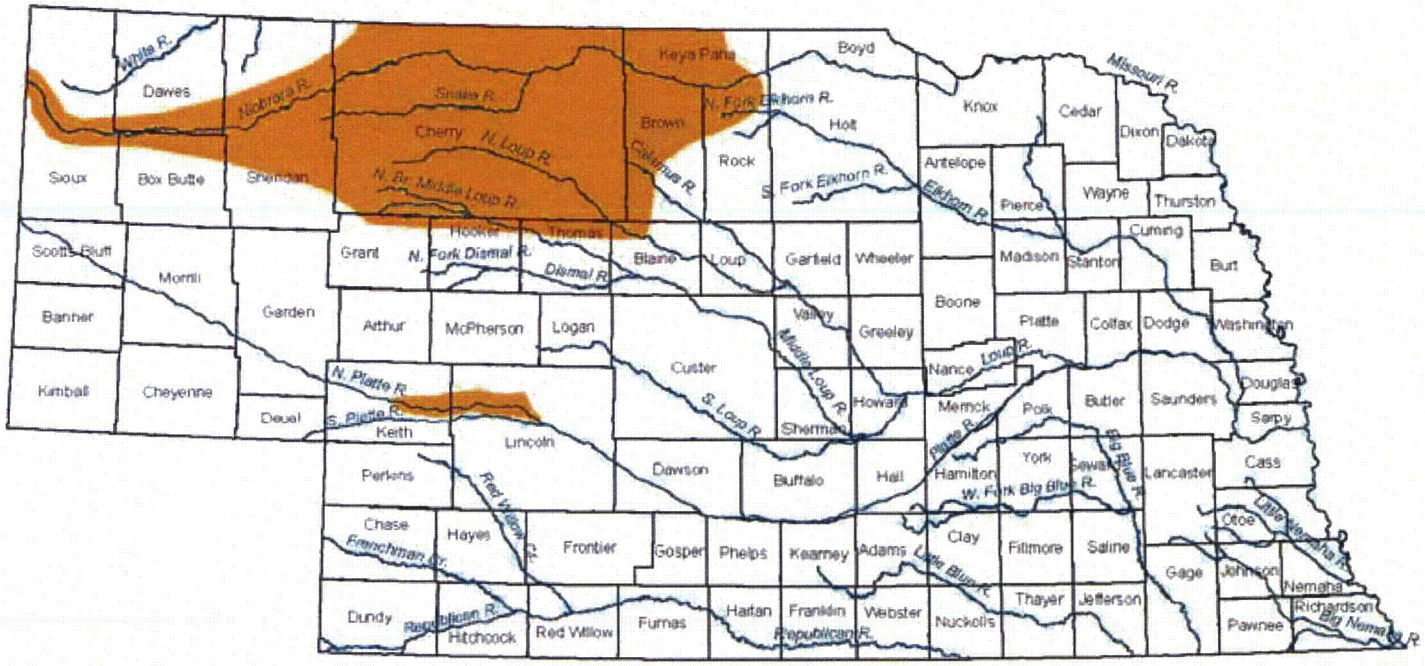
Nebraska Natural Heritage Program,
Nebraska Game and Parks Commission
June 2008

Estimated Current Range of Blacknose Shiner (Notropis heterolepis)



Nebraska Natural Heritage Program,
Nebraska Game and Parks Commission
June 2008

Estimated Current Range of Finescale Dace (*Phoxinus neogaeus*) and Northern Redbelly Dace (*Phoxinus eos*)



Nebraska Natural Heritage Program,
Nebraska Game and Parks Commission
June 2008

Appendix I

Standard Operating Procedures
for Air Particulate Samplers

STANDARD OPERATING PROCEDURE
AIR PARTICULATE SAMPLING

Cameco Resources
Crawford, Nebraska Facility

Version 1

Prepared by:

IML Air Science
Sheridan, Wyoming

June, 2011

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1.0 SCOPE AND APPLICABILITY

The purpose of this document is to define the standard operating procedure (SOP) to be followed for the collection of air sampling filters used to determine the concentrations of radionuclides in air as part of the baseline and operational radiological monitoring program at the Crow Butte facility and associated expansion facilities near Crawford, Nebraska. Air particulate samples are collected using F & J Specialty Products Models DF-75L-BL-AC and LV-1D (see operating manuals for these devices attached herewith), which have been or will be installed at permanent locations. A filter is collected from each air-sampling unit on approximately a weekly basis during a three-month quarter. The collected set of filters (typically about 13, one per week) for each air sampling unit is sent for contract laboratory analysis at the end of each quarter.

2.0 SUMMARY OF METHOD

The United States (U.S.) Nuclear Regulatory Commission's (NRC) Regulatory Guide 4.14 (*Radiological Effluent and Environmental Monitoring at Uranium Mills*) requires a year of preoperational data collection via continuously operating air samplers. Quarterly composites are to be analyzed for naturally occurring radionuclides as discussed below. Figure 1 presents the location of the air particulate samplers. Table 1 presents their GPS locations. The technical basis and rationale for selection of these locations is in accordance with the guidance presented in NRC Regulatory Guide 4.14.

The requirement for weekly collection and replacement of air filters is flexible. Unsafe weather conditions are sufficient cause to delay filter replacement for a day or more. The principal driver for this SOP is that air sampling should be essentially continuous, allowing the contract laboratory to meet minimum detectable activity (MDA) requirements for specific radionuclides as specified in Regulatory Guide 4.1.4 and in accordance with the quality assurance requirements described in NRC Regulatory Guide 4.15 (*Quality Assurance for Radiological Monitoring Programs (Normal Operations) – Effluent Streams and the Environment*). This means that, if a specific filter exchange is delayed for a day or several days, the sampling record remains continuous and the MDA can be met, since one filter may represent eight or more days of sampling while the next may represent six or fewer days, but the collection of sample filters during any quarter still represents 13 weeks of essentially continuous air sample collection.

A warning in this context is necessary, although it is not expected to be an issue in rural Nebraska. In severely dusty conditions, the sampling filters could become plugged with dust after <u>fewer</u> than 7 days. This will be apparent since the air sampler flow rate will drop significantly from the normal 56-60 liters per minute (lpm at local temperature and pressure) if filter plugging occurs. A sampler flow rate less than about 50 lpm is evidence of such dust plugging. During a period (such as a severe dust storm) when such plugging is likely, filters should be exchanged more often than the normal weekly requirement, recognizing the overriding need for personnel safety during such an

exchange. Experience will determine whether early filter exchanges may be necessitated by extremely dusty conditions. To gain this experience, following a dust storm the sampling units should be visited and the air sampler pump displays checked to determine whether the flow rate has been significantly reduced. If the flow rate is approaching the lower limit of 50 lpm, the filter should be exchanged (using this SOP).

Air sample filters will be analyzed by a contract laboratory for radiological constituents to determine airborne concentrations. Air samplers draw air and suspended particulate matter through the 47 millimeter (mm) collection filters at known volumetric flow rates for known periods of time. All respirable air particulate matter is assumed to be captured by the filters.

The filters are analyzed by a radiochemical laboratory to determine activity of each specified radionuclide (Ra-226, Th-230, Pb-210, and Natural (total) Uranium). Laboratory-reported specific radionuclide activities for the composite filter set are divided by the total volume of air that passed through the air filters over the quarterly sampling period to determine the average air concentrations for each radionuclide for the period sampled at that specific sampling location.

3.0 SAFETY

The following precautions should be taken when working at the air particulate monitoring stations:

- Regularly survey the area surrounding the air sampler location to be sure it is free of snakes or other hazardous biota or poisonous plants. Pay particular attention to areas that are not clearly visible and avoid stepping in or placing hands in locations with potential hidden dangers.
- Watch out for loose rocks and unstable footing.
- Inspect air filter sample envelopes and ziplock bags for cleanliness prior to use. Such containers shall not be reused, nor shall they be used if there is any question as to their origin. If applicable, sample containers supplied by or recommended by the contract laboratory shall be used.
- Clean hands immediately prior to sample collection and wear latex or nitrile gloves to ensure that samples are not contaminated. Clean sample handling tweezers between uses.
- Latex gloves should be discarded after sample collection at each location and new gloves worn.
- Appropriate footwear, long trousers and snake chaps should be used as determined to be appropriate by the site manager.
- Operate and handle all equipment, filters, and other key items in accordance with manufacturer specifications.

4.0 PERSONNEL QUALIFICATIONS AND RESPONSIBILITIES

The following sections summarize personnel responsibilities.

4.1 Project Manager or Site Manager

The Project Manager or Site Manager is responsible for:

- Providing appropriate support and resources to support the air particulate monitoring program
- Ensuring the oversight of all monitoring activities
- Ensuring that all individuals involved with implementing the air particulate monitoring are properly trained in the procedures outlined in this SOP

4.2 Project or Site Radiation Safety Officer (RSO)

The Radiation Safety Officer is responsible for:

- Ensuring compliance with radiation safety requirements during all sampling operations
- Providing appropriate radiation safety training for the sampling technician(s) as required
- Reviewing vendor supplied data when received for completeness and accuracy and using this data to calculate results for the air particulate monitoring program and to ensure program technical objectives are being met

4.3 Field Technician

Field Technicians are responsible for:

- Observing all safety requirements
- Following this SOP and completing all required documentation with the appropriate information
- Completing and maintaining quality assurance records (i.e. sample chain of custody forms and logbook entries as specified herein)
- Informing the Project Manager or Site Supervisor of monitoring activities which do not conform to specific requirements, and for carrying out any directions from the Site Supervisor or RSO to address any non-compliant monitoring activities

5.0 EQUIPMENT AND SUPPLIES

The following equipment is required for air filter collection:

- Appropriate safety clothing and other safety gear
- Air filter containers (new air filter sample envelopes and new plastic ziplock bags)

- Permanent marking pen (Sharpie, e.g.)
- New air filters (47 mm Teflon filters, specified by contract laboratory)
- Tweezers (to grasp edge of filter without contacting sampling area), or spare filter holders with filter pre-loaded, to exchange with filter holder in field
- Field log book
- Disposable gloves
- Water and clean, soft cotton cloth.

6.0 PROCEDURE

The following sections describe the procedures that should be followed when implementing the Air Particulate Sampling SOP.

6.1 Air Sampler Operation

See F & J Specialty Products operating manuals for Models DF-75L-BL-AC and LV-1D provided as attachments to this procedure.

6.2 Sampling Filter Replacement

The following section describes how to properly replace air sample filters.

- Extract air sample filter holder using the quick disconnect under the protective hood that shields the filter holder; unscrew filter holder ring and, using tweezers, gently remove air filter without contacting either surface of the filter. Take care in a windy environment not to allow the filter to blow loose or particulate to fall off the filter.
- Place the removed filter inside a clean, protective Petri dish and close the Petri dish.
- Place the closed Petri dish into a clean, pink zip-lock bag and seal the bag.
- With the Sharpie pen, mark today's date, the air sampler location and the air sampler's ID number on the zip-lock bag.
- Note filter removal date, sampler location, sampler ID and other information as specified in this SOP in the field logbook.
- Clean the air sample filter holder using a soft cloth. Using the tweezers carefully install a new filter without touching either side of the sampling area. Hand-tighten the filter holder ring, keeping the filter centered properly.
- Reconnect the air sample filter holder to the quick disconnect under the protective hood.
- Record current conditions (time of day, weather, temperature, any unusual conditions) in the sampling log book.

6.3 Sample Handling

The following describes procedures for handling air filter samples.

- Weekly air filters collected from each air sampler should be stored together in a larger ziplock bag marked with that sampler's location and ID #.
- No special preservation measures are required during collection and storage of each quarter's (three months) of air filters. The ziplock bags holding each collection of filters should be stored securely in a locked cabinet to prevent tampering or loss.
- At the end of each quarter, each large ziplock bag, containing the 13 air filters in their envelopes inside the smaller ziplock bags, should be packaged and delivered as quickly as possible to the designated contract laboratory, accompanied by paperwork as required by the laboratory and specified herein. Of critical importance is that the large bags be properly marked and sealed, and shipped in strong, tight containers suitable for rough handling and long distance shipment, with complete instructions for contract laboratory processing, analysis and data reporting included.

7.0 DATA AND RECORDS MANAGEMENT

All information pertinent to field sampling must be recorded in a log book. The field log book should be a bound book, with consecutively numbered pages. A log entry shall contain at a minimum the following information:

- Air sampler identification number
- Purpose of sampling ("Radionuclide air concentration measurement.")
- Location of sampler
- Name of sampling technician
- Date and time of sampling
- Analyses to be performed

Sampling situations can vary. The best guideline is to record sufficient information such that the sampling event could be reconstructed if necessary, without relying on the sampling technician's memory. Completed field log book(s) shall be maintained and filed chronologically.

8.0 QUALITY ASSURANCE AND QUALITY CONTROL

9.0 REFERENCES

United States NRC Regulatory Guide 4.14, *Radiological Effluent and Environmental Monitoring at Uranium Mills, Revision 1.* 1980

United States NRC Regulatory Guide 4.15, *Quality Assurance for Radiological Monitoring Programs (Normal Operations) – Effluent Streams and the Environment.* 1979

Appendix J

Groundwater Analytical Lab Results

ANALYTICAL SUMMARY REPORT

April 28, 2011

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C11030099 Quote ID: C1125 - Crow Butte Uranium

Project Name: Marsland Baseline Samples

Energy Laboratories, Inc. Casper WY received the following 2 samples for Crow Butte Resources on 3/2/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11030099-001	E. Driller's Well	02/25/11 0:00	03/02/11	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Uranium, Suspended Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C11030099-002	W. Driller's Well	02/25/11 0:00	03/02/11	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Crow Butte Resources
Project: Marsland Baseline Samples
Sample Delivery Group: C11030099

Report Date: 04/28/11

CASE NARRATIVE

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

BRANCH LABORATORY SUBCONTRACT ANALYSIS
Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030099-001
Client Sample ID: E. Driller's Well

Report Date: 04/28/11
Collection Date: 02/25/11
DateReceived: 03/02/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	157	mg/L		1		A2320 B	03/03/11 17:48 / jba
Carbonate as CO3	ND	mg/L		1		A2320 B	03/03/11 17:48 / jba
Bicarbonate as HCO3	190	mg/L		1		A2320 B	03/03/11 17:48 / jba
Calcium	33	mg/L		1		E200.7	03/07/11 19:47 / cp
Chloride	3	mg/L		1		E300.0	03/05/11 00:54 / ljl
Fluoride	0.5	mg/L		0.1		A4500-F C	03/04/11 10:35 / jba
Magnesium	9	mg/L		1		E200.7	03/07/11 19:47 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/08/11 15:41 / dc
Nitrogen, Nitrate+Nitrite as N	1.0	mg/L		0.1		E353.2	03/03/11 15:35 / dc
Potassium	3	mg/L		1		E200.7	03/07/11 19:47 / cp
Silica	80.3	mg/L		0.2		E200.7	03/07/11 19:47 / cp
Sodium	18	mg/L		1		E200.7	03/07/11 19:47 / cp
Sulfate	7	mg/L		1		E300.0	03/05/11 00:54 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	306	umhos/cm		1		A2510 B	03/03/11 14:37 / lr
pH	8.00	s.u.		0.01		A4500-H B	03/03/11 14:37 / lr
Solids, Total Dissolved TDS @ 180 C	227	mg/L		10		A2540 C	03/03/11 10:45 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	03/07/11 19:47 / cp
Arsenic	0.003	mg/L		0.001		E200.8	03/10/11 02:19 / sml
Barium	0.1	mg/L		0.1		E200.7	03/07/11 19:47 / cp
Boron	ND	mg/L		0.1		E200.7	03/07/11 19:47 / cp
Cadmium	ND	mg/L		0.005		E200.7	03/07/11 19:47 / cp
Chromium	ND	mg/L		0.05		E200.7	03/07/11 19:47 / cp
Copper	ND	mg/L		0.01		E200.7	03/07/11 19:47 / cp
Iron	ND	mg/L		0.03		E200.7	03/07/11 19:47 / cp
Lead	ND	mg/L		0.001		E200.8	03/10/11 02:19 / sml
Manganese	ND	mg/L		0.01		E200.7	03/07/11 19:47 / cp
Mercury	ND	mg/L		0.001		E200.8	03/10/11 02:19 / sml
Molybdenum	ND	mg/L		0.1		E200.7	03/07/11 19:47 / cp
Nickel	ND	mg/L		0.05		E200.7	03/07/11 19:47 / cp
Selenium	0.002	mg/L		0.001		E200.8	03/10/11 02:19 / sml
Uranium	0.0079	mg/L		0.0003		E200.8	03/10/11 02:19 / sml
Uranium, Activity	5.3E-09	uCi/mL		2.0E-10		E200.8	03/10/11 02:19 / sml
Vanadium	ND	mg/L		0.1		E200.7	03/07/11 19:47 / cp
Zinc	0.01	mg/L		0.01		E200.7	03/07/11 19:47 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/10/11 07:19 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/10/11 07:19 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030099-001
Client Sample ID: E. Driller's Well

Report Date: 04/28/11
Collection Date: 02/25/11
DateReceived: 03/02/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	04/23/11 05:23 / eli-cs
Lead 210 precision (±)	0.6	pCi/L				E909.0	04/23/11 05:23 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	04/23/11 05:23 / eli-cs
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	03/11/11 13:06 / ep
Polonium 210 precision (±)	0.4	pCi/L				E912.0	03/11/11 13:06 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	03/11/11 13:06 / ep
Radium 226	1.4	pCi/L		0.14		E903.0	03/14/11 17:02 / dmf
Radium 226 precision (±)	0.23	pCi/L				E903.0	03/14/11 17:02 / dmf
Radium 226 MDC	0.14	pCi/L				E903.0	03/14/11 17:02 / dmf
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	03/17/11 08:52 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	03/17/11 08:52 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	03/17/11 08:52 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.3	pCi/L	U	1.3		E909.0	03/27/11 09:26 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	03/27/11 09:26 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	03/27/11 09:26 / eli-cs
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	03/16/11 13:29 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	03/16/11 13:29 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	03/16/11 13:29 / ep
Radium 226	0.14	pCi/L		0.09		E903.0	03/27/11 13:40 / trs
Radium 226 precision (±)	0.08	pCi/L				E903.0	03/27/11 13:40 / trs
Radium 226 MDC	0.09	pCi/L				E903.0	03/27/11 13:40 / trs
Thorium 230	4.6	pCi/L		0.1		E908.0	03/14/11 14:50 / dmf
Thorium 230 precision (±)	0.8	pCi/L				E908.0	03/14/11 14:50 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/14/11 14:50 / dmf
DATA QUALITY							
A/C Balance (± 5)	-3.11	%				Calculation	03/16/11 14:47 / kbh
Anions	3.45	meq/L				Calculation	03/16/11 14:47 / kbh
Cations	3.24	meq/L				Calculation	03/16/11 14:47 / kbh
Solids, Total Dissolved Calculated	273	mg/L				Calculation	03/16/11 14:47 / kbh
TDS Balance (0.80 - 1.20)	0.830					Calculation	03/16/11 14:47 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030099-002
Client Sample ID: W. Driller's Well

Report Date: 04/28/11
Collection Date: 02/25/11
DateReceived: 03/02/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	146	mg/L		1		A2320 B	03/03/11 17:55 / jba
Carbonate as CO3	1	mg/L		1		A2320 B	03/03/11 17:55 / jba
Bicarbonate as HCO3	175	mg/L		1		A2320 B	03/03/11 17:55 / jba
Calcium	29	mg/L		1		E200.7	03/07/11 19:51 / cp
Chloride	2	mg/L		1		E300.0	03/05/11 01:09 / ljl
Fluoride	0.5	mg/L		0.1		A4500-F C	03/04/11 10:44 / jba
Magnesium	7	mg/L		1		E200.7	03/07/11 19:51 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/08/11 15:43 / dc
Nitrogen, Nitrate+Nitrite as N	1.1	mg/L		0.1		E353.2	03/16/11 12:14 / dc
Potassium	3	mg/L		1		E200.7	03/07/11 19:51 / cp
Silica	79.4	mg/L		0.2		E200.7	03/07/11 19:51 / cp
Sodium	20	mg/L		1		E200.7	03/07/11 19:51 / cp
Sulfate	10	mg/L		1		E300.0	03/05/11 01:09 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	299	umhos/cm		1		A2510 B	03/03/11 14:40 / lr
pH	8.02	s.u.		0.01		A4500-H B	03/03/11 14:40 / lr
Solids, Total Dissolved TDS @ 180 C	231	mg/L		10		A2540 C	03/03/11 10:45 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	03/07/11 19:51 / cp
Arsenic	0.006	mg/L		0.001		E200.8	03/10/11 02:25 / sml
Barium	ND	mg/L		0.1		E200.7	03/07/11 19:51 / cp
Boron	ND	mg/L		0.1		E200.7	03/07/11 19:51 / cp
Cadmium	ND	mg/L		0.005		E200.7	03/07/11 19:51 / cp
Chromium	ND	mg/L		0.05		E200.7	03/07/11 19:51 / cp
Copper	ND	mg/L		0.01		E200.7	03/07/11 19:51 / cp
Iron	ND	mg/L		0.03		E200.7	03/07/11 19:51 / cp
Lead	ND	mg/L		0.001		E200.8	03/10/11 02:25 / sml
Manganese	ND	mg/L		0.01		E200.7	03/07/11 19:51 / cp
Mercury	ND	mg/L		0.001		E200.8	03/10/11 02:25 / sml
Molybdenum	ND	mg/L		0.1		E200.7	03/07/11 19:51 / cp
Nickel	ND	mg/L		0.05		E200.7	03/07/11 19:51 / cp
Selenium	0.002	mg/L		0.001		E200.8	03/10/11 02:25 / sml
Uranium	0.0053	mg/L		0.0003		E200.8	03/10/11 02:25 / sml
Uranium, Activity	3.6E-09	uCi/mL		2.0E-10		E200.8	03/10/11 02:25 / sml
Vanadium	ND	mg/L		0.1		E200.7	03/07/11 19:51 / cp
Zinc	0.01	mg/L		0.01		E200.7	03/07/11 19:51 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/10/11 07:23 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/10/11 07:23 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030099-002
Client Sample ID: W. Driller's Well

Report Date: 04/28/11
Collection Date: 02/25/11
DateReceived: 03/02/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	04/23/11 11:58 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/23/11 11:58 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	04/23/11 11:58 / eli-cs
Polonium 210	<0.9	pCi/L	U	0.9		E912.0	03/11/11 13:06 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	03/11/11 13:06 / ep
Polonium 210 MDC	0.9	pCi/L				E912.0	03/11/11 13:06 / ep
Radium 226	0.70	pCi/L		0.15		E903.0	03/14/11 17:02 / dmf
Radium 226 precision (±)	0.18	pCi/L				E903.0	03/14/11 17:02 / dmf
Radium 226 MDC	0.15	pCi/L				E903.0	03/14/11 17:02 / dmf
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	03/17/11 08:52 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	03/17/11 08:52 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	03/17/11 08:52 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.2	pCi/L	U	1.2		E909.0	03/27/11 16:01 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	03/27/11 16:01 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	03/27/11 16:01 / eli-cs
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	03/16/11 13:29 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	03/16/11 13:29 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	03/16/11 13:29 / ep
Radium 226	0.11	pCi/L		0.1		E903.0	03/27/11 13:40 / trs
Radium 226 precision (±)	0.08	pCi/L				E903.0	03/27/11 13:40 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	03/27/11 13:40 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/14/11 14:49 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	03/14/11 14:49 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/14/11 14:49 / dmf
DATA QUALITY							
A/C Balance (± 5)	-3.29	%				Calculation	03/16/11 14:48 / kbh
Anions	3.22	meq/L				Calculation	03/16/11 14:48 / kbh
Cations	3.01	meq/L				Calculation	03/16/11 14:48 / kbh
Solids, Total Dissolved Calculated	260	mg/L				Calculation	03/16/11 14:48 / kbh
TDS Balance (0.80 - 1.20)	0.890					Calculation	03/16/11 14:48 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 04/28/11
Work Order: C11030099

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R143283
Sample ID: MBLK	3	Method Blank				Run: MANTECH_110303A				03/03/11 16:20
Alkalinity, Total as CaCO3		4	mg/L	1						
Carbonate as CO3		ND	mg/L	1						
Bicarbonate as HCO3		4	mg/L	1						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110303A				03/03/11 16:35
Alkalinity, Total as CaCO3		214	mg/L	5.0	105	90	110			
Sample ID: C11030099-002BDUP	3	Sample Duplicate				Run: MANTECH_110303A				03/03/11 18:04
Alkalinity, Total as CaCO3		149	mg/L	5.0				2.0	10	
Carbonate as CO3		ND	mg/L	5.0					10	
Bicarbonate as HCO3		181	mg/L	5.0				3.1	10	
Sample ID: C11030099-002BMS		Sample Matrix Spike				Run: MANTECH_110303A				03/03/11 18:12
Alkalinity, Total as CaCO3		277	mg/L	5.0	105	80	120			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Report Date: 04/28/11
Project: Marsland Baseline Samples
Work Order: C11030099

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: ORION555A-2_110303A		
Sample ID: ICV2_110303_1		Initial Calibration Verification Standard							03/03/11 14:21	
Conductivity @ 25 C		1390	umhos/cm	1.0	99	90	110			
Method: A2510 B								Batch: 110303_1_PH-W_555A-2		
Sample ID: MBLK1_110303_1		Method Blank				Run: ORION555A-2_110303A			03/03/11 14:18	
Conductivity @ 25 C		0.6	umhos/cm	0.2						
Sample ID: C11030104-001ADUP		Sample Duplicate				Run: ORION555A-2_110303A			03/03/11 14:46	
Conductivity @ 25 C		1090	umhos/cm	1.0				0.2	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 04/28/11
Work Order: C11030099

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: R143314
Sample ID: MBLK1_		Method Blank				Run: BAL-1_110303B				03/03/11 10:43
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	4						
Sample ID: LCS1_		Laboratory Control Sample				Run: BAL-1_110303B				03/03/11 10:43
Solids, Total Dissolved TDS @ 180 C		991	mg/L	10	99	90	110			
Sample ID: C11030105-004ADUP		Sample Duplicate				Run: BAL-1_110303B				03/03/11 10:47
Solids, Total Dissolved TDS @ 180 C		2030	mg/L	10				0.1	10	
Sample ID: C11030105-011AMS		Sample Matrix Spike				Run: BAL-1_110303B				03/03/11 10:49
Solids, Total Dissolved TDS @ 180 C		2630	mg/L	10	102	90	110			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 04/28/11
Work Order: C11030099

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R143304
Sample ID: MBLK		Method Blank				Run: MANTECH_110304A				03/04/11 09:01
Fluoride		0.02	mg/L	0.008						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110304A				03/04/11 09:04
Fluoride		1.02	mg/L	0.10	100	90	110			
Sample ID: C11030099-001BMS		Sample Matrix Spike				Run: MANTECH_110304A				03/04/11 10:38
Fluoride		1.51	mg/L	0.10	100	80	120			
Sample ID: C11030099-001BMSD		Sample Matrix Spike Duplicate				Run: MANTECH_110304A				03/04/11 10:41
Fluoride		1.51	mg/L	0.10	100	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 04/28/11
Work Order: C11030099

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION555A-2_110303A		
Sample ID: ICV1_110303_1		Initial Calibration Verification Standard							03/03/11 14:19	
pH		6.90	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 110303_1_PH-W_555A-2		
Sample ID: C11030104-001ADUP		Sample Duplicate				Run: ORION555A-2_110303A			03/03/11 14:46	
pH		6.93	s.u.	0.010				0.9	3	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 04/28/11
Work Order: C11030099

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R143422
Sample ID: MBLK-6		Method Blank				Run: TECHNICON_110308A				03/08/11 12:01
Nitrogen, Ammonia as N		ND	mg/L	0.02						
Sample ID: LCS-7		Laboratory Control Sample				Run: TECHNICON_110308A				03/08/11 12:03
Nitrogen, Ammonia as N		1.92	mg/L	0.050	96	90	110			
Sample ID: C11030107-002IMS		Sample Matrix Spike				Run: TECHNICON_110308A				03/08/11 15:51
Nitrogen, Ammonia as N		2.10	mg/L	0.050	97	80	120			
Sample ID: C11030107-002IMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110308A				03/08/11 15:53
Nitrogen, Ammonia as N		2.13	mg/L	0.050	98	80	120	1.4	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/28/11

Project: Marsland Baseline Samples **Work Order:** C11030099

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R143378
Sample ID: MB-110307A	17	Method Blank				Run: ICP2-C_110307A				03/07/11 13:04
Aluminum		ND	mg/L	0.01						
Barium		0.002	mg/L	0.0005						
Boron		ND	mg/L	0.009						
Cadmium		ND	mg/L	0.001						
Calcium		ND	mg/L	0.2						
Chromium		ND	mg/L	0.002						
Copper		ND	mg/L	0.001						
Iron		ND	mg/L	0.002						
Magnesium		ND	mg/L	0.05						
Manganese		ND	mg/L	0.0004						
Molybdenum		ND	mg/L	0.005						
Nickel		ND	mg/L	0.003						
Potassium		ND	mg/L	0.02						
Silicon		ND	mg/L	0.007						
Sodium		ND	mg/L	0.3						
Vanadium		0.001	mg/L							
Zinc		ND	mg/L	0.001						
Sample ID: LFB-110307A	17	Laboratory Fortified Blank				Run: ICP2-C_110307A				03/07/11 13:08
Aluminum		0.901	mg/L	0.10	90	85	115			
Barium		0.946	mg/L	0.10	94	85	115			
Boron		0.923	mg/L	0.10	92	85	115			
Cadmium		0.974	mg/L	0.010	97	85	115			
Calcium		49.0	mg/L	0.50	98	85	115			
Chromium		0.946	mg/L	0.050	95	85	115			
Copper		0.937	mg/L	0.010	94	85	115			
Iron		0.983	mg/L	0.030	98	85	115			
Magnesium		50.0	mg/L	0.50	100	85	115			
Manganese		0.957	mg/L	0.010	96	85	115			
Molybdenum		0.977	mg/L	0.10	98	85	115			
Nickel		0.967	mg/L	0.050	97	85	115			
Potassium		44.1	mg/L	0.50	88	85	115			
Silicon		0.429	mg/L	0.10	91	85	115			
Sodium		48.4	mg/L	0.50	97	85	115			
Vanadium		1.02	mg/L	0.10	102	85	115			
Zinc		0.950	mg/L	0.010	95	85	115			
Sample ID: C11030022-001CMS2	17	Sample Matrix Spike				Run: ICP2-C_110307A				03/07/11 19:26
Aluminum		1.98	mg/L	0.10	97	70	130			
Barium		2.05	mg/L	0.10	97	70	130			
Boron		2.34	mg/L	0.10	97	70	130			
Cadmium		2.01	mg/L	0.010	98	70	130			
Calcium		201	mg/L	1.0	101	70	130			
Chromium		2.00	mg/L	0.050	98	70	130			
Copper		2.05	mg/L	0.010	99	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/28/11

Project: Marsland Baseline Samples **Work Order:** C11030099

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R143378
Sample ID: C11030022-001CMS2	17	Sample Matrix Spike				Run: ICP2-C_110307A			03/07/11 19:26	
Iron		2.07	mg/L	0.030	101	70	130			
Magnesium		147	mg/L	1.0	98	70	130			
Manganese		2.06	mg/L	0.010	101	70	130			
Molybdenum		1.99	mg/L	0.10	98	70	130			
Nickel		2.01	mg/L	0.050	99	70	130			
Potassium		94.4	mg/L	1.0	90	70	130			
Silicon		7.09	mg/L	0.10		70	130			A
Sodium		210	mg/L	1.0	102	70	130			
Vanadium		2.10	mg/L	0.10	103	70	130			
Zinc		2.07	mg/L	0.010	99	70	130			
Sample ID: C11030022-001CMSD	17	Sample Matrix Spike Duplicate				Run: ICP2-C_110307A			03/07/11 19:30	
Aluminum		1.99	mg/L	0.10	98	70	130	0.7	20	
Barium		2.04	mg/L	0.10	97	70	130	0.2	20	
Boron		2.46	mg/L	0.10	102	70	130	4.8	20	
Cadmium		2.02	mg/L	0.010	99	70	130	0.8	20	
Calcium		200	mg/L	1.0	101	70	130	0.3	20	
Chromium		2.01	mg/L	0.050	98	70	130	0.5	20	
Copper		2.01	mg/L	0.010	98	70	130	1.6	20	
Iron		2.04	mg/L	0.030	100	70	130	1.3	20	
Magnesium		150	mg/L	1.0	100	70	130	1.5	20	
Manganese		2.07	mg/L	0.010	101	70	130	0.3	20	
Molybdenum		2.02	mg/L	0.10	99	70	130	1.2	20	
Nickel		1.99	mg/L	0.050	98	70	130	1.1	20	
Potassium		95.9	mg/L	1.0	91	70	130	1.7	20	
Silicon		7.17	mg/L	0.10		70	130	1.1	20	A
Sodium		207	mg/L	1.0	100	70	130	1.4	20	
Vanadium		2.16	mg/L	0.10	106	70	130	3.0	20	
Zinc		2.09	mg/L	0.010	100	70	130	1.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/28/11
Project: Marsland Baseline Samples **Work Order:** C11030099

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R143556
Sample ID: LRB	5	Method Blank				Run: ICPMS2-C_110309B				03/09/11 11:32
Arsenic		8E-05	mg/L	6E-05						
Lead		ND	mg/L	3E-05						
Mercury		ND	mg/L	8E-05						
Selenium		ND	mg/L	0.0002						
Uranium		ND	mg/L	1E-05						
Sample ID: LFB	5	Laboratory Fortified Blank				Run: ICPMS2-C_110309B				03/09/11 11:39
Arsenic		0.0554	mg/L	0.0010	111	85	115			
Lead		0.0551	mg/L	0.0010	110	85	115			
Mercury		0.00546	mg/L	0.0010	109	85	115			
Selenium		0.0562	mg/L	0.0010	112	85	115			
Uranium		0.0554	mg/L	0.00030	111	85	115			
Sample ID: C11030107-003DMS4	5	Sample Matrix Spike				Run: ICPMS2-C_110309B				03/10/11 03:47
Arsenic		0.0523	mg/L	0.0010	105	70	130			
Lead		0.0517	mg/L	0.050	103	70	130			
Mercury		0.00517	mg/L	0.0010	103	70	130			
Selenium		0.0524	mg/L	0.0010	104	70	130			
Uranium		0.0534	mg/L	0.00030	106	70	130			
Sample ID: C11030107-003DMSD	5	Sample Matrix Spike Duplicate				Run: ICPMS2-C_110309B				03/10/11 03:53
Arsenic		0.0522	mg/L	0.0010	104	70	130	0.1	20	
Lead		0.0511	mg/L	0.050	102	70	130	1.1	20	
Mercury		0.00509	mg/L	0.0010	102	70	130	1.5	20	
Selenium		0.0525	mg/L	0.0010	104	70	130	0.2	20	
Uranium		0.0531	mg/L	0.00030	106	70	130	0.6	20	
Method: E200.8										Batch: 29230
Sample ID: MB-29230		Method Blank				Run: ICPMS4-C_110309B				03/10/11 07:06
Uranium		ND	mg/L	7E-05						
Sample ID: LCS2-29230		Laboratory Control Sample				Run: ICPMS4-C_110309B				03/10/11 07:11
Uranium		0.0992	mg/L	0.00030	99	85	115			
Sample ID: C11030099-002HMS		Sample Matrix Spike				Run: ICPMS4-C_110309B				03/10/11 07:43
Uranium		0.0566	mg/L	0.00030	113	70	130			
Sample ID: C11030099-002HMSD		Sample Matrix Spike Duplicate				Run: ICPMS4-C_110309B				03/10/11 07:47
Uranium		0.0565	mg/L	0.00030	113	70	130	0.2	20	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/28/11

Project: Marsland Baseline Samples **Work Order:** C11030099

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0										Batch: R143337
Sample ID: LCS	2	Laboratory Control Sample				Run: IC2-C_110303A				03/03/11 13:10
Chloride		10.1	mg/L	1.0	101	90	110			
Sulfate		40.9	mg/L	1.0	102	90	110			
Sample ID: MBLK	2	Method Blank				Run: IC2-C_110303A				03/03/11 13:26
Chloride		ND	mg/L	0.06						
Sulfate		0.2	mg/L	0.2						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: IC2-C_110303A				03/03/11 13:57
Chloride		12.3	mg/L	1.0	98	90	110			
Sulfate		49.8	mg/L	1.0	99	90	110			
Sample ID: C11020738-001AMS	2	Sample Matrix Spike				Run: IC2-C_110303A				03/05/11 00:23
Chloride		15.8	mg/L	1.0	101	80	120			
Sulfate		68.3	mg/L	1.0	99	80	120			
Sample ID: C11020738-001AMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110303A				03/05/11 00:38
Chloride		16.0	mg/L	1.0	103	80	120	1.5	10	
Sulfate		69.1	mg/L	1.0	101	80	120	1.2	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 04/28/11
Work Order: C11030099

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R143280
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110303A				03/03/11 12:25
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.06						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110303A				03/03/11 12:28
Nitrogen, Nitrate+Nitrite as N		2.52	mg/L	0.10	101	90	110			
Sample ID: C11030065-002EMS		Sample Matrix Spike				Run: TECHNICON_110303A				03/03/11 15:18
Nitrogen, Nitrate+Nitrite as N		2.13	mg/L	0.10	107	90	110			
Sample ID: C11030065-002EMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110303A				03/03/11 15:20
Nitrogen, Nitrate+Nitrite as N		2.17	mg/L	0.10	109	90	110	1.9	10	
Method: E353.2										Batch: R143696
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110316A				03/16/11 12:09
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.06						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110316A				03/16/11 12:11
Nitrogen, Nitrate+Nitrite as N		2.61	mg/L	0.10	104	90	110			
Sample ID: C11030105-004DMS		Sample Matrix Spike				Run: TECHNICON_110316A				03/16/11 12:26
Nitrogen, Nitrate+Nitrite as N		2.05	mg/L	0.10	105	90	110			
Sample ID: C11030105-004DMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110316A				03/16/11 12:29
Nitrogen, Nitrate+Nitrite as N		2.09	mg/L	0.10	107	90	110	1.9	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/28/11

Project: Marsland Baseline Samples **Work Order:** C11030099

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-5215
Sample ID: C11030099-001DMS		Sample Matrix Spike				Run: G542M_110307A				03/14/11 17:02
Radium 226		14	pCi/L		98	70	130			
Sample ID: C11030099-001DMSD		Sample Matrix Spike Duplicate				Run: G542M_110307A				03/14/11 17:02
Radium 226		15	pCi/L		104	70	130	5.5	23.9	
Sample ID: MB-RA226-5215	3	Method Blank				Run: G542M_110307A				03/14/11 22:15
Radium 226		-0.06	pCi/L							U
Radium 226 precision (±)		0.08	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Sample ID: LCS-RA226-5215		Laboratory Control Sample				Run: G542M_110307A				03/14/11 22:15
Radium 226		6.2	pCi/L		99	85	115			
Method: E903.0										Batch: 29230
Sample ID: C11030099-001HMS		Sample Matrix Spike				Run: TENNELEC-3_110318A				03/27/11 13:40
Radium 226		11	pCi/L		102	70	130			
Sample ID: C11030099-001HMSD		Sample Matrix Spike Duplicate				Run: TENNELEC-3_110318A				03/27/11 13:40
Radium 226		11	pCi/L		105	70	130	2.4	23.9	
Sample ID: MB-29230	3	Method Blank				Run: TENNELEC-3_110318A				03/27/11 13:40
Radium 226		0.3	pCi/L							
Radium 226 precision (±)		0.2	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Sample ID: LCS-29230		Laboratory Control Sample				Run: TENNELEC-3_110318A				03/27/11 13:40
Radium 226		12	pCi/L		99	85	115			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 04/28/11
Work Order: C11030099

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0										Batch: 29230
Sample ID: C11030099-002HMS		Sample Matrix Spike				Run: EGG-ORTEC_110310B				03/14/11 14:50
Thorium 230		8.5	pCi/L		98	70	130			
Sample ID: C11030099-002HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110310B				03/14/11 14:50
Thorium 230		9.4	pCi/L		109	70	130	10	46.4	
Sample ID: LCS-29230		Laboratory Control Sample				Run: EGG-ORTEC_110310B				03/14/11 14:50
Thorium 230		13	pCi/L		130	70	130			
Sample ID: MB-29230	3	Method Blank				Run: EGG-ORTEC_110310B				03/14/11 14:50
Thorium 230		0.1	pCi/L							U
Thorium 230 precision (±)		0.2	pCi/L							
Thorium 230 MDC		0.3	pCi/L							
Method: E908.0										Batch: RA-TH-ISO-1344
Sample ID: LCS-RA-TH-ISO-1344		Laboratory Control Sample				Run: EGG-ORTEC_110314D				03/17/11 08:52
Thorium 230		5.3	pCi/L		101	70	130			
Sample ID: C11030099-001DMS		Sample Matrix Spike				Run: EGG-ORTEC_110314D				03/17/11 08:52
Thorium 230		13	pCi/L		104	70	130			
Sample ID: C11030099-001DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110314D				03/17/11 08:52
Thorium 230		13	pCi/L		102	70	130	1.4	36.4	
Sample ID: MB-RA-TH-ISO-1344	3	Method Blank				Run: EGG-ORTEC_110314D				03/17/11 16:48
Thorium 230		0.02	pCi/L							U
Thorium 230 precision (±)		0.06	pCi/L							
Thorium 230 MDC		0.1	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/28/11

Project: Marsland Baseline Samples **Work Order:** C11030099

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0									Batch: T_13526	
Sample ID: C11030099-001HMSD		Sample Matrix Spike Duplicate				Run: SUB-T39754			03/27/11 13:49	
Lead 210		94	pCi/L		96	70	130	10	17	
Sample ID: C11030099-001HMS		Sample Matrix Spike				Run: SUB-T39754			03/27/11 11:38	
Lead 210		100	pCi/L		108	70	130			
Sample ID: LCS-13526_29230		Laboratory Control Sample				Run: SUB-T39754			03/27/11 07:15	
Lead 210		460	pCi/L		125	70	130			
Sample ID: MB-13526_29230	3	Method Blank				Run: SUB-T39754			03/27/11 05:03	
Lead 210		10	pCi/L							U
Lead 210 precision (±)		8	pCi/L							
Lead 210 MDC		10	pCi/L							
Method: E909.0									Batch: T_PB-210-0095	
Sample ID: T11030080-001EMSD		Sample Matrix Spike Duplicate				Run: SUB-T40083			04/23/11 09:46	
Lead 210		48	pCi/L		89	70	130	2.7	16.2	
Sample ID: T11030080-001EMS		Sample Matrix Spike				Run: SUB-T40083			04/23/11 07:35	
Lead 210		49	pCi/L		91	70	130			
Sample ID: LCS-PB-210-0095		Laboratory Control Sample				Run: SUB-T40083			04/23/11 03:12	
Lead 210		78	pCi/L		109	70	130			
Sample ID: MB-PB-210-0095	3	Method Blank				Run: SUB-T40083			04/23/11 01:00	
Lead 210		-0.4	pCi/L							U
Lead 210 precision (±)		1	pCi/L							
Lead 210 MDC		2	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/28/11

Project: Marsland Baseline Samples **Work Order:** C11030099

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0										Batch: PO210-0348
Sample ID: C11030099-002FMS		Sample Matrix Spike				Run: EGG-ORTEC_110310A				03/11/11 13:06
Polonium 210		13	pCi/L		100	70	130			
Sample ID: C11030099-002FMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110310A				03/11/11 13:06
Polonium 210		15	pCi/L		119	70	130	17	76	
Sample ID: MB-PO210-0348	3	Method Blank				Run: EGG-ORTEC_110310A				03/11/11 13:06
Polonium 210		0.07	pCi/L							U
Polonium 210 precision (±)		0.3	pCi/L							
Polonium 210 MDC		0.6	pCi/L							
Sample ID: LCS-PO210-0348		Laboratory Control Sample				Run: EGG-ORTEC_110310A				03/11/11 13:06
Polonium 210		7.5	pCi/L		115	70	130			
Method: E912.0										Batch: 29230
Sample ID: C11030099-002HMS		Sample Matrix Spike				Run: EGG-ORTEC_110314B				03/16/11 13:29
Polonium 210		6.3	pCi/L		115	70	130			
Sample ID: C11030099-002HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110314B				03/16/11 13:29
Polonium 210		5.5	pCi/L		101	70	130	13	76.4	
Sample ID: LCS-29230		Laboratory Control Sample				Run: EGG-ORTEC_110314B				03/16/11 13:29
Polonium 210		30	pCi/L		100	70	130			
Sample ID: MB-29230	3	Method Blank				Run: EGG-ORTEC_110314B				03/16/11 13:29
Polonium 210		ND	pCi/L							U
Polonium 210 precision (±)		1.0	pCi/L							
Polonium 210 MDC		2	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

Workorder Receipt Checklist

Crow Butte Resources

C11030099

Login completed by: Corinne Wagner
Reviewed by: BL2000\tedwards
Reviewed Date: 3/3/2011

Date Received: 3/2/2011
Received by: em
Carrier name: Next Day Air Saver

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	5.4°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

None

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name: Marsland Baseline Samples	Sample Origin: State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169, Crawford, NE 69339	Contact Name: Larry Teahon; Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass, Rhonda Pelton
Invoice Address: P.O. Box 169, Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon, 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	HNO3-F, Metals	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	Raw-UF, Ra226, Po210 dis, sus	Raw-UF, Pb210 dis and sus	Rau-UF, Th230, U-nat dis and sus			SEE ATTACHED	Normal Turnaround (TAT)	RUSH	Comments
1	E. Driller's Well	2/25/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/5/11
2	W. Driller's Well	2/25/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/5/11
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

RUSH: Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling: Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 requirements. Record U as mg/L and µCi/ml and radiometrics as pCi/L.

LABORATORY USE ONLY

Shipped by: NM Silver

Cooler ID(s): C2646, C2637

Receipt Temp: 5.4 °C

On Ice: (Yes) No

Custody Seal: Y (N)

Intact: Y N

Signature Match: Y N

C11030099

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Rhonda Pelton	3-11-11 11:15	Rhonda Pelton	UPS		

Received by Laboratory: C. McPike, 3/2/11 9:30

Sample Disposal: Return to Client: No Lab Disposal: YES

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

CROW BUTTE RESOURCES, INC.
CROW BUTTE PROJECT

NO_2^-

DATE: 2/25/11

ANALYST: MO

STANDARD CURVE DATA

	BL		.01	.05	.1		
Abs	-.02		.033	.174	.348		
Abs							

SAMPLE #	VOLUME	Df	Abs	
1 Marsland DP NW	10ml	1	-.001	<1
2 Marsland DP SE	10ml	1	-.001	<1
3 Dup DP SE	10ml	1	-.001	<1
4				
5				
Dup				
6				
7				
8				
9				
10				
Dup				
11				
12				
13				
14				
15				
Dup				
16				
17				
18				
19				
20				
Dup				
21				
22				
23				
24				
25				
Dup				

ANALYTICAL SUMMARY REPORT

April 18, 2011

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C11030211 Quote ID: C1125 - Crow Butte Uranium

Project Name: Marsland G-8 Samples

Energy Laboratories, Inc. Casper WY received the following 4 samples for Crow Butte Resources on 3/8/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11030211-001	BOW 2010-2	03/04/11 00:00	03/08/11	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Uranium, Suspended Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C11030211-002	BOW 2010-3	03/04/11 00:00	03/08/11	Aqueous	Same As Above
C11030211-003	BOW 2010-5	03/04/11 00:00	03/08/11	Aqueous	Same As Above
C11030211-004	BOW 2010-6	03/04/11 00:00	03/08/11	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Crow Butte Resources
Project: Marsland G-8 Samples
Sample Delivery Group: C11030211

Report Date: 04/18/11

CASE NARRATIVE

BRANCH LABORATORY SUBCONTRACT ANALYSIS
Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030211-001
Client Sample ID: BOW 2010-2

Report Date: 04/18/11
Collection Date: 03/04/11
DateReceived: 03/08/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	187	mg/L		1		A2320 B	03/08/11 18:54 / jba
Carbonate as CO3	38	mg/L		1		A2320 B	03/08/11 18:54 / jba
Bicarbonate as HCO3	152	mg/L		1		A2320 B	03/08/11 18:54 / jba
Calcium	7	mg/L		1		E200.7	03/11/11 16:56 / cp
Chloride	27	mg/L		1		E300.0	03/10/11 11:51 / ljl
Fluoride	0.4	mg/L		0.1		A4500-F C	03/11/11 11:31 / jba
Magnesium	ND	mg/L		1		E200.7	03/11/11 16:56 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/08/11 15:03 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	03/10/11 14:05 / dc
Potassium	11	mg/L		1		E200.7	03/11/11 16:56 / cp
Silica	85.9	mg/L		0.2		E200.7	03/11/11 16:56 / cp
Sodium	107	mg/L		1		E200.7	03/11/11 16:56 / cp
Sulfate	37	mg/L	D	2		E300.0	03/10/11 11:51 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	518	umhos/cm		1		A2510 B	03/08/11 15:16 / lr
pH	9.32	s.u.		0.01		A4500-H B	03/08/11 15:16 / lr
Solids, Total Dissolved TDS @ 180 C	377	mg/L		10		A2540 C	03/09/11 12:23 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	03/11/11 16:56 / cp
Arsenic	0.005	mg/L		0.001		E200.8	03/16/11 17:55 / sml
Barium	ND	mg/L		0.1		E200.7	03/11/11 16:56 / cp
Boron	0.1	mg/L		0.1		E200.7	03/11/11 16:56 / cp
Cadmium	ND	mg/L		0.005		E200.7	03/11/11 16:56 / cp
Chromium	ND	mg/L		0.05		E200.7	03/11/11 16:56 / cp
Copper	ND	mg/L		0.01		E200.7	03/11/11 16:56 / cp
Iron	ND	mg/L		0.03		E200.7	03/11/11 16:56 / cp
Lead	ND	mg/L		0.001		E200.8	03/16/11 17:55 / sml
Manganese	ND	mg/L		0.01		E200.7	03/11/11 16:56 / cp
Mercury	ND	mg/L		0.001		E200.8	03/16/11 17:55 / sml
Molybdenum	ND	mg/L		0.1		E200.7	03/11/11 16:56 / cp
Nickel	ND	mg/L		0.05		E200.7	03/11/11 16:56 / cp
Selenium	0.002	mg/L		0.001		E200.8	03/16/11 17:55 / sml
Uranium	0.0031	mg/L		0.0003		E200.8	03/16/11 17:55 / sml
Uranium, Activity	2.1E-09	uCi/mL		2.0E-10		E200.8	03/16/11 17:55 / sml
Vanadium	ND	mg/L		0.1		E200.7	03/11/11 16:56 / cp
Zinc	0.03	mg/L		0.01		E200.7	03/11/11 16:56 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/17/11 03:14 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/17/11 03:14 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030211-001
Client Sample ID: BOW 2010-2

Report Date: 04/18/11
Collection Date: 03/04/11
DateReceived: 03/08/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	03/25/11 05:44 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	03/25/11 05:44 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	03/25/11 05:44 / eli-cs
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	03/16/11 13:28 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	03/16/11 13:28 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	03/16/11 13:28 / ep
Radium 226	0.31	pCi/L		0.15		E903.0	03/21/11 17:17 / trs
Radium 226 precision (±)	0.14	pCi/L				E903.0	03/21/11 17:17 / trs
Radium 226 MDC	0.15	pCi/L				E903.0	03/21/11 17:17 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/22/11 09:00 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	03/22/11 09:00 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/22/11 09:00 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.3	pCi/L	U	1.3		E909.0	03/27/11 22:35 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	03/27/11 22:35 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	03/27/11 22:35 / eli-cs
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	03/17/11 13:08 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	03/17/11 13:08 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	03/17/11 13:08 / ep
Radium 226	<0.14	pCi/L	U	0.14		E903.0	03/21/11 15:15 / dmf
Radium 226 precision (±)	0.08	pCi/L				E903.0	03/21/11 15:15 / dmf
Radium 226 MDC	0.14	pCi/L				E903.0	03/21/11 15:15 / dmf
Thorium 230	<0.06	pCi/L	U	0.06		E908.0	03/17/11 16:50 / dmf
Thorium 230 precision (±)	0.05	pCi/L				E908.0	03/17/11 16:50 / dmf
Thorium 230 MDC	0.06	pCi/L				E908.0	03/17/11 16:50 / dmf
DATA QUALITY							
A/C Balance (± 5)	0.0154	%				Calculation	03/16/11 15:39 / kbh
Anions	5.30	meq/L				Calculation	03/16/11 15:39 / kbh
Cations	5.30	meq/L				Calculation	03/16/11 15:39 / kbh
Solids, Total Dissolved Calculated	410	mg/L				Calculation	03/16/11 15:39 / kbh
TDS Balance (0.80 - 1.20)	0.920					Calculation	03/16/11 15:39 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030211-002
Client Sample ID: BOW 2010-3

Report Date: 04/18/11
Collection Date: 03/04/11
DateReceived: 03/08/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	177	mg/L		1		A2320 B	03/08/11 19:03 / jba
Carbonate as CO3	31	mg/L		1		A2320 B	03/08/11 19:03 / jba
Bicarbonate as HCO3	154	mg/L		1		A2320 B	03/08/11 19:03 / jba
Calcium	7	mg/L		1		E200.7	03/22/11 15:32 / cp
Chloride	38	mg/L		1		E300.0	03/10/11 12:07 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	03/11/11 11:34 / jba
Magnesium	ND	mg/L		1		E200.7	03/22/11 15:32 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/08/11 15:27 / dc
Nitrogen, Nitrate+Nitrite as N	1.0	mg/L		0.1		E353.2	03/10/11 14:15 / dc
Potassium	12	mg/L		1		E200.7	03/22/11 15:32 / cp
Silica	79.3	mg/L		0.2		E200.7	03/11/11 17:04 / cp
Sodium	126	mg/L		1		E200.7	03/22/11 15:32 / cp
Sulfate	60	mg/L	D	2		E300.0	03/10/11 12:07 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	584	umhos/cm		1		A2510 B	03/08/11 15:18 / lr
pH	9.22	s.u.		0.01		A4500-H B	03/08/11 15:18 / lr
Solids, Total Dissolved TDS @ 180 C	411	mg/L		10		A2540 C	03/09/11 12:23 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	03/11/11 17:04 / cp
Arsenic	0.010	mg/L		0.001		E200.8	03/16/11 18:02 / sml
Barium	ND	mg/L		0.1		E200.7	03/11/11 17:04 / cp
Boron	0.1	mg/L		0.1		E200.7	03/11/11 17:04 / cp
Cadmium	ND	mg/L		0.005		E200.7	03/11/11 17:04 / cp
Chromium	ND	mg/L		0.05		E200.7	03/11/11 17:04 / cp
Copper	ND	mg/L		0.01		E200.7	03/11/11 17:04 / cp
Iron	ND	mg/L		0.03		E200.7	03/11/11 17:04 / cp
Lead	ND	mg/L		0.001		E200.8	03/16/11 18:02 / sml
Manganese	ND	mg/L		0.01		E200.7	03/11/11 17:04 / cp
Mercury	ND	mg/L		0.001		E200.8	03/16/11 18:02 / sml
Molybdenum	ND	mg/L		0.1		E200.7	03/11/11 17:04 / cp
Nickel	ND	mg/L		0.05		E200.7	03/11/11 17:04 / cp
Selenium	0.006	mg/L		0.001		E200.8	03/16/11 18:02 / sml
Uranium	0.0041	mg/L		0.0003		E200.8	03/16/11 18:02 / sml
Uranium, Activity	2.8E-09	uCi/mL		2.0E-10		E200.8	03/16/11 18:02 / sml
Vanadium	ND	mg/L		0.1		E200.7	03/11/11 17:04 / cp
Zinc	0.05	mg/L		0.01		E200.7	03/11/11 17:04 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/17/11 03:18 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/17/11 03:18 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030211-002
Client Sample ID: BOW 2010-3

Report Date: 04/18/11
Collection Date: 03/04/11
DateReceived: 03/08/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	03/25/11 07:56 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	03/25/11 07:56 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	03/25/11 07:56 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	03/16/11 13:28 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	03/16/11 13:28 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	03/16/11 13:28 / ep
Radium 226	0.38	pCi/L		0.15		E903.0	03/21/11 17:17 / trs
Radium 226 precision (±)	0.15	pCi/L				E903.0	03/21/11 17:17 / trs
Radium 226 MDC	0.15	pCi/L				E903.0	03/21/11 17:17 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/22/11 09:00 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	03/22/11 09:00 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/22/11 09:00 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.2	pCi/L	U	1.2		E909.0	03/28/11 05:10 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	03/28/11 05:10 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	03/28/11 05:10 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	03/17/11 13:07 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	03/17/11 13:07 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	03/17/11 13:07 / ep
Radium 226	<0.14	pCi/L	U	0.14		E903.0	03/21/11 15:15 / dmf
Radium 226 precision (±)	0.09	pCi/L				E903.0	03/21/11 15:15 / dmf
Radium 226 MDC	0.14	pCi/L				E903.0	03/21/11 15:15 / dmf
Thorium 230	<0.08	pCi/L	U	0.08		E908.0	03/17/11 16:50 / dmf
Thorium 230 precision (±)	0.05	pCi/L				E908.0	03/17/11 16:50 / dmf
Thorium 230 MDC	0.08	pCi/L				E908.0	03/17/11 16:50 / dmf
DATA QUALITY							
A/C Balance (± 5)	1.57	%				Calculation	03/29/11 07:47 / kbh
Anions	5.95	meq/L				Calculation	03/29/11 07:47 / kbh
Cations	6.14	meq/L				Calculation	03/29/11 07:47 / kbh
Solids, Total Dissolved Calculated	454	mg/L				Calculation	03/29/11 07:47 / kbh
TDS Balance (0.80 - 1.20)	0.910					Calculation	03/29/11 07:47 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030211-003
Client Sample ID: BOW 2010-5

Report Date: 04/18/11
Collection Date: 03/04/11
DateReceived: 03/08/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	151	mg/L		1		A2320 B	03/08/11 19:11 / jba
Carbonate as CO3	5	mg/L		1		A2320 B	03/08/11 19:11 / jba
Bicarbonate as HCO3	174	mg/L		1		A2320 B	03/08/11 19:11 / jba
Calcium	29	mg/L		1		E200.7	03/11/11 17:08 / cp
Chloride	7	mg/L		1		E300.0	03/10/11 12:53 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	03/11/11 11:36 / jba
Magnesium	7	mg/L		1		E200.7	03/11/11 17:08 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/08/11 15:29 / dc
Nitrogen, Nitrate+Nitrite as N	0.9	mg/L		0.1		E353.2	03/10/11 14:18 / dc
Potassium	4	mg/L		1		E200.7	03/11/11 17:08 / cp
Silica	72.1	mg/L		0.2		E200.7	03/11/11 17:08 / cp
Sodium	26	mg/L		1		E200.7	03/11/11 17:08 / cp
Sulfate	9	mg/L		1		E300.0	03/10/11 12:53 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	313	umhos/cm		1		A2510 B	03/08/11 15:21 / lr
pH	8.23	s.u.		0.01		A4500-H B	03/08/11 15:21 / lr
Solids, Total Dissolved TDS @ 180 C	231	mg/L		10		A2540 C	03/09/11 12:24 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	03/11/11 17:08 / cp
Arsenic	0.003	mg/L		0.001		E200.8	03/16/11 18:09 / sml
Barium	0.1	mg/L		0.1		E200.7	03/11/11 17:08 / cp
Boron	ND	mg/L		0.1		E200.7	03/11/11 17:08 / cp
Cadmium	ND	mg/L		0.005		E200.7	03/11/11 17:08 / cp
Chromium	ND	mg/L		0.05		E200.7	03/11/11 17:08 / cp
Copper	ND	mg/L		0.01		E200.7	03/11/11 17:08 / cp
Iron	ND	mg/L		0.03		E200.7	03/11/11 17:08 / cp
Lead	ND	mg/L		0.001		E200.8	03/16/11 18:09 / sml
Manganese	ND	mg/L		0.01		E200.7	03/11/11 17:08 / cp
Mercury	ND	mg/L		0.001		E200.8	03/16/11 18:09 / sml
Molybdenum	ND	mg/L		0.1		E200.7	03/11/11 17:08 / cp
Nickel	ND	mg/L		0.05		E200.7	03/11/11 17:08 / cp
Selenium	0.002	mg/L		0.001		E200.8	03/16/11 18:09 / sml
Uranium	0.0061	mg/L		0.0003		E200.8	03/16/11 18:09 / sml
Uranium, Activity	4.1E-09	uCi/mL		2.0E-10		E200.8	03/16/11 18:09 / sml
Vanadium	ND	mg/L		0.1		E200.7	03/11/11 17:08 / cp
Zinc	0.06	mg/L		0.01		E200.7	03/11/11 17:08 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/17/11 03:39 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/17/11 03:39 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030211-003
Client Sample ID: BOW 2010-5

Report Date: 04/18/11
Collection Date: 03/04/11
DateReceived: 03/08/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	03/25/11 10:07 / eli-cs
Lead 210 precision (±)	*0.4*	*pCi/L*				*E909.0*	*03/25/11 10:07 / eli-cs*
Lead 210 MDC	0.7	pCi/L				E909.0	03/25/11 10:07 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	03/16/11 13:28 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	03/16/11 13:28 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	03/16/11 13:28 / ep
Radium 226	0.36	pCi/L		0.15		E903.0	03/21/11 17:17 / trs
Radium 226 precision (±)	0.15	pCi/L				E903.0	03/21/11 17:17 / trs
Radium 226 MDC	0.15	pCi/L				E903.0	03/21/11 17:17 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/22/11 09:00 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	03/22/11 09:00 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/22/11 09:00 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.2	pCi/L	U	1.2		E909.0	03/28/11 07:21 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	03/28/11 07:21 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	03/28/11 07:21 / eli-cs
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	03/17/11 13:08 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	03/17/11 13:08 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	03/17/11 13:08 / ep
Radium 226	<0.13	pCi/L	U	0.13		E903.0	03/21/11 15:15 / dmf
Radium 226 precision (±)	0.08	pCi/L				E903.0	03/21/11 15:15 / dmf
Radium 226 MDC	0.13	pCi/L				E903.0	03/21/11 15:15 / dmf
Thorium 230	<0.07	pCi/L	U	0.07		E908.0	03/17/11 16:50 / dmf
Thorium 230 precision (±)	0.04	pCi/L				E908.0	03/17/11 16:50 / dmf
Thorium 230 MDC	0.07	pCi/L				E908.0	03/17/11 16:50 / dmf
DATA QUALITY							
A/C Balance (± 5)	*-3.95*	*%*				*Calculation*	*03/16/11 15:41 / kbh*
Anions	3.51	meq/L				Calculation	03/16/11 15:41 / kbh
Cations	3.24	meq/L				Calculation	03/16/11 15:41 / kbh
Solids, Total Dissolved Calculated	269	mg/L				Calculation	03/16/11 15:41 / kbh
TDS Balance (0.80 - 1.20)	0.860					Calculation	03/16/11 15:41 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030211-004
Client Sample ID: BOW 2010-6

Report Date: 04/18/11
Collection Date: 03/04/11
DateReceived: 03/08/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	144	mg/L		1		A2320 B	03/08/11 19:19 / jba
Carbonate as CO3	6	mg/L		1		A2320 B	03/08/11 19:19 / jba
Bicarbonate as HCO3	165	mg/L		1		A2320 B	03/08/11 19:19 / jba
Calcium	31	mg/L		1		E200.7	03/11/11 17:12 / cp
Chloride	2	mg/L		1		E300.0	03/10/11 13:39 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	03/11/11 11:39 / jba
Magnesium	7	mg/L		1		E200.7	03/11/11 17:12 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/08/11 15:31 / dc
Nitrogen, Nitrate+Nitrite as N	1.0	mg/L		0.1		E353.2	03/10/11 14:20 / dc
Potassium	4	mg/L		1		E200.7	03/11/11 17:12 / cp
Silica	67.4	mg/L		0.2		E200.7	03/11/11 17:12 / cp
Sodium	24	mg/L		1		E200.7	03/11/11 17:12 / cp
Sulfate	2	mg/L		1		E300.0	03/10/11 13:39 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	320	umhos/cm		1		A2510 B	03/08/11 15:23 / lr
pH	8.31	s.u.		0.01		A4500-H B	03/08/11 15:23 / lr
Solids, Total Dissolved TDS @ 180 C	216	mg/L		10		A2540 C	03/09/11 12:24 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	03/11/11 17:12 / cp
Arsenic	0.005	mg/L		0.001		E200.8	03/16/11 18:16 / sml
Barium	ND	mg/L		0.1		E200.7	03/11/11 17:12 / cp
Boron	ND	mg/L		0.1		E200.7	03/11/11 17:12 / cp
Cadmium	ND	mg/L		0.005		E200.7	03/11/11 17:12 / cp
Chromium	ND	mg/L		0.05		E200.7	03/11/11 17:12 / cp
Copper	ND	mg/L		0.01		E200.7	03/11/11 17:12 / cp
Iron	ND	mg/L		0.03		E200.7	03/11/11 17:12 / cp
Lead	ND	mg/L		0.001		E200.8	03/16/11 18:16 / sml
Manganese	ND	mg/L		0.01		E200.7	03/11/11 17:12 / cp
Mercury	ND	mg/L		0.001		E200.8	03/16/11 18:16 / sml
Molybdenum	ND	mg/L		0.1		E200.7	03/11/11 17:12 / cp
Nickel	ND	mg/L		0.05		E200.7	03/11/11 17:12 / cp
Selenium	0.003	mg/L		0.001		E200.8	03/16/11 18:16 / sml
Uranium	0.0052	mg/L		0.0003		E200.8	03/16/11 18:16 / sml
Uranium, Activity	3.6E-09	uCi/mL		2.0E-10		E200.8	03/16/11 18:16 / sml
Vanadium	ND	mg/L		0.1		E200.7	03/11/11 17:12 / cp
Zinc	0.03	mg/L		0.01		E200.7	03/11/11 17:12 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/17/11 03:43 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/17/11 03:43 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030211-004
Client Sample ID: BOW 2010-6

Report Date: 04/18/11
Collection Date: 03/04/11
DateReceived: 03/08/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	03/25/11 12:19 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	03/25/11 12:19 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	03/25/11 12:19 / eli-cs
Polonium 210	<0.5	pCi/L	U	0.5		E912.0	03/16/11 13:28 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	03/16/11 13:28 / ep
Polonium 210 MDC	0.5	pCi/L				E912.0	03/16/11 13:28 / ep
Radium 226	<0.13	pCi/L	U	0.13		E903.0	03/21/11 17:17 / trs
Radium 226 precision (±)	0.08	pCi/L				E903.0	03/21/11 17:17 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	03/21/11 17:17 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/22/11 09:00 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	03/22/11 09:00 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/22/11 09:00 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.2	pCi/L	U	1.2		E909.0	03/28/11 09:33 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	03/28/11 09:33 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	03/28/11 09:33 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	03/17/11 13:08 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	03/17/11 13:08 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	03/17/11 13:08 / ep
Radium 226	<0.13	pCi/L	U	0.13		E903.0	03/21/11 15:15 / dmf
Radium 226 precision (±)	0.08	pCi/L				E903.0	03/21/11 15:15 / dmf
Radium 226 MDC	0.13	pCi/L				E903.0	03/21/11 15:15 / dmf
Thorium 230	<0.05	pCi/L	U	0.05		E908.0	03/17/11 16:50 / dmf
Thorium 230 precision (±)	0.04	pCi/L				E908.0	03/17/11 16:50 / dmf
Thorium 230 MDC	0.05	pCi/L				E908.0	03/17/11 16:50 / dmf
DATA QUALITY							
A/C Balance (± 5)	2.60	%				Calculation	03/16/11 15:41 / kbh
Anions	3.10	meq/L				Calculation	03/16/11 15:41 / kbh
Cations	3.27	meq/L				Calculation	03/16/11 15:41 / kbh
Solids, Total Dissolved Calculated	248	mg/L				Calculation	03/16/11 15:41 / kbh
TDS Balance (0.80 - 1.20)	0.870					Calculation	03/16/11 15:41 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/18/11
Work Order: C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R143427
Sample ID: MBLK	3	Method Blank				Run: MANTECH_110308A				03/08/11 16:36
Alkalinity, Total as CaCO3		ND	mg/L	1.0						
Carbonate as CO3		ND	mg/L	1.0						
Bicarbonate as HCO3		1.12	mg/L	1.0						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110308A				03/08/11 16:51
Alkalinity, Total as CaCO3		209	mg/L	5.0	104	90	110			
Sample ID: C11030160-009AMS		Sample Matrix Spike				Run: MANTECH_110308A				03/08/11 17:15
Alkalinity, Total as CaCO3		233	mg/L	5.0	103	80	120			
Sample ID: C11030211-004BDUP		Sample Duplicate				Run: MANTECH_110308A				03/08/11 19:27
Alkalinity, Total as CaCO3		144	mg/L	5.0				0.2	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/18/11

Project: Marsland G-8 Samples **Work Order:** C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: ORION555A-2_110308A		
Sample ID: ICV2_110308_1		Initial Calibration Verification Standard							03/08/11 14:59	
Conductivity @ 25 C		1390	umhos/cm	1.0	98	90	110			
Method: A2510 B								Batch: 110308_1_PH-W_555A-2		
Sample ID: MBLK1_110308_1		Method Blank				Run: ORION555A-2_110308A			03/08/11 14:55	
Conductivity @ 25 C		ND	umhos/cm	1.0						
Sample ID: C11030211-002BDUP		Sample Duplicate				Run: ORION555A-2_110308A			03/08/11 15:19	
Conductivity @ 25 C		585	umhos/cm	1.0				0.2	10	
Sample ID: C11030211-004BDUP		Sample Duplicate				Run: ORION555A-2_110308A			03/08/11 15:25	
Conductivity @ 25 C		320	umhos/cm	1.0				0.0	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/18/11
Work Order: C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: 110309_1_SLDS-TDS-W	
Sample ID: MBLK1_110309		Method Blank				Run: BAL-1_110309A			03/09/11 12:22	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	10						
Sample ID: LCS1_110309		Laboratory Control Sample				Run: BAL-1_110309A			03/09/11 12:22	
Solids, Total Dissolved TDS @ 180 C		988	mg/L	10	99	90	110			
Sample ID: C11030211-001ADUP		Sample Duplicate				Run: BAL-1_110309A			03/09/11 12:23	
Solids, Total Dissolved TDS @ 180 C		378	mg/L	10				0.3	10	
Sample ID: C11030231-001AMS		Sample Matrix Spike				Run: BAL-1_110309A			03/09/11 12:24	
Solids, Total Dissolved TDS @ 180 C		4250	mg/L	10	100	90	110			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/18/11

Project: Marsland G-8 Samples **Work Order:** C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R143532
Sample ID: MBLK		Method Blank				Run: MANTECH_110311A				03/11/11 10:25
Fluoride		ND	mg/L	0.10						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110311A				03/11/11 10:27
Fluoride		1.02	mg/L	0.10	100	90	110			
Sample ID: C11030209-001CMS		Sample Matrix Spike				Run: MANTECH_110311A				03/11/11 11:26
Fluoride		1.04	mg/L	0.10	100	80	120			
Sample ID: C11030209-001CMSD		Sample Matrix Spike Duplicate				Run: MANTECH_110311A				03/11/11 11:28
Fluoride		1.04	mg/L	0.10	100	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/18/11
Work Order: C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION555A-2_110308A		
Sample ID: ICV1_110308_1		Initial Calibration Verification Standard							03/08/11 14:57	
pH		6.90	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 110308_1_PH-W_555A-2		
Sample ID: C11030211-002BDUP		Sample Duplicate				Run: ORION555A-2_110308A			03/08/11 15:19	
pH		9.22	s.u.	0.010				0.0	3	
Sample ID: C11030211-004BDUP		Sample Duplicate				Run: ORION555A-2_110308A			03/08/11 15:25	
pH		8.30	s.u.	0.010				0.1	3	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/18/11
Work Order: C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R143422
Sample ID: MBLK-6		Method Blank				Run: TECHNICON_110308A				03/08/11 12:01
Nitrogen, Ammonia as N		ND	mg/L	0.050						
Sample ID: LCS-7		Laboratory Control Sample				Run: TECHNICON_110308A				03/08/11 12:03
Nitrogen, Ammonia as N		1.92	mg/L	0.050	96	90	110			
Sample ID: C11030089-001AMS		Sample Matrix Spike				Run: TECHNICON_110308A				03/08/11 15:21
Nitrogen, Ammonia as N		1.86	mg/L	0.050	93	80	120			
Sample ID: C11030089-001AMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110308A				03/08/11 15:23
Nitrogen, Ammonia as N		1.89	mg/L	0.050	95	80	120	1.5	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/18/11
Work Order: C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R143542
Sample ID: MB-110311A	17	Method Blank				Run: ICP2-C_110311A				03/11/11 15:47
Aluminum		ND	mg/L	0.10						
Barium		ND	mg/L	0.10						
Boron		ND	mg/L	0.10						
Cadmium		ND	mg/L	0.0050						
Calcium		ND	mg/L	1.0						
Chromium		ND	mg/L	0.050						
Copper		ND	mg/L	0.010						
Iron		ND	mg/L	0.030						
Magnesium		ND	mg/L	1.0						
Manganese		ND	mg/L	0.010						
Molybdenum		ND	mg/L	0.10						
Nickel		ND	mg/L	0.050						
Potassium		ND	mg/L	1.0						
Silicon		ND	mg/L	0.10						
Sodium		ND	mg/L	1.0						
Vanadium		ND	mg/L	0.10						
Zinc		ND	mg/L	0.010						
Sample ID: LFB-110311A	17	Laboratory Fortified Blank				Run: ICP2-C_110311A				03/11/11 15:51
Aluminum		0.932	mg/L	0.10	93	85	115			
Barium		0.931	mg/L	0.10	93	85	115			
Boron		0.950	mg/L	0.10	94	85	115			
Cadmium		0.941	mg/L	0.010	94	85	115			
Calcium		47.3	mg/L	0.50	95	85	115			
Chromium		0.960	mg/L	0.050	96	85	115			
Copper		0.941	mg/L	0.010	94	85	115			
Iron		0.963	mg/L	0.030	96	85	115			
Magnesium		48.2	mg/L	0.50	96	85	115			
Manganese		0.965	mg/L	0.010	96	85	115			
Molybdenum		0.958	mg/L	0.10	96	85	115			
Nickel		0.961	mg/L	0.050	96	85	115			
Potassium		46.2	mg/L	0.50	92	85	115			
Silicon		0.428	mg/L	0.10	91	85	115			
Sodium		46.4	mg/L	0.50	93	85	115			
Vanadium		0.944	mg/L	0.10	94	85	115			
Zinc		0.958	mg/L	0.010	96	85	115			
Sample ID: C11030134-001CMS2	17	Sample Matrix Spike				Run: ICP2-C_110311A				03/11/11 16:48
Aluminum		1.92	mg/L	0.10	94	70	130			
Barium		1.97	mg/L	0.10	93	70	130			
Boron		1.93	mg/L	0.10	93	70	130			
Cadmium		1.91	mg/L	0.010	94	70	130			
Calcium		126	mg/L	1.0	95	70	130			
Chromium		1.91	mg/L	0.050	94	70	130			
Copper		1.93	mg/L	0.010	94	70	130			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/18/11

Project: Marsland G-8 Samples **Work Order:** C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R143542	
Sample ID: C11030134-001CMS2	17	Sample Matrix Spike				Run: ICP2-C_110311A			03/11/11 16:48	
Iron		2.03	mg/L	0.030	99	70	130			
Magnesium		106	mg/L	1.0	97	70	130			
Manganese		1.94	mg/L	0.010	95	70	130			
Molybdenum		1.90	mg/L	0.10	93	70	130			
Nickel		1.94	mg/L	0.050	95	70	130			
Potassium		90.7	mg/L	1.0	87	70	130			
Silicon		7.19	mg/L	0.10		70	130			A
Sodium		113	mg/L	1.0	97	70	130			
Vanadium		2.01	mg/L	0.10	99	70	130			
Zinc		1.95	mg/L	0.010	95	70	130			
Sample ID: C11030134-001CMSD	17	Sample Matrix Spike Duplicate				Run: ICP2-C_110311A			03/11/11 16:52	
Aluminum		1.90	mg/L	0.10	93	70	130	1.2	20	
Barium		1.97	mg/L	0.10	93	70	130	0.1	20	
Boron		1.96	mg/L	0.10	94	70	130	1.2	20	
Cadmium		1.89	mg/L	0.010	93	70	130	1.1	20	
Calcium		128	mg/L	1.0	97	70	130	1.1	20	
Chromium		1.91	mg/L	0.050	94	70	130	0.0	20	
Copper		1.91	mg/L	0.010	93	70	130	1.1	20	
Iron		2.02	mg/L	0.030	99	70	130	0.2	20	
Magnesium		106	mg/L	1.0	96	70	130	0.4	20	
Manganese		1.93	mg/L	0.010	95	70	130	0.3	20	
Molybdenum		1.91	mg/L	0.10	94	70	130	0.5	20	
Nickel		1.95	mg/L	0.050	96	70	130	0.7	20	
Potassium		89.6	mg/L	1.0	86	70	130	1.2	20	
Silicon		7.30	mg/L	0.10		70	130	1.5	20	A
Sodium		113	mg/L	1.0	97	70	130	0.4	20	
Vanadium		2.00	mg/L	0.10	98	70	130	0.8	20	
Zinc		1.94	mg/L	0.010	94	70	130	0.7	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/18/11
Work Order: C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R143980
Sample ID: MB-110322A	4	Method Blank				Run: ICP2-C_110322A				03/22/11 11:43
Calcium		ND	mg/L	1.0						
Magnesium		ND	mg/L	1.0						
Potassium		ND	mg/L	1.0						
Sodium		ND	mg/L	1.0						
Sample ID: LFB-110322A	4	Laboratory Fortified Blank				Run: ICP2-C_110322A				03/22/11 11:47
Calcium		47.5	mg/L	0.50	95	85	115			
Magnesium		47.2	mg/L	0.50	94	85	115			
Potassium		43.4	mg/L	0.50	87	85	115			
Sodium		48.4	mg/L	0.50	97	85	115			
Sample ID: C11030147-001DMS2	4	Sample Matrix Spike				Run: ICP2-C_110322A				03/22/11 15:16
Calcium		395	mg/L	1.1	97	70	130			
Magnesium		250	mg/L	1.0	98	70	130			
Potassium		277	mg/L	1.0	83	70	130			
Sodium		729	mg/L	1.4	106	70	130			
Sample ID: C11030147-001DMSD	4	Sample Matrix Spike Duplicate				Run: ICP2-C_110322A				03/22/11 15:20
Calcium		400	mg/L	1.1	99	70	130	1.3	20	
Magnesium		257	mg/L	1.0	101	70	130	2.7	20	
Potassium		278	mg/L	1.0	84	70	130	0.4	20	
Sodium		722	mg/L	1.4	103	70	130	0.9	20	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/18/11

Project: Marsland G-8 Samples **Work Order:** C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 29258
Sample ID: MB-29258		Method Blank				Run: ICPMS2-C_110316A				03/17/11 03:01
Uranium		ND	mg/L	0.00030						
Sample ID: LCS2-29258		Laboratory Control Sample				Run: ICPMS2-C_110316A				03/17/11 03:05
Uranium		0.0969	mg/L	0.00030	97	85	115			
Sample ID: C11030365-008AMS		Sample Matrix Spike				Run: ICPMS2-C_110316A				03/17/11 04:49
Uranium		0.0561	pCi/Filter	0.00030	112	70	130			
Sample ID: C11030365-008AMSD		Sample Matrix Spike Duplicate				Run: ICPMS2-C_110316A				03/17/11 04:53
Uranium		0.0546	pCi/Filter	0.00030	109	70	130	2.8	20	
Method: E200.8										Batch: R143657A
Sample ID: LRB	5	Method Blank				Run: ICPMS4-C_110315A				03/15/11 11:57
Arsenic		ND	mg/L	0.0010						
Lead		ND	mg/L	0.0010						
Mercury		ND	mg/L	0.0010						
Selenium		ND	mg/L	0.0010						
Uranium		ND	mg/L	0.00030						
Sample ID: LFB	5	Laboratory Fortified Blank				Run: ICPMS4-C_110315A				03/15/11 12:03
Arsenic		0.0520	mg/L	0.0010	104	85	115			
Lead		0.0528	mg/L	0.0010	106	85	115			
Mercury		0.00529	mg/L	0.0010	106	85	115			
Selenium		0.0545	mg/L	0.0010	109	85	115			
Uranium		0.0526	mg/L	0.00030	105	85	115			
Sample ID: C11030280-005CMS4	5	Sample Matrix Spike				Run: ICPMS4-C_110315A				03/16/11 18:29
Arsenic		0.0549	mg/L	0.0010	110	70	130			
Lead		0.0518	mg/L	0.050	104	70	130			
Mercury		0.00597	mg/L	0.0010	118	70	130			
Selenium		0.0548	mg/L	0.0010	106	70	130			
Uranium		0.0689	mg/L	0.00030	102	70	130			
Sample ID: C11030280-005CMSD	5	Sample Matrix Spike Duplicate				Run: ICPMS4-C_110315A				03/16/11 18:36
Arsenic		0.0562	mg/L	0.0010	112	70	130	2.4	20	
Lead		0.0529	mg/L	0.050	106	70	130	2.1	20	
Mercury		0.00590	mg/L	0.0010	117	70	130	1.1	20	
Selenium		0.0554	mg/L	0.0010	108	70	130	1.2	20	
Uranium		0.0696	mg/L	0.00030	103	70	130	1.1	20	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/18/11
Work Order: C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0										Batch: R143503
Sample ID: LCS	2	Laboratory Control Sample				Run: IC2-C_110309A				03/09/11 17:21
Chloride		10.1	mg/L	1.0	101	90	110			
Sulfate		40.7	mg/L	1.0	101	90	110			
Sample ID: MBLK	2	Method Blank				Run: IC2-C_110309A				03/09/11 17:36
Chloride		ND	mg/L	1.0						
Sulfate		ND	mg/L	1.0						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: IC2-C_110309A				03/09/11 18:07
Chloride		12.0	mg/L	1.0	96	90	110			
Sulfate		49.0	mg/L	1.0	98	90	110			
Sample ID: C11030211-003BMS	2	Sample Matrix Spike				Run: IC2-C_110309A				03/10/11 13:08
Chloride		17.3	mg/L	1.0	101	80	120			
Sulfate		47.8	mg/L	1.0	99	80	120			
Sample ID: C11030211-003BMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110309A				03/10/11 13:24
Chloride		17.6	mg/L	1.0	104	80	120	1.5	10	
Sulfate		48.9	mg/L	1.0	102	80	120	2.2	10	

Qualifiers:

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MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/18/11

Project: Marsland G-8 Samples **Work Order:** C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R143504
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110310A				03/10/11 11:55
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.10						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110310A				03/10/11 11:58
Nitrogen, Nitrate+Nitrite as N		2.61	mg/L	0.10	105	90	110			
Sample ID: C11030209-001FMS		Sample Matrix Spike				Run: TECHNICON_110310A				03/10/11 14:08
Nitrogen, Nitrate+Nitrite as N		2.55	mg/L	0.10	108	90	110			
Sample ID: C11030209-001FMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110310A				03/10/11 14:10
Nitrogen, Nitrate+Nitrite as N		2.56	mg/L	0.10	109	90	110	0.4	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/18/11
Work Order: C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: 29258
Sample ID: C11030211-001HMS		Sample Matrix Spike				Run: G542M_110315A				03/21/11 15:15
Radium 226		11	pCi/L		107	70	130			
Sample ID: C11030211-001HMSD		Sample Matrix Spike Duplicate				Run: G542M_110315A				03/21/11 15:15
Radium 226		10	pCi/L		97	70	130	6.0	24.7	
Sample ID: LCS-29258		Laboratory Control Sample				Run: G542M_110315A				03/21/11 16:54
Radium 226		11.4	pCi/Filter		95	70	130			
Sample ID: MB-29258	3	Method Blank				Run: G542M_110315A				03/21/11 16:54
Radium 226		ND	pCi/Filter	0.10						U
Radium 226 precision (±)		0.169	pCi/Filter							
Radium 226 MDC		0.320	pCi/Filter							
Method: E903.0										Batch: RA226-5235
Sample ID: C11030211-003DMS		Sample Matrix Spike				Run: TENNELEC-3_110315B				03/21/11 17:17
Radium 226		14	pCi/L		109	70	130			
Sample ID: C11030211-003DMSD		Sample Matrix Spike Duplicate				Run: TENNELEC-3_110315B				03/21/11 17:17
Radium 226		14	pCi/L		111	70	130	1.7	25.1	
Sample ID: LCS-RA226-5235		Laboratory Control Sample				Run: TENNELEC-3_110315B				03/21/11 20:55
Radium 226		6.2	pCi/L		95	85	115			
Sample ID: MB-RA226-5235	3	Method Blank				Run: TENNELEC-3_110315B				03/21/11 20:55
Radium 226		0.17	pCi/L	0.10						
Radium 226 precision (±)		0.11	pCi/L							
Radium 226 MDC		0.13	pCi/L							

Qualifiers:

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MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/18/11

Project: Marsland G-8 Samples **Work Order:** C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0										Batch: 29258
Sample ID: C11030346-002HMS		Sample Matrix Spike				Run: EGG-ORTEC_110315A				03/17/11 16:50
Thorium 230		4.4	pCi/L		103	70	130			
Sample ID: C11030346-002HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110315A				03/17/11 16:50
Thorium 230		4.5	pCi/L		103	70	130	2.8	35.4	
Sample ID: LCS-29258		Laboratory Control Sample				Run: EGG-ORTEC_110315A				03/18/11 09:32
Thorium 230		5.26	pCi/Filter		114	70	130			
Sample ID: MB-29258	3	Method Blank				Run: EGG-ORTEC_110315A				03/18/11 09:32
Thorium 230		ND	pCi/Filter	0.050						U
Thorium 230 precision (±)		0.0973	pCi/Filter							
Thorium 230 MDC		0.190	pCi/Filter							
Method: E908.0										Batch: RA-TH-ISO-1346
Sample ID: LCS-RA-TH-ISO-1346		Laboratory Control Sample				Run: EGG-ORTEC_110317A				03/22/11 09:00
Thorium 230		5.4	pCi/L		93	70	130			
Sample ID: C11030160-001DMS		Sample Matrix Spike				Run: EGG-ORTEC_110317A				03/22/11 09:00
Thorium 230		11	pCi/L		87	70	130			
Sample ID: C11030160-001DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110317A				03/22/11 09:00
Thorium 230		12	pCi/L		95	70	130	9.3	36.7	
Sample ID: MB-RA-TH-ISO-1346	3	Method Blank				Run: EGG-ORTEC_110317A				03/22/11 16:58
Thorium 230		0.15	pCi/L	0.050						
Thorium 230 precision (±)		0.11	pCi/L							
Thorium 230 MDC		0.13	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/18/11
Work Order: C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0									Batch: T_PB-210-0084	
Sample ID: LCS-PB-210-0084		Laboratory Control Sample				Run: SUB-T39702			03/24/11 20:59	
Lead 210		50	pCi/L		94	70	130			
Sample ID: MB-PB-210-0084	3	Method Blank				Run: SUB-T39702			03/24/11 18:47	
Lead 210		ND	pCi/L	0.70						U
Lead 210 precision (±)		0.86	pCi/L							
Lead 210 MDC		1.5	pCi/L							
Sample ID: TAP WATERMS		Laboratory Fortified Blank				Run: SUB-T39702			03/25/11 01:22	
Lead 210		52	pCi/L		99	70	130			
Sample ID: TAP WATERMSD		Laboratory Fortified Blank Duplicate				Run: SUB-T39702			03/25/11 03:33	
Lead 210		47	pCi/L		88	70	130	11	30	
Method: E909.0									Batch: T_13525	
Sample ID: T11030059-001HMSD		Sample Matrix Spike Duplicate				Run: SUB-T39754			03/28/11 02:58	
Lead 210		86	pCi/L		87	70	130	17	17.2	
Sample ID: MB-13525_29258	3	Method Blank				Run: SUB-T39754			03/27/11 18:12	
Lead 210		5.1	pCi/L	0.70						U
Lead 210 precision (±)		8.2	pCi/L							
Lead 210 MDC		14	pCi/L							
Sample ID: LCS-13525_29258		Laboratory Control Sample				Run: SUB-T39754			03/27/11 20:24	
Lead 210		350	pCi/L		98	70	130			
Sample ID: T11030059-001HMS		Sample Matrix Spike				Run: SUB-T39754			03/28/11 00:47	
Lead 210		100	pCi/L		103	70	130			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/18/11
Project: Marsland G-8 Samples **Work Order:** C11030211

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0										Batch: PO210-0349
Sample ID: C11030211-004FMS		Sample Matrix Spike				Run: EGG-ORTEC_110314A				03/16/11 13:28
Polonium 210		10	pCi/L		78	70	130			
Sample ID: C11030211-004FMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110314A				03/16/11 13:28
Polonium 210		15	pCi/L		121	70	130	42	71	
Sample ID: MB-PO210-0349	3	Method Blank				Run: EGG-ORTEC_110314A				03/16/11 13:28
Polonium 210		ND	pCi/L	0.20						U
Polonium 210 precision (±)		0.25	pCi/L							
Polonium 210 MDC		0.67	pCi/L							
Sample ID: LCS-PO210-0349		Laboratory Control Sample				Run: EGG-ORTEC_110314A				03/16/11 13:28
Polonium 210		7.0	pCi/L		110	70	130			
Method: E912.0										Batch: 29258
Sample ID: C11030211-004HMS		Sample Matrix Spike				Run: EGG-ORTEC_110316A				03/17/11 13:08
Polonium 210		6.2	pCi/L		111	70	130			
Sample ID: C11030211-004HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110316A				03/17/11 13:08
Polonium 210		6.4	pCi/L		115	70	130	2.9	70.6	
Sample ID: LCS-29258		Laboratory Control Sample				Run: EGG-ORTEC_110316A				03/18/11 09:31
Polonium 210		23	pCi/L		77	70	130			
Sample ID: MB-29258	3	Method Blank				Run: EGG-ORTEC_110316A				03/18/11 09:31
Polonium 210		ND	pCi/L	0.20						U
Polonium 210 precision (±)		1.1	pCi/L							
Polonium 210 MDC		3.0	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

Workorder Receipt Checklist

Crow Butte Resources

C11030211

Login completed by: Corinne Wagner
Reviewed by: BL2000\hackerman
Reviewed Date: 3/8/2011

Date Received: 3/8/2011
Received by: ha
Carrier name: Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	3.6°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

None

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name: Marsland G-8 Samples	Sample Origin / State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169, Crawford, NE 69339	Contact Name: Larry Teahon / Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass, Rhonda Pelton
Invoice Address: P.O. Box 169, Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon, 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	HNO3-F, Metals	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	Raw-UF, Ra226, Po210 dis, sus	Raw-UF, Pb210 dis and sus	Rau-UF, Th230, U-nat dis and sus			SEE ATTACHED	Normal Turnaround (TAT)	RUSH	Comments
1	BOW2010-2	3/4/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/15/11
2	BOW2010-3	3/4/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/15/11
3	BOW2010-5	3/4/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/15/11
4	BOW2010-6	3/4/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/15/11
5																	
6																	
7																	
8																	
9																	
10																	

RUSH: Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling. Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 requirements. Record U as mg/L and µCi/ml and radiometrics as pCi/L.

