POWERTECH (USA) INC.

February 7, 2012

Matt Hicks
Senior Hydrologist
Groundwater Quality Program
South Dakota Department of Environment and Natural Resources
523 East Capitol Avenue
Joe Foss Building
Pierre, SD 57501-3182

Re: Dewey-Burdock Groundwater Discharge Permit Application
November and December 2012 Analytical Results for Alluvial Compliance Wells

Dear Mr. Hicks:

Powertech (USA) Inc. has installed seven new alluvial compliance wells to address ambient sampling requirements of ARSD 74:54:02:18. Well sampling results for November and December 2012 are enclosed, along with a copy on CD.

Please do not hesitate to contact me or Richard Blubaugh, Vice President Environmental Health and Safety Resources, at (303) 790-7528 with questions.

Sincerely,

John Mays
Vice President Engineering

Encl. Data Summary Tables through December 2012
Laboratory Data Packages R12110070 (DC2, DC4, BC3, BC1, BC2, BC2 DUP); R12110087 (DC1); R12110088 (DC3); R12120137 (DC2, DC4, BC3, BC3 DUP, BC1, BC2); R12120173 (DC1); and R12120174 (DC3)
CD Copy

5575 DTC Parkway, Suite 140
Greenwood Village, CO 80111 USA
Telephone: 303-790-7528
Facsimile: 303-790-3885
Website: www.powertechuranium.com
Email: info@powertechuranium.com

POWERTECH (USA) INC.

cc: Richard Blubaugh, Powertech (USA) Inc.
Mark Hollenbeck, Powertech (USA) Inc.
Jack Fritz, WWC Engineering
Mike Cepak, SD DENR
Ronald Burrows, NRC
Valois Shea, EPA
Marian Atkins, BLM
Max Main, Bennett, Main & Gubbrud, P.C.

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POWERTECH (USA) INC.

DATA SUMMARY TABLES
THROUGH
DECEMBER 2012

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POWERTECH (USA) INC.

Powertech (USA) Inc. Dewey-Burdock Project Alluvial Compliance Well Sampling Results		Well DC-1	Well DC-1	Well DC-1	Well DC-1	Well DC-1	Well DC-1	Human Health Standards ARSD 74:54:01:04
Sample Collection Date		7/24/2012	8/21/2012	9/11/2012	10/3/2012	11/6/2012	12/11/2012	
Well Location, Elevation and Construction Details								
Northing (State Plane SD S NAD 27)[1]	feet	447093.13						
Easting (State Plane SD S NAD 27)[1]	feet	1013760.44						
Latitude (NAD 83)[2]	degrees	43.499431056						
Longitude (NAD 83)[2]	degrees	104.052110489						
Top of Casing Elevation (NGVD 29)[1]	feet AMSL	3645.45						
Casing and Screen Diameter	inches	2						
Screen Length	feet	10						
Well Stickup Above Ground Surface	feet	2.73						
Total Well Depth (Below Top of Casing)	feet	27.60						
Dedicated Tubing Intake (Below Top of Casing)	feet	no tubing installed (well bailed)						
Field Measurements								
Water Level Below Top of Casing	feet	22.86	23.00	23.06	23.16	23.27	23.29	
Water Level Elevation (NGVD 29)	feet AMSL	3622.59	3622.45	3622.39	3622.29	3622.18	3622.16	
Well Volume	gal	0.8	0.8	0.7	0.7	0.7	0.7	
Volume Purged Prior to Sample Collection	gal	2.75	2.5	2.5	2.25	2.25	2.5	
Field pH	s.u.	7.04	7.05	6.93	7.00	6.9	7.1	
Field Temperature	°C	14.8	10.0	11.4	11.3	11.2	10.3	
Field Conductivity	mS/cm	5.7	6.3	7.61	6.97	7.64	7.37	
Clarity	observed	sl. cloudy	cloudy	cloudy	cloudy	murky	murky	
Color	observed	tan-yellow	tan	tan	tan	tan	gray-tan	
Odor	observed	none	none	none	none	none	none	
Physical Properties								
Lab pH	s.u.	7.23	7.25	7.17	7.14	6.90	7.12	6.5 - 8.5
Total Dissolved Solids	mg/L	6400	5690	6090	6250	6730	6120	1000
Lab Conductivity	umhos/cm	6080	5940	6350	6260	6680	6480	
Common Elements and Ions								
Alkalinity, Total as $CaCO_3$	mg/L	404	366	392	390	430	392	
Bicarbonate as HCO_3	mg/L	492	446	478	475	524	478	
Calcium, Ca	mg/L	424	438	442	430	425	355	
Carbonate as CO_3	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	
Chloride, Cl	mg/L	92	73	85	86	95	87	250
Magnesium, Mg	mg/L	348	353	400	369	364	347	
Nitrate, NO_3^- (as Nitrogen)	mg/L	5.5	7.5	7.7	9.1	6.2	9.5	10
Potassium, K	mg/L	15	13	14	18	10	9	
Sodium, Na	mg/L	1030	896	1210	1120	987	894	
Sulfate, SO_4	mg/L	4010	3520	3970	4040	4110	3920	500
Trace and Minor Elements								
Dissolved Arsenic, As	mg/L	0.001	< 0.001	0.001	0.003	< 0.001	< 0.001	0.01
Dissolved Barium, Ba	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	2
Dissolved Boron, B	mg/L	1.2	1.3	1.4	1.4	1.50	1.32	
Dissolved Cadmium, Cd	mg/L	< 0.001	< 0.001	0.001	0.002	< 0.001	< 0.001	0.005
Dissolved Chromium, Cr	mg/L	< 0.005	< 0.005	0.010	0.017	< 0.005	< 0.005	0.1
Dissolved Copper, Cu	mg/L	0.038	< 0.005	0.009	0.027	< 0.005	< 0.005	1.0
Dissolved Fluoride, F	mg/L	1.1	1.2	1.1	1.3	0.9	1.0	4
Dissolved Iron, Fe	mg/L	0.04	< 0.03	< 0.03	0.04	< 0.03	< 0.03	
Dissolved Lead, Pb	mg/L	0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.015
Dissolved Manganese, Mn	mg/L	0.456	0.330	0.757	0.996	0.154	0.150	
Total Mercury, Hg	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.002
Dissolved Molybdenum, Mo	mg/L	0.003	0.003	0.002	0.006	0.003	0.002	
Dissolved Nickel, Ni	mg/L	0.047	0.032	0.086	0.05	0.027	0.020	
Dissolved Selenium, Se	mg/L	0.034	0.032	0.060	0.111	0.028	0.031	0.05
Dissolved Silver, Ag	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.1
Dissolved Uranium, U	mg/L	0.0225	0.0243	0.0184	0.0472	0.0210	0.0228	0.03
Dissolved Vanadium, V	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	
Dissolved Zinc, Zn	mg/L	0.14	0.05	0.11	0.20	0.08	0.05	
Radiological Parameters								
Dissolved Gross Alpha	pCi/L	29.2	13.3	-0.4	-10	9.6	4.5	15
Precision (±)	pCi/L	13.3	17.7	17.8	16.3	15.8	13.9	
MDC	pCi/L	20.0	28.8	30.0	28.3	25.8	23.1	
Dissolved Gross Beta	pCi/L	2.0	-9	5.7	20.0	-9	4.2	4 mrem/year[3]
Precision (±)	pCi/L	10.3	25.2	28.8	17.5	15.9	17.7	

Powertech (USA) Inc. Dewey-Burdock Project Alluvial Compliance Well Sampling Results		Well DC-1	Well DC-1	Well DC-1	Well DC-1	Well DC-1	Well DC-1	Human Health Standards ARSD 74:54:01:04
Sample Collection Date		7/24/2012	8/21/2012	9/11/2012	10/3/2012	11/6/2012	12/11/2012	
MDC	pCi/L	17.2	42.5	48.1	28.8	27.0	29.6	
Dissolved Radium 228	pCi/L	1.1	0.3	0.4	2.5	1.5	1.9	5[4]
Precision (±)	pCi/L	0.7	0.7	0.6	1.2	1.4	1	
MDC	pCi/L	1.1	1.1	0.9	1.8	2.3	1.5	
Dissolved Radium 226	pCi/L	1.1	0.8	0.9	1.5	0.06	0.5	5[4]
Precision (±)	pCi/L	0.2	0.2	0.2	0.2	0.09	0.2	
MDC	pCi/L	0.2	0.1	0.1	0.1	0.1	0.1	
Total Radon 222	pCi/L	1830	1440	1810	1920	1050	989	300
Precision (±)	pCi/L	149	130	127	132	123	147	
MDC	pCi/L	210	187	173	180	184	224	

Highlighted value exceeds ARSD 74:54:01:04 Human Health Standard.

Note 1: Coordinates and elevation surveyed by Andersen Engineers, August 2012.

Note 2: Surveyed coordinates converted to latitude and longitude using CORPSCON 6.0.1 downloaded from http://www.agc.army.mil/corpscon/.

Note 3: A screening level of 50 pCi/L is used to estimate whether the ambient gross beta concentration is less than the Human Health Standard of 4 mrem/yr.

Note 4: Health standard is for radium 228 + radium 226.

Powertech (USA) Inc. Dewey-Burdock Project Alluvial Compliance Well Sampling Results		Well DC-2	Well DC-2	Well DC-2	Well DC-2	Well DC-2	Well DC-2	Human Health Standards ARSD 74:54:01:04
Sample Collection Date		7/23/2012	8/20/2012	9/10/2012	10/2/2012	11/5/2012	12/10/2012	
Well Location, Elevation and Construction Details								
Northing (State Plane SD S NAD 27)[1]	feet	444788.27						
Easting (State Plane SD S NAD 27)[1]	feet	1014726.19						
Latitude (NAD 83)[2]	degrees	43.493232021						
Longitude (NAD 83)[2]	degrees	104.048085721						
Top of Casing Elevation (NGVD 29)[1]	feet AMSL	3616.28						
Casing and Screen Diameter	inches	2						
Screen Length	feet	20						
Well Stickup Above Ground Surface	feet	2.84						
Total Well Depth (Below Top of Casing)	feet	32.94						
Dedicated Tubing Intake (Below Top of Casing)	feet	23						
Field Measurements								
Water Level Below Top of Casing	feet	13.12	14.32	14.42	14.49	14.33	14.28	
Water Level Elevation (NGVD 29)	feet AMSL	3603.16	3601.96	3601.86	3601.79	3601.95	3602.00	
Well Volume	gal	3.2	3.0	3.0	3.0	3.0	3.0	
Volume Purged Prior to Sample Collection	gal	10.5	9	9	9	9	9	
Field pH	s.u.	7.24	7.32	7.22	7.20	7.4	7.4	
Field Temperature	°C	11.9	12.1	12.5	12.5	12.2	10.9	
Field Conductivity	mS/cm	4.9	4.7	5.63	5.45	5.48	5.68	
Clarity	observed	clear	clear	clear	clear	clear	clear	
Color	observed	clear	clear	clear	clear	clear	clear	
Odor	observed	none	none	none	none	none	none	
Physical Properties								
Lab pH	s.u.	7.17	7.13	7.19	7.09	7.24	6.99	6.5 - 8.5
Total Dissolved Solids	mg/L	4640	4560	4610	4630	4620	4550	1000
Lab Conductivity	umhos/cm	5010	5710	5540	5530	5670	5470	
Common Elements and Ions								
Alkalinity, Total as $CaCO_3$	mg/L	264	260	264	264	266	262	
Bicarbonate as HCO_3	mg/L	322	317	322	322	324	319	
Calcium, Ca	mg/L	524	524	516	518	481	521	
Carbonate as CO_3	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	
Chloride, Cl	mg/L	854	756	753	824	827	813	250
Magnesium, Mg	mg/L	145	144	147	147	142	149	
Nitrate, NO_3^- (as Nitrogen)	mg/L	< 0.1	0.2	0.3	0.2	< 0.1	< 0.1	10
Potassium, K	mg/L	7	7	7	7	8	6	
Sodium, Na	mg/L	799	715	714	768	676	704	
Sulfate, SO_4	mg/L	2140	1920	1890	2080	1980	1960	500
Trace and Minor Elements								
Dissolved Arsenic, As	mg/L	< 0.001	< 0.001	0.002	0.001	0.001	< 0.001	0.01
Dissolved Barium, Ba	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	2
Dissolved Boron, B	mg/L	0.2	0.3	0.3	0.2	0.36	0.32	
Dissolved Cadmium, Cd	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.005
Dissolved Chromium, Cr	mg/L	< 0.005	< 0.005	0.005	< 0.005	< 0.005	0.010	0.1
Dissolved Copper, Cu	mg/L	< 0.005	< 0.005	< 0.005	0.006	< 0.005	< 0.005	1.0
Dissolved Fluoride, F	mg/L	0.7	0.6	0.6	0.7	0.5	0.6	4
Dissolved Iron, Fe	mg/L	0.48	0.36	0.42	0.80	2.79	4.73	
Dissolved Lead, Pb	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.015
Dissolved Manganese, Mn	mg/L	3.88	3.41	3.13	3.05	2.95	3.07	
Total Mercury, Hg	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.002
Dissolved Molybdenum, Mo	mg/L	0.005	0.005	0.004	0.005	0.004	0.026	
Dissolved Nickel, Ni	mg/L	< 0.005	< 0.005	0.010	0.022	0.013	< 0.005	
Dissolved Selenium, Se	mg/L	0.002	0.001	0.003	0.004	< 0.001	0.002	0.05
Dissolved Silver, Ag	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.1
Dissolved Uranium, U	mg/L	0.0089	0.0081	0.0091	0.0087	0.0088	0.0089	0.03
Dissolved Vanadium, V	mg/L	< 0.01	0.09	< 0.01	< 0.01	< 0.01	< 0.01	
Dissolved Zinc, Zn	mg/L	0.04	0.04	< 0.01	0.01	0.04	0.02	
Radiological Parameters								
Dissolved Gross Alpha	pCi/L	-10	-5	9.9	20.7	3.1	7.5	15
Precision (±)	pCi/L	9.4	13.3	17.7	15.6	9.2	11.1	
MDC	pCi/L	16.6	22.9	29.0	24.7	15.2	18.0	
Dissolved Gross Beta	pCi/L	-1	-10	2.2	-2	-10	3.1	4 mrem/year[3]
Precision (±)	pCi/L	8.3	21.4	22.0	21.9	11.6	13.0	

Powertech (USA) Inc. Dewey-Burdock Project Alluvial Compliance Well Sampling Results		Well DC-2	Well DC-2	Well DC-2	Well DC-2	Well DC-2	Well DC-2	Human Health Standards ARSD 74:54:01:04
Sample Collection Date		7/23/2012	8/20/2012	9/10/2012	10/2/2012	11/5/2012	12/10/2012	
MDC	pCi/L	14.0	36.3	36.9	36.8	19.7	21.7	
Dissolved Radium 228	pCi/L	0.5	0.7	0.6	0.8	0.9	1.4	5[4]
Precision (±)	pCi/L	0.6	0.7	0.6	0.7	0.8	1	
MDC	pCi/L	1.0	1.1	0.9	1.1	1.2	1.5	
Dissolved Radium 226	pCi/L	0.4	0.4	0.3	0.7	0.2	0.6	5[4]
Precision (±)	pCi/L	0.2	0.1	0.1	0.1	0.08	0.2	
MDC	pCi/L	0.2	0.1	0.1	0.09	0.09	0.3	
Total Radon 222	pCi/L	1990	1850	2150	2040	2000	2000	300
Precision (±)	pCi/L	167	159	152	154	158	156	
MDC	pCi/L	237	226	208	215	222	220	

Highlighted value exceeds ARSD 74:54:01:04 Human Health Standard.

Note 1: Coordinates and elevation surveyed by Andersen Engineers, August 2012.

Note 2: Surveyed coordinates converted to latitude and longitude using CORPSCON 6.0.1 downloaded from http://www.agc.army.mil/corpscon/.

Note 3: A screening level of 50 pCi/L is used to estimate whether the ambient gross beta concentration is less than the Human Health Standard of 4 mrem/yr.

Note 4: Health standard is for radium 228 + radium 226.

Powertech (USA) Inc. Dewey-Burdock Project Alluvial Compliance Well Sampling Results		Well DC-3	Well DC-3	Well DC-3	Well DC-3	Well DC-3	Well DC-3	Human Health Standards ARSD 74:54:01:04
Sample Collection Date		7/23/2012	8/20/2012	9/10/2012	10/2/2012	11/6/2012	12/11/2012	
Well Location, Elevation and Construction Details								
Northing (State Plane SD S NAD 27)[1]	feet	444037.97						
Easting (State Plane SD S NAD 27)[1]	feet	1016403.16						
Latitude (NAD 83)[2]	degrees	43.491380990						
Longitude (NAD 83)[2]	degrees	104.041645784						
Top of Casing Elevation (NGVD 29)[1]	feet AMSL	3623.30						
Casing and Screen Diameter	inches	2						
Screen Length	feet	10						
Well Stickup Above Ground Surface	feet	2.26						
Total Well Depth (Below Top of Casing)	feet	25.10						
Dedicated Tubing Intake (Below Top of Casing)	feet	no tubing installed (dry well)						
Field Measurements								
Water Level Below Top of Casing	feet	Dry	Dry	Dry	24.70	24.35	24.35	
Water Level Elevation (NGVD 29)	feet AMSL	Dry	Dry	Dry	3598.60	3598.95	3598.95	
Well Volume	gal	Dry	Dry	Dry	Insufficent Volume to Sample	Purged Approx 1 c. Sample Vol. Approx. 1/2 c.	Purged Approx 1 c. Sample Vol. Approx. 1/2 c.	
Volume Purged Prior to Sample Collection	gal	---	---	---				
Field pH	s.u.	---	---	---				
Field Temperature	°C	---	---	---				
Field Conductivity	mS/cm	---	---	---				
Clarity	observed	---	---	---				
Color	observed	---	---	---				
Odor	observed	---	---	---				
Physical Properties								
Lab pH	s.u.	---	---	---	---	---	---	6.5 - 8.5
Total Dissolved Solids	mg/L	---	---	---	---	11300	10900	1000
Lab Conductivity	umhos/cm	---	---	---	---	---	---	
Common Elements and Ions								
Alkalinity, Total as $CaCO_3$	mg/L	---	---	---	---	---	---	
Bicarbonate as HCO_3	mg/L	---	---	---	---	---	---	
Calcium, Ca	mg/L	---	---	---	---	404	475	
Carbonate as CO_3	mg/L	---	---	---	---	---	---	
Chloride, Cl	mg/L	---	---	---	---	1320	1400	250
Magnesium, Mg	mg/L	---	---	---	---	701	771	
Nitrate, NO_3^- (as Nitrogen)	mg/L	---	---	---	---	1.7	3.2	10
Potassium, K	mg/L	---	---	---	---	55	50	
Sodium, Na	mg/L	---	---	---	---	1780	1590	
Sulfate, SO_4	mg/L	---	---	---	---	6330	5940	500
Trace and Minor Elements								
Dissolved Arsenic, As	mg/L	---	---	---	---	---	---	0.01
Dissolved Barium, Ba	mg/L	---	---	---	---	---	---	2
Dissolved Boron, B	mg/L	---	---	---	---	---	---	
Dissolved Cadmium, Cd	mg/L	---	---	---	---	---	---	0.005
Dissolved Chromium, Cr	mg/L	---	---	---	---	---	---	0.1
Dissolved Copper, Cu	mg/L	---	---	---	---	---	---	1.0
Dissolved Fluoride, F	mg/L	---	---	---	---	< 0.1	3.1	4
Dissolved Iron, Fe	mg/L	---	---	---	---	---	---	
Dissolved Lead, Pb	mg/L	---	---	---	---	---	---	0.015
Dissolved Manganese, Mn	mg/L	---	---	---	---	---	---	
Total Mercury, Hg	mg/L	---	---	---	---	---	---	0.002
Dissolved Molybdenum, Mo	mg/L	---	---	---	---	---	---	
Dissolved Nickel, Ni	mg/L	---	---	---	---	---	---	
Dissolved Selenium, Se	mg/L	---	---	---	---	---	---	0.05
Dissolved Silver, Ag	mg/L	---	---	---	---	---	---	0.1
Dissolved Uranium, U	mg/L	---	---	---	---	---	---	0.03
Dissolved Vanadium, V	mg/L	---	---	---	---	---	---	
Dissolved Zinc, Zn	mg/L	---	---	---	---	---	---	
Radiological Parameters								
Dissolved Gross Alpha	pCi/L	---	---	---	---	---	---	15
Precision (±)	pCi/L							
MDC	pCi/L							
Dissolved Gross Beta	pCi/L	---	---	---	---	---	---	4 mrem/year[3]
Precision (±)	pCi/L							

Powertech (USA) Inc. Dewey-Burdock Project Alluvial Compliance Well Sampling Results		Well DC-3	Well DC-3	Well DC-3	Well DC-3	Well DC-3	Well DC-3	Human Health Standards ARSD 74:54:01:04
Sample Collection Date		7/23/2012	8/20/2012	9/10/2012	10/2/2012	11/6/2012	12/11/2012	
MDC	pCi/L							
Dissolved Radium 228	pCi/L	---	---	---	---	---	---	5[4]
Precision (±)	pCi/L							
MDC	pCi/L							
Dissolved Radium 226	pCi/L	---	---	---	---	---	---	5[4]
Precision (±)	pCi/L							
MDC	pCi/L							
Total Radon 222	pCi/L	---	---	---	---	---	---	300
Precision (±)	pCi/L							
MDC	pCi/L							

Highlighted value exceeds ARSD 74:54:01:04 Human Health Standard.