LABORATORY USE ONLY

Shipped by: Cl/Ut

Cooler ID(s): Cl/Ut

Receipt Temp: 34 °C

On Ice: (Yes) No

Custody Seal Y N

Intact Y N

Signature Match Y N

C1080211

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Rhonda Pelton	3-8-11 11:4	Rhonda Pelton	UPS		

Received by Laboratory: Date/Time: 3/8/11 9:24 Signature: [illegible]

Sample Disposal: Return to Client: No Lab Disposal: YES

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

CROW BUTTE RESOURCES, INC.
CROW BUTTE PROJECT

NO_2^-

DATE: 3/4/10

ANALYST: ht

STANDARD CURVE DATA

	BL		.01	.05	.1		
Abs			.033	.176	.339		
Abs							

SAMPLE #	VOLUME	Df	Abs	
1 Marsland 2	10ml	1	.019	<0.01
2 3	10ml	1	.083	0.02
3 5	10ml	1	.010	<0.01
4 6	10ml	1	.008	<0.01
5				
Dup				
6 Dup 3	10ml	1	.082	0.02
7 Dup 6	10ml	1	.008	<0.01
8				
9				
10				
Dup				
11				
12				
13				
14				
15				
Dup				
16				
17				
18				
19				
20				
Dup				
21				
22				
23				
24				
25				
Dup				

ANALYTICAL SUMMARY REPORT

April 19, 2011

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C11030346 Quote ID: C1125 - Crow Butte Uranium

Project Name: Marsland Baseline Samples

Energy Laboratories, Inc. Casper WY received the following 2 samples for Crow Butte Resources on 3/11/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11030346-001	BOW 2010-1	03/09/11 0:00	03/11/11	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Uranium, Suspended Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C11030346-002	CPW-2010-1/M	03/09/11 0:00	03/11/11	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Crow Butte Resources
Project: Marsland Baseline Samples
Sample Delivery Group: C11030346

Report Date: 04/19/11

CASE NARRATIVE

BRANCH LABORATORY SUBCONTRACT ANALYSIS
Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030346-001
Client Sample ID: BOW 2010-1

Report Date: 04/19/11
Collection Date: 03/09/11
DateReceived: 03/11/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	211	mg/L		1		A2320 B	03/11/11 17:03 / jba
Carbonate as CO3	58	mg/L		1		A2320 B	03/11/11 17:03 / jba
Bicarbonate as HCO3	139	mg/L		1		A2320 B	03/11/11 17:03 / jba
Calcium	5	mg/L		1		E200.7	03/15/11 15:33 / rdw
Chloride	44	mg/L		1		E300.0	03/15/11 18:26 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	03/11/11 13:45 / jba
Magnesium	ND	mg/L		1		E200.7	03/15/11 15:33 / rdw
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/17/11 15:31 / dc
Nitrogen, Nitrate+Nitrite as N	1.3	mg/L		0.1		E353.2	03/23/11 17:51 / dc
Potassium	12	mg/L		1		E200.7	03/15/11 15:33 / rdw
Silica	105	mg/L		0.2		E200.7	03/15/11 15:33 / rdw
Sodium	144	mg/L		1		E200.7	03/15/11 15:33 / rdw
Sulfate	60	mg/L	D	2		E300.0	03/15/11 18:26 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	682	umhos/cm		1		A2510 B	03/14/11 08:31 / lmc
pH	9.56	s.u.		0.01		A4500-H B	03/14/11 08:31 / lmc
Solids, Total Dissolved TDS @ 180 C	456	mg/L		10		A2540 C	03/11/11 15:52 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	03/15/11 15:33 / rdw
Arsenic	0.018	mg/L		0.001		E200.8	03/23/11 18:06 / sml
Barium	ND	mg/L		0.1		E200.7	03/15/11 15:33 / rdw
Boron	0.1	mg/L		0.1		E200.7	03/15/11 15:33 / rdw
Cadmium	ND	mg/L		0.005		E200.8	03/23/11 18:06 / sml
Chromium	ND	mg/L		0.05		E200.7	03/15/11 15:33 / rdw
Copper	ND	mg/L		0.01		E200.8	03/26/11 15:24 / sml
Iron	ND	mg/L		0.03		E200.7	03/15/11 15:33 / rdw
Lead	ND	mg/L		0.001		E200.8	03/23/11 18:06 / sml
Manganese	ND	mg/L		0.01		E200.7	03/15/11 15:33 / rdw
Mercury	ND	mg/L		0.001		E200.8	03/23/11 18:06 / sml
Molybdenum	ND	mg/L		0.1		E200.7	03/15/11 15:33 / rdw
Nickel	ND	mg/L		0.05		E200.8	03/26/11 15:24 / sml
Selenium	0.021	mg/L		0.001		E200.8	03/23/11 18:06 / sml
Uranium	0.0032	mg/L		0.0003		E200.8	03/23/11 18:06 / sml
Uranium, Activity	2.2E-09	uCi/mL		2.0E-10		E200.8	03/23/11 18:06 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/26/11 15:24 / sml
Zinc	0.04	mg/L		0.01		E200.7	03/15/11 15:33 / rdw
METALS - SUSPENDED							
Uranium	0.0004	mg/L		0.0003		E200.8	03/17/11 03:47 / sml
Uranium, Activity	2.9E-10	uCi/mL		2.0E-10		E200.8	03/17/11 03:47 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030346-001
Client Sample ID: BOW 2010-1

Report Date: 04/19/11
Collection Date: 03/09/11
DateReceived: 03/11/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	03/25/11 14:30 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	03/25/11 14:30 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	03/25/11 14:30 / eli-cs
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	03/17/11 13:06 / ep
Polonium 210 precision (±)	0.4	pCi/L				E912.0	03/17/11 13:06 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	03/17/11 13:06 / ep
Radium 226	<0.15	pCi/L	U	0.15		E903.0	03/21/11 17:17 / trs
Radium 226 precision (±)	0.10	pCi/L				E903.0	03/21/11 17:17 / trs
Radium 226 MDC	0.15	pCi/L				E903.0	03/21/11 17:17 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/23/11 11:28 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	03/23/11 11:28 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/23/11 11:28 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.2	pCi/L	U	1.2		E909.0	03/28/11 11:44 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	03/28/11 11:44 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	03/28/11 11:44 / eli-cs
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	04/14/11 08:58 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	04/14/11 08:58 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	04/14/11 08:58 / ep
Radium 226	0.14	pCi/L		0.13		E903.0	03/21/11 16:54 / dmf
Radium 226 precision (±)	0.1	pCi/L				E903.0	03/21/11 16:54 / dmf
Radium 226 MDC	0.13	pCi/L				E903.0	03/21/11 16:54 / dmf
Thorium 230	<0.05	pCi/L	U	0.05		E908.0	03/17/11 16:50 / dmf
Thorium 230 precision (±)	0.05	pCi/L				E908.0	03/17/11 16:50 / dmf
Thorium 230 MDC	0.05	pCi/L				E908.0	03/17/11 16:50 / dmf
DATA QUALITY							
A/C Balance (± 5)	0.0283	%				Calculation	04/07/11 09:55 / kbh
Anions	6.83	meq/L				Calculation	04/07/11 09:55 / kbh
Cations	6.83	meq/L				Calculation	04/07/11 09:55 / kbh
Solids, Total Dissolved Calculated	532	mg/L				Calculation	04/07/11 09:55 / kbh
TDS Balance (0.80 - 1.20)	0.860					Calculation	04/07/11 09:55 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030346-002
Client Sample ID: CPW-2010-1/M

Report Date: 04/19/11
Collection Date: 03/09/11
DateReceived: 03/11/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	370	mg/L		1		A2320 B	03/11/11 17:11 / jba
Carbonate as CO3	14	mg/L		1		A2320 B	03/11/11 17:11 / jba
Bicarbonate as HCO3	422	mg/L		1		A2320 B	03/11/11 17:11 / jba
Calcium	6	mg/L		1		E200.7	03/15/11 15:57 / rdw
Chloride	178	mg/L		1		E300.0	03/15/11 18:42 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	03/11/11 13:47 / jba
Magnesium	1	mg/L		1		E200.7	03/15/11 15:57 / rdw
Nitrogen, Ammonia as N	0.24	mg/L		0.05		A4500-NH3 G	03/17/11 15:33 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	03/23/11 17:54 / dc
Potassium	11	mg/L		1		E200.7	03/15/11 15:57 / rdw
Silica	17.0	mg/L		0.2		E200.7	03/15/11 15:57 / rdw
Sodium	324	mg/L		1		E200.7	03/15/11 15:57 / rdw
Sulfate	94	mg/L	D	4		E300.0	03/15/11 18:42 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1430	umhos/cm		1		A2510 B	03/14/11 08:33 / lmc
pH	8.34	s.u.		0.01		A4500-H B	03/14/11 08:33 / lmc
Solids, Total Dissolved TDS @ 180 C	833	mg/L		10		A2540 C	03/11/11 15:52 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	03/15/11 15:57 / rdw
Arsenic	0.002	mg/L		0.001		E200.8	03/23/11 18:13 / sml
Barium	ND	mg/L		0.1		E200.7	03/15/11 15:57 / rdw
Boron	1.4	mg/L		0.1		E200.7	03/15/11 15:57 / rdw
Cadmium	ND	mg/L		0.005		E200.8	03/23/11 18:13 / sml
Chromium	ND	mg/L		0.05		E200.8	03/26/11 15:31 / sml
Copper	ND	mg/L		0.01		E200.7	03/15/11 15:57 / rdw
Iron	ND	mg/L		0.03		E200.7	03/15/11 15:57 / rdw
Lead	ND	mg/L		0.001		E200.8	03/23/11 18:13 / sml
Manganese	ND	mg/L		0.01		E200.7	03/15/11 15:57 / rdw
Mercury	ND	mg/L		0.001		E200.8	03/23/11 18:13 / sml
Molybdenum	ND	mg/L		0.1		E200.7	03/15/11 15:57 / rdw
Nickel	ND	mg/L		0.05		E200.8	03/26/11 15:31 / sml
Selenium	0.003	mg/L		0.001		E200.8	03/23/11 18:13 / sml
Uranium	0.0115	mg/L		0.0003		E200.8	03/23/11 18:13 / sml
Uranium, Activity	7.8E-09	uCi/mL		2.0E-10		E200.8	03/23/11 18:13 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/26/11 15:31 / sml
Zinc	0.03	mg/L		0.01		E200.7	03/15/11 15:57 / rdw
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/17/11 03:51 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/17/11 03:51 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030346-002
Client Sample ID: CPW-2010-1/M

Report Date: 04/19/11
Collection Date: 03/09/11
DateReceived: 03/11/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	13.5	pCi/L		0.7		E909.0	03/25/11 16:41 / eli-cs
Lead 210 precision (±)	0.6	pCi/L				E909.0	03/25/11 16:41 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	03/25/11 16:41 / eli-cs
Polonium 210	0.5	pCi/L		0.5		E912.0	03/17/11 13:06 / ep
Polonium 210 precision (±)	0.5	pCi/L				E912.0	03/17/11 13:06 / ep
Polonium 210 MDC	0.5	pCi/L				E912.0	03/17/11 13:06 / ep
Radium 226	38	pCi/L		0.13		E903.0	03/21/11 17:17 / trs
Radium 226 precision (±)	1.2	pCi/L				E903.0	03/21/11 17:17 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	03/21/11 17:17 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/23/11 11:28 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	03/23/11 11:28 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/23/11 11:28 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	9.4	pCi/L		1.2		E909.0	03/28/11 13:56 / eli-cs
Lead 210 precision (±)	0.9	pCi/L				E909.0	03/28/11 13:56 / eli-cs
Lead 210 MDC	1.2	pCi/L				E909.0	03/28/11 13:56 / eli-cs
Polonium 210	1.9	pCi/L		0.3		E912.0	04/14/11 08:57 / ep
Polonium 210 precision (±)	0.7	pCi/L				E912.0	04/14/11 08:57 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	04/14/11 08:57 / ep
Radium 226	0.18	pCi/L		0.13		E903.0	03/21/11 16:54 / dmf
Radium 226 precision (±)	0.10	pCi/L				E903.0	03/21/11 16:54 / dmf
Radium 226 MDC	0.13	pCi/L				E903.0	03/21/11 16:54 / dmf
Thorium 230	<0.05	pCi/L	U	0.05		E908.0	03/17/11 16:50 / dmf
Thorium 230 precision (±)	0.04	pCi/L				E908.0	03/17/11 16:50 / dmf
Thorium 230 MDC	0.05	pCi/L				E908.0	03/17/11 16:50 / dmf
DATA QUALITY							
A/C Balance (± 5)	1.35	%				Calculation	04/07/11 09:55 / kbh
Anions	14.4	meq/L				Calculation	04/07/11 09:55 / kbh
Cations	14.8	meq/L				Calculation	04/07/11 09:55 / kbh
Solids, Total Dissolved Calculated	858	mg/L				Calculation	04/07/11 09:55 / kbh
TDS Balance (0.80 - 1.20)	0.970					Calculation	04/07/11 09:55 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/19/11

Project: Marsland Baseline Samples **Work Order:** C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R143546
Sample ID: MBLK	3	Method Blank				Run: MANTECH_110311B				03/11/11 14:32
Alkalinity, Total as CaCO3		1	mg/L	1						
Carbonate as CO3		ND	mg/L	1						
Bicarbonate as HCO3		2	mg/L	1						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110311B				03/11/11 14:47
Alkalinity, Total as CaCO3		211	mg/L	5.0	105	90	110			
Sample ID: C11030345-011ADUP	3	Sample Duplicate				Run: MANTECH_110311B				03/11/11 16:46
Alkalinity, Total as CaCO3		197	mg/L	5.0				2.5	10	
Carbonate as CO3		ND	mg/L	5.0					10	
Bicarbonate as HCO3		241	mg/L	5.0				2.5	10	
Sample ID: C11030345-011AMS		Sample Matrix Spike				Run: MANTECH_110311B				03/11/11 16:54
Alkalinity, Total as CaCO3		331	mg/L	5.0	103	80	120			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 04/19/11
Work Order: C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B									Analytical Run: ORION555A-2_110314A	
Sample ID: ICV2_110314_1		Initial Calibration Verification Standard							03/14/11 08:29	
Conductivity @ 25 C		1390	umhos/cm	1.0	98	90	110			
Method: A2510 B									Batch: 110314_1_PH-W_555A-2	
Sample ID: MBLK1_110314_1		Method Blank				Run: ORION555A-2_110314A			03/14/11 08:25	
Conductivity @ 25 C		0.6	umhos/cm	0.2						
Sample ID: C11030366-001ADUP		Sample Duplicate				Run: ORION555A-2_110314A			03/14/11 08:50	
Conductivity @ 25 C		1440	umhos/cm	1.0				0.2	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/19/11

Project: Marsland Baseline Samples **Work Order:** C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C								Batch: 110311_1_SLDS-TDS-W		
Sample ID: MBLK1_110311		Method Blank				Run: BAL-1_110311A			03/11/11 15:40	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	4						
Sample ID: LCS1_110311		Laboratory Control Sample				Run: BAL-1_110311A			03/11/11 15:40	
Solids, Total Dissolved TDS @ 180 C		984	mg/L	10	98	90	110			
Sample ID: C11030346-002ADUP		Sample Duplicate				Run: BAL-1_110311A			03/11/11 15:52	
Solids, Total Dissolved TDS @ 180 C		847	mg/L	10				1.7	10	
Sample ID: C11030350-001AMS		Sample Matrix Spike				Run: BAL-1_110311A			03/11/11 15:53	
Solids, Total Dissolved TDS @ 180 C		2040	mg/L	10	100	90	110			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 04/19/11
Work Order: C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R143532
Sample ID: MBLK		Method Blank				Run: MANTECH_110311A				03/11/11 10:25
Fluoride		0.02	mg/L	0.008						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110311A				03/11/11 10:27
Fluoride		1.02	mg/L	0.10	100	90	110			
Sample ID: C11030345-011AMS		Sample Matrix Spike				Run: MANTECH_110311A				03/11/11 13:39
Fluoride		0.980	mg/L	0.10	89	80	120			
Sample ID: C11030345-011AMSD		Sample Matrix Spike Duplicate				Run: MANTECH_110311A				03/11/11 13:42
Fluoride		1.02	mg/L	0.10	93	80	120	4.0	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 04/19/11
Work Order: C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION555A-2_110314A		
Sample ID: ICV1_110314_1		Initial Calibration Verification Standard							03/14/11 08:27	
pH		6.90	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 110314_1_PH-W_555A-2		
Sample ID: C11030366-001ADUP		Sample Duplicate				Run: ORION555A-2_110314A			03/14/11 08:50	
pH		9.20	s.u.	0.010				0.1	3	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 04/19/11
Work Order: C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R143734
Sample ID: LCS-5		Laboratory Control Sample				Run: TECHNICON_110317A				03/17/11 15:11
Nitrogen, Ammonia as N		1.94	mg/L	0.050	97	90	110			
Sample ID: C11030323-002DMS		Sample Matrix Spike				Run: TECHNICON_110317A				03/17/11 15:23
Nitrogen, Ammonia as N		1.76	mg/L	0.050	88	80	120			
Sample ID: C11030323-002DMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110317A				03/17/11 15:27
Nitrogen, Ammonia as N		1.83	mg/L	0.050	91	80	120	3.9	10	
Sample ID: MBLK-35		Method Blank				Run: TECHNICON_110317A				03/17/11 16:13
Nitrogen, Ammonia as N		ND	mg/L	0.050						

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/19/11

Project: Marsland Baseline Samples **Work Order:** C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R143647
Sample ID: MB-110315A	14	Method Blank				Run: ICP2-C_110315A				03/15/11 11:56
Aluminum		0.01	mg/L	0.01						
Barium		0.003	mg/L	0.0005						
Boron		0.02	mg/L	0.009						
Calcium		ND	mg/L	0.2						
Chromium		ND	mg/L	0.002						
Copper		0.003	mg/L	0.001						
Iron		ND	mg/L	0.002						
Magnesium		ND	mg/L	0.05						
Manganese		ND	mg/L	0.0004						
Molybdenum		ND	mg/L	0.005						
Potassium		ND	mg/L	0.02						
Silicon		0.010	mg/L	0.007						
Sodium		ND	mg/L	0.3						
Zinc		0.005	mg/L	0.001						
Sample ID: LFB-110315A	14	Laboratory Fortified Blank				Run: ICP2-C_110315A				03/15/11 12:01
Aluminum		0.900	mg/L	0.10	87	85	115			
Barium		0.950	mg/L	0.10	93	85	115			
Boron		0.949	mg/L	0.10	91	85	115			
Calcium		48.1	mg/L	0.50	94	85	115			
Chromium		0.947	mg/L	0.050	93	85	115			
Copper		0.945	mg/L	0.010	92	85	115			
Iron		0.957	mg/L	0.030	94	85	115			
Magnesium		47.3	mg/L	0.50	93	85	115			
Manganese		0.956	mg/L	0.010	94	85	115			
Molybdenum		0.954	mg/L	0.10	94	85	115			
Potassium		43.5	mg/L	0.50	85	85	115			
Silicon		0.442	mg/L	0.10	90	85	115			
Sodium		47.7	mg/L	0.50	93	85	115			
Zinc		0.948	mg/L	0.010	92	85	115			
Sample ID: C11030346-001CMS2	14	Sample Matrix Spike				Run: ICP2-C_110315A				03/15/11 15:37
Aluminum		1.83	mg/L	0.10	87	70	130			
Barium		1.96	mg/L	0.10	95	70	130			
Boron		2.01	mg/L	0.10	93	70	130			
Calcium		99.2	mg/L	1.0	92	70	130			
Chromium		1.92	mg/L	0.050	94	70	130			
Copper		1.95	mg/L	0.010	95	70	130			
Iron		1.91	mg/L	0.030	94	70	130			
Magnesium		89.5	mg/L	1.0	88	70	130			
Manganese		1.93	mg/L	0.010	95	70	130			
Molybdenum		1.91	mg/L	0.10	93	70	130			
Potassium		94.7	mg/L	1.0	81	70	130			
Silicon		49.3	mg/L	0.10		70	130			A
Sodium		241	mg/L	1.0	95	70	130			
Zinc		1.89	mg/L	0.010	91	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Report Date: 04/19/11
Project: Marsland Baseline Samples
Work Order: C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R143647	
Sample ID: C11030346-001CMSD	14	Sample Matrix Spike Duplicate				Run: ICP2-C_110315A			03/15/11 15:41	
Aluminum		1.83	mg/L	0.10	88	70	130	0.2	20	
Barium		1.96	mg/L	0.10	95	70	130	0.2	20	
Boron		2.04	mg/L	0.10	95	70	130	1.3	20	
Calcium		97.6	mg/L	1.0	91	70	130	1.6	20	
Chromium		1.86	mg/L	0.050	91	70	130	3.3	20	
Copper		1.91	mg/L	0.010	94	70	130	1.9	20	
Iron		1.85	mg/L	0.030	91	70	130	3.3	20	
Magnesium		88.2	mg/L	1.0	86	70	130	1.4	20	
Manganese		1.88	mg/L	0.010	92	70	130	2.4	20	
Molybdenum		1.88	mg/L	0.10	92	70	130	1.8	20	
Potassium		95.5	mg/L	1.0	82	70	130	0.8	20	
Silicon		48.4	mg/L	0.10		70	130	1.8	20	A
Sodium		236	mg/L	1.0	89	70	130	2.4	20	
Zinc		1.84	mg/L	0.010	89	70	130	2.7	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/19/11

Project: Marsland Baseline Samples **Work Order:** C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 29258
Sample ID: MB-29258		Method Blank				Run: ICPMS2-C_110316A				03/17/11 03:01
Uranium		ND	mg/L	6E-05						
Sample ID: LCS2-29258		Laboratory Control Sample				Run: ICPMS2-C_110316A				03/17/11 03:05
Uranium		0.0969	mg/L	0.00030	97	85	115			
Sample ID: C11030365-008AMS		Sample Matrix Spike				Run: ICPMS2-C_110316A				03/17/11 04:49
Uranium		0.0561	pCi/Filter	0.00030	112	70	130			
Sample ID: C11030365-008AMSD		Sample Matrix Spike Duplicate				Run: ICPMS2-C_110316A				03/17/11 04:53
Uranium		0.0546	pCi/Filter	0.00030	109	70	130	2.8	20	
Method: E200.8										Batch: R143967
Sample ID: LRB	6	Method Blank				Run: ICPMS2-C_110323A				03/23/11 12:03
Arsenic		7E-05	mg/L	6E-05						
Cadmium		ND	mg/L	1E-05						
Lead		ND	mg/L	3E-05						
Mercury		ND	mg/L	8E-05						
Selenium		0.0004	mg/L	0.0002						
Uranium		ND	mg/L	1E-05						
Sample ID: LFB	6	Laboratory Fortified Blank				Run: ICPMS2-C_110323A				03/23/11 12:10
Arsenic		0.0528	mg/L	0.0010	105	85	115			
Cadmium		0.0534	mg/L	0.0010	107	85	115			
Lead		0.0532	mg/L	0.0010	106	85	115			
Mercury		0.00539	mg/L	0.0010	108	85	115			
Selenium		0.0523	mg/L	0.0010	104	85	115			
Uranium		0.0520	mg/L	0.00030	104	85	115			
Sample ID: C11030345-010CMS4	6	Sample Matrix Spike				Run: ICPMS2-C_110323A				03/23/11 17:12
Arsenic		0.0619	mg/L	0.0010	101	70	130			
Cadmium		0.0482	mg/L	0.010	96	70	130			
Lead		0.0511	mg/L	0.050	102	70	130			
Mercury		0.00509	mg/L	0.0010	102	70	130			
Selenium		0.0466	mg/L	0.0010	92	70	130			
Uranium		0.0865	mg/L	0.00030	104	70	130			
Sample ID: C11030345-010CMSD	6	Sample Matrix Spike Duplicate				Run: ICPMS2-C_110323A				03/23/11 17:19
Arsenic		0.0667	mg/L	0.0010	110	70	130	7.4	20	
Cadmium		0.0528	mg/L	0.010	106	70	130	9.1	20	
Lead		0.0544	mg/L	0.050	109	70	130	6.2	20	
Mercury		0.00548	mg/L	0.0010	110	70	130	7.3	20	
Selenium		0.0512	mg/L	0.0010	101	70	130	9.3	20	
Uranium		0.0886	mg/L	0.00030	108	70	130	2.4	20	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 04/19/11
Work Order: C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144080
Sample ID: LRB	4	Method Blank				Run: ICPMS2-C_110325A				03/25/11 12:30
Chromium		0.00010	mg/L	4E-05						
Copper		ND	mg/L	7E-05						
Nickel		ND	mg/L	0.0007						
Vanadium		6E-05	mg/L	3E-05						
Sample ID: LFB	4	Laboratory Fortified Blank				Run: ICPMS2-C_110325A				03/25/11 12:37
Chromium		0.0542	mg/L	0.0010	108	85	115			
Copper		0.0546	mg/L	0.0010	109	85	115			
Nickel		0.0539	mg/L	0.0010	108	85	115			
Vanadium		0.0537	mg/L	0.0010	107	85	115			
Sample ID: C11030346-002CMS4	4	Sample Matrix Spike				Run: ICPMS2-C_110325A				03/26/11 15:37
Chromium		0.0460	mg/L	0.0010	92	70	130			
Copper		0.0549	mg/L	0.010	96	70	130			
Nickel		0.0455	mg/L	0.0010	91	70	130			
Vanadium		0.0488	mg/L	0.0010	97	70	130			
Sample ID: C11030346-002CMSD	4	Sample Matrix Spike Duplicate				Run: ICPMS2-C_110325A				03/26/11 16:11
Chromium		0.0483	mg/L	0.0010	96	70	130	4.9	20	
Copper		0.0551	mg/L	0.010	97	70	130	0.5	20	
Nickel		0.0472	mg/L	0.0010	94	70	130	3.6	20	
Vanadium		0.0510	mg/L	0.0010	102	70	130	4.4	20	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/19/11

Project: Marsland Baseline Samples **Work Order:** C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: IC2-C_110315A	
Sample ID: ICV	2	Initial Calibration Verification Standard							03/15/11 12:16	
Chloride		10.0	mg/L	1.0	100	90	110			
Sulfate		40.1	mg/L	1.0	100	90	110			
Method: E300.0									Batch: R143695	
Sample ID: MBLK	2	Method Blank				Run: IC2-C_110315A			03/15/11 12:32	
Chloride		ND	mg/L	0.06						
Sulfate		0.2	mg/L	0.2						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: IC2-C_110315A			03/15/11 13:02	
Chloride		12.4	mg/L	1.0	100	90	110			
Sulfate		50.2	mg/L	1.0	100	90	110			
Sample ID: C11030346-002BMS	2	Sample Matrix Spike				Run: IC2-C_110315A			03/15/11 18:57	
Chloride		227	mg/L	1.0	101	80	120			
Sulfate		294	mg/L	4.0	102	80	120			
Sample ID: C11030346-002BMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110315A			03/15/11 19:12	
Chloride		227	mg/L	1.0	100	80	120	0.3	10	
Sulfate		292	mg/L	4.0	101	80	120	0.7	10	
Sample ID: LCS	2	Laboratory Control Sample				Run: IC2-C_110315A			03/15/11 20:30	
Chloride		10.0	mg/L	1.0	100	90	110			
Sulfate		40.2	mg/L	1.0	100	90	110			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Report Date: 04/19/11
Project: Marsland Baseline Samples
Work Order: C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R143975
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110323A				03/23/11 17:24
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.06						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110323A				03/23/11 17:26
Nitrogen, Nitrate+Nitrite as N		2.61	mg/L	0.10	104	90	110			
Sample ID: C11030377-001DMS		Sample Matrix Spike				Run: TECHNICON_110323A				03/23/11 17:41
Nitrogen, Nitrate+Nitrite as N		2.07	mg/L	0.10	106	90	110			
Sample ID: C11030377-001DMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110323A				03/23/11 17:44
Nitrogen, Nitrate+Nitrite as N		2.10	mg/L	0.10	107	90	110	1.4	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/19/11

Project: Marsland Baseline Samples **Work Order:** C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: 29258
Sample ID: C11030211-001HMS		Sample Matrix Spike				Run: G542M_110315A				03/21/11 15:15
Radium 226		11	pCi/L		107	70	130			
Sample ID: C11030211-001HMSD		Sample Matrix Spike Duplicate				Run: G542M_110315A				03/21/11 15:15
Radium 226		10	pCi/L		97	70	130	6.0	24.7	
Sample ID: LCS-29258		Laboratory Control Sample				Run: G542M_110315A				03/21/11 16:54
Radium 226		11.4	pCi/Filter		95	70	130			
Sample ID: MB-29258	3	Method Blank				Run: G542M_110315A				03/21/11 16:54
Radium 226		-0.07	pCi/Filter							U
Radium 226 precision (±)		0.2	pCi/Filter							
Radium 226 MDC		0.3	pCi/Filter							
Method: E903.0										Batch: RA226-5235
Sample ID: C11030211-003DMS		Sample Matrix Spike				Run: TENNELEC-3_110315B				03/21/11 17:17
Radium 226		14	pCi/L		109	70	130			
Sample ID: C11030211-003DMSD		Sample Matrix Spike Duplicate				Run: TENNELEC-3_110315B				03/21/11 17:17
Radium 226		14	pCi/L		111	70	130	1.7	25.1	
Sample ID: LCS-RA226-5235		Laboratory Control Sample				Run: TENNELEC-3_110315B				03/21/11 20:55
Radium 226		6.2	pCi/L		95	85	115			
Sample ID: MB-RA226-5235	3	Method Blank				Run: TENNELEC-3_110315B				03/21/11 20:55
Radium 226		0.2	pCi/L							
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.1	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 04/19/11
Work Order: C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0										Batch: 29258
Sample ID: C11030346-002HMS		Sample Matrix Spike				Run: EGG-ORTEC_110315A				03/17/11 16:50
Thorium 230		4.4	pCi/L		103	70	130			
Sample ID: C11030346-002HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110315A				03/17/11 16:50
Thorium 230		4.5	pCi/L		103	70	130	2.8	35.4	
Sample ID: LCS-29258		Laboratory Control Sample				Run: EGG-ORTEC_110315A				03/18/11 09:32
Thorium 230		5.26	pCi/Filter		114	70	130			
Sample ID: MB-29258	3	Method Blank				Run: EGG-ORTEC_110315A				03/18/11 09:32
Thorium 230		-0.3	pCi/Filter							U
Thorium 230 precision (±)		0.10	pCi/Filter							
Thorium 230 MDC		0.2	pCi/Filter							
Method: E908.0										Batch: RA-TH-ISO-1347
Sample ID: LCS-RA-TH-ISO-1347		Laboratory Control Sample				Run: EGG-ORTEC_110321A				03/23/11 11:28
Thorium 230		4.8	pCi/L		89	70	130			
Sample ID: C11030345-007DMS		Sample Matrix Spike				Run: EGG-ORTEC_110321A				03/23/11 11:28
Thorium 230		13	pCi/L		103	70	130			
Sample ID: C11030345-007DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110321A				03/23/11 11:28
Thorium 230		12	pCi/L		91	70	130	11	36.2	
Sample ID: MB-RA-TH-ISO-1347	3	Method Blank				Run: EGG-ORTEC_110321A				03/23/11 11:29
Thorium 230		0.05	pCi/L							U
Thorium 230 precision (±)		0.06	pCi/L							
Thorium 230 MDC		0.09	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/19/11

Project: Marsland Baseline Samples **Work Order:** C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0									Batch: T_PB-210-0084	
Sample ID: LCS-PB-210-0084		Laboratory Control Sample				Run: SUB-T39702			03/24/11 20:59	
Lead 210		50	pCi/L		94	70	130			
Sample ID: MB-PB-210-0084	3	Method Blank				Run: SUB-T39702			03/24/11 18:47	
Lead 210		-0.5	pCi/L							U
Lead 210 precision (±)		0.9	pCi/L							
Lead 210 MDC		1	pCi/L							
Sample ID: TAP WATERMS		Laboratory Fortified Blank				Run: SUB-T39702			03/25/11 01:22	
Lead 210		52	pCi/L		99	70	130			
Sample ID: TAP WATERMSD		Laboratory Fortified Blank Duplicate				Run: SUB-T39702			03/25/11 03:33	
Lead 210		47	pCi/L		88	70	130	11	30	
Method: E909.0									Batch: T_13525	
Sample ID: T11030059-001HMSD		Sample Matrix Spike Duplicate				Run: SUB-T39754			03/28/11 02:58	
Lead 210		86	pCi/L		87	70	130	17	17.2	
Sample ID: MB-13525_29258	3	Method Blank				Run: SUB-T39754			03/27/11 18:12	
Lead 210		5	pCi/L							U
Lead 210 precision (±)		8	pCi/L							
Lead 210 MDC		10	pCi/L							
Sample ID: LCS-13525_29258		Laboratory Control Sample				Run: SUB-T39754			03/27/11 20:24	
Lead 210		350	pCi/L		98	70	130			
Sample ID: T11030059-001HMS		Sample Matrix Spike				Run: SUB-T39754			03/28/11 00:47	
Lead 210		100	pCi/L		103	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 04/19/11
Work Order: C11030346

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0									Batch: PO210-0351	
Sample ID: C11030396-002FMS		Sample Matrix Spike				Run: EGG-ORTEC_110316B			03/17/11 13:06	
Polonium 210		11	pCi/L		82	70	130			
Sample ID: C11030396-002FMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110316B			03/17/11 13:06	
Polonium 210		10	pCi/L		78	70	130	5.0	76	
Sample ID: MB-PO210-0351	3	Method Blank				Run: EGG-ORTEC_110316B			03/17/11 13:06	
Polonium 210		-0.03	pCi/L							U
Polonium 210 precision (±)		0.3	pCi/L							
Polonium 210 MDC		0.8	pCi/L							
Sample ID: LCS-PO210-0351		Laboratory Control Sample				Run: EGG-ORTEC_110316B			03/17/11 13:06	
Polonium 210		7.2	pCi/L		113	70	130			
Method: E912.0									Batch: R144922	
Sample ID: LCS-29258		Laboratory Control Sample				Run: EGG-ORTEC_110412A			04/14/11 08:57	
Polonium 210		29	pCi/L		96	70	130			
Sample ID: MB-29258	3	Method Blank				Run: EGG-ORTEC_110412A			04/14/11 08:57	
Polonium 210		-0.05	pCi/L							U
Polonium 210 precision (±)		0.9	pCi/L							
Polonium 210 MDC		2	pCi/L							
Sample ID: C11030766-001HMS		Sample Matrix Spike				Run: EGG-ORTEC_110412A			04/14/11 08:57	
Polonium 210		5.1	pCi/L		89	70	130			
Sample ID: C11030766-001HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110412A			04/14/11 08:57	
Polonium 210		5.1	pCi/L		88	70	130	1.7	71.5	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

Workorder Receipt Checklist

Crow Butte Resources

C11030346

Login completed by: Edith McPike
Date Received: 3/11/2011
Reviewed by: BL2000\hackerman
Received by: ha
Reviewed Date: 3/14/2011
Carrier name: Next Day Air Saver

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	5.4°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

Samples filtered and preserved as necessary per quote.

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Name: Resources, Inc.	Project Name: Marsland Baseline Samples	Sample Origin: State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169, Crawford, NE 69339	Contact Name: Larry Teahon; Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass, Rhonda Pelton
Invoice Address: P.O. Box 169, Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon, 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

RUSH: Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling. Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 requirements. Record U as mg/L and µCi/ml and radiometrics as pCi/L.

Shipped by: UPS NDA SVC
Cooler ID(s): various
Receipt Temp: 5.4 °C
On Ice: Yes No
Custody Seal Y N
Intact Y N
Signature Match Y N

Number of Containers; Sample Type: A W S V B O (Air Water Soils/Solids Vegetation Bioassay Other)

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	HNO3-F, Metals	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	Raw-UF, Ra226, Po210 dis, sus	Raw-UF, Pb210 dis and sus	Rau-UF, Th230, U-nat dis and sus			SEE ATTACHED	Normal Turnaround (TAT)	RUSH	Comments
1	BOW 2010-1 1	3/9/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/15/11
2	CPW-2010-1 /m	3/9/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/15/11
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

LABORATORY USE ONLY: C11030346

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Rhonda Pelton	3-10-11 1300	Rhonda Pelton	UPS		

Received by Laboratory: Date/Time: 3-11-11 930 Signature: [illegible]

Sample Disposal: Return to Client: No Lab Disposal: YES

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links

CROW BUTTE RESOURCES, INC.
CROW BUTTE PROJECT

NO_2^-

DATE: 3/9/11

ANALYST: sm

STANDARD CURVE DATA

NO_2^-	BL	0.01	0.05	0.10			
Abs	0	.035	.176				
Abs							

SAMPLE #	VOLUME	Df	Abs	NO_2^- mg/L
1 CPW 2010-1	10 ml	1	-.000	<0.01
2 BOW-1	10 ml	1	.040	0.01
3 BOW-1 Dup	10 ml	1	.042	0.01
4				
5				
Dup				
6				
7				
8				
9				
10				
Dup				
11				
12				
13				
14				
15				
Dup				
16				
17				
18				
19				
20				
Dup				
21				
22				
23				
24				
25				
Dup				

ANALYTICAL SUMMARY REPORT

May 06, 2011

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C11030468 Quote ID: C1125 - Crow Butte Uranium

Project Name: Marsland G-8 Samples

Energy Laboratories, Inc. Casper WY received the following 10 samples for Crow Butte Resources on 3/16/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11030468-001	Monitor 1	03/12/11 0:00	03/16/11	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Uranium, Suspended Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C11030468-002	Monitor 2	03/12/11 0:00	03/16/11	Aqueous	Same As Above
C11030468-003	Monitor 4A	03/12/11 0:00	03/16/11	Aqueous	Same As Above
C11030468-004	Monitor 5	03/12/11 0:00	03/16/11	Aqueous	Same As Above
C11030468-005	Monitor 6	03/12/11 0:00	03/16/11	Aqueous	Same As Above
C11030468-006	Monitor 7	03/12/11 0:00	03/16/11	Aqueous	Same As Above
C11030468-007	Monitor 8	03/12/11 0:00	03/16/11	Aqueous	Same As Above
C11030468-008	Monitor 9	03/12/11 0:00	03/16/11	Aqueous	Same As Above
C11030468-009	Monitor 10	03/12/11 0:00	03/16/11	Aqueous	Same As Above
C11030468-010	Monitor 11	03/12/11 0:00	03/16/11	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Crow Butte Resources
Project: Marsland G-8 Samples
Sample Delivery Group: C11030468

Report Date: 05/06/11

CASE NARRATIVE

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

BRANCH LABORATORY SUBCONTRACT ANALYSIS
Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002;,FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-001
Client Sample ID: Monitor 1

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	412	mg/L		1		A2320 B	03/16/11 21:34 / jba
Carbonate as CO3	13	mg/L		1		A2320 B	03/16/11 21:34 / jba
Bicarbonate as HCO3	476	mg/L		1		A2320 B	03/16/11 21:34 / jba
Calcium	5	mg/L		1		E200.7	03/29/11 14:36 / cp
Chloride	179	mg/L		1		E300.0	03/17/11 23:20 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	03/17/11 11:48 / jba
Magnesium	1	mg/L		1		E200.7	03/29/11 14:36 / cp
Nitrogen, Ammonia as N	0.21	mg/L		0.05		A4500-NH3 G	03/18/11 15:11 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	03/16/11 16:26 / dc
Potassium	8	mg/L		1		E200.7	03/29/11 14:36 / cp
Silica	17.0	mg/L		0.2		E200.7	03/29/11 14:36 / cp
Sodium	332	mg/L		1		E200.7	03/29/11 14:36 / cp
Sulfate	60	mg/L	D	4		E300.0	03/17/11 23:20 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1410	umhos/cm		1		A2510 B	03/16/11 13:57 / lmc
pH	8.25	s.u.		0.01		A4500-H B	03/16/11 13:57 / lmc
Solids, Total Dissolved TDS @ 180 C	848	mg/L		10		A2540 C	03/17/11 13:34 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	03/29/11 14:36 / cp
Arsenic	0.003	mg/L		0.001		E200.8	03/29/11 23:23 / sml
Barium	ND	mg/L		0.1		E200.8	03/23/11 19:21 / sml
Boron	1.4	mg/L		0.1		E200.7	03/29/11 14:36 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/23/11 19:21 / sml
Chromium	ND	mg/L		0.05		E200.7	03/29/11 14:36 / cp
Copper	ND	mg/L		0.01		E200.7	03/29/11 14:36 / cp
Iron	0.15	mg/L		0.03		E200.7	03/29/11 14:36 / cp
Lead	ND	mg/L		0.001		E200.8	03/23/11 19:21 / sml
Manganese	0.01	mg/L		0.01		E200.7	03/29/11 14:36 / cp
Mercury	ND	mg/L		0.001		E200.8	03/23/11 19:21 / sml
Molybdenum	ND	mg/L		0.1		E200.7	03/29/11 14:36 / cp
Nickel	ND	mg/L		0.05		E200.7	03/29/11 14:36 / cp
Selenium	0.004	mg/L		0.001		E200.8	03/29/11 23:23 / sml
Uranium	0.0132	mg/L		0.0003		E200.8	03/23/11 19:21 / sml
Uranium, Activity	9.0E-09	uCi/mL		2.0E-10		E200.8	03/23/11 19:21 / sml
Vanadium	ND	mg/L		0.1		E200.7	03/29/11 14:36 / cp
Zinc	0.02	mg/L		0.01		E200.7	03/29/11 14:36 / cp
METALS - SUSPENDED							
Uranium	0.0378	mg/L		0.0003		E200.8	03/19/11 03:07 / sml
Uranium, Activity	2.6E-08	uCi/mL		2.0E-10		E200.8	03/19/11 03:07 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-001
Client Sample ID: Monitor 1

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	109	pCi/L		0.8		E909.0	04/15/11 09:52 / jb
Lead 210 precision (±)	1.5	pCi/L				E909.0	04/15/11 09:52 / jb
Lead 210 MDC	0.8	pCi/L				E909.0	04/15/11 09:52 / jb
Polonium 210	8.3	pCi/L		0.8		E912.0	03/22/11 13:15 / ep
Polonium 210 precision (±)	2.5	pCi/L				E912.0	03/22/11 13:15 / ep
Polonium 210 MDC	0.8	pCi/L				E912.0	03/22/11 13:15 / ep
Radium 226	16	pCi/L		0.15		E903.0	03/29/11 12:24 / trs
Radium 226 precision (±)	0.83	pCi/L				E903.0	03/29/11 12:24 / trs
Radium 226 MDC	0.15	pCi/L				E903.0	03/29/11 12:24 / trs
Thorium 230	1.7	pCi/L		0.1		E908.0	03/31/11 16:17 / dmf
Thorium 230 precision (±)	0.4	pCi/L				E908.0	03/31/11 16:17 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/31/11 16:17 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	103	pCi/L		0.9		E909.0	04/29/11 11:46 / eli-cs
Lead 210 precision (±)	1.4	pCi/L				E909.0	04/29/11 11:46 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	04/29/11 11:46 / eli-cs
Polonium 210	12.8	pCi/L		0.6		E912.0	03/23/11 09:05 / ep
Polonium 210 precision (±)	4.8	pCi/L				E912.0	03/23/11 09:05 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	03/23/11 09:05 / ep
Radium 226	30	pCi/L		0.14		E903.0	03/28/11 21:54 / trs
Radium 226 precision (±)	1.1	pCi/L				E903.0	03/28/11 21:54 / trs
Radium 226 MDC	0.14	pCi/L				E903.0	03/28/11 21:54 / trs
Thorium 230	11.6	pCi/L		0.1		E908.0	03/30/11 11:20 / dmf
Thorium 230 precision (±)	1.9	pCi/L				E908.0	03/30/11 11:20 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/30/11 11:20 / dmf
DATA QUALITY							
A/C Balance (± 5)	1.46	%				Calculation	04/07/11 10:20 / kbh
Anions	14.6	meq/L				Calculation	04/07/11 10:20 / kbh
Cations	15.0	meq/L				Calculation	04/07/11 10:20 / kbh
Solids, Total Dissolved Calculated	854	mg/L				Calculation	04/07/11 10:20 / kbh
TDS Balance (0.80 - 1.20)	0.990					Calculation	04/07/11 10:20 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-002
Client Sample ID: Monitor 2

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	408	mg/L		1		A2320 B	03/16/11 21:52 / jba
Carbonate as CO3	15	mg/L		1		A2320 B	03/16/11 21:52 / jba
Bicarbonate as HCO3	469	mg/L		1		A2320 B	03/16/11 21:52 / jba
Calcium	4	mg/L		1		E200.7	03/29/11 14:48 / cp
Chloride	169	mg/L		1		E300.0	03/18/11 00:06 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	03/17/11 11:56 / jba
Magnesium	ND	mg/L		1		E200.7	03/29/11 14:48 / cp
Nitrogen, Ammonia as N	0.21	mg/L		0.05		A4500-NH3 G	03/18/11 15:13 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	03/16/11 16:29 / dc
Potassium	8	mg/L		1		E200.7	03/29/11 14:48 / cp
Silica	17.9	mg/L		0.2		E200.7	03/29/11 14:48 / cp
Sodium	308	mg/L		1		E200.7	03/29/11 14:48 / cp
Sulfate	58	mg/L	D	4		E300.0	03/18/11 00:06 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1410	umhos/cm		1		A2510 B	03/16/11 13:59 / lmc
pH	8.30	s.u.		0.01		A4500-H B	03/16/11 13:59 / lmc
Solids, Total Dissolved TDS @ 180 C	845	mg/L		10		A2540 C	03/17/11 13:34 / lmc
METALS - DISSOLVED							
Aluminum	0.1	mg/L		0.1		E200.7	03/29/11 14:48 / cp
Arsenic	0.003	mg/L		0.001		E200.8	03/23/11 19:27 / sml
Barium	ND	mg/L		0.1		E200.8	03/23/11 19:27 / sml
Boron	1.5	mg/L		0.1		E200.7	03/29/11 14:48 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/23/11 19:27 / sml
Chromium	ND	mg/L		0.05		E200.8	03/23/11 19:27 / sml
Copper	ND	mg/L		0.01		E200.7	03/29/11 14:48 / cp
Iron	0.11	mg/L		0.03		E200.7	03/29/11 14:48 / cp
Lead	ND	mg/L		0.001		E200.8	03/23/11 19:27 / sml
Manganese	ND	mg/L		0.01		E200.8	03/23/11 19:27 / sml
Mercury	ND	mg/L		0.001		E200.8	03/23/11 19:27 / sml
Molybdenum	ND	mg/L		0.1		E200.7	03/29/11 14:48 / cp
Nickel	ND	mg/L		0.05		E200.7	03/29/11 14:48 / cp
Selenium	0.002	mg/L		0.001		E200.8	03/23/11 19:27 / sml
Uranium	0.0032	mg/L		0.0003		E200.8	03/23/11 19:27 / sml
Uranium, Activity	2.2E-09	uCi/mL		2.0E-10		E200.8	03/23/11 19:27 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/23/11 19:27 / sml
Zinc	0.01	mg/L		0.01		E200.7	03/29/11 14:48 / cp
METALS - SUSPENDED							
Uranium	0.0012	mg/L		0.0003		E200.8	03/19/11 03:11 / sml
Uranium, Activity	8.3E-10	uCi/mL		2.0E-10		E200.8	03/19/11 03:11 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-002
Client Sample ID: Monitor 2

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	3.9	pCi/L		0.9		E909.0	04/15/11 12:04 / jb
Lead 210 precision (±)	0.6	pCi/L				E909.0	04/15/11 12:04 / jb
Lead 210 MDC	0.9	pCi/L				E909.0	04/15/11 12:04 / jb
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	03/22/11 13:15 / ep
Polonium 210 precision (±)	0.5	pCi/L				E912.0	03/22/11 13:15 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	03/22/11 13:15 / ep
Radium 226	1.0	pCi/L		0.10		E903.0	03/29/11 14:26 / trs
Radium 226 precision (±)	0.18	pCi/L				E903.0	03/29/11 14:26 / trs
Radium 226 MDC	0.10	pCi/L				E903.0	03/29/11 14:26 / trs
Thorium 230	0.2	pCi/L		0.1		E908.0	03/31/11 16:17 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	03/31/11 16:17 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/31/11 16:17 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	04/29/11 13:58 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/29/11 13:58 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	04/29/11 13:58 / eli-cs
Polonium 210	0.4	pCi/L		0.2		E912.0	03/23/11 09:05 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	03/23/11 09:05 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	03/23/11 09:05 / ep
Radium 226	1.1	pCi/L		0.12		E903.0	03/28/11 21:54 / trs
Radium 226 precision (±)	0.20	pCi/L				E903.0	03/28/11 21:54 / trs
Radium 226 MDC	0.12	pCi/L				E903.0	03/28/11 21:54 / trs
Thorium 230	0.3	pCi/L		0.07		E908.0	03/30/11 11:20 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	03/30/11 11:20 / dmf
Thorium 230 MDC	0.07	pCi/L				E908.0	03/30/11 11:20 / dmf
DATA QUALITY							
A/C Balance (± 5)	-1.00	%				Calculation	04/07/11 10:21 / kbh
Anions	14.2	meq/L				Calculation	04/07/11 10:21 / kbh
Cations	13.9	meq/L				Calculation	04/07/11 10:21 / kbh
Solids, Total Dissolved Calculated	816	mg/L				Calculation	04/07/11 10:21 / kbh
TDS Balance (0.80 - 1.20)	1.04					Calculation	04/07/11 10:21 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-003
Client Sample ID: Monitor 4A

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	352	mg/L		1		A2320 B	03/16/11 22:01 / jba
Carbonate as CO3	28	mg/L		1		A2320 B	03/16/11 22:01 / jba
Bicarbonate as HCO3	374	mg/L		1		A2320 B	03/16/11 22:01 / jba
Calcium	3	mg/L		1		E200.7	03/29/11 14:56 / cp
Chloride	284	mg/L	D	2		E300.0	03/22/11 15:04 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	03/17/11 12:05 / jba
Magnesium	ND	mg/L		1		E200.7	03/29/11 14:56 / cp
Nitrogen, Ammonia as N	0.24	mg/L		0.05		A4500-NH3 G	03/18/11 15:15 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	03/16/11 16:31 / dc
Potassium	17	mg/L		1		E200.7	03/29/11 14:56 / cp
Silica	18.4	mg/L		0.2		E200.7	03/29/11 14:56 / cp
Sodium	394	mg/L		1		E200.7	03/29/11 14:56 / cp
Sulfate	113	mg/L	D	4		E300.0	03/18/11 00:22 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1760	umhos/cm		1		A2510 B	03/16/11 14:01 / lmc
pH	8.92	s.u.		0.01		A4500-H B	03/16/11 14:01 / lmc
Solids, Total Dissolved TDS @ 180 C	1020	mg/L		10		A2540 C	03/17/11 13:34 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/23/11 21:44 / sml
Arsenic	0.006	mg/L		0.001		E200.8	03/23/11 21:44 / sml
Barium	ND	mg/L		0.1		E200.8	03/23/11 21:44 / sml
Boron	1.2	mg/L		0.1		E200.7	03/29/11 14:56 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/23/11 21:44 / sml
Chromium	ND	mg/L		0.05		E200.8	03/23/11 21:44 / sml
Copper	ND	mg/L		0.01		E200.8	03/23/11 21:44 / sml
Iron	ND	mg/L		0.03		E200.7	03/29/11 14:56 / cp
Lead	ND	mg/L		0.001		E200.8	03/23/11 21:44 / sml
Manganese	ND	mg/L		0.01		E200.8	03/23/11 21:44 / sml
Mercury	ND	mg/L		0.001		E200.8	03/23/11 21:44 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/23/11 21:44 / sml
Nickel	ND	mg/L		0.05		E200.8	03/23/11 21:44 / sml
Selenium	0.002	mg/L		0.001		E200.8	03/23/11 21:44 / sml
Uranium	0.0840	mg/L		0.0003		E200.8	03/23/11 21:44 / sml
Uranium, Activity	5.7E-08	uCi/mL		2.0E-10		E200.8	03/23/11 21:44 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/23/11 21:44 / sml
Zinc	ND	mg/L		0.01		E200.8	03/23/11 21:44 / sml
METALS - SUSPENDED							
Uranium	0.0013	mg/L		0.0003		E200.8	03/19/11 03:16 / sml
Uranium, Activity	8.9E-10	uCi/mL		2.0E-10		E200.8	03/19/11 03:16 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-003
Client Sample ID: Monitor 4A

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	326	pCi/L		0.8		E909.0	04/15/11 14:15 / jb
Lead 210 precision (±)	2.5	pCi/L				E909.0	04/15/11 14:15 / jb
Lead 210 MDC	0.8	pCi/L				E909.0	04/15/11 14:15 / jb
Polonium 210	145	pCi/L		1.3		E912.0	03/22/11 13:15 / ep
Polonium 210 precision (±)	46.1	pCi/L				E912.0	03/22/11 13:15 / ep
Polonium 210 MDC	1.3	pCi/L				E912.0	03/22/11 13:15 / ep
Radium 226	240	pCi/L		0.15		E903.0	03/29/11 14:26 / trs
Radium 226 precision (±)	3.2	pCi/L				E903.0	03/29/11 14:26 / trs
Radium 226 MDC	0.15	pCi/L				E903.0	03/29/11 14:26 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	03/31/11 16:17 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	03/31/11 16:17 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	03/31/11 16:17 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	62.1	pCi/L		0.9		E909.0	04/29/11 16:09 / eli-cs
Lead 210 precision (±)	1.2	pCi/L				E909.0	04/29/11 16:09 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	04/29/11 16:09 / eli-cs
Polonium 210	9.1	pCi/L		0.4		E912.0	03/23/11 09:05 / ep
Polonium 210 precision (±)	3.0	pCi/L				E912.0	03/23/11 09:05 / ep
Polonium 210 MDC	0.4	pCi/L				E912.0	03/23/11 09:05 / ep
Radium 226	0.77	pCi/L		0.12		E903.0	03/28/11 21:54 / trs
Radium 226 precision (±)	0.17	pCi/L				E903.0	03/28/11 21:54 / trs
Radium 226 MDC	0.12	pCi/L				E903.0	03/28/11 21:54 / trs
Thorium 230	0.6	pCi/L		0.09		E908.0	03/30/11 11:20 / dmf
Thorium 230 precision (±)	0.2	pCi/L				E908.0	03/30/11 11:20 / dmf
Thorium 230 MDC	0.09	pCi/L				E908.0	03/30/11 11:20 / dmf
DATA QUALITY							
A/C Balance (± 5)	1.04	%				Calculation	04/07/11 10:21 / kbh
Anions	17.4	meq/L				Calculation	04/07/11 10:21 / kbh
Cations	17.8	meq/L				Calculation	04/07/11 10:21 / kbh
Solids, Total Dissolved Calculated	1050	mg/L				Calculation	04/07/11 10:21 / kbh
TDS Balance (0.80 - 1.20)	0.970					Calculation	04/07/11 10:21 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-004
Client Sample ID: Monitor 5

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	318	mg/L		1		A2320 B	03/16/11 22:09 / jba
Carbonate as CO3	115	mg/L		1		A2320 B	03/16/11 22:09 / jba
Bicarbonate as HCO3	155	mg/L		1		A2320 B	03/16/11 22:09 / jba
Calcium	5	mg/L		1		E200.7	03/29/11 15:16 / cp
Chloride	369	mg/L	D	4		E300.0	03/22/11 15:50 / ljl
Fluoride	0.9	mg/L		0.1		A4500-F C	03/17/11 12:08 / jba
Magnesium	ND	mg/L		1		E200.7	03/29/11 15:16 / cp
Nitrogen, Ammonia as N	0.50	mg/L		0.05		A4500-NH3 G	03/18/11 15:23 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	03/16/11 16:34 / dc
Potassium	41	mg/L		1		E200.7	03/29/11 15:16 / cp
Silica	30.0	mg/L		0.2		E200.7	03/29/11 15:16 / cp
Sodium	519	mg/L		1		E200.7	03/29/11 15:16 / cp
Sulfate	308	mg/L	D	4		E300.0	03/18/11 00:37 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	2400	umhos/cm		1		A2510 B	03/16/11 14:02 / lmc
pH	9.92	s.u.		0.01		A4500-H B	03/16/11 14:02 / lmc
Solids, Total Dissolved TDS @ 180 C	1420	mg/L		10		A2540 C	03/17/11 13:35 / lmc
METALS - DISSOLVED							
Aluminum	0.4	mg/L		0.1		E200.8	03/23/11 21:50 / sml
Arsenic	0.002	mg/L		0.001		E200.8	03/23/11 21:50 / sml
Barium	ND	mg/L		0.1		E200.8	03/23/11 21:50 / sml
Boron	1.2	mg/L		0.1		E200.7	03/29/11 15:16 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/23/11 21:50 / sml
Chromium	ND	mg/L		0.05		E200.8	03/23/11 21:50 / sml
Copper	ND	mg/L		0.01		E200.8	03/23/11 21:50 / sml
Iron	ND	mg/L		0.03		E200.7	03/29/11 15:16 / cp
Lead	ND	mg/L		0.001		E200.8	03/23/11 21:50 / sml
Manganese	ND	mg/L		0.01		E200.8	03/23/11 21:50 / sml
Mercury	ND	mg/L		0.001		E200.8	03/23/11 21:50 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/23/11 21:50 / sml
Nickel	ND	mg/L		0.05		E200.8	03/23/11 21:50 / sml
Selenium	0.003	mg/L		0.001		E200.8	03/23/11 21:50 / sml
Uranium	0.0006	mg/L		0.0003		E200.8	03/23/11 21:50 / sml
Uranium, Activity	4.3E-10	uCi/mL		2.0E-10		E200.8	03/23/11 21:50 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/23/11 21:50 / sml
Zinc	ND	mg/L		0.01		E200.8	03/23/11 21:50 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/19/11 03:20 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/19/11 03:20 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-004
Client Sample ID: Monitor 5

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	1.1	pCi/L		0.9		E909.0	04/15/11 16:26 / jb
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/15/11 16:26 / jb
Lead 210 MDC	0.9	pCi/L				E909.0	04/15/11 16:26 / jb
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	03/22/11 13:15 / ep
Polonium 210 precision (±)	0.5	pCi/L				E912.0	03/22/11 13:15 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	03/22/11 13:15 / ep
Radium 226	0.35	pCi/L		0.13		E903.0	03/29/11 14:26 / trs
Radium 226 precision (±)	0.14	pCi/L				E903.0	03/29/11 14:26 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	03/29/11 14:26 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	03/31/11 16:17 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	03/31/11 16:17 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	03/31/11 16:17 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	04/29/11 18:21 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/29/11 18:21 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	04/29/11 18:21 / eli-cs
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	03/23/11 09:05 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	03/23/11 09:05 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	03/23/11 09:05 / ep
Radium 226	<0.12	pCi/L	U	0.12		E903.0	03/28/11 21:54 / trs
Radium 226 precision (±)	0.05	pCi/L				E903.0	03/28/11 21:54 / trs
Radium 226 MDC	0.12	pCi/L				E903.0	03/28/11 21:54 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/30/11 16:22 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	03/30/11 16:22 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/30/11 16:22 / dmf
DATA QUALITY							
A/C Balance (± 5)	1.50	%				Calculation	04/07/11 10:21 / kbh
Anions	23.2	meq/L				Calculation	04/07/11 10:21 / kbh
Cations	23.9	meq/L				Calculation	04/07/11 10:21 / kbh
Solids, Total Dissolved Calculated	1470	mg/L				Calculation	04/07/11 10:21 / kbh
TDS Balance (0.80 - 1.20)	0.970					Calculation	04/07/11 10:21 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-005
Client Sample ID: Monitor 6

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	370	mg/L		1		A2320 B	03/16/11 22:18 / jba
Carbonate as CO3	68	mg/L		1		A2320 B	03/16/11 22:18 / jba
Bicarbonate as HCO3	313	mg/L		1		A2320 B	03/16/11 22:18 / jba
Calcium	7	mg/L		1		E200.7	03/29/11 15:20 / cp
Chloride	492	mg/L	D	4		E300.0	03/22/11 16:06 / ljl
Fluoride	0.9	mg/L		0.1		A4500-F C	03/17/11 12:10 / jba
Magnesium	ND	mg/L		1		E200.7	03/29/11 15:20 / cp
Nitrogen, Ammonia as N	0.42	mg/L		0.05		A4500-NH3 G	03/18/11 15:25 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	03/16/11 16:36 / dc
Potassium	29	mg/L		1		E200.7	03/29/11 15:20 / cp
Silica	21.7	mg/L		0.2		E200.7	03/29/11 15:20 / cp
Sodium	499	mg/L		1		E200.7	03/29/11 15:20 / cp
Sulfate	59	mg/L	D	4		E300.0	03/18/11 00:52 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	2290	umhos/cm		1		A2510 B	03/16/11 14:04 / lmc
pH	9.32	s.u.		0.01		A4500-H B	03/16/11 14:04 / lmc
Solids, Total Dissolved TDS @ 180 C	1290	mg/L		10		A2540 C	03/17/11 13:35 / lmc
METALS - DISSOLVED							
Aluminum	0.2	mg/L		0.1		E200.8	03/23/11 21:57 / sml
Arsenic	0.002	mg/L		0.001		E200.8	03/23/11 21:57 / sml
Barium	0.1	mg/L		0.1		E200.8	03/23/11 21:57 / sml
Boron	1.3	mg/L		0.1		E200.7	03/29/11 15:20 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/23/11 21:57 / sml
Chromium	ND	mg/L		0.05		E200.8	03/23/11 21:57 / sml
Copper	ND	mg/L		0.01		E200.8	03/23/11 21:57 / sml
Iron	ND	mg/L		0.03		E200.7	03/29/11 15:20 / cp
Lead	ND	mg/L		0.001		E200.8	03/23/11 21:57 / sml
Manganese	ND	mg/L		0.01		E200.8	03/23/11 21:57 / sml
Mercury	ND	mg/L		0.001		E200.8	03/23/11 21:57 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/23/11 21:57 / sml
Nickel	ND	mg/L		0.05		E200.8	03/23/11 21:57 / sml
Selenium	0.003	mg/L		0.001		E200.8	03/23/11 21:57 / sml
Uranium	0.0027	mg/L		0.0003		E200.8	03/23/11 21:57 / sml
Uranium, Activity	1.8E-09	uCi/mL		2.0E-10		E200.8	03/23/11 21:57 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/23/11 21:57 / sml
Zinc	ND	mg/L		0.01		E200.8	03/23/11 21:57 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/19/11 03:24 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/19/11 03:24 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-005
Client Sample ID: Monitor 6

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	1.0	pCi/L		0.8		E909.0	04/15/11 18:38 / jb
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/15/11 18:38 / jb
Lead 210 MDC	0.8	pCi/L				E909.0	04/15/11 18:38 / jb
Polonium 210	0.9	pCi/L		0.7		E912.0	03/22/11 13:15 / ep
Polonium 210 precision (±)	0.7	pCi/L				E912.0	03/22/11 13:15 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	03/22/11 13:15 / ep
Radium 226	2.4	pCi/L		0.13		E903.0	03/29/11 14:26 / trs
Radium 226 precision (±)	0.31	pCi/L				E903.0	03/29/11 14:26 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	03/29/11 14:26 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/31/11 16:17 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	03/31/11 16:17 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/31/11 16:17 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	04/29/11 20:32 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/29/11 20:32 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	04/29/11 20:32 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	03/23/11 09:05 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	03/23/11 09:05 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	03/23/11 09:05 / ep
Radium 226	<0.12	pCi/L	U	0.12		E903.0	03/29/11 00:38 / trs
Radium 226 precision (±)	0.05	pCi/L				E903.0	03/29/11 00:38 / trs
Radium 226 MDC	0.12	pCi/L				E903.0	03/29/11 00:38 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/30/11 16:22 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	03/30/11 16:22 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/30/11 16:22 / dmf
DATA QUALITY							
A/C Balance (± 5)	0.720	%				Calculation	04/07/11 10:21 / kbh
Anions	22.6	meq/L				Calculation	04/07/11 10:21 / kbh
Cations	22.9	meq/L				Calculation	04/07/11 10:21 / kbh
Solids, Total Dissolved Calculated	1340	mg/L				Calculation	04/07/11 10:21 / kbh
TDS Balance (0.80 - 1.20)	0.960					Calculation	04/07/11 10:21 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-006
Client Sample ID: Monitor 7

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	253	mg/L		1		A2320 B	03/16/11 22:27 / jba
Carbonate as CO3	36	mg/L		1		A2320 B	03/16/11 22:27 / jba
Bicarbonate as HCO3	237	mg/L		1		A2320 B	03/16/11 22:27 / jba
Calcium	8	mg/L		1		E200.7	03/29/11 15:24 / cp
Chloride	400	mg/L	D	4		E300.0	03/22/11 16:21 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	03/17/11 12:13 / jba
Magnesium	ND	mg/L		1		E200.7	03/29/11 15:24 / cp
Nitrogen, Ammonia as N	0.21	mg/L		0.05		A4500-NH3 G	03/18/11 15:27 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	03/16/11 16:44 / dc
Potassium	19	mg/L		1		E200.7	03/29/11 15:24 / cp
Silica	18.9	mg/L		0.2		E200.7	03/29/11 15:24 / cp
Sodium	501	mg/L		1		E200.7	03/29/11 15:24 / cp
Sulfate	295	mg/L	D	4		E300.0	03/18/11 01:08 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	2310	umhos/cm		1		A2510 B	03/16/11 14:05 / lmc
pH	9.19	s.u.		0.01		A4500-H B	03/16/11 14:05 / lmc
Solids, Total Dissolved TDS @ 180 C	1380	mg/L		10		A2540 C	03/17/11 13:36 / lmc
METALS - DISSOLVED							
Aluminum	0.1	mg/L		0.1		E200.8	03/23/11 22:04 / sml
Arsenic	0.002	mg/L		0.001		E200.8	03/23/11 22:04 / sml
Barium	ND	mg/L		0.1		E200.8	03/23/11 22:04 / sml
Boron	1.2	mg/L		0.1		E200.7	03/29/11 15:24 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/23/11 22:04 / sml
Chromium	ND	mg/L		0.05		E200.8	03/23/11 22:04 / sml
Copper	ND	mg/L		0.01		E200.8	03/23/11 22:04 / sml
Iron	ND	mg/L		0.03		E200.7	03/29/11 15:24 / cp
Lead	ND	mg/L		0.001		E200.8	03/23/11 22:04 / sml
Manganese	ND	mg/L		0.01		E200.8	03/23/11 22:04 / sml
Mercury	ND	mg/L		0.001		E200.8	03/23/11 22:04 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/23/11 22:04 / sml
Nickel	ND	mg/L		0.05		E200.8	03/23/11 22:04 / sml
Selenium	0.002	mg/L		0.001		E200.8	03/23/11 22:04 / sml
Uranium	0.0008	mg/L		0.0003		E200.8	03/23/11 22:04 / sml
Uranium, Activity	5.3E-10	uCi/mL		2.0E-10		E200.8	03/23/11 22:04 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/23/11 22:04 / sml
Zinc	ND	mg/L		0.01		E200.8	03/23/11 22:04 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/19/11 03:28 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/19/11 03:28 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-006
Client Sample ID: Monitor 7

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	04/15/11 20:49 / jb
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/15/11 20:49 / jb
Lead 210 MDC	0.9	pCi/L				E909.0	04/15/11 20:49 / jb
Polonium 210	<0.9	pCi/L	U	0.9		E912.0	03/22/11 13:15 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	03/22/11 13:15 / ep
Polonium 210 MDC	0.9	pCi/L				E912.0	03/22/11 13:15 / ep
Radium 226	0.79	pCi/L		0.14		E903.0	03/29/11 14:26 / trs
Radium 226 precision (±)	0.19	pCi/L				E903.0	03/29/11 14:26 / trs
Radium 226 MDC	0.14	pCi/L				E903.0	03/29/11 14:26 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/31/11 16:17 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	03/31/11 16:17 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/31/11 16:17 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	04/29/11 22:44 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/29/11 22:44 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	04/29/11 22:44 / eli-cs
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	03/23/11 09:05 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	03/23/11 09:05 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	03/23/11 09:05 / ep
Radium 226	<0.13	pCi/L	U	0.13		E903.0	03/29/11 00:38 / trs
Radium 226 precision (±)	0.08	pCi/L				E903.0	03/29/11 00:38 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	03/29/11 00:38 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/30/11 16:22 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	03/30/11 16:22 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/30/11 16:22 / dmf
DATA QUALITY							
A/C Balance (± 5)	0.568	%				Calculation	04/07/11 10:22 / kbh
Anions	22.5	meq/L				Calculation	04/07/11 10:22 / kbh
Cations	22.8	meq/L				Calculation	04/07/11 10:22 / kbh
Solids, Total Dissolved Calculated	1400	mg/L				Calculation	04/07/11 10:22 / kbh
TDS Balance (0.80 - 1.20)	0.990					Calculation	04/07/11 10:22 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-007
Client Sample ID: Monitor 8

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	296	mg/L		1		A2320 B	03/16/11 22:35 / jba
Carbonate as CO3	30	mg/L		1		A2320 B	03/16/11 22:35 / jba
Bicarbonate as HCO3	301	mg/L		1		A2320 B	03/16/11 22:35 / jba
Calcium	10	mg/L		1		E200.7	03/29/11 15:28 / cp
Chloride	262	mg/L	D	2		E300.0	03/22/11 16:37 / ljl
Fluoride	0.7	mg/L		0.1		A4500-F C	03/17/11 12:16 / jba
Magnesium	2	mg/L		1		E200.7	03/29/11 15:28 / cp
Nitrogen, Ammonia as N	0.31	mg/L		0.05		A4500-NH3 G	03/18/11 15:29 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	03/16/11 16:46 / dc
Potassium	20	mg/L		1		E200.7	03/29/11 15:28 / cp
Silica	21.0	mg/L		0.2		E200.7	03/29/11 15:28 / cp
Sodium	482	mg/L		1		E200.7	03/29/11 15:28 / cp
Sulfate	389	mg/L	D	4		E300.0	03/18/11 09:19 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	2140	umhos/cm		1		A2510 B	03/17/11 09:41 / lmc
pH	9.05	s.u.		0.01		A4500-H B	03/17/11 09:41 / lmc
Solids, Total Dissolved TDS @ 180 C	1330	mg/L		10		A2540 C	03/17/11 13:37 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/23/11 22:11 / sml
Arsenic	0.002	mg/L		0.001		E200.8	03/23/11 22:11 / sml
Barium	ND	mg/L		0.1		E200.8	03/23/11 22:11 / sml
Boron	1.3	mg/L		0.1		E200.7	03/29/11 15:28 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/23/11 22:11 / sml
Chromium	ND	mg/L		0.05		E200.8	03/23/11 22:11 / sml
Copper	ND	mg/L		0.01		E200.8	03/23/11 22:11 / sml
Iron	ND	mg/L		0.03		E200.7	03/29/11 15:28 / cp
Lead	ND	mg/L		0.001		E200.8	03/23/11 22:11 / sml
Manganese	ND	mg/L		0.01		E200.8	03/23/11 22:11 / sml
Mercury	ND	mg/L		0.001		E200.8	03/23/11 22:11 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/23/11 22:11 / sml
Nickel	ND	mg/L		0.05		E200.8	03/23/11 22:11 / sml
Selenium	0.003	mg/L		0.001		E200.8	03/23/11 22:11 / sml
Uranium	0.0007	mg/L		0.0003		E200.8	03/23/11 22:11 / sml
Uranium, Activity	4.8E-10	uCi/mL		2.0E-10		E200.8	03/23/11 22:11 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/23/11 22:11 / sml
Zinc	ND	mg/L		0.01		E200.8	03/23/11 22:11 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/19/11 03:49 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/19/11 03:49 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-007
Client Sample ID: Monitor 8

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	1.0	pCi/L		0.8		E909.0	04/15/11 23:01 / jb
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/15/11 23:01 / jb
Lead 210 MDC	0.8	pCi/L				E909.0	04/15/11 23:01 / jb
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	03/22/11 13:15 / ep
Polonium 210 precision (±)	0.5	pCi/L				E912.0	03/22/11 13:15 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	03/22/11 13:15 / ep
Radium 226	0.50	pCi/L		0.14		E903.0	03/29/11 14:26 / trs
Radium 226 precision (±)	0.16	pCi/L				E903.0	03/29/11 14:26 / trs
Radium 226 MDC	0.14	pCi/L				E903.0	03/29/11 14:26 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/31/11 16:17 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	03/31/11 16:17 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/31/11 16:17 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	04/30/11 00:55 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/30/11 00:55 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	04/30/11 00:55 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	03/23/11 09:05 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	03/23/11 09:05 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	03/23/11 09:05 / ep
Radium 226	<0.13	pCi/L	U	0.13		E903.0	03/29/11 00:38 / trs
Radium 226 precision (±)	0.07	pCi/L				E903.0	03/29/11 00:38 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	03/29/11 00:38 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	03/30/11 16:22 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	03/30/11 16:22 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	03/30/11 16:22 / dmf
DATA QUALITY							
A/C Balance (± 5)	1.54	%				Calculation	04/07/11 10:22 / kbh
Anions	21.4	meq/L				Calculation	04/07/11 10:22 / kbh
Cations	22.1	meq/L				Calculation	04/07/11 10:22 / kbh
Solids, Total Dissolved Calculated	1370	mg/L				Calculation	04/07/11 10:22 / kbh
TDS Balance (0.80 - 1.20)	0.970					Calculation	04/07/11 10:22 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-008
Client Sample ID: Monitor 9

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	295	mg/L		1		A2320 B	03/16/11 22:44 / jba
Carbonate as CO3	43	mg/L		1		A2320 B	03/16/11 22:44 / jba
Bicarbonate as HCO3	272	mg/L		1		A2320 B	03/16/11 22:44 / jba
Calcium	4	mg/L		1		E200.7	03/29/11 15:32 / cp
Chloride	366	mg/L	D	4		E300.0	03/22/11 16:52 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	03/17/11 12:19 / jba
Magnesium	ND	mg/L		1		E200.7	03/29/11 15:32 / cp
Nitrogen, Ammonia as N	0.23	mg/L		0.05		A4500-NH3 G	03/18/11 15:31 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	03/16/11 16:49 / dc
Potassium	22	mg/L		1		E200.7	03/29/11 15:32 / cp
Silica	16.3	mg/L		0.2		E200.7	03/29/11 15:32 / cp
Sodium	401	mg/L		1		E200.7	03/29/11 15:32 / cp
Sulfate	73	mg/L	D	4		E300.0	03/18/11 10:05 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1850	umhos/cm		1		A2510 B	03/17/11 09:42 / lmc
pH	9.28	s.u.		0.01		A4500-H B	03/17/11 09:42 / lmc
Solids, Total Dissolved TDS @ 180 C	1040	mg/L		10		A2540 C	03/17/11 13:37 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/23/11 22:17 / sml
Arsenic	0.004	mg/L		0.001		E200.8	03/23/11 22:17 / sml
Barium	ND	mg/L		0.1		E200.8	03/23/11 22:17 / sml
Boron	1.1	mg/L		0.1		E200.7	03/29/11 15:32 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/23/11 22:17 / sml
Chromium	ND	mg/L		0.05		E200.8	03/23/11 22:17 / sml
Copper	ND	mg/L		0.01		E200.8	03/23/11 22:17 / sml
Iron	ND	mg/L		0.03		E200.7	03/29/11 15:32 / cp
Lead	ND	mg/L		0.001		E200.8	03/23/11 22:17 / sml
Manganese	ND	mg/L		0.01		E200.8	03/23/11 22:17 / sml
Mercury	ND	mg/L		0.001		E200.8	03/23/11 22:17 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/23/11 22:17 / sml
Nickel	ND	mg/L		0.05		E200.8	03/23/11 22:17 / sml
Selenium	0.003	mg/L		0.001		E200.8	03/23/11 22:17 / sml
Uranium	0.0133	mg/L		0.0003		E200.8	03/23/11 22:17 / sml
Uranium, Activity	9.0E-09	uCi/mL		2.0E-10		E200.8	03/23/11 22:17 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/23/11 22:17 / sml
Zinc	ND	mg/L		0.01		E200.8	03/23/11 22:17 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/19/11 03:53 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/19/11 03:53 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-008
Client Sample ID: Monitor 9

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	1	pCi/L		0.8		E909.0	04/16/11 01:12 / jb
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/16/11 01:12 / jb
Lead 210 MDC	0.8	pCi/L				E909.0	04/16/11 01:12 / jb
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	03/22/11 13:15 / ep
Polonium 210 precision (±)	0.5	pCi/L				E912.0	03/22/11 13:15 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	03/22/11 13:15 / ep
Radium 226	0.83	pCi/L		0.14		E903.0	03/29/11 14:26 / trs
Radium 226 precision (±)	0.20	pCi/L				E903.0	03/29/11 14:26 / trs
Radium 226 MDC	0.14	pCi/L				E903.0	03/29/11 14:26 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/31/11 16:17 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	03/31/11 16:17 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/31/11 16:17 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	04/30/11 03:07 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/30/11 03:07 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	04/30/11 03:07 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	03/23/11 09:05 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	03/23/11 09:05 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	03/23/11 09:05 / ep
Radium 226	<0.13	pCi/L	U	0.13		E903.0	03/29/11 00:38 / trs
Radium 226 precision (±)	0.06	pCi/L				E903.0	03/29/11 00:38 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	03/29/11 00:38 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/30/11 16:22 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	03/30/11 16:22 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/30/11 16:22 / dmf
DATA QUALITY							
A/C Balance (± 5)	1.26	%				Calculation	04/07/11 10:22 / kbh
Anions	17.8	meq/L				Calculation	04/07/11 10:22 / kbh
Cations	18.2	meq/L				Calculation	04/07/11 10:22 / kbh
Solids, Total Dissolved Calculated	1060	mg/L				Calculation	04/07/11 10:22 / kbh
TDS Balance (0.80 - 1.20)	0.980					Calculation	04/07/11 10:22 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-009
Client Sample ID: Monitor 10

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	300	mg/L		1		A2320 B	03/16/11 22:52 / jba
Carbonate as CO3	20	mg/L		1		A2320 B	03/16/11 22:52 / jba
Bicarbonate as HCO3	326	mg/L		1		A2320 B	03/16/11 22:52 / jba
Calcium	8	mg/L		1		E200.7	03/29/11 15:36 / cp
Chloride	226	mg/L		1		E300.0	03/18/11 10:21 / ljl
Fluoride	0.7	mg/L		0.1		A4500-F C	03/17/11 12:23 / jba
Magnesium	1	mg/L		1		E200.7	03/29/11 15:36 / cp
Nitrogen, Ammonia as N	0.32	mg/L		0.05		A4500-NH3 G	03/18/11 15:39 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	03/16/11 16:51 / dc
Potassium	13	mg/L		1		E200.7	03/29/11 15:36 / cp
Silica	18.8	mg/L		0.2		E200.7	03/29/11 15:36 / cp
Sodium	451	mg/L		1		E200.7	03/29/11 15:36 / cp
Sulfate	346	mg/L	D	4		E300.0	03/18/11 10:21 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1950	umhos/cm		1		A2510 B	03/17/11 09:44 / lmc
pH	8.73	s.u.		0.01		A4500-H B	03/17/11 09:44 / lmc
Solids, Total Dissolved TDS @ 180 C	1210	mg/L		10		A2540 C	03/17/11 13:37 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/23/11 22:51 / sml
Arsenic	0.002	mg/L		0.001		E200.8	03/23/11 22:51 / sml
Barium	ND	mg/L		0.1		E200.8	03/23/11 22:51 / sml
Boron	1.4	mg/L		0.1		E200.7	03/29/11 15:36 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/23/11 22:51 / sml
Chromium	ND	mg/L		0.05		E200.8	03/23/11 22:51 / sml
Copper	ND	mg/L		0.01		E200.8	03/23/11 22:51 / sml
Iron	ND	mg/L		0.03		E200.7	03/29/11 15:36 / cp
Lead	ND	mg/L		0.001		E200.8	03/23/11 22:51 / sml
Manganese	ND	mg/L		0.01		E200.8	03/23/11 22:51 / sml
Mercury	ND	mg/L		0.001		E200.8	03/23/11 22:51 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/23/11 22:51 / sml
Nickel	ND	mg/L		0.05		E200.8	03/23/11 22:51 / sml
Selenium	0.003	mg/L		0.001		E200.8	03/23/11 22:51 / sml
Uranium	0.0011	mg/L		0.0003		E200.8	03/23/11 22:51 / sml
Uranium, Activity	7.5E-10	uCi/mL		2.0E-10		E200.8	03/23/11 22:51 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/23/11 22:51 / sml
Zinc	ND	mg/L		0.01		E200.8	03/23/11 22:51 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/19/11 03:57 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/19/11 03:57 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-009
Client Sample ID: Monitor 10

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	04/16/11 03:24 / jb
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/16/11 03:24 / jb
Lead 210 MDC	0.8	pCi/L				E909.0	04/16/11 03:24 / jb
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	03/22/11 13:15 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	03/22/11 13:15 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	03/22/11 13:15 / ep
Radium 226	0.36	pCi/L		0.13		E903.0	03/29/11 14:26 / trs
Radium 226 precision (±)	0.14	pCi/L				E903.0	03/29/11 14:26 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	03/29/11 14:26 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/31/11 16:17 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	03/31/11 16:17 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/31/11 16:17 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	04/30/11 05:18 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/30/11 05:18 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	04/30/11 05:18 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	03/23/11 09:05 / ep
Polonium 210 precision (±)	0.09	pCi/L				E912.0	03/23/11 09:05 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	03/23/11 09:05 / ep
Radium 226	<0.14	pCi/L	U	0.14		E903.0	03/29/11 00:38 / trs
Radium 226 precision (±)	0.05	pCi/L				E903.0	03/29/11 00:38 / trs
Radium 226 MDC	0.14	pCi/L				E903.0	03/29/11 00:38 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/30/11 16:22 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	03/30/11 16:22 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/30/11 16:22 / dmf
DATA QUALITY							
A/C Balance (± 5)	2.24	%				Calculation	04/07/11 10:22 / kbh
Anions	19.6	meq/L				Calculation	04/07/11 10:22 / kbh
Cations	20.5	meq/L				Calculation	04/07/11 10:22 / kbh
Solids, Total Dissolved Calculated	1250	mg/L				Calculation	04/07/11 10:22 / kbh
TDS Balance (0.80 - 1.20)	0.970					Calculation	04/07/11 10:22 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-010
Client Sample ID: Monitor 11

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	339	mg/L		1		A2320 B	03/16/11 23:01 / jba
Carbonate as CO3	76	mg/L		1		A2320 B	03/16/11 23:01 / jba
Bicarbonate as HCO3	260	mg/L		1		A2320 B	03/16/11 23:01 / jba
Calcium	5	mg/L		1		E200.7	03/29/11 15:49 / cp
Chloride	519	mg/L	D	4		E300.0	03/22/11 17:07 / ljl
Fluoride	0.9	mg/L		0.1		A4500-F C	03/17/11 12:31 / jba
Magnesium	ND	mg/L		1		E200.7	03/29/11 15:49 / cp
Nitrogen, Ammonia as N	0.26	mg/L		0.05		A4500-NH3 G	03/18/11 15:41 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	03/16/11 16:54 / dc
Potassium	31	mg/L		1		E200.7	03/29/11 15:49 / cp
Silica	16.3	mg/L		0.2		E200.7	03/29/11 15:49 / cp
Sodium	550	mg/L		1		E200.7	03/29/11 15:49 / cp
Sulfate	130	mg/L	D	4		E300.0	03/18/11 10:36 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	2450	umhos/cm		1		A2510 B	03/17/11 09:45 / lmc
pH	9.49	s.u.		0.01		A4500-H B	03/17/11 09:45 / lmc
Solids, Total Dissolved TDS @ 180 C	1400	mg/L		10		A2540 C	03/17/11 13:37 / lmc
METALS - DISSOLVED							
Aluminum	0.1	mg/L		0.1		E200.8	03/23/11 22:58 / sml
Arsenic	0.004	mg/L		0.001		E200.8	03/23/11 22:58 / sml
Barium	ND	mg/L		0.1		E200.8	03/23/11 22:58 / sml
Boron	1.4	mg/L		0.1		E200.7	03/29/11 15:49 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/23/11 22:58 / sml
Chromium	ND	mg/L		0.05		E200.8	03/23/11 22:58 / sml
Copper	ND	mg/L		0.01		E200.8	03/23/11 22:58 / sml
Iron	ND	mg/L		0.03		E200.7	03/29/11 15:49 / cp
Lead	ND	mg/L		0.001		E200.8	03/23/11 22:58 / sml
Manganese	ND	mg/L		0.01		E200.8	03/23/11 22:58 / sml
Mercury	ND	mg/L		0.001		E200.8	03/23/11 22:58 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/23/11 22:58 / sml
Nickel	ND	mg/L		0.05		E200.8	03/23/11 22:58 / sml
Selenium	0.003	mg/L		0.001		E200.8	03/23/11 22:58 / sml
Uranium	0.0008	mg/L		0.0003		E200.8	03/23/11 22:58 / sml
Uranium, Activity	5.1E-10	uCi/mL		2.0E-10		E200.8	03/23/11 22:58 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/23/11 22:58 / sml
Zinc	ND	mg/L		0.01		E200.8	03/23/11 22:58 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/19/11 04:01 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/19/11 04:01 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030468-010
Client Sample ID: Monitor 11

Report Date: 05/06/11
Collection Date: 03/12/11
DateReceived: 03/16/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	04/16/11 05:35 / jb
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/16/11 05:35 / jb
Lead 210 MDC	0.9	pCi/L				E909.0	04/16/11 05:35 / jb
Polonium 210	<0.5	pCi/L	U	0.5		E912.0	03/22/11 13:15 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	03/22/11 13:15 / ep
Polonium 210 MDC	0.5	pCi/L				E912.0	03/22/11 13:15 / ep
Radium 226	0.25	pCi/L		0.14		E903.0	03/29/11 14:26 / trs
Radium 226 precision (±)	0.12	pCi/L				E903.0	03/29/11 14:26 / trs
Radium 226 MDC	0.14	pCi/L				E903.0	03/29/11 14:26 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/31/11 16:17 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	03/31/11 16:17 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/31/11 16:17 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	04/30/11 07:29 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/30/11 07:29 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	04/30/11 07:29 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	03/23/11 09:05 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	03/23/11 09:05 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	03/23/11 09:05 / ep
Radium 226	<0.13	pCi/L	U	0.13		E903.0	03/29/11 00:38 / trs
Radium 226 precision (±)	0.05	pCi/L				E903.0	03/29/11 00:38 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	03/29/11 00:38 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/30/11 16:22 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	03/30/11 16:22 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/30/11 16:22 / dmf
DATA QUALITY							
A/C Balance (± 5)	1.80	%				Calculation	04/07/11 10:22 / kbh
Anions	24.2	meq/L				Calculation	04/07/11 10:22 / kbh
Cations	25.0	meq/L				Calculation	04/07/11 10:22 / kbh
Solids, Total Dissolved Calculated	1460	mg/L				Calculation	04/07/11 10:22 / kbh
TDS Balance (0.80 - 1.20)	0.960					Calculation	04/07/11 10:22 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/06/11

Project: Marsland G-8 Samples **Work Order:** C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R143700
Sample ID: MBLK	3	Method Blank				Run: MANTECH_110316A			03/16/11 16:42	
Alkalinity, Total as CaCO3		2	mg/L	1						
Carbonate as CO3		ND	mg/L	1						
Bicarbonate as HCO3		2	mg/L	1						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110316A			03/16/11 16:55	
Alkalinity, Total as CaCO3		212	mg/L	5.0	105	90	110			
Sample ID: C11030468-001BDUP	3	Sample Duplicate				Run: MANTECH_110316A			03/16/11 21:43	
Alkalinity, Total as CaCO3		409	mg/L	5.0				0.7	10	
Carbonate as CO3		13.3	mg/L	5.0				3.2	10	
Bicarbonate as HCO3		472	mg/L	5.0				0.9	10	
Sample ID: C11030468-010BDUP	3	Sample Duplicate				Run: MANTECH_110316A			03/16/11 23:12	
Alkalinity, Total as CaCO3		344	mg/L	5.0				1.2	10	
Carbonate as CO3		76.9	mg/L	5.0				1.8	10	
Bicarbonate as HCO3		263	mg/L	5.0				0.9	10	
Sample ID: C11030468-010BMS		Sample Matrix Spike				Run: MANTECH_110316A			03/16/11 23:20	
Alkalinity, Total as CaCO3		475	mg/L	5.0	109	80	120			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Report Date: 05/06/11
Project: Marsland G-8 Samples
Work Order: C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: ORION555A-2_110316B		
Sample ID: ICV2_110316_2		Initial Calibration Verification Standard							03/16/11 12:37	
Conductivity @ 25 C		1380	umhos/cm	1.0	98	90	110			
Method: A2510 B								Batch: 110316_2_PH-W_555A-2		
Sample ID: MBLK1_110316_2		Method Blank				Run: ORION555A-2_110316B			03/16/11 12:34	
Conductivity @ 25 C		0.7	umhos/cm	0.2						
Sample ID: C11030468-006BDUP		Sample Duplicate				Run: ORION555A-2_110316B			03/16/11 14:07	
Conductivity @ 25 C		2320	umhos/cm	1.0				0.3	10	
Method: A2510 B								Analytical Run: ORION555A-2_110317A		
Sample ID: ICV2_110317_1		Initial Calibration Verification Standard							03/17/11 09:29	
Conductivity @ 25 C		1390	umhos/cm	1.0	98	90	110			
Method: A2510 B								Batch: 110317_1_PH-W_555A-2		
Sample ID: MBLK1_110317_1		Method Blank				Run: ORION555A-2_110317A			03/17/11 09:25	
Conductivity @ 25 C		0.6	umhos/cm	0.2						
Sample ID: C11030475-001ADUP		Sample Duplicate				Run: ORION555A-2_110317A			03/17/11 09:51	
Conductivity @ 25 C		1010	umhos/cm	1.0				0.1	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 05/06/11
Work Order: C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: R143800
Sample ID: MBLK1_		Method Blank				Run: BAL-1_110317B				03/17/11 13:30
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	4						
Sample ID: LCS1_		Laboratory Control Sample				Run: BAL-1_110317B				03/17/11 13:30
Solids, Total Dissolved TDS @ 180 C		1010	mg/L	10	101	90	110			
Sample ID: C11030468-001ADUP		Sample Duplicate				Run: BAL-1_110317B				03/17/11 13:34
Solids, Total Dissolved TDS @ 180 C		853	mg/L	10				0.6	10	
Sample ID: C11030468-005AMS		Sample Matrix Spike				Run: BAL-1_110317B				03/17/11 13:36
Solids, Total Dissolved TDS @ 180 C		3280	mg/L	10	100	90	110			
Sample ID: C11030468-008ADUP		Sample Duplicate				Run: BAL-1_110317B				03/17/11 13:37
Solids, Total Dissolved TDS @ 180 C		1040	mg/L	10				0.0	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 05/06/11
Work Order: C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R143739
Sample ID: MBLK		Method Blank				Run: MANTECH_110317A				03/17/11 09:46
Fluoride		0.02	mg/L	0.008						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110317A				03/17/11 09:49
Fluoride		1.02	mg/L	0.10	100	90	110			
Sample ID: C11030468-001BMS		Sample Matrix Spike				Run: MANTECH_110317A				03/17/11 11:50
Fluoride		1.68	mg/L	0.10	104	80	120			
Sample ID: C11030468-001BMSD		Sample Matrix Spike Duplicate				Run: MANTECH_110317A				03/17/11 11:53
Fluoride		1.68	mg/L	0.10	104	80	120	0.0	10	
Sample ID: C11030468-009BMS		Sample Matrix Spike				Run: MANTECH_110317A				03/17/11 12:26
Fluoride		1.75	mg/L	0.10	103	80	120			
Sample ID: C11030468-009BMSD		Sample Matrix Spike Duplicate				Run: MANTECH_110317A				03/17/11 12:29
Fluoride		1.75	mg/L	0.10	103	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 05/06/11
Work Order: C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION555A-2_110316B		
Sample ID: ICV1_110316_2		Initial Calibration Verification Standard							03/16/11 12:35	
pH		6.93	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 110316_2_PH-W_555A-2		
Sample ID: C11030468-006BDUP		Sample Duplicate				Run: ORION555A-2_110316B			03/16/11 14:07	
pH		9.19	s.u.	0.010				0.0	3	
Method: A4500-H B								Analytical Run: ORION555A-2_110317A		
Sample ID: ICV1_110317_1		Initial Calibration Verification Standard							03/17/11 09:27	
pH		6.90	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 110317_1_PH-W_555A-2		
Sample ID: C11030475-001ADUP		Sample Duplicate				Run: ORION555A-2_110317A			03/17/11 09:51	
pH		7.77	s.u.	0.010				0.3	3	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 05/06/11
Work Order: C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R143829
Sample ID: MBLK-4		Method Blank				Run: TECHNICON_110318A				03/18/11 14:33
Nitrogen, Ammonia as N		ND	mg/L	0.02						
Sample ID: LCS-5		Laboratory Control Sample				Run: TECHNICON_110318A				03/18/11 14:35
Nitrogen, Ammonia as N		1.95	mg/L	0.050	98	90	110			
Sample ID: C11030468-003GMS		Sample Matrix Spike				Run: TECHNICON_110318A				03/18/11 15:17
Nitrogen, Ammonia as N		2.05	mg/L	0.050	90	80	120			
Sample ID: C11030468-003GMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110318A				03/18/11 15:19
Nitrogen, Ammonia as N		2.06	mg/L	0.050	91	80	120	0.5	10	
Sample ID: C11030468-010GMS		Sample Matrix Spike				Run: TECHNICON_110318A				03/18/11 15:49
Nitrogen, Ammonia as N		2.06	mg/L	0.050	90	80	120			
Sample ID: C11030468-010GMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110318A				03/18/11 15:51
Nitrogen, Ammonia as N		2.07	mg/L	0.050	90	80	120	0.5	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/06/11

Project: Marsland G-8 Samples **Work Order:** C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R144194
Sample ID: MB-110329A	15	Method Blank				Run: ICP2-C_110329A				03/29/11 13:31
Aluminum		ND	mg/L	0.01						
Boron		0.02	mg/L	0.009						
Calcium		ND	mg/L	0.2						
Chromium		ND	mg/L	0.002						
Copper		ND	mg/L	0.001						
Iron		ND	mg/L	0.002						
Magnesium		ND	mg/L	0.05						
Manganese		ND	mg/L	0.0004						
Molybdenum		ND	mg/L	0.005						
Nickel		ND	mg/L	0.003						
Potassium		ND	mg/L	0.02						
Silicon		ND	mg/L	0.007						
Sodium		ND	mg/L	0.3						
Vanadium		0.0003	mg/L							
Zinc		ND	mg/L	0.001						
Sample ID: LFB-110329A	15	Laboratory Fortified Blank				Run: ICP2-C_110329A				03/29/11 13:35
Aluminum		0.970	mg/L	0.10	97	85	115			
Boron		0.953	mg/L	0.10	94	85	115			
Calcium		48.9	mg/L	0.50	98	85	115			
Chromium		0.969	mg/L	0.050	97	85	115			
Copper		0.961	mg/L	0.010	96	85	115			
Iron		0.990	mg/L	0.030	99	85	115			
Magnesium		49.5	mg/L	0.50	99	85	115			
Manganese		0.973	mg/L	0.010	97	85	115			
Molybdenum		0.944	mg/L	0.10	94	85	115			
Nickel		0.966	mg/L	0.050	97	85	115			
Potassium		42.8	mg/L	0.50	86	85	115			
Silicon		0.411	mg/L	0.10	88	85	115			
Sodium		48.4	mg/L	0.50	97	85	115			
Vanadium		1.02	mg/L	0.10	102	85	115			
Zinc		0.975	mg/L	0.010	98	85	115			
Sample ID: C11030468-009CMS2	15	Sample Matrix Spike				Run: ICP2-C_110329A				03/29/11 15:40
Aluminum		2.02	mg/L	0.10	99	70	130			
Boron		3.33	mg/L	0.10	97	70	130			
Calcium		109	mg/L	1.0	99	70	130			
Chromium		1.96	mg/L	0.050	96	70	130			
Copper		2.00	mg/L	0.010	98	70	130			
Iron		2.02	mg/L	0.030	99	70	130			
Magnesium		103	mg/L	1.0	100	70	130			
Manganese		1.99	mg/L	0.010	97	70	130			
Molybdenum		1.93	mg/L	0.10	93	70	130			
Nickel		1.97	mg/L	0.050	97	70	130			
Potassium		102	mg/L	1.0	87	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/06/11

Project: Marsland G-8 Samples **Work Order:** C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R144194
Sample ID: C11030468-009CMS2	15	Sample Matrix Spike				Run: ICP2-C_110329A			03/29/11 15:40	
Silicon		9.50	mg/L	0.10		70	130			A
Sodium		540	mg/L	1.0		70	130			A
Vanadium		2.05	mg/L	0.10	100	70	130			
Zinc		1.99	mg/L	0.010	97	70	130			
Sample ID: C11030468-009CMSD	15	Sample Matrix Spike Duplicate				Run: ICP2-C_110329A			03/29/11 15:45	
Aluminum		2.03	mg/L	0.10	99	70	130	0.5	20	
Boron		3.41	mg/L	0.10	101	70	130	2.5	20	
Calcium		110	mg/L	1.0	99	70	130	0.4	20	
Chromium		1.98	mg/L	0.050	97	70	130	1.1	20	
Copper		2.00	mg/L	0.010	98	70	130	0.1	20	
Iron		2.03	mg/L	0.030	99	70	130	0.6	20	
Magnesium		102	mg/L	1.0	99	70	130	0.4	20	
Manganese		2.00	mg/L	0.010	98	70	130	0.4	20	
Molybdenum		1.96	mg/L	0.10	95	70	130	1.7	20	
Nickel		1.99	mg/L	0.050	98	70	130	1.2	20	
Potassium		102	mg/L	1.0	87	70	130	0.2	20	
Silicon		9.53	mg/L	0.10		70	130	0.4	20	A
Sodium		545	mg/L	1.0		70	130	0.8	20	A
Vanadium		2.08	mg/L	0.10	102	70	130	1.7	20	
Zinc		2.00	mg/L	0.010	97	70	130	0.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 05/06/11
Work Order: C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 29300
Sample ID: MB-29300		Method Blank				Run: ICPMS2-C_110318A				03/19/11 02:22
Uranium		0.0004	mg/L	6E-05						
Sample ID: LCS2-29300		Laboratory Control Sample				Run: ICPMS2-C_110318A				03/19/11 02:26
Uranium		0.0980	mg/L	0.00030	98	85	115			
Sample ID: C11030468-010HMS		Sample Matrix Spike				Run: ICPMS2-C_110318A				03/19/11 04:05
Uranium		0.00454	mg/L	0.00030	102	70	130			
Sample ID: C11030468-010HMSD		Sample Matrix Spike Duplicate				Run: ICPMS2-C_110318A				03/19/11 04:09
Uranium		0.00452	mg/L	0.00030	102	70	130	0.5	20	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/06/11

Project: Marsland G-8 Samples **Work Order:** C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R143967
Sample ID: LRB	15	Method Blank				Run: ICPMS2-C_110323A				03/23/11 12:03
Aluminum		ND	mg/L	0.0001						
Arsenic		7E-05	mg/L	6E-05						
Barium		ND	mg/L	3E-05						
Cadmium		ND	mg/L	1E-05						
Chromium		ND	mg/L	4E-05						
Copper		ND	mg/L	7E-05						
Lead		ND	mg/L	3E-05						
Manganese		ND	mg/L	5E-05						
Mercury		ND	mg/L	8E-05						
Molybdenum		ND	mg/L	5E-05						
Nickel		ND	mg/L	0.0007						
Selenium		0.0004	mg/L	0.0002						
Uranium		ND	mg/L	1E-05						
Vanadium		ND	mg/L	3E-05						
Zinc		ND	mg/L	0.0003						
Sample ID: LFB	15	Laboratory Fortified Blank				Run: ICPMS2-C_110323A				03/23/11 12:10
Aluminum		0.0558	mg/L	0.0010	112	85	115			
Arsenic		0.0528	mg/L	0.0010	105	85	115			
Barium		0.0552	mg/L	0.0010	110	85	115			
Cadmium		0.0534	mg/L	0.0010	107	85	115			
Chromium		0.0538	mg/L	0.0010	108	85	115			
Copper		0.0534	mg/L	0.0010	107	85	115			
Lead		0.0532	mg/L	0.0010	106	85	115			
Manganese		0.0536	mg/L	0.0010	107	85	115			
Mercury		0.00539	mg/L	0.0010	108	85	115			
Molybdenum		0.0516	mg/L	0.0010	103	85	115			
Nickel		0.0535	mg/L	0.0010	107	85	115			
Selenium		0.0523	mg/L	0.0010	104	85	115			
Uranium		0.0520	mg/L	0.00030	104	85	115			
Vanadium		0.0534	mg/L	0.0010	107	85	115			
Zinc		0.0546	mg/L	0.0010	109	85	115			
Sample ID: C11030468-002CMS4	15	Sample Matrix Spike				Run: ICPMS2-C_110323A				03/23/11 19:34
Aluminum		0.475	mg/L	0.10	716	70	130			S
Arsenic		0.0570	mg/L	0.0010	108	70	130			
Barium		0.0934	mg/L	0.0010	104	70	130			
Cadmium		0.0486	mg/L	0.010	97	70	130			
Chromium		0.0493	mg/L	0.0010	83	70	130			
Copper		0.0559	mg/L	0.010	104	70	130			
Lead		0.0542	mg/L	0.050	107	70	130			
Manganese		0.0503	mg/L	0.010	90	70	130			
Mercury		0.00520	mg/L	0.0010	104	70	130			
Molybdenum		0.0646	mg/L	0.0010	109	70	130			
Nickel		0.0536	mg/L	0.050	107	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 05/06/11
Work Order: C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R143967	
Sample ID: C11030468-002CMS4	15	Sample Matrix Spike				Run: ICPMS2-C_110323A			03/23/11 19:34	
Selenium		0.0509	mg/L	0.0010	97	70	130			
Uranium		0.0581	mg/L	0.00030	110	70	130			
Vanadium		0.0510	mg/L	0.0010	97	70	130			
Zinc		0.0611	mg/L	0.010	99	70	130			
Sample ID: C11030468-002CMSD	15	Sample Matrix Spike Duplicate				Run: ICPMS2-C_110323A			03/23/11 19:41	
Aluminum		0.466	mg/L	0.10	699	70	130	1.9	20	S
Arsenic		0.0541	mg/L	0.0010	102	70	130	5.2	20	
Barium		0.0934	mg/L	0.0010	103	70	130	0.0	20	
Cadmium		0.0474	mg/L	0.010	95	70	130	2.5	20	
Chromium		0.0484	mg/L	0.0010	81	70	130	1.8	20	
Copper		0.0543	mg/L	0.010	101	70	130	3.0	20	
Lead		0.0528	mg/L	0.050	105	70	130	2.7	20	
Manganese		0.0504	mg/L	0.010	90	70	130	0.3	20	
Mercury		0.00502	mg/L	0.0010	100	70	130	3.6	20	
Molybdenum		0.0620	mg/L	0.0010	104	70	130	4.1	20	
Nickel		0.0525	mg/L	0.050	105	70	130	2.1	20	
Selenium		0.0492	mg/L	0.0010	94	70	130	3.5	20	
Uranium		0.0565	mg/L	0.00030	106	70	130	2.9	20	
Vanadium		0.0495	mg/L	0.0010	94	70	130	2.9	20	
Zinc		0.0597	mg/L	0.010	97	70	130	2.4	20	
Method: E200.8									Batch: R144159	
Sample ID: LRB	2	Method Blank				Run: ICPMS2-C_110328A			03/28/11 22:22	
Arsenic		ND	mg/L	6E-05						
Selenium		0.0003	mg/L	0.0002						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: ICPMS2-C_110328A			03/28/11 22:29	
Arsenic		0.0495	mg/L	0.0010	99	85	115			
Selenium		0.0492	mg/L	0.0010	98	85	115			
Sample ID: C11030539-001AMS4	2	Sample Matrix Spike				Run: ICPMS2-C_110328A			03/29/11 23:43	
Arsenic		0.0538	mg/L	0.0010	108	70	130			
Selenium		0.0843	mg/L	0.0010	103	70	130			
Sample ID: C11030539-001AMSD	2	Sample Matrix Spike Duplicate				Run: ICPMS2-C_110328A			03/29/11 23:50	
Arsenic		0.0542	mg/L	0.0010	108	70	130	0.7	20	
Selenium		0.0846	mg/L	0.0010	103	70	130	0.4	20	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 05/06/11
Work Order: C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0										Batch: R143828
Sample ID: LCS	2	Laboratory Control Sample				Run: IC2-C_110317A				03/17/11 10:13
Chloride		10.2	mg/L	1.0	102	90	110			
Sulfate		40.5	mg/L	1.0	101	90	110			
Sample ID: MBLK	2	Method Blank				Run: IC2-C_110317A				03/17/11 10:29
Chloride		ND	mg/L	0.06						
Sulfate		0.2	mg/L	0.2						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: IC2-C_110317A				03/17/11 11:00
Chloride		12.4	mg/L	1.0	99	90	110			
Sulfate		50.8	mg/L	1.0	101	90	110			
Sample ID: C11030468-001BMS	2	Sample Matrix Spike				Run: IC2-C_110317A				03/17/11 23:35
Chloride		223	mg/L	1.0	89	80	120			
Sulfate		256	mg/L	4.0	100	80	120			
Sample ID: C11030468-001BMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110317A				03/17/11 23:51
Chloride		225	mg/L	1.0	93	80	120	0.9	10	
Sulfate		261	mg/L	4.0	103	80	120	2.0	10	
Sample ID: C11030468-007BMS	2	Sample Matrix Spike				Run: IC2-C_110317A				03/18/11 09:34
Chloride		301	mg/L	1.0		80	120			A
Sulfate		572	mg/L	4.0	93	80	120			
Sample ID: C11030468-007BMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110317A				03/18/11 09:50
Chloride		301	mg/L	1.0		80	120	0.1	10	A
Sulfate		571	mg/L	4.0	93	80	120	0.1	10	
Method: E300.0										Batch: R143963
Sample ID: LCS		Laboratory Control Sample				Run: IC2-C_110322A				03/22/11 13:32
Chloride		9.89	mg/L	1.0	99	90	110			
Sample ID: MBLK		Method Blank				Run: IC2-C_110322A				03/22/11 13:47
Chloride		ND	mg/L	0.06						
Sample ID: LFB		Laboratory Fortified Blank				Run: IC2-C_110322A				03/22/11 14:18
Chloride		12.7	mg/L	1.0	101	90	110			
Sample ID: C11030468-003BMS		Sample Matrix Spike				Run: IC2-C_110322A				03/22/11 15:20
Chloride		384	mg/L	2.0	102	80	120			
Sample ID: C11030468-003BMSD		Sample Matrix Spike Duplicate				Run: IC2-C_110322A				03/22/11 15:35
Chloride		381	mg/L	2.0	99	80	120	0.8	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 05/06/11
Work Order: C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R143696
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110316A				03/16/11 12:09
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.06						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110316A				03/16/11 12:11
Nitrogen, Nitrate+Nitrite as N		2.61	mg/L	0.10	104	90	110			
Sample ID: C11030468-010GMS		Sample Matrix Spike				Run: TECHNICON_110316A				03/16/11 16:56
Nitrogen, Nitrate+Nitrite as N		1.92	mg/L	0.10	98	90	110			
Sample ID: C11030468-010GMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110316A				03/16/11 16:59
Nitrogen, Nitrate+Nitrite as N		1.92	mg/L	0.10	98	90	110	0.0	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/06/11

Project: Marsland G-8 Samples **Work Order:** C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-5250
Sample ID: C11030468-001DMS		Sample Matrix Spike				Run: BERTHOLD 770-1_110321A			03/29/11 12:24	
Radium 226		23	pCi/L		53	70	130			S
- Spike response is outside of the acceptance range for this analysis. Since the LCS and the RPD for the MS MSD pair are acceptable, the response is considered to be matrix related. The batch is approved.										
Sample ID: C11030468-001DMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-1_110321A			03/29/11 14:26	
Radium 226		22	pCi/L		45	70	130	4.6	20.3	S
Sample ID: MB-RA226-5250	3	Method Blank				Run: BERTHOLD 770-1_110321A			03/29/11 16:46	
Radium 226		-0.06	pCi/L							U
Radium 226 precision (±)		0.05	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Sample ID: LCS-RA226-5250		Laboratory Control Sample				Run: BERTHOLD 770-1_110321A			03/29/11 16:46	
Radium 226		6.2	pCi/L		100	85	115			
Method: E903.0										Batch: 29300
Sample ID: C11030468-004HMS		Sample Matrix Spike				Run: BERTHOLD 770-2_110322A			03/28/11 21:54	
Radium 226		9.0	pCi/L		87	70	130			
Sample ID: C11030468-004HMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-2_110322A			03/29/11 00:38	
Radium 226		8.6	pCi/L		84	70	130	4.2	27.9	
Sample ID: LCS-29300		Laboratory Control Sample				Run: BERTHOLD 770-2_110322A			03/29/11 00:38	
Radium 226		11	pCi/L		94	85	115			
Sample ID: MB-29300	3	Method Blank				Run: BERTHOLD 770-2_110322A			03/29/11 00:38	
Radium 226		-0.2	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.3	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

U - Not detected at minimum detectable concentration

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 05/06/11
Work Order: C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0										Batch: 29300
Sample ID: C11030468-005HMS		Sample Matrix Spike				Run: EGG-ORTEC_110328D				03/30/11 16:22
Thorium 230		8.7	pCi/L		102	70	130			
Sample ID: C11030468-005HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110328D				03/30/11 16:22
Thorium 230		7.9	pCi/L		94	70	130	9.6	46.6	
Sample ID: LCS-29300		Laboratory Control Sample				Run: EGG-ORTEC_110328D				03/30/11 16:22
Thorium 230		11	pCi/L		113	70	130			
Sample ID: MB-29300	3	Method Blank				Run: EGG-ORTEC_110328D				03/30/11 16:22
Thorium 230		-0.2	pCi/L							U
Thorium 230 precision (±)		0.2	pCi/L							
Thorium 230 MDC		0.2	pCi/L							
Method: E908.0										Batch: RA-TH-ISO-1355
Sample ID: LCS-RA-TH-ISO-1355		Laboratory Control Sample				Run: EGG-ORTEC_110329B				03/31/11 16:17
Thorium 230		5.4	pCi/L		92	70	130			
Sample ID: C11030468-001DMS		Sample Matrix Spike				Run: EGG-ORTEC_110329B				03/31/11 16:17
Thorium 230		13	pCi/L		96	70	130			
Sample ID: C11030468-001DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110329B				03/31/11 16:17
Thorium 230		13	pCi/L		100	70	130	3.3	35.6	
Sample ID: MB-RA-TH-ISO-1355	3	Method Blank				Run: EGG-ORTEC_110329B				04/01/11 08:43
Thorium 230		0.04	pCi/L							U
Thorium 230 precision (±)		0.09	pCi/L							
Thorium 230 MDC		0.2	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/06/11

Project: Marsland G-8 Samples **Work Order:** C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0									Batch: T_PB-210-0093	
Sample ID: TAP WATERMSD		Sample Matrix Spike Duplicate				Run: SUB-T39963			04/15/11 05:29	
Lead 210		57	pCi/L		103	70	130	27	16.4	R
- The RPD for the MSD is high. The individual spike recoveries are within range, the MB is acceptable, and the LCS is within range, therefore the batch is approved.										
Sample ID: TAP WATERMS		Sample Matrix Spike				Run: SUB-T39963			04/15/11 03:18	
Lead 210		44	pCi/L		78	70	130			
Sample ID: LCS-PB-210-0093		Laboratory Control Sample				Run: SUB-T39963			04/14/11 22:55	
Lead 210		58	pCi/L		103	70	130			
Sample ID: MB-PB-210-0093	3	Method Blank				Run: SUB-T39963			04/14/11 20:43	
Lead 210		2	pCi/L							U
Lead 210 precision (±)		1	pCi/L							
Lead 210 MDC		2	pCi/L							
Method: E909.0									Batch: T_13600	
Sample ID: T11030079-001HMSD		Sample Matrix Spike Duplicate				Run: SUB-T40146			04/29/11 03:01	
Lead 210		53	pCi/L		85	70	130	4.2	16.3	
Sample ID: MB-13600 / 29300	3	Method Blank				Run: SUB-T40146			04/28/11 18:15	
Lead 210		-0.4	pCi/L							U
Lead 210 precision (±)		6	pCi/L							
Lead 210 MDC		10	pCi/L							
Sample ID: LCS-13600 / 29300		Laboratory Control Sample				Run: SUB-T40146			04/28/11 20:26	
Lead 210		300	pCi/L		84	70	130			
Sample ID: T11030079-001HMS		Sample Matrix Spike				Run: SUB-T40146			04/29/11 00:49	
Lead 210		56	pCi/L		89	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

U - Not detected at minimum detectable concentration

ND - Not detected at the reporting limit.

R - RPD exceeds advisory limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 05/06/11
Work Order: C11030468

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0										Batch: PO210-0353
Sample ID: C11030468-010FMS		Sample Matrix Spike				Run: EGG-ORTEC_110321B			03/22/11 13:15	
Polonium 210		15	pCi/L		114	70	130			
Sample ID: C11030468-010FMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110321B			03/22/11 13:15	
Polonium 210		14	pCi/L		105	70	130	8.5	71.6	
Sample ID: MB-PO210-0353	3	Method Blank				Run: EGG-ORTEC_110321B			03/22/11 13:15	
Polonium 210		-0.01	pCi/L							U
Polonium 210 precision (±)		0.2	pCi/L							
Polonium 210 MDC		0.5	pCi/L							
Sample ID: LCS-PO210-0353		Laboratory Control Sample				Run: EGG-ORTEC_110321B			03/22/11 13:15	
Polonium 210		6.5	pCi/L		102	70	130			
Method: E912.0										Batch: 29300
Sample ID: C11030399-001EMS		Sample Matrix Spike				Run: EGG-ORTEC_110321C			03/23/11 09:05	
Polonium 210		5.5	pCi/L		102	70	130			
Sample ID: C11030399-001EMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110321C			03/23/11 09:05	
Polonium 210		4.6	pCi/L		85	70	130	18	75.5	
Sample ID: LCS-29300		Laboratory Control Sample				Run: EGG-ORTEC_110321C			03/23/11 11:24	
Polonium 210		30	pCi/L		96	70	130			
Sample ID: MB-29300	3	Method Blank				Run: EGG-ORTEC_110321C			03/23/11 11:24	
Polonium 210		0.8	pCi/L							U
Polonium 210 precision (±)		1	pCi/L							
Polonium 210 MDC		2	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

Workorder Receipt Checklist

Crow Butte Resources

C11030468

Login completed by: Corinne Wagner
Date Received: 3/16/2011
Reviewed by: BL2000\tedwards
Received by: ha
Reviewed Date: 3/18/2011
Carrier name: Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	7.8°C		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

Samples for dissolved/suspended radiochemistry were subsampled, filtered and preserved with 2 mL HNO3 in lab upon receipt to pH <2.

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name: Marsland G-8 Samples	Sample Origin: State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169, Crawford, NE 69339	Contact Name: Larry Teahon; Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass, Rhonda Pelton
Invoice Address: P.O. Box 169, Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon, 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

RUSH: Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling. Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 requirements. Record U as mg/L and µCi/ml and radiometrics as pCi/L.

Shipped by: UPS Grd
Cooler ID(s): various
Receipt Temp: 7.8 °C
On Ice: (Yes) No
Custody Seal Y (N)
Intact Y N
Signature Match Y N

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	HNO3-F, Metals	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	Raw-UF, Ra226, Po210 dis, sus	Raw-UF, Pb210 dis and sus	Rau-UF, Th230, U-nat dis and sus			SEE ATTACHED	Normal Turnaround (TAT)	RUSH	Comments	LABORATORY USE ONLY
1	Monitor 1	3/12/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/20/11	
2	Monitor 2	3/12/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/20/11	
3	Monitor 4A	3/12/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/20/11	
4	Monitor 5	3/12/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/20/11	
5	Monitor 6	3/12/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/20/11	
6	Monitor 7	3/12/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/20/11	C110304168
7	Monitor 8	3/12/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/20/11	
8	Monitor 9	3/12/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/20/11	
9	Monitor 10	3/12/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/20/11	
10	Monitor 11	3/12/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/20/11	

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Rhonda Pelton	3-14-11 10:55	Rhonda Pelton	UPS		
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time: 3-16-11 915	Signature: Hickerman

Sample Disposal: Return to Client: No Lab Disposal: YES

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

CROW BUTTE RESOURCES, INC.
CROW BUTTE PROJECT

NO2

DATE: 3/12/11

ANALYST: [illegible]

STANDARD CURVE DATA

	BL	0.01	0.05	0.1			
Abs		.038	.177	.347			
Abs							

SAMPLE #		VOLUME	Df	Abs	NO2 mg/L
Marsland Monitor	1	10 ml	1	.062	0.02
2	2	10 ml		.005	<0.01
3	4A	10 ml		.005	<0.01
4	5	10 ml		.006	<0.01
5	6	10 ml		.007	<0.01
Dup	7	10 ml		.005	<0.01
6	8	10 ml		.010	<0.01
7	9	10 ml		.004	<0.01
8	10	10 ml		.017	<0.01
9	11	10 ml		.012	<0.01
10					
Dup	Dup 1	10 ml		.062	<0.01
11	Dup 4A	10 ml		.005	<0.01
12	Dup 7	10 ml		.006	<0.01
13	Dup 10	10 ml		.016	<0.01
14					
15					
Dup					
16					
17					
18					
19					
20					
Dup					
21					
22					
23					
24					
25					
Dup					

ANALYTICAL SUMMARY REPORT

May 05, 2011

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C11030396 Quote ID: C1125 - Crow Butte Uranium

Project Name: Marsland Expansion Project

Energy Laboratories, Inc. Casper WY received the following 2 samples for Crow Butte Resources on 3/14/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11030396-001	E. Driller's Well	03/11/11 0:00	03/14/11	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Uranium, Suspended Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C11030396-002	W. Driller's Well	03/11/11 0:00	03/14/11	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Crow Butte Resources
Project: Marsland Expansion Project
Sample Delivery Group: C11030396

Report Date: 05/05/11

CASE NARRATIVE

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

BRANCH LABORATORY SUBCONTRACT ANALYSIS
Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Expansion Project
Lab ID: C11030396-001
Client Sample ID: E. Driller's Well

Report Date: 05/05/11
Collection Date: 03/11/11
DateReceived: 03/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	156	mg/L		1		A2320 B	03/14/11 19:03 / jba
Carbonate as CO3	ND	mg/L		1		A2320 B	03/14/11 19:03 / jba
Bicarbonate as HCO3	191	mg/L		1		A2320 B	03/14/11 19:03 / jba
Calcium	33	mg/L		1		E200.7	03/15/11 16:21 / rdw
Chloride	3	mg/L		1		E300.0	03/16/11 05:14 / ljl
Fluoride	0.5	mg/L		0.1		A4500-F C	03/17/11 10:10 / jba
Magnesium	8	mg/L		1		E200.7	03/15/11 16:21 / rdw
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/17/11 15:37 / dc
Nitrogen, Nitrate+Nitrite as N	1.0	mg/L		0.1		E353.2	03/23/11 17:56 / dc
Potassium	3	mg/L		1		E200.7	03/15/11 16:21 / rdw
Silica	80.9	mg/L		0.2		E200.7	03/15/11 16:21 / rdw
Sodium	18	mg/L		1		E200.7	03/15/11 16:21 / rdw
Sulfate	7	mg/L		1		E300.0	03/16/11 05:14 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	304	umhos/cm		1		A2510 B	03/14/11 14:44 / lmc
pH	7.98	s.u.		0.01		A4500-H B	03/14/11 14:44 / lmc
Solids, Total Dissolved TDS @ 180 C	239	mg/L		10		A2540 C	03/15/11 09:03 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	03/15/11 16:21 / rdw
Arsenic	0.002	mg/L		0.001		E200.8	04/04/11 16:38 / sml
Barium	0.1	mg/L		0.1		E200.7	03/15/11 16:21 / rdw
Boron	ND	mg/L		0.1		E200.7	03/15/11 16:21 / rdw
Cadmium	ND	mg/L		0.005		E200.8	03/23/11 18:40 / sml
Chromium	ND	mg/L		0.05		E200.7	03/28/11 14:45 / cp
Copper	ND	mg/L		0.01		E200.7	03/28/11 14:45 / cp
Iron	ND	mg/L		0.03		E200.7	03/15/11 16:21 / rdw
Lead	ND	mg/L		0.001		E200.8	03/23/11 18:40 / sml
Manganese	ND	mg/L		0.01		E200.7	03/28/11 14:45 / cp
Mercury	ND	mg/L		0.001		E200.8	03/23/11 18:40 / sml
Molybdenum	ND	mg/L		0.1		E200.7	03/28/11 14:45 / cp
Nickel	ND	mg/L		0.05		E200.7	03/28/11 14:45 / cp
Selenium	0.002	mg/L		0.001		E200.8	04/04/11 16:38 / sml
Uranium	0.0088	mg/L		0.0003		E200.8	03/23/11 18:40 / sml
Uranium, Activity	5.9E-09	uCi/mL		2.0E-10		E200.8	03/23/11 18:40 / sml
Vanadium	ND	mg/L		0.1		E200.7	03/28/11 14:45 / cp
Zinc	0.02	mg/L		0.01		E200.7	03/15/11 16:21 / rdw
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/19/11 02:34 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/19/11 02:34 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Expansion Project
Lab ID: C11030396-001
Client Sample ID: E. Driller's Well

Report Date: 05/05/11
Collection Date: 03/11/11
DateReceived: 03/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	03/25/11 18:53 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	03/25/11 18:53 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	03/25/11 18:53 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	03/17/11 13:06 / ep
Polonium 210 precision (±)	0.4	pCi/L				E912.0	03/17/11 13:06 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	03/17/11 13:06 / ep
Radium 226	2.6	pCi/L		0.14		E903.0	03/21/11 20:55 / trs
Radium 226 precision (±)	0.32	pCi/L				E903.0	03/21/11 20:55 / trs
Radium 226 MDC	0.14	pCi/L				E903.0	03/21/11 20:55 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/25/11 09:27 / dmf
Thorium 230 precision (±)	0.05	pCi/L				E908.0	03/25/11 09:27 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/25/11 09:27 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	04/28/11 22:38 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/28/11 22:38 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	04/28/11 22:38 / eli-cs
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	03/23/11 09:05 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	03/23/11 09:05 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	03/23/11 09:05 / ep
Radium 226	<0.22	pCi/L	U	0.22		E903.0	03/28/11 21:54 / trs
Radium 226 precision (±)	0.09	pCi/L				E903.0	03/28/11 21:54 / trs
Radium 226 MDC	0.22	pCi/L				E903.0	03/28/11 21:54 / trs
Thorium 230	<0.09	pCi/L	U	0.09		E908.0	03/30/11 11:19 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	03/30/11 11:19 / dmf
Thorium 230 MDC	0.09	pCi/L				E908.0	03/30/11 11:19 / dmf
DATA QUALITY							
A/C Balance (± 5)	-3.14	%				Calculation	04/07/11 10:01 / kbh
Anions	3.45	meq/L				Calculation	04/07/11 10:01 / kbh
Cations	3.24	meq/L				Calculation	04/07/11 10:01 / kbh
Solids, Total Dissolved Calculated	274	mg/L				Calculation	04/07/11 10:01 / kbh
TDS Balance (0.80 - 1.20)	0.870					Calculation	04/07/11 10:01 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Expansion Project
Lab ID: C11030396-002
Client Sample ID: W. Driller's Well

Report Date: 05/05/11
Collection Date: 03/11/11
DateReceived: 03/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	150	mg/L		1		A2320 B	03/14/11 19:11 / jba
Carbonate as CO3	ND	mg/L		1		A2320 B	03/14/11 19:11 / jba
Bicarbonate as HCO3	183	mg/L		1		A2320 B	03/14/11 19:11 / jba
Calcium	27	mg/L		1		E200.7	03/15/11 16:25 / rdw
Chloride	3	mg/L		1		E300.0	03/16/11 05:29 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	03/17/11 10:18 / jba
Magnesium	6	mg/L		1		E200.7	03/15/11 16:25 / rdw
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/17/11 15:39 / dc
Nitrogen, Nitrate+Nitrite as N	1.1	mg/L		0.1		E353.2	03/23/11 17:59 / dc
Potassium	4	mg/L		1		E200.7	03/15/11 16:25 / rdw
Silica	82.4	mg/L		0.2		E200.7	03/15/11 16:25 / rdw
Sodium	32	mg/L		1		E200.7	03/15/11 16:25 / rdw
Sulfate	14	mg/L		1		E300.0	03/16/11 05:29 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	310	umhos/cm		1		A2510 B	03/14/11 14:46 / lmc
pH	8.03	s.u.		0.01		A4500-H B	03/14/11 14:46 / lmc
Solids, Total Dissolved TDS @ 180 C	257	mg/L		10		A2540 C	03/15/11 09:04 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	03/15/11 16:25 / rdw
Arsenic	0.006	mg/L		0.001		E200.8	03/23/11 18:47 / sml
Barium	ND	mg/L		0.1		E200.7	03/15/11 16:25 / rdw
Boron	ND	mg/L		0.1		E200.7	03/15/11 16:25 / rdw
Cadmium	ND	mg/L		0.005		E200.8	03/23/11 18:47 / sml
Chromium	ND	mg/L		0.05		E200.7	03/28/11 14:49 / cp
Copper	ND	mg/L		0.01		E200.7	03/28/11 14:49 / cp
Iron	ND	mg/L		0.03		E200.7	03/15/11 16:25 / rdw
Lead	ND	mg/L		0.001		E200.8	03/23/11 18:47 / sml
Manganese	ND	mg/L		0.01		E200.7	03/28/11 14:49 / cp
Mercury	ND	mg/L		0.001		E200.8	03/23/11 18:47 / sml
Molybdenum	ND	mg/L		0.1		E200.7	03/28/11 14:49 / cp
Nickel	ND	mg/L		0.05		E200.7	03/28/11 14:49 / cp
Selenium	0.002	mg/L		0.001		E200.8	03/23/11 18:47 / sml
Uranium	0.0060	mg/L		0.0003		E200.8	03/23/11 18:47 / sml
Uranium, Activity	4.1E-09	uCi/mL		2.0E-10		E200.8	03/23/11 18:47 / sml
Vanadium	ND	mg/L		0.1		E200.7	03/28/11 14:49 / cp
Zinc	0.02	mg/L		0.01		E200.7	03/28/11 14:49 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/19/11 02:55 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/19/11 02:55 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Expansion Project
Lab ID: C11030396-002
Client Sample ID: W. Driller's Well

Report Date: 05/05/11
Collection Date: 03/11/11
DateReceived: 03/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	03/25/11 21:05 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	03/25/11 21:05 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	03/25/11 21:05 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	03/17/11 13:06 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	03/17/11 13:06 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	03/17/11 13:06 / ep
Radium 226	0.97	pCi/L		0.13		E903.0	03/21/11 20:55 / trs
Radium 226 precision (±)	0.20	pCi/L				E903.0	03/21/11 20:55 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	03/21/11 20:55 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/25/11 09:27 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	03/25/11 09:27 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/25/11 09:27 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	04/29/11 05:12 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/29/11 05:12 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	04/29/11 05:12 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	03/23/11 09:05 / ep
Polonium 210 precision (±)	0.09	pCi/L				E912.0	03/23/11 09:05 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	03/23/11 09:05 / ep
Radium 226	<0.13	pCi/L	U	0.13		E903.0	03/28/11 21:54 / trs
Radium 226 precision (±)	0.05	pCi/L				E903.0	03/28/11 21:54 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	03/28/11 21:54 / trs
Thorium 230	<0.09	pCi/L	U	0.09		E908.0	03/30/11 11:20 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	03/30/11 11:20 / dmf
Thorium 230 MDC	0.09	pCi/L				E908.0	03/30/11 11:20 / dmf
DATA QUALITY							
A/C Balance (± 5)	-1.85	%				Calculation	04/07/11 10:02 / kbh
Anions	3.47	meq/L				Calculation	04/07/11 10:02 / kbh
Cations	3.35	meq/L				Calculation	04/07/11 10:02 / kbh
Solids, Total Dissolved Calculated	285	mg/L				Calculation	04/07/11 10:02 / kbh
TDS Balance (0.80 - 1.20)	0.900					Calculation	04/07/11 10:02 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Expansion Project

Report Date: 05/05/11
Work Order: C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R143587
Sample ID: MBLK	3	Method Blank				Run: MANTECH_110314A				03/14/11 15:51
Alkalinity, Total as CaCO3		3	mg/L	1						
Carbonate as CO3		ND	mg/L	1						
Bicarbonate as HCO3		4	mg/L	1						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110314A				03/14/11 16:05
Alkalinity, Total as CaCO3		212	mg/L	5.0	104	90	110			
Sample ID: C11030376-010ADUP	3	Sample Duplicate				Run: MANTECH_110314A				03/14/11 18:07
Alkalinity, Total as CaCO3		315	mg/L	5.0				0.3	10	
Carbonate as CO3		ND	mg/L	5.0					10	
Bicarbonate as HCO3		385	mg/L	5.0				0.3	10	
Sample ID: C11030376-010AMS		Sample Matrix Spike				Run: MANTECH_110314A				03/14/11 18:15
Alkalinity, Total as CaCO3		451	mg/L	5.0	109	80	120			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Expansion Project

Report Date: 05/05/11
Work Order: C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: ORION555A-2_110314B		
Sample ID: ICV2_110314_2		Initial Calibration Verification Standard							03/14/11 14:13	
Conductivity @ 25 C		1390	umhos/cm	1.0	98	90	110			
Method: A2510 B								Batch: 110314_2_PH-W_555A-2		
Sample ID: MBLK1_110314_2		Method Blank				Run: ORION555A-2_110314B			03/14/11 14:10	
Conductivity @ 25 C		0.5	umhos/cm	0.2						
Sample ID: C11030396-002BDUP		Sample Duplicate				Run: ORION555A-2_110314B			03/14/11 14:47	
Conductivity @ 25 C		311	umhos/cm	1.0				0.3	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Expansion Project

Report Date: 05/05/11
Work Order: C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: R143680
Sample ID: MBLK1_		Method Blank				Run: BAL-1_110315B				03/15/11 08:58
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	4						
Sample ID: LCS1_		Laboratory Control Sample				Run: BAL-1_110315B				03/15/11 08:58
Solids, Total Dissolved TDS @ 180 C		1010	mg/L	10	101	90	110			
Sample ID: C11030396-001ADUP		Sample Duplicate				Run: BAL-1_110315B				03/15/11 09:04
Solids, Total Dissolved TDS @ 180 C		242	mg/L	10				1.3	10	
Sample ID: C11030396-002AMS		Sample Matrix Spike				Run: BAL-1_110315B				03/15/11 09:04
Solids, Total Dissolved TDS @ 180 C		2280	mg/L	10	101	90	110			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Expansion Project

Report Date: 05/05/11
Work Order: C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R143739
Sample ID: MBLK		Method Blank				Run: MANTECH_110317A				03/17/11 09:46
Fluoride		0.02	mg/L	0.008						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110317A				03/17/11 09:49
Fluoride		1.02	mg/L	0.10	100	90	110			
Sample ID: C11030396-001BMS		Sample Matrix Spike				Run: MANTECH_110317A				03/17/11 10:13
Fluoride		1.59	mg/L	0.10	106	80	120			
Sample ID: C11030396-001BMSD		Sample Matrix Spike Duplicate				Run: MANTECH_110317A				03/17/11 10:15
Fluoride		1.59	mg/L	0.10	106	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Expansion Project

Report Date: 05/05/11
Work Order: C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION555A-2_110314B		
Sample ID: ICV1_110314_2		Initial Calibration Verification Standard							03/14/11 14:11	
pH		6.90	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 110314_2_PH-W_555A-2		
Sample ID: C11030396-002BDUP		Sample Duplicate				Run: ORION555A-2_110314B			03/14/11 14:47	
pH		8.02	s.u.	0.010				0.1	3	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/05/11

Project: Marsland Expansion Project **Work Order:** C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R143734
Sample ID: LCS-5		Laboratory Control Sample				Run: TECHNICON_110317A				03/17/11 15:11
Nitrogen, Ammonia as N		1.94	mg/L	0.050	97	90	110			
Sample ID: C11030323-002DMS		Sample Matrix Spike				Run: TECHNICON_110317A				03/17/11 15:23
Nitrogen, Ammonia as N		1.76	mg/L	0.050	88	80	120			
Sample ID: C11030323-002DMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110317A				03/17/11 15:27
Nitrogen, Ammonia as N		1.83	mg/L	0.050	91	80	120	3.9	10	
Sample ID: MBLK-35		Method Blank				Run: TECHNICON_110317A				03/17/11 16:13
Nitrogen, Ammonia as N		ND	mg/L	0.02						

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/05/11

Project: Marsland Expansion Project **Work Order:** C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R143647
Sample ID: MB-110315A	10	Method Blank				Run: ICP2-C_110315A				03/15/11 11:56
Aluminum		0.01	mg/L	0.01						
Barium		0.003	mg/L	0.0005						
Boron		0.02	mg/L	0.009						
Calcium		ND	mg/L	0.2						
Iron		ND	mg/L	0.002						
Magnesium		ND	mg/L	0.05						
Potassium		ND	mg/L	0.02						
Silicon		0.010	mg/L	0.007						
Sodium		ND	mg/L	0.3						
Zinc		0.005	mg/L	0.001						
Sample ID: LFB-110315A	10	Laboratory Fortified Blank				Run: ICP2-C_110315A				03/15/11 12:01
Aluminum		0.900	mg/L	0.10	87	85	115			
Barium		0.950	mg/L	0.10	93	85	115			
Boron		0.949	mg/L	0.10	91	85	115			
Calcium		48.1	mg/L	0.50	94	85	115			
Iron		0.957	mg/L	0.030	94	85	115			
Magnesium		47.3	mg/L	0.50	93	85	115			
Potassium		43.5	mg/L	0.50	85	85	115			
Silicon		0.442	mg/L	0.10	90	85	115			
Sodium		47.7	mg/L	0.50	93	85	115			
Zinc		0.948	mg/L	0.010	92	85	115			
Sample ID: C11030346-001CMS2	10	Sample Matrix Spike				Run: ICP2-C_110315A				03/15/11 15:37
Aluminum		1.83	mg/L	0.10	87	70	130			
Barium		1.96	mg/L	0.10	95	70	130			
Boron		2.01	mg/L	0.10	93	70	130			
Calcium		99.2	mg/L	1.0	92	70	130			
Iron		1.91	mg/L	0.030	94	70	130			
Magnesium		89.5	mg/L	1.0	88	70	130			
Potassium		94.7	mg/L	1.0	81	70	130			
Silicon		49.3	mg/L	0.10		70	130			A
Sodium		241	mg/L	1.0	95	70	130			
Zinc		1.89	mg/L	0.010	91	70	130			
Sample ID: C11030346-001CMSD	10	Sample Matrix Spike Duplicate				Run: ICP2-C_110315A				03/15/11 15:41
Aluminum		1.83	mg/L	0.10	88	70	130	0.2	20	
Barium		1.96	mg/L	0.10	95	70	130	0.2	20	
Boron		2.04	mg/L	0.10	95	70	130	1.3	20	
Calcium		97.6	mg/L	1.0	91	70	130	1.6	20	
Iron		1.85	mg/L	0.030	91	70	130	3.3	20	
Magnesium		88.2	mg/L	1.0	86	70	130	1.4	20	
Potassium		95.5	mg/L	1.0	82	70	130	0.8	20	
Silicon		48.4	mg/L	0.10		70	130	1.8	20	A
Sodium		236	mg/L	1.0	89	70	130	2.4	20	
Zinc		1.84	mg/L	0.010	89	70	130	2.7	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/05/11

Project: Marsland Expansion Project **Work Order:** C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R144155
Sample ID: MB-110328A	7	Method Blank				Run: ICP2-C_110328A				03/28/11 13:07
Chromium		ND	mg/L	0.002						
Copper		ND	mg/L	0.001						
Manganese		ND	mg/L	0.0004						
Molybdenum		ND	mg/L	0.005						
Nickel		ND	mg/L	0.003						
Vanadium		0.0001	mg/L							
Zinc		ND	mg/L	0.001						
Sample ID: LFB-110328A	7	Laboratory Fortified Blank				Run: ICP2-C_110328A				03/28/11 13:11
Chromium		0.948	mg/L	0.050	95	85	115			
Copper		0.940	mg/L	0.010	94	85	115			
Manganese		0.940	mg/L	0.010	94	85	115			
Molybdenum		0.964	mg/L	0.10	96	85	115			
Nickel		0.989	mg/L	0.050	99	85	115			
Vanadium		0.981	mg/L	0.10	98	85	115			
Zinc		0.964	mg/L	0.010	96	85	115			
Sample ID: C11030523-001BMS2	7	Sample Matrix Spike				Run: ICP2-C_110328A				03/28/11 14:16
Chromium		48.7	mg/L	0.093	96	70	130			
Copper		49.3	mg/L	0.074	97	70	130			
Manganese		50.7	mg/L	0.018	97	70	130			
Molybdenum		49.3	mg/L	0.24	97	70	130			
Nickel		48.1	mg/L	0.14	94	70	130			
Vanadium		50.4	mg/L	1.5	99	70	130			
Zinc		47.5	mg/L	0.075	93	70	130			
Sample ID: C11030523-001BMSD	7	Sample Matrix Spike Duplicate				Run: ICP2-C_110328A				03/28/11 14:20
Chromium		47.6	mg/L	0.093	93	70	130	2.3	20	
Copper		49.1	mg/L	0.074	96	70	130	0.4	20	
Manganese		50.1	mg/L	0.018	96	70	130	1.3	20	
Molybdenum		48.6	mg/L	0.24	95	70	130	1.4	20	
Nickel		47.7	mg/L	0.14	94	70	130	0.9	20	
Vanadium		50.1	mg/L	1.5	98	70	130	0.6	20	
Zinc		47.4	mg/L	0.075	92	70	130	0.2	20	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Expansion Project

Report Date: 05/05/11
Work Order: C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 29300
Sample ID: MB-29300		Method Blank				Run: ICPMS2-C_110318A				03/19/11 02:22
Uranium		0.0004	mg/L	6E-05						
Sample ID: LCS2-29300		Laboratory Control Sample				Run: ICPMS2-C_110318A				03/19/11 02:26
Uranium		0.0980	mg/L	0.00030	98	85	115			
Sample ID: C11030468-010HMS		Sample Matrix Spike				Run: ICPMS2-C_110318A				03/19/11 04:05
Uranium		0.00454	mg/L	0.00030	102	70	130			
Sample ID: C11030468-010HMSD		Sample Matrix Spike Duplicate				Run: ICPMS2-C_110318A				03/19/11 04:09
Uranium		0.00452	mg/L	0.00030	102	70	130	0.5	20	
Method: E200.8										Batch: R143967
Sample ID: LRB	6	Method Blank				Run: ICPMS2-C_110323A				03/23/11 12:03
Arsenic		7E-05	mg/L	6E-05						
Cadmium		ND	mg/L	1E-05						
Lead		ND	mg/L	3E-05						
Mercury		ND	mg/L	8E-05						
Selenium		0.0004	mg/L	0.0002						
Uranium		ND	mg/L	1E-05						
Sample ID: LFB	6	Laboratory Fortified Blank				Run: ICPMS2-C_110323A				03/23/11 12:10
Arsenic		0.0528	mg/L	0.0010	105	85	115			
Cadmium		0.0534	mg/L	0.0010	107	85	115			
Lead		0.0532	mg/L	0.0010	106	85	115			
Mercury		0.00539	mg/L	0.0010	108	85	115			
Selenium		0.0523	mg/L	0.0010	104	85	115			
Uranium		0.0520	mg/L	0.00030	104	85	115			
Sample ID: C11030468-002CMS4	6	Sample Matrix Spike				Run: ICPMS2-C_110323A				03/23/11 19:34
Arsenic		0.0570	mg/L	0.0010	108	70	130			
Cadmium		0.0486	mg/L	0.010	97	70	130			
Lead		0.0542	mg/L	0.050	107	70	130			
Mercury		0.00520	mg/L	0.0010	104	70	130			
Selenium		0.0509	mg/L	0.0010	97	70	130			
Uranium		0.0581	mg/L	0.00030	110	70	130			
Sample ID: C11030468-002CMSD	6	Sample Matrix Spike Duplicate				Run: ICPMS2-C_110323A				03/23/11 19:41
Arsenic		0.0541	mg/L	0.0010	102	70	130	5.2	20	
Cadmium		0.0474	mg/L	0.010	95	70	130	2.5	20	
Lead		0.0528	mg/L	0.050	105	70	130	2.7	20	
Mercury		0.00502	mg/L	0.0010	100	70	130	3.6	20	
Selenium		0.0492	mg/L	0.0010	94	70	130	3.5	20	
Uranium		0.0565	mg/L	0.00030	106	70	130	2.9	20	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/05/11

Project: Marsland Expansion Project **Work Order:** C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144419A
Sample ID: C11030665-004CMS4	2	Sample Matrix Spike				Run: ICPMS4-C_110404A			04/04/11 17:26	
Arsenic		0.0534	mg/L	0.0010	98	70	130			
Selenium		0.0559	mg/L	0.0010	108	70	130			
Sample ID: C11030665-004CMSD	2	Sample Matrix Spike Duplicate				Run: ICPMS4-C_110404A			04/04/11 18:01	
Arsenic		0.0552	mg/L	0.0010	101	70	130	3.2	20	
Selenium		0.0575	mg/L	0.0010	111	70	130	2.7	20	
Sample ID: LRB	2	Method Blank				Run: ICPMS4-C_110404A			04/04/11 12:28	
Arsenic		ND	mg/L	4E-05						
Selenium		ND	mg/L	5E-05						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: ICPMS4-C_110404A			04/04/11 12:35	
Arsenic		0.0538	mg/L	0.0010	108	85	115			
Selenium		0.0539	mg/L	0.0010	108	85	115			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Expansion Project

Report Date: 05/05/11
Work Order: C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: IC2-C_110315A	
Sample ID: ICV	2	Initial Calibration Verification Standard							03/15/11 12:16	
Chloride		10.0	mg/L	1.0	100	90	110			
Sulfate		40.1	mg/L	1.0	100	90	110			
Method: E300.0									Batch: R143695	
Sample ID: MBLK	2	Method Blank				Run: IC2-C_110315A			03/15/11 12:32	
Chloride		ND	mg/L	0.06						
Sulfate		0.2	mg/L	0.2						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: IC2-C_110315A			03/15/11 13:02	
Chloride		12.4	mg/L	1.0	100	90	110			
Sulfate		50.2	mg/L	1.0	100	90	110			
Sample ID: LCS	2	Laboratory Control Sample				Run: IC2-C_110315A			03/15/11 20:30	
Chloride		10.0	mg/L	1.0	100	90	110			
Sulfate		40.2	mg/L	1.0	100	90	110			
Sample ID: C11030391-002BMS	2	Sample Matrix Spike				Run: IC2-C_110315A			03/16/11 04:43	
Chloride		56.9	mg/L	1.0	101	80	120			
Sulfate		289	mg/L	1.6	98	80	120			
Sample ID: C11030391-002BMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110315A			03/16/11 04:58	
Chloride		56.4	mg/L	1.0	99	80	120	0.8	10	
Sulfate		287	mg/L	1.6	96	80	120	0.6	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/05/11

Project: Marsland Expansion Project **Work Order:** C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R143975
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110323A				03/23/11 17:24
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.06						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110323A				03/23/11 17:26
Nitrogen, Nitrate+Nitrite as N		2.61	mg/L	0.10	104	90	110			
Sample ID: C11030377-001DMS		Sample Matrix Spike				Run: TECHNICON_110323A				03/23/11 17:41
Nitrogen, Nitrate+Nitrite as N		2.07	mg/L	0.10	106	90	110			
Sample ID: C11030377-001DMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110323A				03/23/11 17:44
Nitrogen, Nitrate+Nitrite as N		2.10	mg/L	0.10	107	90	110	1.4	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Expansion Project

Report Date: 05/05/11
Work Order: C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: 29300
Sample ID: C11030468-004HMS		Sample Matrix Spike				Run: BERTHOLD 770-2_110322A				03/28/11 21:54
Radium 226		9.0	pCi/L		87	70	130			
Sample ID: C11030468-004HMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-2_110322A				03/29/11 00:38
Radium 226		8.6	pCi/L		84	70	130	4.2	27.9	
Sample ID: LCS-29300		Laboratory Control Sample				Run: BERTHOLD 770-2_110322A				03/29/11 00:38
Radium 226		11	pCi/L		94	85	115			
Sample ID: MB-29300	3	Method Blank				Run: BERTHOLD 770-2_110322A				03/29/11 00:38
Radium 226		-0.2	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.3	pCi/L							
Method: E903.0										Batch: RA226-5235
Sample ID: C11030211-003DMS		Sample Matrix Spike				Run: TENNELEC-3_110315B				03/21/11 17:17
Radium 226		14	pCi/L		109	70	130			
Sample ID: C11030211-003DMSD		Sample Matrix Spike Duplicate				Run: TENNELEC-3_110315B				03/21/11 17:17
Radium 226		14	pCi/L		111	70	130	1.7	25.1	
Sample ID: LCS-RA226-5235		Laboratory Control Sample				Run: TENNELEC-3_110315B				03/21/11 20:55
Radium 226		6.2	pCi/L		95	85	115			
Sample ID: MB-RA226-5235	3	Method Blank				Run: TENNELEC-3_110315B				03/21/11 20:55
Radium 226		0.2	pCi/L							
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.1	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/05/11

Project: Marsland Expansion Project **Work Order:** C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0									Batch: RA-TH-ISO-1350	
Sample ID: LCS-RA-TH-ISO-1350		Laboratory Control Sample				Run: EGG-ORTEC_110323A			03/25/11 09:27	
Thorium 230		5.3	pCi/L		103	70	130			
Sample ID: C11030665-001DMS		Sample Matrix Spike				Run: EGG-ORTEC_110323A			03/25/11 13:40	
Thorium 230		10	pCi/L		90	70	130			
Sample ID: C11030665-001DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110323A			03/25/11 13:40	
Thorium 230		10	pCi/L		88	70	130	0.8	36.5	
Sample ID: MB-RA-TH-ISO-1350	3	Method Blank				Run: EGG-ORTEC_110323A			03/25/11 13:40	
Thorium 230		0.02	pCi/L							U
Thorium 230 precision (±)		0.05	pCi/L							
Thorium 230 MDC		0.10	pCi/L							
Method: E908.0									Batch: 29300	
Sample ID: C11030468-005HMS		Sample Matrix Spike				Run: EGG-ORTEC_110328D			03/30/11 16:22	
Thorium 230		8.7	pCi/L		102	70	130			
Sample ID: C11030468-005HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110328D			03/30/11 16:22	
Thorium 230		7.9	pCi/L		94	70	130	9.6	46.6	
Sample ID: LCS-29300		Laboratory Control Sample				Run: EGG-ORTEC_110328D			03/30/11 16:22	
Thorium 230		11	pCi/L		113	70	130			
Sample ID: MB-29300	3	Method Blank				Run: EGG-ORTEC_110328D			03/30/11 16:22	
Thorium 230		-0.2	pCi/L							U
Thorium 230 precision (±)		0.2	pCi/L							
Thorium 230 MDC		0.2	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Expansion Project

Report Date: 05/05/11
Work Order: C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0									Batch: T_PB-210-0084	
Sample ID: LCS-PB-210-0084		Laboratory Control Sample				Run: SUB-T39702			03/24/11 20:59	
Lead 210		50	pCi/L		94	70	130			
Sample ID: MB-PB-210-0084	3	Method Blank				Run: SUB-T39702			03/24/11 18:47	
Lead 210		-0.5	pCi/L							U
Lead 210 precision (±)		0.9	pCi/L							
Lead 210 MDC		1	pCi/L							
Sample ID: TAP WATERMS		Laboratory Fortified Blank				Run: SUB-T39702			03/25/11 01:22	
Lead 210		52	pCi/L		99	70	130			
Sample ID: TAP WATERMSD		Laboratory Fortified Blank Duplicate				Run: SUB-T39702			03/25/11 03:33	
Lead 210		47	pCi/L		88	70	130	11	30	
Method: E909.0									Batch: T_13600	
Sample ID: T11030079-001HMSD		Sample Matrix Spike Duplicate				Run: SUB-T40146			04/29/11 03:01	
Lead 210		53	pCi/L		85	70	130	4.2	16.3	
Sample ID: MB-13600 / 29300	3	Method Blank				Run: SUB-T40146			04/28/11 18:15	
Lead 210		-0.4	pCi/L							U
Lead 210 precision (±)		6	pCi/L							
Lead 210 MDC		10	pCi/L							
Sample ID: LCS-13600 / 29300		Laboratory Control Sample				Run: SUB-T40146			04/28/11 20:26	
Lead 210		300	pCi/L		84	70	130			
Sample ID: T11030079-001HMS		Sample Matrix Spike				Run: SUB-T40146			04/29/11 00:49	
Lead 210		56	pCi/L		89	70	130			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/05/11

Project: Marsland Expansion Project **Work Order:** C11030396

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0									Batch: PO210-0351	
Sample ID: C11030396-002FMS		Sample Matrix Spike				Run: EGG-ORTEC_110316B			03/17/11 13:06	
Polonium 210		11	pCi/L		82	70	130			
Sample ID: C11030396-002FMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110316B			03/17/11 13:06	
Polonium 210		10	pCi/L		78	70	130	5.0	76	
Sample ID: MB-PO210-0351	3	Method Blank				Run: EGG-ORTEC_110316B			03/17/11 13:06	
Polonium 210		-0.03	pCi/L							U
Polonium 210 precision (±)		0.3	pCi/L							
Polonium 210 MDC		0.8	pCi/L							
Sample ID: LCS-PO210-0351		Laboratory Control Sample				Run: EGG-ORTEC_110316B			03/17/11 13:06	
Polonium 210		7.2	pCi/L		113	70	130			
Method: E912.0									Batch: 29300	
Sample ID: C11030399-001EMS		Sample Matrix Spike				Run: EGG-ORTEC_110321C			03/23/11 09:05	
Polonium 210		5.5	pCi/L		102	70	130			
Sample ID: C11030399-001EMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110321C			03/23/11 09:05	
Polonium 210		4.6	pCi/L		85	70	130	18	75.5	
Sample ID: LCS-29300		Laboratory Control Sample				Run: EGG-ORTEC_110321C			03/23/11 11:24	
Polonium 210		30	pCi/L		96	70	130			
Sample ID: MB-29300	3	Method Blank				Run: EGG-ORTEC_110321C			03/23/11 11:24	
Polonium 210		0.8	pCi/L							U
Polonium 210 precision (±)		1	pCi/L							
Polonium 210 MDC		2	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

Workorder Receipt Checklist

Crow Butte Resources

C11030396

Login completed by: Corinne Wagner
Date Received: 3/14/2011
Reviewed by: BL2000\tedwards
Received by: ckw
Reviewed Date: 3/17/2011
Carrier name: Next Day Air

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	7.2°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

Samples for dissolved Radiochemistry were subsampled, filtered and preserved with 2 mL HNO3 in lab upon receipt to pH <2.

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name, PWS, Permit, Etc. Marsland Expansion Project	Sample Origin State: NE	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169 Crawford, NE 69339	Contact Name: Larry Teahon Phone/Fax: 308-665-2341	Email: Larry_Teahon@camecco.com	Sampler: (Please Print) Brooke Bass Rhonda Pelton
Invoice Address: P.O. Box 169 Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	RAW-UF, Ra226, Po210 dissolved & suspended	HNO3-F-Metals	RAW-UF-Pb210 dissolved & Suspended	RAW-UF-Th230, U nat dissolved & suspended			SEE ATTACHED	Normal Turnaround (TAT)	RUSH	Comments
1	E. Driller's Well	3/11/11		W	1	1	.5	1G	.5	1G	1G						Please report 4/29/11
2	W. Driller's Well	3/11/11		W	1	1	.5	1G	.5	1G	1G						Please report 4/29/11
3																	
4																	
5																	
6																	
7																	
8																	

RUSH: Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling. Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 reqmts. Record U as mg/l and µCi/ml and radiometrics as pCi/l

Shipped by: ADA
Cooler ID(s): Client
Receipt Temp: 7.2 °C
On Ice: (Yes) No
Custody Seal Y (N)
Intact Y N
Signature Match Y N

LABORATORY USE ONLY: U10303396

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Rhonda Pelton	3-11-11 12:45	Rhonda Pelton	UPS		
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time: 3/14/11 940	Signature:

Sample Disposal: Return to Client: No Lab Disposal: YES

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

ANALYTICAL SUMMARY REPORT

April 19, 2011

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C11030665 Quote ID: C1125 - Crow Butte Uranium

Project Name: Marsland G-8 Samples

Energy Laboratories, Inc. Casper WY received the following 4 samples for Crow Butte Resources on 3/22/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11030665-001	BOW 2010-2	03/18/11 0:00	03/22/11	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Uranium, Suspended Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C11030665-002	BOW 2010-3	03/18/11 0:00	03/22/11	Aqueous	Same As Above
C11030665-003	BOW 2010-5	03/18/11 0:00	03/22/11	Aqueous	Same As Above
C11030665-004	BOW 2010-6	03/18/11 0:00	03/22/11	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Crow Butte Resources
Project: Marsland G-8 Samples
Sample Delivery Group: C11030665

Report Date: 04/19/11

CASE NARRATIVE

BRANCH LABORATORY SUBCONTRACT ANALYSIS
Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030665-001
Client Sample ID: BOW 2010-2

Report Date: 04/19/11
Collection Date: 03/18/11
DateReceived: 03/22/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	187	mg/L		1		A2320 B	03/23/11 18:55 / jba
Carbonate as CO3	52	mg/L		1		A2320 B	03/23/11 18:55 / jba
Bicarbonate as HCO3	122	mg/L		1		A2320 B	03/23/11 18:55 / jba
Calcium	6	mg/L		1		E200.7	03/28/11 15:21 / cp
Chloride	32	mg/L		1		E300.0	03/24/11 17:39 / ljl
Fluoride	0.4	mg/L		0.1		A4500-F C	03/23/11 14:32 / jba
Magnesium	ND	mg/L		1		E200.7	03/28/11 15:21 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/28/11 13:09 / dc
Nitrogen, Nitrate+Nitrite as N	1.1	mg/L		0.1		E353.2	03/25/11 11:58 / dc
Potassium	12	mg/L		1		E200.7	03/28/11 15:21 / cp
Silica	95.1	mg/L		0.2		E200.7	03/28/11 15:21 / cp
Sodium	112	mg/L		1		E200.7	03/28/11 15:21 / cp
Sulfate	39	mg/L	D	2		E300.0	03/24/11 17:39 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	542	umhos/cm		1		A2510 B	03/23/11 09:47 / lmc
pH	9.58	s.u.		0.01		A4500-H B	03/23/11 09:47 / lmc
Solids, Total Dissolved TDS @ 180 C	396	mg/L		10		A2540 C	03/23/11 16:31 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	03/28/11 15:21 / cp
Arsenic	0.004	mg/L		0.001		E200.8	03/24/11 02:15 / sml
Barium	ND	mg/L		0.1		E200.8	03/24/11 02:15 / sml
Boron	ND	mg/L		0.1		E200.7	03/28/11 15:21 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/24/11 02:15 / sml
Chromium	ND	mg/L		0.05		E200.8	03/24/11 02:15 / sml
Copper	ND	mg/L		0.01		E200.8	03/24/11 02:15 / sml
Iron	ND	mg/L		0.03		E200.7	03/28/11 15:21 / cp
Lead	ND	mg/L		0.001		E200.8	03/24/11 02:15 / sml
Manganese	ND	mg/L		0.01		E200.8	03/24/11 02:15 / sml
Mercury	ND	mg/L		0.001		E200.8	04/04/11 16:58 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/24/11 02:15 / sml
Nickel	ND	mg/L		0.05		E200.8	03/24/11 02:15 / sml
Selenium	0.001	mg/L		0.001		E200.8	03/24/11 02:15 / sml
Uranium	0.0032	mg/L		0.0003		E200.8	03/24/11 02:15 / sml
Uranium, Activity	2.2E-09	uCi/mL		2.0E-10		E200.8	03/24/11 02:15 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/24/11 02:15 / sml
Zinc	0.07	mg/L		0.01		E200.8	03/24/11 02:15 / sml
METALS - SUSPENDED							
Uranium	0.0017	mg/L		0.0003		E200.8	03/26/11 15:15 / sml
Uranium, Activity	1.2E-09	uCi/mL		2.0E-10		E200.8	03/26/11 15:15 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030665-001
Client Sample ID: BOW 2010-2

Report Date: 04/19/11
Collection Date: 03/18/11
DateReceived: 03/22/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	04/08/11 05:01 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/08/11 05:01 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	04/08/11 05:01 / eli-cs
Polonium 210	<0.9	pCi/L	U	0.9		E912.0	03/30/11 09:06 / ep
Polonium 210 precision (±)	0.5	pCi/L				E912.0	03/30/11 09:06 / ep
Polonium 210 MDC	0.9	pCi/L				E912.0	03/30/11 09:06 / ep
Radium 226	0.26	pCi/L		0.10		E903.0	03/30/11 08:32 / trs
Radium 226 precision (±)	0.11	pCi/L				E903.0	03/30/11 08:32 / trs
Radium 226 MDC	0.10	pCi/L				E903.0	03/30/11 08:32 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/25/11 09:27 / dmf
Thorium 230 precision (±)	0.04	pCi/L				E908.0	03/25/11 09:27 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/25/11 09:27 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	04/08/11 22:33 / eli-cs
Lead 210 precision (±)	0.6	pCi/L				E909.0	04/08/11 22:33 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	04/08/11 22:33 / eli-cs
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	03/30/11 09:07 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	03/30/11 09:07 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	03/30/11 09:07 / ep
Radium 226	0.28	pCi/L		0.09		E903.0	03/30/11 12:17 / trs
Radium 226 precision (±)	0.10	pCi/L				E903.0	03/30/11 12:17 / trs
Radium 226 MDC	0.09	pCi/L				E903.0	03/30/11 12:17 / trs
Thorium 230	0.2	pCi/L		0.1		E908.0	03/29/11 08:53 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	03/29/11 08:53 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/29/11 08:53 / dmf
DATA QUALITY							
A/C Balance (± 5)	-0.717	%				Calculation	04/07/11 10:37 / kbh
Anions	5.57	meq/L				Calculation	04/07/11 10:37 / kbh
Cations	5.49	meq/L				Calculation	04/07/11 10:37 / kbh
Solids, Total Dissolved Calculated	439	mg/L				Calculation	04/07/11 10:37 / kbh
TDS Balance (0.80 - 1.20)	0.900					Calculation	04/07/11 10:37 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030665-002
Client Sample ID: BOW 2010-3

Report Date: 04/19/11
Collection Date: 03/18/11
DateReceived: 03/22/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	145	mg/L		1		A2320 B	03/23/11 19:04 / jba
Carbonate as CO3	41	mg/L		1		A2320 B	03/23/11 19:04 / jba
Bicarbonate as HCO3	94	mg/L		1		A2320 B	03/23/11 19:04 / jba
Calcium	5	mg/L		1		E200.7	03/28/11 15:33 / cp
Chloride	37	mg/L		1		E300.0	03/24/11 17:54 / ljl
Fluoride	0.5	mg/L		0.1		A4500-F C	03/23/11 14:35 / jba
Magnesium	ND	mg/L		1		E200.7	03/28/11 15:33 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/28/11 13:17 / dc
Nitrogen, Nitrate+Nitrite as N	0.5	mg/L		0.1		E353.2	03/25/11 12:01 / dc
Potassium	10	mg/L		1		E200.7	03/28/11 15:33 / cp
Silica	86.5	mg/L		0.2		E200.7	03/28/11 15:33 / cp
Sodium	109	mg/L		1		E200.7	03/28/11 15:33 / cp
Sulfate	60	mg/L	D	2		E300.0	03/24/11 17:54 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	527	umhos/cm		1		A2510 B	03/23/11 09:48 / lmc
pH	9.57	s.u.		0.01		A4500-H B	03/23/11 09:48 / lmc
Solids, Total Dissolved TDS @ 180 C	375	mg/L		10		A2540 C	03/23/11 16:31 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	03/28/11 15:33 / cp
Arsenic	0.009	mg/L		0.001		E200.8	03/24/11 02:21 / sml
Barium	ND	mg/L		0.1		E200.8	03/24/11 02:21 / sml
Boron	0.1	mg/L		0.1		E200.7	03/28/11 15:33 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/24/11 02:21 / sml
Chromium	ND	mg/L		0.05		E200.8	03/24/11 02:21 / sml
Copper	ND	mg/L		0.01		E200.8	03/24/11 02:21 / sml
Iron	0.04	mg/L		0.03		E200.7	03/28/11 15:33 / cp
Lead	ND	mg/L		0.001		E200.8	03/24/11 02:21 / sml
Manganese	ND	mg/L		0.01		E200.8	03/24/11 02:21 / sml
Mercury	ND	mg/L		0.001		E200.8	04/04/11 17:05 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/24/11 02:21 / sml
Nickel	ND	mg/L		0.05		E200.8	03/24/11 02:21 / sml
Selenium	0.003	mg/L		0.001		E200.8	03/24/11 02:21 / sml
Uranium	0.0035	mg/L		0.0003		E200.8	03/24/11 02:21 / sml
Uranium, Activity	2.4E-09	uCi/mL		2.0E-10		E200.8	03/24/11 02:21 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/24/11 02:21 / sml
Zinc	0.15	mg/L		0.01		E200.8	03/24/11 02:21 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/26/11 15:19 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/26/11 15:19 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030665-002
Client Sample ID: BOW 2010-3

Report Date: 04/19/11
Collection Date: 03/18/11
DateReceived: 03/22/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	04/08/11 07:12 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/08/11 07:12 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	04/08/11 07:12 / eli-cs
Polonium 210	<0.9	pCi/L	U	0.9		E912.0	03/30/11 09:06 / ep
Polonium 210 precision (±)	0.7	pCi/L				E912.0	03/30/11 09:06 / ep
Polonium 210 MDC	0.9	pCi/L				E912.0	03/30/11 09:06 / ep
Radium 226	0.23	pCi/L		0.11		E903.0	03/30/11 08:32 / trs
Radium 226 precision (±)	0.11	pCi/L				E903.0	03/30/11 08:32 / trs
Radium 226 MDC	0.11	pCi/L				E903.0	03/30/11 08:32 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/25/11 13:40 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	03/25/11 13:40 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/25/11 13:40 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	04/09/11 00:44 / eli-cs
Lead 210 precision (±)	0.6	pCi/L				E909.0	04/09/11 00:44 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	04/09/11 00:44 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	03/30/11 09:07 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	03/30/11 09:07 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	03/30/11 09:07 / ep
Radium 226	0.15	pCi/L		0.08		E903.0	03/30/11 12:17 / trs
Radium 226 precision (±)	0.08	pCi/L				E903.0	03/30/11 12:17 / trs
Radium 226 MDC	0.08	pCi/L				E903.0	03/30/11 12:17 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/29/11 08:53 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	03/29/11 08:53 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/29/11 08:53 / dmf
DATA QUALITY							
A/C Balance (± 5)	-0.182	%				Calculation	04/07/11 10:38 / kbh
Anions	5.27	meq/L				Calculation	04/07/11 10:38 / kbh
Cations	5.25	meq/L				Calculation	04/07/11 10:38 / kbh
Solids, Total Dissolved Calculated	420	mg/L				Calculation	04/07/11 10:38 / kbh
TDS Balance (0.80 - 1.20)	0.890					Calculation	04/07/11 10:38 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030665-003
Client Sample ID: BOW 2010-5

Report Date: 04/19/11
Collection Date: 03/18/11
DateReceived: 03/22/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	151	mg/L		1		A2320 B	03/23/11 19:12 / jba
Carbonate as CO3	7	mg/L		1		A2320 B	03/23/11 19:12 / jba
Bicarbonate as HCO3	170	mg/L		1		A2320 B	03/23/11 19:12 / jba
Calcium	29	mg/L		1		E200.7	03/28/11 16:30 / cp
Chloride	7	mg/L		1		E300.0	03/24/11 18:41 / ljl
Fluoride	0.5	mg/L		0.1		A4500-F C	03/23/11 14:42 / jba
Magnesium	7	mg/L		1		E200.7	03/28/11 16:30 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/28/11 13:19 / dc
Nitrogen, Nitrate+Nitrite as N	0.9	mg/L		0.1		E353.2	03/25/11 12:11 / dc
Potassium	5	mg/L		1		E200.7	03/28/11 16:30 / cp
Silica	83.9	mg/L		0.2		E200.7	03/28/11 16:30 / cp
Sodium	28	mg/L		1		E200.7	03/28/11 16:30 / cp
Sulfate	9	mg/L		1		E300.0	03/24/11 18:41 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	307	umhos/cm		1		A2510 B	03/23/11 09:50 / lmc
pH	8.34	s.u.		0.01		A4500-H B	03/23/11 09:50 / lmc
Solids, Total Dissolved TDS @ 180 C	228	mg/L		10		A2540 C	03/23/11 16:31 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	03/28/11 16:30 / cp
Arsenic	0.004	mg/L		0.001		E200.8	03/24/11 02:28 / sml
Barium	0.1	mg/L		0.1		E200.8	03/24/11 02:28 / sml
Boron	0.1	mg/L		0.1		E200.7	03/28/11 16:30 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/24/11 02:28 / sml
Chromium	ND	mg/L		0.05		E200.8	03/24/11 02:28 / sml
Copper	ND	mg/L		0.01		E200.8	03/24/11 02:28 / sml
Iron	ND	mg/L		0.03		E200.7	03/28/11 16:30 / cp
Lead	ND	mg/L		0.001		E200.8	03/24/11 02:28 / sml
Manganese	ND	mg/L		0.01		E200.8	03/24/11 02:28 / sml
Mercury	ND	mg/L		0.001		E200.8	04/04/11 17:12 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/24/11 02:28 / sml
Nickel	ND	mg/L		0.05		E200.8	03/24/11 02:28 / sml
Selenium	0.001	mg/L		0.001		E200.8	03/24/11 02:28 / sml
Uranium	0.0075	mg/L		0.0003		E200.8	03/24/11 02:28 / sml
Uranium, Activity	5.1E-09	uCi/mL		2.0E-10		E200.8	03/24/11 02:28 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/24/11 02:28 / sml
Zinc	0.09	mg/L		0.01		E200.8	03/24/11 02:28 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/26/11 15:23 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/26/11 15:23 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030665-003
Client Sample ID: BOW 2010-5

Report Date: 04/19/11
Collection Date: 03/18/11
DateReceived: 03/22/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	04/08/11 09:24 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/08/11 09:24 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	04/08/11 09:24 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	03/30/11 09:06 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	03/30/11 09:06 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	03/30/11 09:06 / ep
Radium 226	0.41	pCi/L		0.11		E903.0	03/30/11 08:32 / trs
Radium 226 precision (±)	0.13	pCi/L				E903.0	03/30/11 08:32 / trs
Radium 226 MDC	0.11	pCi/L				E903.0	03/30/11 08:32 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/25/11 13:40 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	03/25/11 13:40 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/25/11 13:40 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	04/09/11 02:55 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/09/11 02:55 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	04/09/11 02:55 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	03/30/11 09:07 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	03/30/11 09:07 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	03/30/11 09:07 / ep
Radium 226	0.14	pCi/L		0.08		E903.0	03/30/11 12:17 / trs
Radium 226 precision (±)	0.08	pCi/L				E903.0	03/30/11 12:17 / trs
Radium 226 MDC	0.08	pCi/L				E903.0	03/30/11 12:17 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/29/11 08:53 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	03/29/11 08:53 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/29/11 08:53 / dmf
DATA QUALITY							
A/C Balance (± 5)	-1.58	%				Calculation	04/07/11 10:38 / kbh
Anions	3.48	meq/L				Calculation	04/07/11 10:38 / kbh
Cations	3.37	meq/L				Calculation	04/07/11 10:38 / kbh
Solids, Total Dissolved Calculated	285	mg/L				Calculation	04/07/11 10:38 / kbh
TDS Balance (0.80 - 1.20)	0.800					Calculation	04/07/11 10:38 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030665-004
Client Sample ID: BOW 2010-6

Report Date: 04/19/11
Collection Date: 03/18/11
DateReceived: 03/22/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	143	mg/L		1		A2320 B	03/23/11 19:38 / jba
Carbonate as CO3	7	mg/L		1		A2320 B	03/23/11 19:38 / jba
Bicarbonate as HCO3	159	mg/L		1		A2320 B	03/23/11 19:38 / jba
Calcium	31	mg/L		1		E200.7	03/28/11 16:34 / cp
Chloride	10	mg/L		1		E300.0	03/24/11 18:56 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	03/23/11 14:59 / jba
Magnesium	7	mg/L		1		E200.7	03/28/11 16:34 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/28/11 13:21 / dc
Nitrogen, Nitrate+Nitrite as N	1.0	mg/L		0.1		E353.2	03/25/11 12:13 / dc
Potassium	5	mg/L		1		E200.7	03/28/11 16:34 / cp
Silica	73.7	mg/L		0.2		E200.7	03/28/11 16:34 / cp
Sodium	25	mg/L		1		E200.7	03/28/11 16:34 / cp
Sulfate	10	mg/L		1		E300.0	03/24/11 18:56 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	309	umhos/cm		1		A2510 B	03/23/11 09:52 / lmc
pH	8.50	s.u.		0.01		A4500-H B	03/23/11 09:52 / lmc
Solids, Total Dissolved TDS @ 180 C	225	mg/L		10		A2540 C	03/23/11 16:32 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	03/28/11 16:34 / cp
Arsenic	0.005	mg/L		0.001		E200.8	03/24/11 02:35 / sml
Barium	0.1	mg/L		0.1		E200.8	03/24/11 02:35 / sml
Boron	ND	mg/L		0.1		E200.7	03/28/11 16:34 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/24/11 02:35 / sml
Chromium	ND	mg/L		0.05		E200.7	03/28/11 16:34 / cp
Copper	ND	mg/L		0.01		E200.8	03/24/11 02:35 / sml
Iron	ND	mg/L		0.03		E200.7	03/28/11 16:34 / cp
Lead	ND	mg/L		0.001		E200.8	03/24/11 02:35 / sml
Manganese	ND	mg/L		0.01		E200.7	03/28/11 16:34 / cp
Mercury	ND	mg/L		0.001		E200.8	04/04/11 17:19 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/24/11 02:35 / sml
Nickel	ND	mg/L		0.05		E200.8	03/24/11 02:35 / sml
Selenium	0.001	mg/L		0.001		E200.8	03/24/11 02:35 / sml
Uranium	0.0055	mg/L		0.0003		E200.8	03/24/11 02:35 / sml
Uranium, Activity	3.7E-09	uCi/mL		2.0E-10		E200.8	03/24/11 02:35 / sml
Vanadium	ND	mg/L		0.1		E200.7	03/28/11 16:34 / cp
Zinc	0.06	mg/L		0.01		E200.8	03/24/11 02:35 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	03/26/11 15:43 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	03/26/11 15:43 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples
Lab ID: C11030665-004
Client Sample ID: BOW 2010-6