Note 1: Coordinates and elevation surveyed by Andersen Engineers, August 2012.

Note 2: Surveyed coordinates converted to latitude and longitude using CORPSCON 6.0.1 downloaded from http://www.agc.army.mil/corpscon/.

Note 3: A screening level of 50 pCi/L is used to estimate whether the ambient gross beta concentration is less than the Human Health Standard of 4 mrem/yr.

Note 4: Health standard is for radium 228 + radium 226.

Powertech (USA) Inc. Dewey-Burdock Project Alluvial Compliance Well Sampling Results		Well DC-4	Well DC-4	Well DC-4	Well DC-4	Well DC-4	Well DC-4	Human Health Standards ARSD 74:54:01:04
Sample Collection Date		7/24/2012	8/20/2012	9/10/2012	10/2/2012	11/5/2012	12/10/2012	
Well Location, Elevation and Construction Details								
Northing (State Plane SD S NAD 27)[1]	feet	443942.11						
Easting (State Plane SD S NAD 27)[1]	feet	1018562.17						
Latitude (NAD 83)[2]	degrees	43.491382328						
Longitude (NAD 83)[2]	degrees	104.033501308						
Top of Casing Elevation (NGVD 29)[1]	feet AMSL	3618.34						
Casing and Screen Diameter	inches	2						
Screen Length	feet	10						
Well Stickup Above Ground Surface	feet	2.15						
Total Well Depth (Below Top of Casing)	feet	25.09						
Dedicated Tubing Intake (Below Top of Casing)	feet	22						
Field Measurements								
Water Level Below Top of Casing	feet	19.92	19.98	19.99	19.98	19.95	19.98	
Water Level Elevation (NGVD 29)	feet AMSL	3598.42	3598.36	3598.35	3598.36	3598.39	3598.36	
Well Volume	gal	0.8	0.8	0.8	0.8	0.8	0.8	
Volume Purged Prior to Sample Collection	gal	4	3	4	3	3	3	
Field pH	s.u.	7.44	7.43	7.48	7.50	7.4	7.6	
Field Temperature	°C	11.8	12.2	12.5	13.0	12.4	11.1	
Field Conductivity	mS/cm	8.9	8.3	10.52	10.37	10.77	10.70	
Clarity	observed	clear	clear	clear	clear	clear	clear	
Color	observed	clear	clear	clear	clear	clear	clear	
Odor	observed	none	none	none	none	none	none	
Physical Properties								
Lab pH	s.u.	7.42	7.44	7.47	7.42	7.36	7.29	6.5 - 8.5
Total Dissolved Solids	mg/L	10600	11400	10600	11400	10700	10800	1000
Lab Conductivity	umhos/cm	9270	10400	10400	10300	11200	10200	
Common Elements and Ions								
Alkalinity, Total as $CaCO_3$	mg/L	334	346	348	358	346	346	
Bicarbonate as HCO_3	mg/L	407	422	424	436	422	422	
Calcium, Ca	mg/L	388	389	398	414	380	394	
Carbonate as CO_3	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	
Chloride, Cl	mg/L	116	114	117	123	128	129	250
Magnesium, Mg	mg/L	620	604	630	651	635	661	
Nitrate, NO_3^- (as Nitrogen)	mg/L	1.7	1.6	1.7	1.8	1.8	1.7	10
Potassium, K	mg/L	10	10	11	11	11	10	
Sodium, Na	mg/L	2080	1820	1820	2010	1780	1820	
Sulfate, SO_4	mg/L	7450	6920	7330	7570	7230	7470	500
Trace and Minor Elements								
Dissolved Arsenic, As	mg/L	< 0.001	< 0.001	0.001	< 0.001	< 0.001	< 0.001	0.01
Dissolved Barium, Ba	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	2
Dissolved Boron, B	mg/L	1.8	2.0	2.3	2.4	2.28	2.27	
Dissolved Cadmium, Cd	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.005
Dissolved Chromium, Cr	mg/L	< 0.005	< 0.005	0.008	0.005	< 0.005	< 0.005	0.1
Dissolved Copper, Cu	mg/L	< 0.005	< 0.005	0.008	0.012	< 0.005	0.011	1.0
Dissolved Fluoride, F	mg/L	2.9	2.5	2.6	2.7	2.2	2.2	4
Dissolved Iron, Fe	mg/L	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	
Dissolved Lead, Pb	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.015
Dissolved Manganese, Mn	mg/L	0.013	0.004	0.002	0.002	0.002	0.002	
Total Mercury, Hg	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.002
Dissolved Molybdenum, Mo	mg/L	0.003	0.002	0.003	0.003	0.002	0.009	
Dissolved Nickel, Ni	mg/L	< 0.005	< 0.005	0.008	0.016	0.009	< 0.005	
Dissolved Selenium, Se	mg/L	0.032	0.034	0.042	0.037	0.036	0.036	0.05
Dissolved Silver, Ag	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.1
Dissolved Uranium, U	mg/L	0.0157	0.0159	0.0171	0.0153	0.0160	0.0158	0.03
Dissolved Vanadium, V	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Dissolved Zinc, Zn	mg/L	0.02	0.02	< 0.01	0.02	< 0.01	0.02	
Radiological Parameters								
Dissolved Gross Alpha	pCi/L	-5	16.5	-10	29.6	-2	13.3	15
Precision (±)	pCi/L	18.5	22.4	21.1	24.0	20.5	21.4	
MDC	pCi/L	31.8	36.2	36.6	37.8	34.8	34.9	
Dissolved Gross Beta	pCi/L	-9	-20	-100	-10	-10	-7	4 mrem/year[3]
Precision (±)	pCi/L	24.4	29.4	44.4	31.0	26.9	27.0	

Powertech (USA) Inc. Dewey-Burdock Project Alluvial Compliance Well Sampling Results		Well DC-4	Well DC-4	Well DC-4	Well DC-4	Well DC-4	Well DC-4	Human Health Standards ARSD 74:54:01:04
Sample Collection Date		7/24/2012	8/20/2012	9/10/2012	10/2/2012	11/5/2012	12/10/2012	
MDC	pCi/L	41.2	49.8	77.7	52.3	45.6	45.5	
Dissolved Radium 228	pCi/L	-0.5	0.04	0.4	0.6	1.9	0.4	5[4]
Precision (±)	pCi/L	0.7	0.7	0.6	0.7	1.1	0.9	
MDC	pCi/L	1.2	1.2	0.9	1.1	1.7	1.6	
Dissolved Radium 226	pCi/L	0.4	0.2	0.2	0.2	-0.06	0.2	5[4]
Precision (±)	pCi/L	0.2	0.1	0.1	0.1	0.06	0.2	
MDC	pCi/L	0.2	0.1	0.1	0.1	0.1	0.2	
Total Radon 222	pCi/L	4820	4530	4140	3990	4570	4710	300
Precision (±)	pCi/L	180	188	173	175	184	184	
MDC	pCi/L	208	225	207	212	220	218	

Highlighted value exceeds ARSD 74:54:01:04 Human Health Standard.

Note 1: Coordinates and elevation surveyed by Andersen Engineers, August 2012.

Note 2: Surveyed coordinates converted to latitude and longitude using CORPSCON 6.0.1 downloaded from http://www.agc.army.mil/corpscon/.

Note 3: A screening level of 50 pCi/L is used to estimate whether the ambient gross beta concentration is less than the Human Health Standard of 4 mrem/yr.

Note 4: Health standard is for radium 228 + radium 226.

Powertech (USA) Inc. Dewey-Burdock Project Alluvial Compliance Well Sampling Results		Well BC-1	Well BC-1	Well BC-1	Well BC-1	Well BC-1	Well BC-1	Human Health Standards ARSD 74:54:01:04
Sample Collection Date		7/23/2012	8/20/2012	9/10/2012	10/2/2012	11/5/2012	12/10/2012	
Well Location, Elevation and Construction Details								
Northing (State Plane SD S NAD 27)[1]	feet	436026.65						
Easting (State Plane SD S NAD 27)[1]	feet	1029474.73						
Latitude (NAD 83)[2]	degrees	43.471011532						
Longitude (NAD 83)[2]	degrees	103.991102852						
Top of Casing Elevation (NGVD 29)[1]	feet AMSL	3639.84						
Casing and Screen Diameter	inches	2						
Screen Length	feet	15						
Well Stickup Above Ground Surface	feet	2.50						
Total Well Depth (Below Top of Casing)	feet	32.08						
Dedicated Tubing Intake (Below Top of Casing)	feet	24						
Field Measurements								
Water Level Below Top of Casing	feet	15.23	15.60	15.87	16.01	15.96	15.86	
Water Level Elevation (NGVD 29)	feet AMSL	3624.61	3624.24	3623.97	3623.83	3623.88	3623.98	
Well Volume	gal	2.7	2.7	2.6	2.6	2.6	2.6	
Volume Purged Prior to Sample Collection	gal	11	9	9	9	7.8	8.25	
Field pH	s.u.	7.05	7.03	7.18	7.10	7.1	7.3	
Field Temperature	°C	11.9	12.7	12.2	12.4	12.2	11.0	
Field Conductivity	mS/cm	3.5	3.3	3.64	3.75	3.79	3.77	
Clarity	observed	clear	clear	clear	clear	clear	clear	
Color	observed	clear	clear	clear	clear	clear	clear	
Odor	observed	none	none	none	none	none	none	
Physical Properties								
Lab pH	s.u.	7.08	7.09	7.17	7.15	7.20	7.10	6.5 - 8.5
Total Dissolved Solids	mg/L	3640	3720	3660	3480	3670	3660	1000
Lab Conductivity	umhos/cm	3200	3630	3610	3550	3580	3500	
Common Elements and Ions								
Alkalinity, Total as $CaCO_3$	mg/L	288	290	300	292	294	294	
Bicarbonate as HCO_3	mg/L	351	354	366	356	358	358	
Calcium, Ca	mg/L	515	525	513	517	505	442	
Carbonate as CO_3	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	
Chloride, Cl	mg/L	28	25	25	26	26	25	250
Magnesium, Mg	mg/L	236	238	234	240	234	225	
Nitrate, NO_3^- (as Nitrogen)	mg/L	< 0.1	0.2	0.3	< 0.1	0.2	0.2	10
Potassium, K	mg/L	13	12	13	13	12	10	
Sodium, Na	mg/L	206	175	185	197	194	174	
Sulfate, SO_4	mg/L	2360	2170	2160	2300	2230	2220	500
Trace and Minor Elements								
Dissolved Arsenic, As	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.01
Dissolved Barium, Ba	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	2
Dissolved Boron, B	mg/L	0.65	0.66	0.72	0.73	0.71	0.72	
Dissolved Cadmium, Cd	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.005
Dissolved Chromium, Cr	mg/L	< 0.005	0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.1
Dissolved Copper, Cu	mg/L	< 0.005	< 0.005	< 0.005	0.006	< 0.005	< 0.005	1.0
Dissolved Fluoride, F	mg/L	0.6	0.6	0.6	0.7	0.6	0.6	4
Dissolved Iron, Fe	mg/L	0.06	< 0.03	0.08	0.06	0.13	0.17	
Dissolved Lead, Pb	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.015
Dissolved Manganese, Mn	mg/L	0.110	0.061	0.057	0.056	0.049	0.042	
Total Mercury, Hg	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.002
Dissolved Molybdenum, Mo	mg/L	0.005	0.005	0.005	0.006	0.012	0.006	
Dissolved Nickel, Ni	mg/L	< 0.005	< 0.005	0.013	0.022	0.005	< 0.005	
Dissolved Selenium, Se	mg/L	0.001	0.001	0.002	0.003	0.003	0.001	0.05
Dissolved Silver, Ag	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.1
Dissolved Uranium, U	mg/L	0.0757	0.0842	0.0854	0.0802	0.0822	0.0818	0.03
Dissolved Vanadium, V	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Dissolved Zinc, Zn	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	0.02	< 0.01	
Radiological Parameters								
Dissolved Gross Alpha	pCi/L	65.9	71.1	78.7	68.9	50.1	78.0	15
Precision (±)	pCi/L	9.1	10.8	10.8	10.8	10.7	11.3	
MDC	pCi/L	10.5	12.8	12.7	12.9	14.0	13.1	
Dissolved Gross Beta	pCi/L	4.4	-4	0.3	7.8	19.8	27.0	4 mrem/year[3]
Precision (±)	pCi/L	6.2	10.6	11.0	10.4	10.6	11.8	

Powertech (USA) Inc. Dewey-Burdock Project Alluvial Compliance Well Sampling Results		Well BC-1	Well BC-1	Well BC-1	Well BC-1	Well BC-1	Well BC-1	Human Health Standards ARSD 74:54:01:04
Sample Collection Date		7/23/2012	8/20/2012	9/10/2012	10/2/2012	11/5/2012	12/10/2012	
MDC	pCi/L	10.2	17.7	18.3	17.0	17.0	18.8	
Dissolved Radium 228	pCi/L	0.5	0.7	1.1	4.3	1.7	0.7	5[4]
Precision (±)	pCi/L	0.7	0.7	0.6	0.9	1	0.9	
MDC	pCi/L	1.1	1.1	0.9	1.1	1.5	1.5	
Dissolved Radium 226	pCi/L	0.4	0.1	0.3	0.8	0.1	0.3	5[4]
Precision (±)	pCi/L	0.2	0.1	0.1	0.1	0.08	0.2	
MDC	pCi/L	0.2	0.1	0.1	0.09	0.1	0.2	
Total Radon 222	pCi/L	1870	1870	1730	1700	1900	2020	300
Precision (±)	pCi/L	169	156	143	146	153	153	
MDC	pCi/L	242	221	202	208	216	214	

Highlighted value exceeds ARSD 74:54:01:04 Human Health Standard.

Note 1: Coordinates and elevation surveyed by Andersen Engineers, August 2012.

Note 2: Surveyed coordinates converted to latitude and longitude using CORPSCON 6.0.1 downloaded from http://www.agc.army.mil/corpscon/.

Note 3: A screening level of 50 pCi/L is used to estimate whether the ambient gross beta concentration is less than the Human Health Standard of 4 mrem/yr.

Note 4: Health standard is for radium 228 + radium 226.

Powertech (USA) Inc. Dewey-Burdock Project Alluvial Compliance Well Sampling Results		Well BC-2	Well BC-2	Well BC-2	Well BC-2	Well BC-2	Well BC-2	Human Health Standards ARSD 74:54:01:04
Sample Collection Date		7/23/2012	8/20/2012	9/10/2012	10/2/2012	11/5/2012	12/10/2012	
Well Location, Elevation and Construction Details								
Northing (State Plane SD S NAD 27)[1]	feet	434253.95						
Easting (State Plane SD S NAD 27)[1]	feet	1030548.07						
Latitude (NAD 83)[2]	degrees	43.466282015						
Longitude (NAD 83)[2]	degrees	103.986769497						
Top of Casing Elevation (NGVD 29)[1]	feet AMSL	3636.33						
Casing and Screen Diameter	inches	2						
Screen Length	feet	10						
Well Stickup Above Ground Surface	feet	2.43						
Total Well Depth (Below Top of Casing)	feet	28.03						
Dedicated Tubing Intake (Below Top of Casing)	feet	23						
Field Measurements								
Water Level Below Top of Casing	feet	5.91	6.29	6.47	6.23	5.60	5.27	
Water Level Elevation (NGVD 29)	feet AMSL	3630.42	3630.04	3629.86	3630.1	3630.73	3631.06	
Well Volume	gal	3.6	3.5	3.5	3.6	3.7	3.7	
Volume Purged Prior to Sample Collection	gal	10.8	10.5	10.5	12	15	11.25	
Field pH	s.u.	7.12	7.10	7.19	7.10	7.3	7.3	
Field Temperature	°C	10.3	10.1	10.3	10.1	9.9	9.1	
Field Conductivity	mS/cm	3.7	3.6	3.87	4.06	4.07	4.03	
Clarity	observed	clear	clear	clear	clear	clear	clear	
Color	observed	clear	clear	clear	clear	clear	clear	
Odor	observed	none	none	none	none	none	none	
Physical Properties								
Lab pH	s.u.	7.07	7.11	7.22	7.25	7.20	7.10	6.5 - 8.5
Total Dissolved Solids	mg/L	3840	3910	3870	3880	3910	3790	1000
Lab Conductivity	umhos/cm	3430	3860	3850	3810	3870	3700	
Common Elements and Ions								
Alkalinity, Total as $CaCO_3$	mg/L	230	234	234	232	230	234	
Bicarbonate as HCO_3	mg/L	280	285	285	283	280	285	
Calcium, Ca	mg/L	544	516	521	525	515	469	
Carbonate as CO_3	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	
Chloride, Cl	mg/L	21	21	21	23	22	22	250
Magnesium, Mg	mg/L	200	218	220	216	223	212	
Nitrate, NO_3^- (as Nitrogen)	mg/L	< 0.1	0.2	0.2	< 0.1	0.2	0.2	10
Potassium, K	mg/L	12	13	13	13	12	11	
Sodium, Na	mg/L	278	258	278	290	294	256	
Sulfate, SO_4	mg/L	2350	2390	2400	2520	2380	2340	500
Trace and Minor Elements								
Dissolved Arsenic, As	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.01
Dissolved Barium, Ba	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	2
Dissolved Boron, B	mg/L	0.44	0.46	0.51	0.51	0.51	0.50	
Dissolved Cadmium, Cd	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.005
Dissolved Chromium, Cr	mg/L	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.1
Dissolved Copper, Cu	mg/L	0.006	< 0.005	< 0.005	0.006	< 0.005	0.008	1.0
Dissolved Fluoride, F	mg/L	0.8	0.7	0.7	0.8	0.7	0.7	4
Dissolved Iron, Fe	mg/L	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	
Dissolved Lead, Pb	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.015
Dissolved Manganese, Mn	mg/L	0.042	0.045	0.039	0.040	0.040	0.038	
Total Mercury, Hg	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.002
Dissolved Molybdenum, Mo	mg/L	0.012	0.012	0.013	0.013	0.013	0.014	
Dissolved Nickel, Ni	mg/L	< 0.005	< 0.005	0.011	0.022	0.006	< 0.005	
Dissolved Selenium, Se	mg/L	< 0.001	< 0.001	0.002	0.001	< 0.001	< 0.001	0.05
Dissolved Silver, Ag	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.1
Dissolved Uranium, U	mg/L	0.0228	0.0240	0.0241	0.0230	0.0256	0.0230	0.03
Dissolved Vanadium, V	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Dissolved Zinc, Zn	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	
Radiological Parameters								
Dissolved Gross Alpha	pCi/L	20.0	3.5	1.8	25.9	12.6	23.4	15
Precision (±)	pCi/L	7.8	9.7	7.0	9.3	8.6	9.3	
MDC	pCi/L	11.5	16.1	11.6	13.5	13.4	13.7	
Dissolved Gross Beta	pCi/L	4.5	0.5	-10	-10	9.2	7.8	4 mrem/year[3]
Precision (±)	pCi/L	6.5	11.6	11.8	11.2	10.2	11.5	

Powertech (USA) Inc. Dewey-Burdock Project Alluvial Compliance Well Sampling Results		Well BC-2	Well BC-2	Well BC-2	Well BC-2	Well BC-2	Well BC-2	Human Health Standards ARSD 74:54:01:04
Sample Collection Date		7/23/2012	8/20/2012	9/10/2012	10/2/2012	11/5/2012	12/10/2012	
MDC	pCi/L	10.7	19.5	20.1	19.1	16.8	19.1	
Dissolved Radium 228	pCi/L	0.1	-0.1	0.3	-0.1	0.5	0.7	5[4]
Precision (±)	pCi/L	0.6	0.6	0.6	0.6	1.2	0.9	
MDC	pCi/L	1	1.1	0.9	1	2.1	1.4	
Dissolved Radium 226	pCi/L	0.07	0.3	0.3	0.5	0.02	0.2	5[4]
Precision (±)	pCi/L	0.1	0.1	0.1	0.1	0.07	0.1	
MDC	pCi/L	0.2	0.1	0.1	0.08	0.1	0.2	
Total Radon 222	pCi/L	2860	2460	2480	2260	2530	2710	300
Precision (±)	pCi/L	180	162	151	152	159	160	
MDC	pCi/L	240	219	200	206	214	212	

Highlighted value exceeds ARSD 74:54:01:04 Human Health Standard.