Report Date: 04/19/11
Collection Date: 03/18/11
DateReceived: 03/22/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	04/08/11 11:35 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/08/11 11:35 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	04/08/11 11:35 / eli-cs
Polonium 210	<0.9	pCi/L	U	0.9		E912.0	03/30/11 09:06 / ep
Polonium 210 precision (±)	0.5	pCi/L				E912.0	03/30/11 09:06 / ep
Polonium 210 MDC	0.9	pCi/L				E912.0	03/30/11 09:06 / ep
Radium 226	0.34	pCi/L		0.11		E903.0	03/30/11 08:32 / trs
Radium 226 precision (±)	0.12	pCi/L				E903.0	03/30/11 08:32 / trs
Radium 226 MDC	0.11	pCi/L				E903.0	03/30/11 08:32 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/25/11 13:40 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	03/25/11 13:40 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/25/11 13:40 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.1	pCi/L	U	1.1		E909.0	04/09/11 05:07 / eli-cs
Lead 210 precision (±)	0.6	pCi/L				E909.0	04/09/11 05:07 / eli-cs
Lead 210 MDC	1.1	pCi/L				E909.0	04/09/11 05:07 / eli-cs
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	03/30/11 09:07 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	03/30/11 09:07 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	03/30/11 09:07 / ep
Radium 226	0.16	pCi/L		0.08		E903.0	03/30/11 12:17 / trs
Radium 226 precision (±)	0.08	pCi/L				E903.0	03/30/11 12:17 / trs
Radium 226 MDC	0.08	pCi/L				E903.0	03/30/11 12:17 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	03/29/11 08:53 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	03/29/11 08:53 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	03/29/11 08:53 / dmf
DATA QUALITY							
A/C Balance (± 5)	-1.63	%				Calculation	04/07/11 10:38 / kbh
Anions	3.43	meq/L				Calculation	04/07/11 10:38 / kbh
Cations	3.32	meq/L				Calculation	04/07/11 10:38 / kbh
Solids, Total Dissolved Calculated	271	mg/L				Calculation	04/07/11 10:38 / kbh
TDS Balance (0.80 - 1.20)	0.830					Calculation	04/07/11 10:38 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/19/11
Work Order: C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: R143981	
Sample ID: MBLK	3	Method Blank				Run: MANTECH_110323C			03/23/11 17:20	
Alkalinity, Total as CaCO3		3	mg/L	1						
Carbonate as CO3		ND	mg/L	1						
Bicarbonate as HCO3		4	mg/L	1						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110323C			03/23/11 17:36	
Alkalinity, Total as CaCO3		214	mg/L	5.0	105	90	110			
Sample ID: C11030665-003ADUP	3	Sample Duplicate				Run: MANTECH_110323C			03/23/11 19:20	
Alkalinity, Total as CaCO3		149	mg/L	5.0				0.9	10	
Carbonate as CO3		5.49	mg/L	5.0				17	10	R
Bicarbonate as HCO3		171	mg/L	5.0				0.3	10	
- R - The Sample and the Duplicate are both near the PQL/RL; the RPD is acceptable.										
Sample ID: C11030665-003AMS		Sample Matrix Spike				Run: MANTECH_110323C			03/23/11 19:30	
Alkalinity, Total as CaCO3		284	mg/L	5.0	107	80	120			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
R - RPD exceeds advisory limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/19/11
Work Order: C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: ORION555A-2_110323A		
Sample ID: ICV2_110323_1		Initial Calibration Verification Standard							03/23/11 09:34	
Conductivity @ 25 C		1370	umhos/cm	1.0	97	90	110			
Method: A2510 B								Batch: 110323_1_PH-W_555A-2		
Sample ID: MBLK1_110323_1		Method Blank				Run: ORION555A-2_110323A			03/23/11 09:31	
Conductivity @ 25 C		2	umhos/cm	0.2						
Sample ID: C11030671-002ADUP		Sample Duplicate				Run: ORION555A-2_110323A			03/23/11 10:00	
Conductivity @ 25 C		22900	umhos/cm	1.0				0.0	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/19/11
Work Order: C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: R144071
Sample ID: MBLK1_		Method Blank				Run: BAL-1_110323B				03/23/11 16:30
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	4						
Sample ID: LCS1_		Laboratory Control Sample				Run: BAL-1_110323B				03/23/11 16:30
Solids, Total Dissolved TDS @ 180 C		1000	mg/L	10	100	90	110			
Sample ID: C11030665-004BDUP		Sample Duplicate				Run: BAL-1_110323B				03/23/11 16:32
Solids, Total Dissolved TDS @ 180 C		233	mg/L	10				3.4	10	
Sample ID: C11030684-005AMS		Sample Matrix Spike				Run: BAL-1_110323B				03/23/11 16:37
Solids, Total Dissolved TDS @ 180 C		2170	mg/L	10	102	90	110			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/19/11
Work Order: C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R143974
Sample ID: MBLK		Method Blank				Run: MANTECH_110323B				03/23/11 12:41
Fluoride		0.02	mg/L	0.008						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110323B				03/23/11 12:44
Fluoride		1.00	mg/L	0.10	98	90	110			
Sample ID: C11030665-004AMS		Sample Matrix Spike				Run: MANTECH_110323B				03/23/11 15:06
Fluoride		1.53	mg/L	0.10	96	80	120			
Sample ID: C11030665-004AMSD		Sample Matrix Spike Duplicate				Run: MANTECH_110323B				03/23/11 15:12
Fluoride		1.56	mg/L	0.10	99	80	120	1.9	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/19/11
Work Order: C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION555A-2_110323A		
Sample ID: ICV1_110323_1		Initial Calibration Verification Standard							03/23/11 09:32	
pH		6.94	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 110323_1_PH-W_555A-2		
Sample ID: C11030671-002ADUP		Sample Duplicate				Run: ORION555A-2_110323A			03/23/11 10:00	
pH		6.97	s.u.	0.010				0.0	3	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/19/11

Project: Marsland G-8 Samples **Work Order:** C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R144164
Sample ID: MBLK-4		Method Blank				Run: TECHNICON_110328A				03/28/11 12:11
Nitrogen, Ammonia as N		ND	mg/L	0.02						
Sample ID: LCS-5		Laboratory Control Sample				Run: TECHNICON_110328A				03/28/11 12:13
Nitrogen, Ammonia as N		1.97	mg/L	0.050	99	90	110			
Sample ID: C11030665-004HMS		Sample Matrix Spike				Run: TECHNICON_110328A				03/28/11 13:29
Nitrogen, Ammonia as N		1.79	mg/L	0.050	91	80	120			
Sample ID: C11030665-004HMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110328A				03/28/11 13:31
Nitrogen, Ammonia as N		1.83	mg/L	0.050	93	80	120	2.2	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/19/11
Work Order: C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R144155	
Sample ID: MB-110328A	11	Method Blank				Run: ICP2-C_110328A			03/28/11 13:07	
Aluminum		ND	mg/L	0.01						
Boron		0.04	mg/L	0.009						
Calcium		ND	mg/L	0.2						
Chromium		ND	mg/L	0.002						
Iron		ND	mg/L	0.002						
Magnesium		ND	mg/L	0.05						
Manganese		ND	mg/L	0.0004						
Potassium		ND	mg/L	0.02						
Silicon		0.01	mg/L	0.007						
Sodium		ND	mg/L	0.3						
Vanadium		0.0001	mg/L							
Sample ID: LFB-110328A	11	Laboratory Fortified Blank				Run: ICP2-C_110328A			03/28/11 13:11	
Aluminum		0.899	mg/L	0.10	90	85	115			
Boron		0.965	mg/L	0.10	92	85	115			
Calcium		48.8	mg/L	0.50	98	85	115			
Chromium		0.948	mg/L	0.050	95	85	115			
Iron		0.965	mg/L	0.030	96	85	115			
Magnesium		49.3	mg/L	0.50	99	85	115			
Manganese		0.940	mg/L	0.010	94	85	115			
Potassium		46.4	mg/L	0.50	93	85	115			
Silicon		0.440	mg/L	0.10	92	85	115			
Sodium		46.9	mg/L	0.50	94	85	115			
Vanadium		0.981	mg/L	0.10	98	85	115			
Sample ID: C11030665-001CMS2	11	Sample Matrix Spike				Run: ICP2-C_110328A			03/28/11 15:25	
Aluminum		1.98	mg/L	0.10	97	70	130			
Boron		2.01	mg/L	0.10	97	70	130			
Calcium		106	mg/L	1.0	98	70	130			
Chromium		1.98	mg/L	0.050	97	70	130			
Iron		2.04	mg/L	0.030	99	70	130			
Magnesium		100	mg/L	1.0	98	70	130			
Manganese		2.01	mg/L	0.010	99	70	130			
Potassium		99.0	mg/L	1.0	86	70	130			
Silicon		45.4	mg/L	0.10		70	130			A
Sodium		213	mg/L	1.0	100	70	130			
Vanadium		2.01	mg/L	0.10	98	70	130			
Sample ID: C11030665-001CMSD	11	Sample Matrix Spike Duplicate				Run: ICP2-C_110328A			03/28/11 15:29	
Aluminum		2.03	mg/L	0.10	99	70	130	2.3	20	
Boron		2.07	mg/L	0.10	100	70	130	2.7	20	
Calcium		106	mg/L	1.0	98	70	130	0.0	20	
Chromium		1.99	mg/L	0.050	97	70	130	0.4	20	
Iron		2.04	mg/L	0.030	100	70	130	0.1	20	
Magnesium		101	mg/L	1.0	98	70	130	0.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/19/11
Work Order: C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R144155	
Sample ID: C11030665-001CMSD	11	Sample Matrix Spike Duplicate				Run: ICP2-C_110328A			03/28/11 15:29	
Manganese		2.02	mg/L	0.010	99	70	130	0.3	20	
Potassium		98.5	mg/L	1.0	85	70	130	0.4	20	
Silicon		45.7	mg/L	0.10		70	130	0.6	20	A
Sodium		212	mg/L	1.0	98	70	130	0.6	20	
Vanadium		2.03	mg/L	0.10	99	70	130	1.2	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/19/11
Work Order: C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R143967
Sample ID: LRB	13	Method Blank				Run: ICPMS2-C_110323A				03/23/11 12:03
Arsenic		7E-05	mg/L	6E-05						
Barium		ND	mg/L	3E-05						
Cadmium		ND	mg/L	1E-05						
Chromium		ND	mg/L	4E-05						
Copper		ND	mg/L	7E-05						
Lead		ND	mg/L	3E-05						
Manganese		ND	mg/L	5E-05						
Molybdenum		ND	mg/L	5E-05						
Nickel		ND	mg/L	0.0007						
Selenium		0.0004	mg/L	0.0002						
Uranium		ND	mg/L	1E-05						
Vanadium		ND	mg/L	3E-05						
Zinc		ND	mg/L	0.0003						
Sample ID: LFB	13	Laboratory Fortified Blank				Run: ICPMS2-C_110323A				03/23/11 12:10
Arsenic		0.0528	mg/L	0.0010	105	85	115			
Barium		0.0552	mg/L	0.0010	110	85	115			
Cadmium		0.0534	mg/L	0.0010	107	85	115			
Chromium		0.0538	mg/L	0.0010	108	85	115			
Copper		0.0534	mg/L	0.0010	107	85	115			
Lead		0.0532	mg/L	0.0010	106	85	115			
Manganese		0.0536	mg/L	0.0010	107	85	115			
Molybdenum		0.0516	mg/L	0.0010	103	85	115			
Nickel		0.0535	mg/L	0.0010	107	85	115			
Selenium		0.0523	mg/L	0.0010	104	85	115			
Uranium		0.0520	mg/L	0.00030	104	85	115			
Vanadium		0.0534	mg/L	0.0010	107	85	115			
Zinc		0.0546	mg/L	0.0010	109	85	115			
Sample ID: C11030665-004CMS4	13	Sample Matrix Spike				Run: ICPMS2-C_110323A				03/24/11 02:42
Arsenic		0.0546	mg/L	0.0010	100	70	130			
Barium		0.157	mg/L	0.10	94	70	130			
Cadmium		0.0500	mg/L	0.010	100	70	130			
Chromium		0.0480	mg/L	0.0010	93	70	130			
Copper		0.0563	mg/L	0.010	104	70	130			
Lead		0.0510	mg/L	0.050	101	70	130			
Manganese		0.0469	mg/L	0.010	93	70	130			
Molybdenum		0.0505	mg/L	0.0010	98	70	130			
Nickel		0.0533	mg/L	0.050	104	70	130			
Selenium		0.0502	mg/L	0.0010	98	70	130			
Uranium		0.0550	mg/L	0.00030	99	70	130			
Vanadium		0.0582	mg/L	0.0010	93	70	130			
Zinc		0.110	mg/L	0.010	101	70	130			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/19/11

Project: Marsland G-8 Samples **Work Order:** C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R143967	
Sample ID: C11030665-004CMSD	13	Sample Matrix Spike Duplicate				Run: ICPMS2-C_110323A			03/24/11 03:16	
Arsenic		0.0541	mg/L	0.0010	99	70	130	0.9	20	
Barium		0.153	mg/L	0.10	87	70	130	2.3	20	
Cadmium		0.0495	mg/L	0.010	99	70	130	1.0	20	
Chromium		0.0477	mg/L	0.0010	93	70	130	0.7	20	
Copper		0.0555	mg/L	0.010	103	70	130	1.6	20	
Lead		0.0503	mg/L	0.050	100	70	130	1.3	20	
Manganese		0.0452	mg/L	0.010	89	70	130	3.5	20	
Molybdenum		0.0501	mg/L	0.0010	98	70	130	0.8	20	
Nickel		0.0540	mg/L	0.050	105	70	130	1.4	20	
Selenium		0.0500	mg/L	0.0010	98	70	130	0.4	20	
Uranium		0.0535	mg/L	0.00030	96	70	130	2.6	20	
Vanadium		0.0585	mg/L	0.0010	94	70	130	0.4	20	
Zinc		0.108	mg/L	0.010	98	70	130	1.0	20	
Method: E200.8									Batch: 29347	
Sample ID: MB-29347		Method Blank				Run: ICPMS4-C_110325A			03/26/11 15:02	
Uranium		ND	mg/L	7E-05						
Sample ID: LCS2-29347		Laboratory Control Sample				Run: ICPMS4-C_110325A			03/26/11 15:06	
Uranium		0.0980	mg/L	0.00030	98	85	115			
Sample ID: C11030665-004GMS		Sample Matrix Spike				Run: ICPMS4-C_110325A			03/26/11 15:47	
Uranium		0.00492	mg/L	0.00030	108	70	130			
Sample ID: C11030665-004GMSD		Sample Matrix Spike Duplicate				Run: ICPMS4-C_110325A			03/26/11 15:51	
Uranium		0.00482	mg/L	0.00030	106	70	130	2.0	20	
Method: E200.8									Batch: R144419A	
Sample ID: C11030665-004CMS4		Sample Matrix Spike				Run: ICPMS4-C_110404A			04/04/11 17:26	
Mercury		0.00513	mg/L	0.0010	103	70	130			
Sample ID: C11030665-004CMSD		Sample Matrix Spike Duplicate				Run: ICPMS4-C_110404A			04/04/11 18:01	
Mercury		0.00535	mg/L	0.0010	107	70	130	4.2	20	
Sample ID: LRB		Method Blank				Run: ICPMS4-C_110404A			04/04/11 12:28	
Mercury		ND	mg/L	2E-05						
Sample ID: LFB		Laboratory Fortified Blank				Run: ICPMS4-C_110404A			04/04/11 12:35	
Mercury		0.00545	mg/L	0.0010	109	85	115			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/19/11
Work Order: C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0										Batch: R144056
Sample ID: LCS	2	Laboratory Control Sample				Run: IC2-C_110324A				03/24/11 12:15
Chloride		9.94	mg/L	1.0	99	90	110			
Sulfate		40.2	mg/L	1.0	100	90	110			
Sample ID: MBLK	2	Method Blank				Run: IC2-C_110324A				03/24/11 12:30
Chloride		ND	mg/L	0.06						
Sulfate		0.3	mg/L	0.2						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: IC2-C_110324A				03/24/11 13:01
Chloride		12.2	mg/L	1.0	98	90	110			
Sulfate		50.0	mg/L	1.0	99	90	110			
Sample ID: C11030665-002AMS	2	Sample Matrix Spike				Run: IC2-C_110324A				03/24/11 18:10
Chloride		56.9	mg/L	1.0	100	80	120			
Sulfate		140	mg/L	1.6	102	80	120			
Sample ID: C11030665-002AMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110324A				03/24/11 18:25
Chloride		56.9	mg/L	1.0	100	80	120	0.0	10	
Sulfate		140	mg/L	1.6	102	80	120	0.3	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/19/11
Work Order: C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R144087
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110325A				03/25/11 11:46
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.06						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110325A				03/25/11 11:48
Nitrogen, Nitrate+Nitrite as N		2.63	mg/L	0.10	105	90	110			
Sample ID: C11030665-002HMS		Sample Matrix Spike				Run: TECHNICON_110325A				03/25/11 12:03
Nitrogen, Nitrate+Nitrite as N		2.60	mg/L	0.10	107	90	110			
Sample ID: C11030665-002HMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110325A				03/25/11 12:06
Nitrogen, Nitrate+Nitrite as N		2.66	mg/L	0.10	110	90	110	2.3	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland G-8 Samples

Report Date: 04/19/11
Work Order: C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: 29347
Sample ID: C11030665-001GMS		Sample Matrix Spike				Run: TENNELEC-3_110324A				03/30/11 12:17
Radium 226		11	pCi/L		105	70	130			
Sample ID: C11030665-001GMSD		Sample Matrix Spike Duplicate				Run: TENNELEC-3_110324A				03/30/11 12:17
Radium 226		11	pCi/L		101	70	130	3.8	24.3	
Sample ID: LCS-29347		Laboratory Control Sample				Run: TENNELEC-3_110324A				03/30/11 12:17
Radium 226		11	pCi/L		87	85	115			
Sample ID: MB-29347	3	Method Blank				Run: TENNELEC-3_110324A				03/30/11 12:16
Radium 226		0.04	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Method: E903.0										Batch: RA226-5258
Sample ID: C11030665-001DMS		Sample Matrix Spike				Run: TENNELEC-3_110324B				03/30/11 08:32
Radium 226		12	pCi/L		94	70	130			
Sample ID: C11030665-001DMSD		Sample Matrix Spike Duplicate				Run: TENNELEC-3_110324B				03/30/11 08:32
Radium 226		12	pCi/L		95	70	130	1.1	25	
Sample ID: MB-RA226-5258	3	Method Blank				Run: TENNELEC-3_110324B				03/30/11 10:25
Radium 226		0.08	pCi/L							U
Radium 226 precision (±)		0.07	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Sample ID: LCS-RA226-5258		Laboratory Control Sample				Run: TENNELEC-3_110324B				03/30/11 10:25
Radium 226		6.0	pCi/L		93	85	115			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/19/11

Project: Marsland G-8 Samples **Work Order:** C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0									Batch: RA-TH-ISO-1350	
Sample ID: LCS-RA-TH-ISO-1350		Laboratory Control Sample				Run: EGG-ORTEC_110323A			03/25/11 09:27	
Thorium 230		5.3	pCi/L		103	70	130			
Sample ID: C11030665-001DMS		Sample Matrix Spike				Run: EGG-ORTEC_110323A			03/25/11 13:40	
Thorium 230		10	pCi/L		90	70	130			
Sample ID: C11030665-001DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110323A			03/25/11 13:40	
Thorium 230		10	pCi/L		88	70	130	0.8	36.5	
Sample ID: MB-RA-TH-ISO-1350	3	Method Blank				Run: EGG-ORTEC_110323A			03/25/11 13:40	
Thorium 230		0.02	pCi/L							U
Thorium 230 precision (±)		0.05	pCi/L							
Thorium 230 MDC		0.10	pCi/L							
Method: E908.0									Batch: 29347	
Sample ID: C11030665-002GMS		Sample Matrix Spike				Run: EGG-ORTEC_110324A			03/29/11 08:53	
Thorium 230		8.8	pCi/L		104	70	130			
Sample ID: C11030665-002GMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110324A			03/29/11 08:53	
Thorium 230		11	pCi/L		128	70	130	20	49.7	
Sample ID: LCS-29347		Laboratory Control Sample				Run: EGG-ORTEC_110324A			03/29/11 08:53	
Thorium 230		12	pCi/L		120	70	130			
Sample ID: MB-29347	3	Method Blank				Run: EGG-ORTEC_110324A			03/29/11 08:53	
Thorium 230		-0.2	pCi/L							U
Thorium 230 precision (±)		0.2	pCi/L							
Thorium 230 MDC		0.3	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/19/11

Project: Marsland G-8 Samples **Work Order:** C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0									Batch: T_PB-210-0087	
Sample ID: MB-PB-210-0087	3	Method Blank				Run: SUB-T39912			04/07/11 18:03	
Lead 210		-0.4	pCi/L							U
Lead 210 precision (±)		1.0	pCi/L							
Lead 210 MDC		2	pCi/L							
Sample ID: LCS-PB-210-0087		Laboratory Control Sample				Run: SUB-T39912			04/07/11 20:15	
Lead 210		58	pCi/L		109	70	130			
Sample ID: TAP WATERMS		Sample Matrix Spike				Run: SUB-T39912			04/08/11 00:38	
Lead 210		53	pCi/L		100	70	130			
Sample ID: TAP WATERMSD		Sample Matrix Spike Duplicate				Run: SUB-T39912			04/08/11 02:49	
Lead 210		57	pCi/L		107	70	130	7.6	16	
Method: E909.0									Batch: T_13599	
Sample ID: C11030665-004GMSD		Sample Matrix Spike Duplicate				Run: SUB-T39934			04/09/11 09:30	
Lead 210		77	pCi/L		81	70	130	25	16.2	R
- The RPD for the MSD is high. The individual spike recoveries are within range, the MB is acceptable, and the LCS is within range, therefore the batch is approved.										
Sample ID: MB-13599 / 29347	3	Method Blank				Run: SUB-T39934			04/08/11 18:10	
Lead 210		1	pCi/L							U
Lead 210 precision (±)		6	pCi/L							
Lead 210 MDC		10	pCi/L							
Sample ID: LCS-13599 29347		Laboratory Control Sample				Run: SUB-T39934			04/08/11 20:21	
Lead 210		320	pCi/L		88	70	130			
Sample ID: C11030665-004GMS		Sample Matrix Spike				Run: SUB-T39934			04/09/11 07:18	
Lead 210		99	pCi/L		105	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

U - Not detected at minimum detectable concentration

ND - Not detected at the reporting limit.

R - RPD exceeds advisory limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 04/19/11

Project: Marsland G-8 Samples **Work Order:** C11030665

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0									Batch: PO210-0355	
Sample ID: C11030665-001FMS		Sample Matrix Spike				Run: EGG-ORTEC_110328A			03/30/11 09:06	
Polonium 210		13	pCi/L		97	70	130			
Sample ID: C11030665-001FMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110328A			03/30/11 09:06	
Polonium 210		11	pCi/L		87	70	130	10	74.1	
Sample ID: MB-PO210-0355	3	Method Blank				Run: EGG-ORTEC_110328A			03/30/11 09:06	
Polonium 210		-0.02	pCi/L							U
Polonium 210 precision (±)		0.2	pCi/L							
Polonium 210 MDC		0.5	pCi/L							
Sample ID: LCS-PO210-0355		Laboratory Control Sample				Run: EGG-ORTEC_110328A			03/30/11 09:06	
Polonium 210		8.1	pCi/L		127	20	120			S
- LCS response is outside of the acceptance range for this analysis. Since the MB, MS, and MSD are acceptable the batch is approved.										
Method: E912.0									Batch: 29347	
Sample ID: C11030665-004GMS		Sample Matrix Spike				Run: EGG-ORTEC_110328B			03/30/11 09:07	
Polonium 210		5.3	pCi/L		98	70	130			
Sample ID: C11030665-004GMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110328B			03/30/11 09:07	
Polonium 210		4.3	pCi/L		78	70	130	22	85.4	
Sample ID: LCS-29347		Laboratory Control Sample				Run: EGG-ORTEC_110328B			03/30/11 09:07	
Polonium 210		30	pCi/L		99	70	130			
Sample ID: MB-29347	3	Method Blank				Run: EGG-ORTEC_110328B			03/30/11 09:07	
Polonium 210		-0.1	pCi/L							U
Polonium 210 precision (±)		1	pCi/L							
Polonium 210 MDC		3	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

U - Not detected at minimum detectable concentration

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

Workorder Receipt Checklist

Crow Butte Resources

C11030665

Login completed by: Edith McPike
Date Received: 3/22/2011
Reviewed by: BL2000\cwagner
Received by: ha
Reviewed Date: 3/24/2011
Carrier name: Next Day Air Early AM

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	6.-2°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

Samples filtered and preserved as necessary for dissolved radiochem and suspended analysis.

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name: Marsland G-8 Samples	Sample Origin / State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169, Crawford, NE 69339	Contact Name: Larry Teahon — Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass, Rhonda Pelton
Invoice Address: P.O. Box 169, Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon, 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

☐ DW ☐ GSA ☐ POTW/WWTP ☐ State: _____ ☐ Other: _____

☐ A2LA ☐ EDD/EDT (Electronic Data) Format: _____ ☐ LEVEL IV ☐ NELAC

Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other

ANALYSIS REQUESTED

RUSH: Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling. Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 requirements. Record U as mg/L and µCi/ml and radiometrics as pCi/L.

Shipped by: UPS Next Sat

Cooler ID(s): Client

Receipt Temp: 6.7 °C

On Ice: (Yes) No

Custody Seal Y (N) Intact Y N Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	HNO3-F, Metals	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	Raw-UF, Ra226, Po210 dis, sus	Raw-UF, Pb210 dis and sus	Rau-UF, Th230, U-nat dis and sus			SEE ATTACHED	Normal Turnaround (TAT)	RUSH	Comments
1	BOW2010-2	3-18-11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/8/11
2	BOW2010-3	3-18-11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/8/11
3	BOW2010-5	3-18-11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/8/11
4	BOW2010-6	3-18-11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/8/11
5																	
6																	
7																	
8																	
9																	
10																	

LABORATORY USE ONLY: 11030665

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Rhonda Pelton	3-21-11 10:30am	Rhonda Pelton	UPS		

Received by Laboratory: Date/Time: 3-22-11 900 Signature: [illegible]

Sample Disposal: Return to Client: No Lab Disposal: YES

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

CROW BUTTE RESOURCES, INC.
CROW BUTTE PROJECT

NO_2^-

DATE: 3/18/11

ANALYST: MO

STANDARD CURVE DATA

	BL	.01	.05	.10	99956		
Abs	0.00	.037	.179	.339			
Abs							

SAMPLE #	VOLUME	Df	Abs	mg/L
1 BOW 2010-2	10ml	1	.040	.01
2 BOW 2010-3	10ml	1	.281	.08
3 BOW 2010-5	10ml	1	.014	<1
4 BOW 2010-6	10ml	1	.037	.01
5 BOW 2010-5 Dup	10ml	1	.010	<1
Dup BOW 2010-3 Dup	5ml	2	.144	.08
6				
7				
8				
9				
10				
Dup				
11				
12				
13				
14				
15				
Dup				
16				
17				
18				
19				
20				
Dup				
21				
22				
23				
24				
25				
Dup				

ANALYTICAL SUMMARY REPORT

May 19, 2011

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C11030766 Quote ID: C1125 - Crow Butte Uranium

Project Name: Marsland Baseline Samples

Energy Laboratories, Inc. Casper WY received the following 5 samples for Crow Butte Resources on 3/25/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11030766-001	CPW-1	03/24/11 0:00	03/25/11	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Uranium, Suspended Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C11030766-002	BOW-1	03/24/11 0:00	03/25/11	Aqueous	Same As Above
C11030766-003	Well #788	03/24/11 0:00	03/25/11	Aqueous	Same As Above
C11030766-004	Well #705	03/24/11 0:00	03/25/11	Aqueous	Same As Above
C11030766-005	Well #727	03/24/11 0:00	03/25/11	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Crow Butte Resources
Project: Marsland Baseline Samples
Sample Delivery Group: C11030766

Report Date: 05/19/11

CASE NARRATIVE

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

BRANCH LABORATORY SUBCONTRACT ANALYSIS
Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030766-001
Client Sample ID: CPW-1

Report Date: 05/19/11
Collection Date: 03/24/11
DateReceived: 03/25/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	368	mg/L		1		A2320 B	03/25/11 20:25 / jba
Carbonate as CO3	13	mg/L		1		A2320 B	03/25/11 20:25 / jba
Bicarbonate as HCO3	422	mg/L		1		A2320 B	03/25/11 20:25 / jba
Calcium	6	mg/L		1		E200.7	04/05/11 02:07 / cp
Chloride	185	mg/L		1		E300.0	03/29/11 06:22 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	03/28/11 13:11 / jba
Magnesium	2	mg/L		1		E200.7	04/05/11 02:07 / cp
Nitrogen, Ammonia as N	0.24	mg/L		0.05		A4500-NH3 G	03/28/11 15:17 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	03/29/11 14:18 / dc
Potassium	11	mg/L		1		E200.7	04/05/11 02:07 / cp
Silica	15.0	mg/L		0.2		E200.8	03/31/11 08:14 / sml
Sodium	337	mg/L		1		E200.7	04/05/11 02:07 / cp
Sulfate	96	mg/L	D	4		E300.0	03/29/11 06:22 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1410	umhos/cm		1		A2510 B	03/25/11 14:52 / lmc
pH	8.41	s.u.		0.01		A4500-H B	03/25/11 14:52 / lmc
Solids, Total Dissolved TDS @ 180 C	853	mg/L		10		A2540 C	03/28/11 14:22 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/31/11 08:14 / sml
Arsenic	0.002	mg/L		0.001		E200.8	03/31/11 08:14 / sml
Barium	ND	mg/L		0.1		E200.8	03/31/11 08:14 / sml
Boron	1.3	mg/L		0.1		E200.8	03/31/11 08:14 / sml
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 08:14 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 08:14 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 08:14 / sml
Iron	ND	mg/L		0.03		E200.7	04/05/11 02:07 / cp
Lead	ND	mg/L		0.001		E200.8	03/31/11 08:14 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 08:14 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 08:14 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 08:14 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 08:14 / sml
Selenium	ND	mg/L		0.001		E200.8	03/31/11 08:14 / sml
Uranium	0.0112	mg/L		0.0003		E200.8	03/31/11 08:14 / sml
Uranium, Activity	7.6E-09	uCi/mL		2.0E-10		E200.8	03/31/11 08:14 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 08:14 / sml
Zinc	0.01	mg/L		0.01		E200.7	04/05/11 02:07 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/05/11 17:44 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/05/11 17:44 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030766-001
Client Sample ID: CPW-1

Report Date: 05/19/11
Collection Date: 03/24/11
DateReceived: 03/25/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	8.4	pCi/L		0.8		E909.0	04/25/11 13:10 / eli-cs
Lead 210 precision (±)	0.6	pCi/L				E909.0	04/25/11 13:10 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	04/25/11 13:10 / eli-cs
Polonium 210	<1.1	pCi/L	U	1.1		E912.0	03/30/11 11:18 / ep
Polonium 210 precision (±)	0.8	pCi/L				E912.0	03/30/11 11:18 / ep
Polonium 210 MDC	1.1	pCi/L				E912.0	03/30/11 11:18 / ep
Radium 226	34	pCi/L		0.19		E903.0	05/03/11 11:14 / trs
Radium 226 precision (±)	1.2	pCi/L				E903.0	05/03/11 11:14 / trs
Radium 226 MDC	0.19	pCi/L				E903.0	05/03/11 11:14 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	03/31/11 16:17 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	03/31/11 16:17 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	03/31/11 16:17 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	2.1	pCi/L		1.0		E909.0	05/03/11 05:51 / eli-cs
Lead 210 precision (±)	0.6	pCi/L				E909.0	05/03/11 05:51 / eli-cs
Lead 210 MDC	1.0	pCi/L				E909.0	05/03/11 05:51 / eli-cs
Polonium 210	0.4	pCi/L		0.2		E912.0	04/14/11 08:57 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	04/14/11 08:57 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	04/14/11 08:57 / ep
Radium 226	0.27	pCi/L		0.09		E903.0	04/11/11 14:34 / plj
Radium 226 precision (±)	0.09	pCi/L				E903.0	04/11/11 14:34 / plj
Radium 226 MDC	0.09	pCi/L				E903.0	04/11/11 14:34 / plj
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/05/11 09:08 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	04/05/11 09:08 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/05/11 09:08 / dmf
DATA QUALITY							
A/C Balance (± 5)	2.56	%				Calculation	04/07/11 12:21 / kbh
Anions	14.6	meq/L				Calculation	04/07/11 12:21 / kbh
Cations	15.4	meq/L				Calculation	04/07/11 12:21 / kbh
Solids, Total Dissolved Calculated	877	mg/L				Calculation	04/07/11 12:21 / kbh
TDS Balance (0.80 - 1.20)	0.970					Calculation	04/07/11 12:21 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030766-002
Client Sample ID: BOW-1

Report Date: 05/19/11
Collection Date: 03/24/11
DateReceived: 03/25/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	217	mg/L		1		A2320 B	03/25/11 20:34 / jba
Carbonate as CO3	97	mg/L		1		A2320 B	03/25/11 20:34 / jba
Bicarbonate as HCO3	67	mg/L		1		A2320 B	03/25/11 20:34 / jba
Calcium	5	mg/L		1		E200.7	04/05/11 02:23 / cp
Chloride	55	mg/L		1		E300.0	03/29/11 06:38 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	03/28/11 13:14 / jba
Magnesium	ND	mg/L		1		E200.7	04/05/11 02:23 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/28/11 15:25 / dc
Nitrogen, Nitrate+Nitrite as N	1.3	mg/L		0.1		E353.2	03/29/11 14:20 / dc
Potassium	12	mg/L		1		E200.7	04/05/11 02:23 / cp
Silica	108	mg/L		0.2		E200.7	05/11/11 13:34 / cp
Sodium	156	mg/L		1		E200.7	04/05/11 02:23 / cp
Sulfate	61	mg/L	D	2		E300.0	03/29/11 06:38 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	724	umhos/cm		1		A2510 B	03/25/11 14:53 / lmc
pH	9.88	s.u.		0.01		A4500-H B	03/25/11 14:53 / lmc
Solids, Total Dissolved TDS @ 180 C	508	mg/L		10		A2540 C	03/28/11 14:23 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/31/11 08:21 / sml
Arsenic	0.017	mg/L		0.001		E200.8	03/31/11 08:21 / sml
Barium	ND	mg/L		0.1		E200.8	03/31/11 08:21 / sml
Boron	0.1	mg/L		0.1		E200.8	03/31/11 08:21 / sml
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 08:21 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 08:21 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 08:21 / sml
Iron	ND	mg/L		0.03		E200.7	04/05/11 02:23 / cp
Lead	ND	mg/L		0.001		E200.8	03/31/11 08:21 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 08:21 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 08:21 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 08:21 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 08:21 / sml
Selenium	0.021	mg/L		0.001		E200.8	03/31/11 08:21 / sml
Uranium	0.0024	mg/L		0.0003		E200.8	03/31/11 08:21 / sml
Uranium, Activity	1.6E-09	uCi/mL		2.0E-10		E200.8	03/31/11 08:21 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 08:21 / sml
Zinc	0.04	mg/L		0.01		E200.7	04/05/11 02:23 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/05/11 17:49 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/05/11 17:49 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030766-002
Client Sample ID: BOW-1

Report Date: 05/19/11
Collection Date: 03/24/11
DateReceived: 03/25/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	04/25/11 17:32 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/25/11 17:32 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	04/25/11 17:32 / eli-cs
Polonium 210	<1.2	pCi/L	U	1.2		E912.0	03/30/11 11:17 / ep
Polonium 210 precision (±)	0.4	pCi/L				E912.0	03/30/11 11:17 / ep
Polonium 210 MDC	1.2	pCi/L				E912.0	03/30/11 11:17 / ep
Radium 226	0.66	pCi/L		0.14		E903.0	04/04/11 21:16 / dmf
Radium 226 precision (±)	0.19	pCi/L				E903.0	04/04/11 21:16 / dmf
Radium 226 MDC	0.14	pCi/L				E903.0	04/04/11 21:16 / dmf
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/31/11 16:17 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	03/31/11 16:17 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/31/11 16:17 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/03/11 12:25 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/03/11 12:25 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/03/11 12:25 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	04/14/11 08:57 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	04/14/11 08:57 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	04/14/11 08:57 / ep
Radium 226	0.21	pCi/L		0.09		E903.0	04/11/11 14:34 / plj
Radium 226 precision (±)	0.09	pCi/L				E903.0	04/11/11 14:34 / plj
Radium 226 MDC	0.09	pCi/L				E903.0	04/11/11 14:34 / plj
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/05/11 09:08 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	04/05/11 09:08 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/05/11 09:08 / dmf
DATA QUALITY							
A/C Balance (± 5)	0.476	%				Calculation	04/07/11 12:21 / kbh
Anions	7.29	meq/L				Calculation	04/07/11 12:21 / kbh
Cations	7.36	meq/L				Calculation	04/07/11 12:21 / kbh
Solids, Total Dissolved Calculated	567	mg/L				Calculation	04/07/11 12:21 / kbh
TDS Balance (0.80 - 1.20)	0.900					Calculation	04/07/11 12:21 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030766-003
Client Sample ID: Well #788

Report Date: 05/19/11
Collection Date: 03/24/11
DateReceived: 03/25/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	154	mg/L		1		A2320 B	03/25/11 20:42 / jba
Carbonate as CO3	ND	mg/L		1		A2320 B	03/25/11 20:42 / jba
Bicarbonate as HCO3	187	mg/L		1		A2320 B	03/25/11 20:42 / jba
Calcium	34	mg/L		1		E200.7	04/05/11 02:27 / cp
Chloride	3	mg/L		1		E300.0	03/29/11 06:53 / ljl
Fluoride	0.4	mg/L		0.1		A4500-F C	03/28/11 13:17 / jba
Magnesium	9	mg/L		1		E200.7	04/05/11 02:27 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/28/11 15:27 / dc
Nitrogen, Nitrate+Nitrite as N	2.2	mg/L		0.1		E353.2	03/29/11 14:23 / dc
Potassium	4	mg/L		1		E200.7	04/05/11 02:27 / cp
Silica	69.2	mg/L		0.2		E200.7	05/11/11 13:50 / cp
Sodium	19	mg/L		1		E200.7	04/05/11 02:27 / cp
Sulfate	7	mg/L		1		E300.0	03/29/11 06:53 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	307	umhos/cm		1		A2510 B	03/25/11 15:04 / lmc
pH	7.98	s.u.		0.01		A4500-H B	03/25/11 15:04 / lmc
Solids, Total Dissolved TDS @ 180 C	231	mg/L		10		A2540 C	03/28/11 14:23 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/31/11 08:28 / sml
Arsenic	0.003	mg/L		0.001		E200.8	03/31/11 08:28 / sml
Barium	0.1	mg/L		0.1		E200.8	03/31/11 08:28 / sml
Boron	ND	mg/L		0.1		E200.8	03/31/11 08:28 / sml
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 08:28 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 08:28 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 08:28 / sml
Iron	ND	mg/L		0.03		E200.7	04/05/11 02:27 / cp
Lead	ND	mg/L		0.001		E200.8	03/31/11 08:28 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 08:28 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 08:28 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 08:28 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 08:28 / sml
Selenium	0.001	mg/L		0.001		E200.8	03/31/11 08:28 / sml
Uranium	0.0072	mg/L		0.0003		E200.8	03/31/11 08:28 / sml
Uranium, Activity	4.8E-09	uCi/mL		2.0E-10		E200.8	03/31/11 08:28 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 08:28 / sml
Zinc	0.07	mg/L		0.01		E200.7	04/05/11 02:27 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/05/11 18:09 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/05/11 18:09 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030766-003
Client Sample ID: Well #788

Report Date: 05/19/11
Collection Date: 03/24/11
DateReceived: 03/25/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	04/25/11 19:44 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/25/11 19:44 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	04/25/11 19:44 / eli-cs
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	03/30/11 11:18 / ep
Polonium 210 precision (±)	0.4	pCi/L				E912.0	03/30/11 11:18 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	03/30/11 11:18 / ep
Radium 226	0.67	pCi/L		0.11		E903.0	04/04/11 21:16 / dmf
Radium 226 precision (±)	0.16	pCi/L				E903.0	04/04/11 21:16 / dmf
Radium 226 MDC	0.11	pCi/L				E903.0	04/04/11 21:16 / dmf
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	03/31/11 16:17 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	03/31/11 16:17 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	03/31/11 16:17 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/03/11 14:36 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/03/11 14:36 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/03/11 14:36 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	04/14/11 08:57 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	04/14/11 08:57 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	04/14/11 08:57 / ep
Radium 226	<0.09	pCi/L	U	0.09		E903.0	04/11/11 14:34 / plj
Radium 226 precision (±)	0.07	pCi/L				E903.0	04/11/11 14:34 / plj
Radium 226 MDC	0.09	pCi/L				E903.0	04/11/11 14:34 / plj
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/05/11 09:08 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	04/05/11 09:08 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/05/11 09:08 / dmf
DATA QUALITY							
A/C Balance (± 5)	-1.80	%				Calculation	04/07/11 12:22 / kbh
Anions	3.48	meq/L				Calculation	04/07/11 12:22 / kbh
Cations	3.36	meq/L				Calculation	04/07/11 12:22 / kbh
Solids, Total Dissolved Calculated	275	mg/L				Calculation	04/07/11 12:22 / kbh
TDS Balance (0.80 - 1.20)	0.840					Calculation	04/07/11 12:22 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030766-004
Client Sample ID: Well #705

Report Date: 05/19/11
Collection Date: 03/24/11
DateReceived: 03/25/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	153	mg/L		1		A2320 B	03/25/11 20:50 / jba
Carbonate as CO3	ND	mg/L		1		A2320 B	03/25/11 20:50 / jba
Bicarbonate as HCO3	187	mg/L		1		A2320 B	03/25/11 20:50 / jba
Calcium	33	mg/L		1		E200.7	04/05/11 02:31 / cp
Chloride	3	mg/L		1		E300.0	03/29/11 07:09 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	03/28/11 13:34 / jba
Magnesium	8	mg/L		1		E200.7	04/05/11 02:31 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/28/11 15:29 / dc
Nitrogen, Nitrate+Nitrite as N	1.4	mg/L		0.1		E353.2	03/29/11 14:25 / dc
Potassium	4	mg/L		1		E200.7	04/05/11 02:31 / cp
Silica	70.6	mg/L		0.2		E200.7	05/11/11 13:58 / cp
Sodium	19	mg/L		1		E200.7	04/05/11 02:31 / cp
Sulfate	9	mg/L		1		E300.0	03/29/11 07:09 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	307	umhos/cm		1		A2510 B	03/25/11 15:07 / lmc
pH	7.94	s.u.		0.01		A4500-H B	03/25/11 15:07 / lmc
Solids, Total Dissolved TDS @ 180 C	216	mg/L		10		A2540 C	03/28/11 14:23 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/31/11 08:35 / sml
Arsenic	0.004	mg/L		0.001		E200.8	03/31/11 08:35 / sml
Barium	0.1	mg/L		0.1		E200.8	03/31/11 08:35 / sml
Boron	ND	mg/L		0.1		E200.8	03/31/11 08:35 / sml
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 08:35 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 08:35 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 08:35 / sml
Iron	ND	mg/L		0.03		E200.7	04/05/11 02:31 / cp
Lead	ND	mg/L		0.001		E200.8	03/31/11 08:35 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 08:35 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 08:35 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 08:35 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 08:35 / sml
Selenium	0.001	mg/L		0.001		E200.8	03/31/11 08:35 / sml
Uranium	0.0068	mg/L		0.0003		E200.8	03/31/11 08:35 / sml
Uranium, Activity	4.6E-09	uCi/mL		2.0E-10		E200.8	03/31/11 08:35 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 08:35 / sml
Zinc	0.08	mg/L		0.01		E200.7	04/05/11 02:31 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/05/11 18:13 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/05/11 18:13 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030766-004
Client Sample ID: Well #705

Report Date: 05/19/11
Collection Date: 03/24/11
DateReceived: 03/25/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	04/25/11 21:55 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	04/25/11 21:55 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	04/25/11 21:55 / eli-cs
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	03/30/11 11:18 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	03/30/11 11:18 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	03/30/11 11:18 / ep
Radium 226	0.32	pCi/L		0.12		E903.0	04/04/11 21:16 / dmf
Radium 226 precision (±)	0.12	pCi/L				E903.0	04/04/11 21:16 / dmf
Radium 226 MDC	0.12	pCi/L				E903.0	04/04/11 21:16 / dmf
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	04/01/11 08:43 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	04/01/11 08:43 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	04/01/11 08:43 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/03/11 16:48 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/03/11 16:48 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/03/11 16:48 / eli-cs
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	04/14/11 08:57 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	04/14/11 08:57 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	04/14/11 08:57 / ep
Radium 226	0.14	pCi/L		0.09		E903.0	04/11/11 14:34 / plj
Radium 226 precision (±)	0.08	pCi/L				E903.0	04/11/11 14:34 / plj
Radium 226 MDC	0.09	pCi/L				E903.0	04/11/11 14:34 / plj
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/05/11 09:08 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	04/05/11 09:08 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/05/11 09:08 / dmf
DATA QUALITY							
A/C Balance (± 5)	-3.67	%				Calculation	04/07/11 12:22 / kbh
Anions	3.46	meq/L				Calculation	04/07/11 12:22 / kbh
Cations	3.22	meq/L				Calculation	04/07/11 12:22 / kbh
Solids, Total Dissolved Calculated	268	mg/L				Calculation	04/07/11 12:22 / kbh
TDS Balance (0.80 - 1.20)	0.810					Calculation	04/07/11 12:22 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030766-005
Client Sample ID: Well #727

Report Date: 05/19/11
Collection Date: 03/24/11
DateReceived: 03/25/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	160	mg/L		1		A2320 B	03/25/11 20:59 / jba
Carbonate as CO3	ND	mg/L		1		A2320 B	03/25/11 20:59 / jba
Bicarbonate as HCO3	195	mg/L		1		A2320 B	03/25/11 20:59 / jba
Calcium	30	mg/L		1		E200.7	04/05/11 02:35 / cp
Chloride	5	mg/L		1		E300.0	03/29/11 07:24 / ljl
Fluoride	0.4	mg/L		0.1		A4500-F C	03/28/11 13:39 / jba
Magnesium	12	mg/L		1		E200.7	04/05/11 02:35 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/28/11 15:31 / dc
Nitrogen, Nitrate+Nitrite as N	1.4	mg/L		0.1		E353.2	03/29/11 14:38 / dc
Potassium	4	mg/L		1		E200.7	04/05/11 02:35 / cp
Silica	77.8	mg/L		0.2		E200.7	05/11/11 14:02 / cp
Sodium	19	mg/L		1		E200.7	04/05/11 02:35 / cp
Sulfate	9	mg/L		1		E300.0	03/29/11 07:24 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	325	umhos/cm		1		A2510 B	03/25/11 15:09 / lmc
pH	8.05	s.u.		0.01		A4500-H B	03/25/11 15:09 / lmc
Solids, Total Dissolved TDS @ 180 C	243	mg/L		10		A2540 C	03/28/11 14:23 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/31/11 08:42 / sml
Arsenic	0.002	mg/L		0.001		E200.8	03/31/11 08:42 / sml
Barium	ND	mg/L		0.1		E200.8	03/31/11 08:42 / sml
Boron	ND	mg/L		0.1		E200.8	03/31/11 08:42 / sml
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 08:42 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 08:42 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 08:42 / sml
Iron	ND	mg/L		0.03		E200.7	04/05/11 02:35 / cp
Lead	ND	mg/L		0.001		E200.8	03/31/11 08:42 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 08:42 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 08:42 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 08:42 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 08:42 / sml
Selenium	0.003	mg/L		0.001		E200.8	03/31/11 08:42 / sml
Uranium	0.0102	mg/L		0.0003		E200.8	03/31/11 08:42 / sml
Uranium, Activity	6.9E-09	uCi/mL		2.0E-10		E200.8	03/31/11 08:42 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 08:42 / sml
Zinc	0.28	mg/L		0.01		E200.7	04/05/11 02:35 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/05/11 18:18 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/05/11 18:18 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030766-005
Client Sample ID: Well #727

Report Date: 05/19/11
Collection Date: 03/24/11
DateReceived: 03/25/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	04/26/11 00:07 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/26/11 00:07 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	04/26/11 00:07 / eli-cs
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	03/30/11 11:18 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	03/30/11 11:18 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	03/30/11 11:18 / ep
Radium 226	0.33	pCi/L		0.12		E903.0	04/04/11 21:16 / dmf
Radium 226 precision (±)	0.13	pCi/L				E903.0	04/04/11 21:16 / dmf
Radium 226 MDC	0.12	pCi/L				E903.0	04/04/11 21:16 / dmf
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	04/01/11 08:43 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	04/01/11 08:43 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	04/01/11 08:43 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/03/11 18:59 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/03/11 18:59 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/03/11 18:59 / eli-cs
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	04/14/11 08:57 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	04/14/11 08:57 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	04/14/11 08:57 / ep
Radium 226	0.11	pCi/L		0.09		E903.0	04/11/11 14:34 / plj
Radium 226 precision (±)	0.08	pCi/L				E903.0	04/11/11 14:34 / plj
Radium 226 MDC	0.09	pCi/L				E903.0	04/11/11 14:34 / plj
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/05/11 09:08 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	04/05/11 09:08 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/05/11 09:08 / dmf
DATA QUALITY							
A/C Balance (± 5)	-2.51	%				Calculation	04/07/11 12:22 / kbh
Anions	3.65	meq/L				Calculation	04/07/11 12:22 / kbh
Cations	3.47	meq/L				Calculation	04/07/11 12:22 / kbh
Solids, Total Dissolved Calculated	290	mg/L				Calculation	04/07/11 12:22 / kbh
TDS Balance (0.80 - 1.20)	0.840					Calculation	04/07/11 12:22 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/19/11
Work Order: C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R144102
Sample ID: MBLK	3	Method Blank				Run: MANTECH_110325A				03/25/11 15:19
Alkalinity, Total as CaCO3		3	mg/L	1						
Carbonate as CO3		ND	mg/L	1						
Bicarbonate as HCO3		4	mg/L	1						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110325A				03/25/11 15:35
Alkalinity, Total as CaCO3		213	mg/L	5.0	105	90	110			
Sample ID: C11030765-011AMS		Sample Matrix Spike				Run: MANTECH_110325A				03/25/11 20:08
Alkalinity, Total as CaCO3		136	mg/L	5.0	107	80	120			
Sample ID: C11030766-005ADUP	3	Sample Duplicate				Run: MANTECH_110325A				03/25/11 21:07
Alkalinity, Total as CaCO3		162	mg/L	5.0				1.3	10	
Carbonate as CO3		ND	mg/L	5.0					10	
Bicarbonate as HCO3		197	mg/L	5.0				1.3	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/19/11
Work Order: C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: ORION555A-2_110325B		
Sample ID: ICV2_110325_2		Initial Calibration Verification Standard							03/25/11 14:04	
Conductivity @ 25 C		1380	umhos/cm	1.0	98	90	110			
Method: A2510 B								Batch: 110325_2_PH-W_555A-2		
Sample ID: MBLK1_110325_2		Method Blank				Run: ORION555A-2_110325B			03/25/11 14:00	
Conductivity @ 25 C		0.6	umhos/cm	0.2						
Sample ID: C11030766-002ADUP		Sample Duplicate				Run: ORION555A-2_110325B			03/25/11 14:55	
Conductivity @ 25 C		724	umhos/cm	1.0				0.0	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Report Date: 05/19/11
Project: Marsland Baseline Samples
Work Order: C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: 110328_1_SLDS-TDS-W	
Sample ID: MBLK1_110328		Method Blank				Run: BAL-1_110328B			03/28/11 14:22	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	4						
Sample ID: LCS1_110328		Laboratory Control Sample				Run: BAL-1_110328B			03/28/11 14:22	
Solids, Total Dissolved TDS @ 180 C		996	mg/L	10	100	90	110			
Sample ID: C11030766-005BDUP		Sample Duplicate				Run: BAL-1_110328B			03/28/11 14:24	
Solids, Total Dissolved TDS @ 180 C		241	mg/L	10				0.9	10	
Sample ID: C11030800-004AMS		Sample Matrix Spike				Run: BAL-1_110328B			03/28/11 14:27	
Solids, Total Dissolved TDS @ 180 C		4640	mg/L	10	103	90	110			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/19/11
Work Order: C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R144144
Sample ID: MBLK		Method Blank				Run: MANTECH_110328A				03/28/11 09:37
Fluoride		0.02	mg/L	0.008						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110328A				03/28/11 09:43
Fluoride		1.00	mg/L	0.10	98	90	110			
Sample ID: C11030766-005AMS		Sample Matrix Spike				Run: MANTECH_110328A				03/28/11 13:46
Fluoride		1.43	mg/L	0.10	98	80	120			
Sample ID: C11030766-005AMSD		Sample Matrix Spike Duplicate				Run: MANTECH_110328A				03/28/11 13:49
Fluoride		1.43	mg/L	0.10	98	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/19/11
Work Order: C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION555A-2_110325B		
Sample ID: ICV1_110325_2		Initial Calibration Verification Standard							03/25/11 14:02	
pH		6.93	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 110325_2_PH-W_555A-2		
Sample ID: C11030766-002ADUP		Sample Duplicate				Run: ORION555A-2_110325B			03/25/11 14:55	
pH		9.88	s.u.	0.010				0.0	3	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/19/11
Work Order: C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R144164
Sample ID: MBLK-4		Method Blank				Run: TECHNICON_110328A				03/28/11 12:11
Nitrogen, Ammonia as N		ND	mg/L	0.02						
Sample ID: LCS-5		Laboratory Control Sample				Run: TECHNICON_110328A				03/28/11 12:13
Nitrogen, Ammonia as N		1.97	mg/L	0.050	99	90	110			
Sample ID: C11030766-005GMS		Sample Matrix Spike				Run: TECHNICON_110328A				03/28/11 15:35
Nitrogen, Ammonia as N		1.76	mg/L	0.050	90	80	120			
Sample ID: C11030766-005GMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110328A				03/28/11 15:37
Nitrogen, Ammonia as N		1.82	mg/L	0.050	93	80	120	3.4	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/19/11

Project: Marsland Baseline Samples **Work Order:** C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R144441
Sample ID: MB-110404A	6	Method Blank				Run: ICP2-C_110404A				04/04/11 11:29
Calcium		ND	mg/L	1.0						
Iron		ND	mg/L	0.030						
Magnesium		ND	mg/L	1.0						
Potassium		ND	mg/L	1.0						
Sodium		0.316	mg/L	1.0						
Zinc		ND	mg/L	0.010						
Sample ID: LFB-110404A	6	Laboratory Fortified Blank				Run: ICP2-C_110404A				04/04/11 11:33
Calcium		46.7	mg/L	0.50	93	85	115			
Iron		0.936	mg/L	0.030	94	85	115			
Magnesium		47.4	mg/L	0.50	95	85	115			
Potassium		44.9	mg/L	0.80	90	85	115			
Sodium		43.8	mg/L	0.50	87	85	115			
Zinc		0.917	mg/L	0.010	92	85	115			
Sample ID: C11030756-001BMS2	6	Sample Matrix Spike				Run: ICP2-C_110404A				04/05/11 01:38
Calcium		129	mg/L	1.0	96	70	130			
Iron		1.93	mg/L	0.030	94	70	130			
Magnesium		125	mg/L	1.0	92	70	130			
Potassium		120	mg/L	1.0	74	70	130			
Sodium		388	mg/L	1.0	90	70	130			
Zinc		1.93	mg/L	0.010	94	70	130			
Sample ID: C11030756-001BMSD	6	Sample Matrix Spike Duplicate				Run: ICP2-C_110404A				04/05/11 01:42
Calcium		124	mg/L	1.0	92	70	130	3.3	20	
Iron		1.86	mg/L	0.030	91	70	130	3.7	20	
Magnesium		123	mg/L	1.0	90	70	130	1.6	20	
Potassium		122	mg/L	1.0	76	70	130	1.5	20	
Sodium		394	mg/L	1.0	96	70	130	1.4	20	
Zinc		1.86	mg/L	0.010	90	70	130	3.5	20	
Method: E200.7										Batch: R145772
Sample ID: MB-110511A		Method Blank				Run: ICP2-C_110511A				05/11/11 12:29
Silicon		0.02	mg/L	0.007						
Sample ID: LFB-110511A		Laboratory Fortified Blank				Run: ICP2-C_110511A				05/11/11 12:33
Silicon		0.409	mg/L	0.10	87	85	115			
Sample ID: C11030766-002CMS2		Sample Matrix Spike				Run: ICP2-C_110511A				05/11/11 13:38
Silicon		49.9	mg/L	0.10		70	130			A
Sample ID: C11030766-002CMSD		Sample Matrix Spike Duplicate				Run: ICP2-C_110511A				05/11/11 13:42
Silicon		48.8	mg/L	0.10		70	130	2.3	20	A

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/19/11
Work Order: C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 29415
Sample ID: MB-29415		Method Blank				Run: ICPMS2-C_110405A				04/05/11 17:32
Uranium		ND	mg/L	6E-05						
Sample ID: LCS2-29415		Laboratory Control Sample				Run: ICPMS2-C_110405A				04/05/11 17:36
Uranium		0.100	mg/L	0.00030	100	85	115			
Sample ID: C11030834-003HMS		Sample Matrix Spike				Run: ICPMS2-C_110405A				04/05/11 18:34
Uranium		0.00478	mg/L	0.00030	106	70	130			
Sample ID: C11030834-003HMSD		Sample Matrix Spike Duplicate				Run: ICPMS2-C_110405A				04/05/11 18:38
Uranium		0.00475	mg/L	0.00030	105	70	130	0.7	20	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/19/11

Project: Marsland Baseline Samples **Work Order:** C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144243A
Sample ID: LRB	16	Method Blank				Run: ICPMS4-C_110330A				03/30/11 21:28
Aluminum		0.007	mg/L	8E-05						
Arsenic		ND	mg/L	4E-05						
Barium		5E-05	mg/L	3E-05						
Boron		4E-05	mg/L							
Cadmium		ND	mg/L	7E-05						
Chromium		ND	mg/L	5E-05						
Copper		ND	mg/L	6E-05						
Lead		ND	mg/L	2E-05						
Manganese		7E-05	mg/L	2E-05						
Mercury		ND	mg/L	2E-05						
Molybdenum		0.0001	mg/L	8E-05						
Nickel		0.0001	mg/L	5E-05						
Selenium		0.0004	mg/L	5E-05						
Silicon		0.004	mg/L	0.0005						
Uranium		ND	mg/L	8E-06						
Vanadium		ND	mg/L	1E-05						
Sample ID: LFB	16	Laboratory Fortified Blank				Run: ICPMS4-C_110330A				03/30/11 21:35
Aluminum		0.0539	mg/L	0.0010	95	85	115			
Arsenic		0.0541	mg/L	0.0010	108	85	115			
Barium		0.0527	mg/L	0.0010	105	85	115			
Boron		0.0513	mg/L	0.0010	103	85	115			
Cadmium		0.0529	mg/L	0.0010	106	85	115			
Chromium		0.0540	mg/L	0.0010	108	85	115			
Copper		0.0548	mg/L	0.0010	110	85	115			
Lead		0.0532	mg/L	0.0010	106	85	115			
Manganese		0.0539	mg/L	0.0010	108	85	115			
Mercury		0.00518	mg/L	0.0010	104	85	115			
Molybdenum		0.0523	mg/L	0.0010	104	85	115			
Nickel		0.0554	mg/L	0.0010	110	85	115			
Selenium		0.0522	mg/L	0.0010	104	85	115			
Silicon		0.575	mg/L	0.0050	109	85	115			
Uranium		0.0524	mg/L	0.00030	105	85	115			
Vanadium		0.0540	mg/L	0.0010	108	85	115			
Sample ID: C11030800-001BMS4	16	Sample Matrix Spike				Run: ICPMS4-C_110330A				03/31/11 08:56
Aluminum		0.266	mg/L	0.10	102	70	130			
Arsenic		0.265	mg/L	0.0010	105	70	130			
Barium		0.281	mg/L	0.10	107	70	130			
Boron		1.64	mg/L	0.10		70	130			A
Cadmium		0.256	mg/L	0.010	102	70	130			
Chromium		0.255	mg/L	0.050	102	70	130			
Copper		0.272	mg/L	0.010	106	70	130			
Lead		0.270	mg/L	0.050	108	70	130			
Manganese		0.271	mg/L	0.010	104	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/19/11
Work Order: C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144243A
Sample ID: C11030800-001BMS4	16	Sample Matrix Spike				Run: ICPMS4-C_110330A			03/31/11 08:56	
Mercury		0.0272	mg/L	0.0010	108	70	130			
Molybdenum		0.307	mg/L	0.10	108	70	130			
Nickel		0.268	mg/L	0.050	100	70	130			
Selenium		0.377	mg/L	0.0010	104	70	130			
Silicon		13.4	mg/L	0.10		70	130			A
Uranium		1.19	mg/L	0.00030	102	70	130			
Vanadium		0.258	mg/L	0.10	103	70	130			
Sample ID: C11030800-001BMSD	16	Sample Matrix Spike Duplicate				Run: ICPMS4-C_110330A			03/31/11 09:03	
Aluminum		0.263	mg/L	0.10	101	70	130	1.1	20	
Arsenic		0.266	mg/L	0.0010	106	70	130	0.3	20	
Barium		0.288	mg/L	0.10	110	70	130	2.6	20	
Boron		1.65	mg/L	0.10		70	130	0.8	20	A
Cadmium		0.257	mg/L	0.010	103	70	130	0.6	20	
Chromium		0.264	mg/L	0.050	106	70	130	3.7	20	
Copper		0.264	mg/L	0.010	103	70	130	2.9	20	
Lead		0.269	mg/L	0.050	108	70	130	0.3	20	
Manganese		0.271	mg/L	0.010	103	70	130	0.0	20	
Mercury		0.0279	mg/L	0.0010	111	70	130	2.7	20	
Molybdenum		0.317	mg/L	0.10	112	70	130	3.2	20	
Nickel		0.274	mg/L	0.050	102	70	130	2.1	20	
Selenium		0.372	mg/L	0.0010	102	70	130	1.1	20	
Silicon		13.4	mg/L	0.10		70	130	0.4	20	A
Uranium		1.20	mg/L	0.00030	103	70	130	0.3	20	
Vanadium		0.268	mg/L	0.10	107	70	130	3.6	20	

Qualifiers:

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ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/19/11
Work Order: C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: IC2-C_110328A	
Sample ID: ICV	2	Initial Calibration Verification Standard							03/28/11 12:04	
Chloride		10.1	mg/L	1.0	101	90	110			
Sulfate		40.7	mg/L	1.0	102	90	110			
Method: E300.0									Batch: R144189	
Sample ID: MBLK	2	Method Blank				Run: IC2-C_110328A			03/28/11 12:19	
Chloride		ND	mg/L	0.06						
Sulfate		0.3	mg/L	0.2						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: IC2-C_110328A			03/28/11 12:50	
Chloride		12.5	mg/L	1.0	100	90	110			
Sulfate		51.5	mg/L	1.0	102	90	110			
Sample ID: LFBD	2	Laboratory Fortified Blank				Run: IC2-C_110328A			03/28/11 13:06	
Chloride		12.5	mg/L	1.0	100	90	110			
Sulfate		51.2	mg/L	1.0	102	90	110			
Sample ID: LCS	2	Laboratory Control Sample				Run: IC2-C_110328A			03/28/11 20:52	
Chloride		9.87	mg/L	1.0	99	90	110			
Sulfate		40.3	mg/L	1.0	100	90	110			
Sample ID: C11030765-010AMS	2	Sample Matrix Spike				Run: IC2-C_110328A			03/29/11 05:21	
Chloride		24.5	mg/L	1.0	101	80	120			
Sulfate		135	mg/L	1.6	101	80	120			
Sample ID: C11030765-010AMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110328A			03/29/11 05:36	
Chloride		24.8	mg/L	1.0	103	80	120	1.3	10	
Sulfate		136	mg/L	1.6	102	80	120	0.8	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/19/11
Work Order: C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R144190
Sample ID: LCS-6		Laboratory Control Sample				Run: TECHNICON_110329A				03/29/11 12:53
Nitrogen, Nitrate+Nitrite as N		2.68	mg/L	0.10	104	90	110			
Sample ID: MBLK-5		Method Blank				Run: TECHNICON_110329A				03/29/11 13:05
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.06						
Sample ID: C11030766-004GMS		Sample Matrix Spike				Run: TECHNICON_110329A				03/29/11 14:28
Nitrogen, Nitrate+Nitrite as N		3.48	mg/L	0.10	106	90	110			
Sample ID: C11030766-004GMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110329A				03/29/11 14:30
Nitrogen, Nitrate+Nitrite as N		3.52	mg/L	0.10	108	90	110	1.1	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/19/11
Project: Marsland Baseline Samples **Work Order:** C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0									Batch: RA226-5322	
Sample ID: C11040542-009CMS		Sample Matrix Spike				Run: G542M_110427B			05/03/11 09:31	
Radium 226		13	pCi/L		104	70	130			
Sample ID: C11040542-009CMSD		Sample Matrix Spike Duplicate				Run: G542M_110427B			05/03/11 09:31	
Radium 226		14	pCi/L		107	70	130	3.1	24.9	
Sample ID: MB-RA226-5322	3	Method Blank				Run: G542M_110427B			05/03/11 11:14	
Radium 226		-0.1	pCi/L							U
Radium 226 precision (±)		0.10	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Sample ID: LCS-RA226-5322		Laboratory Control Sample				Run: G542M_110427B			05/03/11 11:14	
Radium 226		6.2	pCi/L		102	85	115			
Method: E903.0									Batch: RA226-5263	
Sample ID: C11030766-003DMS		Sample Matrix Spike				Run: TENNELEC-3_110328A			04/04/11 21:16	
Radium 226		13	pCi/L		100	70	130			
Sample ID: C11030766-003DMSD		Sample Matrix Spike Duplicate				Run: TENNELEC-3_110328A			04/04/11 21:16	
Radium 226		13	pCi/L		99	70	130	0.7	24.1	
Sample ID: MB-RA226-5263	3	Method Blank				Run: TENNELEC-3_110328A			04/04/11 23:03	
Radium 226		0.1	pCi/L							U
Radium 226 precision (±)		0.09	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Sample ID: LCS-RA226-5263		Laboratory Control Sample				Run: TENNELEC-3_110328A			04/04/11 23:02	
Radium 226		5.9	pCi/L		92	85	115			
Method: E903.0									Batch: 29415	
Sample ID: C11030834-003HMS		Sample Matrix Spike				Run: TENNELEC-3_110404A			04/11/11 14:34	
Radium 226		13	pCi/L		117	70	130			
Sample ID: C11030834-003HMSD		Sample Matrix Spike Duplicate				Run: TENNELEC-3_110404A			04/11/11 14:34	
Radium 226		12	pCi/L		114	70	130	4.9	23	
Sample ID: LCS-29415		Laboratory Control Sample				Run: TENNELEC-3_110404A			04/11/11 14:34	
Radium 226		60	pCi/L		100	85	115			
Sample ID: MB-29415	3	Method Blank				Run: TENNELEC-3_110404A			04/11/11 14:34	
Radium 226		0.9	pCi/L							U
Radium 226 precision (±)		0.8	pCi/L							
Radium 226 MDC		1	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/19/11
Work Order: C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0									Batch: RA-TH-ISO-1355	
Sample ID: LCS-RA-TH-ISO-1355		Laboratory Control Sample				Run: EGG-ORTEC_110329B			03/31/11 16:17	
Thorium 230		5.4	pCi/L		92	70	130			
Sample ID: C11030468-001DMS		Sample Matrix Spike				Run: EGG-ORTEC_110329B			03/31/11 16:17	
Thorium 230		13	pCi/L		96	70	130			
Sample ID: C11030468-001DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110329B			03/31/11 16:17	
Thorium 230		13	pCi/L		100	70	130	3.3	35.6	
Sample ID: MB-RA-TH-ISO-1355	3	Method Blank				Run: EGG-ORTEC_110329B			04/01/11 08:43	
Thorium 230		0.04	pCi/L							U
Thorium 230 precision (±)		0.09	pCi/L							
Thorium 230 MDC		0.2	pCi/L							
Method: E908.0									Batch: 29415	
Sample ID: C11030834-003HMS		Sample Matrix Spike				Run: EGG-ORTEC_110401A			04/05/11 09:08	
Thorium 230		8.8	pCi/L		103	70	130			
Sample ID: C11030834-003HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110401A			04/05/11 09:08	
Thorium 230		11	pCi/L		132	70	130	26	48.6	S
- Spike response is outside of the acceptance range for this analysis. Since the LCS, MS, and all tracer recoveries are acceptable the batch is approved.										
Sample ID: LCS-29415		Laboratory Control Sample				Run: EGG-ORTEC_110401A			04/05/11 09:08	
Thorium 230		9.9	pCi/L		102	70	130			
Sample ID: MB-29415	3	Method Blank				Run: EGG-ORTEC_110401A			04/05/11 09:08	
Thorium 230		-0.1	pCi/L							U
Thorium 230 precision (±)		0.2	pCi/L							
Thorium 230 MDC		0.3	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
U - Not detected at minimum detectable concentration
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/19/11

Project: Marsland Baseline Samples **Work Order:** C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0									Batch: T_PB-210-0095	
Sample ID: T11030080-001EMSD		Sample Matrix Spike Duplicate				Run: SUB-T40083			04/23/11 09:46	
Lead 210		48	pCi/L		89	70	130	2.7	16.2	
Sample ID: T11030080-001EMS		Sample Matrix Spike				Run: SUB-T40083			04/23/11 07:35	
Lead 210		49	pCi/L		91	70	130			
Sample ID: LCS-PB-210-0095		Laboratory Control Sample				Run: SUB-T40083			04/23/11 03:12	
Lead 210		78	pCi/L		109	70	130			
Sample ID: MB-PB-210-0095	3	Method Blank				Run: SUB-T40083			04/23/11 01:00	
Lead 210		-0.4	pCi/L							U
Lead 210 precision (±)		1	pCi/L							
Lead 210 MDC		2	pCi/L							
Method: E909.0									Batch: 13668	
Sample ID: T11030159-001HMSD		Sample Matrix Spike Duplicate				Run: SUB-T40226			05/03/11 10:13	
Lead 210		83	pCi/L		84	70	130	1.1	15.9	
Sample ID: MB-13668	3	Method Blank				Run: SUB-T40226			05/03/11 01:28	
Lead 210		-0.6	pCi/L							U
Lead 210 precision (±)		5	pCi/L							
Lead 210 MDC		9	pCi/L							
Sample ID: LCS-13668		Laboratory Control Sample				Run: SUB-T40226			05/03/11 03:39	
Lead 210		280	pCi/L		78	70	130			
Sample ID: T11030159-001HMS		Sample Matrix Spike				Run: SUB-T40226			05/03/11 08:02	
Lead 210		82	pCi/L		84	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/19/11

Project: Marsland Baseline Samples **Work Order:** C11030766

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0										Batch: PO210-0357
Sample ID: C11030766-005FMS		Sample Matrix Spike				Run: EGG-ORTEC_110328C			03/30/11 11:18	
Polonium 210		9.4	pCi/L		74	70	130			
Sample ID: C11030766-005FMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110328C			03/30/11 11:18	
Polonium 210		7.6	pCi/L		60	70	130	21	79.6	S
- Spike response is outside of the acceptance range for this analysis. Since the LCS and the MS are acceptable the batch is approved.										
Sample ID: MB-PO210-0357	3	Method Blank				Run: EGG-ORTEC_110328C			03/30/11 11:18	
Polonium 210		-0.01	pCi/L							U
Polonium 210 precision (±)		0.2	pCi/L							
Polonium 210 MDC		0.5	pCi/L							
Sample ID: LCS-PO210-0357		Laboratory Control Sample				Run: EGG-ORTEC_110328C			03/30/11 11:18	
Polonium 210		6.2	pCi/L		97	70	130			
Method: E912.0										Batch: R144922
Sample ID: LCS-29258		Laboratory Control Sample				Run: EGG-ORTEC_110412A			04/14/11 08:57	
Polonium 210		29	pCi/L		96	70	130			
Sample ID: MB-29258	3	Method Blank				Run: EGG-ORTEC_110412A			04/14/11 08:57	
Polonium 210		-0.05	pCi/L							U
Polonium 210 precision (±)		0.9	pCi/L							
Polonium 210 MDC		2	pCi/L							
Sample ID: C11030766-001HMS		Sample Matrix Spike				Run: EGG-ORTEC_110412A			04/14/11 08:57	
Polonium 210		5.1	pCi/L		89	70	130			
Sample ID: C11030766-001HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110412A			04/14/11 08:57	
Polonium 210		5.1	pCi/L		88	70	130	1.7	71.5	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

U - Not detected at minimum detectable concentration

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

Workorder Receipt Checklist

Crow Butte Resources

C11030766

Login completed by: Edith McPike
Date Received: 3/25/2011
Reviewed by: BL2000\hackerman
Received by: ha
Reviewed Date: 3/28/2011
Carrier name: Next Day Air Saver

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	6.8°C		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

Samples to be filtered and preserved in the laboratory for dissolved radionuclides.

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name: Marsland Baseline Samples	Sample Origin: State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169, Crawford, NE 69339	Contact Name: Larry Teahon; Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass, Rhonda Pelton
Invoice Address: P.O. Box 169, Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon, 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

RUSH: Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling. Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 requirements. Record U as mg/L and µCi/ml and radiometrics as pCi/L.