Note 1: Coordinates and elevation surveyed by Andersen Engineers, August 2012.

Note 2: Surveyed coordinates converted to latitude and longitude using CORPSCON 6.0.1 downloaded from http://www.agc.army.mil/corpscon/.

Note 3: A screening level of 50 pCi/L is used to estimate whether the ambient gross beta concentration is less than the Human Health Standard of 4 mrem/yr.

Note 4: Health standard is for radium 228 + radium 226.

Powertech (USA) Inc. Dewey-Burdock Project Alluvial Compliance Well Sampling Results		Well BC-3	Well BC-3	Well BC-3	Well BC-3	Well BC-3	Well BC-3	Human Health Standards ARSD 74:54:01:04
Sample Collection Date		7/23/2012	8/20/2012	9/10/2012	10/2/2012	11/5/2012	12/10/2012	
Well Location, Elevation and Construction Details								
Northing (State Plane SD S NAD 27)[1]	feet	438165.90						
Easting (State Plane SD S NAD 27)[1]	feet	1029035.98						
Latitude (NAD 83)[2]	degrees	43.476822344						
Longitude (NAD 83)[2]	degrees	103.993109146						
Top of Casing Elevation (NGVD 29)[1]	feet AMSL	3654.95						
Casing and Screen Diameter	inches	2						
Screen Length	feet	15						
Well Stickup Above Ground Surface	feet	2.29						
Total Well Depth (Below Top of Casing)	feet	27.56						
Dedicated Tubing Intake (Below Top of Casing)	feet	20						
Field Measurements								
Water Level Below Top of Casing	feet	12.25	12.73	13.05	12.96	11.99	11.51	
Water Level Elevation (NGVD 29)	feet AMSL	3642.7	3642.22	3641.9	3641.99	3642.96	3643.44	
Well Volume	gal	2.5	2.4	2.4	2.4	2.5	2.6	
Volume Purged Prior to Sample Collection	gal	7.5	7.5	7.5	7.5	7.5	8.25	
Field pH	s.u.	7.16	7.12	7.33	7.10	7.2	7.2	
Field Temperature	°C	10.3	10.8	10.8	10.9	10.6	9.7	
Field Conductivity	mS/cm	3.1	3.0	3.20	3.35	3.33	3.34	
Clarity	observed	clear	clear	clear	clear	clear	clear	
Color	observed	clear	clear	clear	clear	clear	clear	
Odor	observed	none	none	none	none	none	none	
Physical Properties								
Lab pH	s.u.	7.15	7.17	7.22	7.16	7.21	7.12	6.5 - 8.5
Total Dissolved Solids	mg/L	3160	3130	3140	3180	3170	3160	1000
Lab Conductivity	umhos/cm	2870	3200	3200	3140	3110	3070	
Common Elements and Ions								
Alkalinity, Total as $CaCO_3$	mg/L	254	256	256	248	248	250	
Bicarbonate as HCO_3	mg/L	310	312	312	302	302	305	
Calcium, Ca	mg/L	532	531	535	525	520	488	
Carbonate as CO_3	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	
Chloride, Cl	mg/L	20	19	19	20	19	19	250
Magnesium, Mg	mg/L	150	148	152	150	150	144	
Nitrate, NO_3^- (as Nitrogen)	mg/L	0.3	0.3	0.3	0.2	0.3	0.2	10
Potassium, K	mg/L	11	11	12	11	11	10	
Sodium, Na	mg/L	174	158	157	164	172	153	
Sulfate, SO_4	mg/L	2010	1850	1820	1980	1860	1910	500
Trace and Minor Elements								
Dissolved Arsenic, As	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.01
Dissolved Barium, Ba	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	2
Dissolved Boron, B	mg/L	0.44	0.45	0.49	0.51	0.52	0.50	
Dissolved Cadmium, Cd	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.001	0.005
Dissolved Chromium, Cr	mg/L	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.1
Dissolved Copper, Cu	mg/L	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.0
Dissolved Fluoride, F	mg/L	0.6	0.6	0.6	0.6	0.5	0.6	4
Dissolved Iron, Fe	mg/L	0.05	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	
Dissolved Lead, Pb	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.015
Dissolved Manganese, Mn	mg/L	0.498	0.461	0.447	0.436	0.456	0.451	
Total Mercury, Hg	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.002
Dissolved Molybdenum, Mo	mg/L	0.006	0.006	0.007	0.007	0.006	0.008	
Dissolved Nickel, Ni	mg/L	< 0.005	< 0.005	0.012	0.022	0.006	< 0.005	
Dissolved Selenium, Se	mg/L	0.002	0.003	0.005	0.004	0.003	0.003	0.05
Dissolved Silver, Ag	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.1
Dissolved Uranium, U	mg/L	0.0208	0.0214	0.0226	0.0206	0.0212	0.0201	0.03
Dissolved Vanadium, V	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Dissolved Zinc, Zn	mg/L	0.02	< 0.01	< 0.01	< 0.01	0.01	< 0.01	
Radiological Parameters								
Dissolved Gross Alpha	pCi/L	29.9	10.3	11.4	28.6	14.2	26.4	15
Precision (±)	pCi/L	7.0	7.1	6.0	7.6	8.6	7.7	
MDC	pCi/L	9.5	11.1	9.2	10.2	13.4	10.7	
Dissolved Gross Beta	pCi/L	4.7	2.0	-1	4.1	8.6	5.0	4 mrem/year[3]
Precision (±)	pCi/L	5.6	9.4	10	9.1	8.6	9.2	

Powertech (USA) Inc. Dewey-Burdock Project Alluvial Compliance Well Sampling Results		Well BC-3	Well BC-3	Well BC-3	Well BC-3	Well BC-3	Well BC-3	Human Health Standards ARSD 74:54:01:04
Sample Collection Date		7/23/2012	8/20/2012	9/10/2012	10/2/2012	11/5/2012	12/10/2012	
MDC	pCi/L	9.2	15.8	16.8	15.0	14.2	15.3	
Dissolved Radium 228	pCi/L	-0.1	-0.1	0.8	1.9	2.0	-0.4	5[4]
Precision (±)	pCi/L	0.6	0.7	0.6	0.8	0.8	0.7	
MDC	pCi/L	1	1.1	0.9	1.2	1.2	1.2	
Dissolved Radium 226	pCi/L	0.08	0.1	0.1	0.4	0.09	0.07	5[4]
Precision (±)	pCi/L	0.1	0.1	0.09	0.1	0.06	0.1	
MDC	pCi/L	0.2	0.1	0.1	0.09	0.09	0.2	
Total Radon 222	pCi/L	1700	1710	1720	1490	1860	1690	300
Precision (±)	pCi/L	169	155	144	144	154	150	
MDC	pCi/L	245	223	204	209	218	216	

Highlighted value exceeds ARSD 74:54:01:04 Human Health Standard.

Note 1: Coordinates and elevation surveyed by Andersen Engineers, August 2012.

Note 2: Surveyed coordinates converted to latitude and longitude using CORPSCON 6.0.1 downloaded from http://www.agc.army.mil/corpscon/.

Note 3: A screening level of 50 pCi/L is used to estimate whether the ambient gross beta concentration is less than the Human Health Standard of 4 mrem/yr.

Note 4: Health standard is for radium 228 + radium 226.

Powertech (USA) Inc. Dewey-Burdock Project Alluvial Compliance Well QA/QC Sampling Results		Well BC-3	Well BC-3 Duplicate	Well BC-1	Well BC-1 Duplicate	Well DC-4	Well DC-4 Duplicate	Well DC-2	Well DC-2 Duplicate	Well DC-2 Split	Well BC-2	Well BC-2 Duplicate	Well BC-3	Well BC-3 Duplicate	Human Health Standards ARSD 74:54:01:04
Sample Collection Date		7/23/2012	7/23/2012	8/20/2012	8/20/2012	9/10/2012	9/10/2012	10/2/2012	10/2/2012	10/2/2012	11/5/2012	11/5/2012	12/10/2012	12/10/2012	
Physical Properties															
Lab pH	s.u.	7.15	7.09	7.09	7.10	7.47	7.48	7.09	7.10	8.1	7.20	7.27	7.12	7.12	6.5 - 8.5
Total Dissolved Solids	mg/L	3160	3170	3720	3500	10600	10600	4630	4630	5080	3910	3870	3160	3120	1000
Lab Conductivity	umhos/cm	2870	2860	3630	3630	10400	10300	5530	5510	5090	3870	3870	3070	3040	
Common Elements and Ions															
Alkalinity, Total as $CaCO_3$	mg/L	254	256	290	290	348	342	264	268	286	230	230	250	246	
Bicarbonate as HCO_3	mg/L	310	312	354	354	424	417	322	327	349	280	280	305	300	
Calcium, Ca	mg/L	532	518	525	515	398	401	518	528	481	515	517	488	469	
Carbonate as CO_3	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chloride, Cl	mg/L	20	20	25	25	117	118	824	822	926	22	22	19	19	250
Magnesium, Mg	mg/L	150	147	238	231	630	620	147	146	135	223	221	144	140	
Nitrate, NO_3^- (as Nitrogen)	mg/L	0.3	0.3	0.2	0.2	1.7	1.7	0.2	< 0.1	< 0.1	0.2	0.2	0.2	0.2	10
Potassium, K	mg/L	11	11	12	12	11	11	7	7	11	12	12	10	9	
Sodium, Na	mg/L	174	175	175	179	1820	1910	768	764	832	294	288	153	147	
Sulfate, SO_4	mg/L	2010	2020	2170	2180	7330	7550	2080	2060	2070	2380	2370	1910	1880	500
Trace and Minor Elements															
Dissolved Arsenic, As	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	0.001	0.002	0.001	0.002	0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.01
Dissolved Barium, Ba	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.018	< 0.05	< 0.05	< 0.05	< 0.05	2
Dissolved Boron, B	mg/L	0.44	0.44	0.66	0.67	2.3	2.3	0.2	0.4	0.3	0.51	0.49	0.50	0.50	
Dissolved Cadmium, Cd	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002	< 0.001	< 0.001	0.001	< 0.001	0.005
Dissolved Chromium, Cr	mg/L	< 0.005	< 0.005	0.005	< 0.005	0.008	0.008	< 0.005	< 0.005	< 0.01	< 0.005	< 0.005	< 0.005	< 0.005	0.1
Dissolved Copper, Cu	mg/L	< 0.005	< 0.005	< 0.005	< 0.005	0.008	0.011	0.006	0.006	0.006	< 0.005	< 0.005	< 0.005	< 0.005	1.0
Dissolved Fluoride, F	mg/L	0.6	0.6	0.6	0.6	2.6	2.7	0.7	0.7	0.4	0.7	0.7	0.6	0.6	4
Dissolved Iron, Fe	mg/L	0.05	0.05	< 0.03	0.04	< 0.03	< 0.03	0.80	0.57	3.49	< 0.03	< 0.03	< 0.03	< 0.03	
Dissolved Lead, Pb	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.015
Dissolved Manganese, Mn	mg/L	0.498	0.494	0.061	0.059	0.002	0.002	3.05	3.04	2.93	0.040	0.039	0.451	0.439	
Total Mercury, Hg	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.002
Dissolved Molybdenum, Mo	mg/L	0.006	0.006	0.005	0.005	0.003	0.003	0.005	0.005	0.004	0.013	0.013	0.008	0.007	
Dissolved Nickel, Ni	mg/L	< 0.005	< 0.005	< 0.005	< 0.005	0.008	0.009	0.022	0.021	< 0.01	0.006	< 0.005	< 0.005	< 0.005	
Dissolved Selenium, Se	mg/L	0.002	0.002	0.001	0.001	0.042	0.042	0.004	0.003	0.002	< 0.001	< 0.001	0.003	0.003	0.05
Dissolved Silver, Ag	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.003	< 0.001	< 0.001	< 0.001	< 0.001	0.1
Dissolved Uranium, U	mg/L	0.0208	0.0208	0.0842	0.0861	0.0171	0.0175	0.0087	0.0083	0.0077	0.0256	0.0253	0.0201	0.0199	0.03
Dissolved Vanadium, V	mg/L	< 0.01	< 0.01	< 0.01	0.04	< 0.01	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.01	< 0.01	< 0.01	
Dissolved Zinc, Zn	mg/L	0.02	0.02	< 0.01	< 0.01	< 0.01	< 0.01	0.01	0.01	< 0.01	0.01	0.01	< 0.01	< 0.01	
Radiological Parameters															
Dissolved Gross Alpha	pCi/L	29.9	23.4	71.1	89.2	-10	16.4	20.7	10.4	22.2	12.6	2.0	26.4	30.7	15
Precision (±)	pCi/L	7.0	5.5	10.8	11.6	21.1	23.3	15.6	13.4	8.0	8.6	8.5	7.7	8.1	
MDC	pCi/L	9.5	7.2	12.8	13.2	36.6	37.9	24.7	21.6	11	13.4	14.1	10.7	10.9	
Dissolved Gross Beta	pCi/L	4.7	7.1	-4	8.4	-100	-4	-2	12.1	< 19	9.2	1.1	5.0	-20	4 mrem/year[1]
Precision (±)	pCi/L	5.6	5.3	10.6	10.9	44.4	31.1	21.9	24.3	NA	10.2	8.9	9.2	10.2	
MDC	pCi/L	9.2	8.6	17.7	17.8	77.7	52.3	36.8	40.4	19	16.8	14.9	15.3	17.8	
Dissolved Radium 228	pCi/L	-0.1	0.4	0.7	0.9	0.4	0.3	0.8	1.2	< 1	0.5	1.7	-0.4	-0.2	5[2]
Precision (±)	pCi/L	0.6	0.7	0.7	0.7	0.6	0.6	0.7	0.7	NA	1.2	1.5	0.7	0.9	
MDC	pCi/L	1	1.1	1.1	1.1	0.9	0.9	1.1	1.1	1	2.1	2.3	1.2	1.6	
Dissolved Radium 226	pCi/L	0.08	0.06	0.1	0.2	0.2	0.2	0.7	0.7	0.3	0.02	0.06	0.07	0.08	5[2]
Precision (±)	pCi/L	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.07	0.09	0.1	0.1	
MDC	pCi/L	0.2	0.2	0.1	0.1	0.1	0.1	0.09	0.08	0.2	0.1	0.1	0.2	0.2	
Total Radon 222	pCi/L	1700	1640	1870	1800	4140	4390	2040	1860	662	2530	2660	1690	1580	300
Precision (±)	pCi/L	169	168	156	155	173	175	154	152	24	159	160	150	149	
MDC	pCi/L	245	245	221	221	207	207	215	215	50	214	214	216	216	

Highlighted value exceeds ARSD 74:54:01:04 Human Health Standard.

Note 1: A screening level of 50 pCi/L is used to estimate whether the ambient gross beta concentration is less than the Human Health Standard of 4 mrem/yr.

Note 2: Health standard is for radium 228 + radium 226.

POWERTECH (USA) INC.

LABORATORY DATA PACKAGE

R12110070
(November 2012 for DC2, DC4, BC3, BC1, BC2, BC2 DUP)

5575 DTC Parkway, Suite 140
Greenwood Village, CO 80111 USA

Telephone: 303-790-7528
Facsimile: 303-790-3885

Website: www.powertechuranium.com
Email: info@powertechuranium.com

ANALYTICAL SUMMARY REPORT

February 06, 2013

Powertech USA Inc
PO Box 812
Edgemont, SD 57735

Workorder No.: R12110070 Quote ID: R411

Project Name: Alluvial Wells Dewey Burdock

Energy Laboratories Inc. Rapid City SD received the following 6 samples for Powertech USA Inc on 11/6/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R12110070-001	DC-2	11/05/12 10:20	11/06/12	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Anion - Cation Balance Conductivity Mercury, Total Anions by Ion Chromatography pH Dissolved Filtration Digestion, Mercury by CVAA Gross Alpha, Gross Beta Radium 226, Dissolved Radium 228, Dissolved Radon 222 Solids, Total Dissolved
R12110070-002	DC-4	11/05/12 11:34	11/06/12	Aqueous	Same As Above
R12110070-003	BC-3	11/05/12 12:45	11/06/12	Aqueous	Same As Above
R12110070-004	BC-1	11/05/12 14:04	11/06/12	Aqueous	Same As Above
R12110070-005	BC-2	11/05/12 15:23	11/06/12	Aqueous	Same As Above
R12110070-006	BC-2 DUP	11/05/12 15:24	11/06/12	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2821 Plant St., Rapid City, SD 57702. As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

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

Report Approved By:

Linda K. Larson
Branch Manager

Digitally signed by
Linda Larson
Date: 2013.02.06 14:03:15 -07:00

CLIENT: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Sample Delivery Group: R12110070

Revised Date: 02/06/13
Report Date: 12/21/12

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

The conductivity was rechecked after initial review of data package. The initial results appeared to be running lower than usual. The analyst reran the conductivities and the data appeared to match with previous. The results reported are those from the second run and therefore have a H flag tied to them. The initial results may have been running low due to possible temperature of samples being below room temperature.

After subsequent review of data, the result for Uranium on BC 1 was revised due to duplicate data that matched from a later run.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12110070-001
Client Sample ID: DC-2

Revised Date: 02/06/13
Report Date: 12/21/12
Collection Date: 11/05/12 10:20
Date Received: 11/06/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	5670	umhos/cm	H	5.0		1	A2510 B	12/12/12 11:34/tb
pH	7.24	su		0.01		1	A4500-H B	11/06/12 12:56/tb
Solids, Total Dissolved TDS @ 180 C	4620	mg/L		10		1	A2540 C	11/07/12 16:01/jmh
Alkalinity, Total as CaCO3	266	mg/L		5		1	A2320 B	11/14/12 15:11/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	11/14/12 15:11/ch
Bicarbonate as HCO3	324	mg/L		5		1	A2320 B	11/14/12 15:11/ch
Samples were rerun due to initial results measuring low								
INORGANIC PARAMETERS								
Chloride	827	mg/L	D	50		50	E300.0	11/06/12 22:28/tb
Fluoride	0.5	mg/L		0.1		1	E300.0	11/06/12 22:46/tb
Sulfate	1980	mg/L	D	50		50	E300.0	11/06/12 22:28/tb
DATA QUALITY PARAMETERS								
Anions	70.0	meq/L		1.00		1	A1030 E	12/21/12 00:00/lkl
Cations	65.3	meq/L		1.00		1	A1030 E	12/21/12 00:00/lkl
Conductivity, Calculated	5360	umhos/cm		1.00		1	A1030 E	12/21/12 00:00/lkl
TDS Ratio	1.08			0.0100		1	A1030 E	12/21/12 00:00/lkl
A/C Balance	-3.45	%				1	A1030 E	12/21/12 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	ND	mg/L		0.1		1	E300.0	11/06/12 22:46/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	3.1	pCi/L	U			1	E900.0	12/03/12 18:19/eli-ca
Gross Alpha precision (±)	9.2	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Gross Alpha MDC	15.2	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Gross Beta	-10	pCi/L	U			1	E900.0	12/03/12 18:19/eli-ca
Gross Beta precision (±)	11.6	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Gross Beta MDC	19.7	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Radium 228	0.9	pCi/L	U			1	RA-05	11/19/12 12:39/eli-ca
Radium 228 precision (±)	0.8	pCi/L				1	RA-05	11/19/12 12:39/eli-ca
Radium 228 MDC	1.2	pCi/L				1	RA-05	11/19/12 12:39/eli-ca
Radium 226	0.2	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
Radium 226 precision (±)	0.08	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
Radium 226 MDC	0.09	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	2000	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12110070-001
Client Sample ID: DC-2

Revised Date: 02/06/13
Report Date: 12/21/12
Collection Date: 11/05/12 10:20
Date Received: 11/06/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Radon 222 precision (±)	158	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca
Radon 222 MDC	222	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	11/13/12 10:27/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	0.001	mg/L		0.001		2	E200.8	11/26/12 14:43/eli-ca
Barium	ND	mg/L		0.05		5	E200.7	11/26/12 21:09/eli-ca
Boron	0.36	mg/L		0.05		5	E200.7	11/21/12 17:34/eli-ca
Cadmium	ND	mg/L		0.001		2	E200.8	11/26/12 14:43/eli-ca
Chromium	ND	mg/L		0.005		2	E200.8	11/26/12 14:43/eli-ca
Copper	ND	mg/L		0.005		2	E200.8	11/26/12 14:43/eli-ca
Iron	2.79	mg/L		0.03		5	E200.7	11/21/12 17:34/eli-ca
Lead	ND	mg/L		0.001		2	E200.8	11/26/12 14:43/eli-ca
Manganese	2.95	mg/L	D	0.005		5	E200.7	11/21/12 17:34/eli-ca
Molybdenum	0.004	mg/L		0.001		2	E200.8	11/26/12 14:43/eli-ca
Nickel	0.013	mg/L		0.005		2	E200.8	11/26/12 14:43/eli-ca
Selenium	ND	mg/L		0.001		2	E200.8	11/26/12 14:43/eli-ca
Silver	ND	mg/L		0.001		2	E200.8	11/26/12 14:43/eli-ca
Uranium	0.0088	mg/L		0.0003		2	E200.8	11/26/12 14:43/eli-ca
Vanadium	ND	mg/L		0.01		5	E200.7	11/21/12 17:34/eli-ca
Zinc	0.04	mg/L		0.01		5	E200.7	11/21/12 17:34/eli-ca
Calcium	481	mg/L		1		5	E200.7	11/21/12 17:34/eli-ca
Magnesium	142	mg/L		1		5	E200.7	11/21/12 17:34/eli-ca
Potassium	8	mg/L		1		5	E200.7	11/26/12 21:09/eli-ca
Sodium	676	mg/L		1		5	E200.7	11/21/12 17:34/eli-ca

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.
D - RL increased due to sample matrix.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12110070-002
Client Sample ID: DC-4

Revised Date: 02/06/13
Report Date: 12/21/12
Collection Date: 11/05/12 11:34
Date Received: 11/06/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	10700	umhos/cm	H	5.0		1	A2510 B	12/12/12 11:37/tb
pH	7.36	su		0.01		1	A4500-H B	11/06/12 12:58/tb
Solids, Total Dissolved TDS @ 180 C	11200	mg/L		10		1	A2540 C	11/07/12 16:02/jmh
Alkalinity, Total as CaCO3	346	mg/L		5		1	A2320 B	11/14/12 15:25/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	11/14/12 15:25/ch
Bicarbonate as HCO3	422	mg/L		5		1	A2320 B	11/14/12 15:25/ch
Samples were rerun due to initial results measuring low								
INORGANIC PARAMETERS								
Chloride	128	mg/L		1		1	E300.0	11/06/12 23:22/tb
Fluoride	2.2	mg/L		0.1		1	E300.0	11/06/12 23:22/tb
Sulfate	7230	mg/L	D	100		100	E300.0	11/06/12 23:04/tb
DATA QUALITY PARAMETERS								
Anions	161	meq/L		1.00		1	A1030 E	12/21/12 00:00/lkl
Cations	149	meq/L		1.00		1	A1030 E	12/21/12 00:00/lkl
Conductivity, Calculated	11100	umhos/cm		1.00		1	A1030 E	12/21/12 00:00/lkl
TDS Ratio	1.08			0.0100		1	A1030 E	12/21/12 00:00/lkl
A/C Balance	-4.01	%				1	A1030 E	12/21/12 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	1.8	mg/L		0.1		1	E300.0	11/06/12 23:22/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	-2	pCi/L	U			1	E900.0	12/03/12 18:19/eli-ca
Gross Alpha precision (±)	20.5	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Gross Alpha MDC	34.8	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Gross Beta	-10	pCi/L	U			1	E900.0	12/03/12 18:19/eli-ca
Gross Beta precision (±)	26.9	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Gross Beta MDC	45.6	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Radium 228	1.9	pCi/L				1	RA-05	11/19/12 12:39/eli-ca
Radium 228 precision (±)	1.1	pCi/L				1	RA-05	11/19/12 12:39/eli-ca
Radium 228 MDC	1.7	pCi/L				1	RA-05	11/19/12 12:39/eli-ca
Radium 226	-0.06	pCi/L	U			1	E903.0	11/29/12 14:01/eli-ca
Radium 226 precision (±)	0.06	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
Radium 226 MDC	0.1	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	4570	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12110070-002
Client Sample ID: DC-4

Revised Date: 02/06/13
Report Date: 12/21/12
Collection Date: 11/05/12 11:34
Date Received: 11/06/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Radon 222 precision (±)	184	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca
Radon 222 MDC	220	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	11/13/12 10:31/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		2	E200.8	11/26/12 14:48/eli-ca
Barium	ND	mg/L		0.05		10	E200.7	11/26/12 21:13/eli-ca
Boron	2.28	mg/L		0.05		10	E200.7	11/21/12 17:38/eli-ca
Cadmium	ND	mg/L		0.001		2	E200.8	11/26/12 14:48/eli-ca
Chromium	ND	mg/L		0.005		2	E200.8	11/26/12 14:48/eli-ca
Copper	ND	mg/L		0.005		2	E200.8	11/26/12 14:48/eli-ca
Iron	ND	mg/L		0.03		10	E200.7	11/21/12 17:38/eli-ca
Lead	ND	mg/L		0.001		2	E200.8	11/26/12 14:48/eli-ca
Manganese	0.002	mg/L		0.001		2	E200.8	11/26/12 14:48/eli-ca
Molybdenum	0.002	mg/L		0.001		2	E200.8	11/26/12 14:48/eli-ca
Nickel	0.009	mg/L		0.005		2	E200.8	11/26/12 14:48/eli-ca
Selenium	0.036	mg/L		0.001		2	E200.8	11/26/12 14:48/eli-ca
Silver	ND	mg/L		0.001		2	E200.8	11/26/12 14:48/eli-ca
Uranium	0.0160	mg/L		0.0003		2	E200.8	11/26/12 14:48/eli-ca
Vanadium	ND	mg/L		0.01		2	E200.8	11/26/12 14:48/eli-ca
Zinc	ND	mg/L		0.01		2	E200.8	11/26/12 14:48/eli-ca
Calcium	380	mg/L		1		10	E200.7	11/21/12 17:38/eli-ca
Magnesium	635	mg/L		1		10	E200.7	11/21/12 17:38/eli-ca
Potassium	11	mg/L		1		10	E200.7	11/26/12 21:13/eli-ca
Sodium	1780	mg/L	D	2		10	E200.7	11/21/12 17:38/eli-ca

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.
D - RL increased due to sample matrix.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12110070-003
Client Sample ID: BC-3

Revised Date: 02/06/13
Report Date: 12/21/12
Collection Date: 11/05/12 12:45
Date Received: 11/06/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3110	umhos/cm	H	5.0		1	A2510 B	12/12/12 11:39/tb
pH	7.21	su		0.01		1	A4500-H B	11/06/12 13:00/tb
Solids, Total Dissolved TDS @ 180 C	3170	mg/L		10		1	A2540 C	11/07/12 16:02/jmh
Alkalinity, Total as CaCO3	248	mg/L		5		1	A2320 B	11/14/12 15:29/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	11/14/12 15:29/ch
Bicarbonate as HCO3	302	mg/L		5		1	A2320 B	11/14/12 15:29/ch
Samples were rerun due to initial results measuring low								
INORGANIC PARAMETERS								
Chloride	19	mg/L		1		1	E300.0	11/06/12 23:58/tb
Fluoride	0.5	mg/L		0.1		1	E300.0	11/06/12 23:58/tb
Sulfate	1860	mg/L	D	50		50	E300.0	11/06/12 23:40/tb
DATA QUALITY PARAMETERS								
Anions	44.2	meq/L		1.00		1	A1030 E	12/21/12 00:00/lkl
Cations	46.0	meq/L		1.00		1	A1030 E	12/21/12 00:00/lkl
Conductivity, Calculated	3730	umhos/cm		1.00		1	A1030 E	12/21/12 00:00/lkl
TDS Ratio	1.09			0.0100		1	A1030 E	12/21/12 00:00/lkl
A/C Balance	2.05	%				1	A1030 E	12/21/12 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.3	mg/L		0.1		1	E300.0	11/06/12 23:58/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	14.2	pCi/L				1	E900.0	12/21/12 10:54/eli-ca
Gross Alpha precision (±)	8.6	pCi/L				1	E900.0	12/21/12 10:54/eli-ca
Gross Alpha MDC	13.4	pCi/L				1	E900.0	12/21/12 10:54/eli-ca
Gross Beta	8.6	pCi/L	U			1	E900.0	12/21/12 10:54/eli-ca
Gross Beta precision (±)	8.6	pCi/L				1	E900.0	12/21/12 10:54/eli-ca
Gross Beta MDC	14.2	pCi/L				1	E900.0	12/21/12 10:54/eli-ca
Radium 228	2.0	pCi/L				1	RA-05	11/19/12 12:39/eli-ca
Radium 228 precision (±)	0.8	pCi/L				1	RA-05	11/19/12 12:39/eli-ca
Radium 228 MDC	1.2	pCi/L				1	RA-05	11/19/12 12:39/eli-ca
Radium 226	0.09	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
Radium 226 precision (±)	0.06	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
Radium 226 MDC	0.09	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	1860	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13

Client: Powertech USA Inc
Report Date: 12/21/12

Project: Alluvial Wells Dewey Burdock
Collection Date: 11/05/12 12:45

Lab ID: R12110070-003
Date Received: 11/06/12

Client Sample ID: BC-3
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Radon 222 precision (±)	154	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca
Radon 222 MDC	218	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	11/13/12 10:33/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		2	E200.8	11/26/12 14:52/eli-ca
Barium	ND	mg/L		0.05		2	E200.7	11/21/12 18:19/eli-ca
Boron	0.52	mg/L		0.05		2	E200.7	11/21/12 18:19/eli-ca
Cadmium	ND	mg/L		0.001		2	E200.8	11/26/12 14:52/eli-ca
Chromium	ND	mg/L		0.005		2	E200.7	11/26/12 21:37/eli-ca
Copper	ND	mg/L		0.005		2	E200.7	11/26/12 21:37/eli-ca
Iron	ND	mg/L		0.03		2	E200.7	11/21/12 18:19/eli-ca
Lead	ND	mg/L		0.001		2	E200.8	11/26/12 14:52/eli-ca
Manganese	0.456	mg/L	D	0.002		2	E200.7	11/21/12 18:19/eli-ca
Molybdenum	0.006	mg/L		0.001		2	E200.8	11/26/12 14:52/eli-ca
Nickel	0.006	mg/L		0.005		1	E200.8	12/15/12 02:18/eli-ca
Selenium	0.003	mg/L		0.001		2	E200.8	11/26/12 14:52/eli-ca
Silver	ND	mg/L		0.001		2	E200.8	11/26/12 14:52/eli-ca
Uranium	0.0212	mg/L		0.0003		2	E200.8	11/26/12 14:52/eli-ca
Vanadium	ND	mg/L		0.01		2	E200.7	11/21/12 18:19/eli-ca
Zinc	0.01	mg/L	B	0.01		2	E200.7	11/21/12 18:19/eli-ca
Calcium	520	mg/L		1		2	E200.7	11/21/12 18:19/eli-ca
Magnesium	150	mg/L		1		2	E200.7	11/21/12 18:19/eli-ca
Potassium	11	mg/L		1		2	E200.7	11/26/12 21:37/eli-ca
Sodium	172	mg/L		1		2	E200.7	11/21/12 18:19/eli-ca

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
B - The analyte was detected in the method blank.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12110070-004
Client Sample ID: BC-1

Revised Date: 02/06/13
Report Date: 12/21/12
Collection Date: 11/05/12 14:04
Date Received: 11/06/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3580	umhos/cm	H	5.0		1	A2510 B	12/12/12 11:41/tb
pH	7.20	su		0.01		1	A4500-H B	11/06/12 13:02/tb
Solids, Total Dissolved TDS @ 180 C	3670	mg/L		10		1	A2540 C	11/07/12 16:03/jmh
Alkalinity, Total as CaCO3	294	mg/L		5		1	A2320 B	11/14/12 15:35/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	11/14/12 15:35/ch
Bicarbonate as HCO3	358	mg/L		5		1	A2320 B	11/14/12 15:35/ch
Samples were rerun due to initial results measuring low								
INORGANIC PARAMETERS								
Chloride	26	mg/L		1		1	E300.0	11/07/12 00:34/tb
Fluoride	0.6	mg/L		0.1		1	E300.0	11/07/12 00:34/tb
Sulfate	2230	mg/L	D	50		50	E300.0	11/07/12 00:16/tb
DATA QUALITY PARAMETERS								
Anions	53.0	meq/L		1.00		1	A1030 E	12/21/12 00:00/lkl
Cations	53.2	meq/L		1.00		1	A1030 E	12/21/12 00:00/lkl
Conductivity, Calculated	4280	umhos/cm		1.00		1	A1030 E	12/21/12 00:00/lkl
TDS Ratio	1.08			0.0100		1	A1030 E	12/21/12 00:00/lkl
A/C Balance	0.130	%				1	A1030 E	12/21/12 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.2	mg/L		0.1		1	E300.0	11/07/12 00:34/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	50.1	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Gross Alpha precision (±)	10.7	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Gross Alpha MDC	14.0	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Gross Beta	19.8	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Gross Beta precision (±)	10.6	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Gross Beta MDC	17.0	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Radium 228	1.7	pCi/L				1	RA-05	11/19/12 12:39/eli-ca
Radium 228 precision (±)	1	pCi/L				1	RA-05	11/19/12 12:39/eli-ca
Radium 228 MDC	1.5	pCi/L				1	RA-05	11/19/12 12:39/eli-ca
Radium 226	0.1	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
Radium 226 precision (±)	0.08	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
Radium 226 MDC	0.1	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	1900	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13

Client: Powertech USA Inc
Report Date: 12/21/12

Project: Alluvial Wells Dewey Burdock
Collection Date: 11/05/12 14:04

Lab ID: R12110070-004
Date Received: 11/06/12

Client Sample ID: BC-1
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Radon 222 precision (±)	153	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca
Radon 222 MDC	216	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	11/13/12 10:34/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		2	E200.8	11/28/12 19:42/eli-ca
Barium	ND	mg/L		0.05		2	E200.7	11/21/12 18:23/eli-ca
Boron	0.71	mg/L		0.05		2	E200.7	11/21/12 18:23/eli-ca
Cadmium	ND	mg/L		0.001		5	E200.8	11/26/12 14:57/eli-ca
Chromium	ND	mg/L		0.005		2	E200.7	11/26/12 21:41/eli-ca
Copper	ND	mg/L		0.005		2	E200.7	11/26/12 21:41/eli-ca
Iron	0.13	mg/L		0.03		2	E200.7	11/21/12 18:23/eli-ca
Lead	ND	mg/L		0.001		5	E200.8	11/26/12 14:57/eli-ca
Manganese	0.049	mg/L	D	0.002		2	E200.7	11/21/12 18:23/eli-ca
Molybdenum	0.012	mg/L		0.001		5	E200.8	11/26/12 14:57/eli-ca
Nickel	0.005	mg/L		0.005		1	E200.8	12/15/12 02:53/eli-ca
Selenium	0.003	mg/L		0.001		5	E200.8	11/26/12 14:57/eli-ca
Silver	ND	mg/L		0.001		5	E200.8	11/26/12 14:57/eli-ca
Uranium	0.0822	mg/L		0.0003		2	E200.8	11/28/12 19:42/eli-ca
Vanadium	ND	mg/L		0.01		2	E200.7	11/21/12 18:23/eli-ca
Zinc	0.02	mg/L	B	0.01		2	E200.7	11/21/12 18:23/eli-ca
Calcium	505	mg/L		1		2	E200.7	11/21/12 18:23/eli-ca
Magnesium	234	mg/L		1		2	E200.7	11/21/12 18:23/eli-ca
Potassium	12	mg/L		1		2	E200.7	11/26/12 21:41/eli-ca
Sodium	194	mg/L		1		2	E200.7	11/21/12 18:23/eli-ca

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
B - The analyte was detected in the method blank.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12110070-005
Client Sample ID: BC-2

Revised Date: 02/06/13
Report Date: 12/21/12
Collection Date: 11/05/12 15:23
Date Received: 11/06/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3870	umhos/cm	H	5.0		1	A2510 B	12/12/12 11:43/tb
pH	7.20	su		0.01		1	A4500-H B	11/06/12 13:04/tb
Solids, Total Dissolved TDS @ 180 C	3910	mg/L		10		1	A2540 C	11/07/12 16:04/jmh
Alkalinity, Total as CaCO3	230	mg/L		5		1	A2320 B	11/14/12 15:37/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	11/14/12 15:37/ch
Bicarbonate as HCO3	280	mg/L		5		1	A2320 B	11/14/12 15:37/ch
Samples were rerun due to initial results measuring low								
INORGANIC PARAMETERS								
Chloride	22	mg/L		1		1	E300.0	11/07/12 02:21/tb
Fluoride	0.7	mg/L		0.1		1	E300.0	11/07/12 02:21/tb
Sulfate	2380	mg/L	D	50		50	E300.0	11/07/12 01:28/tb
DATA QUALITY PARAMETERS								
Anions	54.9	meq/L		1.00		1	A1030 E	12/21/12 00:00/lkl
Cations	57.2	meq/L		1.00		1	A1030 E	12/21/12 00:00/lkl
Conductivity, Calculated	4490	umhos/cm		1.00		1	A1030 E	12/21/12 00:00/lkl
TDS Ratio	1.08			0.0100		1	A1030 E	12/21/12 00:00/lkl
A/C Balance	2.03	%				1	A1030 E	12/21/12 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.2	mg/L		0.1		1	E300.0	11/07/12 02:21/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	12.6	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Gross Alpha precision (±)	8.6	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Gross Alpha MDC	13.4	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Gross Beta	9.2	pCi/L	U			1	E900.0	12/03/12 18:19/eli-ca
Gross Beta precision (±)	10.2	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Gross Beta MDC	16.8	pCi/L				1	E900.0	12/03/12 18:19/eli-ca
Radium 228	0.5	pCi/L	U			1	RA-05	11/19/12 14:26/eli-ca
Radium 228 precision (±)	1.2	pCi/L				1	RA-05	11/19/12 14:26/eli-ca
Radium 228 MDC	2.1	pCi/L				1	RA-05	11/19/12 14:26/eli-ca
Radium 226	0.02	pCi/L	U			1	E903.0	11/29/12 14:01/eli-ca
Radium 226 precision (±)	0.07	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
Radium 226 MDC	0.1	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	2530	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13

Client: Powertech USA Inc
Report Date: 12/21/12

Project: Alluvial Wells Dewey Burdock
Collection Date: 11/05/12 15:23

Lab ID: R12110070-005
Date Received: 11/06/12

Client Sample ID: BC-2
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Radon 222 precision (±)	159	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca
Radon 222 MDC	214	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	11/13/12 10:35/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		2	E200.8	11/26/12 16:34/eli-ca
Barium	ND	mg/L		0.05		2	E200.7	11/21/12 18:27/eli-ca
Boron	0.51	mg/L		0.05		2	E200.7	11/21/12 18:27/eli-ca
Cadmium	ND	mg/L		0.001		2	E200.8	11/26/12 16:34/eli-ca
Chromium	ND	mg/L		0.005		2	E200.7	11/26/12 21:45/eli-ca
Copper	ND	mg/L		0.005		2	E200.7	11/26/12 21:45/eli-ca
Iron	ND	mg/L		0.03		2	E200.7	11/21/12 18:27/eli-ca
Lead	ND	mg/L		0.001		2	E200.8	11/26/12 16:34/eli-ca
Manganese	0.040	mg/L	D	0.002		2	E200.7	11/21/12 18:27/eli-ca
Molybdenum	0.013	mg/L		0.001		2	E200.8	11/26/12 16:34/eli-ca
Nickel	0.006	mg/L		0.005		1	E200.8	12/15/12 02:57/eli-ca
Selenium	ND	mg/L		0.001		2	E200.8	11/26/12 16:34/eli-ca
Silver	ND	mg/L		0.001		2	E200.8	11/26/12 16:34/eli-ca
Uranium	0.0256	mg/L		0.0003		2	E200.8	11/26/12 16:34/eli-ca
Vanadium	ND	mg/L		0.01		2	E200.7	11/21/12 18:27/eli-ca
Zinc	0.01	mg/L	B	0.01		2	E200.7	11/21/12 18:27/eli-ca
Calcium	515	mg/L		1		2	E200.7	11/21/12 18:27/eli-ca
Magnesium	223	mg/L		1		2	E200.7	11/21/12 18:27/eli-ca
Potassium	12	mg/L		1		2	E200.7	11/26/12 21:45/eli-ca
Sodium	294	mg/L		1		2	E200.7	11/21/12 18:27/eli-ca

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
B - The analyte was detected in the method blank.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12110070-006
Client Sample ID: BC-2 DUP