Shipped by: UPS NDA SVC

Cooler ID(s): Various

Receipt Temp: 6.8 °C

On Ice: (Yes) No

Custody Seal Y (N)

Intact Y N

Signature Match Y N

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	HNO3-F, Metals	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	Raw-UF, Ra226, Po210 dis, sus	Raw-UF, Pb210 dis and sus	Rau-UF, Th230, U-nat dis and sus			SEE ATTACHED	Normal Turnaround (TAT)			LABORATORY USE ONLY
1	CPW-1	3/24/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/30/11	
2	BOW-1	3/24/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/30/11	
3	Well #788	3/24/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/30/11	
4	Well #705	3/24/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/30/11	
5	Well #727	3/24/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/30/11	
6																		
7																		
8																		
9																		
10																		41123674

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Brooke Bass	3/24/11	Brooke Bass			
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time: 3.25.11 930	Signature:

Sample Disposal: Return to Client: No Lab Disposal: YES

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

CROW BUTTE RESOURCES, INC.
CROW BUTTE PROJECT

NO_2^-

DATE: 3/24/11

ANALYST: sm

STANDARD CURVE DATA

NO_2^-	BL	0.01	0.05	0.1			
Abs	0	.037	.198	.410			
Abs							

SAMPLE #	VOLUME	Df	Abs	NO_2^- mg/L
1 705	10 ml	1	.004	<0.01
2 727	10 ml	1	.001	<0.01
3 788	10 ml	1	-.003	<0.01
4 BOW-1	10 ml	1	.106	0.03
5 CPW 2010-1	10 ml	1	.000	<0.01
Dup				
6 705 Dup	10 ml	1	.004	<0.01
7 CPW 2010-1 Dup	10 ml	1	.000	<0.01
8				
9				
10				
Dup				
11				
12				
13				
14				
15				
Dup				
16				
17				
18				
19				
20				
Dup				
21				
22				
23				
24				
25				
Dup				

ANALYTICAL SUMMARY REPORT

May 11, 2011

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C11030834 Quote ID: C1125 - Crow Butte Uranium

Project Name: Marsland Baseline Samples

Energy Laboratories, Inc. Casper WY received the following 3 samples for Crow Butte Resources on 3/29/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11030834-001	Well #747	03/25/11 0:00	03/29/11	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Uranium, Suspended Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C11030834-002	E. Drillers Pond	03/25/11 0:00	03/29/11	Aqueous	Same As Above
C11030834-003	W. Drillers Pond	03/25/11 0:00	03/29/11	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Crow Butte Resources
Project: Marsland Baseline Samples
Sample Delivery Group: C11030834

Report Date: 05/11/11

CASE NARRATIVE

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

BRANCH LABORATORY SUBCONTRACT ANALYSIS
Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030834-001
Client Sample ID: Well #747

Report Date: 05/11/11
Collection Date: 03/25/11
DateReceived: 03/29/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	131	mg/L		1		A2320 B	03/29/11 18:48 / jba
Carbonate as CO3	ND	mg/L		1		A2320 B	03/29/11 18:48 / jba
Bicarbonate as HCO3	160	mg/L		1		A2320 B	03/29/11 18:48 / jba
Calcium	31	mg/L		1		E200.7	04/05/11 15:40 / cp
Chloride	3	mg/L		1		E300.0	03/30/11 22:57 / ljl
Fluoride	1.0	mg/L		0.1		A4500-F C	04/04/11 11:11 / lr
Magnesium	7	mg/L		1		E200.7	04/05/11 15:40 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/31/11 12:37 / dc
Nitrogen, Nitrate+Nitrite as N	1.0	mg/L		0.1		E353.2	03/29/11 16:50 / dc
Potassium	3	mg/L		1		E200.7	04/05/11 15:40 / cp
Silica	85.5	mg/L		0.2		E200.7	04/05/11 15:40 / cp
Sodium	13	mg/L		1		E200.7	04/05/11 15:40 / cp
Sulfate	5	mg/L		1		E300.0	03/30/11 22:57 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	255	umhos/cm		1		A2510 B	03/29/11 14:28 / lr
pH	8.07	s.u.		0.01		A4500-H B	03/29/11 14:28 / lr
Solids, Total Dissolved TDS @ 180 C	202	mg/L		10		A2540 C	03/29/11 15:34 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/31/11 10:33 / sml
Arsenic	0.005	mg/L		0.001		E200.8	03/31/11 10:33 / sml
Barium	ND	mg/L		0.1		E200.8	03/31/11 10:33 / sml
Boron	ND	mg/L		0.1		E200.8	03/31/11 10:33 / sml
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 10:33 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 10:33 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 10:33 / sml
Iron	ND	mg/L		0.03		E200.8	03/31/11 10:33 / sml
Lead	ND	mg/L		0.001		E200.8	03/31/11 10:33 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 10:33 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 10:33 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 10:33 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 10:33 / sml
Selenium	ND	mg/L		0.001		E200.8	03/31/11 10:33 / sml
Uranium	0.0101	mg/L		0.0003		E200.8	03/31/11 10:33 / sml
Uranium, Activity	6.8E-09	uCi/mL		2.0E-10		E200.8	03/31/11 10:33 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 10:33 / sml
Zinc	0.07	mg/L		0.01		E200.7	04/05/11 15:40 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/05/11 18:22 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/05/11 18:22 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030834-001
Client Sample ID: Well #747

Report Date: 05/11/11
Collection Date: 03/25/11
DateReceived: 03/29/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	04/26/11 04:30 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	04/26/11 04:30 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	04/26/11 04:30 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	04/21/11 09:10 / ep
Polonium 210 precision (±)	0.4	pCi/L				E912.0	04/21/11 09:10 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	04/21/11 09:10 / ep
Radium 226	0.20	pCi/L		0.1		E903.0	04/06/11 21:14 / ep
Radium 226 precision (±)	0.09	pCi/L				E903.0	04/06/11 21:14 / ep
Radium 226 MDC	0.1	pCi/L				E903.0	04/06/11 21:14 / ep
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	04/07/11 16:19 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	04/07/11 16:19 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	04/07/11 16:19 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/03/11 21:10 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/03/11 21:10 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/03/11 21:10 / eli-cs
Polonium 210	0.3	pCi/L		0.2		E912.0	04/14/11 08:57 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	04/14/11 08:57 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	04/14/11 08:57 / ep
Radium 226	<0.09	pCi/L	U	0.09		E903.0	04/11/11 14:34 / plj
Radium 226 precision (±)	0.06	pCi/L				E903.0	04/11/11 14:34 / plj
Radium 226 MDC	0.09	pCi/L				E903.0	04/11/11 14:34 / plj
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/05/11 09:08 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	04/05/11 09:08 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/05/11 09:08 / dmf
DATA QUALITY							
A/C Balance (± 5)	-3.49	%				Calculation	04/07/11 12:42 / kbh
Anions	2.94	meq/L				Calculation	04/07/11 12:42 / kbh
Cations	2.75	meq/L				Calculation	04/07/11 12:42 / kbh
Solids, Total Dissolved Calculated	255	mg/L				Calculation	04/07/11 12:42 / kbh
TDS Balance (0.80 - 1.20)	0.790					Calculation	04/07/11 12:42 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030834-002
Client Sample ID: E. Drillers Pond

Report Date: 05/11/11
Collection Date: 03/25/11
DateReceived: 03/29/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	156	mg/L		1		A2320 B	03/29/11 18:56 / jba
Carbonate as CO3	ND	mg/L		1		A2320 B	03/29/11 18:56 / jba
Bicarbonate as HCO3	191	mg/L		1		A2320 B	03/29/11 18:56 / jba
Calcium	34	mg/L		1		E200.7	04/05/11 15:52 / cp
Chloride	3	mg/L		1		E300.0	03/30/11 23:13 / ljl
Fluoride	0.5	mg/L		0.1		A4500-F C	04/04/11 11:25 / lr
Magnesium	9	mg/L		1		E200.7	04/05/11 15:52 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/31/11 12:45 / dc
Nitrogen, Nitrate+Nitrite as N	1.0	mg/L		0.1		E353.2	03/29/11 16:53 / dc
Potassium	3	mg/L		1		E200.7	04/05/11 15:52 / cp
Silica	79.9	mg/L		0.2		E200.7	04/05/11 15:52 / cp
Sodium	19	mg/L		1		E200.7	04/05/11 15:52 / cp
Sulfate	7	mg/L		1		E300.0	03/30/11 23:13 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	304	umhos/cm		1		A2510 B	03/29/11 14:30 / lr
pH	7.93	s.u.		0.01		A4500-H B	03/29/11 14:30 / lr
Solids, Total Dissolved TDS @ 180 C	246	mg/L		10		A2540 C	03/29/11 15:34 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/31/11 10:40 / sml
Arsenic	0.003	mg/L		0.001		E200.8	03/31/11 10:40 / sml
Barium	0.1	mg/L		0.1		E200.8	03/31/11 10:40 / sml
Boron	ND	mg/L		0.1		E200.8	03/31/11 10:40 / sml
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 10:40 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 10:40 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 10:40 / sml
Iron	ND	mg/L		0.03		E200.8	03/31/11 10:40 / sml
Lead	ND	mg/L		0.001		E200.8	03/31/11 10:40 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 10:40 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 10:40 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 10:40 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 10:40 / sml
Selenium	0.002	mg/L		0.001		E200.8	03/31/11 10:40 / sml
Uranium	0.0090	mg/L		0.0003		E200.8	03/31/11 10:40 / sml
Uranium, Activity	6.1E-09	uCi/mL		2.0E-10		E200.8	03/31/11 10:40 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 10:40 / sml
Zinc	0.01	mg/L		0.01		E200.7	04/05/11 15:52 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/05/11 18:26 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/05/11 18:26 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030834-002
Client Sample ID: E. Drillers Pond

Report Date: 05/11/11
Collection Date: 03/25/11
DateReceived: 03/29/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	04/26/11 06:41 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	04/26/11 06:41 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	04/26/11 06:41 / eli-cs
Polonium 210	2.0	pCi/L		0.7		E912.0	04/21/11 09:10 / ep
Polonium 210 precision (±)	1.1	pCi/L				E912.0	04/21/11 09:10 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	04/21/11 09:10 / ep
Radium 226	0.26	pCi/L		0.09		E903.0	04/06/11 21:14 / ep
Radium 226 precision (±)	0.09	pCi/L				E903.0	04/06/11 21:14 / ep
Radium 226 MDC	0.09	pCi/L				E903.0	04/06/11 21:14 / ep
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/07/11 16:19 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	04/07/11 16:19 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/07/11 16:19 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/05/11 10:25 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/05/11 10:25 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/05/11 10:25 / eli-cs
Polonium 210	<0.4	pCi/L	U	0.4		E912.0	04/14/11 08:57 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	04/14/11 08:57 / ep
Polonium 210 MDC	0.4	pCi/L				E912.0	04/14/11 08:57 / ep
Radium 226	0.17	pCi/L		0.09		E903.0	04/11/11 14:34 / plj
Radium 226 precision (±)	0.08	pCi/L				E903.0	04/11/11 14:34 / plj
Radium 226 MDC	0.09	pCi/L				E903.0	04/11/11 14:34 / plj
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/05/11 09:08 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	04/05/11 09:08 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/05/11 09:08 / dmf
DATA QUALITY							
A/C Balance (± 5)	-1.56	%				Calculation	04/07/11 12:42 / kbh
Anions	3.45	meq/L				Calculation	04/07/11 12:42 / kbh
Cations	3.35	meq/L				Calculation	04/07/11 12:42 / kbh
Solids, Total Dissolved Calculated	275	mg/L				Calculation	04/07/11 12:42 / kbh
TDS Balance (0.80 - 1.20)	0.890					Calculation	04/07/11 12:42 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030834-003
Client Sample ID: W. Drillers Pond

Report Date: 05/11/11
Collection Date: 03/25/11
DateReceived: 03/29/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	148	mg/L		1		A2320 B	03/29/11 19:04 / jba
Carbonate as CO3	ND	mg/L		1		A2320 B	03/29/11 19:04 / jba
Bicarbonate as HCO3	181	mg/L		1		A2320 B	03/29/11 19:04 / jba
Calcium	30	mg/L		1		E200.7	04/05/11 16:00 / cp
Chloride	2	mg/L		1		E300.0	03/30/11 23:28 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	04/04/11 11:29 / lr
Magnesium	8	mg/L		1		E200.7	04/05/11 16:00 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	03/31/11 12:47 / dc
Nitrogen, Nitrate+Nitrite as N	1.2	mg/L		0.1		E353.2	03/29/11 16:55 / dc
Potassium	4	mg/L		1		E200.7	04/05/11 16:00 / cp
Silica	81.1	mg/L		0.2		E200.7	04/05/11 16:00 / cp
Sodium	22	mg/L		1		E200.7	04/05/11 16:00 / cp
Sulfate	9	mg/L		1		E300.0	03/30/11 23:28 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	290	umhos/cm		1		A2510 B	03/29/11 14:32 / lr
pH	7.95	s.u.		0.01		A4500-H B	03/29/11 14:32 / lr
Solids, Total Dissolved TDS @ 180 C	226	mg/L		10		A2540 C	03/29/11 15:35 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/31/11 11:14 / sml
Arsenic	0.006	mg/L		0.001		E200.8	03/31/11 11:14 / sml
Barium	0.1	mg/L		0.1		E200.8	03/31/11 11:14 / sml
Boron	ND	mg/L		0.1		E200.8	03/31/11 11:14 / sml
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 11:14 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 11:14 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 11:14 / sml
Iron	ND	mg/L		0.03		E200.8	03/31/11 11:14 / sml
Lead	ND	mg/L		0.001		E200.8	03/31/11 11:14 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 11:14 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 11:14 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 11:14 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 11:14 / sml
Selenium	0.002	mg/L		0.001		E200.8	03/31/11 11:14 / sml
Uranium	0.0064	mg/L		0.0003		E200.8	03/31/11 11:14 / sml
Uranium, Activity	4.4E-09	uCi/mL		2.0E-10		E200.8	03/31/11 11:14 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 11:14 / sml
Zinc	0.02	mg/L		0.01		E200.7	04/05/11 16:00 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/05/11 18:30 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/05/11 18:30 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030834-003
Client Sample ID: W. Drillers Pond

Report Date: 05/11/11
Collection Date: 03/25/11
DateReceived: 03/29/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	04/26/11 02:18 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	04/26/11 02:18 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	04/26/11 02:18 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	04/21/11 09:10 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	04/21/11 09:10 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	04/21/11 09:10 / ep
Radium 226	0.16	pCi/L		0.10		E903.0	04/06/11 21:14 / ep
Radium 226 precision (±)	0.09	pCi/L				E903.0	04/06/11 21:14 / ep
Radium 226 MDC	0.10	pCi/L				E903.0	04/06/11 21:14 / ep
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/07/11 16:19 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	04/07/11 16:19 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/07/11 16:19 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/05/11 12:37 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/05/11 12:37 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/05/11 12:37 / eli-cs
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	04/14/11 08:57 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	04/14/11 08:57 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	04/14/11 08:57 / ep
Radium 226	<0.09	pCi/L	U	0.09		E903.0	04/11/11 14:34 / plj
Radium 226 precision (±)	0.06	pCi/L				E903.0	04/11/11 14:34 / plj
Radium 226 MDC	0.09	pCi/L				E903.0	04/11/11 14:34 / plj
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/05/11 09:08 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	04/05/11 09:08 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/05/11 09:08 / dmf
DATA QUALITY							
A/C Balance (± 5)	-2.14	%				Calculation	04/07/11 12:43 / kbh
Anions	3.33	meq/L				Calculation	04/07/11 12:43 / kbh
Cations	3.19	meq/L				Calculation	04/07/11 12:43 / kbh
Solids, Total Dissolved Calculated	272	mg/L				Calculation	04/07/11 12:43 / kbh
TDS Balance (0.80 - 1.20)	0.830					Calculation	04/07/11 12:43 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Report Date: 05/11/11
Project: Marsland Baseline Samples
Work Order: C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: R144195	
Sample ID: MBLK	3	Method Blank				Run: MANTECH_110329A			03/29/11 16:43	
Alkalinity, Total as CaCO3		2	mg/L	1						
Carbonate as CO3		ND	mg/L	1						
Bicarbonate as HCO3		2	mg/L	1						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110329A			03/29/11 16:59	
Alkalinity, Total as CaCO3		213	mg/L	5.0	106	90	110			
Sample ID: C11030834-003ADUP	3	Sample Duplicate				Run: MANTECH_110329A			03/29/11 19:12	
Alkalinity, Total as CaCO3		148	mg/L	5.0				0.5	10	
Carbonate as CO3		ND	mg/L	5.0					10	
Bicarbonate as HCO3		180	mg/L	5.0				0.5	10	
Sample ID: C11030834-003AMS		Sample Matrix Spike				Run: MANTECH_110329A			03/29/11 19:20	
Alkalinity, Total as CaCO3		281	mg/L	5.0	106	80	120			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/11/11

Project: Marsland Baseline Samples **Work Order:** C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: ORION555A-2_110329A		
Sample ID: ICV2_110329_1		Initial Calibration Verification Standard							03/29/11 13:35	
Conductivity @ 25 C		1380	umhos/cm	1.0	98	90	110			
Method: A2510 B								Batch: 110329_1_PH-W_555A-2		
Sample ID: MBLK1_110329_1		Method Blank				Run: ORION555A-2_110329A			03/29/11 13:31	
Conductivity @ 25 C		0.5	umhos/cm	0.2						
Sample ID: C11030842-001ADUP		Sample Duplicate				Run: ORION555A-2_110329A			03/29/11 14:39	
Conductivity @ 25 C		2830	umhos/cm	1.0				0.1	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/11/11
Work Order: C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: 110329_1_SLDS-TDS-W	
Sample ID: MBLK1_110329		Method Blank				Run: BAL-1_110329B			03/29/11 15:31	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	4						
Sample ID: LCS1_110329		Laboratory Control Sample				Run: BAL-1_110329B			03/29/11 15:31	
Solids, Total Dissolved TDS @ 180 C		997	mg/L	10	100	90	110			
Sample ID: C11030828-001BDUP		Sample Duplicate				Run: BAL-1_110329B			03/29/11 15:34	
Solids, Total Dissolved TDS @ 180 C		204	mg/L	10				0.4	10	
Sample ID: C11030834-003BMS		Sample Matrix Spike				Run: BAL-1_110329B			03/29/11 15:35	
Solids, Total Dissolved TDS @ 180 C		2230	mg/L	10	100	90	110			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/11/11
Work Order: C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R144428
Sample ID: MBLK		Method Blank				Run: MANTECH_110404A				04/04/11 10:44
Fluoride		0.02	mg/L	0.008						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110404A				04/04/11 10:46
Fluoride		1.04	mg/L	0.10	102	90	110			
Sample ID: C11030834-001AMS		Sample Matrix Spike				Run: MANTECH_110404A				04/04/11 11:14
Fluoride		2.00	mg/L	0.10	102	80	120			
Sample ID: C11030834-001AMSD		Sample Matrix Spike Duplicate				Run: MANTECH_110404A				04/04/11 11:21
Fluoride		2.00	mg/L	0.10	102	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/11/11
Work Order: C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION555A-2_110329A		
Sample ID: ICV1_110329_1		Initial Calibration Verification Standard							03/29/11 13:33	
pH		6.88	s.u.	0.010	100	98	102			
Method: A4500-H B								Batch: 110329_1_PH-W_555A-2		
Sample ID: C11030842-001ADUP		Sample Duplicate				Run: ORION555A-2_110329A			03/29/11 14:39	
pH		8.04	s.u.	0.010				0.7	3	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/11/11

Project: Marsland Baseline Samples **Work Order:** C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R144300
Sample ID: MBLK-3		Method Blank				Run: TECHNICON_110331A				03/31/11 11:23
Nitrogen, Ammonia as N		ND	mg/L	0.02						
Sample ID: LCS-4		Laboratory Control Sample				Run: TECHNICON_110331A				03/31/11 11:25
Nitrogen, Ammonia as N		1.93	mg/L	0.050	96	90	110			
Sample ID: C11030834-001GMS		Sample Matrix Spike				Run: TECHNICON_110331A				03/31/11 12:39
Nitrogen, Ammonia as N		1.74	mg/L	0.050	89	80	120			
Sample ID: C11030834-001GMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110331A				03/31/11 12:41
Nitrogen, Ammonia as N		1.77	mg/L	0.050	90	80	120	1.7	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/11/11

Project: Marsland Baseline Samples **Work Order:** C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R144494A	
Sample ID: C11030834-001CMS2	6	Sample Matrix Spike				Run: ICP2-C_110405A			04/05/11 15:44	
Calcium		132	mg/L	1.0	98	70	130			
Magnesium		106	mg/L	1.0	97	70	130			
Potassium		92.7	mg/L	1.0	88	70	130			
Silicon		40.6	mg/L	0.10		70	130			A
Sodium		114	mg/L	1.0	98	70	130			
Zinc		2.01	mg/L	0.010	95	70	130			
Sample ID: C11030834-001CMSD	6	Sample Matrix Spike Duplicate				Run: ICP2-C_110405A			04/05/11 15:48	
Calcium		133	mg/L	1.0	100	70	130	0.9	20	
Magnesium		106	mg/L	1.0	98	70	130	0.4	20	
Potassium		92.4	mg/L	1.0	88	70	130	0.3	20	
Silicon		40.8	mg/L	0.10		70	130	0.4	20	A
Sodium		114	mg/L	1.0	99	70	130	0.4	20	
Zinc		2.04	mg/L	0.010	97	70	130	1.9	20	
Sample ID: MB-110405A	6	Method Blank				Run: ICP2-C_110405A			04/05/11 14:35	
Calcium		ND	mg/L	0.2						
Magnesium		ND	mg/L	0.05						
Potassium		ND	mg/L	0.02						
Silicon		ND	mg/L	0.007						
Sodium		ND	mg/L	0.3						
Zinc		ND	mg/L	0.001						
Sample ID: LFB-110405A	6	Laboratory Fortified Blank				Run: ICP2-C_110405A			04/05/11 14:39	
Calcium		48.7	mg/L	0.50	97	85	115			
Magnesium		49.4	mg/L	0.50	99	85	115			
Potassium		43.2	mg/L	0.50	86	85	115			
Silicon		0.427	mg/L	0.10	91	85	115			
Sodium		47.6	mg/L	0.50	95	85	115			
Zinc		0.957	mg/L	0.010	96	85	115			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/11/11
Work Order: C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 29415
Sample ID: MB-29415		Method Blank				Run: ICPMS2-C_110405A				04/05/11 17:32
Uranium		ND	mg/L	6E-05						
Sample ID: LCS2-29415		Laboratory Control Sample				Run: ICPMS2-C_110405A				04/05/11 17:36
Uranium		0.100	mg/L	0.00030	100	85	115			
Sample ID: C11030834-003HMS		Sample Matrix Spike				Run: ICPMS2-C_110405A				04/05/11 18:34
Uranium		0.00478	mg/L	0.00030	106	70	130			
Sample ID: C11030834-003HMSD		Sample Matrix Spike Duplicate				Run: ICPMS2-C_110405A				04/05/11 18:38
Uranium		0.00475	mg/L	0.00030	105	70	130	0.7	20	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/11/11

Project: Marsland Baseline Samples **Work Order:** C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144243A
Sample ID: LRB	16	Method Blank				Run: ICPMS4-C_110330A				03/30/11 21:28
Aluminum		0.007	mg/L	8E-05						
Arsenic		ND	mg/L	4E-05						
Barium		5E-05	mg/L	3E-05						
Boron		4E-05	mg/L							
Cadmium		ND	mg/L	7E-05						
Chromium		ND	mg/L	5E-05						
Copper		ND	mg/L	6E-05						
Iron		0.006	mg/L	0.0001						
Lead		ND	mg/L	2E-05						
Manganese		7E-05	mg/L	2E-05						
Mercury		ND	mg/L	2E-05						
Molybdenum		0.0001	mg/L	8E-05						
Nickel		0.0001	mg/L	5E-05						
Selenium		0.0004	mg/L	5E-05						
Uranium		ND	mg/L	8E-06						
Vanadium		ND	mg/L	1E-05						
Sample ID: LFB	16	Laboratory Fortified Blank				Run: ICPMS4-C_110330A				03/30/11 21:35
Aluminum		0.0539	mg/L	0.0010	95	85	115			
Arsenic		0.0541	mg/L	0.0010	108	85	115			
Barium		0.0527	mg/L	0.0010	105	85	115			
Boron		0.0513	mg/L	0.0010	103	85	115			
Cadmium		0.0529	mg/L	0.0010	106	85	115			
Chromium		0.0540	mg/L	0.0010	108	85	115			
Copper		0.0548	mg/L	0.0010	110	85	115			
Iron		1.26	mg/L	0.012	101	85	115			
Lead		0.0532	mg/L	0.0010	106	85	115			
Manganese		0.0539	mg/L	0.0010	108	85	115			
Mercury		0.00518	mg/L	0.0010	104	85	115			
Molybdenum		0.0523	mg/L	0.0010	104	85	115			
Nickel		0.0554	mg/L	0.0010	110	85	115			
Selenium		0.0522	mg/L	0.0010	104	85	115			
Uranium		0.0524	mg/L	0.00030	105	85	115			
Vanadium		0.0540	mg/L	0.0010	108	85	115			
Sample ID: C11030834-003CMS4	16	Sample Matrix Spike				Run: ICPMS4-C_110330A				03/31/11 11:21
Aluminum		0.0469	mg/L	0.0010	92	70	130			
Arsenic		0.0582	mg/L	0.0010	105	70	130			
Barium		0.154	mg/L	0.10	104	70	130			
Boron		0.0804	mg/L	0.0010	89	70	130			
Cadmium		0.0521	mg/L	0.010	104	70	130			
Chromium		0.0505	mg/L	0.0010	101	70	130			
Copper		0.0513	mg/L	0.010	102	70	130			
Iron		1.25	mg/L	0.030	100	70	130			
Lead		0.0518	mg/L	0.050	103	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/11/11

Project: Marsland Baseline Samples **Work Order:** C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144243A
Sample ID: C11030834-003CMS4	16	Sample Matrix Spike				Run: ICPMS4-C_110330A			03/31/11 11:21	
Manganese		0.0511	mg/L	0.010	102	70	130			
Mercury		0.00531	mg/L	0.0010	106	70	130			
Molybdenum		0.0502	mg/L	0.0010	98	70	130			
Nickel		0.0503	mg/L	0.0010	100	70	130			
Selenium		0.0560	mg/L	0.0010	109	70	130			
Uranium		0.0576	mg/L	0.00030	102	70	130			
Vanadium		0.0597	mg/L	0.0010	101	70	130			
Sample ID: C11030834-003CMSD	16	Sample Matrix Spike Duplicate				Run: ICPMS4-C_110330A			03/31/11 11:28	
Aluminum		0.0468	mg/L	0.0010	92	70	130	0.1	20	
Arsenic		0.0582	mg/L	0.0010	105	70	130	0.1	20	
Barium		0.154	mg/L	0.10	104	70	130	0.1	20	
Boron		0.0825	mg/L	0.0010	93	70	130	2.6	20	
Cadmium		0.0524	mg/L	0.010	105	70	130	0.5	20	
Chromium		0.0497	mg/L	0.0010	99	70	130	1.7	20	
Copper		0.0511	mg/L	0.010	101	70	130	0.3	20	
Iron		1.23	mg/L	0.030	98	70	130	1.9	20	
Lead		0.0519	mg/L	0.050	104	70	130	0.3	20	
Manganese		0.0512	mg/L	0.010	102	70	130	0.2	20	
Mercury		0.00504	mg/L	0.0010	101	70	130	5.3	20	
Molybdenum		0.0522	mg/L	0.0010	102	70	130	3.9	20	
Nickel		0.0492	mg/L	0.0010	98	70	130	2.2	20	
Selenium		0.0557	mg/L	0.0010	108	70	130	0.6	20	
Uranium		0.0586	mg/L	0.00030	104	70	130	1.6	20	
Vanadium		0.0592	mg/L	0.0010	100	70	130	0.9	20	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/11/11

Project: Marsland Baseline Samples **Work Order:** C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0										Batch: R144276
Sample ID: LCS	2	Laboratory Control Sample				Run: IC2-C_110330A				03/30/11 12:09
Chloride		9.95	mg/L	1.0	100	90	110			
Sulfate		40.2	mg/L	1.0	100	90	110			
Sample ID: MBLK	2	Method Blank				Run: IC2-C_110330A				03/30/11 12:25
Chloride		ND	mg/L	0.06						
Sulfate		0.3	mg/L	0.2						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: IC2-C_110330A				03/30/11 12:56
Chloride		12.4	mg/L	1.0	99	90	110			
Sulfate		50.6	mg/L	1.0	101	90	110			
Sample ID: C11030827-002CMS	2	Sample Matrix Spike				Run: IC2-C_110330A				03/30/11 21:25
Chloride		61.1	mg/L	1.0	103	80	120			
Sulfate		1140	mg/L	4.0		80	120			A
Sample ID: C11030827-002CMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110330A				03/30/11 21:40
Chloride		60.8	mg/L	1.0	103	80	120	0.4	10	
Sulfate		1130	mg/L	4.0		80	120	0.9	10	A

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/11/11
Work Order: C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R144190
Sample ID: MBLK-5		Method Blank				Run: TECHNICON_110329A			03/29/11 13:05	
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.06						
Sample ID: LCS-99		Laboratory Control Sample				Run: TECHNICON_110329A			03/29/11 16:58	
Nitrogen, Nitrate+Nitrite as N		2.70	mg/L	0.10	108	90	110			
Sample ID: C11030834-002GMS		Sample Matrix Spike				Run: TECHNICON_110329A			03/29/11 17:05	
Nitrogen, Nitrate+Nitrite as N		3.11	mg/L	0.10	109	90	110			
Sample ID: C11030834-002GMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110329A			03/29/11 17:08	
Nitrogen, Nitrate+Nitrite as N		3.18	mg/L	0.10	113	90	110	2.2	10	S

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/11/11
Work Order: C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-5269
Sample ID: C11030834-001DMS		Sample Matrix Spike				Run: TENNELEC-3_110330B				04/06/11 21:14
Radium 226		12	pCi/L		93	70	130			
Sample ID: C11030834-001DMSD		Sample Matrix Spike Duplicate				Run: TENNELEC-3_110330B				04/06/11 21:14
Radium 226		10	pCi/L		78	70	130	18	25.1	
Sample ID: MB-RA226-5269	3	Method Blank				Run: TENNELEC-3_110330B				04/06/11 22:53
Radium 226		0.05	pCi/L							U
Radium 226 precision (±)		0.07	pCi/L							
Radium 226 MDC		0.1	pCi/L							
Sample ID: LCS-RA226-5269		Laboratory Control Sample				Run: TENNELEC-3_110330B				04/06/11 22:53
Radium 226		6.3	pCi/L		99	85	115			
Method: E903.0										Batch: 29415
Sample ID: C11030834-003HMS		Sample Matrix Spike				Run: TENNELEC-3_110404A				04/11/11 14:34
Radium 226		13	pCi/L		117	70	130			
Sample ID: C11030834-003HMSD		Sample Matrix Spike Duplicate				Run: TENNELEC-3_110404A				04/11/11 14:34
Radium 226		12	pCi/L		114	70	130	4.9	23	
Sample ID: LCS-29415		Laboratory Control Sample				Run: TENNELEC-3_110404A				04/11/11 14:34
Radium 226		60	pCi/L		100	85	115			
Sample ID: MB-29415	3	Method Blank				Run: TENNELEC-3_110404A				04/11/11 14:34
Radium 226		0.9	pCi/L							U
Radium 226 precision (±)		0.8	pCi/L							
Radium 226 MDC		1	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/11/11

Project: Marsland Baseline Samples **Work Order:** C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0										Batch: 29415
Sample ID: C11030834-003HMS		Sample Matrix Spike				Run: EGG-ORTEC_110401A			04/05/11 09:08	
Thorium 230		8.8	pCi/L		103	70	130			
Sample ID: C11030834-003HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110401A			04/05/11 09:08	
Thorium 230		11	pCi/L		132	70	130	26	48.6	S
- Spike response is outside of the acceptance range for this analysis. Since the LCS, MS, and all tracer recoveries are acceptable the batch is approved.										
Sample ID: LCS-29415		Laboratory Control Sample				Run: EGG-ORTEC_110401A			04/05/11 09:08	
Thorium 230		9.9	pCi/L		102	70	130			
Sample ID: MB-29415	3	Method Blank				Run: EGG-ORTEC_110401A			04/05/11 09:08	
Thorium 230		-0.1	pCi/L							U
Thorium 230 precision (±)		0.2	pCi/L							
Thorium 230 MDC		0.3	pCi/L							
Method: E908.0										Batch: RA-TH-ISO-1358
Sample ID: LCS-RA-TH-ISO-1358		Laboratory Control Sample				Run: EGG-ORTEC_110404A			04/07/11 16:19	
Thorium 230		5.6	pCi/L		98	70	130			
Sample ID: C11030927-006DMS		Sample Matrix Spike				Run: EGG-ORTEC_110404A			04/07/11 16:19	
Thorium 230		14	pCi/L		124	70	130			
Sample ID: C11030927-006DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110404A			04/07/11 16:19	
Thorium 230		11	pCi/L		97	70	130	24	36.4	
Sample ID: MB-RA-TH-ISO-1358	3	Method Blank				Run: EGG-ORTEC_110404A			04/08/11 08:53	
Thorium 230		0.001	pCi/L							U
Thorium 230 precision (±)		0.06	pCi/L							
Thorium 230 MDC		0.1	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

U - Not detected at minimum detectable concentration

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/11/11
Work Order: C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0									Batch: T_PB-210-0095	
Sample ID: T11030080-001EMSD		Sample Matrix Spike Duplicate				Run: SUB-T40083			04/23/11 09:46	
Lead 210		48	pCi/L		89	70	130	2.7	16.2	
Sample ID: T11030080-001EMS		Sample Matrix Spike				Run: SUB-T40083			04/23/11 07:35	
Lead 210		49	pCi/L		91	70	130			
Sample ID: LCS-PB-210-0095		Laboratory Control Sample				Run: SUB-T40083			04/23/11 03:12	
Lead 210		78	pCi/L		109	70	130			
Sample ID: MB-PB-210-0095	3	Method Blank				Run: SUB-T40083			04/23/11 01:00	
Lead 210		-0.4	pCi/L							U
Lead 210 precision (±)		1	pCi/L							
Lead 210 MDC		2	pCi/L							
Method: E909.0									Batch: 13788	
Sample ID: T11040035-001AMSD		Sample Matrix Spike Duplicate				Run: SUB-T40226			05/04/11 08:07	
Lead 210		6.94E-05	pCi/Filter		90	70	130	8.6	15.6	
Sample ID: T11040035-001AMS		Sample Matrix Spike				Run: SUB-T40226			05/04/11 05:56	
Lead 210		7.57E-05	pCi/Filter		98	70	130			
Sample ID: LCS-13788		Laboratory Control Sample				Run: SUB-T40226			05/04/11 01:33	
Lead 210		340	pCi/L		94	70	130			
Sample ID: MB-13788	3	Method Blank				Run: SUB-T40226			05/03/11 23:22	
Lead 210		-2	pCi/L							U
Lead 210 precision (±)		5	pCi/L							
Lead 210 MDC		9	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/11/11
Work Order: C11030834

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0										Batch: R144922
Sample ID: LCS-29258		Laboratory Control Sample				Run: EGG-ORTEC_110412A				04/14/11 08:57
Polonium 210		29	pCi/L		96	70	130			
Sample ID: MB-29258	3	Method Blank				Run: EGG-ORTEC_110412A				04/14/11 08:57
Polonium 210		-0.05	pCi/L							U
Polonium 210 precision (±)		0.9	pCi/L							
Polonium 210 MDC		2	pCi/L							
Sample ID: C11030766-001HMS		Sample Matrix Spike				Run: EGG-ORTEC_110412A				04/14/11 08:57
Polonium 210		5.1	pCi/L		89	70	130			
Sample ID: C11030766-001HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110412A				04/14/11 08:57
Polonium 210		5.1	pCi/L		88	70	130	1.7	71.5	
Method: E912.0										Batch: PO210-0358
Sample ID: C11030834-003FMS		Sample Matrix Spike				Run: EGG-ORTEC_110418A				04/21/11 09:10
Polonium 210		14	pCi/L		111	70	130			
Sample ID: C11030834-003FMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110418A				04/21/11 09:10
Polonium 210		12	pCi/L		94	70	130	16	69.8	
Sample ID: MB-PO210-0358	3	Method Blank				Run: EGG-ORTEC_110418A				04/21/11 09:10
Polonium 210		-0.03	pCi/L							U
Polonium 210 precision (±)		0.2	pCi/L							
Polonium 210 MDC		0.5	pCi/L							
Sample ID: LCS-PO210-0358		Laboratory Control Sample				Run: EGG-ORTEC_110418A				04/21/11 09:10
Polonium 210		6.6	pCi/L		105	70	130			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

Workorder Receipt Checklist

C11030834

Crow Butte Resources

Login completed by: Edith McPike
Date Received: 3/29/2011
Reviewed by: BL2000\cwagner
Received by: ha
Reviewed Date: 4/1/2011
Carrier name: Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	3.8°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

Samples filtered and preserved in the laboratory for dissolved and suspended radionuclides

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name: Marsland Baseline Samples	Sample Origin / State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169, Crawford, NE 69339	Contact Name: Larry Teahon; Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass, Rhonda Pelton
Invoice Address: P.O. Box 169, Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon, 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	HNO3-F, Metals	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	Raw-UF, Ra226, Po210 dis, sus	Raw-UF, Pb210 dis and sus	Rau-UF, Th230, U-nat dis and sus			SEE ATTACHED	Normal Turnaround (TAT)	RUSH	Comments
1	Well #747	3/25/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/30/11
2	E. Driller's Pond	3/25/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/30/11
3	W. Driller's Pond	3/25/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 4/30/11
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling. Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 requirements. Record U as mg/L and µCi/ml and radiometrics as pCi/L.

Shipped by: UPS COD

Cooler ID(s): Client

Receipt Temp: 3.8 °C

On Ice: (Yes) No

Custody Seal Y (N)

Intact Y N

Signature Match Y N

LABORATORY USE ONLY: L11030834

Custody Record MUST be Signed	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
	Brooke Bass	3/26/11	Brooke Bass			
	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
				Received by Laboratory:	Date/Time: 3.29.11 930	Signature:

Sample Disposal: Return to Client: No Lab Disposal: YES

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontract data will be clearly notated on your analytical report.
Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

CROW BUTTE RESOURCES, INC.
CROW BUTTE PROJECT

NO_2^-

DATE: 3.25.11 ANALYST: MO

STANDARD CURVE DATA

	BL	.01	.05	.10			
Abs	.000	.039	.170	.333			
Abs							

SAMPLE #	VOLUME	Df	Abs	
1 East Driller Pond	10ml	1	.004	<1
2 West Driller Pond	10ml	1	.003	<1
3 747	10ml	1	.002	<1
4 West DP Dup	10ml	1	.000	<1
5				
Dup				
6				
7				
8				
9				
10				
Dup				
11				
12				
13				
14				
15				
Dup				
16				
17				
18				
19				
20				
Dup				
21				
22				
23				
24				
25				
Dup				

ANALYTICAL SUMMARY REPORT

May 25, 2011

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C11030927 Quote ID: C1125 - Crow Butte Uranium

Project Name: Marsland Baseline Samples

Energy Laboratories, Inc. Casper WY received the following 10 samples for Crow Butte Resources on 3/31/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11030927-001	Monitor 1	03/28/11 00:00	03/31/11	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Uranium, Suspended Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C11030927-002	Monitor 2	03/28/11 00:00	03/31/11	Aqueous	Same As Above
C11030927-003	Monitor 4A	03/28/11 00:00	03/31/11	Aqueous	Same As Above
C11030927-004	Monitor 5	03/28/11 00:00	03/31/11	Aqueous	Same As Above
C11030927-005	Monitor 6	03/28/11 00:00	03/31/11	Aqueous	Same As Above
C11030927-006	Monitor 7	03/28/11 00:00	03/31/11	Aqueous	Same As Above
C11030927-007	Monitor 8	03/28/11 00:00	03/31/11	Aqueous	Same As Above
C11030927-008	Monitor 9	03/28/11 00:00	03/31/11	Aqueous	Same As Above
C11030927-009	Monitor 10	03/28/11 00:00	03/31/11	Aqueous	Same As Above
C11030927-010	Monitor 11	03/28/11 00:00	03/31/11	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Crow Butte Resources
Project: Marsland Baseline Samples
Sample Delivery Group: C11030927

Report Date: 05/25/11

CASE NARRATIVE

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

BRANCH LABORATORY SUBCONTRACT ANALYSIS
Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-001
Client Sample ID: Monitor 1

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	415	mg/L		1		A2320 B	03/31/11 18:25 / jba
Carbonate as CO3	12	mg/L		1		A2320 B	03/31/11 18:25 / jba
Bicarbonate as HCO3	483	mg/L		1		A2320 B	03/31/11 18:25 / jba
Calcium	4	mg/L		1		E200.7	04/07/11 19:48 / cp
Chloride	179	mg/L		1		E300.0	04/02/11 06:25 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	04/04/11 14:29 / lr
Magnesium	1	mg/L		1		E200.7	04/07/11 19:48 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	04/04/11 14:02 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/01/11 14:02 / dc
Potassium	8	mg/L		1		E200.7	04/07/11 19:48 / cp
Silica	16.1	mg/L		0.2		E200.7	04/07/11 19:48 / cp
Sodium	338	mg/L		1		E200.7	04/07/11 19:48 / cp
Sulfate	59	mg/L	D	4		E300.0	04/02/11 06:25 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1400	umhos/cm		1		A2510 B	03/31/11 14:59 / lr
pH	8.29	s.u.		0.01		A4500-H B	03/31/11 14:59 / lr
Solids, Total Dissolved TDS @ 180 C	817	mg/L		10		A2540 C	04/01/11 13:50 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	04/07/11 19:48 / cp
Arsenic	0.003	mg/L		0.001		E200.8	03/31/11 17:08 / sml
Barium	ND	mg/L		0.1		E200.8	03/31/11 17:08 / sml
Boron	1.4	mg/L		0.1		E200.7	04/07/11 19:48 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 17:08 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 17:08 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 17:08 / sml
Iron	0.09	mg/L		0.03		E200.7	04/07/11 19:48 / cp
Lead	0.001	mg/L		0.001		E200.8	03/31/11 17:08 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 17:08 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 17:08 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 17:08 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 17:08 / sml
Selenium	0.002	mg/L		0.001		E200.8	03/31/11 17:08 / sml
Uranium	0.0087	mg/L		0.0003		E200.8	03/31/11 17:08 / sml
Uranium, Activity	5.9E-09	uCi/mL		2.0E-10		E200.8	03/31/11 17:08 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 17:08 / sml
Zinc	0.09	mg/L		0.01		E200.8	03/31/11 17:08 / sml
METALS - SUSPENDED							
Uranium	0.0843	mg/L		0.0003		E200.8	04/05/11 23:03 / sml
Uranium, Activity	5.7E-08	uCi/mL		2.0E-10		E200.8	04/05/11 23:03 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-001
Client Sample ID: Monitor 1

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	67	pCi/L		0.7		E909.0	05/01/11 13:14 / eli-cs
Lead 210 precision (±)	1.1	pCi/L				E909.0	05/01/11 13:14 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	05/01/11 13:14 / eli-cs
Polonium 210	22	pCi/L		0.7		E912.0	04/21/11 09:09 / ep
Polonium 210 precision (±)	5.5	pCi/L				E912.0	04/21/11 09:09 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	04/21/11 09:09 / ep
Radium 226	18	pCi/L		0.1		E903.0	04/11/11 14:29 / plj
Radium 226 precision (±)	0.8	pCi/L				E903.0	04/11/11 14:29 / plj
Radium 226 MDC	0.1	pCi/L				E903.0	04/11/11 14:29 / plj
Thorium 230	1.4	pCi/L		0.2		E908.0	04/07/11 16:19 / dmf
Thorium 230 precision (±)	0.3	pCi/L				E908.0	04/07/11 16:19 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	04/07/11 16:19 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	80	pCi/L		0.8		E909.0	05/04/11 10:19 / eli-cs
Lead 210 precision (±)	1.2	pCi/L				E909.0	05/04/11 10:19 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/04/11 10:19 / eli-cs
Polonium 210	22	pCi/L		0.2		E912.0	04/27/11 08:38 / ep
Polonium 210 precision (±)	4.6	pCi/L				E912.0	04/27/11 08:38 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	04/27/11 08:38 / ep
Radium 226	45	pCi/L		0.1		E903.0	04/12/11 09:19 / dmf
Radium 226 precision (±)	1.2	pCi/L				E903.0	04/12/11 09:19 / dmf
Radium 226 MDC	0.1	pCi/L				E903.0	04/12/11 09:19 / dmf
Thorium 230	25	pCi/L		0.1		E908.0	04/12/11 08:55 / dmf
Thorium 230 precision (±)	3.7	pCi/L				E908.0	04/12/11 08:55 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/12/11 08:55 / dmf
DATA QUALITY							
A/C Balance (± 5)	2.06	%				Calculation	04/12/11 12:44 / kbh
Anions	14.6	meq/L				Calculation	04/12/11 12:44 / kbh
Cations	15.2	meq/L				Calculation	04/12/11 12:44 / kbh
Solids, Total Dissolved Calculated	860	mg/L				Calculation	04/12/11 12:44 / kbh
TDS Balance (0.80 - 1.20)	0.950					Calculation	04/12/11 12:44 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-002
Client Sample ID: Monitor 2

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	406	mg/L		1		A2320 B	03/31/11 18:34 / jba
Carbonate as CO3	11	mg/L		1		A2320 B	03/31/11 18:34 / jba
Bicarbonate as HCO3	473	mg/L		1		A2320 B	03/31/11 18:34 / jba
Calcium	4	mg/L		1		E200.7	04/07/11 19:52 / cp
Chloride	171	mg/L		1		E300.0	04/02/11 06:41 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	04/04/11 14:47 / lr
Magnesium	ND	mg/L		1		E200.7	04/07/11 19:52 / cp
Nitrogen, Ammonia as N	0.23	mg/L		0.05		A4500-NH3 G	04/04/11 14:04 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/01/11 14:05 / dc
Potassium	9	mg/L		1		E200.7	04/07/11 19:52 / cp
Silica	16.7	mg/L		0.2		E200.7	04/07/11 19:52 / cp
Sodium	332	mg/L		1		E200.7	04/07/11 19:52 / cp
Sulfate	57	mg/L	D	4		E300.0	04/02/11 06:41 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1360	umhos/cm		1		A2510 B	03/31/11 15:01 / lr
pH	8.27	s.u.		0.01		A4500-H B	03/31/11 15:01 / lr
Solids, Total Dissolved TDS @ 180 C	778	mg/L		10		A2540 C	04/01/11 13:51 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	04/07/11 19:52 / cp
Arsenic	0.003	mg/L		0.001		E200.8	03/31/11 17:14 / sml
Barium	ND	mg/L		0.1		E200.8	03/31/11 17:14 / sml
Boron	1.4	mg/L		0.1		E200.7	04/07/11 19:52 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 17:14 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 17:14 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 17:14 / sml
Iron	0.03	mg/L		0.03		E200.7	04/07/11 19:52 / cp
Lead	ND	mg/L		0.001		E200.8	03/31/11 17:14 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 17:14 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 17:14 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 17:14 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 17:14 / sml
Selenium	0.002	mg/L		0.001		E200.8	03/31/11 17:14 / sml
Uranium	0.0028	mg/L		0.0003		E200.8	03/31/11 17:14 / sml
Uranium, Activity	1.9E-09	uCi/mL		2.0E-10		E200.8	03/31/11 17:14 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 17:14 / sml
Zinc	0.01	mg/L		0.01		E200.8	03/31/11 17:14 / sml
METALS - SUSPENDED							
Uranium	0.0012	mg/L		0.0003		E200.8	04/05/11 23:07 / sml
Uranium, Activity	8.0E-10	uCi/mL		2.0E-10		E200.8	04/05/11 23:07 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-002
Client Sample ID: Monitor 2

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	1.1	pCi/L		0.7		E909.0	05/01/11 15:25 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/01/11 15:25 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	05/01/11 15:25 / eli-cs
Polonium 210	3.7	pCi/L		0.9		E912.0	04/20/11 08:58 / ep
Polonium 210 precision (±)	1.8	pCi/L				E912.0	04/20/11 08:58 / ep
Polonium 210 MDC	0.9	pCi/L				E912.0	04/20/11 08:58 / ep
Radium 226	0.8	pCi/L		0.1		E903.0	04/11/11 14:29 / plj
Radium 226 precision (±)	0.2	pCi/L				E903.0	04/11/11 14:29 / plj
Radium 226 MDC	0.1	pCi/L				E903.0	04/11/11 14:29 / plj
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	04/07/11 16:19 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	04/07/11 16:19 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	04/07/11 16:19 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/04/11 12:30 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/04/11 12:30 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/04/11 12:30 / eli-cs
Polonium 210	0.4	pCi/L		0.2		E912.0	04/27/11 08:38 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	04/27/11 08:38 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	04/27/11 08:38 / ep
Radium 226	1.0	pCi/L		0.1		E903.0	04/12/11 09:19 / dmf
Radium 226 precision (±)	0.2	pCi/L				E903.0	04/12/11 09:19 / dmf
Radium 226 MDC	0.1	pCi/L				E903.0	04/12/11 09:19 / dmf
Thorium 230	0.2	pCi/L		0.1		E908.0	04/12/11 08:55 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	04/12/11 08:55 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/12/11 08:55 / dmf
DATA QUALITY							
A/C Balance (± 5)	2.90	%				Calculation	04/12/11 12:45 / kbh
Anions	14.1	meq/L				Calculation	04/12/11 12:45 / kbh
Cations	15.0	meq/L				Calculation	04/12/11 12:45 / kbh
Solids, Total Dissolved Calculated	839	mg/L				Calculation	04/12/11 12:45 / kbh
TDS Balance (0.80 - 1.20)	0.930					Calculation	04/12/11 12:45 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-003
Client Sample ID: Monitor 4A

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	356	mg/L		1		A2320 B	03/31/11 18:43 / jba
Carbonate as CO3	31	mg/L		1		A2320 B	03/31/11 18:43 / jba
Bicarbonate as HCO3	371	mg/L		1		A2320 B	03/31/11 18:43 / jba
Calcium	3	mg/L		1		E200.7	04/07/11 20:08 / cp
Chloride	249	mg/L	D	2		E300.0	04/05/11 02:49 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	04/04/11 14:54 / lr
Magnesium	ND	mg/L		1		E200.7	04/07/11 20:08 / cp
Nitrogen, Ammonia as N	0.26	mg/L		0.05		A4500-NH3 G	04/04/11 14:06 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/01/11 14:07 / dc
Potassium	16	mg/L		1		E200.7	04/07/11 20:08 / cp
Silica	18.3	mg/L		0.2		E200.7	04/07/11 20:08 / cp
Sodium	394	mg/L		1		E200.7	04/07/11 20:08 / cp
Sulfate	112	mg/L	D	4		E300.0	04/02/11 06:56 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1660	umhos/cm		1		A2510 B	03/31/11 15:04 / lr
pH	8.97	s.u.		0.01		A4500-H B	03/31/11 15:04 / lr
Solids, Total Dissolved TDS @ 180 C	955	mg/L		10		A2540 C	04/01/11 13:51 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	04/07/11 20:08 / cp
Arsenic	0.005	mg/L		0.001		E200.8	03/31/11 17:21 / sml
Barium	ND	mg/L		0.1		E200.8	03/31/11 17:21 / sml
Boron	1.3	mg/L		0.1		E200.7	04/07/11 20:08 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 17:21 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 17:21 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 17:21 / sml
Iron	ND	mg/L		0.03		E200.7	04/07/11 20:08 / cp
Lead	ND	mg/L		0.001		E200.8	03/31/11 17:21 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 17:21 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 17:21 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 17:21 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 17:21 / sml
Selenium	0.002	mg/L		0.001		E200.8	03/31/11 17:21 / sml
Uranium	0.0826	mg/L		0.0003		E200.8	03/31/11 17:21 / sml
Uranium, Activity	5.6E-08	uCi/mL		2.0E-10		E200.8	03/31/11 17:21 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 17:21 / sml
Zinc	ND	mg/L		0.01		E200.8	03/31/11 17:21 / sml
METALS - SUSPENDED							
Uranium	0.0016	mg/L		0.0003		E200.8	04/05/11 23:12 / sml
Uranium, Activity	1.1E-09	uCi/mL		2.0E-10		E200.8	04/05/11 23:12 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-003
Client Sample ID: Monitor 4A

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	591	pCi/L		0.8		E909.0	05/01/11 17:37 / eli-cs
Lead 210 precision (±)	3.1	pCi/L				E909.0	05/01/11 17:37 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/01/11 17:37 / eli-cs
Polonium 210	131	pCi/L		0.7		E912.0	04/20/11 08:58 / ep
Polonium 210 precision (±)	27	pCi/L				E912.0	04/20/11 08:58 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	04/20/11 08:58 / ep
Radium 226	238	pCi/L		0.1		E903.0	04/11/11 14:29 / plj
Radium 226 precision (±)	2.9	pCi/L				E903.0	04/11/11 14:29 / plj
Radium 226 MDC	0.1	pCi/L				E903.0	04/11/11 14:29 / plj
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	04/07/11 16:19 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	04/07/11 16:19 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	04/07/11 16:19 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	36	pCi/L		0.8		E909.0	05/04/11 14:42 / eli-cs
Lead 210 precision (±)	0.9	pCi/L				E909.0	05/04/11 14:42 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/04/11 14:42 / eli-cs
Polonium 210	8.2	pCi/L		0.2		E912.0	04/27/11 08:38 / ep
Polonium 210 precision (±)	1.8	pCi/L				E912.0	04/27/11 08:38 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	04/27/11 08:38 / ep
Radium 226	0.7	pCi/L		0.1		E903.0	04/12/11 09:19 / dmf
Radium 226 precision (±)	0.2	pCi/L				E903.0	04/12/11 09:19 / dmf
Radium 226 MDC	0.1	pCi/L				E903.0	04/12/11 09:19 / dmf
Thorium 230	0.6	pCi/L		0.1		E908.0	04/12/11 08:55 / dmf
Thorium 230 precision (±)	0.2	pCi/L				E908.0	04/12/11 08:55 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/12/11 08:55 / dmf
DATA QUALITY							
A/C Balance (± 5)	3.70	%				Calculation	04/12/11 12:45 / kbh
Anions	16.5	meq/L				Calculation	04/12/11 12:45 / kbh
Cations	17.8	meq/L				Calculation	04/12/11 12:45 / kbh
Solids, Total Dissolved Calculated	1010	mg/L				Calculation	04/12/11 12:45 / kbh
TDS Balance (0.80 - 1.20)	0.950					Calculation	04/12/11 12:45 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-004
Client Sample ID: Monitor 5

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	311	mg/L		1		A2320 B	03/31/11 18:52 / jba
Carbonate as CO3	125	mg/L		1		A2320 B	03/31/11 18:52 / jba
Bicarbonate as HCO3	125	mg/L		1		A2320 B	03/31/11 18:52 / jba
Calcium	4	mg/L		1		E200.7	04/07/11 20:12 / cp
Chloride	335	mg/L	D	2		E300.0	04/05/11 03:35 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	04/04/11 14:58 / lr
Magnesium	ND	mg/L		1		E200.7	04/07/11 20:12 / cp
Nitrogen, Ammonia as N	0.48	mg/L		0.05		A4500-NH3 G	04/04/11 14:08 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/01/11 14:17 / dc
Potassium	39	mg/L		1		E200.7	04/07/11 20:12 / cp
Silica	30.7	mg/L		0.2		E200.7	04/07/11 20:12 / cp
Sodium	514	mg/L		1		E200.7	04/07/11 20:12 / cp
Sulfate	308	mg/L	D	4		E300.0	04/02/11 07:12 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	2290	umhos/cm		1		A2510 B	03/31/11 15:06 / lr
pH	10.0	s.u.		0.01		A4500-H B	03/31/11 15:06 / lr
Solids, Total Dissolved TDS @ 180 C	1290	mg/L		10		A2540 C	04/01/11 13:51 / lr
METALS - DISSOLVED							
Aluminum	0.4	mg/L		0.1		E200.7	04/07/11 20:12 / cp
Arsenic	0.002	mg/L		0.001		E200.8	03/31/11 17:28 / sml
Barium	ND	mg/L		0.1		E200.8	03/31/11 17:28 / sml
Boron	1.1	mg/L		0.1		E200.7	04/07/11 20:12 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 17:28 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 17:28 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 17:28 / sml
Iron	ND	mg/L		0.03		E200.7	04/07/11 20:12 / cp
Lead	ND	mg/L		0.001		E200.8	03/31/11 17:28 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 17:28 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 17:28 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 17:28 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 17:28 / sml
Selenium	0.003	mg/L		0.001		E200.8	03/31/11 17:28 / sml
Uranium	0.0004	mg/L		0.0003		E200.8	03/31/11 17:28 / sml
Uranium, Activity	3.0E-10	uCi/mL		2.0E-10		E200.8	03/31/11 17:28 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 17:28 / sml
Zinc	ND	mg/L		0.01		E200.8	03/31/11 17:28 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/05/11 23:32 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/05/11 23:32 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-004
Client Sample ID: Monitor 5

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	1	pCi/L		0.7		E909.0	05/01/11 19:48 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	05/01/11 19:48 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	05/01/11 19:48 / eli-cs
Polonium 210	1.2	pCi/L		0.7		E912.0	04/20/11 08:58 / ep
Polonium 210 precision (±)	0.8	pCi/L				E912.0	04/20/11 08:58 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	04/20/11 08:58 / ep
Radium 226	2.3	pCi/L		0.1		E903.0	04/11/11 14:29 / plj
Radium 226 precision (±)	0.3	pCi/L				E903.0	04/11/11 14:29 / plj
Radium 226 MDC	0.1	pCi/L				E903.0	04/11/11 14:29 / plj
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/07/11 16:19 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	04/07/11 16:19 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/07/11 16:19 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/04/11 16:53 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/04/11 16:53 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/04/11 16:53 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	04/27/11 08:38 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	04/27/11 08:38 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	04/27/11 08:38 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	04/12/11 09:19 / dmf
Radium 226 precision (±)	0.07	pCi/L				E903.0	04/12/11 09:19 / dmf
Radium 226 MDC	0.1	pCi/L				E903.0	04/12/11 09:19 / dmf
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/12/11 08:55 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	04/12/11 08:55 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/12/11 08:55 / dmf
DATA QUALITY							
A/C Balance (± 5)	3.34	%				Calculation	04/12/11 12:45 / kbh
Anions	22.1	meq/L				Calculation	04/12/11 12:45 / kbh
Cations	23.7	meq/L				Calculation	04/12/11 12:45 / kbh
Solids, Total Dissolved Calculated	1430	mg/L				Calculation	04/12/11 12:45 / kbh
TDS Balance (0.80 - 1.20)	0.900					Calculation	04/12/11 12:45 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-005
Client Sample ID: Monitor 6

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	368	mg/L		1		A2320 B	03/31/11 19:19 / jba
Carbonate as CO3	68	mg/L		1		A2320 B	03/31/11 19:19 / jba
Bicarbonate as HCO3	311	mg/L		1		A2320 B	03/31/11 19:19 / jba
Calcium	7	mg/L		1		E200.7	04/07/11 20:16 / cp
Chloride	428	mg/L	D	4		E300.0	04/05/11 03:50 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	04/04/11 15:00 / lr
Magnesium	ND	mg/L		1		E200.7	04/07/11 20:16 / cp
Nitrogen, Ammonia as N	0.40	mg/L		0.05		A4500-NH3 G	04/04/11 14:10 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/01/11 14:20 / dc
Potassium	25	mg/L		1		E200.7	04/07/11 20:16 / cp
Silica	19.6	mg/L		0.2		E200.7	04/07/11 20:16 / cp
Sodium	478	mg/L		1		E200.7	04/07/11 20:16 / cp
Sulfate	59	mg/L	D	4		E300.0	04/02/11 07:27 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	2100	umhos/cm		1		A2510 B	03/31/11 15:08 / lr
pH	9.31	s.u.		0.01		A4500-H B	03/31/11 15:08 / lr
Solids, Total Dissolved TDS @ 180 C	1160	mg/L		10		A2540 C	04/01/11 13:52 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	04/07/11 20:16 / cp
Arsenic	0.002	mg/L		0.001		E200.8	03/31/11 17:35 / sml
Barium	0.1	mg/L		0.1		E200.8	03/31/11 17:35 / sml
Boron	1.3	mg/L		0.1		E200.7	04/07/11 20:16 / cp
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 17:35 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 17:35 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 17:35 / sml
Iron	ND	mg/L		0.03		E200.7	04/07/11 20:16 / cp
Lead	ND	mg/L		0.001		E200.8	03/31/11 17:35 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 17:35 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 17:35 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 17:35 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 17:35 / sml
Selenium	0.003	mg/L		0.001		E200.8	03/31/11 17:35 / sml
Uranium	0.0028	mg/L		0.0003		E200.8	03/31/11 17:35 / sml
Uranium, Activity	1.9E-09	uCi/mL		2.0E-10		E200.8	03/31/11 17:35 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 17:35 / sml
Zinc	ND	mg/L		0.01		E200.8	03/31/11 17:35 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/05/11 23:36 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/05/11 23:36 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-005
Client Sample ID: Monitor 6

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	2.4	pCi/L		1.1		E909.0	05/01/11 22:00 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	05/01/11 22:00 / eli-cs
Lead 210 MDC	1.1	pCi/L				E909.0	05/01/11 22:00 / eli-cs
Polonium 210	1	pCi/L		0.7		E912.0	04/20/11 08:58 / ep
Polonium 210 precision (±)	0.7	pCi/L				E912.0	04/20/11 08:58 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	04/20/11 08:58 / ep
Radium 226	1.4	pCi/L		0.1		E903.0	04/11/11 14:29 / plj
Radium 226 precision (±)	0.2	pCi/L				E903.0	04/11/11 14:29 / plj
Radium 226 MDC	0.1	pCi/L				E903.0	04/11/11 14:29 / plj
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/07/11 16:19 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	04/07/11 16:19 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/07/11 16:19 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/04/11 19:05 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/04/11 19:05 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/04/11 19:05 / eli-cs
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	04/27/11 08:38 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	04/27/11 08:38 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	04/27/11 08:38 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	04/12/11 09:19 / dmf
Radium 226 precision (±)	0.07	pCi/L				E903.0	04/12/11 09:19 / dmf
Radium 226 MDC	0.1	pCi/L				E903.0	04/12/11 09:19 / dmf
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/12/11 08:55 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	04/12/11 08:55 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/12/11 08:55 / dmf
DATA QUALITY							
A/C Balance (± 5)	2.72	%				Calculation	04/12/11 12:46 / kbh
Anions	20.7	meq/L				Calculation	04/12/11 12:46 / kbh
Cations	21.9	meq/L				Calculation	04/12/11 12:46 / kbh
Solids, Total Dissolved Calculated	1240	mg/L				Calculation	04/12/11 12:46 / kbh
TDS Balance (0.80 - 1.20)	0.940					Calculation	04/12/11 12:46 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-006
Client Sample ID: Monitor 7

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	253	mg/L		1		A2320 B	03/31/11 19:53 / jba
Carbonate as CO3	32	mg/L		1		A2320 B	03/31/11 19:53 / jba
Bicarbonate as HCO3	244	mg/L		1		A2320 B	03/31/11 19:53 / jba
Calcium	7	mg/L		1		E200.7	04/07/11 20:20 / cp
Chloride	371	mg/L	D	4		E300.0	04/05/11 04:06 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	04/04/11 15:03 / lr
Magnesium	1	mg/L		1		E200.7	04/07/11 20:20 / cp
Nitrogen, Ammonia as N	0.25	mg/L		0.05		A4500-NH3 G	04/04/11 14:18 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/01/11 14:22 / dc
Potassium	18	mg/L		1		E200.7	04/07/11 20:20 / cp
Silica	18.0	mg/L		0.2		E200.7	04/07/11 20:20 / cp
Sodium	518	mg/L		1		E200.7	04/07/11 20:20 / cp
Sulfate	295	mg/L	D	4		E300.0	04/02/11 07:43 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	2220	umhos/cm		1		A2510 B	03/31/11 15:09 / lr
pH	9.25	s.u.		0.01		A4500-H B	03/31/11 15:09 / lr
Solids, Total Dissolved TDS @ 180 C	1330	mg/L		10		A2540 C	04/01/11 13:53 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/31/11 18:02 / sml
Arsenic	0.002	mg/L		0.001		E200.8	03/31/11 18:02 / sml
Barium	ND	mg/L		0.1		E200.8	03/31/11 18:02 / sml
Boron	1.1	mg/L		0.1		E200.8	04/04/11 18:28 / sml
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 18:02 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 18:02 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 18:02 / sml
Iron	ND	mg/L		0.03		E200.8	04/04/11 18:28 / sml
Lead	ND	mg/L		0.001		E200.8	03/31/11 18:02 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 18:02 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 18:02 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 18:02 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 18:02 / sml
Selenium	0.001	mg/L		0.001		E200.8	04/04/11 18:28 / sml
Uranium	0.0006	mg/L		0.0003		E200.8	03/31/11 18:02 / sml
Uranium, Activity	4.1E-10	uCi/mL		2.0E-10		E200.8	03/31/11 18:02 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 18:02 / sml
Zinc	ND	mg/L		0.01		E200.8	03/31/11 18:02 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/05/11 23:41 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/05/11 23:41 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-006
Client Sample ID: Monitor 7

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/02/11 00:11 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/02/11 00:11 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/02/11 00:11 / eli-cs
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	04/20/11 08:58 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	04/20/11 08:58 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	04/20/11 08:58 / ep
Radium 226	1.1	pCi/L		0.1		E903.0	04/11/11 14:29 / plj
Radium 226 precision (±)	0.2	pCi/L				E903.0	04/11/11 14:29 / plj
Radium 226 MDC	0.1	pCi/L				E903.0	04/11/11 14:29 / plj
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/07/11 16:19 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	04/07/11 16:19 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/07/11 16:19 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/04/11 21:16 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/04/11 21:16 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/04/11 21:16 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	04/27/11 08:38 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	04/27/11 08:38 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	04/27/11 08:38 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	04/12/11 09:19 / dmf
Radium 226 precision (±)	0.07	pCi/L				E903.0	04/12/11 09:19 / dmf
Radium 226 MDC	0.1	pCi/L				E903.0	04/12/11 09:19 / dmf
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/12/11 08:55 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	04/12/11 08:55 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/12/11 08:55 / dmf
DATA QUALITY							
A/C Balance (± 5)	3.78	%				Calculation	04/12/11 12:46 / kbh
Anions	21.7	meq/L				Calculation	04/12/11 12:46 / kbh
Cations	23.4	meq/L				Calculation	04/12/11 12:46 / kbh
Solids, Total Dissolved Calculated	1390	mg/L				Calculation	04/12/11 12:46 / kbh
TDS Balance (0.80 - 1.20)	0.960					Calculation	04/12/11 12:46 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-007
Client Sample ID: Monitor 8

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	288	mg/L		1		A2320 B	03/31/11 20:01 / jba
Carbonate as CO3	24	mg/L		1		A2320 B	03/31/11 20:01 / jba
Bicarbonate as HCO3	302	mg/L		1		A2320 B	03/31/11 20:01 / jba
Calcium	9	mg/L		1		E200.7	04/07/11 20:33 / cp
Chloride	217	mg/L		1		E300.0	04/02/11 07:58 / ljl
Fluoride	0.7	mg/L		0.1		A4500-F C	04/04/11 15:07 / lr
Magnesium	2	mg/L		1		E200.7	04/07/11 20:33 / cp
Nitrogen, Ammonia as N	0.32	mg/L		0.05		A4500-NH3 G	04/04/11 14:20 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/01/11 14:25 / dc
Potassium	19	mg/L		1		E200.7	04/07/11 20:33 / cp
Silica	19.7	mg/L		0.2		E200.7	04/07/11 20:33 / cp
Sodium	472	mg/L		1		E200.7	04/07/11 20:33 / cp
Sulfate	394	mg/L	D	4		E300.0	04/02/11 07:58 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	2020	umhos/cm		1		A2510 B	03/31/11 15:11 / lr
pH	8.98	s.u.		0.01		A4500-H B	03/31/11 15:11 / lr
Solids, Total Dissolved TDS @ 180 C	1260	mg/L		10		A2540 C	04/01/11 13:54 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/31/11 18:09 / sml
Arsenic	0.002	mg/L		0.001		E200.8	03/31/11 18:09 / sml
Barium	ND	mg/L		0.1		E200.8	03/31/11 18:09 / sml
Boron	1.1	mg/L		0.1		E200.8	04/04/11 18:35 / sml
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 18:09 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 18:09 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 18:09 / sml
Iron	ND	mg/L		0.03		E200.8	04/04/11 18:35 / sml
Lead	ND	mg/L		0.001		E200.8	03/31/11 18:09 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 18:09 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 18:09 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 18:09 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 18:09 / sml
Selenium	0.002	mg/L		0.001		E200.8	04/04/11 18:35 / sml
Uranium	0.0005	mg/L		0.0003		E200.8	03/31/11 18:09 / sml
Uranium, Activity	3.4E-10	uCi/mL		2.0E-10		E200.8	03/31/11 18:09 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 18:09 / sml
Zinc	ND	mg/L		0.01		E200.8	03/31/11 18:09 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/05/11 23:45 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/05/11 23:45 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-007
Client Sample ID: Monitor 8

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/02/11 02:23 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/02/11 02:23 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/02/11 02:23 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	04/20/11 08:58 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	04/20/11 08:58 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	04/20/11 08:58 / ep
Radium 226	0.4	pCi/L		0.1		E903.0	04/11/11 14:29 / plj
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/11/11 14:29 / plj
Radium 226 MDC	0.1	pCi/L				E903.0	04/11/11 14:29 / plj
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/07/11 16:19 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	04/07/11 16:19 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/07/11 16:19 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/04/11 23:28 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/04/11 23:28 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/04/11 23:28 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	04/27/11 08:38 / ep
Polonium 210 precision (±)	0.07	pCi/L				E912.0	04/27/11 08:38 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	04/27/11 08:38 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	04/12/11 14:12 / dmf
Radium 226 precision (±)	0.08	pCi/L				E903.0	04/12/11 14:12 / dmf
Radium 226 MDC	0.1	pCi/L				E903.0	04/12/11 14:12 / dmf
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/12/11 08:55 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	04/12/11 08:55 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/12/11 08:55 / dmf
DATA QUALITY							
A/C Balance (± 5)	3.53	%				Calculation	04/12/11 12:47 / kbh
Anions	20.1	meq/L				Calculation	04/12/11 12:47 / kbh
Cations	21.6	meq/L				Calculation	04/12/11 12:47 / kbh
Solids, Total Dissolved Calculated	1310	mg/L				Calculation	04/12/11 12:47 / kbh
TDS Balance (0.80 - 1.20)	0.960					Calculation	04/12/11 12:47 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-008
Client Sample ID: Monitor 9

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	319	mg/L		1		A2320 B	03/31/11 20:10 / jba
Carbonate as CO3	40	mg/L		1		A2320 B	03/31/11 20:10 / jba
Bicarbonate as HCO3	308	mg/L		1		A2320 B	03/31/11 20:10 / jba
Calcium	3	mg/L		1		E200.7	04/07/11 20:41 / cp
Chloride	318	mg/L	D	2		E300.0	04/05/11 04:21 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	04/04/11 15:10 / lr
Magnesium	ND	mg/L		1		E200.7	04/07/11 20:41 / cp
Nitrogen, Ammonia as N	0.27	mg/L		0.05		A4500-NH3 G	04/04/11 14:22 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/01/11 14:27 / dc
Potassium	19	mg/L		1		E200.7	04/07/11 20:41 / cp
Silica	16.5	mg/L		0.2		E200.7	04/07/11 20:41 / cp
Sodium	399	mg/L		1		E200.7	04/07/11 20:41 / cp
Sulfate	84	mg/L	D	8		E300.0	04/05/11 04:21 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1740	umhos/cm		1		A2510 B	03/31/11 15:12 / lr
pH	9.19	s.u.		0.01		A4500-H B	03/31/11 15:12 / lr
Solids, Total Dissolved TDS @ 180 C	993	mg/L		10		A2540 C	04/01/11 13:54 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/31/11 18:15 / sml
Arsenic	0.004	mg/L		0.001		E200.8	03/31/11 18:15 / sml
Barium	ND	mg/L		0.1		E200.8	03/31/11 18:15 / sml
Boron	1.0	mg/L		0.1		E200.8	04/04/11 18:42 / sml
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 18:15 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 18:15 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 18:15 / sml
Iron	ND	mg/L		0.03		E200.8	04/04/11 18:42 / sml
Lead	ND	mg/L		0.001		E200.8	03/31/11 18:15 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 18:15 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 18:15 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 18:15 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 18:15 / sml
Selenium	0.002	mg/L		0.001		E200.8	04/04/11 18:42 / sml
Uranium	0.0127	mg/L		0.0003		E200.8	03/31/11 18:15 / sml
Uranium, Activity	8.6E-09	uCi/mL		2.0E-10		E200.8	03/31/11 18:15 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 18:15 / sml
Zinc	ND	mg/L		0.01		E200.8	03/31/11 18:15 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/05/11 23:49 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/05/11 23:49 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-008
Client Sample ID: Monitor 9

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/02/11 04:34 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/02/11 04:34 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/02/11 04:34 / eli-cs
Polonium 210	<0.9	pCi/L	U	0.9		E912.0	04/20/11 08:58 / ep
Polonium 210 precision (±)	0.6	pCi/L				E912.0	04/20/11 08:58 / ep
Polonium 210 MDC	0.9	pCi/L				E912.0	04/20/11 08:58 / ep
Radium 226	0.2	pCi/L		0.1		E903.0	04/11/11 16:03 / plj
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/11/11 16:03 / plj
Radium 226 MDC	0.1	pCi/L				E903.0	04/11/11 16:03 / plj
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	04/07/11 16:19 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	04/07/11 16:19 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	04/07/11 16:19 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/05/11 01:39 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/05/11 01:39 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/05/11 01:39 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	04/27/11 08:38 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	04/27/11 08:38 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	04/27/11 08:38 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	04/12/11 14:12 / dmf
Radium 226 precision (±)	0.05	pCi/L				E903.0	04/12/11 14:12 / dmf
Radium 226 MDC	0.1	pCi/L				E903.0	04/12/11 14:12 / dmf
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/12/11 08:55 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	04/12/11 08:55 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/12/11 08:55 / dmf
DATA QUALITY							
A/C Balance (± 5)	2.53	%				Calculation	04/12/11 12:47 / kbh
Anions	17.1	meq/L				Calculation	04/12/11 12:47 / kbh
Cations	18.0	meq/L				Calculation	04/12/11 12:47 / kbh
Solids, Total Dissolved Calculated	1040	mg/L				Calculation	04/12/11 12:47 / kbh
TDS Balance (0.80 - 1.20)	0.950					Calculation	04/12/11 12:47 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-009
Client Sample ID: Monitor 10

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	313	mg/L		1		A2320 B	03/31/11 20:19 / jba
Carbonate as CO3	18	mg/L		1		A2320 B	03/31/11 20:19 / jba
Bicarbonate as HCO3	346	mg/L		1		A2320 B	03/31/11 20:19 / jba
Calcium	8	mg/L		1		E200.7	04/07/11 20:45 / cp
Chloride	186	mg/L	D	2		E300.0	04/05/11 04:37 / ljl
Fluoride	0.7	mg/L		0.1		A4500-F C	04/04/11 15:12 / lr
Magnesium	2	mg/L		1		E200.7	04/07/11 20:45 / cp
Nitrogen, Ammonia as N	0.35	mg/L		0.05		A4500-NH3 G	04/04/11 14:24 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/01/11 14:35 / dc
Potassium	13	mg/L		1		E200.7	04/07/11 20:45 / cp
Silica	17.8	mg/L		0.2		E200.7	04/07/11 20:45 / cp
Sodium	438	mg/L		1		E200.7	04/07/11 20:45 / cp
Sulfate	344	mg/L	D	8		E300.0	04/05/11 04:37 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1850	umhos/cm		1		A2510 B	03/31/11 15:14 / lr
pH	8.65	s.u.		0.01		A4500-H B	03/31/11 15:14 / lr
Solids, Total Dissolved TDS @ 180 C	1170	mg/L		10		A2540 C	04/01/11 13:54 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	03/31/11 18:22 / sml
Arsenic	0.002	mg/L		0.001		E200.8	03/31/11 18:22 / sml
Barium	ND	mg/L		0.1		E200.8	03/31/11 18:22 / sml
Boron	1.0	mg/L		0.1		E200.8	04/04/11 18:49 / sml
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 18:22 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 18:22 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 18:22 / sml
Iron	ND	mg/L		0.03		E200.8	04/04/11 18:49 / sml
Lead	ND	mg/L		0.001		E200.8	03/31/11 18:22 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 18:22 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 18:22 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 18:22 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 18:22 / sml
Selenium	0.002	mg/L		0.001		E200.8	04/04/11 18:49 / sml
Uranium	0.0009	mg/L		0.0003		E200.8	03/31/11 18:22 / sml
Uranium, Activity	6.0E-10	uCi/mL		2.0E-10		E200.8	03/31/11 18:22 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 18:22 / sml
Zinc	ND	mg/L		0.01		E200.8	03/31/11 18:22 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/05/11 23:53 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/05/11 23:53 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-009
Client Sample ID: Monitor 10

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/02/11 06:45 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/02/11 06:45 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/02/11 06:45 / eli-cs
Polonium 210	1.2	pCi/L		0.7		E912.0	04/20/11 08:58 / ep
Polonium 210 precision (±)	0.8	pCi/L				E912.0	04/20/11 08:58 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	04/20/11 08:58 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	04/11/11 16:03 / plj
Radium 226 precision (±)	0.07	pCi/L				E903.0	04/11/11 16:03 / plj
Radium 226 MDC	0.1	pCi/L				E903.0	04/11/11 16:03 / plj
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/07/11 16:19 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	04/07/11 16:19 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/07/11 16:19 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/05/11 03:51 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/05/11 03:51 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/05/11 03:51 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	04/27/11 08:38 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	04/27/11 08:38 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	04/27/11 08:38 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	04/12/11 14:12 / dmf
Radium 226 precision (±)	0.06	pCi/L				E903.0	04/12/11 14:12 / dmf
Radium 226 MDC	0.1	pCi/L				E903.0	04/12/11 14:12 / dmf
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/12/11 08:55 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	04/12/11 08:55 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/12/11 08:55 / dmf
DATA QUALITY							
A/C Balance (± 5)	3.18	%				Calculation	04/12/11 12:47 / kbh
Anions	18.7	meq/L				Calculation	04/12/11 12:47 / kbh
Cations	19.9	meq/L				Calculation	04/12/11 12:47 / kbh
Solids, Total Dissolved Calculated	1200	mg/L				Calculation	04/12/11 12:47 / kbh
TDS Balance (0.80 - 1.20)	0.980					Calculation	04/12/11 12:47 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-010
Client Sample ID: Monitor 11

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	347	mg/L		1		A2320 B	03/31/11 20:28 / jba
Carbonate as CO3	74	mg/L		1		A2320 B	03/31/11 20:28 / jba
Bicarbonate as HCO3	272	mg/L		1		A2320 B	03/31/11 20:28 / jba
Calcium	4	mg/L		1		E200.7	04/07/11 21:45 / cp
Chloride	452	mg/L	D	2		E300.0	04/05/11 04:52 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	04/04/11 15:23 / lr
Magnesium	ND	mg/L		1		E200.7	04/07/11 21:45 / cp
Nitrogen, Ammonia as N	0.27	mg/L		0.05		A4500-NH3 G	04/04/11 14:26 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/01/11 14:37 / dc
Potassium	29	mg/L		1		E200.7	04/07/11 21:45 / cp
Silica	15.0	mg/L		0.2		E200.7	04/07/11 21:45 / cp
Sodium	522	mg/L		1		E200.7	04/07/11 21:45 / cp
Sulfate	132	mg/L	D	8		E300.0	04/05/11 04:52 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	2300	umhos/cm		1		A2510 B	03/31/11 15:16 / lr
pH	9.47	s.u.		0.01		A4500-H B	03/31/11 15:16 / lr
Solids, Total Dissolved TDS @ 180 C	1330	mg/L		10		A2540 C	04/01/11 13:54 / lr
METALS - DISSOLVED							
Aluminum	0.1	mg/L		0.1		E200.8	03/31/11 18:29 / sml
Arsenic	0.004	mg/L		0.001		E200.8	03/31/11 18:29 / sml
Barium	ND	mg/L		0.1		E200.8	03/31/11 18:29 / sml
Boron	1.0	mg/L		0.1		E200.8	04/04/11 18:56 / sml
Cadmium	ND	mg/L		0.005		E200.8	03/31/11 18:29 / sml
Chromium	ND	mg/L		0.05		E200.8	03/31/11 18:29 / sml
Copper	ND	mg/L		0.01		E200.8	03/31/11 18:29 / sml
Iron	ND	mg/L		0.03		E200.8	04/04/11 18:56 / sml
Lead	ND	mg/L		0.001		E200.8	03/31/11 18:29 / sml
Manganese	ND	mg/L		0.01		E200.8	03/31/11 18:29 / sml
Mercury	ND	mg/L		0.001		E200.8	03/31/11 18:29 / sml
Molybdenum	ND	mg/L		0.1		E200.8	03/31/11 18:29 / sml
Nickel	ND	mg/L		0.05		E200.8	03/31/11 18:29 / sml
Selenium	0.002	mg/L		0.001		E200.8	04/04/11 18:56 / sml
Uranium	0.0013	mg/L		0.0003		E200.8	03/31/11 18:29 / sml
Uranium, Activity	8.8E-10	uCi/mL		2.0E-10		E200.8	03/31/11 18:29 / sml
Vanadium	ND	mg/L		0.1		E200.8	03/31/11 18:29 / sml
Zinc	ND	mg/L		0.01		E200.8	03/31/11 18:29 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/05/11 23:57 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/05/11 23:57 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11030927-010
Client Sample ID: Monitor 11

Report Date: 05/25/11
Collection Date: 03/28/11
DateReceived: 03/31/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/02/11 08:57 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/02/11 08:57 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/02/11 08:57 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	04/20/11 08:58 / ep
Polonium 210 precision (±)	0.5	pCi/L				E912.0	04/20/11 08:58 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	04/20/11 08:58 / ep
Radium 226	<0.2	pCi/L	U	0.2		E903.0	04/11/11 16:03 / plj
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/11/11 16:03 / plj
Radium 226 MDC	0.2	pCi/L				E903.0	04/11/11 16:03 / plj
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/07/11 16:19 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	04/07/11 16:19 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/07/11 16:19 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/05/11 06:02 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/05/11 06:02 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/05/11 06:02 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	04/27/11 08:38 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	04/27/11 08:38 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	04/27/11 08:38 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	04/12/11 14:12 / dmf
Radium 226 precision (±)	0.06	pCi/L				E903.0	04/12/11 14:12 / dmf
Radium 226 MDC	0.1	pCi/L				E903.0	04/12/11 14:12 / dmf
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/12/11 08:55 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	04/12/11 08:55 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/12/11 08:55 / dmf
DATA QUALITY							
A/C Balance (± 5)	2.78	%				Calculation	04/12/11 12:47 / kbh
Anions	22.5	meq/L				Calculation	04/12/11 12:47 / kbh
Cations	23.8	meq/L				Calculation	04/12/11 12:47 / kbh
Solids, Total Dissolved Calculated	1370	mg/L				Calculation	04/12/11 12:47 / kbh
TDS Balance (0.80 - 1.20)	0.970					Calculation	04/12/11 12:47 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/25/11

Project: Marsland Baseline Samples **Work Order:** C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R144369
Sample ID: MBLK	3	Method Blank				Run: MANTECH_110331A				03/31/11 15:40
Alkalinity, Total as CaCO3		3.00	mg/L	1.0						
Carbonate as CO3		ND	mg/L	1.0						
Bicarbonate as HCO3		3.66	mg/L	1.0						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110331A				03/31/11 15:55
Alkalinity, Total as CaCO3		209	mg/L	5.0	103	90	110			
Sample ID: C11030927-010ADUP		Sample Duplicate				Run: MANTECH_110331A				03/31/11 20:37
Alkalinity, Total as CaCO3		349	mg/L	5.0				0.6	10	
Sample ID: C11030927-010AMS		Sample Matrix Spike				Run: MANTECH_110331A				03/31/11 20:46
Alkalinity, Total as CaCO3		488	mg/L	5.0	113	80	120			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/25/11
Work Order: C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: ORION555A-2_110331B		
Sample ID: ICV2_110331_2		Initial Calibration Verification Standard							03/31/11 14:32	
Conductivity @ 25 C		1380	umhos/cm	1.0	98	90	110			
Method: A2510 B								Batch: 110331_2_PH-W_555A-2		
Sample ID: MBLK1_110331_2		Method Blank				Run: ORION555A-2_110331B			03/31/11 14:29	
Conductivity @ 25 C		ND	umhos/cm	1.0						
Sample ID: C11030927-002ADUP		Sample Duplicate				Run: ORION555A-2_110331B			03/31/11 15:02	
Conductivity @ 25 C		1360	umhos/cm	1.0				0.1	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/25/11
Work Order: C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: 110401_1_SLDS-TDS-W	
Sample ID: MBLK1_110401		Method Blank				Run: BAL-1_110401B			04/01/11 13:45	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	10						
Sample ID: LCS1_110401		Laboratory Control Sample				Run: BAL-1_110401B			04/01/11 13:45	
Solids, Total Dissolved TDS @ 180 C		980	mg/L	10	98	90	110			
Sample ID: C11030927-010BDUP		Sample Duplicate				Run: BAL-1_110401B			04/01/11 13:54	
Solids, Total Dissolved TDS @ 180 C		1320	mg/L	10				0.6	10	
Sample ID: C11030946-001AMS		Sample Matrix Spike				Run: BAL-1_110401B			04/01/11 13:57	
Solids, Total Dissolved TDS @ 180 C		2370	mg/L	10	97	90	110			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/25/11
Work Order: C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R144428
Sample ID: MBLK	Method Blank					Run: MANTECH_110404A				04/04/11 10:44
Fluoride		ND	mg/L	0.10						
Sample ID: LCS	Laboratory Control Sample					Run: MANTECH_110404A				04/04/11 10:46
Fluoride		1.04	mg/L	0.10	102	90	110			
Sample ID: C11030927-009AMS	Sample Matrix Spike					Run: MANTECH_110404A				04/04/11 15:16
Fluoride		1.68	mg/L	0.10	99	80	120			
Sample ID: C11030927-009AMSD	Sample Matrix Spike Duplicate					Run: MANTECH_110404A				04/04/11 15:19
Fluoride		1.71	mg/L	0.10	102	80	120	1.8	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/25/11
Work Order: C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION555A-2_110331B		
Sample ID: ICV1_110331_2		Initial Calibration Verification Standard							03/31/11 14:30	
pH		6.92	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 110331_2_PH-W_555A-2		
Sample ID: C11030927-002ADUP		Sample Duplicate				Run: ORION555A-2_110331B			03/31/11 15:02	
pH		8.26	s.u.	0.010				0.1	3	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/25/11
Work Order: C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R144415
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110404A				04/04/11 13:58
Nitrogen, Ammonia as N		ND	mg/L	0.050						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110404A				04/04/11 14:00
Nitrogen, Ammonia as N		2.02	mg/L	0.050	101	90	110			
Sample ID: C11030927-005GMS		Sample Matrix Spike				Run: TECHNICON_110404A				04/04/11 14:12
Nitrogen, Ammonia as N		2.17	mg/L	0.050	91	80	120			
Sample ID: C11030927-005GMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110404A				04/04/11 14:14
Nitrogen, Ammonia as N		2.19	mg/L	0.050	92	80	120	0.9	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/25/11

Project: Marsland Baseline Samples **Work Order:** C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R144604	
Sample ID: MB-110407A	8	Method Blank				Run: ICP2-C_110407A			04/07/11 17:50	
Aluminum		ND	mg/L	0.10						
Boron		ND	mg/L	0.10						
Calcium		ND	mg/L	1.0						
Iron		ND	mg/L	0.030						
Magnesium		ND	mg/L	1.0						
Potassium		ND	mg/L	1.0						
Silicon		ND	mg/L	0.10						
Sodium		ND	mg/L	1.0						
Sample ID: LFB-110407A	8	Laboratory Fortified Blank				Run: ICP2-C_110407A			04/07/11 17:55	
Aluminum		0.944	mg/L	0.10	94	85	115			
Boron		0.941	mg/L	0.10	92	85	115			
Calcium		47.7	mg/L	0.50	95	85	115			
Iron		0.957	mg/L	0.030	95	85	115			
Magnesium		47.8	mg/L	0.50	96	85	115			
Potassium		43.3	mg/L	0.50	87	85	115			
Silicon		0.411	mg/L	0.10	87	85	115			
Sodium		48.5	mg/L	0.50	97	85	115			
Sample ID: C11030827-003DMS2	8	Sample Matrix Spike				Run: ICP2-C_110407A			04/07/11 19:24	
Aluminum		1.98	mg/L	0.10	95	70	130			
Boron		2.05	mg/L	0.10	96	70	130			
Calcium		107	mg/L	1.0	94	70	130			
Iron		1.99	mg/L	0.030	96	70	130			
Magnesium		97.1	mg/L	1.0	95	70	130			
Potassium		94.5	mg/L	1.0	90	70	130			
Silicon		6.53	mg/L	0.10		70	130			A
Sodium		228	mg/L	1.0	101	70	130			
Sample ID: C11030827-003DMSD	8	Sample Matrix Spike Duplicate				Run: ICP2-C_110407A			04/07/11 19:28	
Aluminum		2.00	mg/L	0.10	96	70	130	0.9	20	
Boron		2.10	mg/L	0.10	98	70	130	2.6	20	
Calcium		109	mg/L	1.0	95	70	130	1.7	20	
Iron		2.02	mg/L	0.030	98	70	130	1.1	20	
Magnesium		98.4	mg/L	1.0	96	70	130	1.4	20	
Potassium		92.9	mg/L	1.0	88	70	130	1.7	20	
Silicon		6.60	mg/L	0.10		70	130	1.1	20	A
Sodium		226	mg/L	1.0	98	70	130	1.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/25/11
Work Order: C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144310
Sample ID: LRB	15	Method Blank				Run: ICPMS2-C_110331A				03/31/11 12:20
Aluminum		ND	mg/L	0.10						
Arsenic		ND	mg/L	0.0010						
Barium		ND	mg/L	0.10						
Cadmium		ND	mg/L	0.0050						
Chromium		ND	mg/L	0.050						
Copper		ND	mg/L	0.010						
Lead		ND	mg/L	0.0010						
Manganese		ND	mg/L	0.010						
Mercury		ND	mg/L	0.0010						
Molybdenum		ND	mg/L	0.10						
Nickel		ND	mg/L	0.050						
Selenium		ND	mg/L	0.0010						
Uranium		ND	mg/L	0.00030						
Vanadium		ND	mg/L	0.10						
Zinc		ND	mg/L	0.010						
Sample ID: LFB	15	Laboratory Fortified Blank				Run: ICPMS2-C_110331A				03/31/11 12:27
Aluminum		0.0477	mg/L	0.0010	95	85	115			
Arsenic		0.0533	mg/L	0.0010	107	85	115			
Barium		0.0522	mg/L	0.0010	104	85	115			
Cadmium		0.0527	mg/L	0.0010	105	85	115			
Chromium		0.0507	mg/L	0.0010	101	85	115			
Copper		0.0516	mg/L	0.0010	103	85	115			
Lead		0.0514	mg/L	0.0010	103	85	115			
Manganese		0.0507	mg/L	0.0010	101	85	115			
Mercury		0.00525	mg/L	0.0010	105	85	115			
Molybdenum		0.0510	mg/L	0.0010	102	85	115			
Nickel		0.0515	mg/L	0.0010	103	85	115			
Selenium		0.0555	mg/L	0.0010	111	85	115			
Uranium		0.0526	mg/L	0.00030	105	85	115			
Vanadium		0.0495	mg/L	0.0010	99	85	115			
Zinc		0.0535	mg/L	0.0010	107	85	115			
Sample ID: C11030927-010CMS4	15	Sample Matrix Spike				Run: ICPMS2-C_110331A				03/31/11 18:36
Aluminum		0.156	mg/L	0.10	94	70	130			
Arsenic		0.0612	mg/L	0.0010	115	70	130			
Barium		0.0877	mg/L	0.0010	114	70	130			
Cadmium		0.0513	mg/L	0.010	103	70	130			
Chromium		0.0565	mg/L	0.050	93	70	130			
Copper		0.0484	mg/L	0.010	97	70	130			
Lead		0.0552	mg/L	0.050	110	70	130			
Manganese		0.0518	mg/L	0.010	102	70	130			
Mercury		0.00320	mg/L	0.0010	64	70	130			S
Molybdenum		0.0647	mg/L	0.0010	105	70	130			
Nickel		0.0488	mg/L	0.0010	98	70	130			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/25/11

Project: Marsland Baseline Samples **Work Order:** C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144310
Sample ID: C11030927-010CMS4	15	Sample Matrix Spike				Run: ICPMS2-C_110331A			03/31/11 18:36	
Selenium		0.0614	mg/L	0.0010	117	70	130			
Uranium		0.0617	mg/L	0.00030	121	70	130			
Vanadium		0.0557	mg/L	0.0010	101	70	130			
Zinc		0.0542	mg/L	0.010	103	70	130			
Sample ID: C11030927-010CMSD	15	Sample Matrix Spike Duplicate				Run: ICPMS2-C_110331A			03/31/11 18:42	
Aluminum		0.154	mg/L	0.10	92	70	130	0.8	20	
Arsenic		0.0618	mg/L	0.0010	116	70	130	1.0	20	
Barium		0.0885	mg/L	0.0010	116	70	130	0.9	20	
Cadmium		0.0514	mg/L	0.010	103	70	130	0.3	20	
Chromium		0.0572	mg/L	0.050	94	70	130	1.2	20	
Copper		0.0482	mg/L	0.010	96	70	130	0.5	20	
Lead		0.0547	mg/L	0.050	109	70	130	0.9	20	
Manganese		0.0513	mg/L	0.010	101	70	130	1.1	20	
Mercury		0.00363	mg/L	0.0010	73	70	130	13	20	
Molybdenum		0.0655	mg/L	0.0010	106	70	130	1.3	20	
Nickel		0.0481	mg/L	0.0010	96	70	130	1.4	20	
Selenium		0.0615	mg/L	0.0010	117	70	130	0.2	20	
Uranium		0.0627	mg/L	0.00030	123	70	130	1.6	20	
Vanadium		0.0554	mg/L	0.0010	101	70	130	0.5	20	
Zinc		0.0519	mg/L	0.010	98	70	130	4.4	20	
Method: E200.8										Batch: 29445A
Sample ID: MB-29445		Method Blank				Run: ICPMS2-C_110405A			04/05/11 22:47	
Uranium		ND	pCi/Filter	0.00030						
Sample ID: LCS2-29445		Laboratory Control Sample				Run: ICPMS2-C_110405A			04/05/11 22:51	
Uranium		0.103	pCi/Filter	0.00030	103	85	115			
Sample ID: C11030932-003AMS		Sample Matrix Spike				Run: ICPMS2-C_110405A			04/06/11 00:30	
Uranium		0.0605	pCi/Filter	0.00030	121	70	130			
Sample ID: C11030932-003AMSD		Sample Matrix Spike Duplicate				Run: ICPMS2-C_110405A			04/06/11 00:34	
Uranium		0.0599	pCi/Filter	0.00030	120	70	130	1.0	20	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/25/11
Work Order: C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144419A
Sample ID: C11040039-001CMS4	3	Sample Matrix Spike				Run: ICPMS4-C_110404A			04/04/11 19:51	
Boron		0.0798	mg/L	0.0010	85	70	130			
Iron		1.25	mg/L	0.030	98	70	130			
Selenium		0.0537	mg/L	0.0010	104	70	130			
Sample ID: C11040039-001CMSD	3	Sample Matrix Spike Duplicate				Run: ICPMS4-C_110404A			04/04/11 19:58	
Boron		0.0797	mg/L	0.0010	85	70	130	0.1	20	
Iron		1.27	mg/L	0.030	100	70	130	1.9	20	
Selenium		0.0549	mg/L	0.0010	107	70	130	2.3	20	
Sample ID: LRB	3	Method Blank				Run: ICPMS4-C_110404A			04/04/11 12:28	
Boron		ND	mg/L	0.10						
Iron		ND	mg/L	0.030						
Selenium		ND	mg/L	0.0010						
Sample ID: LFB	3	Laboratory Fortified Blank				Run: ICPMS4-C_110404A			04/04/11 12:35	
Boron		0.0516	mg/L	0.0010	103	85	115			
Iron		1.29	mg/L	0.012	103	85	115			
Selenium		0.0539	mg/L	0.0010	108	85	115			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/25/11
Work Order: C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: IC2-C_110331A	
Sample ID: ICV	2	Initial Calibration Verification Standard							03/31/11 13:46	
Chloride		9.92	mg/L	1.0	99	90	110			
Sulfate		40.3	mg/L	1.0	101	90	110			
Method: E300.0									Batch: R144391	
Sample ID: MBLK	2	Method Blank				Run: IC2-C_110331A			03/31/11 14:01	
Chloride		ND	mg/L	1.0						
Sulfate		ND	mg/L	4.0						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: IC2-C_110331A			03/31/11 15:03	
Chloride		12.4	mg/L	1.0	99	90	110			
Sulfate		50.9	mg/L	1.0	101	90	110			
Sample ID: LCS	2	Laboratory Control Sample				Run: IC2-C_110331A			03/31/11 21:28	
Chloride		9.94	mg/L	1.0	99	90	110			
Sulfate		40.3	mg/L	1.0	100	90	110			
Sample ID: C11030916-005AMS	2	Sample Matrix Spike				Run: IC2-C_110331A			04/02/11 05:24	
Chloride		21.8	mg/L	1.0	100	80	120			
Sulfate		92.9	mg/L	1.6	102	80	120			
Sample ID: C11030916-005AMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110331A			04/02/11 05:39	
Chloride		22.2	mg/L	1.0	103	80	120	2.0	10	
Sulfate		94.4	mg/L	1.6	104	80	120	1.5	10	

Qualifiers:

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MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/25/11
Work Order: C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: IC2-C_110404A	
Sample ID: ICV	2	Initial Calibration Verification Standard							04/04/11 17:49	
Chloride		9.93	mg/L	1.0	99	90	110			
Sulfate		40.2	mg/L	1.0	101	90	110			
Method: E300.0									Batch: R144472	
Sample ID: MBLK	2	Method Blank				Run: IC2-C_110404A			04/04/11 18:04	
Chloride		ND	mg/L	1.0						
Sulfate		ND	mg/L	4.0						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: IC2-C_110404A			04/04/11 18:35	
Chloride		12.2	mg/L	1.0	97	90	110			
Sulfate		50.2	mg/L	1.0	100	90	110			
Sample ID: LCS	2	Laboratory Control Sample				Run: IC2-C_110404A			04/05/11 02:02	
Chloride		10.0	mg/L	1.0	100	90	110			
Sulfate		40.5	mg/L	1.0	101	90	110			
Sample ID: C11030927-003AMS	2	Sample Matrix Spike				Run: IC2-C_110404A			04/05/11 03:04	
Chloride		348	mg/L	2.0	102	80	120			
Sulfate		511	mg/L	8.0	102	80	120			
Sample ID: C11030927-003AMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110404A			04/05/11 03:19	
Chloride		344	mg/L	2.0	97	80	120	1.2	10	
Sulfate		509	mg/L	8.0	101	80	120	0.4	10	

Qualifiers:

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MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/25/11

Project: Marsland Baseline Samples **Work Order:** C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R144366
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110401A				04/01/11 12:35
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.10						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110401A				04/01/11 12:37
Nitrogen, Nitrate+Nitrite as N		2.55	mg/L	0.10	102	90	110			
Sample ID: C11030927-003GMS		Sample Matrix Spike				Run: TECHNICON_110401A				04/01/11 14:09
Nitrogen, Nitrate+Nitrite as N		2.07	mg/L	0.10	106	90	110			
Sample ID: C11030927-003GMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110401A				04/01/11 14:12
Nitrogen, Nitrate+Nitrite as N		2.06	mg/L	0.10	105	90	110	0.5	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/25/11
Work Order: C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: 29445
Sample ID: C11030927-004HMS		Sample Matrix Spike				Run: BERTHOLD 770-1_110406A				04/12/11 09:19
Radium 226		11	pCi/L		104	70	130			
Sample ID: C11030927-004HMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-1_110406A				04/12/11 09:19
Radium 226		10	pCi/L		98	70	130	6.4	26.1	
Sample ID: LCS-29445		Laboratory Control Sample				Run: BERTHOLD 770-1_110406A				04/12/11 14:12
Radium 226		11	pCi/L		95	85	115			
Sample ID: MB-29445	3	Method Blank				Run: BERTHOLD 770-1_110406A				04/12/11 14:12
Radium 226		ND	pCi/L	0.10						U
Radium 226 precision (±)		0.13	pCi/L							
Radium 226 MDC		0.32	pCi/L							
Method: E903.0										Batch: RA226-5278
Sample ID: C11030927-001DMS		Sample Matrix Spike				Run: BERTHOLD 770-2_110404A				04/11/11 14:29
Radium 226		33	pCi/L		117	70	130			
Sample ID: C11030927-001DMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-2_110404A				04/11/11 14:29
Radium 226		32	pCi/L		110	70	130	2.6	19.9	
Sample ID: LCS-RA226-5278		Laboratory Control Sample				Run: BERTHOLD 770-2_110404A				04/11/11 16:03
Radium 226		6.7	pCi/L		106	85	115			
Sample ID: MB-RA226-5278	3	Method Blank				Run: BERTHOLD 770-2_110404A				04/11/11 16:03
Radium 226		ND	pCi/L	0.10						U
Radium 226 precision (±)		0.095	pCi/L							
Radium 226 MDC		0.19	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/25/11

Project: Marsland Baseline Samples **Work Order:** C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0									Batch: RA-TH-ISO-1358	
Sample ID: LCS-RA-TH-ISO-1358		Laboratory Control Sample				Run: EGG-ORTEC_110404A			04/07/11 16:19	
Thorium 230		5.6	pCi/L		98	70	130			
Sample ID: C11030927-006DMS		Sample Matrix Spike				Run: EGG-ORTEC_110404A			04/07/11 16:19	
Thorium 230		14	pCi/L		124	70	130			
Sample ID: C11030927-006DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110404A			04/07/11 16:19	
Thorium 230		11	pCi/L		97	70	130	24	36.4	
Sample ID: MB-RA-TH-ISO-1358	3	Method Blank				Run: EGG-ORTEC_110404A			04/08/11 08:53	
Thorium 230		ND	pCi/L	0.090						U
Thorium 230 precision (±)		0.059	pCi/L							
Thorium 230 MDC		0.13	pCi/L							
Method: E908.0									Batch: 29445	
Sample ID: C11030927-010HMS		Sample Matrix Spike				Run: EGG-ORTEC_110406B			04/12/11 08:55	
Thorium 230		10	pCi/L		122	70	130			
Sample ID: C11030927-010HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110406B			04/12/11 08:55	
Thorium 230		7.4	pCi/L		86	70	130	35	48.2	
Sample ID: LCS-29445		Laboratory Control Sample				Run: EGG-ORTEC_110406B			04/12/11 08:55	
Thorium 230		11	pCi/L		120	70	130			
Sample ID: MB-29445	3	Method Blank				Run: EGG-ORTEC_110406B			04/12/11 08:55	
Thorium 230		ND	pCi/L	0.090						U
Thorium 230 precision (±)		0.19	pCi/L							
Thorium 230 MDC		0.37	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/25/11
Work Order: C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0									Batch: T_PB-210-0096	
Sample ID: T11040009-001CMSD		Sample Matrix Spike Duplicate				Run: SUB-T40161			05/01/11 02:17	
Lead 210		99	pCi/L		91	70	130	15	16.3	
Sample ID: T11040009-001CMS		Sample Matrix Spike				Run: SUB-T40161			05/01/11 00:05	
Lead 210		85	pCi/L		78	70	130			
Sample ID: LCS-PB-210-0096		Laboratory Control Sample				Run: SUB-T40161			04/30/11 17:31	
Lead 210		75	pCi/L		103	70	130			
Sample ID: MB-PB-210-0096	3	Method Blank				Run: SUB-T40161			04/30/11 15:20	
Lead 210		1.2	pCi/L	0.70						U
Lead 210 precision (±)		1.2	pCi/L							
Lead 210 MDC		1.9	pCi/L							
Method: E909.0									Batch: 13788	
Sample ID: T11040035-001AMSD		Sample Matrix Spike Duplicate				Run: SUB-T40226			05/04/11 08:07	
Lead 210		6.94E-05	pCi/Filter		90	70	130	8.6	15.6	
Sample ID: T11040035-001AMS		Sample Matrix Spike				Run: SUB-T40226			05/04/11 05:56	
Lead 210		7.57E-05	pCi/Filter		98	70	130			
Sample ID: LCS-13788		Laboratory Control Sample				Run: SUB-T40226			05/04/11 01:33	
Lead 210		340	pCi/L		94	70	130			
Sample ID: MB-13788	3	Method Blank				Run: SUB-T40226			05/03/11 23:22	
Lead 210		ND	pCi/L	0.70						U
Lead 210 precision (±)		5.2	pCi/L							
Lead 210 MDC		8.8	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/25/11

Project: Marsland Baseline Samples **Work Order:** C11030927

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0										Batch: PO210-0359
Sample ID: C11030927-001EMS		Sample Matrix Spike				Run: EGG-ORTEC_110418B			04/20/11 08:58	
Polonium 210		42	pCi/L		159	70	130			S
- Sample activity for this radionuclide is much larger than the spike activity added. The spike quantity doesn't have a significant affect on the concentration. The LCS and the RPD of the MS/MSD pair are acceptable; this batch is approved.										
Sample ID: C11030927-001EMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110418B			04/20/11 08:58	
Polonium 210		35	pCi/L		105	70	130	18	63.7	
Sample ID: MB-PO210-0359	3	Method Blank				Run: EGG-ORTEC_110418B			04/20/11 08:58	
Polonium 210		ND	pCi/L	0.20						U
Polonium 210 precision (±)		0.27	pCi/L							
Polonium 210 MDC		0.74	pCi/L							
Sample ID: LCS-PO210-0359		Laboratory Control Sample				Run: EGG-ORTEC_110418B			04/20/11 08:58	
Polonium 210		6.7	pCi/L		106	70	130			
Method: E912.0										Batch: 29445
Sample ID: C11030927-001HMS		Sample Matrix Spike				Run: EGG-ORTEC_110425A			04/27/11 08:38	
Polonium 210		26	pCi/L		65	70	130			S
- Spike response is outside of the acceptance range for this analysis. Since the LCS and the MSD are acceptable the batch is approved.										
Sample ID: C11030927-001HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110425A			04/27/11 08:38	
Polonium 210		28	pCi/L		99	70	130	7.1	52	
Sample ID: LCS-29445		Laboratory Control Sample				Run: EGG-ORTEC_110425A			04/27/11 08:38	
Polonium 210		26	pCi/L		85	70	130			
Sample ID: MB-29445	3	Method Blank				Run: EGG-ORTEC_110425A			04/27/11 08:38	
Polonium 210		0.31	pCi/L	0.20						U
Polonium 210 precision (±)		1.2	pCi/L							
Polonium 210 MDC		2.5	pCi/L							

Qualifiers:

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MDC - Minimum detectable concentration

U - Not detected at minimum detectable concentration

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

Workorder Receipt Checklist

C11030927

Crow Butte Resources

Login completed by: Edith McPike
Date Received: 3/31/2011
Reviewed by: BL2000\hackerman
Received by: ha
Reviewed Date: 4/4/2011
Carrier name: Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	8.6°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

Samples to be filtered and preserved in the laboratory for dissolved and suspended Radiochem

Chain of Custody and Analytical Request Record

ENERGY LABORATORIES

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name: Marsland Baseline Samples	Sample Origin State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169, Crawford, NE 69339	Contact Name: Larry Teahon; Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass, Rhonda Pelton
Invoice Address: P.O. Box 169, Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon, 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	HNO3-F, Metals	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	Raw-UF, Ra226, Po210 dis, sus	Raw-UF, Pb210 dis and sus	Rau-UF, Th230, U-nat dis and sus			SEE ATTACHED	Normal Turnaround (TAT)	RUSH	Comments
1	Monitor 1	3/28/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/1/11
2	Monitor 2	3/28/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/1/11
3	Monitor 4A	3/28/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/1/11
4	Monitor 5	3/28/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/1/11
5	Monitor 6	3/28/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/1/11
6	Monitor 7	3/28/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/1/11
7	Monitor 8	3/28/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/1/11
8	Monitor 9	3/28/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/1/11
9	Monitor 10	3/28/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/1/11
10	Monitor 11	3/28/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/1/11

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

LABORATORY USE ONLY

Shipped by: UPS Ground

Cooler ID(s): Various

Receipt Temp: 8.6 °C

On Ice: (Yes) No

Custody Seal Y (N)

Intact Y N

Signature Match Y N

L130927

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Brooke Bass	3/29/11	Brooke Bass			
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time: 3·31·11 930	Signature:

Sample Disposal: Return to Client: No Lab Disposal: YES

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontract data will be clearly notated on your analytical report.
Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

CROW BUTTE RESOURCES, INC.
CROW BUTTE PROJECT

NO2

DATE: 3/29/11

ANALYST: [illegible]

STANDARD CURVE DATA

	BL	0.01	0.05	0.1			
Abs		.044	.179	.349			
Abs							

SAMPLE #		VOLUME	Df	Abs	NO2 mg/L
1 Marsland Monitor			1		
2	1	10ml		.001	<0.01
3	2	10ml		-.001	<0.01
4	4A	10ml		.002	<0.01
5	5	10ml		.003	<0.01
Dup	6	10ml		.002	<0.01
6	7	10ml		.006	<0.01
7	8	10ml		.004	<0.01
8	9	10ml		.004	<0.01
9	10	10ml		.006	<0.01
10	11	10ml		.003	<0.01
Dup					
11	Dup 1	10ml	1	.002	<0.01
12	DUP 2	10ml		.001	<0.01
13	Dup 7	10ml		.005	<0.01
14	Dup 10	10ml		.004	<0.01
15					
Dup					
16					
17					
18					
19					
20					
Dup					
21					
22					
23					
24					
25					
Dup					

ANALYTICAL SUMMARY REPORT

May 26, 2011

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C11040187 Quote ID: C1125 - Crow Butte Uranium

Project Name: Marsland Baseline Samples

Energy Laboratories, Inc. Casper WY received the following 4 samples for Crow Butte Resources on 4/6/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11040187-001	BOW-2	04/01/11 00:00	04/06/11	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Uranium, Suspended Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C11040187-002	BOW-3	04/01/11 00:00	04/06/11	Aqueous	Same As Above
C11040187-003	BOW-5	04/01/11 00:00	04/06/11	Aqueous	Same As Above
C11040187-004	BOW-6	04/01/11 00:00	04/06/11	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Crow Butte Resources
Project: Marsland Baseline Samples
Sample Delivery Group: C11040187

Report Date: 05/26/11

CASE NARRATIVE

BRANCH LABORATORY SUBCONTRACT ANALYSIS
Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.

PREP COMMENTS
The prep holding time for the Filtration is dissolved metals was exceeded by 4.33 days.

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040187-001
Client Sample ID: BOW-2

Report Date: 05/26/11
Collection Date: 04/01/11
DateReceived: 04/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	182	mg/L		1		A2320 B	04/08/11 17:41 / jba
Carbonate as CO3	37	mg/L		1		A2320 B	04/08/11 17:41 / jba
Bicarbonate as HCO3	148	mg/L		1		A2320 B	04/08/11 17:41 / jba
Calcium	6	mg/L		1		E200.7	04/18/11 14:12 / cp
Chloride	31	mg/L		1		E300.0	04/08/11 21:01 / ljl
Fluoride	0.4	mg/L		0.1		A4500-F C	04/08/11 11:59 / jba
Magnesium	ND	mg/L		1		E200.7	04/18/11 14:12 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	04/08/11 15:59 / dc
Nitrogen, Nitrate+Nitrite as N	1.1	mg/L		0.1		E353.2	04/07/11 17:33 / dc
Potassium	11	mg/L		1		E200.7	04/18/11 14:12 / cp
Silica	88.1	mg/L		0.2		E200.7	04/18/11 14:12 / cp
Sodium	107	mg/L		1		E200.7	04/18/11 14:12 / cp
Sulfate	37	mg/L		1		E300.0	04/08/11 21:01 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	515	umhos/cm		1		A2510 B	04/07/11 14:16 / lr
pH	9.38	s.u.		0.01		A4500-H B	04/07/11 14:16 / lr
Solids, Total Dissolved TDS @ 180 C	342	mg/L		10		A2540 C	04/07/11 15:51 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	04/18/11 14:12 / cp
Arsenic	0.005	mg/L		0.001		E200.8	04/11/11 19:33 / sml
Barium	ND	mg/L		0.1		E200.8	04/11/11 19:33 / sml
Boron	0.2	mg/L		0.1		E200.7	04/18/11 14:12 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/11/11 19:33 / sml
Chromium	ND	mg/L		0.05		E200.8	04/11/11 19:33 / sml
Copper	ND	mg/L		0.01		E200.8	04/11/11 19:33 / sml
Iron	ND	mg/L		0.03		E200.7	04/18/11 14:12 / cp
Lead	ND	mg/L		0.001		E200.8	04/11/11 19:33 / sml
Manganese	ND	mg/L		0.01		E200.8	04/11/11 19:33 / sml
Mercury	ND	mg/L		0.001		E200.8	04/11/11 19:33 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/11/11 19:33 / sml
Nickel	ND	mg/L		0.05		E200.8	04/11/11 19:33 / sml
Selenium	ND	mg/L		0.001		E200.8	04/11/11 19:33 / sml
Uranium	0.0035	mg/L		0.0003		E200.8	04/11/11 19:33 / sml
Uranium, Activity	2.4E-09	uCi/mL		2.0E-10		E200.8	04/11/11 19:33 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/11/11 19:33 / sml
Zinc	0.06	mg/L		0.01		E200.8	04/11/11 19:33 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/13/11 17:23 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/13/11 17:23 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040187-001
Client Sample ID: BOW-2

Report Date: 05/26/11
Collection Date: 04/01/11
DateReceived: 04/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/11/11 10:26 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/11/11 10:26 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/11/11 10:26 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	04/27/11 08:39 / ep
Polonium 210 precision (±)	0.4	pCi/L				E912.0	04/27/11 08:39 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	04/27/11 08:39 / ep
Radium 226	<0.21	pCi/L	U	0.21		E903.0	04/13/11 08:12 / ep
Radium 226 precision (±)	0.09	pCi/L				E903.0	04/13/11 08:12 / ep
Radium 226 MDC	0.21	pCi/L				E903.0	04/13/11 08:12 / ep
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/02/11 09:12 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	05/02/11 09:12 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/02/11 09:12 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	05/07/11 18:31 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	05/07/11 18:31 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	05/07/11 18:31 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/05/11 08:56 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	05/05/11 08:56 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/05/11 08:56 / ep
Radium 226	<0.14	pCi/L	U	0.14		E903.0	04/26/11 03:02 / trs
Radium 226 precision (±)	0.08	pCi/L				E903.0	04/26/11 03:02 / trs
Radium 226 MDC	0.14	pCi/L				E903.0	04/26/11 03:02 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/28/11 08:51 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	04/28/11 08:51 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/28/11 08:51 / dmf
DATA QUALITY							
A/C Balance (± 5)	-0.824	%				Calculation	04/20/11 09:04 / kbh
Anions	5.37	meq/L				Calculation	04/20/11 09:04 / kbh
Cations	5.29	meq/L				Calculation	04/20/11 09:04 / kbh
Solids, Total Dissolved Calculated	418	mg/L				Calculation	04/20/11 09:04 / kbh
TDS Balance (0.80 - 1.20)	0.820					Calculation	04/20/11 09:04 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040187-002
Client Sample ID: BOW-3

Report Date: 05/26/11
Collection Date: 04/01/11
DateReceived: 04/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	171	mg/L		1		A2320 B	04/08/11 17:50 / jba
Carbonate as CO3	32	mg/L		1		A2320 B	04/08/11 17:50 / jba
Bicarbonate as HCO3	144	mg/L		1		A2320 B	04/08/11 17:50 / jba
Calcium	5	mg/L		1		E200.7	04/18/11 14:24 / cp
Chloride	32	mg/L		1		E300.0	04/08/11 21:16 / ljl
Fluoride	0.5	mg/L		0.1		A4500-F C	04/08/11 12:01 / jba
Magnesium	ND	mg/L		1		E200.7	04/18/11 14:24 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	04/08/11 16:01 / dc
Nitrogen, Nitrate+Nitrite as N	0.8	mg/L		0.1		E353.2	04/07/11 17:36 / dc
Potassium	10	mg/L		1		E200.7	04/18/11 14:24 / cp
Silica	87.0	mg/L		0.2		E200.7	04/18/11 14:24 / cp
Sodium	118	mg/L		1		E200.7	04/18/11 14:24 / cp
Sulfate	60	mg/L	D	2		E300.0	04/08/11 21:16 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	550	umhos/cm		1		A2510 B	04/07/11 14:18 / lr
pH	9.41	s.u.		0.01		A4500-H B	04/07/11 14:18 / lr
Solids, Total Dissolved TDS @ 180 C	374	mg/L		10		A2540 C	04/07/11 15:52 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	04/18/11 14:24 / cp
Arsenic	0.009	mg/L		0.001		E200.8	04/11/11 19:40 / sml
Barium	ND	mg/L		0.1		E200.8	04/11/11 19:40 / sml
Boron	0.3	mg/L		0.1		E200.7	04/18/11 14:24 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/11/11 19:40 / sml
Chromium	ND	mg/L		0.05		E200.8	04/11/11 19:40 / sml
Copper	ND	mg/L		0.01		E200.8	04/11/11 19:40 / sml
Iron	ND	mg/L		0.03		E200.7	04/18/11 14:24 / cp
Lead	ND	mg/L		0.001		E200.8	04/11/11 19:40 / sml
Manganese	ND	mg/L		0.01		E200.8	04/11/11 19:40 / sml
Mercury	ND	mg/L		0.001		E200.8	04/11/11 19:40 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/11/11 19:40 / sml
Nickel	ND	mg/L		0.05		E200.8	04/11/11 19:40 / sml
Selenium	0.003	mg/L		0.001		E200.8	04/11/11 19:40 / sml
Uranium	0.0041	mg/L		0.0003		E200.8	04/11/11 19:40 / sml
Uranium, Activity	2.8E-09	uCi/mL		2.0E-10		E200.8	04/11/11 19:40 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/11/11 19:40 / sml
Zinc	0.11	mg/L		0.01		E200.8	04/11/11 19:40 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/13/11 17:27 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/13/11 17:27 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040187-002
Client Sample ID: BOW-3

Report Date: 05/26/11
Collection Date: 04/01/11
DateReceived: 04/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/11/11 12:37 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/11/11 12:37 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/11/11 12:37 / eli-cs
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	04/27/11 10:52 / ep
Polonium 210 precision (±)	0.4	pCi/L				E912.0	04/27/11 10:52 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	04/27/11 10:52 / ep
Radium 226	<0.22	pCi/L	U	0.22		E903.0	04/13/11 08:12 / ep
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/13/11 08:12 / ep
Radium 226 MDC	0.22	pCi/L				E903.0	04/13/11 08:12 / ep
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	05/02/11 09:12 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	05/02/11 09:12 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	05/02/11 09:12 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	05/07/11 20:43 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	05/07/11 20:43 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	05/07/11 20:43 / eli-cs
Polonium 210	0.3	pCi/L		0.2		E912.0	05/05/11 08:56 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	05/05/11 08:56 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/05/11 08:56 / ep
Radium 226	<0.14	pCi/L	U	0.14		E903.0	04/26/11 03:02 / trs
Radium 226 precision (±)	0.06	pCi/L				E903.0	04/26/11 03:02 / trs
Radium 226 MDC	0.14	pCi/L				E903.0	04/26/11 03:02 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/28/11 08:51 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	04/28/11 08:51 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/28/11 08:51 / dmf
DATA QUALITY							
A/C Balance (± 5)	0.0620	%				Calculation	04/20/11 09:04 / kbh
Anions	5.65	meq/L				Calculation	04/20/11 09:04 / kbh
Cations	5.66	meq/L				Calculation	04/20/11 09:04 / kbh
Solids, Total Dissolved Calculated	442	mg/L				Calculation	04/20/11 09:04 / kbh
TDS Balance (0.80 - 1.20)	0.850					Calculation	04/20/11 09:04 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040187-003
Client Sample ID: BOW-5

Report Date: 05/26/11
Collection Date: 04/01/11
DateReceived: 04/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	152	mg/L		1		A2320 B	04/08/11 18:16 / jba
Carbonate as CO3	4	mg/L		1		A2320 B	04/08/11 18:16 / jba
Bicarbonate as HCO3	177	mg/L		1		A2320 B	04/08/11 18:16 / jba
Calcium	29	mg/L		1		E200.7	04/18/11 14:32 / cp
Chloride	5	mg/L		1		E300.0	04/08/11 22:02 / ljl
Fluoride	0.5	mg/L		0.1		A4500-F C	04/08/11 12:13 / jba
Magnesium	7	mg/L		1		E200.7	04/18/11 14:32 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	04/08/11 16:03 / dc
Nitrogen, Nitrate+Nitrite as N	0.9	mg/L		0.1		E353.2	04/07/11 17:38 / dc
Potassium	4	mg/L		1		E200.7	04/18/11 14:32 / cp
Silica	78.6	mg/L		0.2		E200.7	04/18/11 14:32 / cp
Sodium	27	mg/L		1		E200.7	04/18/11 14:32 / cp
Sulfate	9	mg/L		1		E300.0	04/08/11 22:02 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	307	umhos/cm		1		A2510 B	04/07/11 14:20 / lr
pH	8.19	s.u.		0.01		A4500-H B	04/07/11 14:20 / lr
Solids, Total Dissolved TDS @ 180 C	200	mg/L		10		A2540 C	04/07/11 15:52 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	04/18/11 14:32 / cp
Arsenic	0.003	mg/L		0.001		E200.8	04/11/11 20:14 / sml
Barium	0.1	mg/L		0.1		E200.8	04/11/11 20:14 / sml
Boron	ND	mg/L		0.1		E200.7	04/18/11 14:32 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/11/11 20:14 / sml
Chromium	ND	mg/L		0.05		E200.8	04/11/11 20:14 / sml
Copper	ND	mg/L		0.01		E200.8	04/11/11 20:14 / sml
Iron	ND	mg/L		0.03		E200.7	04/18/11 14:32 / cp
Lead	ND	mg/L		0.001		E200.8	04/11/11 20:14 / sml
Manganese	ND	mg/L		0.01		E200.8	04/11/11 20:14 / sml
Mercury	ND	mg/L		0.001		E200.8	04/11/11 20:14 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/11/11 20:14 / sml
Nickel	ND	mg/L		0.05		E200.8	04/11/11 20:14 / sml
Selenium	0.001	mg/L		0.001		E200.8	04/11/11 20:14 / sml
Uranium	0.0076	mg/L		0.0003		E200.8	04/11/11 20:14 / sml
Uranium, Activity	5.2E-09	uCi/mL		2.0E-10		E200.8	04/11/11 20:14 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/11/11 20:14 / sml
Zinc	0.10	mg/L		0.01		E200.8	04/11/11 20:14 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/13/11 17:31 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/13/11 17:31 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040187-003
Client Sample ID: BOW-5

Report Date: 05/26/11
Collection Date: 04/01/11
DateReceived: 04/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/11/11 14:48 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/11/11 14:48 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/11/11 14:48 / eli-cs
Polonium 210	<0.5	pCi/L	U	0.5		E912.0	04/27/11 10:52 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	04/27/11 10:52 / ep
Polonium 210 MDC	0.5	pCi/L				E912.0	04/27/11 10:52 / ep
Radium 226	<0.16	pCi/L	U	0.16		E903.0	04/13/11 08:12 / ep
Radium 226 precision (±)	0.08	pCi/L				E903.0	04/13/11 08:12 / ep
Radium 226 MDC	0.16	pCi/L				E903.0	04/13/11 08:12 / ep
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/02/11 09:12 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	05/02/11 09:12 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/02/11 09:12 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	05/07/11 22:54 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	05/07/11 22:54 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	05/07/11 22:54 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/05/11 08:56 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	05/05/11 08:56 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/05/11 08:56 / ep
Radium 226	<0.15	pCi/L	U	0.15		E903.0	04/26/11 03:02 / trs
Radium 226 precision (±)	0.06	pCi/L				E903.0	04/26/11 03:02 / trs
Radium 226 MDC	0.15	pCi/L				E903.0	04/26/11 03:02 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/28/11 08:51 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	04/28/11 08:51 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/28/11 08:51 / dmf
DATA QUALITY							
A/C Balance (± 5)	-1.82	%				Calculation	04/20/11 09:05 / kbh
Anions	3.45	meq/L				Calculation	04/20/11 09:05 / kbh
Cations	3.33	meq/L				Calculation	04/20/11 09:05 / kbh
Solids, Total Dissolved Calculated	277	mg/L				Calculation	04/20/11 09:05 / kbh
TDS Balance (0.80 - 1.20)	0.720					Calculation	04/20/11 09:05 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040187-004
Client Sample ID: BOW-6

Report Date: 05/26/11
Collection Date: 04/01/11
DateReceived: 04/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	143	mg/L		1		A2320 B	04/08/11 18:24 / jba
Carbonate as CO3	3	mg/L		1		A2320 B	04/08/11 18:24 / jba
Bicarbonate as HCO3	168	mg/L		1		A2320 B	04/08/11 18:24 / jba
Calcium	32	mg/L		1		E200.7	04/18/11 14:36 / cp
Chloride	10	mg/L		1		E300.0	04/08/11 22:18 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	04/08/11 12:20 / jba
Magnesium	7	mg/L		1		E200.7	04/18/11 14:36 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	04/08/11 16:05 / dc
Nitrogen, Nitrate+Nitrite as N	1.0	mg/L		0.1		E353.2	04/07/11 17:41 / dc
Potassium	5	mg/L		1		E200.7	04/18/11 14:36 / cp
Silica	71.5	mg/L		0.2		E200.7	04/18/11 14:36 / cp
Sodium	25	mg/L		1		E200.7	04/18/11 14:36 / cp
Sulfate	10	mg/L		1		E300.0	04/08/11 22:18 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	310	umhos/cm		1		A2510 B	04/07/11 14:22 / lr
pH	8.27	s.u.		0.01		A4500-H B	04/07/11 14:22 / lr
Solids, Total Dissolved TDS @ 180 C	206	mg/L		10		A2540 C	04/07/11 15:52 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	04/18/11 14:36 / cp
Arsenic	0.005	mg/L		0.001		E200.8	04/11/11 20:21 / sml
Barium	0.1	mg/L		0.1		E200.8	04/11/11 20:21 / sml
Boron	ND	mg/L		0.1		E200.7	04/18/11 14:36 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/11/11 20:21 / sml
Chromium	ND	mg/L		0.05		E200.7	04/18/11 14:36 / cp
Copper	ND	mg/L		0.01		E200.8	04/11/11 20:21 / sml
Iron	ND	mg/L		0.03		E200.7	04/18/11 14:36 / cp
Lead	ND	mg/L		0.001		E200.8	04/11/11 20:21 / sml
Manganese	ND	mg/L		0.01		E200.7	04/18/11 14:36 / cp
Mercury	ND	mg/L		0.001		E200.8	04/11/11 20:21 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/11/11 20:21 / sml
Nickel	ND	mg/L		0.05		E200.8	04/11/11 20:21 / sml
Selenium	0.001	mg/L		0.001		E200.8	04/11/11 20:21 / sml
Uranium	0.0058	mg/L		0.0003		E200.8	04/11/11 20:21 / sml
Uranium, Activity	3.9E-09	uCi/mL		2.0E-10		E200.8	04/11/11 20:21 / sml
Vanadium	ND	mg/L		0.1		E200.7	04/18/11 14:36 / cp
Zinc	0.07	mg/L		0.01		E200.8	04/11/11 20:21 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/13/11 17:35 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/13/11 17:35 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040187-004
Client Sample ID: BOW-6

Report Date: 05/26/11
Collection Date: 04/01/11
DateReceived: 04/06/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/11/11 17:00 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/11/11 17:00 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/11/11 17:00 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	04/27/11 10:52 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	04/27/11 10:52 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	04/27/11 10:52 / ep
Radium 226	<0.17	pCi/L	U	0.17		E903.0	04/13/11 09:50 / ep
Radium 226 precision (±)	0.08	pCi/L				E903.0	04/13/11 09:50 / ep
Radium 226 MDC	0.17	pCi/L				E903.0	04/13/11 09:50 / ep
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/02/11 09:12 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	05/02/11 09:12 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/02/11 09:12 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	05/08/11 01:06 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	05/08/11 01:06 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	05/08/11 01:06 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/05/11 08:56 / ep
Polonium 210 precision (±)	0.08	pCi/L				E912.0	05/05/11 08:56 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/05/11 08:56 / ep
Radium 226	<0.13	pCi/L	U	0.13		E903.0	04/26/11 03:02 / trs
Radium 226 precision (±)	0.05	pCi/L				E903.0	04/26/11 03:02 / trs
Radium 226 MDC	0.13	pCi/L				E903.0	04/26/11 03:02 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	04/28/11 08:51 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	04/28/11 08:51 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	04/28/11 08:51 / dmf
DATA QUALITY							
A/C Balance (± 5)	-1.34	%				Calculation	04/20/11 09:05 / kbh
Anions	3.44	meq/L				Calculation	04/20/11 09:05 / kbh
Cations	3.34	meq/L				Calculation	04/20/11 09:05 / kbh
Solids, Total Dissolved Calculated	269	mg/L				Calculation	04/20/11 09:05 / kbh
TDS Balance (0.80 - 1.20)	0.770					Calculation	04/20/11 09:05 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/26/11
Work Order: C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R144652
Sample ID: MBLK	3	Method Blank				Run: MANTECH_110408B				04/08/11 17:09
Alkalinity, Total as CaCO3		2	mg/L	1						
Carbonate as CO3		ND	mg/L	1						
Bicarbonate as HCO3		3	mg/L	1						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110408B				04/08/11 17:25
Alkalinity, Total as CaCO3		214	mg/L	5.0	106	90	110			
Sample ID: C11040187-002BDUP		Sample Duplicate				Run: MANTECH_110408B				04/08/11 17:59
Alkalinity, Total as CaCO3		172	mg/L	5.0				0.0	10	
Sample ID: C11040187-002BMS		Sample Matrix Spike				Run: MANTECH_110408B				04/08/11 18:08
Alkalinity, Total as CaCO3		306	mg/L	5.0	107	80	120			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/26/11
Work Order: C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: ORION555A-2_110407A		
Sample ID: ICV2_110407_1		Initial Calibration Verification Standard							04/07/11 13:42	
Conductivity @ 25 C		1390	umhos/cm	1.0	98	90	110			
Method: A2510 B								Batch: 110407_1_PH-W_555A-2		
Sample ID: MBLK1_110407_1		Method Blank				Run: ORION555A-2_110407A			04/07/11 13:38	
Conductivity @ 25 C		0.4	umhos/cm	0.2						
Sample ID: C11040172-002ADUP		Sample Duplicate				Run: ORION555A-2_110407A			04/07/11 14:10	
Conductivity @ 25 C		781	umhos/cm	1.0				0.0	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/26/11

Project: Marsland Baseline Samples **Work Order:** C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C								Batch: 110407_1_SLDS-TDS-W		
Sample ID: MBLK1_110407		Method Blank				Run: BAL-1_110407B			04/07/11 15:48	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	4						
Sample ID: LCS1_110407		Laboratory Control Sample				Run: BAL-1_110407B			04/07/11 15:48	
Solids, Total Dissolved TDS @ 180 C		980	mg/L	10	98	90	110			
Sample ID: C11040187-004ADUP		Sample Duplicate				Run: BAL-1_110407B			04/07/11 15:53	
Solids, Total Dissolved TDS @ 180 C		207	mg/L	10				0.7	10	
Sample ID: C11040222-001BMS		Sample Matrix Spike				Run: BAL-1_110407B			04/07/11 15:54	
Solids, Total Dissolved TDS @ 180 C		2240	mg/L	10	101	90	110			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/26/11
Work Order: C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R144644
Sample ID: MBLK		Method Blank				Run: MANTECH_110408A				04/08/11 09:17
Fluoride		0.02	mg/L	0.008						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110408A				04/08/11 09:24
Fluoride		0.940	mg/L	0.10	92	90	110			
Sample ID: C11040187-004BMS		Sample Matrix Spike				Run: MANTECH_110408A				04/08/11 12:23
Fluoride		1.53	mg/L	0.10	95	80	120			
Sample ID: C11040187-004BMSD		Sample Matrix Spike Duplicate				Run: MANTECH_110408A				04/08/11 12:27
Fluoride		1.53	mg/L	0.10	95	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/26/11

Project: Marsland Baseline Samples **Work Order:** C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION555A-2_110407A		
Sample ID: ICV1_110407_1		Initial Calibration Verification Standard							04/07/11 13:40	
pH		6.91	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 110407_1_PH-W_555A-2		
Sample ID: C11040172-002ADUP		Sample Duplicate				Run: ORION555A-2_110407A			04/07/11 14:10	
pH		7.66	s.u.	0.010				0.0	3	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/26/11

Project: Marsland Baseline Samples **Work Order:** C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R144645
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110408B				04/08/11 15:55
Nitrogen, Ammonia as N		ND	mg/L	0.02						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110408B				04/08/11 15:57
Nitrogen, Ammonia as N		1.97	mg/L	0.050	99	90	110			
Sample ID: C11040206-001BMS		Sample Matrix Spike				Run: TECHNICON_110408B				04/08/11 16:09
Nitrogen, Ammonia as N		1.87	mg/L	0.050	95	80	120			
Sample ID: C11040206-001BMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110408B				04/08/11 16:11
Nitrogen, Ammonia as N		1.80	mg/L	0.050	92	80	120	3.8	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/26/11

Project: Marsland Baseline Samples **Work Order:** C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R144962
Sample ID: MB-110418A	11	Method Blank				Run: ICP2-C_110418A				04/18/11 12:59
Aluminum		ND	mg/L	0.01						
Boron		0.03	mg/L	0.01						
Calcium		ND	mg/L	0.1						
Chromium		ND	mg/L	0.002						
Iron		ND	mg/L	0.001						
Magnesium		ND	mg/L	0.05						
Manganese		ND	mg/L	0.0003						
Potassium		ND	mg/L	0.05						
Silicon		ND	mg/L	0.007						
Sodium		ND	mg/L	0.2						
Vanadium		ND	mg/L	0.01						
Sample ID: LFB-110418A	11	Laboratory Fortified Blank				Run: ICP2-C_110418A				04/18/11 13:03
Aluminum		0.928	mg/L	0.10	93	85	115			
Boron		0.960	mg/L	0.10	93	85	115			
Calcium		48.0	mg/L	0.50	96	85	115			
Chromium		0.932	mg/L	0.050	93	85	115			
Iron		0.960	mg/L	0.030	96	85	115			
Magnesium		48.1	mg/L	0.50	96	85	115			
Manganese		0.927	mg/L	0.010	93	85	115			
Potassium		43.1	mg/L	0.50	86	85	115			
Silicon		0.449	mg/L	0.10	95	85	115			
Sodium		49.2	mg/L	0.50	98	85	115			
Vanadium		0.944	mg/L	0.10	94	85	115			
Sample ID: C11040187-001CMS2	11	Sample Matrix Spike				Run: ICP2-C_110418A				04/18/11 14:16
Aluminum		1.93	mg/L	0.10	95	70	130			
Boron		2.15	mg/L	0.10	97	70	130			
Calcium		105	mg/L	1.0	97	70	130			
Chromium		1.99	mg/L	0.050	98	70	130			
Iron		2.04	mg/L	0.030	100	70	130			
Magnesium		99.6	mg/L	1.0	97	70	130			
Manganese		1.95	mg/L	0.010	96	70	130			
Potassium		99.9	mg/L	1.0	87	70	130			
Silicon		42.5	mg/L	0.10		70	130			A
Sodium		216	mg/L	1.0	107	70	130			
Vanadium		1.99	mg/L	0.10	98	70	130			
Sample ID: C11040187-001CMSD	11	Sample Matrix Spike Duplicate				Run: ICP2-C_110418A				04/18/11 14:20
Aluminum		1.88	mg/L	0.10	92	70	130	2.6	20	
Boron		2.18	mg/L	0.10	98	70	130	1.4	20	
Calcium		104	mg/L	1.0	96	70	130	0.4	20	
Chromium		1.98	mg/L	0.050	97	70	130	0.6	20	
Iron		2.01	mg/L	0.030	98	70	130	1.1	20	
Magnesium		99.7	mg/L	1.0	97	70	130	0.1	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/26/11
Work Order: C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R144962	
Sample ID: C11040187-001CMSD	11	Sample Matrix Spike Duplicate				Run: ICP2-C_110418A			04/18/11 14:20	
Manganese		1.94	mg/L	0.010	95	70	130	0.6	20	
Potassium		98.7	mg/L	1.0	86	70	130	1.3	20	
Silicon		41.7	mg/L	0.10		70	130	1.9	20	A
Sodium		214	mg/L	1.0	104	70	130	1.2	20	
Vanadium		2.04	mg/L	0.10	100	70	130	2.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/26/11

Project: Marsland Baseline Samples **Work Order:** C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144696
Sample ID: LRB	14	Method Blank				Run: ICPMS2-C_110411A				04/11/11 12:14
Arsenic		ND	mg/L	6E-05						
Barium		ND	mg/L	3E-05						
Cadmium		ND	mg/L	1E-05						
Chromium		6E-05	mg/L	4E-05						
Copper		ND	mg/L	7E-05						
Lead		ND	mg/L	3E-05						
Manganese		ND	mg/L	5E-05						
Mercury		ND	mg/L	8E-05						
Molybdenum		ND	mg/L	5E-05						
Nickel		ND	mg/L	0.0007						
Selenium		ND	mg/L	0.0002						
Uranium		ND	mg/L	1E-05						
Vanadium		ND	mg/L	3E-05						
Zinc		ND	mg/L	0.0003						
Sample ID: LFB	14	Laboratory Fortified Blank				Run: ICPMS2-C_110411A				04/11/11 12:21
Arsenic		0.0521	mg/L	0.0010	104	85	115			
Barium		0.0525	mg/L	0.0010	105	85	115			
Cadmium		0.0514	mg/L	0.0010	103	85	115			
Chromium		0.0511	mg/L	0.0010	102	85	115			
Copper		0.0515	mg/L	0.0010	103	85	115			
Lead		0.0511	mg/L	0.0010	102	85	115			
Manganese		0.0514	mg/L	0.0010	103	85	115			
Mercury		0.00532	mg/L	0.0010	106	85	115			
Molybdenum		0.0518	mg/L	0.0010	104	85	115			
Nickel		0.0511	mg/L	0.0010	102	85	115			
Selenium		0.0529	mg/L	0.0010	106	85	115			
Uranium		0.0497	mg/L	0.00030	99	85	115			
Vanadium		0.0510	mg/L	0.0010	102	85	115			
Zinc		0.0521	mg/L	0.0010	104	85	115			
Sample ID: C11040280-002BMS4	14	Sample Matrix Spike				Run: ICPMS2-C_110411A				04/11/11 20:55
Arsenic		0.0518	mg/L	0.0010	102	70	130			
Barium		0.0668	mg/L	0.0010	108	70	130			
Cadmium		0.0457	mg/L	0.010	91	70	130			
Chromium		0.0500	mg/L	0.0010	99	70	130			
Copper		0.0500	mg/L	0.010	95	70	130			
Lead		0.0547	mg/L	0.050	109	70	130			
Manganese		0.242	mg/L	0.010	88	70	130			
Mercury		0.00515	mg/L	0.0010	103	70	130			
Molybdenum		0.0541	mg/L	0.0010	106	70	130			
Nickel		0.0544	mg/L	0.050	97	70	130			
Selenium		0.0680	mg/L	0.0010	93	70	130			
Uranium		0.0797	mg/L	0.00030	119	70	130			
Vanadium		0.0521	mg/L	0.0010	104	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/26/11
Work Order: C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144696
Sample ID: C11040280-002BMS4	14	Sample Matrix Spike				Run: ICPMS2-C_110411A			04/11/11 20:55	
Zinc		0.0462	mg/L	0.010	82	70	130			
Sample ID: C11040280-002BMSD	14	Sample Matrix Spike Duplicate				Run: ICPMS2-C_110411A			04/11/11 21:02	
Arsenic		0.0552	mg/L	0.0010	109	70	130	6.2	20	
Barium		0.0698	mg/L	0.0010	114	70	130	4.4	20	
Cadmium		0.0489	mg/L	0.010	98	70	130	6.7	20	
Chromium		0.0532	mg/L	0.0010	106	70	130	6.3	20	
Copper		0.0534	mg/L	0.010	102	70	130	6.7	20	
Lead		0.0587	mg/L	0.050	117	70	130	7.2	20	
Manganese		0.246	mg/L	0.010	95	70	130	1.4	20	
Mercury		0.00555	mg/L	0.0010	111	70	130	7.5	20	
Molybdenum		0.0585	mg/L	0.0010	115	70	130	7.9	20	
Nickel		0.0596	mg/L	0.050	108	70	130	9.3	20	
Selenium		0.0703	mg/L	0.0010	97	70	130	3.3	20	
Uranium		0.0842	mg/L	0.00030	128	70	130	5.5	20	
Vanadium		0.0550	mg/L	0.0010	110	70	130	5.3	20	
Zinc		0.0490	mg/L	0.010	88	70	130	5.9	20	
Method: E200.8										Batch: 29522A
Sample ID: C11040187-004HMS		Sample Matrix Spike				Run: ICPMS4-C_110413A			04/13/11 17:39	
Uranium		0.00488	mg/L	0.00030	108	70	130			
Sample ID: C11040187-004HMSD		Sample Matrix Spike Duplicate				Run: ICPMS4-C_110413A			04/13/11 17:43	
Uranium		0.00484	mg/L	0.00030	107	70	130	0.8	20	
Sample ID: MB-29522		Method Blank				Run: ICPMS4-C_110413A			04/13/11 14:15	
Uranium		0.0001	pCi/Filter							
Sample ID: LCS2-29522		Laboratory Control Sample				Run: ICPMS4-C_110413A			04/13/11 14:19	
Uranium		0.105	pCi/Filter	0.00030	104	85	115			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/26/11

Project: Marsland Baseline Samples **Work Order:** C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: IC2-C_110407A	
Sample ID: ICV	2	Initial Calibration Verification Standard							04/07/11 19:20	
Chloride		9.81	mg/L	1.0	98	90	110			
Sulfate		40.8	mg/L	1.0	102	90	110			
Method: E300.0									Batch: R144657	
Sample ID: MBLK	2	Method Blank				Run: IC2-C_110407A			04/07/11 19:35	
Chloride		0.04	mg/L	0.04						
Sulfate		0.2	mg/L	0.1						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: IC2-C_110407A			04/07/11 20:06	
Chloride		12.2	mg/L	1.0	97	90	110			
Sulfate		50.5	mg/L	1.0	101	90	110			
Sample ID: C11040187-002BMS	2	Sample Matrix Spike				Run: IC2-C_110407A			04/08/11 21:31	
Chloride		52.3	mg/L	1.0	104	80	120			
Sulfate		140	mg/L	1.6	102	80	120			
Sample ID: C11040187-002BMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110407A			04/08/11 21:47	
Chloride		52.0	mg/L	1.0	103	80	120	0.7	10	
Sulfate		140	mg/L	1.6	102	80	120	0.2	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/26/11
Work Order: C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R144602
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110407A				04/07/11 12:21
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.06						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110407A				04/07/11 12:23
Nitrogen, Nitrate+Nitrite as N		2.64	mg/L	0.10	106	90	110			
Sample ID: C11040187-004GMS		Sample Matrix Spike				Run: TECHNICON_110407A				04/07/11 17:43
Nitrogen, Nitrate+Nitrite as N		2.90	mg/L	0.10	100	90	110			
Sample ID: C11040187-004GMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110407A				04/07/11 17:46
Nitrogen, Nitrate+Nitrite as N		2.89	mg/L	0.10	99	90	110	0.3	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/26/11

Project: Marsland Baseline Samples **Work Order:** C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: 29522
Sample ID: C11040105-001HMS		Sample Matrix Spike				Run: BERTHOLD 770-1_110419A			04/26/11 01:26	
Radium 226		11	pCi/L		108	70	130			
Sample ID: C11040105-001HMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-1_110419A			04/26/11 01:26	
Radium 226		12	pCi/L		114	70	130	8.8	25	
Sample ID: LCS-29522		Laboratory Control Sample				Run: BERTHOLD 770-1_110419A			04/26/11 03:02	
Radium 226		13	pCi/L		113	85	115			
Sample ID: MB-29522	3	Method Blank				Run: BERTHOLD 770-1_110419A			04/26/11 03:02	
Radium 226		-0.2	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.3	pCi/L							
Method: E903.0										Batch: RA226-5282
Sample ID: C11040060-001CMS		Sample Matrix Spike				Run: BERTHOLD 770-2_110407A			04/13/11 11:40	
Radium 226		12	pCi/L		97	70	130			
Sample ID: C11040060-001CMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-2_110407A			04/13/11 11:40	
Radium 226		13	pCi/L		101	70	130	3.9	27	
Sample ID: MB-RA226-5282	3	Method Blank				Run: BERTHOLD 770-2_110407A			04/13/11 11:40	
Radium 226		-0.1	pCi/L							U
Radium 226 precision (±)		0.09	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Sample ID: LCS-RA226-5282		Laboratory Control Sample				Run: BERTHOLD 770-2_110407A			04/13/11 11:40	
Radium 226		6.9	pCi/L		111	85	115			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/26/11

Project: Marsland Baseline Samples **Work Order:** C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0										Batch: 29522
Sample ID: C11040187-004HMS		Sample Matrix Spike				Run: EGG-ORTEC_110425D			04/28/11 08:51	
Thorium 230		9.7	pCi/L		116	70	130			
Sample ID: C11040187-004HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110425D			04/28/11 08:51	
Thorium 230		16	pCi/L		188	70	130	51	54.6	S
- Spike response is outside of the acceptance range for this analysis. Since the LCS, MS, and all tracer recoveries are acceptable the batch is approved.										
Sample ID: LCS-29522		Laboratory Control Sample				Run: EGG-ORTEC_110425D			04/28/11 08:51	
Thorium 230		11	pCi/L		113	70	130			
Sample ID: MB-29522	3	Method Blank				Run: EGG-ORTEC_110425D			04/28/11 08:51	
Thorium 230		-0.2	pCi/L							U
Thorium 230 precision (±)		0.1	pCi/L							
Thorium 230 MDC		0.3	pCi/L							
Method: E908.0										Batch: RA-TH-ISO-1373
Sample ID: LCS-RA-TH-ISO-1373		Laboratory Control Sample				Run: EGG-ORTEC_110428A			05/02/11 09:12	
Thorium 230		5.4	pCi/L		96	70	130			
Sample ID: C11040105-001DMS		Sample Matrix Spike				Run: EGG-ORTEC_110428A			05/02/11 09:11	
Thorium 230		12	pCi/L		102	70	130			
Sample ID: C11040105-001DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110428A			05/02/11 09:11	
Thorium 230		12	pCi/L		101	70	130	0.4	37.2	
Sample ID: MB-RA-TH-ISO-1373	3	Method Blank				Run: EGG-ORTEC_110428A			05/02/11 13:54	
Thorium 230		-0.01	pCi/L							U
Thorium 230 precision (±)		0.06	pCi/L							
Thorium 230 MDC		0.1	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
U - Not detected at minimum detectable concentration
ND - Not detected at the reporting limit.
S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/26/11

Project: Marsland Baseline Samples **Work Order:** C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0									Batch: T_13773	
Sample ID: T11040038-001HMSD		Sample Matrix Spike Duplicate				Run: SUB-T40245			05/07/11 05:23	
Lead 210		73	pCi/L		77	70	130	1.9	16.1	
Sample ID: T11040038-001HMS		Sample Matrix Spike				Run: SUB-T40245			05/07/11 03:11	
Lead 210		74	pCi/L		78	70	130			
Sample ID: LCS-13773		Laboratory Control Sample				Run: SUB-T40245			05/06/11 22:49	
Lead 210		290	pCi/L		81	70	130			
Sample ID: MB-13773	3	Method Blank				Run: SUB-T40245			05/06/11 20:37	
Lead 210		-2	pCi/L							U
Lead 210 precision (±)		5	pCi/L							
Lead 210 MDC		8	pCi/L							
Method: E909.0									Batch: T_PB-210-0088	
Sample ID: T11040038-001FMSD		Sample Matrix Spike Duplicate				Run: SUB-T40352			05/10/11 21:17	
Lead 210		100	pCi/L		97	70	130	7.6	15.9	
Sample ID: MB-PB-210-0088	3	Method Blank				Run: SUB-T40352			05/09/11 19:00	
Lead 210		-0.2	pCi/L							U
Lead 210 precision (±)		1	pCi/L							
Lead 210 MDC		2	pCi/L							
Sample ID: LCS-PB-210-0088		Laboratory Control Sample				Run: SUB-T40352			05/09/11 21:11	
Lead 210		77	pCi/L		108	70	130			
Sample ID: T11040038-001FMS		Sample Matrix Spike				Run: SUB-T40352			05/10/11 19:06	
Lead 210		110	pCi/L		105	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/26/11

Project: Marsland Baseline Samples **Work Order:** C11040187

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0										Batch: PO210-0364
Sample ID: C11040187-001EMS		Sample Matrix Spike				Run: EGG-ORTEC_110425B			04/27/11 08:39	
Polonium 210		12	pCi/L		93	70	130			
Sample ID: C11040187-001EMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110425B			04/27/11 10:52	
Polonium 210		12	pCi/L		90	70	130	3.1	79.2	
Sample ID: MB-PO210-0364	3	Method Blank				Run: EGG-ORTEC_110425B			04/27/11 10:52	
Polonium 210		0.07	pCi/L							U
Polonium 210 precision (±)		0.3	pCi/L							
Polonium 210 MDC		0.5	pCi/L							
Sample ID: LCS-PO210-0364		Laboratory Control Sample				Run: EGG-ORTEC_110425B			04/27/11 10:52	
Polonium 210		6.3	pCi/L		99	70	130			
Method: E912.0										Batch: 29522
Sample ID: C11040187-004HMS		Sample Matrix Spike				Run: EGG-ORTEC_110503B			05/05/11 08:56	
Polonium 210		6.0	pCi/L		112	70	130			
Sample ID: C11040187-004HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110503B			05/05/11 08:56	
Polonium 210		6.1	pCi/L		115	70	130	2.5	70.8	
Sample ID: LCS-29522		Laboratory Control Sample				Run: EGG-ORTEC_110503B			05/05/11 08:56	
Polonium 210		35	pCi/L		118	70	130			
Sample ID: MB-29522	3	Method Blank				Run: EGG-ORTEC_110503B			05/05/11 08:56	
Polonium 210		-0.1	pCi/L							U
Polonium 210 precision (±)		1	pCi/L							
Polonium 210 MDC		3	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

ENERGY LABORATORIES
Analytical Excellence Since 1952
Gillette, WY 866-686-7175 • Rapid City, SD 888-672-1225 • College Station, TX 888-690-2218

Workorder Receipt Checklist

Crow Butte Resources

C11040187

Login completed by: Edith McPike

Date Received: 4/6/2011

Reviewed by: BL2000\Tedwards

Received by: ha

Reviewed Date: 4/7/2011

Carrier name: Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	6.8°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

Samples filtered and preserved in the laboratory for dissolved radionuclides.

Chain of Custody and Analytical Request Record

ENERGY LABORATORIES

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name: Marsland Baseline Samples	Sample Origin State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169, Crawford, NE 69339	Contact Name: Larry Teahon; Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass, Rhonda Pelton
Invoice Address: P.O. Box 169, Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon, 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

☐ DW ☐ GSA ☐ POTW/WWTP ☐ State: _____ ☐ Other: _____

☐ A2LA ☐ EDD/EDT (Electronic Data) Format: _____ ☐ LEVEL IV ☐ NELAC

RUSH: Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling. Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 requirements. Record U as mg/L and µCi/ml and radiometrics as pCi/L.

Shipped by: Grd
Cooler ID(s): Cl/4/L
Receipt Temp: 6.8 °C
On Ice: (Yes) No
Custody Seal Y N
Intact Y N
Signature Match Y N

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	HNO3-F, Metals	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	Raw-UF, Ra226, Po210 dis, sus	Raw-UF, Pb210 dis and sus	Rau-UF, Th230, U-nat dis and sus			SEE ATTACHED	Normal Turnaround (TAT)			LABORATORY USE ONLY
1	BOW-2	4/1/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/10/11	
2	BOW-3	4/1/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/10/11	
3	BOW-5	4/1/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/10/11	
4	BOW-6	4/1/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/10/11	1104087
5																		
6																		
7																		
8																		
9																		
10																		

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Brooke Bass	4/4/11 11:54am	Brooke Bass			
			Received by Laboratory:	4/4/11 9:20	[illegible]

Sample Disposal: Return to Client: No Lab Disposal: YES

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

CROW BUTTE RESOURCES, INC.
CROW BUTTE PROJECT

No 5

DATE: 4/2/11 ANALYST: JH

STANDARD CURVE DATA

	Bl	.01	.05	.1	999995		
Abs		.035	.174	.346			
Abs							

SAMPLE #	VOLUME	Df	Abs	No5 Mg/L
1 Bow 2	10ml	1	.013	<0.01
2 Bow 3	10ml		.448 .448	.013
3 Bow 5	10ml		.001	<0.01
4 Bow 6	10ml		.005 .004	<0.01
5				
Dup Dup Bow3	set up 10ml New Sample	1	.452	.013
6 Dup Bow3			.448	.013
7 Dup Bow6			.004	<0.01
8				
9 Dup 5ml	Sample Bow 3	2	.222	.013
10				
Dup				
11				
12				
13				
14				
15				
Dup				
16				
17				
18				
19				
20				
Dup				
21				
22				
23				
24				
25				
Dup				

ANALYTICAL SUMMARY REPORT

May 31, 2011

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C11040296 Quote ID: C1125 - Crow Butte Uranium

Project Name: Marsland Baseline Samples

Energy Laboratories, Inc. Casper WY received the following 3 samples for Crow Butte Resources on 4/8/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11040296-001	BOW-4A	04/05/11 00:00	04/08/11	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Uranium, Suspended Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C11040296-002	BOW-7	04/05/11 00:00	04/08/11	Aqueous	Same As Above
C11040296-003	BOW-8	04/05/11 00:00	04/08/11	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Crow Butte Resources
Project: Marsland Baseline Samples
Sample Delivery Group: C11040296

Report Date: 05/31/11

CASE NARRATIVE

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

BRANCH LABORATORY SUBCONTRACT ANALYSIS
Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040296-001
Client Sample ID: BOW-4A

Report Date: 05/31/11
Collection Date: 04/05/11
DateReceived: 04/08/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	175	mg/L		1		A2320 B	04/09/11 02:41 / jba
Carbonate as CO3	16	mg/L		1		A2320 B	04/09/11 02:41 / jba
Bicarbonate as HCO3	180	mg/L		1		A2320 B	04/09/11 02:41 / jba
Calcium	13	mg/L		1		E200.7	04/21/11 19:10 / cp
Chloride	24	mg/L		1		E300.0	04/13/11 04:49 / ljl
Fluoride	0.5	mg/L		0.1		A4500-F C	04/13/11 09:22 / jba
Magnesium	2	mg/L		1		E200.7	04/21/11 19:10 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	04/11/11 12:42 / dc
Nitrogen, Nitrate+Nitrite as N	1.2	mg/L		0.1		E353.2	04/14/11 12:26 / dc
Potassium	11	mg/L		1		E200.7	04/21/11 19:10 / cp
Silica	78.2	mg/L		0.2		E200.7	04/21/11 19:10 / cp
Sodium	100	mg/L		1		E200.7	04/21/11 19:10 / cp
Sulfate	50	mg/L	D	2		E300.0	04/13/11 04:49 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	514	umhos/cm		1		A2510 B	04/08/11 17:05 / lr
pH	8.92	s.u.		0.01		A4500-H B	04/08/11 17:05 / lr
Solids, Total Dissolved TDS @ 180 C	358	mg/L		10		A2540 C	04/08/11 17:01 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	04/21/11 19:10 / cp
Arsenic	0.015	mg/L		0.001		E200.8	04/12/11 02:07 / sml
Barium	ND	mg/L		0.1		E200.8	04/12/11 02:07 / sml
Boron	0.1	mg/L		0.1		E200.7	04/21/11 19:10 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/12/11 02:07 / sml
Chromium	ND	mg/L		0.05		E200.8	04/12/11 02:07 / sml
Copper	ND	mg/L		0.01		E200.8	04/12/11 02:07 / sml
Iron	ND	mg/L		0.03		E200.7	04/21/11 19:10 / cp
Lead	ND	mg/L		0.001		E200.8	04/12/11 02:07 / sml
Manganese	ND	mg/L		0.01		E200.8	04/12/11 02:07 / sml
Mercury	ND	mg/L		0.001		E200.8	04/12/11 02:07 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/12/11 02:07 / sml
Nickel	ND	mg/L		0.05		E200.8	04/12/11 02:07 / sml
Selenium	0.009	mg/L		0.001		E200.8	04/12/11 02:07 / sml
Uranium	0.0095	mg/L		0.0003		E200.8	04/12/11 02:07 / sml
Uranium, Activity	6.4E-09	uCi/mL		2.0E-10		E200.8	04/12/11 02:07 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/12/11 02:07 / sml
Zinc	ND	mg/L		0.01		E200.8	04/12/11 02:07 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/13/11 21:12 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/13/11 21:12 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040296-001
Client Sample ID: BOW-4A

Report Date: 05/31/11
Collection Date: 04/05/11
DateReceived: 04/08/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	05/13/11 11:53 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	05/13/11 11:53 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	05/13/11 11:53 / eli-cs
Polonium 210	<1.1	pCi/L	U	1.1		E912.0	05/09/11 09:07 / ep
Polonium 210 precision (±)	0.6	pCi/L				E912.0	05/09/11 09:07 / ep
Polonium 210 MDC	1.1	pCi/L				E912.0	05/09/11 09:07 / ep
Radium 226	<0.2	pCi/L	U	0.2		E903.0	04/25/11 14:18 / dmf
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/25/11 14:18 / dmf
Radium 226 MDC	0.2	pCi/L				E903.0	04/25/11 14:18 / dmf
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	05/02/11 09:12 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	05/02/11 09:12 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	05/02/11 09:12 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.1	pCi/L	U	1.1		E909.0	05/19/11 15:03 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	05/19/11 15:03 / eli-cs
Lead 210 MDC	1.1	pCi/L				E909.0	05/19/11 15:03 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/05/11 08:57 / ep
Polonium 210 precision (±)	0.08	pCi/L				E912.0	05/05/11 08:57 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/05/11 08:57 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	04/26/11 01:24 / trs
Radium 226 precision (±)	0.07	pCi/L				E903.0	04/26/11 01:24 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	04/26/11 01:24 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/09/11 14:36 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	05/09/11 14:36 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/09/11 14:36 / dmf
DATA QUALITY							
A/C Balance (± 5)	1.48	%				Calculation	04/29/11 15:39 / kbh
Anions	5.30	meq/L				Calculation	04/29/11 15:39 / kbh
Cations	5.46	meq/L				Calculation	04/29/11 15:39 / kbh
Solids, Total Dissolved Calculated	409	mg/L				Calculation	04/29/11 15:39 / kbh
TDS Balance (0.80 - 1.20)	0.880					Calculation	04/29/11 15:39 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040296-002
Client Sample ID: BOW-7

Report Date: 05/31/11
Collection Date: 04/05/11
DateReceived: 04/08/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	190	mg/L		1		A2320 B	04/09/11 02:49 / jba
Carbonate as CO3	15	mg/L		1		A2320 B	04/09/11 02:49 / jba
Bicarbonate as HCO3	202	mg/L		1		A2320 B	04/09/11 02:49 / jba
Calcium	8	mg/L		1		E200.7	04/21/11 19:27 / cp
Chloride	23	mg/L		1		E300.0	04/13/11 05:04 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	04/13/11 09:29 / jba
Magnesium	ND	mg/L		1		E200.7	04/21/11 19:27 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	04/11/11 12:44 / dc
Nitrogen, Nitrate+Nitrite as N	1.2	mg/L		0.1		E353.2	04/14/11 12:29 / dc
Potassium	11	mg/L		1		E200.7	04/21/11 19:27 / cp
Silica	80.9	mg/L		0.2		E200.7	04/21/11 19:27 / cp
Sodium	118	mg/L		1		E200.7	04/21/11 19:27 / cp
Sulfate	55	mg/L	D	2		E300.0	04/13/11 05:04 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	547	umhos/cm		1		A2510 B	04/08/11 17:06 / lr
pH	8.76	s.u.		0.01		A4500-H B	04/08/11 17:06 / lr
Solids, Total Dissolved TDS @ 180 C	376	mg/L		10		A2540 C	04/08/11 17:01 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	04/21/11 19:27 / cp
Arsenic	0.028	mg/L		0.001		E200.8	04/12/11 02:14 / sml
Barium	ND	mg/L		0.1		E200.8	04/12/11 02:14 / sml
Boron	0.2	mg/L		0.1		E200.7	04/21/11 19:27 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/12/11 02:14 / sml
Chromium	ND	mg/L		0.05		E200.8	04/12/11 02:14 / sml
Copper	ND	mg/L		0.01		E200.8	04/12/11 02:14 / sml
Iron	ND	mg/L		0.03		E200.7	04/21/11 19:27 / cp
Lead	ND	mg/L		0.001		E200.8	04/12/11 02:14 / sml
Manganese	ND	mg/L		0.01		E200.8	04/12/11 02:14 / sml
Mercury	ND	mg/L		0.001		E200.8	04/12/11 02:14 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/12/11 02:14 / sml
Nickel	ND	mg/L		0.05		E200.8	04/12/11 02:14 / sml
Selenium	0.210	mg/L		0.001		E200.8	04/12/11 02:14 / sml
Uranium	0.0059	mg/L		0.0003		E200.8	04/12/11 02:14 / sml
Uranium, Activity	4.0E-09	uCi/mL		2.0E-10		E200.8	04/12/11 02:14 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/12/11 02:14 / sml
Zinc	ND	mg/L		0.01		E200.8	04/12/11 02:14 / sml
METALS - SUSPENDED							
Uranium	0.0005	mg/L		0.0003		E200.8	04/13/11 21:16 / sml
Uranium, Activity	3.7E-10	uCi/mL		2.0E-10		E200.8	04/13/11 21:16 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040296-002
Client Sample ID: BOW-7

Report Date: 05/31/11
Collection Date: 04/05/11
DateReceived: 04/08/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	05/13/11 14:05 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	05/13/11 14:05 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	05/13/11 14:05 / eli-cs
Polonium 210	<1.1	pCi/L	U	1.1		E912.0	05/09/11 09:07 / ep
Polonium 210 precision (±)	0.7	pCi/L				E912.0	05/09/11 09:07 / ep
Polonium 210 MDC	1.1	pCi/L				E912.0	05/09/11 09:07 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	04/25/11 15:52 / dmf
Radium 226 precision (±)	0.06	pCi/L				E903.0	04/25/11 15:52 / dmf
Radium 226 MDC	0.1	pCi/L				E903.0	04/25/11 15:52 / dmf
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/02/11 09:12 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	05/02/11 09:12 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/02/11 09:12 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.1	pCi/L	U	1.1		E909.0	05/19/11 17:14 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	05/19/11 17:14 / eli-cs
Lead 210 MDC	1.1	pCi/L				E909.0	05/19/11 17:14 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/23/11 14:03 / ep
Polonium 210 precision (±)	0.02	pCi/L				E912.0	05/23/11 14:03 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/23/11 14:03 / ep
Radium 226	0.6	pCi/L		0.1		E903.0	04/26/11 01:24 / trs
Radium 226 precision (±)	0.1	pCi/L				E903.0	04/26/11 01:24 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	04/26/11 01:24 / trs
Thorium 230	0.2	pCi/L		0.1		E908.0	05/09/11 14:37 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	05/09/11 14:37 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/09/11 14:37 / dmf
DATA QUALITY							
A/C Balance (± 5)	1.35	%				Calculation	04/29/11 15:39 / kbh
Anions	5.72	meq/L				Calculation	04/29/11 15:39 / kbh
Cations	5.88	meq/L				Calculation	04/29/11 15:39 / kbh
Solids, Total Dissolved Calculated	439	mg/L				Calculation	04/29/11 15:39 / kbh
TDS Balance (0.80 - 1.20)	0.860					Calculation	04/29/11 15:39 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040296-003
Client Sample ID: BOW-8

Report Date: 05/31/11
Collection Date: 04/05/11
DateReceived: 04/08/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	182	mg/L		1		A2320 B	04/09/11 02:58 / jba
Carbonate as CO3	12	mg/L		1		A2320 B	04/09/11 02:58 / jba
Bicarbonate as HCO3	198	mg/L		1		A2320 B	04/09/11 02:58 / jba
Calcium	11	mg/L		1		E200.7	04/21/11 19:31 / cp
Chloride	7	mg/L		1		E300.0	04/13/11 05:51 / ljl
Fluoride	0.5	mg/L		0.1		A4500-F C	04/13/11 09:32 / jba
Magnesium	ND	mg/L		1		E200.7	04/21/11 19:31 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	04/11/11 12:46 / dc
Nitrogen, Nitrate+Nitrite as N	0.8	mg/L		0.1		E353.2	04/14/11 12:31 / dc
Potassium	10	mg/L		1		E200.7	04/21/11 19:31 / cp
Silica	81.4	mg/L		0.2		E200.7	04/21/11 19:31 / cp
Sodium	83	mg/L		1		E200.7	04/21/11 19:31 / cp
Sulfate	27	mg/L		1		E300.0	04/13/11 05:51 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	407	umhos/cm		1		A2510 B	04/08/11 17:08 / lr
pH	8.65	s.u.		0.01		A4500-H B	04/08/11 17:08 / lr
Solids, Total Dissolved TDS @ 180 C	306	mg/L		10		A2540 C	04/08/11 17:02 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.7	04/21/11 19:31 / cp
Arsenic	0.006	mg/L		0.001		E200.8	04/12/11 02:21 / sml
Barium	ND	mg/L		0.1		E200.8	04/12/11 02:21 / sml
Boron	ND	mg/L		0.1		E200.7	04/21/11 19:31 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/12/11 02:21 / sml
Chromium	ND	mg/L		0.05		E200.8	04/12/11 02:21 / sml
Copper	ND	mg/L		0.01		E200.8	04/12/11 02:21 / sml
Iron	ND	mg/L		0.03		E200.7	04/21/11 19:31 / cp
Lead	ND	mg/L		0.001		E200.8	04/12/11 02:21 / sml
Manganese	ND	mg/L		0.01		E200.8	04/12/11 02:21 / sml
Mercury	ND	mg/L		0.001		E200.8	04/12/11 02:21 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/12/11 02:21 / sml
Nickel	ND	mg/L		0.05		E200.8	04/12/11 02:21 / sml
Selenium	ND	mg/L		0.001		E200.8	04/12/11 02:21 / sml
Uranium	0.0075	mg/L		0.0003		E200.8	04/12/11 02:21 / sml
Uranium, Activity	5.0E-09	uCi/mL		2.0E-10		E200.8	04/12/11 02:21 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/12/11 02:21 / sml
Zinc	ND	mg/L		0.01		E200.8	04/12/11 02:21 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/13/11 21:20 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/13/11 21:20 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040296-003
Client Sample ID: BOW-8

Report Date: 05/31/11
Collection Date: 04/05/11
DateReceived: 04/08/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	05/13/11 16:16 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	05/13/11 16:16 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	05/13/11 16:16 / eli-cs
Polonium 210	<1.1	pCi/L	U	1.1		E912.0	05/09/11 09:07 / ep
Polonium 210 precision (±)	0.5	pCi/L				E912.0	05/09/11 09:07 / ep
Polonium 210 MDC	1.1	pCi/L				E912.0	05/09/11 09:07 / ep
Radium 226	<0.2	pCi/L	U	0.2		E903.0	04/25/11 15:52 / dmf
Radium 226 precision (±)	0.08	pCi/L				E903.0	04/25/11 15:52 / dmf
Radium 226 MDC	0.2	pCi/L				E903.0	04/25/11 15:52 / dmf
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/02/11 09:12 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	05/02/11 09:12 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/02/11 09:12 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<1.1	pCi/L	U	1.1		E909.0	05/19/11 19:26 / eli-cs
Lead 210 precision (±)	0.7	pCi/L				E909.0	05/19/11 19:26 / eli-cs
Lead 210 MDC	1.1	pCi/L				E909.0	05/19/11 19:26 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/05/11 11:49 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	05/05/11 11:49 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/05/11 11:49 / ep
Radium 226	0.3	pCi/L		0.1		E903.0	04/26/11 01:24 / trs
Radium 226 precision (±)	0.09	pCi/L				E903.0	04/26/11 01:24 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	04/26/11 01:24 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/09/11 14:36 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	05/09/11 14:36 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/09/11 14:36 / dmf
DATA QUALITY							
A/C Balance (± 5)	0.681	%				Calculation	04/29/11 15:40 / kbh
Anions	4.46	meq/L				Calculation	04/29/11 15:40 / kbh
Cations	4.52	meq/L				Calculation	04/29/11 15:40 / kbh
Solids, Total Dissolved Calculated	355	mg/L				Calculation	04/29/11 15:40 / kbh
TDS Balance (0.80 - 1.20)	0.860					Calculation	04/29/11 15:40 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/31/11

Project: Marsland Baseline Samples **Work Order:** C11040296

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R144652
Sample ID: MBLK	3	Method Blank				Run: MANTECH_110408B				04/08/11 17:09
Alkalinity, Total as CaCO3		2	mg/L	1						
Carbonate as CO3		ND	mg/L	1						
Bicarbonate as HCO3		3	mg/L	1						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110408B				04/08/11 17:25
Alkalinity, Total as CaCO3		214	mg/L	5.0	106	90	110			
Sample ID: C11040294-001AMS		Sample Matrix Spike				Run: MANTECH_110408B				04/09/11 00:59
Alkalinity, Total as CaCO3		217	mg/L	5.0	98	80	120			
Sample ID: C11040294-012ADUP		Sample Duplicate				Run: MANTECH_110408B				04/09/11 02:32
Alkalinity, Total as CaCO3		87.1	mg/L	5.0				0.3	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/31/11

Project: Marsland Baseline Samples **Work Order:** C11040296

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: ORION555A-2_110408B		
Sample ID: ICV2_110408_2		Initial Calibration Verification Standard							04/08/11 15:34	
Conductivity @ 25 C		1390	umhos/cm	1.0	98	90	110			
Method: A2510 B								Batch: 110408_2_PH-W_555A-2		
Sample ID: MBLK1_110408_2		Method Blank				Run: ORION555A-2_110408B			04/08/11 15:30	
Conductivity @ 25 C		0.7	umhos/cm	0.2						
Sample ID: C11040297-001BDUP		Sample Duplicate				Run: ORION555A-2_110408B			04/08/11 17:11	
Conductivity @ 25 C		863	umhos/cm	1.0				0.2	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Report Date: 05/31/11
Project: Marsland Baseline Samples
Work Order: C11040296

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: 110408_2_SLDS-TDS-W	
Sample ID: MBLK1_110408		Method Blank				Run: BAL-1_110408B			04/08/11 16:52	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	4						
Sample ID: LCS1_110408		Laboratory Control Sample				Run: BAL-1_110408B			04/08/11 16:53	
Solids, Total Dissolved TDS @ 180 C		989	mg/L	10	99	90	110			
Sample ID: C11040296-002ADUP		Sample Duplicate				Run: BAL-1_110408B			04/08/11 17:02	
Solids, Total Dissolved TDS @ 180 C		382	mg/L	10				1.6	10	
Sample ID: C11040297-001AMS		Sample Matrix Spike				Run: BAL-1_110408B			04/08/11 17:02	
Solids, Total Dissolved TDS @ 180 C		2520	mg/L	10	100	90	110			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/31/11

Project: Marsland Baseline Samples **Work Order:** C11040296

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R144774
Sample ID: MBLK		Method Blank				Run: MANTECH_110413A				04/13/11 08:54
Fluoride		0.02	mg/L	0.008						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110413A				04/13/11 09:01
Fluoride		0.980	mg/L	0.10	96	90	110			
Sample ID: C11040297-001BMS		Sample Matrix Spike				Run: MANTECH_110413A				04/13/11 09:42
Fluoride		1.65	mg/L	0.10	98	80	120			
Sample ID: C11040297-001BMSD		Sample Matrix Spike Duplicate				Run: MANTECH_110413A				04/13/11 09:45
Fluoride		1.68	mg/L	0.10	101	80	120	1.8	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/31/11
Work Order: C11040296

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION555A-2_110408B		
Sample ID: ICV1_110408_2		Initial Calibration Verification Standard							04/08/11 15:31	
pH		6.92	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 110408_2_PH-W_555A-2		
Sample ID: C11040297-001BDUP		Sample Duplicate				Run: ORION555A-2_110408B			04/08/11 17:11	
pH		8.21	s.u.	0.010				0.1	3	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/31/11

Project: Marsland Baseline Samples **Work Order:** C11040296

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										*Batch: R144668*
Sample ID: MBLK-13		Method Blank				Run: TECHNICON_110411A				04/11/11 11:14
Nitrogen, Ammonia as N		ND	mg/L	0.02						
Sample ID: LCS-14		Laboratory Control Sample				Run: TECHNICON_110411A				04/11/11 11:16
Nitrogen, Ammonia as N		1.95	mg/L	0.050	98	90	110			
Sample ID: C11040297-001EMS		Sample Matrix Spike				Run: TECHNICON_110411A				04/11/11 12:50
Nitrogen, Ammonia as N		1.76	mg/L	0.050	88	80	120			
Sample ID: C11040297-001EMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110411A				04/11/11 12:52
Nitrogen, Ammonia as N		1.79	mg/L	0.050	90	80	120	1.7	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/31/11
Work Order: C11040296

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R145060
Sample ID: MB-110421A	8	Method Blank				Run: ICP2-C_110421A				04/21/11 12:28
Aluminum		ND	mg/L	0.01						
Boron		0.04	mg/L	0.01						
Calcium		ND	mg/L	0.1						
Iron		ND	mg/L	0.001						
Magnesium		ND	mg/L	0.05						
Potassium		ND	mg/L	0.05						
Silicon		ND	mg/L	0.007						
Sodium		ND	mg/L	0.2						
Sample ID: LFB-110421A	8	Laboratory Fortified Blank				Run: ICP2-C_110421A				04/21/11 12:32
Aluminum		0.906	mg/L	0.10	91	85	115			
Boron		0.945	mg/L	0.10	91	85	115			
Calcium		46.2	mg/L	0.50	92	85	115			
Iron		0.941	mg/L	0.030	94	85	115			
Magnesium		45.2	mg/L	0.50	90	85	115			
Potassium		46.5	mg/L	0.50	93	85	115			
Silicon		0.447	mg/L	0.10	95	85	115			
Sodium		48.7	mg/L	0.50	97	85	115			
Sample ID: C11040312-003CMS2	8	Sample Matrix Spike				Run: ICP2-C_110421A				04/21/11 19:43
Aluminum		9.01	mg/L	0.10	88	70	130			
Boron		9.96	mg/L	0.31	93	70	130			
Calcium		1130	mg/L	1.4	89	70	130			
Iron		9.68	mg/L	0.078	95	70	130			
Magnesium		1200	mg/L	1.0	90	70	130			
Potassium		444	mg/L	1.0	84	70	130			
Silicon		13.4	mg/L	0.15	99	70	130			
Sodium		788	mg/L	2.3	94	70	130			
Sample ID: C11040312-003CMSD	8	Sample Matrix Spike Duplicate				Run: ICP2-C_110421A				04/21/11 19:47
Aluminum		9.09	mg/L	0.10	89	70	130	0.9	20	
Boron		10.2	mg/L	0.31	96	70	130	2.7	20	
Calcium		1130	mg/L	1.4	88	70	130	0.4	20	
Iron		9.72	mg/L	0.078	95	70	130	0.4	20	
Magnesium		1190	mg/L	1.0	88	70	130	0.7	20	
Potassium		444	mg/L	1.0	84	70	130	0.1	20	
Silicon		13.5	mg/L	0.15	101	70	130	0.5	20	
Sodium		796	mg/L	2.3	96	70	130	1.0	20	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/31/11

Project: Marsland Baseline Samples **Work Order:** C11040296

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144696
Sample ID: LRB	14	Method Blank				Run: ICPMS2-C_110411A				04/11/11 12:14
Arsenic		ND	mg/L	6E-05						
Barium		ND	mg/L	3E-05						
Cadmium		ND	mg/L	1E-05						
Chromium		6E-05	mg/L	4E-05						
Copper		ND	mg/L	7E-05						
Lead		ND	mg/L	3E-05						
Manganese		ND	mg/L	5E-05						
Mercury		ND	mg/L	8E-05						
Molybdenum		ND	mg/L	5E-05						
Nickel		ND	mg/L	0.0007						
Selenium		ND	mg/L	0.0002						
Uranium		ND	mg/L	1E-05						
Vanadium		ND	mg/L	3E-05						
Zinc		ND	mg/L	0.0003						
Sample ID: LFB	14	Laboratory Fortified Blank				Run: ICPMS2-C_110411A				04/11/11 12:21
Arsenic		0.0521	mg/L	0.0010	104	85	115			
Barium		0.0525	mg/L	0.0010	105	85	115			
Cadmium		0.0514	mg/L	0.0010	103	85	115			
Chromium		0.0511	mg/L	0.0010	102	85	115			
Copper		0.0515	mg/L	0.0010	103	85	115			
Lead		0.0511	mg/L	0.0010	102	85	115			
Manganese		0.0514	mg/L	0.0010	103	85	115			
Mercury		0.00532	mg/L	0.0010	106	85	115			
Molybdenum		0.0518	mg/L	0.0010	104	85	115			
Nickel		0.0511	mg/L	0.0010	102	85	115			
Selenium		0.0529	mg/L	0.0010	106	85	115			
Uranium		0.0497	mg/L	0.00030	99	85	115			
Vanadium		0.0510	mg/L	0.0010	102	85	115			
Zinc		0.0521	mg/L	0.0010	104	85	115			
Sample ID: C11040297-001CMS4	14	Sample Matrix Spike				Run: ICPMS2-C_110411A				04/12/11 02:34
Arsenic		0.0807	mg/L	0.0010	101	70	130			
Barium		0.0560	mg/L	0.0010	103	70	130			
Cadmium		0.0490	mg/L	0.010	98	70	130			
Chromium		0.0481	mg/L	0.0010	95	70	130			
Copper		0.0524	mg/L	0.010	97	70	130			
Lead		0.0525	mg/L	0.050	105	70	130			
Manganese		0.0541	mg/L	0.010	97	70	130			
Mercury		0.00520	mg/L	0.0010	104	70	130			
Molybdenum		0.155	mg/L	0.10	117	70	130			
Nickel		0.0496	mg/L	0.0010	99	70	130			
Selenium		0.0483	mg/L	0.0010	96	70	130			
Uranium		0.963	mg/L	0.00030		70	130			A
Vanadium		0.112	mg/L	0.10	104	70	130			
Zinc		0.0524	mg/L	0.010	98	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/31/11
Work Order: C11040296

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R144696	
Sample ID: C11040297-001CMSD	14	Sample Matrix Spike Duplicate				Run: ICPMS2-C_110411A			04/12/11 02:41	
Arsenic		0.0819	mg/L	0.0010	104	70	130	1.5	20	
Barium		0.0577	mg/L	0.0010	106	70	130	3.0	20	
Cadmium		0.0499	mg/L	0.010	100	70	130	1.8	20	
Chromium		0.0483	mg/L	0.0010	96	70	130	0.5	20	
Copper		0.0519	mg/L	0.010	96	70	130	1.0	20	
Lead		0.0532	mg/L	0.050	106	70	130	1.2	20	
Manganese		0.0546	mg/L	0.010	98	70	130	0.9	20	
Mercury		0.00532	mg/L	0.0010	106	70	130	2.3	20	
Molybdenum		0.154	mg/L	0.10	115	70	130	0.8	20	
Nickel		0.0491	mg/L	0.0010	98	70	130	0.9	20	
Selenium		0.0501	mg/L	0.0010	99	70	130	3.6	20	
Uranium		0.957	mg/L	0.00030		70	130	0.6	20	A
Vanadium		0.111	mg/L	0.10	102	70	130	1.0	20	
Zinc		0.0523	mg/L	0.010	97	70	130	0.2	20	
Method: E200.8									Batch: 29539A	
Sample ID: C11040296-003HMS		Sample Matrix Spike				Run: ICPMS4-C_110413A			04/13/11 21:24	
Uranium		0.00476	mg/L	0.00030	101	70	130			
Sample ID: C11040296-003HMSD		Sample Matrix Spike Duplicate				Run: ICPMS4-C_110413A			04/13/11 21:28	
Uranium		0.00506	mg/L	0.00030	108	70	130	6.2	20	
Sample ID: MB-29539		Method Blank				Run: ICPMS4-C_110413A			04/13/11 19:34	
Uranium		3E-05	pCi/Filter							
Sample ID: LCS2-29539		Laboratory Control Sample				Run: ICPMS4-C_110413A			04/13/11 19:38	
Uranium		0.104	pCi/Filter	0.00030	104	85	115			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/31/11

Project: Marsland Baseline Samples **Work Order:** C11040296

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: IC2-C_110412A	
Sample ID: ICV	2	Initial Calibration Verification Standard							04/12/11 14:25	
Chloride		10.1	mg/L	1.0	101	90	110			
Sulfate		41.0	mg/L	1.0	102	90	110			
Method: E300.0									Batch: R144811	
Sample ID: MBLK	2	Method Blank				Run: IC2-C_110412A			04/12/11 14:41	
Chloride		ND	mg/L	0.04						
Sulfate		ND	mg/L	0.1						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: IC2-C_110412A			04/12/11 14:56	
Chloride		12.4	mg/L	1.0	99	90	110			
Sulfate		50.6	mg/L	1.0	101	90	110			
Sample ID: C11040306-003AMS	2	Sample Matrix Spike				Run: IC2-C_110412A			04/13/11 07:08	
Chloride		269	mg/L	4.0	103	80	120			
Sulfate		5490	mg/L	16		80	120			A
Sample ID: C11040306-003AMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110412A			04/13/11 07:23	
Chloride		270	mg/L	4.0	103	80	120	0.1	10	
Sulfate		5390	mg/L	16		80	120	1.8	10	A

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/31/11
Work Order: C11040296

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R144840
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110414B				04/14/11 11:38
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.06						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110414B				04/14/11 11:41
Nitrogen, Nitrate+Nitrite as N		2.65	mg/L	0.10	106	90	110			
Sample ID: C11040296-003GMS		Sample Matrix Spike				Run: TECHNICON_110414B				04/14/11 12:34
Nitrogen, Nitrate+Nitrite as N		2.87	mg/L	0.10	105	90	110			
Sample ID: C11040296-003GMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110414B				04/14/11 12:36
Nitrogen, Nitrate+Nitrite as N		2.89	mg/L	0.10	106	90	110	0.7	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/31/11

Project: Marsland Baseline Samples **Work Order:** C11040296

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0									Batch: RA226-5294	
Sample ID: C11040296-001DMS		Sample Matrix Spike				Run: BERTHOLD 770-1_110415A			04/25/11 14:18	
Radium 226		14	pCi/L		108	70	130			
Sample ID: C11040296-001DMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-1_110415A			04/25/11 15:52	
Radium 226		14	pCi/L		108	70	130	0.1	27	
Sample ID: MB-RA226-5294	3	Method Blank				Run: BERTHOLD 770-1_110415A			04/25/11 17:30	
Radium 226		-0.1	pCi/L							U
Radium 226 precision (±)		0.06	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Sample ID: LCS-RA226-5294		Laboratory Control Sample				Run: BERTHOLD 770-1_110415A			04/25/11 17:30	
Radium 226		6.6	pCi/L		106	85	115			
Method: E903.0									Batch: R145159	
Sample ID: LCS-29538		Laboratory Control Sample				Run: TENNELEC-3_110419A			04/25/11 23:45	
Radium 226		12.2	pCi/Filter		101	70	130			
Sample ID: MB-29538	3	Method Blank				Run: TENNELEC-3_110419A			04/25/11 23:44	
Radium 226		0.03	pCi/Filter							U
Radium 226 precision (±)		0.1	pCi/Filter							
Radium 226 MDC		0.2	pCi/Filter							
Sample ID: C11040296-001HMS		Sample Matrix Spike				Run: TENNELEC-3_110419A			04/26/11 01:24	
Radium 226		10	pCi/L		101	70	130			
Sample ID: C11040296-001HMSD		Sample Matrix Spike Duplicate				Run: TENNELEC-3_110419A			04/26/11 01:24	
Radium 226		9.2	pCi/L		93	70	130	8.7	24.1	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 05/31/11
Work Order: C11040296

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0										Batch: RA-TH-ISO-1373
Sample ID: LCS-RA-TH-ISO-1373		Laboratory Control Sample				Run: EGG-ORTEC_110428A				05/02/11 09:12
Thorium 230		5.4	pCi/L		96	70	130			
Sample ID: C11040105-001DMS		Sample Matrix Spike				Run: EGG-ORTEC_110428A				05/02/11 09:11
Thorium 230		12	pCi/L		102	70	130			
Sample ID: C11040105-001DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110428A				05/02/11 09:11
Thorium 230		12	pCi/L		101	70	130	0.4	37.2	
Sample ID: MB-RA-TH-ISO-1373	3	Method Blank				Run: EGG-ORTEC_110428A				05/02/11 13:54
Thorium 230		-0.01	pCi/L							U
Thorium 230 precision (±)		0.06	pCi/L							
Thorium 230 MDC		0.1	pCi/L							
Method: E908.0										Batch: R146350
Sample ID: LCS-29539		Laboratory Control Sample				Run: EGG-ORTEC_110504A				05/09/11 14:36
Thorium 230		11	pCi/L		108	70	130			
Sample ID: MB-29539	3	Method Blank				Run: EGG-ORTEC_110504A				05/09/11 14:36
Thorium 230		0.05	pCi/L							U
Thorium 230 precision (±)		0.2	pCi/L							
Thorium 230 MDC		0.4	pCi/L							
Sample ID: C11040726-006HMS		Sample Matrix Spike				Run: EGG-ORTEC_110504A				05/09/11 14:37
Thorium 230		9.9	pCi/L		116	70	130			
Sample ID: C11040726-006HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110504A				05/09/11 14:36
Thorium 230		8.4	pCi/L		97	70	130	16	48.1	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/31/11

Project: Marsland Baseline Samples **Work Order:** C11040296

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0									Batch: T_PB-210-0091	
Sample ID: T11040060-003GMSD		Sample Matrix Spike Duplicate				Run: SUB-T40353			05/12/11 13:59	
Lead 210		140	pCi/L		104	70	130	4.8	15.1	
Sample ID: MB-PB-210-0091	3	Method Blank				Run: SUB-T40353			05/12/11 05:13	
Lead 210		-0.9	pCi/L							U
Lead 210 precision (±)		1	pCi/L							
Lead 210 MDC		2	pCi/L							
Sample ID: LCS-PB-210-0091		Laboratory Control Sample				Run: SUB-T40353			05/12/11 07:25	
Lead 210		74	pCi/L		104	70	130			
Sample ID: T11040060-003GMS		Sample Matrix Spike				Run: SUB-T40353			05/12/11 11:47	
Lead 210		150	pCi/L		109	70	130			
Method: E909.0									Batch: T_13785	
Sample ID: T11040079-001AMSD		Sample Matrix Spike Duplicate				Run: SUB-T40467			05/18/11 12:44	
Lead 210		1.39	pCi/Filter		96	70	130	9.0	17.1	
Sample ID: MB-13785	3	Method Blank				Run: SUB-T40467			05/18/11 03:58	
Lead 210		-10	pCi/Filter							U
Lead 210 precision (±)		7	pCi/Filter							
Lead 210 MDC		10	pCi/Filter							
Sample ID: LCS-13785		Laboratory Control Sample				Run: SUB-T40467			05/18/11 06:10	
Lead 210		328	pCi/Filter		95	70	130			
Sample ID: T11040079-001AMS		Sample Matrix Spike				Run: SUB-T40467			05/18/11 10:33	
Lead 210		1.27	pCi/Filter		87	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 05/31/11

Project: Marsland Baseline Samples **Work Order:** C11040296

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0										Batch: R146175
Sample ID: C11040296-001HMS		Sample Matrix Spike				Run: EGG-ORTEC_110503C				05/05/11 08:57
Polonium 210		5.3	pCi/L		100	70	130			
Sample ID: C11040296-001HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110503C				05/05/11 11:49
Polonium 210		5.7	pCi/L		108	70	130	7.9	67.5	
Sample ID: LCS-29539		Laboratory Control Sample				Run: EGG-ORTEC_110503C				05/05/11 11:49
Polonium 210		0.43	pCi/L			70	130			US
- LCS response is outside of the acceptance range for this analysis. Since the MB, MS, MSD, and all tracer recoveries are acceptable the batch is approved.										
Sample ID: MB-29539	3	Method Blank				Run: EGG-ORTEC_110503C				05/05/11 11:49
Polonium 210		0.3	pCi/L							U
Polonium 210 precision (±)		1	pCi/L							
Polonium 210 MDC		2	pCi/L							
Sample ID: LCS-29662		Laboratory Control Sample				Run: EGG-ORTEC_110503C				05/05/11 11:49
Polonium 210		38	pCi/L		127	70	130			
Method: E912.0										Batch: PO210-0365
Sample ID: C11040296-001EMS		Sample Matrix Spike				Run: EGG-ORTEC_110507A				05/09/11 09:07
Polonium 210		12	pCi/L		89	70	130			
Sample ID: C11040296-001EMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110507A				05/09/11 09:07
Polonium 210		17	pCi/L		127	70	130	35	67.6	
Sample ID: MB-PO210-0365	3	Method Blank				Run: EGG-ORTEC_110507A				05/09/11 11:17
Polonium 210		ND	pCi/L							U
Polonium 210 precision (±)		0.2	pCi/L							
Polonium 210 MDC		0.6	pCi/L							
Sample ID: LCS-PO210-0365		Laboratory Control Sample				Run: EGG-ORTEC_110507A				05/09/11 11:17
Polonium 210		6.4	pCi/L		101	70	130			
Method: E912.0										Batch: PO210-0371
Sample ID: C11040296-002HMS		Sample Matrix Spike				Run: EGG-ORTEC_110516A				05/23/11 14:03
Polonium 210		4.8	pCi/L		89	70	130			
Sample ID: C11040296-002HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110516A				05/23/11 14:03
Polonium 210		5.1	pCi/L		96	70	130	7.2	66.9	
Sample ID: LCS-29539		Laboratory Control Sample				Run: EGG-ORTEC_110516A				05/19/11 09:04
Polonium 210		40	pCi/L		132	70	130			S
- LCS response is outside of the acceptance range for this analysis. Since the MB, MS, MSD, other LCSs, and all tracer recoveries are acceptable the batch is approved.										
Sample ID: MB-29539	3	Method Blank				Run: EGG-ORTEC_110516A				05/19/11 09:04
Polonium 210		0.5	pCi/L							U
Polonium 210 precision (±)		1	pCi/L							
Polonium 210 MDC		2	pCi/L							
Sample ID: LCS-29764		Laboratory Control Sample				Run: EGG-ORTEC_110516A				05/19/11 09:04
Polonium 210		2.8E-05	uCi/kg		88	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

U - Not detected at minimum detectable concentration

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

Workorder Receipt Checklist

Crow Butte Resources

C11040296

Login completed by: Edith McPike
Date Received: 4/8/2011
Reviewed by: BL2000\hackerman
Received by: ha
Reviewed Date: 4/11/2011
Carrier name: Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	6.8°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

Samples to filtered and preserved in the lab for dissolved radionuclides.