Revised Date: 02/06/13
Report Date: 12/21/12
Collection Date: 11/05/12 15:24
Date Received: 11/06/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3870	umhos/cm	H	5.0		1	A2510 B	12/12/12 11:45/tb
pH	7.27	su		0.01		1	A4500-H B	11/06/12 13:10/tb
Solids, Total Dissolved TDS @ 180 C	3870	mg/L		10		1	A2540 C	11/07/12 16:05/jmh
Alkalinity, Total as CaCO3	230	mg/L		5		1	A2320 B	11/14/12 15:43/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	11/14/12 15:43/ch
Bicarbonate as HCO3	280	mg/L		5		1	A2320 B	11/14/12 15:43/ch
Samples were rerun due to initial results measuring low								
INORGANIC PARAMETERS								
Chloride	22	mg/L		1		1	E300.0	11/07/12 02:57/tb
Fluoride	0.7	mg/L		0.1		1	E300.0	11/07/12 02:57/tb
Sulfate	2370	mg/L	D	50		50	E300.0	11/07/12 02:39/tb
DATA QUALITY PARAMETERS								
Anions	54.5	meq/L		1.00		1	A1030 E	12/21/12 00:00/lkl
Cations	56.8	meq/L		1.00		1	A1030 E	12/21/12 00:00/lkl
Conductivity, Calculated	4470	umhos/cm		1.00		1	A1030 E	12/21/12 00:00/lkl
TDS Ratio	1.08			0.0100		1	A1030 E	12/21/12 00:00/lkl
A/C Balance	2.02	%				1	A1030 E	12/21/12 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.2	mg/L		0.1		1	E300.0	11/07/12 02:57/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	2.0	pCi/L	U			1	E900.0	12/04/12 06:25/eli-ca
Gross Alpha precision (±)	8.5	pCi/L				1	E900.0	12/04/12 06:25/eli-ca
Gross Alpha MDC	14.1	pCi/L				1	E900.0	12/04/12 06:25/eli-ca
Gross Beta	1.1	pCi/L	U			1	E900.0	12/04/12 06:25/eli-ca
Gross Beta precision (±)	8.9	pCi/L				1	E900.0	12/04/12 06:25/eli-ca
Gross Beta MDC	14.9	pCi/L				1	E900.0	12/04/12 06:25/eli-ca
Radium 228	1.7	pCi/L	U			1	RA-05	11/19/12 14:26/eli-ca
Radium 228 precision (±)	1.5	pCi/L				1	RA-05	11/19/12 14:26/eli-ca
Radium 228 MDC	2.3	pCi/L				1	RA-05	11/19/12 14:26/eli-ca
Radium 226	0.06	pCi/L	U			1	E903.0	11/29/12 14:01/eli-ca
Radium 226 precision (±)	0.09	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
Radium 226 MDC	0.1	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	2660	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
D - RL increased due to sample matrix.
U - Not detected at minimum detectable concentration

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13

Client: Powertech USA Inc
Report Date: 12/21/12

Project: Alluvial Wells Dewey Burdock
Collection Date: 11/05/12 15:24

Lab ID: R12110070-006
Date Received: 11/06/12

Client Sample ID: BC-2 DUP
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Radon 222 precision (±)	160	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca
Radon 222 MDC	214	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	11/13/12 10:39/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		2	E200.8	11/26/12 16:38/eli-ca
Barium	ND	mg/L		0.05		2	E200.7	11/21/12 18:31/eli-ca
Boron	0.49	mg/L		0.05		2	E200.7	11/21/12 18:31/eli-ca
Cadmium	ND	mg/L		0.001		2	E200.8	11/26/12 16:38/eli-ca
Chromium	ND	mg/L		0.005		2	E200.7	11/26/12 21:53/eli-ca
Copper	ND	mg/L		0.005		2	E200.7	11/26/12 21:53/eli-ca
Iron	ND	mg/L		0.03		2	E200.7	11/21/12 18:31/eli-ca
Lead	ND	mg/L		0.001		2	E200.8	11/26/12 16:38/eli-ca
Manganese	0.039	mg/L	D	0.002		2	E200.7	11/21/12 18:31/eli-ca
Molybdenum	0.013	mg/L		0.001		2	E200.8	11/26/12 16:38/eli-ca
Nickel	ND	mg/L		0.005		2	E200.7	11/26/12 21:53/eli-ca
Selenium	ND	mg/L		0.001		2	E200.8	11/26/12 16:38/eli-ca
Silver	ND	mg/L		0.001		2	E200.8	11/26/12 16:38/eli-ca
Uranium	0.0253	mg/L		0.0003		2	E200.8	11/26/12 16:38/eli-ca
Vanadium	ND	mg/L		0.01		2	E200.7	11/21/12 18:31/eli-ca
Zinc	0.01	mg/L		0.01		2	E200.7	11/21/12 18:31/eli-ca
Calcium	517	mg/L		1		2	E200.7	11/21/12 18:31/eli-ca
Magnesium	221	mg/L		1		2	E200.7	11/21/12 18:31/eli-ca
Potassium	12	mg/L		1		2	E200.7	11/26/12 21:53/eli-ca
Sodium	288	mg/L		1		2	E200.7	11/21/12 18:31/eli-ca

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.
D - RL increased due to sample matrix.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 12/21/12
Work Order: R12110070

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: 121114A-ALK-SEL-W	
Sample ID: R12110060-007ADUP	3	Sample Duplicate				Run: PH_COND1-R_121114B			11/14/12 14:39	
Alkalinity, Total as CaCO3		176	mg/L	5.0				2.2	10	
Carbonate as CO3		ND	mg/L	5.0					10	
Bicarbonate as HCO3		215	mg/L	5.0				2.2	10	
Sample ID: R12110070-001AMS		Sample Matrix Spike				Run: PH_COND1-R_121114B			11/14/12 15:15	
Alkalinity, Total as CaCO3		388	mg/L	5.0	101	80	120			

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13

Client: Powertech USA Inc

Report Date: 12/21/12

Project: Alluvial Wells Dewey Burdock

Work Order: R12110070

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B									Batch: 121212_1_COND-PROBE-W	
Sample ID: MBLK-1_	Method Blank					Run: PH_COND2-R_121212A			12/12/12 11:32	
Conductivity @ 25 C		ND	umhos/cm	5						
Sample ID: R12110070-001ADUP	Sample Duplicate					Run: PH_COND2-R_121212A			12/12/12 11:35	
Conductivity @ 25 C		5670	umhos/cm	5.0				0.0	10	

Samples were rerun due to initial results measuring low

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 12/21/12
Work Order: R12110070

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: TDS121107A
Sample ID: MB-1_121107A	Method Blank					Run: BAL-TDS_121107A				11/07/12 15:45
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	3						
Sample ID: LCS-2_121107A	Laboratory Control Sample					Run: BAL-TDS_121107A				11/07/12 15:46
Solids, Total Dissolved TDS @ 180 C		500	mg/L	10	100	90	110			
Sample ID: R12110036-005A MS	Sample Matrix Spike					Run: BAL-TDS_121107A				11/07/12 15:50
Solids, Total Dissolved TDS @ 180 C		4100	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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 12/21/12
Work Order: R12110070

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **A4500-H B**									Analytical Run: PH_COND2-R_121106A	
Sample ID: **ICV-1_121106**		Initial Calibration Verification Standard							11/06/12 09:17	
pH		7.43	su	0.010	100	98	102			
Method: **A4500-H B**									Batch: 121106_1_PH-W	
Sample ID: **ICV1-1_121106**		Initial Calibration Verification Standard				Run: PH_COND2-R_121106A			11/06/12 09:16	
pH		12.0	su	0.010	100	99	101			

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 12/21/12
Work Order: R12110070

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: SUB-C167516	
Sample ID: ICV	9	Initial Calibration Verification Standard							11/21/12 14:51	
Barium		0.95	mg/L	0.10	95	95	105			
Boron		1.0	mg/L	0.10	102	95	105			
Calcium		49	mg/L	0.50	98	95	105			
Iron		4.8	mg/L	0.030	97	95	105			
Magnesium		49	mg/L	0.50	97	95	105			
Manganese		4.8	mg/L	0.010	95	95	105			
Sodium		48	mg/L	0.50	97	95	105			
Vanadium		0.99	mg/L	0.10	99	95	105			
Zinc		0.96	mg/L	0.010	96	95	105			
Sample ID: ICSA	9	Interference Check Sample A							11/21/12 15:06	
Barium		0.00039	mg/L	0.10						
Boron		-0.012	mg/L	0.10						
Calcium		440	mg/L	0.50	87	80	120			
Iron		170	mg/L	0.030	85	80	120			
Magnesium		470	mg/L	0.50	94	80	120			
Manganese		0.0085	mg/L	0.010						
Sodium		-0.13	mg/L	0.50						
Vanadium		0.00095	mg/L	0.10						
Zinc		0.011	mg/L	0.010						
Sample ID: ICSAB	9	Interference Check Sample AB							11/21/12 15:10	
Barium		0.46	mg/L	0.10	93	80	120			
Boron		-0.013	mg/L	0.10						
Calcium		440	mg/L	0.50	88	80	120			
Iron		170	mg/L	0.030	87	80	120			
Magnesium		480	mg/L	0.50	95	80	120			
Manganese		0.45	mg/L	0.010	89	80	120			
Sodium		0.045	mg/L	0.50						
Vanadium		0.46	mg/L	0.10	92	80	120			
Zinc		0.84	mg/L	0.010	84	80	120			
Method: E200.7									Batch: C_R167516	
Sample ID: MB-121121A	9	Method Blank				Run: SUB-C167516			11/21/12 15:28	
Barium		ND	mg/L	0.0002						
Boron		0.004	mg/L	0.002						
Calcium		0.05	mg/L	0.02						
Iron		ND	mg/L	0.002						
Magnesium		0.07	mg/L	0.01						
Manganese		ND	mg/L	0.0010						
Sodium		ND	mg/L	0.2						
Vanadium		ND	mg/L	0.001						
Zinc		0.004	mg/L	0.001						

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 12/21/12
Work Order: R12110070

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: C_R167516
Sample ID: LFB-121121A	9	Laboratory Fortified Blank				Run: SUB-C167516				11/21/12 15:32
Barium		0.92	mg/L	0.10	92	85	115			
Boron		0.96	mg/L	0.10	96	85	115			
Calcium		47	mg/L	0.50	94	85	115			
Iron		0.93	mg/L	0.030	93	85	115			
Magnesium		47	mg/L	0.50	94	85	115			
Manganese		0.93	mg/L	0.010	93	85	115			
Sodium		46	mg/L	0.50	93	85	115			
Vanadium		0.96	mg/L	0.10	96	85	115			
Zinc		0.93	mg/L	0.010	93	85	115			
Sample ID: MB-6662	9	Method Blank				Run: SUB-C167516				11/21/12 18:39
Barium		0.0004	mg/L	6E-05						
Boron		ND	mg/L	0.0004						
Iron		0.001	mg/L	0.0002						
Manganese		ND	mg/L	4E-05						
Vanadium		0.001	mg/L	0.0004						
Zinc		0.01	mg/L	0.002						
Calcium		ND	mg/L	0.08						
Magnesium		0.1	mg/L	0.1						
Sodium		ND	mg/L	0.008						
Sample ID: C12110447-001CMS2	9	Sample Matrix Spike				Run: SUB-C167516				11/21/12 18:46
Barium		1.11	mg/L	0.050	104	70	130			
Boron		1.04	mg/L	0.050	100	70	130			
Iron		1.11	mg/L	0.030	104	70	130			
Manganese		1.18	mg/L	0.0010	98	70	130			
Vanadium		1.04	mg/L	0.010	102	70	130			
Zinc		0.955	mg/L	0.010	93	70	130			
Calcium		317	mg/L	1.0		70	130			A
Magnesium		69.5	mg/L	1.0	100	70	130			
Sodium		120	mg/L	1.0	106	70	130			
Sample ID: C12110447-001CMSD2	9	Sample Matrix Spike Duplicate				Run: SUB-C167516				11/21/12 18:50
Barium		1.06	mg/L	0.050	99	70	130	4.3	20	
Boron		1.02	mg/L	0.050	97	70	130	2.1	20	
Iron		1.07	mg/L	0.030	100	70	130	3.2	20	
Manganese		1.14	mg/L	0.0010	94	70	130	3.2	20	
Vanadium		1.01	mg/L	0.010	98	70	130	3.3	20	
Zinc		0.947	mg/L	0.010	92	70	130	0.9	20	
Calcium		312	mg/L	1.0		70	130	1.6	20	A
Magnesium		67.9	mg/L	1.0	96	70	130	2.3	20	
Sodium		116	mg/L	1.0	98	70	130	3.6	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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 12/21/12
Work Order: R12110070

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: SUB-C167550	
Sample ID: ICV	5	Initial Calibration Verification Standard							11/26/12 12:41	
Barium		1.0	mg/L	0.10	103	95	105			
Chromium		1.0	mg/L	0.050	100	95	105			
Copper		1.0	mg/L	0.010	102	95	105			
Nickel		1.0	mg/L	0.050	101	95	105			
Potassium		48	mg/L	0.50	95	95	105			
Sample ID: ICSA	5	Interference Check Sample A							11/26/12 13:09	
Barium		0.00080	mg/L	0.10						
Chromium		0.0034	mg/L	0.050						
Copper		0.013	mg/L	0.010						
Nickel		-0.0019	mg/L	0.050						
Potassium		0.0021	mg/L	0.50						
Sample ID: ICSAB	5	Interference Check Sample AB							11/26/12 13:13	
Barium		0.52	mg/L	0.10	105	80	120			
Chromium		0.50	mg/L	0.050	100	80	120			
Copper		0.55	mg/L	0.010	110	80	120			
Nickel		0.97	mg/L	0.050	97	80	120			
Potassium		-0.00010	mg/L	0.50						
Method: E200.7									Batch: C_R167550	
Sample ID: MB-121126A	5	Method Blank				Run: SUB-C167550			11/26/12 13:38	
Barium		0.0007	mg/L	0.0005						
Chromium		ND	mg/L	0.001						
Copper		ND	mg/L	0.002						
Nickel		ND	mg/L	0.002						
Potassium		ND	mg/L	0.06						
Sample ID: LFB-121126A	5	Laboratory Fortified Blank				Run: SUB-C167550			11/26/12 13:42	
Barium		1.00	mg/L	0.10	99	85	115			
Chromium		0.98	mg/L	0.050	98	85	115			
Copper		0.98	mg/L	0.010	98	85	115			
Nickel		0.98	mg/L	0.050	98	85	115			
Potassium		47	mg/L	0.50	93	85	115			
Sample ID: MB-6662	5	Method Blank				Run: SUB-C167550			11/26/12 22:01	
Barium		ND	mg/L	3E-05						
Chromium		0.001	mg/L	0.0002						
Copper		0.0005	mg/L	0.0002						
Nickel		ND	mg/L	0.002						
Potassium		ND	mg/L	0.02						
Sample ID: C12110541-003BMS2	5	Sample Matrix Spike				Run: SUB-C167550			11/26/12 22:34	
Barium		2.06	mg/L	0.050	100	70	130			
Chromium		2.02	mg/L	0.0050	99	70	130			
Copper		2.09	mg/L	0.0050	100	70	130			

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13

Client: Powertech USA Inc

Report Date: 12/21/12

Project: Alluvial Wells Dewey Burdock

Work Order: R12110070

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: C_R167550
Sample ID: C12110541-003BMS2	5	Sample Matrix Spike				Run: SUB-C167550				11/26/12 22:34
Nickel		1.98	mg/L	0.0050	97	70	130			
Potassium		102	mg/L	1.0	94	70	130			
Sample ID: C12110541-003BMSD2	5	Sample Matrix Spike Duplicate				Run: SUB-C167550				11/26/12 22:38
Barium		2.04	mg/L	0.050	99	70	130	1.2	20	
Chromium		2.00	mg/L	0.0050	98	70	130	0.8	20	
Copper		2.05	mg/L	0.0050	98	70	130	1.9	20	
Nickel		1.97	mg/L	0.0050	97	70	130	0.6	20	
Potassium		100	mg/L	1.0	92	70	130	1.8	20	
Sample ID: C12110337-002BMS2	5	Sample Matrix Spike				Run: SUB-C167550				11/26/12 21:17
Barium		10.1	mg/L	0.050	99	70	130			
Chromium		9.94	mg/L	0.015	97	70	130			
Copper		10.00	mg/L	0.016	98	70	130			
Nickel		9.79	mg/L	0.021	96	70	130			
Potassium		491	mg/L	1.0	94	70	130			
Sample ID: C12110337-002BMSD2	5	Sample Matrix Spike Duplicate				Run: SUB-C167550				11/26/12 21:33
Barium		10.0	mg/L	0.050	99	70	130	0.3	20	
Chromium		9.99	mg/L	0.015	98	70	130	0.4	20	
Copper		9.90	mg/L	0.016	97	70	130	0.9	20	
Nickel		9.81	mg/L	0.021	96	70	130	0.2	20	
Potassium		495	mg/L	1.0	95	70	130	0.8	20	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 12/21/12
Work Order: R12110070

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Analytical Run: SUB-C167580	
Sample ID: ICV	13	Initial Calibration Verification Standard							11/26/12 12:56	
Arsenic		0.0486	mg/L	0.0010	97	90	110			
Cadmium		0.0494	mg/L	0.0010	99	90	110			
Chromium		0.0487	mg/L	0.0010	97	90	110			
Copper		0.0502	mg/L	0.0010	100	90	110			
Lead		0.0488	mg/L	0.0010	98	90	110			
Manganese		0.0484	mg/L	0.0010	97	90	110			
Molybdenum		0.0492	mg/L	0.0010	99	90	110			
Nickel		0.0476	mg/L	0.0010	95	90	110			
Selenium		0.0495	mg/L	0.0010	99	90	110			
Silver		0.0196	mg/L	0.0010	98	90	110			
Uranium		0.0487	mg/L	0.00030	97	90	110			
Vanadium		0.0493	mg/L	0.0010	99	90	110			
Zinc		0.0495	mg/L	0.0010	99	90	110			
Method: E200.8									Batch: C_R167580	
Sample ID: LRB	13	Method Blank				Run: SUB-C167580			11/26/12 13:31	
Arsenic		ND	mg/L	5E-05						
Cadmium		ND	mg/L	3E-05						
Chromium		5E-05	mg/L	4E-05						
Copper		ND	mg/L	3E-05						
Lead		ND	mg/L	2E-05						
Manganese		ND	mg/L	3E-05						
Molybdenum		ND	mg/L	3E-05						
Nickel		ND	mg/L	9E-05						
Selenium		ND	mg/L	7E-05						
Silver		ND	mg/L	6E-05						
Uranium		1E-05	mg/L	9E-06						
Vanadium		ND	mg/L	4E-05						
Zinc		0.002	mg/L	0.0002						
Sample ID: LFB	13	Laboratory Fortified Blank				Run: SUB-C167580			11/26/12 13:35	
Arsenic		0.0481	mg/L	0.0010	96	85	115			
Cadmium		0.0503	mg/L	0.0010	101	85	115			
Chromium		0.0489	mg/L	0.0010	98	85	115			
Copper		0.0494	mg/L	0.0010	99	85	115			
Lead		0.0495	mg/L	0.0010	99	85	115			
Manganese		0.0500	mg/L	0.0010	100	85	115			
Molybdenum		0.0501	mg/L	0.0010	100	85	115			
Nickel		0.0471	mg/L	0.0010	94	85	115			
Selenium		0.0492	mg/L	0.0010	98	85	115			
Silver		0.0192	mg/L	0.0010	96	85	115			
Uranium		0.0493	mg/L	0.00030	99	85	115			
Vanadium		0.0491	mg/L	0.0010	98	85	115			
Zinc		0.0521	mg/L	0.0010	101	85	115			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 12/21/12
Work Order: R12110070

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: C_R167580	
Sample ID: MB-6662	13 Method Blank				Run: SUB-C167580				11/26/12 16:47	
Arsenic		ND	mg/L	0.0004						
Cadmium		ND	mg/L	2E-05						
Chromium		ND	mg/L	0.0004						
Copper		ND	mg/L	0.0004						
Lead		ND	mg/L	2E-05						
Manganese		0.0002	mg/L	4E-05						
Molybdenum		ND	mg/L	8E-05						
Nickel		ND	mg/L	0.004						
Selenium		ND	mg/L	0.0006						
Silver		ND	mg/L	4E-05						
Uranium		ND	mg/L	2E-05						
Vanadium		ND	mg/L	0.0004						
Zinc		0.002	mg/L	0.002						
Sample ID: C12110447-006CMS4	13 Post Digestion Spike				Run: SUB-C167580				11/26/12 17:35	
Arsenic		0.0582	mg/L	0.0010	114	70	130			
Cadmium		0.0534	mg/L	0.0010	107	70	130			
Chromium		0.0541	mg/L	0.0050	108	70	130			
Copper		0.0520	mg/L	0.0050	104	70	130			
Lead		0.0558	mg/L	0.0010	112	70	130			
Manganese		0.326	mg/L	0.0010		70	130			A
Molybdenum		0.0542	mg/L	0.0010	106	70	130			
Nickel		0.0848	mg/L	0.0050	104	70	130			
Selenium		0.0553	mg/L	0.0010	110	70	130			
Silver		0.0197	mg/L	0.0010	98	70	130			
Uranium		0.125	mg/L	0.00030	120	70	130			
Vanadium		0.0554	mg/L	0.010	111	70	130			
Zinc		0.0630	mg/L	0.010	104	70	130			
Sample ID: C12110447-006CMSD4	13 Post Digestion Spike Duplicate				Run: SUB-C167580				11/26/12 17:39	
Arsenic		0.0530	mg/L	0.0010	104	70	130	9.2	20	
Cadmium		0.0551	mg/L	0.0010	110	70	130	3.0	20	
Chromium		0.0492	mg/L	0.0050	98	70	130	9.4	20	
Copper		0.0484	mg/L	0.0050	97	70	130	7.1	20	
Lead		0.0591	mg/L	0.0010	118	70	130	5.7	20	
Manganese		0.347	mg/L	0.0010		70	130	6.3	20	A
Molybdenum		0.0584	mg/L	0.0010	114	70	130	7.4	20	
Nickel		0.0763	mg/L	0.0050	87	70	130	11	20	
Selenium		0.0528	mg/L	0.0010	105	70	130	4.6	20	
Silver		0.0180	mg/L	0.0010	90	70	130	9.1	20	
Uranium		0.133	mg/L	0.00030	136	70	130	6.3	20	S
Vanadium		0.0511	mg/L	0.010	102	70	130	7.9	20	
Zinc		0.0569	mg/L	0.010	92	70	130	10	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 12/21/12
Work Order: R12110070