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name: Marsland Baseline Samples	Sample Origin: State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169, Crawford, NE 69339	Contact Name: Larry Teahon; Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass, Rhonda Pelton
Invoice Address: P.O. Box 169, Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon, 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

RUSH: Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling. Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 requirements. Record U as mg/L and µCi/ml and radiometrics as pCi/L.

Shipped by: UPS CRD
Cooler ID(s): Client
Receipt Temp: 6.8 °C
On Ice: (Yes) No
Custody Seal: Y (N)
Intact: Y N
Signature Match: Y N

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O; Air Water Soils/Solids Vegetation Bioassay Other)	HNO3-F, Metals	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	Raw-UF, Ra226, Po210 dis, sus	Raw-UF, Pb210 dis and sus	Rau-UF, Th230, U-nat dis and sus			SEE ATTACHED	Normal Turnaround (TAT)		
1	BOW-4A	4/5/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/10/11
2	BOW-7	4/5/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/10/11
3	BOW-8	4/5/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/10/11
4																	
5																	
6																	
7																	
8																	
9																	
10																	

LABORATORY USE ONLY: 1104027

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Rhonda Pelton	4-6-11 10:30am	Rhonda Pelton	UPS		
			Received by Laboratory:	4-8-11 930	[illegible]

Sample Disposal: Return to Client: No Lab Disposal: YES

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

CROW BUTTE RESOURCES, INC.
CROW BUTTE PROJECT

NO_2^-

DATE: 4/5/11

ANALYST: _____

STANDARD CURVE DATA

NO_2^-	BL	0.01	0.05	0.10			
Abs	0	.031	.170	.343			
Abs							

SAMPLE #	VOLUME	Df	Abs	NO_2^- mg/L
1 PR 8	10 ml	1	-.001	<0.01
2 BOW 4-A	10 ml	1	.057	0.02
3 BOW 7	10 ml	1	.028	0.01
4 BOW 8	10 ml	1	.001	<0.01
5				
Dup BOW 4-A	10 ml	1	.059	0.02
6 BOW 8 Dup	10 ml	1	.000	<0.01
7				
8				
9				
10				
Dup				
11				
12				
13				
14				
15				
Dup				
16				
17				
18				
19				
20				
Dup				
21				
22				
23				
24				
25				
Dup				

ANALYTICAL SUMMARY REPORT

June 10, 2011

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C11040326 Quote ID: C1125 - Crow Butte Uranium

Project Name: Marsland Baseline Samples

Energy Laboratories, Inc. Casper WY received the following 5 samples for Crow Butte Resources on 4/11/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11040326-001	Well #705	04/06/11 00:00	04/11/11	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Uranium, Suspended Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C11040326-002	Well #788	04/06/11 00:00	04/11/11	Aqueous	Same As Above
C11040326-003	BOW-1	04/06/11 00:00	04/11/11	Aqueous	Same As Above
C11040326-004	Well #727	04/06/11 00:00	04/11/11	Aqueous	Same As Above
C11040326-005	CPW-2010-1	04/06/11 00:00	04/11/11	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Crow Butte Resources
Project: Marsland Baseline Samples
Sample Delivery Group: C11040326

Report Date: 06/10/11

CASE NARRATIVE

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

BRANCH LABORATORY SUBCONTRACT ANALYSIS
Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.

PREP COMMENTS
The prep hold time for the Filtration of metals was exceeded by up to 4.34 days.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040326-001
Client Sample ID: Well #705

Report Date: 06/10/11
Collection Date: 04/06/11
DateReceived: 04/11/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	150	mg/L		1		A2320 B	04/13/11 15:47 / jba
Carbonate as CO3	ND	mg/L		1		A2320 B	04/13/11 15:47 / jba
Bicarbonate as HCO3	184	mg/L		1		A2320 B	04/13/11 15:47 / jba
Calcium	35	mg/L		1		E200.7	04/22/11 13:57 / cp
Chloride	3	mg/L		1		E300.0	04/13/11 15:21 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	04/13/11 09:55 / jba
Magnesium	8	mg/L		1		E200.7	04/22/11 13:57 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	04/13/11 12:46 / dc
Nitrogen, Nitrate+Nitrite as N	1.4	mg/L		0.1		E353.2	04/14/11 14:24 / dc
Potassium	4	mg/L		1		E200.7	04/22/11 13:57 / cp
Silica	74.6	mg/L		0.2		E200.7	04/22/11 13:57 / cp
Sodium	19	mg/L		1		E200.7	04/22/11 13:57 / cp
Sulfate	9	mg/L		1		E300.0	04/13/11 15:21 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	306	umhos/cm		1		A2510 B	04/12/11 13:06 / lr
pH	7.74	s.u.		0.01		A4500-H B	04/12/11 13:06 / lr
Solids, Total Dissolved TDS @ 180 C	227	mg/L		10		A2540 C	04/12/11 13:43 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	04/13/11 16:55 / sml
Arsenic	0.004	mg/L		0.001		E200.8	04/13/11 16:55 / sml
Barium	0.1	mg/L		0.1		E200.8	04/13/11 16:55 / sml
Boron	ND	mg/L		0.1		E200.7	04/22/11 13:57 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/13/11 16:55 / sml
Chromium	ND	mg/L		0.05		E200.8	04/13/11 16:55 / sml
Copper	ND	mg/L		0.01		E200.8	04/13/11 16:55 / sml
Iron	0.04	mg/L		0.03		E200.7	04/22/11 13:57 / cp
Lead	ND	mg/L		0.001		E200.8	04/13/11 16:55 / sml
Manganese	ND	mg/L		0.01		E200.8	04/13/11 16:55 / sml
Mercury	ND	mg/L		0.001		E200.8	04/13/11 16:55 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/13/11 16:55 / sml
Nickel	ND	mg/L		0.05		E200.8	04/13/11 16:55 / sml
Selenium	0.001	mg/L		0.001		E200.8	04/13/11 16:55 / sml
Uranium	0.0071	mg/L		0.0003		E200.8	04/13/11 16:55 / sml
Uranium, Activity	4.8E-09	uCi/mL		2.0E-10		E200.8	04/13/11 16:55 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/13/11 16:55 / sml
Zinc	0.06	mg/L		0.01		E200.8	04/13/11 16:55 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/21/11 13:46 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/21/11 13:46 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040326-001
Client Sample ID: Well #705

Report Date: 06/10/11
Collection Date: 04/06/11
DateReceived: 04/11/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<1.3	pCi/L	U	1.3		E909.0	05/16/11 04:37 / eli-cs
Lead 210 precision (±)	0.8	pCi/L				E909.0	05/16/11 04:37 / eli-cs
Lead 210 MDC	1.3	pCi/L				E909.0	05/16/11 04:37 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	05/09/11 09:07 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	05/09/11 09:07 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	05/09/11 09:07 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 11:18 / trs
Radium 226 precision (±)	0.07	pCi/L				E903.0	05/02/11 11:18 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 11:18 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	05/10/11 08:41 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	05/10/11 08:41 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	05/10/11 08:41 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	05/22/11 15:42 / eli-cs
Lead 210 precision (±)	0.6	pCi/L				E909.0	05/22/11 15:42 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	05/22/11 15:42 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/05/11 11:49 / ep
Polonium 210 precision (±)	0.07	pCi/L				E912.0	05/05/11 11:49 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/05/11 11:49 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 21:53 / trs
Radium 226 precision (±)	0.04	pCi/L				E903.0	05/02/11 21:53 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 21:53 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/04/11 15:26 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	05/04/11 15:26 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/04/11 15:26 / dmf
DATA QUALITY							
A/C Balance (± 5)	-0.777	%				Calculation	05/02/11 08:35 / kbh
Anions	3.40	meq/L				Calculation	05/02/11 08:35 / kbh
Cations	3.35	meq/L				Calculation	05/02/11 08:35 / kbh
Solids, Total Dissolved Calculated	270	mg/L				Calculation	05/02/11 08:35 / kbh
TDS Balance (0.80 - 1.20)	0.840					Calculation	05/02/11 08:35 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040326-002
Client Sample ID: Well #788

Report Date: 06/10/11
Collection Date: 04/06/11
DateReceived: 04/11/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	151	mg/L		1		A2320 B	04/13/11 16:11 / jba
Carbonate as CO3	ND	mg/L		1		A2320 B	04/13/11 16:11 / jba
Bicarbonate as HCO3	184	mg/L		1		A2320 B	04/13/11 16:11 / jba
Calcium	33	mg/L		1		E200.7	04/22/11 14:09 / cp
Chloride	3	mg/L		1		E300.0	04/13/11 15:36 / ljl
Fluoride	0.4	mg/L		0.1		A4500-F C	04/13/11 10:08 / jba
Magnesium	9	mg/L		1		E200.7	04/22/11 14:09 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	04/13/11 12:48 / dc
Nitrogen, Nitrate+Nitrite as N	2.1	mg/L		0.1		E353.2	04/14/11 14:26 / dc
Potassium	4	mg/L		1		E200.7	04/22/11 14:09 / cp
Silica	72.1	mg/L		0.2		E200.7	04/22/11 14:09 / cp
Sodium	20	mg/L		1		E200.7	04/22/11 14:09 / cp
Sulfate	7	mg/L		1		E300.0	04/13/11 15:36 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	309	umhos/cm		1		A2510 B	04/12/11 13:08 / lr
pH	7.86	s.u.		0.01		A4500-H B	04/12/11 13:08 / lr
Solids, Total Dissolved TDS @ 180 C	221	mg/L		10		A2540 C	04/12/11 13:43 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	04/14/11 02:51 / sml
Arsenic	0.003	mg/L		0.001		E200.8	04/14/11 02:51 / sml
Barium	0.1	mg/L		0.1		E200.8	04/14/11 02:51 / sml
Boron	0.1	mg/L		0.1		E200.7	04/22/11 14:09 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/14/11 02:51 / sml
Chromium	ND	mg/L		0.05		E200.8	04/14/11 02:51 / sml
Copper	ND	mg/L		0.01		E200.8	04/14/11 02:51 / sml
Iron	ND	mg/L		0.03		E200.7	04/22/11 14:09 / cp
Lead	ND	mg/L		0.001		E200.8	04/14/11 02:51 / sml
Manganese	ND	mg/L		0.01		E200.8	04/14/11 02:51 / sml
Mercury	ND	mg/L		0.001		E200.8	04/14/11 02:51 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/14/11 02:51 / sml
Nickel	ND	mg/L		0.05		E200.8	04/14/11 02:51 / sml
Selenium	0.001	mg/L		0.001		E200.8	04/14/11 02:51 / sml
Uranium	0.0073	mg/L		0.0003		E200.8	04/14/11 02:51 / sml
Uranium, Activity	4.9E-09	uCi/mL		2.0E-10		E200.8	04/14/11 02:51 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/14/11 02:51 / sml
Zinc	0.07	mg/L		0.01		E200.8	04/14/11 02:51 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/21/11 13:50 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/21/11 13:50 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040326-002
Client Sample ID: Well #788

Report Date: 06/10/11
Collection Date: 04/06/11
DateReceived: 04/11/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	05/16/11 11:11 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	05/16/11 11:11 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	05/16/11 11:11 / eli-cs
Polonium 210	<0.5	pCi/L	U	0.5		E912.0	05/09/11 09:07 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	05/09/11 09:07 / ep
Polonium 210 MDC	0.5	pCi/L				E912.0	05/09/11 09:07 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 11:18 / trs
Radium 226 precision (±)	0.05	pCi/L				E903.0	05/02/11 11:18 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 11:18 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	05/10/11 08:41 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	05/10/11 08:41 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	05/10/11 08:41 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/22/11 22:17 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/22/11 22:17 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/22/11 22:17 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/05/11 11:49 / ep
Polonium 210 precision (±)	0.08	pCi/L				E912.0	05/05/11 11:49 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/05/11 11:49 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 21:53 / trs
Radium 226 precision (±)	0.04	pCi/L				E903.0	05/02/11 21:53 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 21:53 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/04/11 15:26 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	05/04/11 15:26 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/04/11 15:26 / dmf
DATA QUALITY							
A/C Balance (± 5)	-1.03	%				Calculation	05/02/11 08:35 / kbh
Anions	3.42	meq/L				Calculation	05/02/11 08:35 / kbh
Cations	3.35	meq/L				Calculation	05/02/11 08:35 / kbh
Solids, Total Dissolved Calculated	268	mg/L				Calculation	05/02/11 08:35 / kbh
TDS Balance (0.80 - 1.20)	0.820					Calculation	05/02/11 08:35 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040326-003
Client Sample ID: BOW-1

Report Date: 06/10/11
Collection Date: 04/06/11
DateReceived: 04/11/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	212	mg/L		1		A2320 B	04/11/11 17:42 / jba
Carbonate as CO3	104	mg/L		1		A2320 B	04/11/11 17:42 / jba
Bicarbonate as HCO3	48	mg/L		1		A2320 B	04/11/11 17:42 / jba
Calcium	5	mg/L		1		E200.7	04/22/11 14:17 / cp
Chloride	63	mg/L		1		E300.0	04/13/11 15:52 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	04/13/11 10:10 / jba
Magnesium	ND	mg/L		1		E200.7	04/22/11 14:17 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	04/13/11 12:50 / dc
Nitrogen, Nitrate+Nitrite as N	1.3	mg/L		0.1		E353.2	04/14/11 14:29 / dc
Potassium	12	mg/L		1		E200.7	04/22/11 14:17 / cp
Silica	110	mg/L		0.2		E200.7	04/22/11 14:17 / cp
Sodium	145	mg/L		1		E200.7	04/22/11 14:17 / cp
Sulfate	62	mg/L	D	2		E300.0	04/13/11 15:52 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	763	umhos/cm		1		A2510 B	04/11/11 14:49 / lr
pH	10.0	s.u.		0.01		A4500-H B	04/11/11 14:49 / lr
Solids, Total Dissolved TDS @ 180 C	537	mg/L		10		A2540 C	04/12/11 13:43 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	04/14/11 02:58 / sml
Arsenic	0.014	mg/L		0.001		E200.8	04/14/11 02:58 / sml
Barium	ND	mg/L		0.1		E200.8	04/14/11 02:58 / sml
Boron	ND	mg/L		0.1		E200.7	04/22/11 14:17 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/14/11 02:58 / sml
Chromium	ND	mg/L		0.05		E200.8	04/14/11 02:58 / sml
Copper	ND	mg/L		0.01		E200.8	04/14/11 02:58 / sml
Iron	ND	mg/L		0.03		E200.7	04/22/11 14:17 / cp
Lead	ND	mg/L		0.001		E200.8	04/14/11 02:58 / sml
Manganese	ND	mg/L		0.01		E200.8	04/14/11 02:58 / sml
Mercury	ND	mg/L		0.001		E200.8	04/14/11 02:58 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/14/11 02:58 / sml
Nickel	ND	mg/L		0.05		E200.8	04/14/11 02:58 / sml
Selenium	0.016	mg/L		0.001		E200.8	04/14/11 02:58 / sml
Uranium	0.0020	mg/L		0.0003		E200.8	04/14/11 02:58 / sml
Uranium, Activity	1.3E-09	uCi/mL		2.0E-10		E200.8	04/14/11 02:58 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/14/11 02:58 / sml
Zinc	0.08	mg/L		0.01		E200.8	04/14/11 02:58 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/21/11 13:54 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/21/11 13:54 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040326-003
Client Sample ID: BOW-1

Report Date: 06/10/11
Collection Date: 04/06/11
DateReceived: 04/11/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	05/16/11 13:23 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	05/16/11 13:23 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	05/16/11 13:23 / eli-cs
Polonium 210	<0.5	pCi/L	U	0.5		E912.0	05/09/11 09:07 / ep
Polonium 210 precision (±)	0.4	pCi/L				E912.0	05/09/11 09:07 / ep
Polonium 210 MDC	0.5	pCi/L				E912.0	05/09/11 09:07 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 11:18 / trs
Radium 226 precision (±)	0.06	pCi/L				E903.0	05/02/11 11:18 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 11:18 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/10/11 08:41 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	05/10/11 08:41 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/10/11 08:41 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	05/23/11 00:28 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/23/11 00:28 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	05/23/11 00:28 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/05/11 11:49 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	05/05/11 11:49 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/05/11 11:49 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 21:53 / trs
Radium 226 precision (±)	0.06	pCi/L				E903.0	05/02/11 21:53 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 21:53 / trs
Thorium 230	0.3	pCi/L		0.1		E908.0	05/04/11 15:26 / dmf
Thorium 230 precision (±)	0.2	pCi/L				E908.0	05/04/11 15:26 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/04/11 15:26 / dmf
DATA QUALITY							
A/C Balance (± 5)	-3.96	%				Calculation	05/02/11 08:36 / kbh
Anions	7.44	meq/L				Calculation	05/02/11 08:36 / kbh
Cations	6.87	meq/L				Calculation	05/02/11 08:36 / kbh
Solids, Total Dissolved Calculated	560	mg/L				Calculation	05/02/11 08:36 / kbh
TDS Balance (0.80 - 1.20)	0.960					Calculation	05/02/11 08:36 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040326-004
Client Sample ID: Well #727

Report Date: 06/10/11
Collection Date: 04/06/11
DateReceived: 04/11/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	160	mg/L		1		A2320 B	04/11/11 17:50 / jba
Carbonate as CO3	ND	mg/L		1		A2320 B	04/11/11 17:50 / jba
Bicarbonate as HCO3	195	mg/L		1		A2320 B	04/11/11 17:50 / jba
Calcium	31	mg/L		1		E200.7	04/22/11 14:22 / cp
Chloride	5	mg/L		1		E300.0	04/13/11 21:16 / ljl
Fluoride	0.5	mg/L		0.1		A4500-F C	04/13/11 10:15 / jba
Magnesium	13	mg/L		1		E200.7	04/22/11 14:22 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	04/13/11 12:58 / dc
Nitrogen, Nitrate+Nitrite as N	1.3	mg/L		0.1		E353.2	04/14/11 14:31 / dc
Potassium	4	mg/L		1		E200.7	04/22/11 14:22 / cp
Silica	81.8	mg/L		0.2		E200.7	04/22/11 14:22 / cp
Sodium	19	mg/L		1		E200.7	04/22/11 14:22 / cp
Sulfate	9	mg/L		1		E300.0	04/13/11 21:16 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	322	umhos/cm		1		A2510 B	04/11/11 14:53 / lr
pH	7.94	s.u.		0.01		A4500-H B	04/11/11 14:53 / lr
Solids, Total Dissolved TDS @ 180 C	247	mg/L		10		A2540 C	04/12/11 13:44 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	04/14/11 03:05 / sml
Arsenic	0.002	mg/L		0.001		E200.8	04/14/11 03:05 / sml
Barium	ND	mg/L		0.1		E200.8	04/14/11 03:05 / sml
Boron	ND	mg/L		0.1		E200.7	04/22/11 14:22 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/14/11 03:05 / sml
Chromium	ND	mg/L		0.05		E200.8	04/14/11 03:05 / sml
Copper	ND	mg/L		0.01		E200.8	04/14/11 03:05 / sml
Iron	ND	mg/L		0.03		E200.7	04/22/11 14:22 / cp
Lead	ND	mg/L		0.001		E200.8	04/14/11 03:05 / sml
Manganese	ND	mg/L		0.01		E200.8	04/14/11 03:05 / sml
Mercury	ND	mg/L		0.001		E200.8	04/14/11 03:05 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/14/11 03:05 / sml
Nickel	ND	mg/L		0.05		E200.8	04/14/11 03:05 / sml
Selenium	0.002	mg/L		0.001		E200.8	04/14/11 03:05 / sml
Uranium	0.0107	mg/L		0.0003		E200.8	04/14/11 03:05 / sml
Uranium, Activity	7.2E-09	uCi/mL		2.0E-10		E200.8	04/14/11 03:05 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/14/11 03:05 / sml
Zinc	0.26	mg/L		0.01		E200.8	04/14/11 03:05 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/21/11 13:58 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/21/11 13:58 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040326-004
Client Sample ID: Well #727

Report Date: 06/10/11
Collection Date: 04/06/11
DateReceived: 04/11/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.7	pCi/L	U	0.7		E909.0	05/16/11 15:34 / eli-cs
Lead 210 precision (±)	0.4	pCi/L				E909.0	05/16/11 15:34 / eli-cs
Lead 210 MDC	0.7	pCi/L				E909.0	05/16/11 15:34 / eli-cs
Polonium 210	<0.8	pCi/L	U	0.8		E912.0	05/09/11 09:07 / ep
Polonium 210 precision (±)	0.5	pCi/L				E912.0	05/09/11 09:07 / ep
Polonium 210 MDC	0.8	pCi/L				E912.0	05/09/11 09:07 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 11:18 / trs
Radium 226 precision (±)	0.05	pCi/L				E903.0	05/02/11 11:18 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 11:18 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/10/11 08:42 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	05/10/11 08:42 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/10/11 08:42 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/23/11 02:39 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/23/11 02:39 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/23/11 02:39 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/06/11 08:47 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	05/06/11 08:47 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/06/11 08:47 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 21:53 / trs
Radium 226 precision (±)	0.04	pCi/L				E903.0	05/02/11 21:53 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 21:53 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/04/11 15:26 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	05/04/11 15:26 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/04/11 15:26 / dmf
DATA QUALITY							
A/C Balance (± 5)	-1.17	%				Calculation	05/02/11 08:36 / kbh
Anions	3.64	meq/L				Calculation	05/02/11 08:36 / kbh
Cations	3.55	meq/L				Calculation	05/02/11 08:36 / kbh
Solids, Total Dissolved Calculated	287	mg/L				Calculation	05/02/11 08:36 / kbh
TDS Balance (0.80 - 1.20)	0.860					Calculation	05/02/11 08:36 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040326-005
Client Sample ID: CPW-2010-1

Report Date: 06/10/11
Collection Date: 04/06/11
DateReceived: 04/11/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	368	mg/L		1		A2320 B	04/11/11 17:58 / jba
Carbonate as CO3	12	mg/L		1		A2320 B	04/11/11 17:58 / jba
Bicarbonate as HCO3	424	mg/L		1		A2320 B	04/11/11 17:58 / jba
Calcium	5	mg/L		1		E200.7	04/22/11 14:26 / cp
Chloride	180	mg/L		1		E300.0	04/13/11 21:31 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	04/13/11 10:24 / jba
Magnesium	1	mg/L		1		E200.7	04/22/11 14:26 / cp
Nitrogen, Ammonia as N	0.26	mg/L		0.05		A4500-NH3 G	04/13/11 13:00 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/14/11 14:41 / dc
Potassium	11	mg/L		1		E200.7	04/22/11 14:26 / cp
Silica	16.4	mg/L		0.2		E200.7	04/22/11 14:26 / cp
Sodium	336	mg/L		1		E200.7	04/22/11 14:26 / cp
Sulfate	94	mg/L	D	4		E300.0	04/13/11 21:31 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1420	umhos/cm		1		A2510 B	04/11/11 14:55 / lr
pH	8.40	s.u.		0.01		A4500-H B	04/11/11 14:55 / lr
Solids, Total Dissolved TDS @ 180 C	853	mg/L		10		A2540 C	04/12/11 13:44 / lmc
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	04/14/11 03:11 / sml
Arsenic	0.002	mg/L		0.001		E200.8	04/14/11 03:11 / sml
Barium	ND	mg/L		0.1		E200.8	04/14/11 03:11 / sml
Boron	1.4	mg/L		0.1		E200.7	04/22/11 14:26 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/14/11 03:11 / sml
Chromium	ND	mg/L		0.05		E200.8	04/14/11 03:11 / sml
Copper	ND	mg/L		0.01		E200.8	04/14/11 03:11 / sml
Iron	ND	mg/L		0.03		E200.7	04/22/11 14:26 / cp
Lead	ND	mg/L		0.001		E200.8	04/14/11 03:11 / sml
Manganese	ND	mg/L		0.01		E200.8	04/14/11 03:11 / sml
Mercury	ND	mg/L		0.001		E200.8	04/14/11 03:11 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/14/11 03:11 / sml
Nickel	ND	mg/L		0.05		E200.8	04/14/11 03:11 / sml
Selenium	0.001	mg/L		0.001		E200.8	04/14/11 03:11 / sml
Uranium	0.0114	mg/L		0.0003		E200.8	04/14/11 03:11 / sml
Uranium, Activity	7.7E-09	uCi/mL		2.0E-10		E200.8	04/14/11 03:11 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/14/11 03:11 / sml
Zinc	ND	mg/L		0.01		E200.8	04/14/11 03:11 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/21/11 14:02 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/21/11 14:02 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040326-005
Client Sample ID: CPW-2010-1

Report Date: 06/10/11
Collection Date: 04/06/11
DateReceived: 04/11/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	9.0	pCi/L		0.6		E909.0	05/16/11 17:46 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/16/11 17:46 / eli-cs
Lead 210 MDC	0.6	pCi/L				E909.0	05/16/11 17:46 / eli-cs
Polonium 210	1.7	pCi/L		0.7		E912.0	05/09/11 09:06 / ep
Polonium 210 precision (±)	0.9	pCi/L				E912.0	05/09/11 09:06 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	05/09/11 09:06 / ep
Radium 226	29	pCi/L		0.1		E903.0	05/02/11 11:18 / trs
Radium 226 precision (±)	1	pCi/L				E903.0	05/02/11 11:18 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 11:18 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	05/10/11 08:42 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	05/10/11 08:42 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	05/10/11 08:42 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	4.0	pCi/L		0.8		E909.0	05/23/11 04:51 / eli-cs
Lead 210 precision (±)	0.6	pCi/L				E909.0	05/23/11 04:51 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/23/11 04:51 / eli-cs
Polonium 210	0.9	pCi/L		0.2		E912.0	05/06/11 08:47 / ep
Polonium 210 precision (±)	0.4	pCi/L				E912.0	05/06/11 08:47 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/06/11 08:47 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 21:53 / trs
Radium 226 precision (±)	0.05	pCi/L				E903.0	05/02/11 21:53 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 21:53 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	05/04/11 15:26 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	05/04/11 15:26 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	05/04/11 15:26 / dmf
DATA QUALITY							
A/C Balance (± 5)	2.86	%				Calculation	05/02/11 08:36 / kbh
Anions	14.4	meq/L				Calculation	05/02/11 08:36 / kbh
Cations	15.3	meq/L				Calculation	05/02/11 08:36 / kbh
Solids, Total Dissolved Calculated	870	mg/L				Calculation	05/02/11 08:36 / kbh
TDS Balance (0.80 - 1.20)	0.980					Calculation	05/02/11 08:36 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/10/11
Work Order: C11040326

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: R144692	
Sample ID: MBLK	3	Method Blank				Run: MANTECH_110411A			04/11/11 15:25	
Alkalinity, Total as CaCO3		1.44	mg/L	1.0						
Carbonate as CO3		ND	mg/L	1.0						
Bicarbonate as HCO3		1.76	mg/L	1.0						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110411A			04/11/11 15:41	
Alkalinity, Total as CaCO3		211	mg/L	5.0	105	90	110			
Sample ID: C11040326-005BDUP		Sample Duplicate				Run: MANTECH_110411A			04/11/11 18:06	
Alkalinity, Total as CaCO3		367	mg/L	5.0				0.3	10	
Sample ID: C11040326-005BMS		Sample Matrix Spike				Run: MANTECH_110411A			04/11/11 18:16	
Alkalinity, Total as CaCO3		502	mg/L	5.0	107	80	120			
Method: A2320 B									Batch: R144789	
Sample ID: MBLK	3	Method Blank				Run: MANTECH_110413B			04/13/11 15:23	
Alkalinity, Total as CaCO3		ND	mg/L	1.0						
Carbonate as CO3		ND	mg/L	1.0						
Bicarbonate as HCO3		ND	mg/L	1.0						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110413B			04/13/11 15:39	
Alkalinity, Total as CaCO3		207	mg/L	5.0	104	90	110			
Sample ID: C11040326-001BDUP		Sample Duplicate				Run: MANTECH_110413B			04/13/11 15:55	
Alkalinity, Total as CaCO3		151	mg/L	5.0				0.5	10	
Sample ID: C11040326-001BMS		Sample Matrix Spike				Run: MANTECH_110413B			04/13/11 16:03	
Alkalinity, Total as CaCO3		282	mg/L	5.0	105	80	120			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/10/11
Work Order: C11040326

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: ORION555A-2_110411A		
Sample ID: ICV2_110411_1		Initial Calibration Verification Standard							04/11/11 14:18	
Conductivity @ 25 C		1400	umhos/cm	1.0	99	90	110			
Method: A2510 B								Batch: 110411_1_PH-W_555A-2		
Sample ID: MBLK1_110411_1		Method Blank				Run: ORION555A-2_110411A			04/11/11 14:15	
Conductivity @ 25 C		ND	umhos/cm	1.0						
Sample ID: C11040326-003BDUP		Sample Duplicate				Run: ORION555A-2_110411A			04/11/11 14:51	
Conductivity @ 25 C		759	umhos/cm	1.0				0.5	10	
Method: A2510 B								Analytical Run: ORION555A-2_110412A		
Sample ID: ICV2_110412_1		Initial Calibration Verification Standard							04/12/11 13:03	
Conductivity @ 25 C		1380	umhos/cm	1.0	97	90	110			
Method: A2510 B								Batch: 110412_1_PH-W_555A-2		
Sample ID: MBLK1_110412_1		Method Blank				Run: ORION555A-2_110412A			04/12/11 12:59	
Conductivity @ 25 C		ND	umhos/cm	1.0						
Sample ID: C11040355-002ADUP		Sample Duplicate				Run: ORION555A-2_110412A			04/12/11 13:23	
Conductivity @ 25 C		2960	umhos/cm	1.0				0.2	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/10/11

Project: Marsland Baseline Samples **Work Order:** C11040326

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: 110412_1_SLDS-TDS-W	
Sample ID: MBLK1_110412		Method Blank				Run: BAL-1_110412B			04/12/11 13:40	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	10						
Sample ID: LCS1_110412		Laboratory Control Sample				Run: BAL-1_110412B			04/12/11 13:40	
Solids, Total Dissolved TDS @ 180 C		999	mg/L	10	99	90	110			
Sample ID: C11040326-003ADUP		Sample Duplicate				Run: BAL-1_110412B			04/12/11 13:44	
Solids, Total Dissolved TDS @ 180 C		533	mg/L	10				0.7	10	
Sample ID: C11040343-003AMS		Sample Matrix Spike				Run: BAL-1_110412B			04/12/11 13:46	
Solids, Total Dissolved TDS @ 180 C		2390	mg/L	10	103	90	110			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/10/11
Work Order: C11040326

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R144774
Sample ID: MBLK		Method Blank				Run: MANTECH_110413A				04/13/11 08:54
Fluoride		ND	mg/L	0.10						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110413A				04/13/11 09:01
Fluoride		0.980	mg/L	0.10	96	90	110			
Sample ID: C11040326-004BMS		Sample Matrix Spike				Run: MANTECH_110413A				04/13/11 10:18
Fluoride		1.47	mg/L	0.10	100	80	120			
Sample ID: C11040326-004BMSD		Sample Matrix Spike Duplicate				Run: MANTECH_110413A				04/13/11 10:21
Fluoride		1.47	mg/L	0.10	100	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/10/11
Work Order: C11040326

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION555A-2_110411A		
Sample ID: ICV1_110411_1		Initial Calibration Verification Standard							04/11/11 14:16	
pH		6.94	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 110411_1_PH-W_555A-2		
Sample ID: C11040326-003BDUP		Sample Duplicate				Run: ORION555A-2_110411A			04/11/11 14:51	
pH		10.0	s.u.	0.010				0.0	3	
Method: A4500-H B								Analytical Run: ORION555A-2_110412A		
Sample ID: ICV1_110412_1		Initial Calibration Verification Standard							04/12/11 13:01	
pH		6.93	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 110412_1_PH-W_555A-2		
Sample ID: C11040355-002ADUP		Sample Duplicate				Run: ORION555A-2_110412A			04/12/11 13:23	
pH		8.60	s.u.	0.010				0.1	3	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/10/11
Work Order: C11040326

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R144780
Sample ID: MBLK-5		Method Blank				Run: TECHNICON_110413A				04/13/11 12:38
Nitrogen, Ammonia as N		ND	mg/L	0.050						
Sample ID: LCS-6		Laboratory Control Sample				Run: TECHNICON_110413A				04/13/11 12:40
Nitrogen, Ammonia as N		2.01	mg/L	0.050	99	90	110			
Sample ID: C11040326-003GMS		Sample Matrix Spike				Run: TECHNICON_110413A				04/13/11 12:52
Nitrogen, Ammonia as N		1.84	mg/L	0.050	92	80	120			
Sample ID: C11040326-003GMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110413A				04/13/11 12:54
Nitrogen, Ammonia as N		1.86	mg/L	0.050	93	80	120	1.1	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/10/11

Project: Marsland Baseline Samples **Work Order:** C11040326

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R145096	
Sample ID: MB-110422A	7	Method Blank				Run: ICP2-C_110422A			04/22/11 12:52	
Boron		ND	mg/L	0.10						
Calcium		ND	mg/L	1.0						
Iron		ND	mg/L	0.030						
Magnesium		ND	mg/L	1.0						
Potassium		ND	mg/L	1.0						
Silicon		ND	mg/L	0.10						
Sodium		ND	mg/L	1.0						
Sample ID: LFB-110422A	7	Laboratory Fortified Blank				Run: ICP2-C_110422A			04/22/11 12:56	
Boron		0.886	mg/L	0.10	89	85	115			
Calcium		45.8	mg/L	0.50	92	85	115			
Iron		0.916	mg/L	0.030	92	85	115			
Magnesium		46.3	mg/L	0.50	93	85	115			
Potassium		46.0	mg/L	3.3	92	85	115			
Silicon		0.455	mg/L	0.10	91	85	115			
Sodium		44.4	mg/L	0.50	89	85	115			
Sample ID: C11040326-001CMS2	7	Sample Matrix Spike				Run: ICP2-C_110422A			04/22/11 14:01	
Boron		1.94	mg/L	0.10	92	70	130			
Calcium		126	mg/L	1.0	89	70	130			
Iron		1.92	mg/L	0.030	92	70	130			
Magnesium		101	mg/L	1.0	91	70	130			
Potassium		86.8	mg/L	1.0	81	70	130			
Silicon		34.2	mg/L	0.10		70	130			A
Sodium		115	mg/L	1.0	94	70	130			
Sample ID: C11040326-001CMSD	7	Sample Matrix Spike Duplicate				Run: ICP2-C_110422A			04/22/11 14:05	
Boron		1.97	mg/L	0.10	93	70	130	1.2	20	
Calcium		124	mg/L	1.0	88	70	130	1.6	20	
Iron		1.90	mg/L	0.030	91	70	130	1.0	20	
Magnesium		98.3	mg/L	1.0	88	70	130	2.9	20	
Potassium		85.3	mg/L	1.0	79	70	130	1.7	20	
Silicon		34.3	mg/L	0.10		70	130	0.2	20	A
Sodium		114	mg/L	1.0	93	70	130	0.5	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/10/11
Work Order: C11040326

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144792
Sample ID: LRB	15	Method Blank				Run: ICPMS2-C_110413A				04/13/11 11:57
Aluminum		ND	mg/L	0.10						
Arsenic		ND	mg/L	0.0010						
Barium		ND	mg/L	0.10						
Cadmium		ND	mg/L	0.0050						
Chromium		ND	mg/L	0.050						
Copper		ND	mg/L	0.010						
Lead		ND	mg/L	0.0010						
Manganese		ND	mg/L	0.010						
Mercury		ND	mg/L	0.0010						
Molybdenum		ND	mg/L	0.10						
Nickel		ND	mg/L	0.050						
Selenium		ND	mg/L	0.0010						
Uranium		ND	mg/L	0.00030						
Vanadium		ND	mg/L	0.10						
Zinc		ND	mg/L	0.010						
Sample ID: LFB	15	Laboratory Fortified Blank				Run: ICPMS2-C_110413A				04/13/11 12:03
Aluminum		0.0509	mg/L	0.0010	102	85	115			
Arsenic		0.0522	mg/L	0.0010	104	85	115			
Barium		0.0523	mg/L	0.0010	105	85	115			
Cadmium		0.0523	mg/L	0.0010	105	85	115			
Chromium		0.0523	mg/L	0.0010	104	85	115			
Copper		0.0524	mg/L	0.0010	105	85	115			
Lead		0.0520	mg/L	0.0010	104	85	115			
Manganese		0.0518	mg/L	0.0010	104	85	115			
Mercury		0.00521	mg/L	0.0010	104	85	115			
Molybdenum		0.0523	mg/L	0.0010	105	85	115			
Nickel		0.0519	mg/L	0.0010	104	85	115			
Selenium		0.0525	mg/L	0.0010	105	85	115			
Uranium		0.0520	mg/L	0.00030	104	85	115			
Vanadium		0.0523	mg/L	0.0010	104	85	115			
Zinc		0.0558	mg/L	0.0010	112	85	115			
Sample ID: C11040326-001CMS4	15	Sample Matrix Spike				Run: ICPMS2-C_110413A				04/13/11 17:02
Aluminum		0.0477	mg/L	0.0010	95	70	130			
Arsenic		0.0545	mg/L	0.0010	102	70	130			
Barium		0.181	mg/L	0.10	104	70	130			
Cadmium		0.0516	mg/L	0.010	103	70	130			
Chromium		0.0514	mg/L	0.050	101	70	130			
Copper		0.0476	mg/L	0.010	95	70	130			
Lead		0.0510	mg/L	0.050	102	70	130			
Manganese		0.0559	mg/L	0.010	103	70	130			
Mercury		0.00520	mg/L	0.0010	104	70	130			
Molybdenum		0.0484	mg/L	0.0010	95	70	130			
Nickel		0.0479	mg/L	0.0010	96	70	130			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/10/11

Project: Marsland Baseline Samples **Work Order:** C11040326

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144792
Sample ID: C11040326-001CMS4	15	Sample Matrix Spike				Run: ICPMS2-C_110413A				04/13/11 17:02
Selenium		0.0587	mg/L	0.0010	115	70	130			
Uranium		0.0606	mg/L	0.00030	107	70	130			
Vanadium		0.0600	mg/L	0.0010	101	70	130			
Zinc		0.110	mg/L	0.010	106	70	130			
Sample ID: C11040326-001CMSD	15	Sample Matrix Spike Duplicate				Run: ICPMS2-C_110413A				04/13/11 17:08
Aluminum		0.0462	mg/L	0.0010	92	70	130	3.2	20	
Arsenic		0.0538	mg/L	0.0010	100	70	130	1.2	20	
Barium		0.179	mg/L	0.10	101	70	130	0.8	20	
Cadmium		0.0510	mg/L	0.010	102	70	130	1.1	20	
Chromium		0.0502	mg/L	0.050	99	70	130	2.3	20	
Copper		0.0471	mg/L	0.010	94	70	130	1.1	20	
Lead		0.0502	mg/L	0.050	100	70	130	1.5	20	
Manganese		0.0547	mg/L	0.010	101	70	130	2.2	20	
Mercury		0.00515	mg/L	0.0010	103	70	130	0.9	20	
Molybdenum		0.0481	mg/L	0.0010	94	70	130	0.6	20	
Nickel		0.0473	mg/L	0.0010	95	70	130	1.3	20	
Selenium		0.0575	mg/L	0.0010	113	70	130	2.1	20	
Uranium		0.0600	mg/L	0.00030	106	70	130	1.0	20	
Vanadium		0.0592	mg/L	0.0010	99	70	130	1.4	20	
Zinc		0.105	mg/L	0.010	97	70	130	4.3	20	
Method: E200.8										Batch: 29614
Sample ID: MB-29614		Method Blank				Run: ICPMS4-C_110421A				04/21/11 13:09
Uranium		ND	mg/L	0.00030						
Sample ID: LCS2-29614		Laboratory Control Sample				Run: ICPMS4-C_110421A				04/21/11 13:17
Uranium		0.104	mg/L	0.00030	104	85	115			
Sample ID: C11040476-010HMS		Sample Matrix Spike				Run: ICPMS4-C_110421A				04/21/11 15:53
Uranium		0.0556	mg/L	0.00030	111	70	130			
Sample ID: C11040476-010HMSD		Sample Matrix Spike Duplicate				Run: ICPMS4-C_110421A				04/21/11 15:57
Uranium		0.0556	mg/L	0.00030	111	70	130	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/10/11

Project: Marsland Baseline Samples **Work Order:** C11040326

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: IC2-C_110412A	
Sample ID: ICV	2	Initial Calibration Verification Standard							04/12/11 14:25	
Chloride		10.1	mg/L	1.0	101	90	110			
Sulfate		41.0	mg/L	1.0	102	90	110			
Method: E300.0									Batch: R144811	
Sample ID: MBLK	2	Method Blank				Run: IC2-C_110412A			04/12/11 14:41	
Chloride		ND	mg/L	1.0						
Sulfate		ND	mg/L	1.0						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: IC2-C_110412A			04/12/11 14:56	
Chloride		12.4	mg/L	1.0	99	90	110			
Sulfate		50.6	mg/L	1.0	101	90	110			
Sample ID: C11040330-003AMS	2	Sample Matrix Spike				Run: IC2-C_110412A			04/13/11 22:33	
Chloride		34.4	mg/L	1.0	103	80	120			
Sulfate		90.1	mg/L	1.6	103	80	120			
Sample ID: C11040330-003AMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110412A			04/13/11 22:48	
Chloride		34.4	mg/L	1.0	103	80	120	0.1	10	
Sulfate		90.5	mg/L	1.6	103	80	120	0.5	10	

Qualifiers:

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MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/10/11

Project: Marsland Baseline Samples **Work Order:** C11040326

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R144840
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110414B				04/14/11 11:38
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.10						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110414B				04/14/11 11:41
Nitrogen, Nitrate+Nitrite as N		2.65	mg/L	0.10	106	90	110			
Sample ID: C11040326-004GMS		Sample Matrix Spike				Run: TECHNICON_110414B				04/14/11 14:34
Nitrogen, Nitrate+Nitrite as N		3.35	mg/L	0.10	106	90	110			
Sample ID: C11040326-004GMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110414B				04/14/11 14:36
Nitrogen, Nitrate+Nitrite as N		3.36	mg/L	0.10	106	90	110	0.3	10	

Qualifiers:

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MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/10/11

Project: Marsland Baseline Samples **Work Order:** C11040326

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-5305
Sample ID: C11040476-001DMS		Sample Matrix Spike				Run: BERTHOLD 770-1_110422A			05/02/11 12:53	
Radium 226		23	pCi/L		99	70	130			
Sample ID: C11040476-001DMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-1_110422A			05/02/11 12:53	
Radium 226		22	pCi/L		97	70	130	1.7	20.7	
Sample ID: C11040601-001EDUP	3	Sample Duplicate				Run: BERTHOLD 770-1_110422A			05/02/11 14:28	
Radium 226		24	pCi/L					4.8	17.1	
Radium 226 precision (±)		0.86	pCi/L							
Radium 226 MDC		0.11	pCi/L							
Sample ID: MB-RA226-5305	3	Method Blank				Run: BERTHOLD 770-1_110422A			05/02/11 14:28	
Radium 226		ND	pCi/L	0.10						U
Radium 226 precision (±)		0.050	pCi/L							
Radium 226 MDC		0.12	pCi/L							
Sample ID: LCS-RA226-5305		Laboratory Control Sample				Run: BERTHOLD 770-1_110422A			05/02/11 14:28	
Radium 226		6.0	pCi/L		97	85	115			
Method: E903.0										Batch: 29614
Sample ID: C11040326-005HMS		Sample Matrix Spike				Run: BERTHOLD 770-2_110422A			05/02/11 21:53	
Radium 226		12	pCi/L		109	70	130			
Sample ID: C11040326-005HMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-2_110422A			05/02/11 21:53	
Radium 226		12	pCi/L		113	70	130	0.8	24.5	
Sample ID: LCS-29614		Laboratory Control Sample				Run: BERTHOLD 770-2_110422A			05/03/11 02:01	
Radium 226		13	pCi/L		111	85	115			
Sample ID: MB-29614	3	Method Blank				Run: BERTHOLD 770-2_110422A			05/03/11 02:01	
Radium 226		ND	pCi/L	0.10						U
Radium 226 precision (±)		0.096	pCi/L							
Radium 226 MDC		0.24	pCi/L							

Qualifiers:

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MDC - Minimum detectable concentration

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U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/10/11

Project: Marsland Baseline Samples **Work Order:** C11040326

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0										Batch: R145601
Sample ID: C11040476-010HMS		Sample Matrix Spike				Run: EGG-ORTEC_110502A			05/05/11 14:45	
Thorium 230		9.0	pCi/L		102	70	130			
Sample ID: C11040476-010HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110502A			05/05/11 14:45	
Thorium 230		10	pCi/L		114	70	130	12	47.8	
Sample ID: LCS-29614		Laboratory Control Sample				Run: EGG-ORTEC_110502A			05/05/11 14:45	
Thorium 230		11	pCi/L		119	70	130			
Sample ID: MB-29614	3	Method Blank				Run: EGG-ORTEC_110502A			05/05/11 14:45	
Thorium 230		ND	pCi/L	0.10						U
Thorium 230 precision (±)		0.17	pCi/L							
Thorium 230 MDC		0.28	pCi/L							
Method: E908.0										Batch: RA-TH-ISO-1381
Sample ID: LCS-RA-TH-ISO-1381		Laboratory Control Sample				Run: EGG-ORTEC_110505A			05/09/11 14:40	
Thorium 230		5.6	pCi/L		100	70	130			
Sample ID: C11040476-009DMS		Sample Matrix Spike				Run: EGG-ORTEC_110505A			05/10/11 13:01	
Thorium 230		12	pCi/L		97	70	130			
Sample ID: C11040476-009DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110505A			05/10/11 13:01	
Thorium 230		11	pCi/L		87	70	130	8.1	37.6	
Sample ID: MB-RA-TH-ISO-1381	3	Method Blank				Run: EGG-ORTEC_110505A			05/10/11 13:01	
Thorium 230		ND	pCi/L	0.10						U
Thorium 230 precision (±)		0.087	pCi/L							
Thorium 230 MDC		0.19	pCi/L							

Qualifiers:

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U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/10/11

Project: Marsland Baseline Samples **Work Order:** C11040326

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0									Batch: T_PB-210-0092	
Sample ID: C11040326-001FMSD		Sample Matrix Spike Duplicate				Run: SUB-T40386			05/16/11 09:00	
Lead 210		90	pCi/L		84	70	130	9.5	15.6	
Sample ID: MB-PB-210-0092	3	Method Blank				Run: SUB-T40386			05/14/11 15:22	
Lead 210		ND	pCi/L	0.60						U
Lead 210 precision (±)		1.00	pCi/L							
Lead 210 MDC		1.7	pCi/L							
Sample ID: LCS-PB-210-0092		Laboratory Control Sample				Run: SUB-T40386			05/14/11 17:33	
Lead 210		67	pCi/L		94	70	130			
Sample ID: C11040326-001FMS		Sample Matrix Spike				Run: SUB-T40386			05/16/11 06:48	
Lead 210		99	pCi/L		92	70	130			
Method: E909.0									Batch: T_13823	
Sample ID: C11040326-001HMSD		Sample Matrix Spike Duplicate				Run: SUB-T40682			05/22/11 20:05	
Lead 210		81	pCi/L		86	70	130	6.3	16	
Sample ID: MB-13823	3	Method Blank				Run: SUB-T40682			05/22/11 11:19	
Lead 210		1.3	pCi/L	0.60						U
Lead 210 precision (±)		5.6	pCi/L							
Lead 210 MDC		9.4	pCi/L							
Sample ID: LCS-13823		Laboratory Control Sample				Run: SUB-T40682			05/22/11 13:31	
Lead 210		260	pCi/L		73	70	130			
Sample ID: C11040326-001HMS		Sample Matrix Spike				Run: SUB-T40682			05/22/11 17:54	
Lead 210		86	pCi/L		93	70	130			

Qualifiers:

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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/10/11

Project: Marsland Baseline Samples **Work Order:** C11040326

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0										Batch: 29614
Sample ID: C11040476-010HMS		Sample Matrix Spike				Run: EGG-ORTEC_110503D				05/06/11 08:47
Polonium 210		6.3	pCi/L		117	70	130			
Sample ID: C11040476-010HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110503D				05/06/11 08:47
Polonium 210		5.6	pCi/L		103	70	130	13	62.3	
Sample ID: LCS-29614		Laboratory Control Sample				Run: EGG-ORTEC_110503D				05/06/11 08:47
Polonium 210		28	pCi/L		91	70	130			
Sample ID: MB-29614	3	Method Blank				Run: EGG-ORTEC_110503D				05/06/11 11:02
Polonium 210		0.23	pCi/L	0.20						U
Polonium 210 precision (±)		1.4	pCi/L							
Polonium 210 MDC		3.0	pCi/L							
Method: E912.0										Batch: PO210-0365
Sample ID: C11040296-001EMS		Sample Matrix Spike				Run: EGG-ORTEC_110507A				05/09/11 09:07
Polonium 210		12	pCi/L		89	70	130			
Sample ID: C11040296-001EMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110507A				05/09/11 09:07
Polonium 210		17	pCi/L		127	70	130	35	67.6	
Sample ID: MB-PO210-0365	3	Method Blank				Run: EGG-ORTEC_110507A				05/09/11 11:17
Polonium 210		ND	pCi/L	0.20						U
Polonium 210 precision (±)		0.23	pCi/L							
Polonium 210 MDC		0.58	pCi/L							
Sample ID: LCS-PO210-0365		Laboratory Control Sample				Run: EGG-ORTEC_110507A				05/09/11 11:17
Polonium 210		6.4	pCi/L		101	70	130			

Qualifiers:

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MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

Workorder Receipt Checklist

Crow Butte Resources

C11040326

Login completed by: Edith McPike
Date Received: 4/11/2011
Reviewed by: BL2000\cwagner
Received by: em
Reviewed Date: 4/13/2011
Carrier name: Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	9.8°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

None

ENERGY LABORATORIES

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name: Marsland Baseline Samples	Sample Origin: State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169, Crawford, NE 69339	Contact Name: Larry Teahon; Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass, Rhonda Pelton
Invoice Address: P.O. Box 169, Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon, 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O / Air Water Soils/Solids Vegetation Bioassay Other)	HNO3-F, Metals	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	Raw-UF, Ra226, Po210 dis, sus	Raw-UF, Pb210 dis and sus	Rau-UF, Th230, U-nat dis and sus			SEE ATTACHED	Normal Turnaround (TAT)	RUSH	Comments
1	Well #705	4/6/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/10/11
2	Well #788	4/6/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/10/11
3	BOW-1	4/6/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/10/11
4	Well #727	4/6/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/10/11
5	CPW-2010-1	4/6/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/10/11
6																	
7																	
8																	
9																	
10																	

RUSH: Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling. Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 requirements. Record U as mg/L and µCi/ml and radiometrics as pCi/L.

Shipped by: Grant
Cooler ID(s): (1) Yeti
Receipt Temp: 9.8 °C
On Ice: (Yes) ~~No~~ Ice
Custody Seal: Y (N)
Intact: Y N
Signature Match: Y N

LABORATORY USE ONLY: 1104 0324

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Brooke Bass	4/7/11	Brooke Bass			
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory:	Date/Time:	Signature:
			C. Mapke	4/11/11 9:15	

Sample Disposal: Return to Client: No Lab Disposal: YES

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.
Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

CROW BUTTE RESOURCES, INC.
CROW BUTTE PROJECT

NO_2^-

DATE: 4/6/11 ANALYST: _____

STANDARD CURVE DATA

NO_2^-	BL	0.01	0.05	0.1			
Abs	0	.036	.172	.343			
Abs							

SAMPLE #	VOLUME	Df	Abs	NO_2^- mg/L
1 705	10 ml	1	.003	<0.01
2 727	10 ml	1	.001	<0.01
3 788	10 ml	1	-.000	<0.01
4 CPW 2010-1	10 ml	1	.006	<0.01
5 BOW-1	10 ml	1	.079	0.02
Dup				
6 705 Dup	10 ml	1	.002	<0.01
7 788 Dup	10 ml	1	.001	<0.01
8				
9				
10				
Dup				
11				
12				
13				
14				
15				
Dup				
16				
17				
18				
19				
20				
Dup				
21				
22				
23				
24				
25				
Dup				

ANALYTICAL SUMMARY REPORT

June 13, 2011

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C11040476 Quote ID: C1125 - Crow Butte Uranium

Project Name: Marsland Baseline Samples

Energy Laboratories, Inc. Casper WY received the following 10 samples for Crow Butte Resources on 4/14/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11040476-001	Monitor 1	04/11/11 00:00	04/14/11	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Uranium, Suspended Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved
C11040476-002	Monitor 2	04/11/11 00:00	04/14/11	Aqueous	Same As Above
C11040476-003	Monitor 4A	04/11/11 00:00	04/14/11	Aqueous	Same As Above
C11040476-004	Monitor 5	04/11/11 00:00	04/14/11	Aqueous	Same As Above
C11040476-005	Monitor 6	04/11/11 00:00	04/14/11	Aqueous	Same As Above
C11040476-006	Monitor 7	04/11/11 00:00	04/14/11	Aqueous	Same As Above
C11040476-007	Monitor 8	04/11/11 00:00	04/14/11	Aqueous	Same As Above
C11040476-008	Monitor 9	04/11/11 00:00	04/14/11	Aqueous	Same As Above
C11040476-009	Monitor 10	04/11/11 00:00	04/14/11	Aqueous	Same As Above
C11040476-010	Monitor 11	04/11/11 00:00	04/14/11	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Crow Butte Resources
Project: Marsland Baseline Samples
Sample Delivery Group: C11040476

Report Date: 06/13/11

CASE NARRATIVE

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

BRANCH LABORATORY SUBCONTRACT ANALYSIS
Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.

PREP COMMENTS
The prep hold time for the Filteration of metals was exceeded by up to 2.29 days.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-001
Client Sample ID: Monitor 1

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	405	mg/L		1		A2320 B	04/15/11 15:33 / jba
Carbonate as CO3	8	mg/L		1		A2320 B	04/15/11 15:33 / jba
Bicarbonate as HCO3	478	mg/L		1		A2320 B	04/15/11 15:33 / jba
Calcium	5	mg/L		1		E200.7	04/25/11 16:07 / cp
Chloride	182	mg/L		1		E300.0	04/20/11 02:19 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	04/18/11 09:14 / jba
Magnesium	1	mg/L		1		E200.7	04/25/11 16:07 / cp
Nitrogen, Ammonia as N	0.18	mg/L		0.05		A4500-NH3 G	04/21/11 16:30 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/15/11 16:24 / dc
Potassium	8	mg/L		1		E200.7	04/25/11 16:07 / cp
Silica	12.9	mg/L		0.2		E200.8	04/16/11 14:30 / sml
Sodium	340	mg/L		1		E200.7	04/25/11 16:07 / cp
Sulfate	59	mg/L	D	4		E300.0	04/20/11 02:19 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1400	umhos/cm		1		A2510 B	04/15/11 11:31 / lr
pH	8.28	s.u.		0.01		A4500-H B	04/15/11 11:31 / lr
Solids, Total Dissolved TDS @ 180 C	837	mg/L		10		A2540 C	04/15/11 16:31 / lr
METALS - DISSOLVED							
Aluminum	0.2	mg/L		0.1		E200.8	04/16/11 14:30 / sml
Arsenic	0.002	mg/L		0.001		E200.8	04/16/11 14:30 / sml
Barium	ND	mg/L		0.1		E200.8	04/16/11 14:30 / sml
Boron	1.3	mg/L		0.1		E200.7	04/25/11 16:07 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/16/11 14:30 / sml
Chromium	ND	mg/L		0.05		E200.8	04/16/11 14:30 / sml
Copper	ND	mg/L		0.01		E200.8	04/16/11 14:30 / sml
Iron	0.10	mg/L		0.03		E200.8	04/16/11 14:30 / sml
Lead	ND	mg/L		0.001		E200.8	04/16/11 14:30 / sml
Manganese	ND	mg/L		0.01		E200.8	04/16/11 14:30 / sml
Mercury	ND	mg/L		0.001		E200.8	04/16/11 14:30 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/16/11 14:30 / sml
Nickel	ND	mg/L		0.05		E200.8	04/16/11 14:30 / sml
Selenium	0.002	mg/L	D	0.002		E200.8	04/16/11 14:30 / sml
Uranium	0.0077	mg/L		0.0003		E200.8	04/16/11 14:30 / sml
Uranium, Activity	5.2E-09	uCi/mL		2.0E-10		E200.8	04/16/11 14:30 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/16/11 14:30 / sml
Zinc	0.03	mg/L		0.01		E200.8	04/16/11 14:30 / sml
METALS - SUSPENDED							
Uranium	0.0148	mg/L		0.0003		E200.8	04/21/11 14:55 / sml
Uranium, Activity	1.0E-08	uCi/mL		2.0E-10		E200.8	04/21/11 14:55 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-001
Client Sample ID: Monitor 1

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	92	pCi/L		0.8		E909.0	06/01/11 03:41 / eli-cs
Lead 210 precision (±)	1.3	pCi/L				E909.0	06/01/11 03:41 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	06/01/11 03:41 / eli-cs
Polonium 210	9.8	pCi/L		0.9		E912.0	05/06/11 11:04 / ep
Polonium 210 precision (±)	3.3	pCi/L				E912.0	05/06/11 11:04 / ep
Polonium 210 MDC	0.9	pCi/L				E912.0	05/06/11 11:04 / ep
Radium 226	9.4	pCi/L		0.1		E903.0	05/31/11 17:25 / trs
Radium 226 precision (±)	0.6	pCi/L				E903.0	05/31/11 17:25 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/31/11 17:25 / trs
Thorium 230	0.3	pCi/L		0.1		E908.0	05/10/11 08:42 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	05/10/11 08:42 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/10/11 08:42 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	61	pCi/L		0.8		E909.0	05/23/11 15:48 / eli-cs
Lead 210 precision (±)	1.1	pCi/L				E909.0	05/23/11 15:48 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/23/11 15:48 / eli-cs
Polonium 210	12	pCi/L		0.2		E912.0	05/06/11 08:46 / ep
Polonium 210 precision (±)	2.7	pCi/L				E912.0	05/06/11 08:46 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/06/11 08:46 / ep
Radium 226	13	pCi/L		0.1		E903.0	05/31/11 17:25 / trs
Radium 226 precision (±)	0.7	pCi/L				E903.0	05/31/11 17:25 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/31/11 17:25 / trs
Thorium 230	4.5	pCi/L		0.1		E908.0	05/04/11 15:26 / dmf
Thorium 230 precision (±)	0.8	pCi/L				E908.0	05/04/11 15:26 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/04/11 15:26 / dmf
DATA QUALITY							
A/C Balance (± 5)	2.92	%				Calculation	05/02/11 09:14 / kbh
Anions	14.5	meq/L				Calculation	05/02/11 09:14 / kbh
Cations	15.3	meq/L				Calculation	05/02/11 09:14 / kbh
Solids, Total Dissolved Calculated	854	mg/L				Calculation	05/02/11 09:14 / kbh
TDS Balance (0.80 - 1.20)	0.980					Calculation	05/02/11 09:14 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-002
Client Sample ID: Monitor 2

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	402	mg/L		1		A2320 B	04/15/11 15:59 / jba
Carbonate as CO3	9	mg/L		1		A2320 B	04/15/11 15:59 / jba
Bicarbonate as HCO3	472	mg/L		1		A2320 B	04/15/11 15:59 / jba
Calcium	5	mg/L		1		E200.7	04/25/11 16:11 / cp
Chloride	173	mg/L		1		E300.0	04/20/11 02:34 / ljl
Fluoride	0.6	mg/L		0.1		A4500-F C	04/18/11 09:21 / jba
Magnesium	1	mg/L		1		E200.7	04/25/11 16:11 / cp
Nitrogen, Ammonia as N	0.18	mg/L		0.05		A4500-NH3 G	04/21/11 16:32 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/15/11 16:26 / dc
Potassium	9	mg/L		1		E200.7	04/25/11 16:11 / cp
Silica	14.6	mg/L		0.2		E200.8	04/16/11 14:37 / sml
Sodium	328	mg/L		1		E200.7	04/25/11 16:11 / cp
Sulfate	55	mg/L	D	4		E300.0	04/20/11 02:34 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1350	umhos/cm		1		A2510 B	04/15/11 11:33 / lr
pH	8.26	s.u.		0.01		A4500-H B	04/15/11 11:33 / lr
Solids, Total Dissolved TDS @ 180 C	802	mg/L		10		A2540 C	04/15/11 16:31 / lr
METALS - DISSOLVED							
Aluminum	0.2	mg/L		0.1		E200.8	04/16/11 14:37 / sml
Arsenic	0.002	mg/L		0.001		E200.8	04/16/11 14:37 / sml
Barium	ND	mg/L		0.1		E200.8	04/16/11 14:37 / sml
Boron	1.4	mg/L		0.1		E200.7	04/25/11 16:11 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/16/11 14:37 / sml
Chromium	ND	mg/L		0.05		E200.8	04/16/11 14:37 / sml
Copper	ND	mg/L		0.01		E200.8	04/16/11 14:37 / sml
Iron	0.09	mg/L		0.03		E200.8	04/16/11 14:37 / sml
Lead	ND	mg/L		0.001		E200.8	04/16/11 14:37 / sml
Manganese	ND	mg/L		0.01		E200.8	04/16/11 14:37 / sml
Mercury	ND	mg/L		0.001		E200.8	04/16/11 14:37 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/16/11 14:37 / sml
Nickel	ND	mg/L		0.05		E200.8	04/16/11 14:37 / sml
Selenium	0.003	mg/L	D	0.002		E200.8	04/16/11 14:37 / sml
Uranium	0.0025	mg/L		0.0003		E200.8	04/16/11 14:37 / sml
Uranium, Activity	1.7E-09	uCi/mL		2.0E-10		E200.8	04/16/11 14:37 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/16/11 14:37 / sml
Zinc	ND	mg/L		0.01		E200.8	04/16/11 14:37 / sml
METALS - SUSPENDED							
Uranium	0.0010	mg/L		0.0003		E200.8	04/21/11 14:59 / sml
Uranium, Activity	6.7E-10	uCi/mL		2.0E-10		E200.8	04/21/11 14:59 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-002
Client Sample ID: Monitor 2

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	06/01/11 05:52 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	06/01/11 05:52 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	06/01/11 05:52 / eli-cs
Polonium 210	<0.8	pCi/L	U	0.8		E912.0	05/06/11 11:04 / ep
Polonium 210 precision (±)	0.5	pCi/L				E912.0	05/06/11 11:04 / ep
Polonium 210 MDC	0.8	pCi/L				E912.0	05/06/11 11:04 / ep
Radium 226	0.7	pCi/L		0.1		E903.0	05/02/11 12:53 / trs
Radium 226 precision (±)	0.2	pCi/L				E903.0	05/02/11 12:53 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 12:53 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/10/11 08:42 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	05/10/11 08:42 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/10/11 08:42 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	0.9	pCi/L		0.8		E909.0	05/23/11 18:00 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/23/11 18:00 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/23/11 18:00 / eli-cs
Polonium 210	0.4	pCi/L		0.2		E912.0	05/06/11 08:46 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	05/06/11 08:46 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/06/11 08:46 / ep
Radium 226	0.8	pCi/L		0.1		E903.0	05/02/11 23:36 / trs
Radium 226 precision (±)	0.2	pCi/L				E903.0	05/02/11 23:36 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 23:36 / trs
Thorium 230	0.3	pCi/L		0.1		E908.0	05/05/11 14:45 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	05/05/11 14:45 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/05/11 14:45 / dmf
DATA QUALITY							
A/C Balance (± 5)	2.57	%				Calculation	05/02/11 09:15 / kbh
Anions	14.1	meq/L				Calculation	05/02/11 09:15 / kbh
Cations	14.8	meq/L				Calculation	05/02/11 09:15 / kbh
Solids, Total Dissolved Calculated	831	mg/L				Calculation	05/02/11 09:15 / kbh
TDS Balance (0.80 - 1.20)	0.970					Calculation	05/02/11 09:15 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-003
Client Sample ID: Monitor 4A

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	360	mg/L		1		A2320 B	04/15/11 16:08 / jba
Carbonate as CO3	26	mg/L		1		A2320 B	04/15/11 16:08 / jba
Bicarbonate as HCO3	386	mg/L		1		A2320 B	04/15/11 16:08 / jba
Calcium	3	mg/L		1		E200.7	04/25/11 16:27 / cp
Chloride	238	mg/L		1		E300.0	04/20/11 02:49 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	04/18/11 09:29 / jba
Magnesium	ND	mg/L		1		E200.7	04/25/11 16:27 / cp
Nitrogen, Ammonia as N	0.22	mg/L		0.05		A4500-NH3 G	04/21/11 16:40 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/15/11 16:29 / dc
Potassium	16	mg/L		1		E200.7	04/25/11 16:27 / cp
Silica	14.4	mg/L		0.2		E200.8	04/16/11 15:11 / sml
Sodium	380	mg/L		1		E200.7	04/25/11 16:27 / cp
Sulfate	112	mg/L	D	4		E300.0	04/20/11 02:49 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1620	umhos/cm		1		A2510 B	04/15/11 11:35 / lr
pH	8.96	s.u.		0.01		A4500-H B	04/15/11 11:35 / lr
Solids, Total Dissolved TDS @ 180 C	946	mg/L		10		A2540 C	04/15/11 16:32 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	04/16/11 15:11 / sml
Arsenic	0.004	mg/L		0.001		E200.8	04/16/11 15:11 / sml
Barium	ND	mg/L		0.1		E200.8	04/16/11 15:11 / sml
Boron	1.3	mg/L		0.1		E200.7	04/25/11 16:27 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/16/11 15:11 / sml
Chromium	ND	mg/L		0.05		E200.8	04/16/11 15:11 / sml
Copper	ND	mg/L		0.01		E200.8	04/16/11 15:11 / sml
Iron	ND	mg/L		0.03		E200.8	04/16/11 15:11 / sml
Lead	ND	mg/L		0.001		E200.8	04/16/11 15:11 / sml
Manganese	ND	mg/L		0.01		E200.8	04/16/11 15:11 / sml
Mercury	ND	mg/L		0.001		E200.8	04/16/11 15:11 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/16/11 15:11 / sml
Nickel	ND	mg/L		0.05		E200.8	04/16/11 15:11 / sml
Selenium	0.004	mg/L	D	0.002		E200.8	04/16/11 15:11 / sml
Uranium	0.0677	mg/L		0.0003		E200.8	04/16/11 15:11 / sml
Uranium, Activity	4.6E-08	uCi/mL		2.0E-10		E200.8	04/16/11 15:11 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/16/11 15:11 / sml
Zinc	0.02	mg/L		0.01		E200.7	04/25/11 16:27 / cp
METALS - SUSPENDED							
Uranium	0.0013	mg/L		0.0003		E200.8	04/21/11 15:04 / sml
Uranium, Activity	8.7E-10	uCi/mL		2.0E-10		E200.8	04/21/11 15:04 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-003
Client Sample ID: Monitor 4A

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	698	pCi/L		0.8		E909.0	06/01/11 08:04 / eli-cs
Lead 210 precision (±)	3.3	pCi/L				E909.0	06/01/11 08:04 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	06/01/11 08:04 / eli-cs
Polonium 210	139	pCi/L		0.5		E912.0	05/06/11 11:04 / ep
Polonium 210 precision (±)	28	pCi/L				E912.0	05/06/11 11:04 / ep
Polonium 210 MDC	0.5	pCi/L				E912.0	05/06/11 11:04 / ep
Radium 226	227	pCi/L		0.1		E903.0	05/02/11 12:53 / trs
Radium 226 precision (±)	2.7	pCi/L				E903.0	05/02/11 12:53 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 12:53 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	05/10/11 13:01 / dmf
Thorium 230 precision (±)	0.09	pCi/L				E908.0	05/10/11 13:01 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	05/10/11 13:01 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	34	pCi/L		0.9		E909.0	05/23/11 20:11 / eli-cs
Lead 210 precision (±)	0.9	pCi/L				E909.0	05/23/11 20:11 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	05/23/11 20:11 / eli-cs
Polonium 210	10	pCi/L		0.2		E912.0	05/06/11 08:46 / ep
Polonium 210 precision (±)	2.2	pCi/L				E912.0	05/06/11 08:46 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/06/11 08:46 / ep
Radium 226	0.7	pCi/L		0.1		E903.0	05/02/11 23:36 / trs
Radium 226 precision (±)	0.2	pCi/L				E903.0	05/02/11 23:36 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 23:36 / trs
Thorium 230	0.4	pCi/L		0.1		E908.0	05/05/11 14:45 / dmf
Thorium 230 precision (±)	0.2	pCi/L				E908.0	05/05/11 14:45 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/05/11 14:45 / dmf
DATA QUALITY							
A/C Balance (± 5)	2.73	%				Calculation	05/02/11 09:15 / kbh
Anions	16.3	meq/L				Calculation	05/02/11 09:15 / kbh
Cations	17.2	meq/L				Calculation	05/02/11 09:15 / kbh
Solids, Total Dissolved Calculated	985	mg/L				Calculation	05/02/11 09:15 / kbh
TDS Balance (0.80 - 1.20)	0.960					Calculation	05/02/11 09:15 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-004
Client Sample ID: Monitor 5

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	297	mg/L		1		A2320 B	04/15/11 16:18 / jba
Carbonate as CO3	99	mg/L		1		A2320 B	04/15/11 16:18 / jba
Bicarbonate as HCO3	161	mg/L		1		A2320 B	04/15/11 16:18 / jba
Calcium	5	mg/L		1		E200.7	04/25/11 16:31 / cp
Chloride	321	mg/L	D	2		E300.0	04/22/11 02:00 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	04/18/11 09:32 / jba
Magnesium	1	mg/L		1		E200.7	04/25/11 16:31 / cp
Nitrogen, Ammonia as N	0.43	mg/L		0.05		A4500-NH3 G	04/21/11 16:42 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/18/11 12:32 / dc
Potassium	36	mg/L		1		E200.7	04/25/11 16:31 / cp
Silica	21.9	mg/L		0.2		E200.8	04/16/11 15:18 / sml
Sodium	505	mg/L		1		E200.7	04/25/11 16:31 / cp
Sulfate	312	mg/L	D	4		E300.0	04/20/11 03:36 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	2230	umhos/cm		1		A2510 B	04/15/11 11:36 / lr
pH	9.88	s.u.		0.01		A4500-H B	04/15/11 11:36 / lr
Solids, Total Dissolved TDS @ 180 C	1300	mg/L		10		A2540 C	04/15/11 16:32 / lr
METALS - DISSOLVED							
Aluminum	0.3	mg/L		0.1		E200.8	04/16/11 15:18 / sml
Arsenic	0.001	mg/L		0.001		E200.8	04/16/11 15:18 / sml
Barium	ND	mg/L		0.1		E200.8	04/16/11 15:18 / sml
Boron	1.2	mg/L		0.1		E200.7	04/25/11 16:31 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/16/11 15:18 / sml
Chromium	ND	mg/L		0.05		E200.8	04/16/11 15:18 / sml
Copper	ND	mg/L		0.01		E200.8	04/16/11 15:18 / sml
Iron	ND	mg/L		0.03		E200.8	04/16/11 15:18 / sml
Lead	ND	mg/L		0.001		E200.8	04/16/11 15:18 / sml
Manganese	ND	mg/L		0.01		E200.8	04/16/11 15:18 / sml
Mercury	ND	mg/L		0.001		E200.8	04/16/11 15:18 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/16/11 15:18 / sml
Nickel	ND	mg/L		0.05		E200.8	04/16/11 15:18 / sml
Selenium	0.005	mg/L	D	0.002		E200.8	04/16/11 15:18 / sml
Uranium	0.0009	mg/L		0.0003		E200.8	04/16/11 15:18 / sml
Uranium, Activity	6.4E-10	uCi/mL		2.0E-10		E200.8	04/16/11 15:18 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/16/11 15:18 / sml
Zinc	0.01	mg/L		0.01		E200.7	04/25/11 16:31 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/21/11 15:24 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/21/11 15:24 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-004
Client Sample ID: Monitor 5

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	06/01/11 10:15 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	06/01/11 10:15 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	06/01/11 10:15 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	05/06/11 11:04 / ep
Polonium 210 precision (±)	0.5	pCi/L				E912.0	05/06/11 11:04 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	05/06/11 11:04 / ep
Radium 226	2.0	pCi/L		0.1		E903.0	05/02/11 12:53 / trs
Radium 226 precision (±)	0.3	pCi/L				E903.0	05/02/11 12:53 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 12:53 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	05/10/11 13:00 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	05/10/11 13:00 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	05/10/11 13:00 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	05/23/11 22:23 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/23/11 22:23 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	05/23/11 22:23 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/06/11 08:46 / ep
Polonium 210 precision (±)	0.09	pCi/L				E912.0	05/06/11 08:46 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/06/11 08:46 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 23:36 / trs
Radium 226 precision (±)	0.04	pCi/L				E903.0	05/02/11 23:36 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 23:36 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/05/11 14:45 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	05/05/11 14:45 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/05/11 14:45 / dmf
DATA QUALITY							
A/C Balance (± 5)	3.78	%				Calculation	05/02/11 09:15 / kbh
Anions	21.5	meq/L				Calculation	05/02/11 09:15 / kbh
Cations	23.2	meq/L				Calculation	05/02/11 09:15 / kbh
Solids, Total Dissolved Calculated	1390	mg/L				Calculation	05/02/11 09:15 / kbh
TDS Balance (0.80 - 1.20)	0.940					Calculation	05/02/11 09:15 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-005
Client Sample ID: Monitor 6

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	361	mg/L		1		A2320 B	04/15/11 16:27 / jba
Carbonate as CO3	53	mg/L		1		A2320 B	04/15/11 16:27 / jba
Bicarbonate as HCO3	332	mg/L		1		A2320 B	04/15/11 16:27 / jba
Calcium	7	mg/L		1		E200.7	04/25/11 16:35 / cp
Chloride	386	mg/L	D	4		E300.0	04/22/11 02:47 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	04/18/11 09:35 / jba
Magnesium	ND	mg/L		1		E200.7	04/25/11 16:35 / cp
Nitrogen, Ammonia as N	0.30	mg/L		0.05		A4500-NH3 G	04/21/11 16:44 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/18/11 12:34 / dc
Potassium	23	mg/L		1		E200.7	04/25/11 16:35 / cp
Silica	15.1	mg/L		0.2		E200.8	04/16/11 15:25 / sml
Sodium	455	mg/L		1		E200.7	04/25/11 16:35 / cp
Sulfate	59	mg/L	D	4		E300.0	04/20/11 03:51 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	2000	umhos/cm		1		A2510 B	04/15/11 11:46 / lr
pH	9.17	s.u.		0.01		A4500-H B	04/15/11 11:46 / lr
Solids, Total Dissolved TDS @ 180 C	1140	mg/L		10		A2540 C	04/15/11 16:32 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	04/16/11 15:25 / sml
Arsenic	0.001	mg/L		0.001		E200.8	04/16/11 15:25 / sml
Barium	0.1	mg/L		0.1		E200.8	04/16/11 15:25 / sml
Boron	1.3	mg/L		0.1		E200.7	04/25/11 16:35 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/16/11 15:25 / sml
Chromium	ND	mg/L		0.05		E200.8	04/16/11 15:25 / sml
Copper	ND	mg/L		0.01		E200.8	04/16/11 15:25 / sml
Iron	ND	mg/L		0.03		E200.8	04/16/11 15:25 / sml
Lead	ND	mg/L		0.001		E200.8	04/16/11 15:25 / sml
Manganese	ND	mg/L		0.01		E200.8	04/16/11 15:25 / sml
Mercury	ND	mg/L		0.001		E200.8	04/16/11 15:25 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/16/11 15:25 / sml
Nickel	ND	mg/L		0.05		E200.8	04/16/11 15:25 / sml
Selenium	0.004	mg/L	D	0.002		E200.8	04/16/11 15:25 / sml
Uranium	0.0017	mg/L		0.0003		E200.8	04/16/11 15:25 / sml
Uranium, Activity	1.2E-09	uCi/mL		2.0E-10		E200.8	04/16/11 15:25 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/16/11 15:25 / sml
Zinc	0.02	mg/L		0.01		E200.7	04/25/11 16:35 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/21/11 15:28 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/21/11 15:28 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-005
Client Sample ID: Monitor 6

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	1.7	pCi/L		0.8		E909.0	06/01/11 12:27 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	06/01/11 12:27 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	06/01/11 12:27 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	05/06/11 11:04 / ep
Polonium 210 precision (±)	0.5	pCi/L				E912.0	05/06/11 11:04 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	05/06/11 11:04 / ep
Radium 226	2.3	pCi/L		0.1		E903.0	05/02/11 12:53 / trs
Radium 226 precision (±)	0.3	pCi/L				E903.0	05/02/11 12:53 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 12:53 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/10/11 13:00 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	05/10/11 13:00 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/10/11 13:00 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/24/11 00:34 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/24/11 00:34 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/24/11 00:34 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/06/11 08:46 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	05/06/11 08:46 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/06/11 08:46 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 23:36 / trs
Radium 226 precision (±)	0.04	pCi/L				E903.0	05/02/11 23:36 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 23:36 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/05/11 14:45 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	05/05/11 14:45 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/05/11 14:45 / dmf
DATA QUALITY							
A/C Balance (± 5)	3.60	%				Calculation	05/02/11 09:15 / kbh
Anions	19.4	meq/L				Calculation	05/02/11 09:15 / kbh
Cations	20.8	meq/L				Calculation	05/02/11 09:15 / kbh
Solids, Total Dissolved Calculated	1170	mg/L				Calculation	05/02/11 09:15 / kbh
TDS Balance (0.80 - 1.20)	0.970					Calculation	05/02/11 09:15 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-006
Client Sample ID: Monitor 7

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	273	mg/L		1		A2320 B	04/15/11 16:35 / jba
Carbonate as CO3	31	mg/L		1		A2320 B	04/15/11 16:35 / jba
Bicarbonate as HCO3	270	mg/L		1		A2320 B	04/15/11 16:35 / jba
Calcium	7	mg/L		1		E200.7	04/25/11 16:39 / cp
Chloride	346	mg/L	D	4		E300.0	04/22/11 03:02 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	04/18/11 09:37 / jba
Magnesium	1	mg/L		1		E200.7	04/25/11 16:39 / cp
Nitrogen, Ammonia as N	0.21	mg/L		0.05		A4500-NH3 G	04/21/11 16:46 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/18/11 12:37 / dc
Potassium	17	mg/L		1		E200.7	04/25/11 16:39 / cp
Silica	14.0	mg/L		0.2		E200.8	04/16/11 15:32 / sml
Sodium	511	mg/L		1		E200.7	04/25/11 16:39 / cp
Sulfate	293	mg/L	D	4		E300.0	04/20/11 04:06 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	2200	umhos/cm		1		A2510 B	04/15/11 11:48 / lr
pH	9.10	s.u.		0.01		A4500-H B	04/15/11 11:48 / lr
Solids, Total Dissolved TDS @ 180 C	1310	mg/L		10		A2540 C	04/15/11 16:32 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	04/16/11 15:32 / sml
Arsenic	0.001	mg/L		0.001		E200.8	04/16/11 15:32 / sml
Barium	ND	mg/L		0.1		E200.8	04/16/11 15:32 / sml
Boron	1.4	mg/L		0.1		E200.7	04/25/11 16:39 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/16/11 15:32 / sml
Chromium	ND	mg/L		0.05		E200.8	04/16/11 15:32 / sml
Copper	ND	mg/L		0.01		E200.8	04/16/11 15:32 / sml
Iron	ND	mg/L		0.03		E200.8	04/16/11 15:32 / sml
Lead	ND	mg/L		0.001		E200.8	04/16/11 15:32 / sml
Manganese	ND	mg/L		0.01		E200.8	04/16/11 15:32 / sml
Mercury	ND	mg/L		0.001		E200.8	04/16/11 15:32 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/16/11 15:32 / sml
Nickel	ND	mg/L		0.05		E200.8	04/16/11 15:32 / sml
Selenium	0.005	mg/L	D	0.002		E200.8	04/16/11 15:32 / sml
Uranium	0.0005	mg/L		0.0003		E200.8	04/16/11 15:32 / sml
Uranium, Activity	3.2E-10	uCi/mL		2.0E-10		E200.8	04/16/11 15:32 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/16/11 15:32 / sml
Zinc	0.02	mg/L		0.01		E200.7	04/25/11 16:39 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/21/11 15:32 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/21/11 15:32 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-006
Client Sample ID: Monitor 7

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	06/01/11 14:38 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	06/01/11 14:38 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	06/01/11 14:38 / eli-cs
Polonium 210	<0.5	pCi/L	U	0.5		E912.0	05/06/11 11:04 / ep
Polonium 210 precision (±)	0.4	pCi/L				E912.0	05/06/11 11:04 / ep
Polonium 210 MDC	0.5	pCi/L				E912.0	05/06/11 11:04 / ep
Radium 226	0.3	pCi/L		0.1		E903.0	05/02/11 12:53 / trs
Radium 226 precision (±)	0.1	pCi/L				E903.0	05/02/11 12:53 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 12:53 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	05/10/11 13:00 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	05/10/11 13:00 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	05/10/11 13:00 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/24/11 02:45 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/24/11 02:45 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/24/11 02:45 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/06/11 08:46 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	05/06/11 08:46 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/06/11 08:46 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 23:36 / trs
Radium 226 precision (±)	0.04	pCi/L				E903.0	05/02/11 23:36 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 23:36 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/05/11 14:45 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	05/05/11 14:45 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/05/11 14:45 / dmf
DATA QUALITY							
A/C Balance (± 5)	3.91	%				Calculation	05/02/11 09:16 / kbh
Anions	21.4	meq/L				Calculation	05/02/11 09:16 / kbh
Cations	23.1	meq/L				Calculation	05/02/11 09:16 / kbh
Solids, Total Dissolved Calculated	1360	mg/L				Calculation	05/02/11 09:16 / kbh
TDS Balance (0.80 - 1.20)	0.960					Calculation	05/02/11 09:16 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-007
Client Sample ID: Monitor 8