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: C_R167580
Sample ID: R12110070-004B	13 Post Digestion Spike					Run: SUB-C167580				11/26/12 15:18
Arsenic		0.0993	mg/L	0.0010	99	70	130			
Cadmium		0.0947	mg/L	0.0010	95	70	130			
Chromium		0.0951	mg/L	0.0050	95	70	130			
Copper		0.0895	mg/L	0.0050	89	70	130			
Lead		0.102	mg/L	0.0010	102	70	130			
Manganese		0.146	mg/L	0.0010	15	70	130			S
Molybdenum		0.105	mg/L	0.0010	92	70	130			
Nickel		0.0904	mg/L	0.0050	80	70	130			
Selenium		0.0932	mg/L	0.0010	90	70	130			
Silver		0.0390	mg/L	0.0010	98	70	130			
Uranium		0.183	mg/L	0.00030	-23	70	130			S
Vanadium		0.0993	mg/L	0.010	99	70	130			
Zinc		0.0931	mg/L	0.010	87	70	130			
Sample ID: R12110070-004B	13 Post Digestion Spike Duplicate					Run: SUB-C167580				11/26/12 15:22
Arsenic		0.100	mg/L	0.0010	100	70	130	1.2	20	
Cadmium		0.0891	mg/L	0.0010	89	70	130	6.0	20	
Chromium		0.0973	mg/L	0.0050	97	70	130	2.3	20	
Copper		0.0917	mg/L	0.0050	92	70	130	2.5	20	
Lead		0.0944	mg/L	0.0010	94	70	130	7.6	20	
Manganese		0.136	mg/L	0.0010	5	70	130	7.0	20	S
Molybdenum		0.0995	mg/L	0.0010	87	70	130	5.2	20	
Nickel		0.0921	mg/L	0.0050	82	70	130	1.9	20	
Selenium		0.0999	mg/L	0.0010	97	70	130	7.0	20	
Silver		0.0346	mg/L	0.0010	86	70	130	12	20	
Uranium		0.172	mg/L	0.00030	-34	70	130	6.2	20	S
Vanadium		0.101	mg/L	0.010	100	70	130	1.3	20	
Zinc		0.0963	mg/L	0.010	90	70	130	3.3	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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 12/21/12
Work Order: R12110070

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Analytical Run: SUB-C167661	
Sample ID: ICV	2	Initial Calibration Verification Standard							11/28/12 12:18	
Arsenic		0.0496	mg/L	0.0010	99	90	110			
Uranium		0.0506	mg/L	0.00030	101	90	110			
Method: E200.8									Batch: C_R167661	
Sample ID: LRB	2	Method Blank				Run: SUB-C167661			11/28/12 12:50	
Arsenic		ND	mg/L	0.00010						
Uranium		ND	mg/L	1E-05						
Sample ID: LFB	2	Laboratory Fortified Blank				Run: SUB-C167661			11/28/12 12:53	
Arsenic		0.0520	mg/L	0.0010	104	85	115			
Uranium		0.0527	mg/L	0.00030	105	85	115			
Sample ID: C12110308-001BMS4	2	Post Digestion Spike				Run: SUB-C167661			11/28/12 19:34	
Arsenic		0.0549	mg/L	0.0010	106	70	130			
Uranium		0.0745	mg/L	0.00030	108	70	130			
Sample ID: C12110308-001BMSD4	2	Post Digestion Spike Duplicate				Run: SUB-C167661			11/28/12 19:37	
Arsenic		0.0548	mg/L	0.0010	106	70	130	0.2	20	
Uranium		0.0741	mg/L	0.00030	107	70	130	0.5	20	
Method: E200.8									Analytical Run: SUB-C168258	
Sample ID: ICV		Initial Calibration Verification Standard							12/15/12 00:26	
Nickel		0.0516	mg/L	0.0010	103	90	110			
Sample ID: ICV		Initial Calibration Verification Standard							12/14/12 14:43	
Nickel		0.0516	mg/L	0.0010	103	90	110			
Method: E200.8									Batch: C_R168258	
Sample ID: LRB		Method Blank				Run: SUB-C168258			12/14/12 15:17	
Nickel		ND	mg/L	9E-05						
Sample ID: LFB		Laboratory Fortified Blank				Run: SUB-C168258			12/14/12 15:21	
Nickel		0.0525	mg/L	0.0010	105	85	115			
Sample ID: C12110337-003BMS4		Post Digestion Spike				Run: SUB-C168258			12/15/12 02:40	
Nickel		0.0561	mg/L	0.0050	100	70	130			
Sample ID: C12110337-003BMSD4		Post Digestion Spike Duplicate				Run: SUB-C168258			12/15/12 02:44	
Nickel		0.0559	mg/L	0.0050	100	70	130	0.4	20	

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 12/21/12
Work Order: R12110070

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E245.1										Batch: C_35734
Sample ID: MB-35734		Method Blank				Run: SUB-C167123				11/13/12 10:23
Mercury		ND	mg/L	3E-05						
Sample ID: LCS-35734		Laboratory Control Sample				Run: SUB-C167123				11/13/12 10:25
Mercury		0.0051	mg/L	0.00010	102	85	115			
Sample ID: C12110433-001BMS		Sample Matrix Spike				Run: SUB-C167123				11/13/12 10:43
Mercury		0.0049	mg/L	0.00010	99	70	130			
Sample ID: C12110433-001BMSD		Sample Matrix Spike Duplicate				Run: SUB-C167123				11/13/12 10:44
Mercury		0.0052	mg/L	0.00010	105	70	130	5.9	10	

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 12/21/12
Work Order: R12110070

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: DIONEX_121106A	
Sample ID: CCV110612-28	4	Continuing Calibration Verification Standard							11/06/12 20:41	
Chloride		71.9	mg/L	1.0	96	90	110			
Fluoride		7.32	mg/L	0.10	98	90	110			
Nitrogen, Nitrate as N		7.18	mg/L	0.10	96	90	110			
Sulfate		71.4	mg/L	1.0	95	90	110			
Sample ID: CCV110612-42	4	Continuing Calibration Verification Standard							11/07/12 00:52	
Chloride		72.0	mg/L	1.0	96	90	110			
Fluoride		7.33	mg/L	0.10	98	90	110			
Nitrogen, Nitrate as N		7.17	mg/L	0.10	96	90	110			
Sulfate		71.5	mg/L	1.0	95	90	110			
Method: E300.0									Batch: R58767	
Sample ID: LFB110612-14	4	Laboratory Fortified Blank				Run: DIONEX_121106A			11/06/12 16:48	
Chloride		37.9	mg/L	1.0	95	90	110			
Fluoride		3.96	mg/L	0.10	99	90	110			
Nitrogen, Nitrate as N		3.87	mg/L	0.10	97	90	110			
Sulfate		38.3	mg/L	1.0	96	90	110			
Sample ID: R12110069-001AMS	4	Sample Matrix Spike				Run: DIONEX_121106A			11/06/12 21:35	
Chloride		1970	mg/L	50	90	90	110			
Fluoride		201	mg/L	5.0	96	90	110			
Nitrogen, Nitrate as N		196	mg/L	5.0	98	90	110			
Sulfate		6440	mg/L	50	108	90	110			
Sample ID: R12110069-001AMSD	4	Sample Matrix Spike Duplicate				Run: DIONEX_121106A			11/06/12 21:53	
Chloride		1970	mg/L	50	89	90	110	0.1	10	S
Fluoride		201	mg/L	5.0	96	90	110	0.0	10	
Nitrogen, Nitrate as N		196	mg/L	5.0	98	90	110	0.2	10	
Sulfate		6440	mg/L	50	108	90	110	0.0	10	
Sample ID: R12110070-005AMS	4	Sample Matrix Spike				Run: DIONEX_121106A			11/07/12 01:46	
Chloride		1920	mg/L	50	88	90	110			S
Fluoride		198	mg/L	5.0	95	90	110			
Nitrogen, Nitrate as N		193	mg/L	5.0	97	90	110			
Sulfate		4440	mg/L	50	103	90	110			
Sample ID: R12110070-005AMSD	4	Sample Matrix Spike Duplicate				Run: DIONEX_121106A			11/07/12 02:04	
Chloride		1910	mg/L	50	88	90	110	0.1	10	S
Fluoride		198	mg/L	5.0	95	90	110	0.1	10	
Nitrogen, Nitrate as N		193	mg/L	5.0	97	90	110	0.0	10	
Sulfate		4440	mg/L	50	103	90	110	0.1	10	

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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 12/21/12
Work Order: R12110070

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0									Batch: C_GrAB-1405	
Sample ID: Th230-GrAB-1405		Laboratory Control Sample				Run: SUB-C167785			12/03/12 18:19	
Gross Alpha		108	pCi/L		106	80	120			
Sample ID: Sr90-GrAB-1405		Laboratory Control Sample				Run: SUB-C167785			12/03/12 18:19	
Gross Beta		175	pCi/L		96	80	120			
Sample ID: MB-GrAB-1405	6	Method Blank				Run: SUB-C167785			12/03/12 18:19	
Gross Alpha		-1	pCi/L							U
Gross Alpha precision (±)		0.6	pCi/L							
Gross Alpha MDC		1	pCi/L							
Gross Beta		-1	pCi/L							U
Gross Beta precision (±)		1	pCi/L							
Gross Beta MDC		2	pCi/L							
Sample ID: R12110070-003E	6	Sample Duplicate				Run: SUB-C167785			12/03/12 18:19	
Gross Alpha		10	pCi/L					390	201.4	UR
Gross Alpha precision (±)		8.0	pCi/L							
Gross Alpha MDC		13	pCi/L							
Gross Beta		6.7	pCi/L					58	179.9	U
Gross Beta precision (±)		8.4	pCi/L							
Gross Beta MDC		14	pCi/L							
- The Sample and the Duplicate are both below the MDC; the Gross Alpha RPD is acceptable.										
Sample ID: C12110354-001JMS		Sample Matrix Spike				Run: SUB-C167785			12/04/12 06:25	
Gross Alpha		91.3	pCi/L		84	70	130			
Sample ID: C12110354-001JMSD		Sample Matrix Spike Duplicate				Run: SUB-C167785			12/04/12 06:25	
Gross Alpha		97.2	pCi/L		89	70	130	6.3	18.5	
Sample ID: C12110354-001JMS		Sample Matrix Spike				Run: SUB-C167785			12/04/12 06:25	
Gross Beta		185	pCi/L		94	70	130			
Sample ID: C12110354-001JMSD		Sample Matrix Spike Duplicate				Run: SUB-C167785			12/04/12 06:25	
Gross Beta		180	pCi/L		92	70	130	3.0	14.2	

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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 12/21/12
Work Order: R12110070

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0										Batch: C_GrAB-1420
Sample ID: Th230-GrAB-1420		Laboratory Control Sample				Run: SUB-C168510				12/20/12 22:48
Gross Alpha		114	pCi/L		112	80	120			
Sample ID: Sr90-GrAB-1420		Laboratory Control Sample				Run: SUB-C168510				12/20/12 22:48
Gross Beta		174	pCi/L		95	80	120			
Sample ID: MB-GrAB-1420	6	Method Blank				Run: SUB-C168510				12/20/12 22:48
Gross Alpha		-0.7	pCi/L							U
Gross Alpha precision (±)		0.6	pCi/L							
Gross Alpha MDC		1	pCi/L							
Gross Beta		-1	pCi/L							U
Gross Beta precision (±)		1	pCi/L							
Gross Beta MDC		3	pCi/L							
Sample ID: C12120235-001LDUP	6	Sample Duplicate				Run: SUB-C168510				12/20/12 22:48
Gross Alpha		-3.58	pCi/L					130	219.9	U
Gross Alpha precision (±)		2.50	pCi/L							
Gross Alpha MDC		4.56	pCi/L							
Gross Beta		-6.28	pCi/L					130	157.1	U
Gross Beta precision (±)		3.36	pCi/L							
Gross Beta MDC		5.84	pCi/L							
Sample ID: C12120273-002FMS		Sample Matrix Spike				Run: SUB-C168510				12/20/12 22:48
Gross Alpha		87.5	pCi/L		66	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: C12120273-002FMSD		Sample Matrix Spike Duplicate				Run: SUB-C168510				12/20/12 22:48
Gross Alpha		90.0	pCi/L		68	70	130	2.8	18.9	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: C12120273-002FMS		Sample Matrix Spike				Run: SUB-C168510				12/20/12 22:48
Gross Beta		211	pCi/L		94	70	130			
Sample ID: C12120273-002FMSD		Sample Matrix Spike Duplicate				Run: SUB-C168510				12/20/12 22:48
Gross Beta		227	pCi/L		102	70	130	7.5	14	

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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 12/21/12
Work Order: R12110070

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: C_RA226-6386
Sample ID: C12110321-001DMS		Sample Matrix Spike				Run: SUB-C167703				11/29/12 10:56
Radium 226		13	pCi/L		101	70	130			
Sample ID: C12110321-001DMSD		Sample Matrix Spike Duplicate				Run: SUB-C167703				11/29/12 10:56
Radium 226		13	pCi/L		95	70	130	5.0	19.6	
Sample ID: MB-RA226-6356	3	Method Blank				Run: SUB-C167703				11/29/12 17:10
Radium 226		0.02	pCi/L							U
Radium 226 precision (±)		0.05	pCi/L							
Radium 226 MDC		0.09	pCi/L							
Sample ID: LCS-RA226-6356		Laboratory Control Sample				Run: SUB-C167703				11/29/12 17:10
Radium 226		6.1	pCi/L		96	80	120			

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 Rapid City, SD Branch

Revised Date: 02/06/13

Client: Powertech USA Inc

Report Date: 12/21/12

Project: Alluvial Wells Dewey Burdock

Work Order: R12110070

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: C_RA228-4276
Sample ID: C12110321-004DMS	Sample Matrix Spike					Run: SUB-C167380				11/19/12 12:39
Radium 228		13	pCi/L		91	70	130			
Sample ID: C12110321-004DMSD	Sample Matrix Spike Duplicate					Run: SUB-C167380				11/19/12 12:39
Radium 228		14	pCi/L		101	70	130	6.7	41.9	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

Chain of Custody and Analytical Request Record

PLEASE PRINT (Provide as much information as possible.)

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
Scott Env.	Powertech alluvial wells	State:	Yes ☐ No ☐
Report Mail Address:	**Contact Name:** Phone/Fax:	**Email:**	**Sampler: (Please Print)**
Powertech	Allen Scott		
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**
Powertech			

Special Report/Formats:

☐ DW ☐ EDD/EDT (Electronic Data)
☐ POTW/WWTP **Format:**
☐ State: ☐ LEVEL IV
☐ Other: ☐ NELAC

Number of Containers
Sample Type: A Air W Water S Soils/Solids V Vegetation B Bioassay O Other DW - Drinking Water

ANALYSIS REQUESTED

SEE ATTACHED

Standard Turnaround (TAT)

R U S H

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

Comments:

Shipped by:

Cooler ID(s):

Receipt Temp 1.8 °C

On Ice: (Y) N

Custody Seal
On Bottle Y N
On Cooler Y N

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	Gr Pa Anal	LABORATORY USE ONLY
1	DC-2	11-5-12	10:20	Water		R1211007-001
2	DC-4	"	11:34	"		002
3	BC-3	"	12:45	"		003
4	BC-1	"	14:04	"		004
5	BC-2	"	15:23	"		005
6	BC-2 Dup.	"	15:24	"		006
7	~~Blk~~ 708	"	16:13	"		
8						
9						
10						

Custody Record MUST be Signed

Relinquished by (print): Allen Scott	Date/Time: 11-6-12 8:04	Signature:	Received by (print): / Date/Time: / Signature:
Relinquished by (print):	Date/Time:	Signature:	Received by (print): / Date/Time: / Signature:
Sample Disposal: Return to Client:	Lab Disposal:		Received by Laboratory: Rene Rowland 11-6-12 8:04

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

POWERTECH (USA) INC.

LABORATORY DATA PACKAGE

R12110087

(November 2012 for DC1)

5575 DTC Parkway, Suite 140
Greenwood Village, CO 80111 USA

Telephone: 303-790-7528
Facsimile: 303-790-3885

Website: www.powertechuranium.com
Email: info@powertechuranium.com

ANALYTICAL SUMMARY REPORT

December 21, 2012

Powertech USA Inc
PO Box 812
Edgemont, SD 57735

Workorder No.: R12110087 Quote ID: R411

Project Name: Alluvial Wells Dewey Burdock

Energy Laboratories Inc. Rapid City SD received the following 1 sample for Powertech USA Inc on 11/7/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R12110087-001	DC-1	11/06/12 10:34	11/07/12	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Anion - Cation Balance Conductivity Mercury, Total Anions by Ion Chromatography pH Dissolved Filtration Digestion, Mercury by CVAA Gross Alpha, Gross Beta Radium 226, Dissolved Radium 228, Dissolved Radon 222 Solids, Total Dissolved

This report was prepared by Energy Laboratories, Inc., 2821 Plant St., Rapid City, SD 57702. As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

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

Report Approved By:

Linda K. Larson
Branch Manager

Digitally signed by
Linda Larson
Date: 2012.12.21 16:16:08 -07:00

CLIENT: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Sample Delivery Group: R12110087

Report Date: 12/21/12

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12110087-001
Client Sample ID: DC-1

Report Date: 12/21/12
Collection Date: 11/06/12 10:34
Date Received: 11/07/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	6680	umhos/cm		5.0		1	A2510 B	11/08/12 09:31/tb
pH	6.90	su		0.01		1	A4500-H B	11/08/12 10:05/tb
Solids, Total Dissolved TDS @ 180 C	6730	mg/L		100		1	A2540 C	11/09/12 16:46/jmh
Alkalinity, Total as CaCO3	430	mg/L		5		1	A2320 B	11/15/12 15:44/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	11/15/12 15:44/ch
Bicarbonate as HCO3	524	mg/L		5		1	A2320 B	11/15/12 15:44/ch
INORGANIC PARAMETERS								
Chloride	95	mg/L		1		1	E300.0	11/08/12 03:41/jmh
Fluoride	0.9	mg/L		0.1		1	E300.0	11/08/12 03:41/jmh
Sulfate	4110	mg/L	D	50		50	E300.0	11/08/12 02:47/jmh
DATA QUALITY PARAMETERS								
Anions	97.3	meq/L		1.00		1	A1030 E	12/21/12 00:00/lkl
Cations	94.3	meq/L		1.00		1	A1030 E	12/21/12 00:00/lkl
Conductivity, Calculated	7120	umhos/cm		1.00		1	A1030 E	12/21/12 00:00/lkl
TDS Ratio	1.07			0.0100		1	A1030 E	12/21/12 00:00/lkl
A/C Balance	-1.55	%				1	A1030 E	12/21/12 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	6.2	mg/L		0.1		1	E300.0	11/08/12 03:41/jmh
RADIONUCLIDES - DISSOLVED								
Gross Alpha	9.6	pCi/L	U			1	E900.0	12/04/12 06:25/eli-ca
Gross Alpha precision (±)	15.8	pCi/L				1	E900.0	12/04/12 06:25/eli-ca
Gross Alpha MDC	25.8	pCi/L				1	E900.0	12/04/12 06:25/eli-ca
Gross Beta	-9	pCi/L	U			1	E900.0	12/04/12 06:25/eli-ca
Gross Beta precision (±)	15.9	pCi/L				1	E900.0	12/04/12 06:25/eli-ca
Gross Beta MDC	27.0	pCi/L				1	E900.0	12/04/12 06:25/eli-ca
Radium 228	1.5	pCi/L	U			1	RA-05	11/19/12 14:26/eli-ca
Radium 228 precision (±)	1.4	pCi/L				1	RA-05	11/19/12 14:26/eli-ca
Radium 228 MDC	2.3	pCi/L				1	RA-05	11/19/12 14:26/eli-ca
Radium 226	0.06	pCi/L	U			1	E903.0	11/29/12 14:01/eli-ca
Radium 226 precision (±)	0.09	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
Radium 226 MDC	0.1	pCi/L				1	E903.0	11/29/12 14:01/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	1050	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca
Radon 222 precision (±)	123	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca

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

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12110087-001
Client Sample ID: DC-1

Report Date: 12/21/12
Collection Date: 11/06/12 10:34
Date Received: 11/07/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Radon 222 MDC	184	pCi/L				1	D5072-92	11/08/12 13:12/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	11/13/12 10:41/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		2	E200.8	12/15/12 03:02/eli-ca
Barium	ND	mg/L		0.05		5	E200.7	11/21/12 18:35/eli-ca
Boron	1.50	mg/L		0.05		5	E200.7	11/21/12 18:35/eli-ca
Cadmium	ND	mg/L		0.001		2	E200.8	12/15/12 03:02/eli-ca
Chromium	ND	mg/L		0.005		2	E200.8	12/15/12 03:02/eli-ca
Copper	ND	mg/L		0.005		2	E200.8	12/15/12 03:02/eli-ca
Iron	ND	mg/L		0.03		5	E200.7	11/21/12 18:35/eli-ca
Lead	ND	mg/L		0.001		2	E200.8	12/15/12 03:02/eli-ca
Manganese	0.154	mg/L	D	0.005		5	E200.7	11/21/12 18:35/eli-ca
Molybdenum	0.003	mg/L		0.001		2	E200.8	12/15/12 03:02/eli-ca
Nickel	0.027	mg/L		0.005		2	E200.8	12/15/12 03:02/eli-ca
Selenium	0.028	mg/L		0.001		2	E200.8	12/15/12 03:02/eli-ca
Silver	ND	mg/L		0.001		2	E200.8	12/15/12 03:02/eli-ca
Uranium	0.0210	mg/L		0.0003		2	E200.8	12/15/12 03:02/eli-ca
Vanadium	0.01	mg/L		0.01		5	E200.7	11/21/12 18:35/eli-ca
Zinc	0.08	mg/L	B	0.01		5	E200.7	11/21/12 18:35/eli-ca
Calcium	425	mg/L		1		5	E200.7	11/21/12 18:35/eli-ca
Magnesium	364	mg/L		1		5	E200.7	11/21/12 18:35/eli-ca
Potassium	10	mg/L		1		5	E200.7	11/26/12 21:57/eli-ca
Sodium	987	mg/L		1		5	E200.7	11/21/12 18:35/eli-ca

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MDC - Minimum detectable concentration
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
B - The analyte was detected in the method blank.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 12/21/12
Project: Alluvial Wells Dewey Burdock
Work Order: R12110087

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: 121115A-ALK-SEL-W	
Sample ID: R12110110-001AMS	Sample Matrix Spike					Run: PH_COND1-R_121115A			11/15/12 15:57	
Alkalinity, Total as CaCO3		268	mg/L	5.0	101	80	120			

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 12/21/12
Project: Alluvial Wells Dewey Burdock
Work Order: R12110087

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B									Batch: 121108_1_COND-PROBE-W	
Sample ID: MBLK-1_121108	Method Blank					Run: PH_COND2-R_121108A			11/08/12 09:25	
Conductivity @ 25 C		ND	umhos/cm	5						
Sample ID: R12110084-003ADUP	Sample Duplicate					Run: PH_COND2-R_121108A			11/08/12 09:29	
Conductivity @ 25 C		910	umhos/cm	5.0				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 Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 12/21/12
Project: Alluvial Wells Dewey Burdock
Work Order: R12110087

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: TDS121109A
Sample ID: MB-1_121109A		Method Blank				Run: BAL-TDS_121109A				11/09/12 16:36
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	3						
Sample ID: LCS-2_121109A		Laboratory Control Sample				Run: BAL-TDS_121109A				11/09/12 16:37
Solids, Total Dissolved TDS @ 180 C		510	mg/L	10	103	90	110			
Sample ID: R12110086-002A MS		Sample Matrix Spike				Run: BAL-TDS_121109A				11/09/12 16:40
Solids, Total Dissolved TDS @ 180 C		790	mg/L	10	101	90	110			
Sample ID: R12110087-001A DUP		Sample Duplicate				Run: BAL-TDS_121109A				11/09/12 16:47
Solids, Total Dissolved TDS @ 180 C		6600	mg/L	100				1.5	5	

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 12/21/12
Project: Alluvial Wells Dewey Burdock
Work Order: R12110087

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B									Analytical Run: PH_COND2-R_121108B	
Sample ID: ICV-1_121108	Initial Calibration Verification Standard								11/08/12 10:02	
pH		7.46	su	0.010	101	98	102			
Method: A4500-H B									Batch: 121108_1_PH-W	
Sample ID: R12110087-001ADUP	Sample Duplicate					Run: PH_COND2-R_121108B			11/08/12 10:07	
pH		6.92	su	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 Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 12/21/12
Project: Alluvial Wells Dewey Burdock
Work Order: R12110087

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: D5072-92										Batch: C_R167131
Sample ID: C12110321-004EDUP	3	Sample Duplicate				Run: SUB-C167131				11/08/12 13:12
Radon 222		5790	pCi/L					6.3	20	
Radon 222 precision (±)		172	pCi/L							
Radon 222 MDC		183	pCi/L							
Sample ID: MB-R167131	3	Method Blank				Run: SUB-C167131				11/08/12 13:12
Radon 222		40	pCi/L							U
Radon 222 precision (±)		70	pCi/L							
Radon 222 MDC		100	pCi/L							
Sample ID: LCS-R167131		Laboratory Control Sample				Run: SUB-C167131				11/08/12 13:12
Radon 222		477	pCi/L		85	80	120			

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 Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 12/21/12

Project: Alluvial Wells Dewey Burdock **Work Order:** R12110087

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: SUB-C167516	
Sample ID: ICV	9	Initial Calibration Verification Standard							11/21/12 14:51	
Barium		0.95	mg/L	0.10	95	95	105			
Boron		1.0	mg/L	0.10	102	95	105			
Calcium		49	mg/L	0.50	98	95	105			
Iron		4.8	mg/L	0.030	97	95	105			
Magnesium		49	mg/L	0.50	97	95	105			
Manganese		4.8	mg/L	0.010	95	95	105			
Sodium		48	mg/L	0.50	97	95	105			
Vanadium		0.99	mg/L	0.10	99	95	105			
Zinc		0.96	mg/L	0.010	96	95	105			
Sample ID: ICSA	9	Interference Check Sample A							11/21/12 15:06	
Barium		0.00039	mg/L	0.10						
Boron		-0.012	mg/L	0.10						
Calcium		440	mg/L	0.50	87	80	120			
Iron		170	mg/L	0.030	85	80	120			
Magnesium		470	mg/L	0.50	94	80	120			
Manganese		0.0085	mg/L	0.010						
Sodium		-0.13	mg/L	0.50						
Vanadium		0.00095	mg/L	0.10						
Zinc		0.011	mg/L	0.010						
Sample ID: ICSAB	9	Interference Check Sample AB							11/21/12 15:10	
Barium		0.46	mg/L	0.10	93	80	120			
Boron		-0.013	mg/L	0.10						
Calcium		440	mg/L	0.50	88	80	120			
Iron		170	mg/L	0.030	87	80	120			
Magnesium		480	mg/L	0.50	95	80	120			
Manganese		0.45	mg/L	0.010	89	80	120			
Sodium		0.045	mg/L	0.50						
Vanadium		0.46	mg/L	0.10	92	80	120			
Zinc		0.84	mg/L	0.010	84	80	120			
Method: E200.7									Batch: C_R167516	
Sample ID: MB-121121A	9	Method Blank				Run: SUB-C167516			11/21/12 15:28	
Barium		ND	mg/L	0.0002						
Boron		0.004	mg/L	0.002						
Calcium		0.05	mg/L	0.02						
Iron		ND	mg/L	0.002						
Magnesium		0.07	mg/L	0.01						
Manganese		ND	mg/L	0.0010						
Sodium		ND	mg/L	0.2						
Vanadium		ND	mg/L	0.001						
Zinc		0.004	mg/L	0.001						

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 12/21/12
Project: Alluvial Wells Dewey Burdock
Work Order: R12110087

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: C_R167516	
Sample ID: LFB-121121A	9	Laboratory Fortified Blank				Run: SUB-C167516			11/21/12 15:32	
Barium		0.92	mg/L	0.10	92	85	115			
Boron		0.96	mg/L	0.10	96	85	115			
Calcium		47	mg/L	0.50	94	85	115			
Iron		0.93	mg/L	0.030	93	85	115			
Magnesium		47	mg/L	0.50	94	85	115			
Manganese		0.93	mg/L	0.010	93	85	115			
Sodium		46	mg/L	0.50	93	85	115			
Vanadium		0.96	mg/L	0.10	96	85	115			
Zinc		0.93	mg/L	0.010	93	85	115			
Sample ID: MB-6662	9	Method Blank				Run: SUB-C167516			11/21/12 18:39	
Barium		0.0004	mg/L	6E-05						
Boron		ND	mg/L	0.0004						
Iron		0.001	mg/L	0.0002						
Manganese		ND	mg/L	4E-05						
Vanadium		0.001	mg/L	0.0004						
Zinc		0.01	mg/L	0.002						
Calcium		ND	mg/L	0.08						
Magnesium		0.1	mg/L	0.1						
Sodium		ND	mg/L	0.008						
Sample ID: C12110447-001CMS2	9	Sample Matrix Spike				Run: SUB-C167516			11/21/12 18:46	
Barium		1.11	mg/L	0.050	104	70	130			
Boron		1.04	mg/L	0.050	100	70	130			
Iron		1.11	mg/L	0.030	104	70	130			
Manganese		1.18	mg/L	0.0010	98	70	130			
Vanadium		1.04	mg/L	0.010	102	70	130			
Zinc		0.955	mg/L	0.010	93	70	130			
Calcium		317	mg/L	1.0		70	130			A
Magnesium		69.5	mg/L	1.0	100	70	130			
Sodium		120	mg/L	1.0	106	70	130			
Sample ID: C12110447-001CMSD2	9	Sample Matrix Spike Duplicate				Run: SUB-C167516			11/21/12 18:50	
Barium		1.06	mg/L	0.050	99	70	130	4.3	20	
Boron		1.02	mg/L	0.050	97	70	130	2.1	20	
Iron		1.07	mg/L	0.030	100	70	130	3.2	20	
Manganese		1.14	mg/L	0.0010	94	70	130	3.2	20	
Vanadium		1.01	mg/L	0.010	98	70	130	3.3	20	
Zinc		0.947	mg/L	0.010	92	70	130	0.9	20	
Calcium		312	mg/L	1.0		70	130	1.6	20	A
Magnesium		67.9	mg/L	1.0	96	70	130	2.3	20	
Sodium		116	mg/L	1.0	98	70	130	3.6	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 Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 12/21/12
Project: Alluvial Wells Dewey Burdock
Work Order: R12110087

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: SUB-C167550	
Sample ID: ICV		Initial Calibration Verification Standard							11/26/12 12:41	
Potassium		48	mg/L	0.50	95	95	105			
Sample ID: ICSA		Interference Check Sample A							11/26/12 13:09	
Potassium		0.0021	mg/L	0.50						
Sample ID: ICSAB		Interference Check Sample AB							11/26/12 13:13	
Potassium		-0.00010	mg/L	0.50						
Method: E200.7									Batch: C_R167550	
Sample ID: MB-121126A		Method Blank				Run: SUB-C167550			11/26/12 13:38	
Potassium		ND	mg/L	0.06						
Sample ID: LFB-121126A		Laboratory Fortified Blank				Run: SUB-C167550			11/26/12 13:42	
Potassium		47	mg/L	0.50	93	85	115			
Sample ID: MB-6662		Method Blank				Run: SUB-C167550			11/26/12 22:01	
Potassium		ND	mg/L	0.02						
Sample ID: C12110541-003BMS2		Sample Matrix Spike				Run: SUB-C167550			11/26/12 22:34	
Potassium		102	mg/L	1.0	94	70	130			
Sample ID: C12110541-003BMSD2		Sample Matrix Spike Duplicate				Run: SUB-C167550			11/26/12 22:38	
Potassium		100	mg/L	1.0	92	70	130	1.8	20	

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 12/21/12
Project: Alluvial Wells Dewey Burdock
Work Order: R12110087

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Analytical Run: SUB-C168258	
Sample ID: ICV	10	Initial Calibration Verification Standard							12/15/12 00:26	
Arsenic		0.0513	mg/L	0.0010	103	90	110			
Cadmium		0.0498	mg/L	0.0010	100	90	110			
Chromium		0.0505	mg/L	0.0010	101	90	110			
Copper		0.0512	mg/L	0.0010	102	90	110			
Lead		0.0498	mg/L	0.0010	100	90	110			
Molybdenum		0.0492	mg/L	0.0010	98	90	110			
Nickel		0.0516	mg/L	0.0010	103	90	110			
Selenium		0.0524	mg/L	0.0010	105	90	110			
Silver		0.0213	mg/L	0.0010	106	90	110			
Uranium		0.0495	mg/L	0.00030	99	90	110			
Method: E200.8									Batch: C_R168258	
Sample ID: LRB	10	Method Blank				Run: SUB-C168258			12/14/12 15:17	
Arsenic		ND	mg/L	5E-05						
Cadmium		ND	mg/L	3E-05						
Chromium		ND	mg/L	4E-05						
Copper		ND	mg/L	3E-05						
Lead		ND	mg/L	2E-05						
Molybdenum		ND	mg/L	3E-05						
Nickel		ND	mg/L	9E-05						
Selenium		ND	mg/L	7E-05						
Silver		0.0001	mg/L	5E-05						
Uranium		4E-05	mg/L	9E-06						
Sample ID: LFB	10	Laboratory Fortified Blank				Run: SUB-C168258			12/14/12 15:21	
Arsenic		0.0517	mg/L	0.0010	103	85	115			
Cadmium		0.0506	mg/L	0.0010	101	85	115			
Chromium		0.0525	mg/L	0.0010	105	85	115			
Copper		0.0530	mg/L	0.0010	106	85	115			
Lead		0.0506	mg/L	0.0010	101	85	115			
Molybdenum		0.0519	mg/L	0.0010	104	85	115			
Nickel		0.0525	mg/L	0.0010	105	85	115			
Selenium		0.0531	mg/L	0.0010	106	85	115			
Silver		0.0225	mg/L	0.0010	112	85	115			
Uranium		0.0514	mg/L	0.00030	103	85	115			
Sample ID: C12110337-003BMS4	10	Post Digestion Spike				Run: SUB-C168258			12/15/12 02:40	
Arsenic		0.0540	mg/L	0.0010	107	70	130			
Cadmium		0.0442	mg/L	0.0010	88	70	130			
Chromium		0.0562	mg/L	0.0050	112	70	130			
Copper		0.0488	mg/L	0.0050	97	70	130			
Lead		0.0554	mg/L	0.0010	110	70	130			
Molybdenum		0.0616	mg/L	0.0010	109	70	130			
Nickel		0.0561	mg/L	0.0050	100	70	130			
Selenium		0.0538	mg/L	0.0010	102	70	130			

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 12/21/12
Project: Alluvial Wells Dewey Burdock
Work Order: R12110087

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: C_R168258	
Sample ID: C12110337-003BMS4	10 Post Digestion Spike					Run: SUB-C168258			12/15/12 02:40	
Silver		0.0178	mg/L	0.0010	89	70	130			
Uranium		0.0839	mg/L	0.00030	120	70	130			
Sample ID: C12110337-003BMSD4	10 Post Digestion Spike Duplicate					Run: SUB-C168258			12/15/12 02:44	
Arsenic		0.0542	mg/L	0.0010	108	70	130	0.4	20	
Cadmium		0.0438	mg/L	0.0010	88	70	130	0.9	20	
Chromium		0.0561	mg/L	0.0050	112	70	130	0.1	20	
Copper		0.0486	mg/L	0.0050	97	70	130	0.4	20	
Lead		0.0545	mg/L	0.0010	109	70	130	1.6	20	
Molybdenum		0.0616	mg/L	0.0010	109	70	130	0.0	20	
Nickel		0.0559	mg/L	0.0050	100	70	130	0.4	20	
Selenium		0.0552	mg/L	0.0010	105	70	130	2.5	20	
Silver		0.0177	mg/L	0.0010	88	70	130	0.6	20	
Uranium		0.0825	mg/L	0.00030	117	70	130	1.7	20	

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Report Date: 12/21/12
Work Order: R12110087

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E245.1									Analytical Run: SUB-C167123	
Sample ID: ICV		Initial Calibration Verification Standard							11/13/12 10:18	
Mercury		0.0048	mg/L	0.00010	95	90	110			
Sample ID: CCV1		Continuing Calibration Verification Standard							11/13/12 10:21	
Mercury		0.0051	mg/L	0.00010	101	95	105			
Method: E245.1									Batch: C_35734	
Sample ID: MB-35734		Method Blank				Run: SUB-C167123			11/13/12 10:23	
Mercury		ND	mg/L	3E-05						
Sample ID: LCS-35734		Laboratory Control Sample				Run: SUB-C167123			11/13/12 10:25	
Mercury		0.0051	mg/L	0.00010	102	85	115			
Sample ID: C12110433-001BMS		Sample Matrix Spike				Run: SUB-C167123			11/13/12 10:43	
Mercury		0.0049	mg/L	0.00010	99	70	130			
Sample ID: C12110433-001BMSD		Sample Matrix Spike Duplicate				Run: SUB-C167123			11/13/12 10:44	
Mercury		0.0052	mg/L	0.00010	105	70	130	5.9	10	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 12/21/12

Project: Alluvial Wells Dewey Burdock **Work Order:** R12110087

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: DIONEX_121107A	
Sample ID: CCV110712-28	4	Continuing Calibration Verification Standard							11/08/12 02:12	
Chloride		71.7	mg/L	1.0	96	90	110			
Fluoride		7.29	mg/L	0.10	97	90	110			
Nitrogen, Nitrate as N		7.16	mg/L	0.10	96	90	110			
Sulfate		71.2	mg/L	1.0	95	90	110			
Method: E300.0									Batch: R58791	
Sample ID: LFB110712-14	4	Laboratory Fortified Blank				Run: DIONEX_121107A			11/07/12 22:19	
Chloride		38.4	mg/L	1.0	96	90	110			
Fluoride		3.98	mg/L	0.10	100	90	110			
Nitrogen, Nitrate as N		3.93	mg/L	0.10	98	90	110			
Sulfate		38.9	mg/L	1.0	97	90	110			
Sample ID: R12110087-001AMS	4	Sample Matrix Spike				Run: DIONEX_121107A			11/08/12 03:05	
Chloride		2070	mg/L	50	93	90	110			
Fluoride		205	mg/L	5.0	99	90	110			
Nitrogen, Nitrate as N		208	mg/L	5.0	96	90	110			
Sulfate		6480	mg/L	50	119	90	110			S
Sample ID: R12110087-001AMSD	4	Sample Matrix Spike Duplicate				Run: DIONEX_121107A			11/08/12 03:23	
Chloride		2070	mg/L	50	93	90	110	0.2	10	
Fluoride		205	mg/L	5.0	99	90	110	0.1	10	
Nitrogen, Nitrate as N		208	mg/L	5.0	96	90	110	0.1	10	
Sulfate		6480	mg/L	50	119	90	110	0.1	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 Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 12/21/12
Project: Alluvial Wells Dewey Burdock
Work Order: R12110087

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0									Batch: C_GrAB-1405	
Sample ID: Th230-GrAB-1405		Laboratory Control Sample				Run: SUB-C167785			12/03/12 18:19	
Gross Alpha		108	pCi/L		106	80	120			
Sample ID: Sr90-GrAB-1405		Laboratory Control Sample				Run: SUB-C167785			12/03/12 18:19	
Gross Beta		175	pCi/L		96	80	120			
Sample ID: MB-GrAB-1405	6	Method Blank				Run: SUB-C167785			12/03/12 18:19	
Gross Alpha		-1	pCi/L							U
Gross Alpha precision (±)		0.6	pCi/L							
Gross Alpha MDC		1	pCi/L							
Gross Beta		-1	pCi/L							U
Gross Beta precision (±)		1	pCi/L							
Gross Beta MDC		2	pCi/L							
Sample ID: R12110070-003E	6	Sample Duplicate				Run: SUB-C167785			12/03/12 18:19	
Gross Alpha		10	pCi/L					390	201.4	UR
Gross Alpha precision (±)		8.0	pCi/L							
Gross Alpha MDC		13	pCi/L							
Gross Beta		6.7	pCi/L					58	179.9	U
Gross Beta precision (±)		8.4	pCi/L							
Gross Beta MDC		14	pCi/L							
- The Sample and the Duplicate are both below the MDC; the Gross Alpha RPD is acceptable.										
Sample ID: C12110354-001JMS		Sample Matrix Spike				Run: SUB-C167785			12/04/12 06:25	
Gross Alpha		91.3	pCi/L		84	70	130			
Sample ID: C12110354-001JMSD		Sample Matrix Spike Duplicate				Run: SUB-C167785			12/04/12 06:25	
Gross Alpha		97.2	pCi/L		89	70	130	6.3	18.5	
Sample ID: C12110354-001JMS		Sample Matrix Spike				Run: SUB-C167785			12/04/12 06:25	
Gross Beta		185	pCi/L		94	70	130			
Sample ID: C12110354-001JMSD		Sample Matrix Spike Duplicate				Run: SUB-C167785			12/04/12 06:25	
Gross Beta		180	pCi/L		92	70	130	3.0	14.2	