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	294	mg/L		1		A2320 B	04/15/11 16:44 / jba
Carbonate as CO3	21	mg/L		1		A2320 B	04/15/11 16:44 / jba
Bicarbonate as HCO3	314	mg/L		1		A2320 B	04/15/11 16:44 / jba
Calcium	10	mg/L		1		E200.7	04/25/11 16:51 / cp
Chloride	197	mg/L		1		E300.0	04/20/11 04:22 / ljl
Fluoride	0.7	mg/L		0.1		A4500-F C	04/18/11 09:44 / jba
Magnesium	2	mg/L		1		E200.7	04/25/11 16:51 / cp
Nitrogen, Ammonia as N	0.28	mg/L		0.05		A4500-NH3 G	04/21/11 16:48 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/18/11 12:39 / dc
Potassium	18	mg/L		1		E200.7	04/25/11 16:51 / cp
Silica	15.5	mg/L		0.2		E200.8	04/16/11 16:00 / sml
Sodium	461	mg/L		1		E200.7	04/25/11 16:51 / cp
Sulfate	396	mg/L	D	4		E300.0	04/20/11 04:22 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1960	umhos/cm		1		A2510 B	04/15/11 11:49 / lr
pH	8.84	s.u.		0.01		A4500-H B	04/15/11 11:49 / lr
Solids, Total Dissolved TDS @ 180 C	1230	mg/L		10		A2540 C	04/15/11 16:32 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	04/16/11 16:00 / sml
Arsenic	ND	mg/L		0.001		E200.8	04/16/11 16:00 / sml
Barium	ND	mg/L		0.1		E200.8	04/16/11 16:00 / sml
Boron	1.4	mg/L		0.1		E200.7	04/25/11 16:51 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/16/11 16:00 / sml
Chromium	ND	mg/L		0.05		E200.8	04/16/11 16:00 / sml
Copper	ND	mg/L		0.01		E200.8	04/16/11 16:00 / sml
Iron	ND	mg/L		0.03		E200.8	04/16/11 16:00 / sml
Lead	ND	mg/L		0.001		E200.8	04/16/11 16:00 / sml
Manganese	ND	mg/L		0.01		E200.8	04/16/11 16:00 / sml
Mercury	ND	mg/L		0.001		E200.8	04/16/11 16:00 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/16/11 16:00 / sml
Nickel	ND	mg/L		0.05		E200.8	04/16/11 16:00 / sml
Selenium	0.006	mg/L	D	0.002		E200.8	04/16/11 16:00 / sml
Uranium	0.0003	mg/L		0.0003		E200.8	04/16/11 16:00 / sml
Uranium, Activity	2.3E-10	uCi/mL		2.0E-10		E200.8	04/16/11 16:00 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/16/11 16:00 / sml
Zinc	0.01	mg/L		0.01		E200.7	04/25/11 16:51 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/21/11 15:36 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/21/11 15:36 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-007
Client Sample ID: Monitor 8

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	06/01/11 16:49 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	06/01/11 16:49 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	06/01/11 16:49 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	05/06/11 11:04 / ep
Polonium 210 precision (±)	0.4	pCi/L				E912.0	05/06/11 11:04 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	05/06/11 11:04 / ep
Radium 226	1	pCi/L		0.1		E903.0	05/02/11 12:53 / trs
Radium 226 precision (±)	0.2	pCi/L				E903.0	05/02/11 12:53 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 12:53 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	05/10/11 13:01 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	05/10/11 13:01 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	05/10/11 13:01 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/24/11 04:57 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/24/11 04:57 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/24/11 04:57 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/06/11 08:47 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	05/06/11 08:47 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/06/11 08:47 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 23:36 / trs
Radium 226 precision (±)	0.05	pCi/L				E903.0	05/02/11 23:36 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 23:36 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/05/11 14:45 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	05/05/11 14:45 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/05/11 14:45 / dmf
DATA QUALITY							
A/C Balance (± 5)	3.63	%				Calculation	05/02/11 09:16 / kbh
Anions	19.7	meq/L				Calculation	05/02/11 09:16 / kbh
Cations	21.2	meq/L				Calculation	05/02/11 09:16 / kbh
Solids, Total Dissolved Calculated	1280	mg/L				Calculation	05/02/11 09:16 / kbh
TDS Balance (0.80 - 1.20)	0.960					Calculation	05/02/11 09:16 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-008
Client Sample ID: Monitor 9

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	337	mg/L		1		A2320 B	04/15/11 16:54 / jba
Carbonate as CO3	32	mg/L		1		A2320 B	04/15/11 16:54 / jba
Bicarbonate as HCO3	345	mg/L		1		A2320 B	04/15/11 16:54 / jba
Calcium	3	mg/L		1		E200.7	04/25/11 16:59 / cp
Chloride	279	mg/L	D	2		E300.0	04/22/11 03:18 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	04/18/11 10:03 / jba
Magnesium	ND	mg/L		1		E200.7	04/25/11 16:59 / cp
Nitrogen, Ammonia as N	0.27	mg/L		0.05		A4500-NH3 G	04/22/11 11:47 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/18/11 12:49 / dc
Potassium	17	mg/L		1		E200.7	04/25/11 16:59 / cp
Silica	14.4	mg/L		0.2		E200.8	04/16/11 16:07 / sml
Sodium	397	mg/L		1		E200.7	04/25/11 16:59 / cp
Sulfate	89	mg/L	D	4		E300.0	04/20/11 04:37 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1680	umhos/cm		1		A2510 B	04/15/11 11:51 / lr
pH	9.02	s.u.		0.01		A4500-H B	04/15/11 11:51 / lr
Solids, Total Dissolved TDS @ 180 C	964	mg/L		10		A2540 C	04/15/11 16:33 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	04/16/11 16:07 / sml
Arsenic	0.003	mg/L		0.001		E200.8	04/16/11 16:07 / sml
Barium	ND	mg/L		0.1		E200.8	04/16/11 16:07 / sml
Boron	1.2	mg/L		0.1		E200.7	04/25/11 16:59 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/16/11 16:07 / sml
Chromium	ND	mg/L		0.05		E200.8	04/16/11 16:07 / sml
Copper	ND	mg/L		0.01		E200.8	04/16/11 16:07 / sml
Iron	ND	mg/L		0.03		E200.8	04/16/11 16:07 / sml
Lead	ND	mg/L		0.001		E200.8	04/16/11 16:07 / sml
Manganese	ND	mg/L		0.01		E200.8	04/16/11 16:07 / sml
Mercury	ND	mg/L		0.001		E200.8	04/16/11 16:07 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/16/11 16:07 / sml
Nickel	ND	mg/L		0.05		E200.8	04/16/11 16:07 / sml
Selenium	0.004	mg/L	D	0.002		E200.8	04/16/11 16:07 / sml
Uranium	0.0073	mg/L		0.0003		E200.8	04/16/11 16:07 / sml
Uranium, Activity	4.9E-09	uCi/mL		2.0E-10		E200.8	04/16/11 16:07 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/16/11 16:07 / sml
Zinc	ND	mg/L		0.01		E200.7	04/25/11 16:59 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/21/11 15:40 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/21/11 15:40 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-008
Client Sample ID: Monitor 9

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	1.0	pCi/L		0.8		E909.0	06/01/11 19:01 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	06/01/11 19:01 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	06/01/11 19:01 / eli-cs
Polonium 210	<0.5	pCi/L	U	0.5		E912.0	05/06/11 11:04 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	05/06/11 11:04 / ep
Polonium 210 MDC	0.5	pCi/L				E912.0	05/06/11 11:04 / ep
Radium 226	0.5	pCi/L		0.1		E903.0	05/02/11 12:53 / trs
Radium 226 precision (±)	0.1	pCi/L				E903.0	05/02/11 12:53 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 12:53 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	05/10/11 13:01 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	05/10/11 13:01 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	05/10/11 13:01 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/24/11 07:08 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/24/11 07:08 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/24/11 07:08 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/06/11 08:47 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	05/06/11 08:47 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/06/11 08:47 / ep
Radium 226	0.3	pCi/L		0.1		E903.0	05/02/11 23:36 / trs
Radium 226 precision (±)	0.1	pCi/L				E903.0	05/02/11 23:36 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 23:36 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/05/11 14:45 / dmf
Thorium 230 precision (±)	0.08	pCi/L				E908.0	05/05/11 14:45 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/05/11 14:45 / dmf
DATA QUALITY							
A/C Balance (± 5)	4.14	%				Calculation	05/02/11 09:16 / kbh
Anions	16.5	meq/L				Calculation	05/02/11 09:16 / kbh
Cations	17.9	meq/L				Calculation	05/02/11 09:16 / kbh
Solids, Total Dissolved Calculated	1010	mg/L				Calculation	05/02/11 09:16 / kbh
TDS Balance (0.80 - 1.20)	0.950					Calculation	05/02/11 09:16 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-009
Client Sample ID: Monitor 10

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	314	mg/L		1		A2320 B	04/15/11 17:02 / jba
Carbonate as CO3	16	mg/L		1		A2320 B	04/15/11 17:02 / jba
Bicarbonate as HCO3	351	mg/L		1		A2320 B	04/15/11 17:02 / jba
Calcium	9	mg/L		1		E200.7	04/25/11 17:03 / cp
Chloride	175	mg/L		1		E300.0	04/20/11 05:24 / ljl
Fluoride	0.7	mg/L		0.1		A4500-F C	04/18/11 10:09 / jba
Magnesium	2	mg/L		1		E200.7	04/25/11 17:03 / cp
Nitrogen, Ammonia as N	0.34	mg/L		0.05		A4500-NH3 G	04/22/11 11:49 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/18/11 12:52 / dc
Potassium	13	mg/L		1		E200.7	04/25/11 17:03 / cp
Silica	13.1	mg/L		0.2		E200.8	04/16/11 16:42 / sml
Sodium	432	mg/L		1		E200.7	04/25/11 17:03 / cp
Sulfate	347	mg/L	D	4		E300.0	04/20/11 05:24 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	1820	umhos/cm		1		A2510 B	04/15/11 11:53 / lr
pH	8.61	s.u.		0.01		A4500-H B	04/15/11 11:53 / lr
Solids, Total Dissolved TDS @ 180 C	1140	mg/L		10		A2540 C	04/15/11 16:33 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	04/16/11 16:42 / sml
Arsenic	0.001	mg/L		0.001		E200.8	04/16/11 16:42 / sml
Barium	ND	mg/L		0.1		E200.8	04/16/11 16:42 / sml
Boron	1.4	mg/L		0.1		E200.7	04/25/11 17:03 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/16/11 16:42 / sml
Chromium	ND	mg/L		0.05		E200.8	04/16/11 16:42 / sml
Copper	ND	mg/L		0.01		E200.8	04/16/11 16:42 / sml
Iron	ND	mg/L		0.03		E200.8	04/16/11 16:42 / sml
Lead	ND	mg/L		0.001		E200.8	04/16/11 16:42 / sml
Manganese	ND	mg/L		0.01		E200.8	04/16/11 16:42 / sml
Mercury	ND	mg/L		0.001		E200.8	04/16/11 16:42 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/16/11 16:42 / sml
Nickel	ND	mg/L		0.05		E200.8	04/16/11 16:42 / sml
Selenium	0.004	mg/L	D	0.002		E200.8	04/16/11 16:42 / sml
Uranium	0.0006	mg/L		0.0003		E200.8	04/16/11 16:42 / sml
Uranium, Activity	4.3E-10	uCi/mL		2.0E-10		E200.8	04/16/11 16:42 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/16/11 16:42 / sml
Zinc	0.02	mg/L		0.01		E200.7	04/25/11 17:03 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/21/11 15:44 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/21/11 15:44 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-009
Client Sample ID: Monitor 10

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	06/01/11 21:12 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	06/01/11 21:12 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	06/01/11 21:12 / eli-cs
Polonium 210	<0.7	pCi/L	U	0.7		E912.0	05/06/11 11:04 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	05/06/11 11:04 / ep
Polonium 210 MDC	0.7	pCi/L				E912.0	05/06/11 11:04 / ep
Radium 226	0.4	pCi/L		0.1		E903.0	05/02/11 14:28 / trs
Radium 226 precision (±)	0.1	pCi/L				E903.0	05/02/11 14:28 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 14:28 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	05/10/11 13:01 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	05/10/11 13:01 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	05/10/11 13:01 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/24/11 10:28 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/24/11 10:28 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/24/11 10:28 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/06/11 08:47 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	05/06/11 08:47 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/06/11 08:47 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/03/11 02:01 / trs
Radium 226 precision (±)	0.06	pCi/L				E903.0	05/03/11 02:01 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/03/11 02:01 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/05/11 14:45 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	05/05/11 14:45 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/05/11 14:45 / dmf
DATA QUALITY							
A/C Balance (± 5)	3.21	%				Calculation	05/02/11 09:17 / kbh
Anions	18.5	meq/L				Calculation	05/02/11 09:17 / kbh
Cations	19.7	meq/L				Calculation	05/02/11 09:17 / kbh
Solids, Total Dissolved Calculated	1180	mg/L				Calculation	05/02/11 09:17 / kbh
TDS Balance (0.80 - 1.20)	0.970					Calculation	05/02/11 09:17 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-010
Client Sample ID: Monitor 11

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	345	mg/L		1		A2320 B	04/15/11 17:11 / jba
Carbonate as CO3	55	mg/L		1		A2320 B	04/15/11 17:11 / jba
Bicarbonate as HCO3	309	mg/L		1		A2320 B	04/15/11 17:11 / jba
Calcium	5	mg/L		1		E200.8	04/16/11 16:49 / sml
Chloride	401	mg/L	D	4		E300.0	04/22/11 03:33 / ljl
Fluoride	0.8	mg/L		0.1		A4500-F C	04/18/11 10:12 / jba
Magnesium	ND	mg/L		1		E200.8	04/16/11 16:49 / sml
Nitrogen, Ammonia as N	0.24	mg/L		0.05		A4500-NH3 G	04/22/11 11:51 / dc
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	04/18/11 12:54 / dc
Potassium	23	mg/L		1		E200.8	04/16/11 16:49 / sml
Silica	11.7	mg/L		0.2		E200.8	04/16/11 16:49 / sml
Sodium	420	mg/L		1		E200.8	04/16/11 16:49 / sml
Sulfate	135	mg/L	D	4		E300.0	04/20/11 05:39 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	2160	umhos/cm		1		A2510 B	04/15/11 12:01 / lr
pH	9.29	s.u.		0.01		A4500-H B	04/15/11 12:01 / lr
Solids, Total Dissolved TDS @ 180 C	1250	mg/L		10		A2540 C	04/15/11 16:33 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	04/16/11 16:49 / sml
Arsenic	0.003	mg/L		0.001		E200.8	04/16/11 16:49 / sml
Barium	ND	mg/L		0.1		E200.8	04/16/11 16:49 / sml
Boron	1.4	mg/L		0.1		E200.7	04/25/11 18:04 / cp
Cadmium	ND	mg/L		0.005		E200.8	04/16/11 16:49 / sml
Chromium	ND	mg/L		0.05		E200.8	04/16/11 16:49 / sml
Copper	ND	mg/L		0.01		E200.8	04/16/11 16:49 / sml
Iron	ND	mg/L		0.03		E200.8	04/16/11 16:49 / sml
Lead	ND	mg/L		0.001		E200.8	04/16/11 16:49 / sml
Manganese	ND	mg/L		0.01		E200.8	04/16/11 16:49 / sml
Mercury	ND	mg/L		0.001		E200.8	04/16/11 16:49 / sml
Molybdenum	ND	mg/L		0.1		E200.8	04/16/11 16:49 / sml
Nickel	ND	mg/L		0.05		E200.8	04/16/11 16:49 / sml
Selenium	0.004	mg/L	D	0.002		E200.8	04/16/11 16:49 / sml
Uranium	0.0008	mg/L		0.0003		E200.8	04/16/11 16:49 / sml
Uranium, Activity	5.7E-10	uCi/mL		2.0E-10		E200.8	04/16/11 16:49 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/16/11 16:49 / sml
Zinc	0.01	mg/L		0.01		E200.7	04/25/11 18:04 / cp
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/21/11 15:48 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/21/11 15:48 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040476-010
Client Sample ID: Monitor 11

Report Date: 06/13/11
Collection Date: 04/11/11
DateReceived: 04/14/11
Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	06/01/11 23:24 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	06/01/11 23:24 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	06/01/11 23:24 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	05/06/11 11:04 / ep
Polonium 210 precision (±)	0.4	pCi/L				E912.0	05/06/11 11:04 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	05/06/11 11:04 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 14:28 / trs
Radium 226 precision (±)	0.08	pCi/L				E903.0	05/02/11 14:28 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 14:28 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/10/11 13:00 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	05/10/11 13:00 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/10/11 13:00 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	05/24/11 12:39 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/24/11 12:39 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	05/24/11 12:39 / eli-cs
Polonium 210	<0.2	pCi/L	U	0.2		E912.0	05/06/11 08:47 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	05/06/11 08:47 / ep
Polonium 210 MDC	0.2	pCi/L				E912.0	05/06/11 08:47 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/03/11 02:01 / trs
Radium 226 precision (±)	0.04	pCi/L				E903.0	05/03/11 02:01 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/03/11 02:01 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/05/11 14:45 / dmf
Thorium 230 precision (±)	0.06	pCi/L				E908.0	05/05/11 14:45 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/05/11 14:45 / dmf
DATA QUALITY							
A/C Balance (± 5)	-4.61	%				Calculation	05/02/11 09:17 / kbh
Anions	21.1	meq/L				Calculation	05/02/11 09:17 / kbh
Cations	19.2	meq/L				Calculation	05/02/11 09:17 / kbh
Solids, Total Dissolved Calculated	1210	mg/L				Calculation	05/02/11 09:17 / kbh
TDS Balance (0.80 - 1.20)	1.03					Calculation	05/02/11 09:17 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/13/11
Work Order: C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R144875
Sample ID: MBLK	3	Method Blank				Run: MANTECH_110415A				04/15/11 15:09
Alkalinity, Total as CaCO3		1.53	mg/L	1.0						
Carbonate as CO3		ND	mg/L	1.0						
Bicarbonate as HCO3		1.86	mg/L	1.0						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110415A				04/15/11 15:25
Alkalinity, Total as CaCO3		209	mg/L	5.0	104	90	110			
Sample ID: C11040476-001BDUP		Sample Duplicate				Run: MANTECH_110415A				04/15/11 15:41
Alkalinity, Total as CaCO3		406	mg/L	5.0				0.2	10	
Sample ID: C11040476-001BMS		Sample Matrix Spike				Run: MANTECH_110415A				04/15/11 15:51
Alkalinity, Total as CaCO3		540	mg/L	5.0	108	80	120			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/13/11

Project: Marsland Baseline Samples **Work Order:** C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: ORION555A-2_110415A		
Sample ID: ICV2_110415_1		Initial Calibration Verification Standard							04/15/11 10:59	
Conductivity @ 25 C		1380	umhos/cm	1.0	98	90	110			
Method: A2510 B								Batch: 110415_1_PH-W_555A-2		
Sample ID: MBLK1_110415_1		Method Blank				Run: ORION555A-2_110415A			04/15/11 10:56	
Conductivity @ 25 C		ND	umhos/cm	1.0						
Sample ID: C11040476-004BDUP		Sample Duplicate				Run: ORION555A-2_110415A			04/15/11 11:38	
Conductivity @ 25 C		2230	umhos/cm	1.0				0.2	10	
Sample ID: C11040476-010BDUP		Sample Duplicate				Run: ORION555A-2_110415A			04/15/11 12:02	
Conductivity @ 25 C		2160	umhos/cm	1.0				0.0	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/13/11

Project: Marsland Baseline Samples **Work Order:** C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C								Batch: 110415_1_SLDS-TDS-W		
Sample ID: MBLK1_110415		Method Blank				Run: BAL-1_110415B			04/15/11 16:31	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	10						
Sample ID: LCS1_110415		Laboratory Control Sample				Run: BAL-1_110415B			04/15/11 16:31	
Solids, Total Dissolved TDS @ 180 C		998	mg/L	10	100	90	110			
Sample ID: C11040476-005ADUP		Sample Duplicate				Run: BAL-1_110415B			04/15/11 16:32	
Solids, Total Dissolved TDS @ 180 C		1140	mg/L	10				0.0	10	
Sample ID: C11040476-010ADUP		Sample Duplicate				Run: BAL-1_110415B			04/15/11 16:33	
Solids, Total Dissolved TDS @ 180 C		1240	mg/L	10				0.6	10	
Sample ID: C11040483-004AMS		Sample Matrix Spike				Run: BAL-1_110415B			04/15/11 16:34	
Solids, Total Dissolved TDS @ 180 C		2560	mg/L	10	102	90	110			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/13/11

Project: Marsland Baseline Samples **Work Order:** C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R144902
Sample ID: MBLK		Method Blank				Run: MANTECH_110418A				04/18/11 07:44
Fluoride		ND	mg/L	0.10						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110418A				04/18/11 07:47
Fluoride		1.00	mg/L	0.10	98	90	110			
Sample ID: C11040476-002BMS		Sample Matrix Spike				Run: MANTECH_110418A				04/18/11 09:24
Fluoride		1.59	mg/L	0.10	98	80	120			
Sample ID: C11040476-002BMSD		Sample Matrix Spike Duplicate				Run: MANTECH_110418A				04/18/11 09:27
Fluoride		1.62	mg/L	0.10	101	80	120	1.9	10	
Sample ID: C11040476-010BMS		Sample Matrix Spike				Run: MANTECH_110418A				04/18/11 10:19
Fluoride		1.85	mg/L	0.10	102	80	120			
Sample ID: C11040476-010BMSD		Sample Matrix Spike Duplicate				Run: MANTECH_110418A				04/18/11 10:26
Fluoride		1.82	mg/L	0.10	99	80	120	1.6	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/13/11

Project: Marsland Baseline Samples **Work Order:** C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION555A-2_110415A		
Sample ID: ICV1_110415_1		Initial Calibration Verification Standard							04/15/11 10:57	
pH		6.92	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 110415_1_PH-W_555A-2		
Sample ID: C11040476-004BDUP		Sample Duplicate				Run: ORION555A-2_110415A			04/15/11 11:38	
pH		9.88	s.u.	0.010				0.0	3	
Sample ID: C11040476-010BDUP		Sample Duplicate				Run: ORION555A-2_110415A			04/15/11 12:02	
pH		9.28	s.u.	0.010				0.1	3	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/13/11
Work Order: C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R145058
Sample ID: MBLK-6		Method Blank				Run: TECHNICON_110421A				04/21/11 15:34
Nitrogen, Ammonia as N		ND	mg/L	0.050						
Sample ID: LCS-7		Laboratory Control Sample				Run: TECHNICON_110421A				04/21/11 15:36
Nitrogen, Ammonia as N		2.02	mg/L	0.050	101	90	110			
Sample ID: C11040476-007GMS		Sample Matrix Spike				Run: TECHNICON_110421A				04/21/11 16:50
Nitrogen, Ammonia as N		1.99	mg/L	0.050	88	80	120			
Sample ID: C11040476-007GMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110421A				04/21/11 16:52
Nitrogen, Ammonia as N		2.04	mg/L	0.050	90	80	120	2.5	10	
Method: A4500-NH3 G										Batch: R145085
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110422A				04/22/11 11:43
Nitrogen, Ammonia as N		ND	mg/L	0.050						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110422A				04/22/11 11:45
Nitrogen, Ammonia as N		2.05	mg/L	0.050	101	90	110			
Sample ID: C11040483-001DMS		Sample Matrix Spike				Run: TECHNICON_110422A				04/22/11 11:57
Nitrogen, Ammonia as N		1.81	mg/L	0.050	92	80	120			
Sample ID: C11040483-001DMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110422A				04/22/11 11:59
Nitrogen, Ammonia as N		1.85	mg/L	0.050	94	80	120	2.2	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/13/11

Project: Marsland Baseline Samples **Work Order:** C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R145139
Sample ID: MB-110425A	6	Method Blank				Run: ICP2-C_110425A			04/25/11 14:20	
Boron		ND	mg/L	0.10						
Calcium		ND	mg/L	1.0						
Magnesium		ND	mg/L	1.0						
Potassium		ND	mg/L	1.0						
Sodium		ND	mg/L	1.0						
Zinc		ND	mg/L	0.010						
Sample ID: LFB-110425A	6	Laboratory Fortified Blank				Run: ICP2-C_110425A			04/25/11 14:24	
Boron		0.890	mg/L	0.10	85	85	115			
Calcium		47.4	mg/L	0.50	95	85	115			
Magnesium		46.2	mg/L	0.50	92	85	115			
Potassium		48.9	mg/L	3.3	98	85	115			
Sodium		49.3	mg/L	0.50	99	85	115			
Zinc		0.941	mg/L	0.010	94	85	115			
Sample ID: C11040476-006CMS2	6	Sample Matrix Spike				Run: ICP2-C_110425A			04/25/11 16:43	
Boron		3.24	mg/L	0.10	93	70	130			
Calcium		103	mg/L	1.0	95	70	130			
Magnesium		99.8	mg/L	1.0	97	70	130			
Potassium		97.1	mg/L	1.0	78	70	130			
Sodium		597	mg/L	1.0		70	130			A
Zinc		1.97	mg/L	0.010	96	70	130			
Sample ID: C11040476-006CMSD	6	Sample Matrix Spike Duplicate				Run: ICP2-C_110425A			04/25/11 16:47	
Boron		3.36	mg/L	0.10	98	70	130	3.6	20	
Calcium		102	mg/L	1.0	94	70	130	1.0	20	
Magnesium		101	mg/L	1.0	98	70	130	1.0	20	
Potassium		98.6	mg/L	1.0	80	70	130	1.6	20	
Sodium		593	mg/L	1.0		70	130	0.7	20	A
Zinc		1.97	mg/L	0.010	95	70	130	0.4	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/13/11

Project: Marsland Baseline Samples **Work Order:** C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R144879A	
Sample ID: C11040476-010CMS4	21	Sample Matrix Spike				Run: ICPMS4-C_110415A			04/16/11 16:56	
Aluminum		0.127	mg/L	0.10	94	70	130			
Arsenic		0.0551	mg/L	0.0010	105	70	130			
Barium		0.0812	mg/L	0.0010	108	70	130			
Cadmium		0.0483	mg/L	0.010	97	70	130			
Calcium		18.1	mg/L	1.0	103	70	130			
Chromium		0.0513	mg/L	0.050	102	70	130			
Copper		0.0488	mg/L	0.010	98	70	130			
Iron		1.24	mg/L	0.030	98	70	130			
Lead		0.0527	mg/L	0.050	105	70	130			
Magnesium		12.8	mg/L	1.0	97	70	130			
Manganese		0.0514	mg/L	0.010	100	70	130			
Mercury		0.00151	mg/L	0.0010	30	70	130			S
Molybdenum		0.0665	mg/L	0.0010	108	70	130			
Nickel		0.0490	mg/L	0.0010	98	70	130			
Potassium		36.0	mg/L	1.0	101	70	130			
Selenium		0.0559	mg/L	0.0010	104	70	130			
Silicon		5.94	mg/L	0.10		70	130			A
Sodium		426	mg/L	1.0		70	130			A
Uranium		0.0532	mg/L	0.00030	105	70	130			
Vanadium		0.0537	mg/L	0.0010	105	70	130			
Zinc		0.0477	mg/L	0.010	90	70	130			
Sample ID: C11040476-010CMSD	21	Sample Matrix Spike Duplicate				Run: ICPMS4-C_110415A			04/16/11 17:03	
Aluminum		0.125	mg/L	0.10	90	70	130	1.6	20	
Arsenic		0.0541	mg/L	0.0010	103	70	130	1.7	20	
Barium		0.0790	mg/L	0.0010	103	70	130	2.9	20	
Cadmium		0.0475	mg/L	0.010	95	70	130	1.7	20	
Calcium		17.7	mg/L	1.0	99	70	130	2.4	20	
Chromium		0.0500	mg/L	0.050	100	70	130	2.5	20	
Copper		0.0474	mg/L	0.010	95	70	130	2.9	20	
Iron		1.22	mg/L	0.030	96	70	130	1.8	20	
Lead		0.0520	mg/L	0.050	104	70	130	1.4	20	
Magnesium		12.5	mg/L	1.0	94	70	130	2.6	20	
Manganese		0.0502	mg/L	0.010	98	70	130	2.2	20	
Mercury		0.00193	mg/L	0.0010	39	70	130	25	20	SR
Molybdenum		0.0661	mg/L	0.0010	107	70	130	0.7	20	
Nickel		0.0480	mg/L	0.0010	96	70	130	2.0	20	
Potassium		35.3	mg/L	1.0	96	70	130	1.9	20	
Selenium		0.0556	mg/L	0.0010	103	70	130	0.5	20	
Silicon		5.84	mg/L	0.10		70	130	1.6	20	A
Sodium		429	mg/L	1.0		70	130	0.5	20	A
Uranium		0.0526	mg/L	0.00030	103	70	130	1.2	20	
Vanadium		0.0521	mg/L	0.0010	102	70	130	3.0	20	
Zinc		0.0468	mg/L	0.010	88	70	130	2.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

R - RPD exceeds advisory limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/13/11

Project: Marsland Baseline Samples **Work Order:** C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R144879A	
Sample ID: LRB	21	Method Blank				Run: ICPMS4-C_110415A			04/15/11 19:10	
Aluminum		ND	mg/L	0.10						
Arsenic		ND	mg/L	0.0010						
Barium		ND	mg/L	0.10						
Cadmium		ND	mg/L	0.0050						
Calcium		ND	mg/L	1.0						
Chromium		ND	mg/L	0.050						
Copper		ND	mg/L	0.010						
Iron		ND	mg/L	0.030						
Lead		ND	mg/L	0.0010						
Magnesium		ND	mg/L	1.0						
Manganese		ND	mg/L	0.010						
Mercury		ND	mg/L	0.0010						
Molybdenum		ND	mg/L	0.10						
Nickel		ND	mg/L	0.050						
Potassium		ND	mg/L	1.0						
Selenium		0.00193	mg/L	0.0010						
Silicon		ND	mg/L	0.0050						
Sodium		ND	mg/L	1.0						
Uranium		ND	mg/L	0.00030						
Vanadium		ND	mg/L	0.10						
Zinc		ND	mg/L	0.010						
Sample ID: LFB	21	Laboratory Fortified Blank				Run: ICPMS4-C_110415A			04/15/11 19:17	
Aluminum		0.0520	mg/L	0.0010	104	85	115			
Arsenic		0.0517	mg/L	0.0010	103	85	115			
Barium		0.0502	mg/L	0.0010	100	85	115			
Cadmium		0.0509	mg/L	0.0010	102	85	115			
Calcium		11.7	mg/L	0.12	93	85	115			
Chromium		0.0524	mg/L	0.0010	105	85	115			
Copper		0.0539	mg/L	0.0010	108	85	115			
Iron		1.31	mg/L	0.012	103	85	115			
Lead		0.0506	mg/L	0.0010	101	85	115			
Magnesium		11.7	mg/L	0.12	94	85	115			
Manganese		0.0507	mg/L	0.0010	101	85	115			
Mercury		0.00533	mg/L	0.0010	107	85	115			
Molybdenum		0.0478	mg/L	0.0010	96	85	115			
Nickel		0.0531	mg/L	0.0010	106	85	115			
Potassium		11.7	mg/L	0.12	94	85	115			
Selenium		0.0548	mg/L	0.0010	106	85	115			
Silicon		0.576	mg/L	0.0010	110	85	115			
Sodium		11.6	mg/L	0.12	93	85	115			
Uranium		0.0508	mg/L	0.00030	102	85	115			
Vanadium		0.0515	mg/L	0.0010	103	85	115			
Zinc		0.0488	mg/L	0.0010	95	85	115			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/13/11

Project: Marsland Baseline Samples **Work Order:** C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 29614
Sample ID: MB-29614		Method Blank				Run: ICPMS4-C_110421A				04/21/11 13:09
Uranium		ND	mg/L	0.00030						
Sample ID: LCS2-29614		Laboratory Control Sample				Run: ICPMS4-C_110421A				04/21/11 13:17
Uranium		0.104	mg/L	0.00030	104	85	115			
Sample ID: C11040476-010HMS		Sample Matrix Spike				Run: ICPMS4-C_110421A				04/21/11 15:53
Uranium		0.0556	mg/L	0.00030	111	70	130			
Sample ID: C11040476-010HMSD		Sample Matrix Spike Duplicate				Run: ICPMS4-C_110421A				04/21/11 15:57
Uranium		0.0556	mg/L	0.00030	111	70	130	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/13/11

Project: Marsland Baseline Samples **Work Order:** C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0								Analytical Run: IC2-C_110419A		
Sample ID: ICV110419	2	Initial Calibration Verification Standard							04/19/11 12:26	
Chloride		9.84	mg/L	1.0	98	90	110			
Sulfate		40.4	mg/L	1.0	101	90	110			
Method: E300.0									Batch: R145050	
Sample ID: ICB	2	Method Blank				Run: IC2-C_110419A			04/19/11 12:41	
Chloride		ND	mg/L	1.0						
Sulfate		ND	mg/L	4.0						
Sample ID: LFB110419	2	Laboratory Fortified Blank				Run: IC2-C_110419A			04/19/11 12:57	
Chloride		9.67	mg/L	1.0	96	90	110			
Sulfate		40.1	mg/L	1.0	100	90	110			
Sample ID: C11040476-008BMS	2	Sample Matrix Spike				Run: IC2-C_110419A			04/20/11 04:53	
Chloride		319	mg/L	1.0		80	120			A
Sulfate		282	mg/L	4.0	101	80	120			
Sample ID: C11040476-008BMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110419A			04/20/11 05:08	
Chloride		318	mg/L	1.0		80	120	0.2	10	A
Sulfate		282	mg/L	4.0	101	80	120	0.0	10	
Method: E300.0								Analytical Run: IC2-C_110421A		
Sample ID: ICV		Initial Calibration Verification Standard							04/21/11 20:21	
Chloride		9.95	mg/L	1.0	99	90	110			
Sample ID: ICB2-110421		Initial Calibration Blank, Instrument Blank							04/21/11 21:23	
Chloride		0.0210	mg/L	1.0		0	0			
Method: E300.0									Batch: R145093	
Sample ID: ICB-110421		Method Blank				Run: IC2-C_110421A			04/21/11 20:37	
Chloride		ND	mg/L	1.0						
Sample ID: LFB-110421		Laboratory Fortified Blank				Run: IC2-C_110421A			04/21/11 20:52	
Chloride		9.67	mg/L	1.0	97	90	110			
Sample ID: LFBD-110421		Laboratory Fortified Blank Duplicate				Run: IC2-C_110421A			04/21/11 21:07	
Chloride		9.72	mg/L	1.0	97	90	110			
Sample ID: C11040476-004BMS		Sample Matrix Spike				Run: IC2-C_110421A			04/22/11 02:16	
Chloride		399	mg/L	2.0	81	80	120			
Sample ID: C11040476-004BMSD		Sample Matrix Spike Duplicate				Run: IC2-C_110421A			04/22/11 02:31	
Chloride		398	mg/L	2.0	81	80	120	0.2	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/13/11

Project: Marsland Baseline Samples **Work Order:** C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R144868
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110415B				04/15/11 14:34
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.10						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110415B				04/15/11 14:36
Nitrogen, Nitrate+Nitrite as N		2.51	mg/L	0.10	100	90	110			
Sample ID: C11040470-002CMS		Sample Matrix Spike				Run: TECHNICON_110415B				04/15/11 16:09
Nitrogen, Nitrate+Nitrite as N		2.14	mg/L	0.10	102	90	110			
Sample ID: C11040470-002CMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110415B				04/15/11 16:11
Nitrogen, Nitrate+Nitrite as N		1.96	mg/L	0.10	92	90	110	8.8	10	
Method: E353.2										Batch: R144900
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110418A				04/18/11 12:24
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.10						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110418A				04/18/11 12:27
Nitrogen, Nitrate+Nitrite as N		2.58	mg/L	0.10	103	90	110			
Sample ID: C11040476-007GMS		Sample Matrix Spike				Run: TECHNICON_110418A				04/18/11 12:42
Nitrogen, Nitrate+Nitrite as N		2.09	mg/L	0.10	107	90	110			
Sample ID: C11040476-007GMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110418A				04/18/11 12:44
Nitrogen, Nitrate+Nitrite as N		2.11	mg/L	0.10	108	90	110	1.0	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/13/11
Project: Marsland Baseline Samples **Work Order:** C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0									Batch: RA226-5305	
Sample ID: C11040476-001DMS		Sample Matrix Spike				Run: BERTHOLD 770-1_110422A			05/02/11 12:53	
Radium 226		23	pCi/L		99	70	130			
Sample ID: C11040476-001DMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-1_110422A			05/02/11 12:53	
Radium 226		22	pCi/L		97	70	130	1.7	20.7	
Sample ID: C11040601-001EDUP	3	Sample Duplicate				Run: BERTHOLD 770-1_110422A			05/02/11 14:28	
Radium 226		24	pCi/L					4.8	17.1	
Radium 226 precision (±)		0.86	pCi/L							
Radium 226 MDC		0.11	pCi/L							
Sample ID: MB-RA226-5305	3	Method Blank				Run: BERTHOLD 770-1_110422A			05/02/11 14:28	
Radium 226		ND	pCi/L	0.10						U
Radium 226 precision (±)		0.050	pCi/L							
Radium 226 MDC		0.12	pCi/L							
Sample ID: LCS-RA226-5305		Laboratory Control Sample				Run: BERTHOLD 770-1_110422A			05/02/11 14:28	
Radium 226		6.0	pCi/L		97	85	115			
Method: E903.0									Batch: RA226-5379	
Sample ID: C11050695-001DMS		Sample Matrix Spike				Run: BERTHOLD 770-1_110524A			05/31/11 17:25	
Radium 226		5.90	pCi/L		91	70	130			
Sample ID: C11050695-001DMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-1_110524A			05/31/11 17:25	
Radium 226		5.87	pCi/L		90	70	130	0.6	27.7	
Sample ID: MB-RA226-5379	3	Method Blank				Run: BERTHOLD 770-1_110524A			05/31/11 23:45	
Radium 226		ND	pCi/L	0.10						U
Radium 226 precision (±)		0.071	pCi/L							
Radium 226 MDC		0.15	pCi/L							
Sample ID: LCS-RA226-5379		Laboratory Control Sample				Run: BERTHOLD 770-1_110524A			05/31/11 23:45	
Radium 226		6.7	pCi/L		106	85	115			
Method: E903.0									Batch: 29614	
Sample ID: C11040326-005HMS		Sample Matrix Spike				Run: BERTHOLD 770-2_110422A			05/02/11 21:53	
Radium 226		12	pCi/L		109	70	130			
Sample ID: C11040326-005HMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-2_110422A			05/02/11 21:53	
Radium 226		12	pCi/L		113	70	130	0.8	24.5	
Sample ID: LCS-29614		Laboratory Control Sample				Run: BERTHOLD 770-2_110422A			05/03/11 02:01	
Radium 226		13	pCi/L		111	85	115			
Sample ID: MB-29614	3	Method Blank				Run: BERTHOLD 770-2_110422A			05/03/11 02:01	
Radium 226		ND	pCi/L	0.10						U
Radium 226 precision (±)		0.096	pCi/L							
Radium 226 MDC		0.24	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/13/11
Work Order: C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0									Batch: RA226-5384	
Sample ID: C11050675-001HDUP	3	Sample Duplicate				Run: BERTHOLD 770-2_110525A			05/31/11 17:25	
Radium 226		-0.041	pCi/L					150	379.3	U
Radium 226 precision (±)		0.047	pCi/L							
Radium 226 MDC		0.11	pCi/L							
Sample ID: C11050696-001DMS		Sample Matrix Spike				Run: BERTHOLD 770-2_110525A			05/31/11 17:25	
Radium 226		20	pCi/L		98	70	130			
Sample ID: LCS-29928		Laboratory Control Sample				Run: BERTHOLD 770-2_110525A			05/31/11 17:25	
Radium 226		12	pCi/L		102	85	115			
Sample ID: MB-29928	3	Method Blank				Run: BERTHOLD 770-2_110525A			05/31/11 17:25	
Radium 226		ND	pCi/L	0.10						U
Radium 226 precision (±)		0.11	pCi/L							
Radium 226 MDC		0.28	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/13/11

Project: Marsland Baseline Samples **Work Order:** C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0										Batch: R145601
Sample ID: C11040476-010HMS		Sample Matrix Spike				Run: EGG-ORTEC_110502A			05/05/11 14:45	
Thorium 230		9.0	pCi/L		102	70	130			
Sample ID: C11040476-010HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110502A			05/05/11 14:45	
Thorium 230		10	pCi/L		114	70	130	12	47.8	
Sample ID: LCS-29614		Laboratory Control Sample				Run: EGG-ORTEC_110502A			05/05/11 14:45	
Thorium 230		11	pCi/L		119	70	130			
Sample ID: MB-29614	3	Method Blank				Run: EGG-ORTEC_110502A			05/05/11 14:45	
Thorium 230		ND	pCi/L	0.090						U
Thorium 230 precision (±)		0.17	pCi/L							
Thorium 230 MDC		0.28	pCi/L							
Method: E908.0										Batch: RA-TH-ISO-1381
Sample ID: LCS-RA-TH-ISO-1381		Laboratory Control Sample				Run: EGG-ORTEC_110505A			05/09/11 14:40	
Thorium 230		5.6	pCi/L		100	70	130			
Sample ID: C11040476-009DMS		Sample Matrix Spike				Run: EGG-ORTEC_110505A			05/10/11 13:01	
Thorium 230		12	pCi/L		97	70	130			
Sample ID: C11040476-009DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110505A			05/10/11 13:01	
Thorium 230		11	pCi/L		87	70	130	8.1	37.6	
Sample ID: MB-RA-TH-ISO-1381	3	Method Blank				Run: EGG-ORTEC_110505A			05/10/11 13:01	
Thorium 230		ND	pCi/L	0.090						U
Thorium 230 precision (±)		0.087	pCi/L							
Thorium 230 MDC		0.19	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/13/11

Project: Marsland Baseline Samples **Work Order:** C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0										Batch: T_PB-210-0104
Sample ID: T11040111-001DMSD		Sample Matrix Spike Duplicate				Run: SUB-T40681				05/31/11 16:39
Lead 210		140	pCi/L		101	70	130	7.6	16	
Sample ID: T11040111-001DMS		Sample Matrix Spike				Run: SUB-T40681				05/31/11 14:28
Lead 210		130	pCi/L		92	70	130			
Sample ID: LCS-PB-210-0104		Laboratory Control Sample				Run: SUB-T40681				05/31/11 03:31
Lead 210		53	pCi/L		100	70	130			
Sample ID: MB-PB-210-0104	3	Method Blank				Run: SUB-T40681				05/31/11 01:19
Lead 210		ND	pCi/L	0.80						U
Lead 210 precision (±)		0.95	pCi/L							
Lead 210 MDC		1.6	pCi/L							
Method: E909.0										Batch: T_13823
Sample ID: T11040082-001HMSD		Sample Matrix Spike Duplicate				Run: SUB-T40682				05/22/11 20:05
Lead 210		81	pCi/L		86	70	130	6.3	16	
Sample ID: MB-13823	3	Method Blank				Run: SUB-T40682				05/22/11 11:19
Lead 210		1.3	pCi/L	0.80						U
Lead 210 precision (±)		5.6	pCi/L							
Lead 210 MDC		9.4	pCi/L							
Sample ID: LCS-13823		Laboratory Control Sample				Run: SUB-T40682				05/22/11 13:31
Lead 210		260	pCi/L		73	70	130			
Sample ID: T11040082-001HMS		Sample Matrix Spike				Run: SUB-T40682				05/22/11 17:54
Lead 210		86	pCi/L		93	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/13/11
Work Order: C11040476

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0										Batch: 29614
Sample ID: C11040476-010HMS		Sample Matrix Spike				Run: EGG-ORTEC_110503D				05/06/11 08:47
Polonium 210		6.3	pCi/L		117	70	130			
Sample ID: C11040476-010HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110503D				05/06/11 08:47
Polonium 210		5.6	pCi/L		103	70	130	13	62.3	
Sample ID: LCS-29614		Laboratory Control Sample				Run: EGG-ORTEC_110503D				05/06/11 08:47
Polonium 210		28	pCi/L		91	70	130			
Sample ID: MB-29614	3	Method Blank				Run: EGG-ORTEC_110503D				05/06/11 11:02
Polonium 210		0.23	pCi/L	0.20						U
Polonium 210 precision (±)		1.4	pCi/L							
Polonium 210 MDC		3.0	pCi/L							
Method: E912.0										Batch: PO210-0368
Sample ID: C11040504-002DMS		Sample Matrix Spike				Run: EGG-ORTEC_110505B				05/06/11 11:04
Polonium 210		14	pCi/L		107	70	130			
Sample ID: C11040504-002DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110505B				05/06/11 11:04
Polonium 210		11	pCi/L		88	70	130	19	73.6	
Sample ID: MB-PO210-0368	3	Method Blank				Run: EGG-ORTEC_110505B				05/06/11 11:04
Polonium 210		ND	pCi/L	0.20						U
Polonium 210 precision (±)		0.33	pCi/L							
Polonium 210 MDC		0.74	pCi/L							
Sample ID: LCS-PO210-0368		Laboratory Control Sample				Run: EGG-ORTEC_110505B				05/06/11 13:17
Polonium 210		5.1	pCi/L		80	70	130			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

Workorder Receipt Checklist

Crow Butte Resources

C11040476

Login completed by: Corinne Wagner
Date Received: 4/14/2011
Reviewed by: BL2000\emcpike
Received by: ckw
Reviewed Date: 4/19/2011
Carrier name: Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	7.2°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

Samples filtered and preserved in the laboratory for dissolved radionuclides.

Chain of Custody and Analytical Request Record

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name: Marsland Baseline Samples	Sample Origin: State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169, Crawford, NE 69339	Contact Name: Larry Teahon; Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass, Rhonda Pelton
Invoice Address: P.O. Box 169, Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon, 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

Number of Containers; Sample Type: A W S V B O Air Water Soils/Solids Vegetation Bioassay Other

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	HNO3-F, Metals	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	Raw-UF, Ra226, Po210 dis, sus	Raw-UF, Pb210 dis and sus	Rau-UF, Th230, U-nat dis and sus			SEE ATTACHED	Normal Turnaround (TAT)	RUSH	Comments	LABORATORY USE ONLY
1	Monitor 1	4/11/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/20/11	
2	Monitor 2	4/11/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/20/11	
3	Monitor 4A	4/11/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/20/11	
4	Monitor 5	4/11/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/20/11	
5	Monitor 6	4/11/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/20/11	C1104047A
6	Monitor 7	4/11/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/20/11	
7	Monitor 8	4/11/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/20/11	
8	Monitor 9	4/11/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/20/11	
9	Monitor 10	4/11/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/20/11	
10	Monitor 11	4/11/11		Water	.5	1	1	.5	1 G	1 G	1 G						Please report 5/20/11	

RUSH: Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling. Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 requirements. Record U as mg/L and µCi/ml and radiometrics as pCi/L.

Shipped by: UPS Ccd
Cooler ID(s): various
Receipt Temp: 7.2 °C
On Ice: (Yes) No
Custody Seal: Y (N)
Intact: Y N
Signature Match: Y N

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Rhonda Pelton	4-12-11 9:57	Rhonda Pelton	UPS		

Received by Laboratory: [signature] Date/Time: 4.14.11 930 Signature:

Sample Disposal: Return to Client: No Lab Disposal: YES

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.
Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

CROW BUTTE RESOURCES, INC.
CROW BUTTE PROJECT

NO_2^-

DATE: 4/12/11 ANALYST: _____

STANDARD CURVE DATA

NO_2^-	BL	0.01	0.05	0.1			
Abs	0	.035	.176	.347			
Abs							

SAMPLE #	VOLUME	Df	Abs	NO_2^- mg/L
1 Monitor 1	10 ml	1	0.004	<0.01
2 Monitor 2	10 ml	1	0.008	<0.01
3 Monitor 4A	10 ml	1	0.000	<0.01
4 Monitor 5	10 ml	1	0.002	<0.01
5 Monitor 6	10 ml	1	0.005	<0.01
Dup				
6 Monitor 7	10 ml	1	0.002	<0.01
7 Monitor 8	10 ml	1	0.001	<0.01
8 Monitor 9	10 ml	1	0.002	<0.01
9 Monitor 10	10 ml	1	0.002	<0.01
10 Monitor 11	10 ml	1	0.003	<0.01
Dup				
11 Monitor 4A Dup	10 ml	1	0.000	<0.01
12 Monitor 7 Dup	10 ml	1	0.003	<0.01
13 Monitor 10 Dup	10 ml	1	0.002	<0.01
14				
15				
Dup				
16				
17				
18				
19				
20				
Dup				
21				
22				
23				
24				
25				
Dup				

ANALYTICAL SUMMARY REPORT

June 15, 2011

Crow Butte Resources
86 Crow Butte Rd
Crawford, NE 69339

Workorder No.: C11040429 Quote ID: C1125 - Crow Butte Uranium

Project Name: Marsland Baseline Samples

Energy Laboratories, Inc. Casper WY received the following 3 samples for Crow Butte Resources on 4/13/2011 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C11040429-001	N1 (Niobrara River West Side)	04/08/11 00:00	04/13/11	Aqueous	Metals by ICP/ICPMS, Dissolved Sample Filtering Lead 210, Dissolved Polonium 210, Dissolved Radium 226, Dissolved Thorium, Isotopic
C11040429-002	N2 (Niobrara River East Side)	04/08/11 00:00	04/13/11	Aqueous	Same As Above
C11040429-003	Well #747 Manning	04/08/11 00:00	04/13/11	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Conductivity Sample Filtering Fluoride E300.0 Anions Uranium, Suspended Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite pH Digestion, Total Metals Lead 210, Dissolved Lead 210, Suspended Polonium 210, Dissolved Polonium 210, Suspended Radium 226, Dissolved Radium 226, Suspended Thorium, Isotopic Thorium, Suspended Isotopic Solids, Total Dissolved

This report was prepared by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Crow Butte Resources
Project: Marsland Baseline Samples
Sample Delivery Group: C11040429

Report Date: 06/15/11

CASE NARRATIVE

PB210 ANALYSIS
The MDC for Pb-210 per RG 4.14 is 1 pCi/L. The current technique can achieve an MDC of about 2 pCi/L to 5 pCi/L if we have sufficient sample to process 1.0 L. This is reported on a sample specific basis. Please consult with your local regulatory agency prior to using these results for compliance purposes.

RADIOCHEMISTRY ANALYSIS
Per client request, results less than MDC (or precision if no MDC), are reported as <MDC (or <precision). Actual instrument results are available by request.

BRANCH LABORATORY SUBCONTRACT ANALYSIS
Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.

PRPE COMMENTS
The prep hold time for the Filtration of metals was exceeded by up to 3.33 days.

ORIGINAL SAMPLE SUBMITTAL(S)
All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)
Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS
Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

SOIL/SOLID SAMPLES
All samples reported on an as received basis unless otherwise indicated.

SUBCONTRACTING ANALYSIS
Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS
eli-b - Energy Laboratories, Inc. - Billings, MT
eli-g - Energy Laboratories, Inc. - Gillette, WY
eli-h - Energy Laboratories, Inc. - Helena, MT
eli-r - Energy Laboratories, Inc. - Rapid City, SD
eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:
USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:
The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER,WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040429-001
Client Sample ID: N1 (Niobrara River West Side)

Report Date: 06/15/11
Collection Date: 04/08/11
DateReceived: 04/13/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - DISSOLVED							
Uranium	0.0104	mg/L		0.0003		E200.8	04/14/11 22:28 / sml
Uranium, Activity	7.0E-09	uCi/mL		2.0E-10		E200.8	04/14/11 22:28 / sml
RADIONUCLIDES - DISSOLVED							
Lead 210	<1.6	pCi/L	U	1.6		E909.0	05/31/11 12:16 / eli-cs
Lead 210 precision (±)	1	pCi/L				E909.0	05/31/11 12:16 / eli-cs
Lead 210 MDC	1.6	pCi/L				E909.0	05/31/11 12:16 / eli-cs
Polonium 210	<0.5	pCi/L	U	0.5		E912.0	05/09/11 09:06 / ep
Polonium 210 precision (±)	0.4	pCi/L				E912.0	05/09/11 09:06 / ep
Polonium 210 MDC	0.5	pCi/L				E912.0	05/09/11 09:06 / ep
Radium 226	0.2	pCi/L		0.1		E903.0	05/02/11 11:18 / trs
Radium 226 precision (±)	0.09	pCi/L				E903.0	05/02/11 11:18 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 11:18 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	05/10/11 08:42 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	05/10/11 08:42 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	05/10/11 08:42 / dmf

- See Case Narrative regarding Pb210 analysis.

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040429-002
Client Sample ID: N2 (Niobrara River East Side)

Report Date: 06/15/11
Collection Date: 04/08/11
DateReceived: 04/13/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - DISSOLVED							
Uranium	0.0088	mg/L		0.0003		E200.8	04/14/11 22:35 / sml
Uranium, Activity	5.9E-09	uCi/mL		2.0E-10		E200.8	04/14/11 22:35 / sml
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/31/11 18:50 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/31/11 18:50 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/31/11 18:50 / eli-cs
Polonium 210	<0.6	pCi/L	U	0.6		E912.0	05/09/11 09:06 / ep
Polonium 210 precision (±)	0.3	pCi/L				E912.0	05/09/11 09:06 / ep
Polonium 210 MDC	0.6	pCi/L				E912.0	05/09/11 09:06 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 11:18 / trs
Radium 226 precision (±)	0.04	pCi/L				E903.0	05/02/11 11:18 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 11:18 / trs
Thorium 230	<0.8	pCi/L	U	0.8		E908.0	06/01/11 13:22 / dmf
Thorium 230 precision (±)	0.4	pCi/L				E908.0	06/01/11 13:22 / dmf
Thorium 230 MDC	0.8	pCi/L				E908.0	06/01/11 13:22 / dmf

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040429-003
Client Sample ID: Well #747 Manning

Report Date: 06/15/11
Collection Date: 04/08/11
DateReceived: 04/13/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO3	134	mg/L		1		A2320 B	04/14/11 15:10 / jba
Carbonate as CO3	ND	mg/L		1		A2320 B	04/14/11 15:10 / jba
Bicarbonate as HCO3	164	mg/L		1		A2320 B	04/14/11 15:10 / jba
Calcium	33	mg/L		1		E200.7	04/25/11 15:32 / cp
Chloride	3	mg/L		1		E300.0	04/19/11 18:20 / ljl
Fluoride	1.0	mg/L		0.1		A4500-F C	04/18/11 07:58 / jba
Magnesium	7	mg/L		1		E200.7	04/25/11 15:32 / cp
Nitrogen, Ammonia as N	ND	mg/L		0.05		A4500-NH3 G	04/21/11 15:38 / dc
Nitrogen, Nitrate+Nitrite as N	0.7	mg/L		0.1		E353.2	04/15/11 14:41 / dc
Potassium	3	mg/L		1		E200.7	04/25/11 15:32 / cp
Silica	82.6	mg/L		0.2		E200.7	04/25/11 15:32 / cp
Sodium	17	mg/L		1		E200.7	04/25/11 15:32 / cp
Sulfate	6	mg/L		1		E300.0	04/19/11 18:20 / ljl
PHYSICAL PROPERTIES							
Conductivity @ 25 C	276	umhos/cm		1		A2510 B	04/14/11 14:36 / lmc
pH	8.02	s.u.		0.01		A4500-H B	04/14/11 14:36 / lmc
Solids, Total Dissolved TDS @ 180 C	218	mg/L		10		A2540 C	04/14/11 16:09 / lr
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	04/15/11 06:42 / sml
Arsenic	0.005	mg/L		0.001		E200.8	04/15/11 06:42 / sml
Barium	ND	mg/L		0.1		E200.8	04/15/11 06:42 / sml
Boron	ND	mg/L		0.1		E200.8	04/15/11 06:42 / sml
Cadmium	ND	mg/L		0.005		E200.8	04/15/11 06:42 / sml
Chromium	ND	mg/L		0.05		E200.8	04/15/11 06:42 / sml
Copper	ND	mg/L		0.01		E200.8	04/15/11 06:42 / sml
Iron	ND	mg/L		0.03		E200.8	04/15/11 06:42 / sml
Lead	ND	mg/L		0.001		E200.8	04/15/11 06:42 / sml
Manganese	ND	mg/L		0.01		E200.8	04/15/11 06:42 / sml
Mercury	ND	mg/L		0.001		E200.8	04/15/11 06:42 / sml
Molybdenum	ND	mg/L		0.1		E200.7	04/25/11 15:32 / cp
Nickel	ND	mg/L		0.05		E200.8	04/15/11 06:42 / sml
Selenium	0.002	mg/L		0.001		E200.8	04/15/11 06:42 / sml
Uranium	0.0064	mg/L		0.0003		E200.8	04/15/11 06:42 / sml
Uranium, Activity	4.3E-09	uCi/mL		2.0E-10		E200.8	04/15/11 06:42 / sml
Vanadium	ND	mg/L		0.1		E200.8	04/15/11 06:42 / sml
Zinc	0.04	mg/L		0.01		E200.8	04/15/11 06:42 / sml
METALS - SUSPENDED							
Uranium	ND	mg/L		0.0003		E200.8	04/21/11 14:06 / sml
Uranium, Activity	ND	uCi/mL		2.0E-10		E200.8	04/21/11 14:06 / sml

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples
Lab ID: C11040429-003
Client Sample ID: Well #747 Manning

Report Date: 06/15/11
Collection Date: 04/08/11
DateReceived: 04/13/11
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED							
Lead 210	<0.8	pCi/L	U	0.8		E909.0	05/31/11 21:02 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/31/11 21:02 / eli-cs
Lead 210 MDC	0.8	pCi/L				E909.0	05/31/11 21:02 / eli-cs
Polonium 210	<0.5	pCi/L	U	0.5		E912.0	05/09/11 09:06 / ep
Polonium 210 precision (±)	0.2	pCi/L				E912.0	05/09/11 09:06 / ep
Polonium 210 MDC	0.5	pCi/L				E912.0	05/09/11 09:06 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 11:18 / trs
Radium 226 precision (±)	0.05	pCi/L				E903.0	05/02/11 11:18 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 11:18 / trs
Thorium 230	<0.2	pCi/L	U	0.2		E908.0	05/10/11 08:42 / dmf
Thorium 230 precision (±)	0.1	pCi/L				E908.0	05/10/11 08:42 / dmf
Thorium 230 MDC	0.2	pCi/L				E908.0	05/10/11 08:42 / dmf
RADIONUCLIDES - SUSPENDED							
Lead 210	<0.9	pCi/L	U	0.9		E909.0	05/23/11 07:02 / eli-cs
Lead 210 precision (±)	0.5	pCi/L				E909.0	05/23/11 07:02 / eli-cs
Lead 210 MDC	0.9	pCi/L				E909.0	05/23/11 07:02 / eli-cs
Polonium 210	<0.3	pCi/L	U	0.3		E912.0	05/06/11 08:46 / ep
Polonium 210 precision (±)	0.1	pCi/L				E912.0	05/06/11 08:46 / ep
Polonium 210 MDC	0.3	pCi/L				E912.0	05/06/11 08:46 / ep
Radium 226	<0.1	pCi/L	U	0.1		E903.0	05/02/11 21:53 / trs
Radium 226 precision (±)	0.05	pCi/L				E903.0	05/02/11 21:53 / trs
Radium 226 MDC	0.1	pCi/L				E903.0	05/02/11 21:53 / trs
Thorium 230	<0.1	pCi/L	U	0.1		E908.0	05/04/11 15:26 / dmf
Thorium 230 precision (±)	0.07	pCi/L				E908.0	05/04/11 15:26 / dmf
Thorium 230 MDC	0.1	pCi/L				E908.0	05/04/11 15:26 / dmf
DATA QUALITY							
A/C Balance (± 5)	-0.357	%				Calculation	05/02/11 08:56 / kbh
Anions	3.02	meq/L				Calculation	05/02/11 08:56 / kbh
Cations	3.00	meq/L				Calculation	05/02/11 08:56 / kbh
Solids, Total Dissolved Calculated	259	mg/L				Calculation	05/02/11 08:56 / kbh
TDS Balance (0.80 - 1.20)	0.840					Calculation	05/02/11 08:56 / kbh

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/15/11

Project: Marsland Baseline Samples **Work Order:** C11040429

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R144833
Sample ID: MBLK	3	Method Blank				Run: MANTECH_110414A				04/14/11 14:47
Alkalinity, Total as CaCO3		2.66	mg/L	1.0						
Carbonate as CO3		ND	mg/L	1.0						
Bicarbonate as HCO3		3.24	mg/L	1.0						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110414A				04/14/11 15:03
Alkalinity, Total as CaCO3		208	mg/L	5.0	103	90	110			
Sample ID: C11040429-003BDUP		Sample Duplicate				Run: MANTECH_110414A				04/14/11 15:18
Alkalinity, Total as CaCO3		135	mg/L	5.0				0.7	10	
Sample ID: C11040429-003BMS		Sample Matrix Spike				Run: MANTECH_110414A				04/14/11 15:27
Alkalinity, Total as CaCO3		266	mg/L	5.0	105	80	120			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/15/11
Work Order: C11040429

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B								Analytical Run: ORION555A-2_110414A		
Sample ID: ICV2_110414_1		Initial Calibration Verification Standard							04/14/11 14:21	
Conductivity @ 25 C		1380	umhos/cm	1.0	98	90	110			
Method: A2510 B								Batch: 110414_1_PH-W_555A-2		
Sample ID: MBLK1_110414_1		Method Blank				Run: ORION555A-2_110414A			04/14/11 14:18	
Conductivity @ 25 C		ND	umhos/cm	1.0						
Sample ID: C11040437-005ADUP		Sample Duplicate				Run: ORION555A-2_110414A			04/14/11 14:56	
Conductivity @ 25 C		1340	umhos/cm	1.0				0.0	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/15/11

Project: Marsland Baseline Samples **Work Order:** C11040429

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: R144872
Sample ID: MBLK1_		Method Blank				Run: BAL-1_110414A				04/14/11 16:07
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	10						
Sample ID: LCS1_		Laboratory Control Sample				Run: BAL-1_110414A				04/14/11 16:07
Solids, Total Dissolved TDS @ 180 C		1010	mg/L	10	101	90	110			
Sample ID: C11040437-001ADUP		Sample Duplicate				Run: BAL-1_110414A				04/14/11 16:11
Solids, Total Dissolved TDS @ 180 C		409	mg/L	10				0.9	10	
Sample ID: C11040456-001AMS		Sample Matrix Spike				Run: BAL-1_110414A				04/14/11 16:13
Solids, Total Dissolved TDS @ 180 C		2290	mg/L	10	102	90	110			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/15/11
Work Order: C11040429

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-F C										Batch: R144902
Sample ID: MBLK		Method Blank				Run: MANTECH_110418A				04/18/11 07:44
Fluoride		ND	mg/L	0.10						
Sample ID: LCS		Laboratory Control Sample				Run: MANTECH_110418A				04/18/11 07:47
Fluoride		1.00	mg/L	0.10	98	90	110			
Sample ID: C11040470-001AMS		Sample Matrix Spike				Run: MANTECH_110418A				04/18/11 08:31
Fluoride		1.28	mg/L	0.10	96	80	120			
Sample ID: C11040470-001AMSD		Sample Matrix Spike Duplicate				Run: MANTECH_110418A				04/18/11 08:35
Fluoride		1.28	mg/L	0.10	96	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/15/11
Work Order: C11040429

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: ORION555A-2_110414A		
Sample ID: ICV1_110414_1		Initial Calibration Verification Standard							04/14/11 14:19	
pH		6.94	s.u.	0.010	101	98	102			
Method: A4500-H B								Batch: 110414_1_PH-W_555A-2		
Sample ID: C11040437-005ADUP		Sample Duplicate				Run: ORION555A-2_110414A			04/14/11 14:56	
pH		8.08	s.u.	0.010				0.0	3	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/15/11
Work Order: C11040429

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-NH3 G										Batch: R145058
Sample ID: MBLK-6		Method Blank				Run: TECHNICON_110421A				04/21/11 15:34
Nitrogen, Ammonia as N		ND	mg/L	0.050						
Sample ID: LCS-7		Laboratory Control Sample				Run: TECHNICON_110421A				04/21/11 15:36
Nitrogen, Ammonia as N		2.02	mg/L	0.050	101	90	110			
Sample ID: C11040437-002IMS		Sample Matrix Spike				Run: TECHNICON_110421A				04/21/11 15:48
Nitrogen, Ammonia as N		1.89	mg/L	0.050	90	80	120			
Sample ID: C11040437-002IMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110421A				04/21/11 15:50
Nitrogen, Ammonia as N		1.87	mg/L	0.050	89	80	120	1.1	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/15/11

Project: Marsland Baseline Samples **Work Order:** C11040429

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R145139	
Sample ID: MB-110425A	6	Method Blank				Run: ICP2-C_110425A			04/25/11 14:20	
Calcium		ND	mg/L	1.0						
Magnesium		ND	mg/L	1.0						
Molybdenum		ND	mg/L	0.10						
Potassium		ND	mg/L	1.0						
Silicon		ND	mg/L	0.10						
Sodium		ND	mg/L	1.0						
Sample ID: LFB-110425A	6	Laboratory Fortified Blank				Run: ICP2-C_110425A			04/25/11 14:24	
Calcium		47.4	mg/L	0.50	95	85	115			
Magnesium		46.2	mg/L	0.50	92	85	115			
Molybdenum		0.948	mg/L	0.10	95	85	115			
Potassium		48.9	mg/L	3.3	98	85	115			
Silicon		0.558	mg/L	0.10	103	85	115			
Sodium		49.3	mg/L	0.50	99	85	115			
Sample ID: C11040429-003CMS2	6	Sample Matrix Spike				Run: ICP2-C_110425A			04/25/11 15:36	
Calcium		128	mg/L	1.0	93	70	130			
Magnesium		104	mg/L	1.0	95	70	130			
Molybdenum		1.85	mg/L	0.10	91	70	130			
Potassium		87.8	mg/L	1.0	83	70	130			
Silicon		38.4	mg/L	0.10		70	130			A
Sodium		116	mg/L	1.0	97	70	130			
Sample ID: C11040429-003CMSD	6	Sample Matrix Spike Duplicate				Run: ICP2-C_110425A			04/25/11 15:42	
Calcium		128	mg/L	1.0	93	70	130	0.3	20	
Magnesium		103	mg/L	1.0	94	70	130	1.0	20	
Molybdenum		1.88	mg/L	0.10	92	70	130	1.5	20	
Potassium		86.1	mg/L	1.0	82	70	130	2.0	20	
Silicon		38.9	mg/L	0.10		70	130	1.3	20	A
Sodium		116	mg/L	1.0	97	70	130	0.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/15/11
Work Order: C11040429

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144832A
Sample ID: C11040429-002AMS4	16	Sample Matrix Spike				Run: ICPMS4-C_110414A			04/14/11 22:42	
Aluminum		0.0467	mg/L	0.0010	80	70	130			
Arsenic		0.0500	mg/L	0.0010	88	70	130			
Barium		0.187	mg/L	0.10	83	70	130			
Boron		0.0868	mg/L	0.0010	82	70	130			
Cadmium		0.0462	mg/L	0.010	92	70	130			
Chromium		0.0429	mg/L	0.0010	86	70	130			
Copper		0.0423	mg/L	0.010	83	70	130			
Iron		1.000	mg/L	0.030	79	70	130			
Lead		0.0463	mg/L	0.0010	93	70	130			
Manganese		0.0494	mg/L	0.010	89	70	130			
Mercury		0.00414	mg/L	0.0010	83	70	130			
Nickel		0.0409	mg/L	0.0010	81	70	130			
Selenium		0.0494	mg/L	0.0010	96	70	130			
Uranium		0.0541	mg/L	0.00030	91	70	130			
Vanadium		0.0531	mg/L	0.0010	85	70	130			
Zinc		0.0476	mg/L	0.010	91	70	130			
Sample ID: C11040429-002AMSD	16	Sample Matrix Spike Duplicate				Run: ICPMS4-C_110414A			04/14/11 22:49	
Aluminum		0.0539	mg/L	0.0010	94	70	130	14	20	
Arsenic		0.0577	mg/L	0.0010	103	70	130	14	20	
Barium		0.198	mg/L	0.10	105	70	130	5.6	20	
Boron		0.0932	mg/L	0.0010	94	70	130	7.1	20	
Cadmium		0.0530	mg/L	0.010	106	70	130	14	20	
Chromium		0.0493	mg/L	0.0010	99	70	130	14	20	
Copper		0.0489	mg/L	0.010	97	70	130	14	20	
Iron		1.17	mg/L	0.030	92	70	130	15	20	
Lead		0.0531	mg/L	0.0010	106	70	130	14	20	
Manganese		0.0563	mg/L	0.010	103	70	130	13	20	
Mercury		0.00472	mg/L	0.0010	94	70	130	13	20	
Nickel		0.0487	mg/L	0.0010	97	70	130	17	20	
Selenium		0.0561	mg/L	0.0010	110	70	130	13	20	
Uranium		0.0613	mg/L	0.00030	105	70	130	13	20	
Vanadium		0.0599	mg/L	0.0010	99	70	130	12	20	
Zinc		0.0526	mg/L	0.010	101	70	130	10.0	20	
Sample ID: LRB	16	Method Blank				Run: ICPMS4-C_110414A			04/14/11 13:19	
Aluminum		ND	mg/L	0.10						
Arsenic		ND	mg/L	0.0010						
Barium		ND	mg/L	0.10						
Boron		ND	mg/L	0.10						
Cadmium		ND	mg/L	0.0050						
Chromium		ND	mg/L	0.050						
Copper		ND	mg/L	0.010						
Iron		ND	mg/L	0.030						
Lead		ND	mg/L	0.0010						

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/15/11

Project: Marsland Baseline Samples **Work Order:** C11040429

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R144832A
Sample ID: LRB	16	Method Blank				Run: ICPMS4-C_110414A				04/14/11 13:19
Manganese		ND	mg/L	0.010						
Mercury		ND	mg/L	0.0010						
Nickel		ND	mg/L	0.050						
Selenium		ND	mg/L	0.0010						
Uranium		ND	mg/L	0.00030						
Vanadium		ND	mg/L	0.10						
Zinc		ND	mg/L	0.010						
Sample ID: LFB	16	Laboratory Fortified Blank				Run: ICPMS4-C_110414A				04/14/11 13:26
Aluminum		0.0529	mg/L	0.0010	106	85	115			
Arsenic		0.0508	mg/L	0.0010	102	85	115			
Barium		0.0510	mg/L	0.0010	102	85	115			
Boron		0.0451	mg/L	0.0010	98	85	115			
Cadmium		0.0511	mg/L	0.0010	102	85	115			
Chromium		0.0502	mg/L	0.0010	100	85	115			
Copper		0.0514	mg/L	0.0010	103	85	115			
Iron		1.24	mg/L	0.012	99	85	115			
Lead		0.0510	mg/L	0.0010	102	85	115			
Manganese		0.0496	mg/L	0.0010	99	85	115			
Mercury		0.00516	mg/L	0.0010	103	85	115			
Nickel		0.0506	mg/L	0.0010	101	85	115			
Selenium		0.0504	mg/L	0.0010	101	85	115			
Uranium		0.0515	mg/L	0.00030	103	85	115			
Vanadium		0.0497	mg/L	0.0010	99	85	115			
Zinc		0.0575	mg/L	0.0010	114	85	115			
Method: E200.8										Batch: 29614
Sample ID: MB-29614		Method Blank				Run: ICPMS4-C_110421A				04/21/11 13:09
Uranium		ND	mg/L	0.00030						
Sample ID: LCS2-29614		Laboratory Control Sample				Run: ICPMS4-C_110421A				04/21/11 13:17
Uranium		0.104	mg/L	0.00030	104	85	115			
Sample ID: C11040476-010HMS		Sample Matrix Spike				Run: ICPMS4-C_110421A				04/21/11 15:53
Uranium		0.0556	mg/L	0.00030	111	70	130			
Sample ID: C11040476-010HMSD		Sample Matrix Spike Duplicate				Run: ICPMS4-C_110421A				04/21/11 15:57
Uranium		0.0556	mg/L	0.00030	111	70	130	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/15/11
Work Order: C11040429

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: IC2-C_110419A	
Sample ID: ICV110419	2	Initial Calibration Verification Standard							04/19/11 12:26	
Chloride		9.84	mg/L	1.0	98	90	110			
Sulfate		40.4	mg/L	1.0	101	90	110			
Method: E300.0									Batch: R145050	
Sample ID: ICB	2	Method Blank				Run: IC2-C_110419A			04/19/11 12:41	
Chloride		ND	mg/L	1.0						
Sulfate		ND	mg/L	1.0						
Sample ID: LFB110419	2	Laboratory Fortified Blank				Run: IC2-C_110419A			04/19/11 12:57	
Chloride		9.67	mg/L	1.0	96	90	110			
Sulfate		40.1	mg/L	1.0	100	90	110			
Sample ID: C11040427-006AMS	2	Sample Matrix Spike				Run: IC2-C_110419A			04/19/11 17:34	
Chloride		150	mg/L	1.0	100	80	120			
Sulfate		589	mg/L	4.0	95	80	120			
Sample ID: C11040427-006AMSD	2	Sample Matrix Spike Duplicate				Run: IC2-C_110419A			04/19/11 17:50	
Chloride		151	mg/L	1.0	103	80	120	1.1	10	
Sulfate		597	mg/L	4.0	99	80	120	1.3	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/15/11

Project: Marsland Baseline Samples **Work Order:** C11040429

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Batch: R144868
Sample ID: MBLK-1		Method Blank				Run: TECHNICON_110415B				04/15/11 14:34
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.10						
Sample ID: LCS-2		Laboratory Control Sample				Run: TECHNICON_110415B				04/15/11 14:36
Nitrogen, Nitrate+Nitrite as N		2.51	mg/L	0.10	100	90	110			
Sample ID: C11040437-005JMS		Sample Matrix Spike				Run: TECHNICON_110415B				04/15/11 15:29
Nitrogen, Nitrate+Nitrite as N		1.94	mg/L	0.10	99	90	110			
Sample ID: C11040437-005JMSD		Sample Matrix Spike Duplicate				Run: TECHNICON_110415B				04/15/11 15:31
Nitrogen, Nitrate+Nitrite as N		1.98	mg/L	0.10	101	90	110	2.0	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/15/11
Work Order: C11040429

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: RA226-5305
Sample ID: C11040476-001DMS		Sample Matrix Spike				Run: BERTHOLD 770-1_110422A			05/02/11 12:53	
Radium 226		23	pCi/L		99	70	130			
Sample ID: C11040476-001DMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-1_110422A			05/02/11 12:53	
Radium 226		22	pCi/L		97	70	130	1.7	20.7	
Sample ID: C11040601-001EDUP	3	Sample Duplicate				Run: BERTHOLD 770-1_110422A			05/02/11 14:28	
Radium 226		24	pCi/L					4.8	17.1	
Radium 226 precision (±)		0.86	pCi/L							
Radium 226 MDC		0.11	pCi/L							
Sample ID: MB-RA226-5305	3	Method Blank				Run: BERTHOLD 770-1_110422A			05/02/11 14:28	
Radium 226		ND	pCi/L	0.10						U
Radium 226 precision (±)		0.050	pCi/L							
Radium 226 MDC		0.12	pCi/L							
Sample ID: LCS-RA226-5305		Laboratory Control Sample				Run: BERTHOLD 770-1_110422A			05/02/11 14:28	
Radium 226		6.0	pCi/L		97	85	115			
Method: E903.0										Batch: 29614
Sample ID: C11040326-005HMS		Sample Matrix Spike				Run: BERTHOLD 770-2_110422A			05/02/11 21:53	
Radium 226		12	pCi/L		109	70	130			
Sample ID: C11040326-005HMSD		Sample Matrix Spike Duplicate				Run: BERTHOLD 770-2_110422A			05/02/11 21:53	
Radium 226		12	pCi/L		113	70	130	0.8	24.5	
Sample ID: LCS-29614		Laboratory Control Sample				Run: BERTHOLD 770-2_110422A			05/03/11 02:01	
Radium 226		13	pCi/L		111	85	115			
Sample ID: MB-29614	3	Method Blank				Run: BERTHOLD 770-2_110422A			05/03/11 02:01	
Radium 226		ND	pCi/L	0.10						U
Radium 226 precision (±)		0.096	pCi/L							
Radium 226 MDC		0.24	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/15/11
Work Order: C11040429

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0										Batch: R145601
Sample ID: C11040476-010HMS		Sample Matrix Spike				Run: EGG-ORTEC_110502A				05/05/11 14:45
Thorium 230		9.0	pCi/L		102	70	130			
Sample ID: C11040476-010HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110502A				05/05/11 14:45
Thorium 230		10	pCi/L		114	70	130	12	47.8	
Sample ID: LCS-29614		Laboratory Control Sample				Run: EGG-ORTEC_110502A				05/05/11 14:45
Thorium 230		11	pCi/L		119	70	130			
Sample ID: MB-29614	3	Method Blank				Run: EGG-ORTEC_110502A				05/05/11 14:45
Thorium 230		ND	pCi/L	0.090						U
Thorium 230 precision (±)		0.17	pCi/L							
Thorium 230 MDC		0.28	pCi/L							
Method: E908.0										Batch: RA-TH-ISO-1381
Sample ID: LCS-RA-TH-ISO-1381		Laboratory Control Sample				Run: EGG-ORTEC_110505A				05/09/11 14:40
Thorium 230		5.6	pCi/L		100	70	130			
Sample ID: C11040476-009DMS		Sample Matrix Spike				Run: EGG-ORTEC_110505A				05/10/11 13:01
Thorium 230		12	pCi/L		97	70	130			
Sample ID: C11040476-009DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110505A				05/10/11 13:01
Thorium 230		11	pCi/L		87	70	130	8.1	37.6	
Sample ID: MB-RA-TH-ISO-1381	3	Method Blank				Run: EGG-ORTEC_110505A				05/10/11 13:01
Thorium 230		ND	pCi/L	0.090						U
Thorium 230 precision (±)		0.087	pCi/L							
Thorium 230 MDC		0.19	pCi/L							
Method: E908.0										Batch: RA-TH-ISO-1394
Sample ID: LCS-RA-TH-ISO-1394		Laboratory Control Sample				Run: EGG-ORTEC_110525C				06/01/11 08:51
Thorium 230		5.4	pCi/L		95	70	130			
Sample ID: C11040889-001DMS		Sample Matrix Spike				Run: EGG-ORTEC_110525C				06/01/11 13:22
Thorium 230		13	pCi/L		101	70	130			
Sample ID: C11040889-001DMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110525C				06/01/11 13:22
Thorium 230		14	pCi/L		107	70	130	4.9	36.4	
Sample ID: MB-RA-TH-ISO-1394	3	Method Blank				Run: EGG-ORTEC_110525C				06/01/11 13:22
Thorium 230		ND	pCi/L	0.090						U
Thorium 230 precision (±)		0.076	pCi/L							
Thorium 230 MDC		0.13	pCi/L							

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration
ND - Not detected at the reporting limit.
U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources **Report Date:** 06/15/11

Project: Marsland Baseline Samples **Work Order:** C11040429

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0									Batch: T_PB-210-0104	
Sample ID: T11040111-001DMSD		Sample Matrix Spike Duplicate				Run: SUB-T40681			05/31/11 16:39	
Lead 210		140	pCi/L		101	70	130	7.6	16	
Sample ID: T11040111-001DMS		Sample Matrix Spike				Run: SUB-T40681			05/31/11 14:28	
Lead 210		130	pCi/L		92	70	130			
Sample ID: LCS-PB-210-0104		Laboratory Control Sample				Run: SUB-T40681			05/31/11 03:31	
Lead 210		53	pCi/L		100	70	130			
Sample ID: MB-PB-210-0104	3	Method Blank				Run: SUB-T40681			05/31/11 01:19	
Lead 210		ND	pCi/L	0.80						U
Lead 210 precision (±)		0.95	pCi/L							
Lead 210 MDC		1.6	pCi/L							
Method: E909.0									Batch: T_13823	
Sample ID: T11040082-001HMSD		Sample Matrix Spike Duplicate				Run: SUB-T40682			05/22/11 20:05	
Lead 210		81	pCi/L		86	70	130	6.3	16	
Sample ID: MB-13823	3	Method Blank				Run: SUB-T40682			05/22/11 11:19	
Lead 210		1.3	pCi/L	0.80						U
Lead 210 precision (±)		5.6	pCi/L							
Lead 210 MDC		9.4	pCi/L							
Sample ID: LCS-13823		Laboratory Control Sample				Run: SUB-T40682			05/22/11 13:31	
Lead 210		260	pCi/L		73	70	130			
Sample ID: T11040082-001HMS		Sample Matrix Spike				Run: SUB-T40682			05/22/11 17:54	
Lead 210		86	pCi/L		93	70	130			

Qualifiers:

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QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Crow Butte Resources
Project: Marsland Baseline Samples

Report Date: 06/15/11
Work Order: C11040429

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E912.0										Batch: 29614
Sample ID: C11040476-010HMS		Sample Matrix Spike				Run: EGG-ORTEC_110503D				05/06/11 08:47
Polonium 210		6.3	pCi/L		117	70	130			
Sample ID: C11040476-010HMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110503D				05/06/11 08:47
Polonium 210		5.6	pCi/L		103	70	130	13	62.3	
Sample ID: LCS-29614		Laboratory Control Sample				Run: EGG-ORTEC_110503D				05/06/11 08:47
Polonium 210		28	pCi/L		91	70	130			
Sample ID: MB-29614	3	Method Blank				Run: EGG-ORTEC_110503D				05/06/11 11:02
Polonium 210		ND	pCi/L	0.30						U
Polonium 210 precision (±)		1.4	pCi/L							
Polonium 210 MDC		3.0	pCi/L							
Method: E912.0										Batch: PO210-0365
Sample ID: C11040296-001EMS		Sample Matrix Spike				Run: EGG-ORTEC_110507A				05/09/11 09:07
Polonium 210		12	pCi/L		89	70	130			
Sample ID: C11040296-001EMSD		Sample Matrix Spike Duplicate				Run: EGG-ORTEC_110507A				05/09/11 09:07
Polonium 210		17	pCi/L		127	70	130	35	67.6	
Sample ID: MB-PO210-0365	3	Method Blank				Run: EGG-ORTEC_110507A				05/09/11 11:17
Polonium 210		ND	pCi/L	0.30						U
Polonium 210 precision (±)		0.23	pCi/L							
Polonium 210 MDC		0.58	pCi/L							
Sample ID: LCS-PO210-0365		Laboratory Control Sample				Run: EGG-ORTEC_110507A				05/09/11 11:17
Polonium 210		6.4	pCi/L		101	70	130			

Qualifiers:

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MDC - Minimum detectable concentration
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Workorder Receipt Checklist

Crow Butte Resources

C11040429

Login completed by: Edith McPike
Date Received: 4/13/2011
Reviewed by: BL2000\hackerman
Received by: em
Reviewed Date: 4/13/2011
Carrier name: Ground

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature:	7.0°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Contact and Corrective Action Comments:

Samples to be filtered and preserved for dissolved radionuclides in the laboratory. Samples for dissolved metals were subsampled, filtered and preserved with 2 mL HNO3 in lab upon receipt to pH <2.

Chain of Custody and Analytical Request Record

ENERGY LABORATORIES

PLEASE PRINT- Provide as much information as possible.

Company Name: Crow Butte Resources, Inc.	Project Name, PWS, Permit, Etc. Marsland Baseline Stream Samples	Sample Origin State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: P.O. Box 169 Crawford, NE 69339	Contact Name: Larry Teahon Phone/Fax: 308-665-2341	Email: daxmynus@msn.com	Sampler: (Please Print) Brooke Bass Rhonda Pelton
Invoice Address: P.O. Box 169 Crawford, NE 69339	Invoice Contact & Phone: Larry Teahon 308-665-2215 ext 114	Purchase Order: 1125	Quote/Bottle Order:

Special Report/Formats – ELI must be notified prior to sample submittal for the following:

- ☐ DW
- ☐ GSA
- ☐ POTW/WWTP
- ☐ State: _____
- ☐ Other: _____
- ☐ A2LA
- ☐ EDD/EDT (Electronic Data) Format: _____
- ☐ LEVEL IV
- ☐ NELAC

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX (Number of Containers; Sample Type: A W S V B O Air Water Soils/Solids Vegetation Bioassay Other)	Raw-UF Th230, U-nat, Ra226, Po210, Pb210		HNO3-F, Metals	RAW-F, Common Ions	RAW-UF, Alkalinity	H2SO4-F, NO2, NO3, NH4	Raw-UF, Ra226, Po210 dis, sus	Raw-UF, Pb210 dis and sus	Rau-UF, Th230, U-nat dis and sus	SEE ATTACHED	Normal Turnaround (TAT)	RUSH	Comments
1	N1 (Niobrara River West Site)	4-8-11		Water	3g												Please Report 5-25-11
2	N2 (Niobrara River East Site)	4-8-11		Water	3g												Please Report 5-25-11
3	Well #747 Manning	4-8-11		Water			.5	1	1	.5	1 G	1 G	1 G				Please Report 5-25-11
4																	
5																	
6																	
7																	
8																	
9																	
10																	

Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page

Comments: NDEQ parameters for baseline sampling. Report on separate sheets. Analyze as per WDEQ Guideline 8 and NRC Reg. Guide 4.14 requirements. Record U as mg/L and µCi/ml and radiometrics as pCi/L.

Shipped by: UPS ad

Cooler ID(s): Various

Receipt Temp: 7.0 °C

On Ice: (Yes) No

Custody Seal Y (N)
Intact Y N
Signature Match Y N

LABORATORY USE ONLY: 1164 0429

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Rhonda Pelton	14-11-2011	Rhonda Pelton	UPS		
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
			Received by Laboratory: CMPM	Date/Time: 4.13.11 920	Signature:

Sample Disposal: Return to Client: No Lab Disposal: YES

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

CROW BUTTE RESOURCES, INC.
CROW BUTTE PROJECT

NO3

DATE: 4/8/11

ANALYST: LH

STANDARD CURVE DATA

	BL		.01	.05	0.1		
Abs			.035	.174	.349		
Abs							

SAMPLE #	VOLUME	Df	Abs	NO3 mg/L
1 P217			.001	<0.01
2 P224			.005	<0.01
3 P246			.001	<0.01
4 I 13p			.001	<0.01
5 I 288p			.003	<0.01
Dup I 298p			.003	<0.01
6 I 304p			.005	<0.01
7 I 315p			.003	<0.01
8 I 320p			.012	<0.01
9 I 326p			.018	<0.01
10 CM I-1			.026	<0.01
Dup CM I-10			.005	<0.01
11 CM I-11			.006	<0.01
12 Manning			.004	<0.01
13				
14 Dup P217			.001	<0.01
15 Dup I 13p			.001	<0.01
Dup Dup 315			.010	<0.01
16 Dup I-10			.007	<0.01
17 CM I-1			.022	<0.01
18 Manning			.003	<0.01
19				
20				
Dup				
21				
22				
23				
24				
25				
Dup				