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 Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 12/21/12

Project: Alluvial Wells Dewey Burdock **Work Order:** R12110087

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: C_RA226-6386
Sample ID: C12110321-001DMS		Sample Matrix Spike				Run: SUB-C167703				11/29/12 10:56
Radium 226		13	pCi/L		101	70	130			
Sample ID: C12110321-001DMSD		Sample Matrix Spike Duplicate				Run: SUB-C167703				11/29/12 10:56
Radium 226		13	pCi/L		95	70	130	5.0	19.6	
Sample ID: MB-RA226-6356	3	Method Blank				Run: SUB-C167703				11/29/12 17:10
Radium 226		0.02	pCi/L							U
Radium 226 precision (±)		0.05	pCi/L							
Radium 226 MDC		0.09	pCi/L							
Sample ID: LCS-RA226-6356		Laboratory Control Sample				Run: SUB-C167703				11/29/12 17:10
Radium 226		6.1	pCi/L		96	80	120			

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 Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 12/21/12

Project: Alluvial Wells Dewey Burdock **Work Order:** R12110087

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: C_RA228-4276
Sample ID: LCS-228-RA226-6356		Laboratory Control Sample				Run: SUB-C167380				11/19/12 12:39
Radium 228		6.3	pCi/L		97	80	120			
Sample ID: MB-RA226-6356	3	Method Blank				Run: SUB-C167380				11/19/12 12:39
Radium 228		2	pCi/L							
Radium 228 precision (±)		0.8	pCi/L							
Radium 228 MDC		1	pCi/L							
Sample ID: C12110321-004DMS		Sample Matrix Spike				Run: SUB-C167380				11/19/12 12:39
Radium 228		13	pCi/L		91	70	130			
Sample ID: C12110321-004DMSD		Sample Matrix Spike Duplicate				Run: SUB-C167380				11/19/12 12:39
Radium 228		14	pCi/L		101	70	130	6.7	41.9	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
Scott Env.	Powertech alluvial wells	State:	Yes ☐ No ☐
Report Mail Address:	**Contact Name:** Phone/Fax:	**Email:**	**Sampler: (Please Print)**
Scott Env / Powertech	Allen Scott		
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**
Powertech			

Special Report/Formats:

☐ DW ☐ POTW/WWTP ☐ State: _____ ☐ Other: _____

☐ EDD/EDT (Electronic Data) Format: _____ ☐ LEVEL IV ☐ NELAC

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

ANALYSIS REQUESTED

Aspirate

SEE ATTACHED

Standard Turnaround (TAT)

R U S H

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

Comments:

Shipped by:

Cooler ID(s):

Receipt Temp 2.4 °C

On Ice: (Y) N

Custody Seal On Bottle Y N; On Cooler Y N

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX
1	DC-1	11-6-12	10:34	Water
2	PE-3	11-6-12	11:05	"
3	713	11-6-12	12:56	"
4	714	11-6-12	13:45	"
5	712	11-6-12	14:20	"
6	711	11-6-12	14:31	"
7	BI-2	11-6-12	15:45	"
8	715	11-6-12	16:33	"
9				
10				

LABORATORY USE ONLY

L12110087-001A

Custody Record MUST be Signed

	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
1	Allen Scott	11-7-12 9:37				
2						
3				Received by Laboratory: Steve Fairbanks	11-7-12 9:37	

Sample Disposal: Return to Client: _____ Lab Disposal: _____

POWERTECH (USA) INC.

LABORATORY DATA PACKAGE

R12110088

(November 2012 for DC3)

5575 DTC Parkway, Suite 140
Greenwood Village, CO 80111 USA

Telephone: 303-790-7528
Facsimile: 303-790-3885

Website: www.powertechuranium.com
Email: info@powertechuranium.com

ANALYTICAL SUMMARY REPORT

December 02, 2012

Powertech USA Inc
PO Box 812
Edgemont, SD 57735

Workorder No.: R12110088 Quote ID: R412

Project Name: #708 plus Alluvial

Energy Laboratories Inc. Rapid City SD received the following 7 samples for Powertech USA Inc on 11/7/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R12110088-001	DC-3	11/06/12 10:34	11/07/12	Aqueous	Metals by ICP/ICPMS, Dissolved Anion - Cation Balance Anions by Ion Chromatography Solids, Total Dissolved
R12110088-002	713	11/06/12 11:05	11/07/12	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Anion - Cation Balance Conductivity Anions by Ion Chromatography pH Solids, Total Dissolved
R12110088-003	714	11/06/12 13:45	11/07/12	Aqueous	Same As Above
R12110088-004	712	11/06/12 14:20	11/07/12	Aqueous	Same As Above
R12110088-005	711	11/06/12 14:51	11/07/12	Aqueous	Same As Above
R12110088-006	BI-2	11/06/12 15:45	11/07/12	Aqueous	Same As Above
R12110088-007	715	11/06/12 16:33	11/07/12	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2821 Plant St., Rapid City, SD 57702. As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

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

Report Approved By:

Linda K. Larson
Branch Manager

Digitally signed by
Linda Larson
Date: 2012.12.03 10:02:11 -07:00

CLIENT: Powertech USA Inc
Project: #708 plus Alluvial
Sample Delivery Group: R12110088

Revised Date: 12/02/12
Report Date: 11/13/12

CASE NARRATIVE

Per Elizabeth Scheinost run cations, anions, balance and TDS on DC-3 11/7/2012 LL
Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

Due to the high TDS values, the results are reported with more significant figures.

report revised per clients request

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: #708 plus Alluvial
Lab ID: R12110088-001
Client Sample ID: DC-3

Revised Date: 12/02/12
Report Date: 11/13/12
Collection Date: 11/06/12 10:34
Date Received: 11/07/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Solids, Total Dissolved TDS @ 180 C	11300	mg/L		40		1	A2540 C	11/09/12 16:48/jmh
INORGANIC PARAMETERS								
Chloride	1320	mg/L	D	50		50	E300.0	11/08/12 03:59/jmh
Fluoride	ND	mg/L		0.1		1	E300.0	11/08/12 04:17/jmh
Sulfate	6330	mg/L	D	50		50	E300.0	11/08/12 03:59/jmh
DATA QUALITY PARAMETERS								
Anions	169	meq/L		1.00		1	A1030 E	11/13/12 00:00/lkl
Cations	157	meq/L		1.00		1	A1030 E	11/13/12 00:00/lkl
Conductivity, Calculated	11700	umhos/cm		1.00		1	A1030 E	11/13/12 00:00/lkl
TDS Ratio	1.07			0.0100		1	A1030 E	11/13/12 00:00/lkl
A/C Balance	-3.78	%				1	A1030 E	11/13/12 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	1.7	mg/L		0.1		1	E300.0	11/08/12 04:17/jmh
DISSOLVED METALS ANALYSES								
Calcium	404	mg/L		1		2	E200.7	11/08/12 19:18/eli-ca
Magnesium	701	mg/L		1		2	E200.7	11/08/12 19:18/eli-ca
Potassium	55	mg/L		1		2	E200.7	11/08/12 19:18/eli-ca
Sodium	1780	mg/L		1		2	E200.7	11/08/12 19:18/eli-ca

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 Rapid City, SD Branch

Client: Powertech USA Inc
Project: #708 plus Alluvial
Lab ID: R12110088-002
Client Sample ID: 713

Revised Date: 12/02/12
Report Date: 11/13/12
Collection Date: 11/06/12 11:05
Date Received: 11/07/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	4190	umhos/cm		5.0		1	A2510 B	11/08/12 09:33/tb
pH	7.18	su		0.01		1	A4500-H B	11/08/12 10:08/tb
Solids, Total Dissolved TDS @ 180 C	4280	mg/L		40		1	A2540 C	11/09/12 16:48/jmh
Alkalinity, Total as CaCO3	256	mg/L		5		1	A2320 B	11/09/12 15:51/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	11/09/12 15:51/ch
Bicarbonate as HCO3	312	mg/L		5		1	A2320 B	11/09/12 15:51/ch
INORGANIC PARAMETERS								
Chloride	26	mg/L		1		1	E300.0	11/08/12 04:53/jmh
Fluoride	0.7	mg/L		0.1		1	E300.0	11/08/12 04:53/jmh
Sulfate	2690	mg/L	D	50		50	E300.0	11/08/12 04:35/jmh
DATA QUALITY PARAMETERS								
Anions	61.9	meq/L		1.00		1	A1030 E	11/13/12 00:00/lkl
Cations	62.4	meq/L		1.00		1	A1030 E	11/13/12 00:00/lkl
Conductivity, Calculated	4910	umhos/cm		1.00		1	A1030 E	11/13/12 00:00/lkl
TDS Ratio	1.07			0.0100		1	A1030 E	11/13/12 00:00/lkl
A/C Balance	0.420	%				1	A1030 E	11/13/12 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	ND	mg/L		0.1		1	E300.0	11/08/12 04:53/jmh
DISSOLVED METALS ANALYSES								
Calcium	472	mg/L		1		2	E200.7	11/08/12 19:22/eli-ca
Magnesium	274	mg/L		1		2	E200.7	11/08/12 19:22/eli-ca
Potassium	19	mg/L		1		2	E200.7	11/08/12 19:22/eli-ca
Sodium	363	mg/L		1		2	E200.7	11/08/12 19:22/eli-ca

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 Rapid City, SD Branch

Client: Powertech USA Inc
Project: #708 plus Alluvial
Lab ID: R12110088-003
Client Sample ID: 714

Revised Date: 12/02/12
Report Date: 11/13/12
Collection Date: 11/06/12 13:45
Date Received: 11/07/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3800	umhos/cm		5.0		1	A2510 B	11/08/12 09:34/tb
pH	7.13	su		0.01		1	A4500-H B	11/08/12 10:10/tb
Solids, Total Dissolved TDS @ 180 C	3850	mg/L		40		1	A2540 C	11/09/12 16:49/jmh
Alkalinity, Total as CaCO3	230	mg/L		5		1	A2320 B	11/09/12 15:58/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	11/09/12 15:58/ch
Bicarbonate as HCO3	280	mg/L		5		1	A2320 B	11/09/12 15:58/ch
INORGANIC PARAMETERS								
Chloride	22	mg/L		1		1	E300.0	11/08/12 05:29/jmh
Fluoride	0.7	mg/L		0.1		1	E300.0	11/08/12 05:29/jmh
Sulfate	2500	mg/L	D	50		50	E300.0	11/08/12 05:11/jmh
DATA QUALITY PARAMETERS								
Anions	57.3	meq/L		1.00		1	A1030 E	11/13/12 00:00/lkl
Cations	55.8	meq/L		1.00		1	A1030 E	11/13/12 00:00/lkl
Conductivity, Calculated	4550	umhos/cm		1.00		1	A1030 E	11/13/12 00:00/lkl
TDS Ratio	1.04			0.0100		1	A1030 E	11/13/12 00:00/lkl
A/C Balance	-1.32	%				1	A1030 E	11/13/12 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.3	mg/L		0.1		1	E300.0	11/08/12 05:29/jmh
DISSOLVED METALS ANALYSES								
Calcium	491	mg/L		1		2	E200.7	11/08/12 19:26/eli-ca
Magnesium	232	mg/L		1		2	E200.7	11/08/12 19:26/eli-ca
Potassium	13	mg/L		1		2	E200.7	11/08/12 19:26/eli-ca
Sodium	275	mg/L		1		2	E200.7	11/08/12 19:26/eli-ca

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 Rapid City, SD Branch

Revised Date: 12/02/12

Client: Powertech USA Inc
Project: #708 plus Alluvial
Lab ID: R12110088-004
Client Sample ID: 712

Report Date: 11/13/12
Collection Date: 11/06/12 14:20
Date Received: 11/07/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3740	umhos/cm		5.0		1	A2510 B	11/08/12 09:36/tb
pH	7.17	su		0.01		1	A4500-H B	11/08/12 10:12/tb
Solids, Total Dissolved TDS @ 180 C	3900	mg/L		40		1	A2540 C	11/09/12 16:49/jmh
Alkalinity, Total as CaCO3	232	mg/L		5		1	A2320 B	11/09/12 16:01/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	11/09/12 16:01/ch
Bicarbonate as HCO3	283	mg/L		5		1	A2320 B	11/09/12 16:01/ch
INORGANIC PARAMETERS								
Chloride	22	mg/L		1		1	E300.0	11/08/12 06:05/jmh
Fluoride	0.6	mg/L		0.1		1	E300.0	11/08/12 06:05/jmh
Sulfate	2420	mg/L	D	50		50	E300.0	11/08/12 05:47/jmh
DATA QUALITY PARAMETERS								
Anions	55.7	meq/L		1.00		1	A1030 E	11/13/12 00:00/lkl
Cations	56.2	meq/L		1.00		1	A1030 E	11/13/12 00:00/lkl
Conductivity, Calculated	4500	umhos/cm		1.00		1	A1030 E	11/13/12 00:00/lkl
TDS Ratio	1.07			0.0100		1	A1030 E	11/13/12 00:00/lkl
A/C Balance	0.470	%				1	A1030 E	11/13/12 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	ND	mg/L		0.1		1	E300.0	11/08/12 06:05/jmh
DISSOLVED METALS ANALYSES								
Calcium	508	mg/L		1		2	E200.7	11/08/12 19:43/eli-ca
Magnesium	216	mg/L		1		2	E200.7	11/08/12 19:43/eli-ca
Potassium	13	mg/L		1		2	E200.7	11/08/12 19:43/eli-ca
Sodium	294	mg/L		1		2	E200.7	11/08/12 19:43/eli-ca

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 Rapid City, SD Branch

Client: Powertech USA Inc
Project: #708 plus Alluvial
Lab ID: R12110088-005
Client Sample ID: 711

Revised Date: 12/02/12
Report Date: 11/13/12
Collection Date: 11/06/12 14:51
Date Received: 11/07/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3450	umhos/cm		5.0		1	A2510 B	11/08/12 09:38/tb
pH	7.25	su		0.01		1	A4500-H B	11/08/12 10:13/tb
Solids, Total Dissolved TDS @ 180 C	3550	mg/L		20		1	A2540 C	11/09/12 16:50/jmh
Alkalinity, Total as CaCO3	226	mg/L		5		1	A2320 B	11/09/12 16:05/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	11/09/12 16:05/ch
Bicarbonate as HCO3	275	mg/L		5		1	A2320 B	11/09/12 16:05/ch
INORGANIC PARAMETERS								
Chloride	24	mg/L		1		1	E300.0	11/08/12 07:52/jmh
Fluoride	0.7	mg/L		0.1		1	E300.0	11/08/12 07:52/jmh
Sulfate	2150	mg/L	D	50		50	E300.0	11/08/12 06:58/jmh
DATA QUALITY PARAMETERS								
Anions	50.0	meq/L		1.00		1	A1030 E	11/13/12 00:00/lkl
Cations	49.1	meq/L		1.00		1	A1030 E	11/13/12 00:00/lkl
Conductivity, Calculated	4070	umhos/cm		1.00		1	A1030 E	11/13/12 00:00/lkl
TDS Ratio	1.09			0.0100		1	A1030 E	11/13/12 00:00/lkl
A/C Balance	-0.870	%				1	A1030 E	11/13/12 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	ND	mg/L		0.1		1	E300.0	11/08/12 07:52/jmh
DISSOLVED METALS ANALYSES								
Calcium	497	mg/L		1		2	E200.7	11/08/12 19:47/eli-ca
Magnesium	154	mg/L		1		2	E200.7	11/08/12 19:47/eli-ca
Potassium	12	mg/L		1		2	E200.7	11/08/12 19:47/eli-ca
Sodium	260	mg/L		1		2	E200.7	11/08/12 19:47/eli-ca

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 Rapid City, SD Branch

Client: Powertech USA Inc
Project: #708 plus Alluvial
Lab ID: R12110088-006
Client Sample ID: BI-2

Revised Date: 12/02/12
Report Date: 11/13/12
Collection Date: 11/06/12 15:45
Date Received: 11/07/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3800	umhos/cm		5.0		1	A2510 B	11/08/12 09:39/tb
pH	7.26	su		0.01		1	A4500-H B	11/08/12 10:15/tb
Solids, Total Dissolved TDS @ 180 C	3900	mg/L		40		1	A2540 C	11/09/12 16:51/jmh
Alkalinity, Total as CaCO3	234	mg/L		5		1	A2320 B	11/09/12 16:09/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	11/09/12 16:09/ch
Bicarbonate as HCO3	285	mg/L		5		1	A2320 B	11/09/12 16:09/ch
INORGANIC PARAMETERS								
Chloride	21	mg/L		1		1	E300.0	11/08/12 08:28/jmh
Fluoride	0.8	mg/L		0.1		1	E300.0	11/08/12 08:28/jmh
Sulfate	2460	mg/L	D	50		50	E300.0	11/08/12 08:10/jmh
DATA QUALITY PARAMETERS								
Anions	56.5	meq/L		1.00		1	A1030 E	11/13/12 00:00/lkl
Cations	55.6	meq/L		1.00		1	A1030 E	11/13/12 00:00/lkl
Conductivity, Calculated	4510	umhos/cm		1.00		1	A1030 E	11/13/12 00:00/lkl
TDS Ratio	1.07			0.0100		1	A1030 E	11/13/12 00:00/lkl
A/C Balance	-0.790	%				1	A1030 E	11/13/12 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.3	mg/L		0.1		1	E300.0	11/08/12 08:28/jmh
DISSOLVED METALS ANALYSES								
Calcium	481	mg/L		1		2	E200.7	11/08/12 19:51/eli-ca
Magnesium	246	mg/L		1		2	E200.7	11/08/12 19:51/eli-ca
Potassium	13	mg/L		1		2	E200.7	11/08/12 19:51/eli-ca
Sodium	255	mg/L		1		2	E200.7	11/08/12 19:51/eli-ca

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 Rapid City, SD Branch

Client: Powertech USA Inc
Project: #708 plus Alluvial
Lab ID: R12110088-007
Client Sample ID: 715

Revised Date: 12/02/12
Report Date: 11/13/12
Collection Date: 11/06/12 16:33
Date Received: 11/07/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3270	umhos/cm		5.0		1	A2510 B	11/08/12 09:42/tb
pH	7.29	su		0.01		1	A4500-H B	11/08/12 10:17/tb
Solids, Total Dissolved TDS @ 180 C	3320	mg/L		20		1	A2540 C	11/09/12 16:51/jmh
Alkalinity, Total as CaCO3	218	mg/L		5		1	A2320 B	11/09/12 16:12/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	11/09/12 16:12/ch
Bicarbonate as HCO3	266	mg/L		5		1	A2320 B	11/09/12 16:12/ch
INORGANIC PARAMETERS								
Chloride	21	mg/L		1		1	E300.0	11/08/12 09:04/jmh
Fluoride	0.6	mg/L		0.1		1	E300.0	11/08/12 09:04/jmh
Sulfate	2010	mg/L	D	50		50	E300.0	11/08/12 08:46/jmh
DATA QUALITY PARAMETERS								
Anions	46.8	meq/L		1.00		1	A1030 E	11/13/12 00:00/lkl
Cations	45.8	meq/L		1.00		1	A1030 E	11/13/12 00:00/lkl
Conductivity, Calculated	3840	umhos/cm		1.00		1	A1030 E	11/13/12 00:00/lkl
TDS Ratio	1.10			0.0100		1	A1030 E	11/13/12 00:00/lkl
A/C Balance	-1.11	%				1	A1030 E	11/13/12 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.4	mg/L		0.1		1	E300.0	11/08/12 09:04/jmh
DISSOLVED METALS ANALYSES								
Calcium	507	mg/L		1		2	E200.7	11/08/12 19:55/eli-ca
Magnesium	158	mg/L		1		2	E200.7	11/08/12 19:55/eli-ca
Potassium	11	mg/L		1		2	E200.7	11/08/12 19:55/eli-ca
Sodium	166	mg/L		1		2	E200.7	11/08/12 19:55/eli-ca

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.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 12/02/12
Report Date: 11/13/12
Work Order: R12110088

Client: Powertech USA Inc
Project: #708 plus Alluvial

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: 121109A-ALK-SEL-W	
Sample ID: LCS1_121109A		Laboratory Control Sample				Run: PH_COND1-R_121109A			11/09/12 15:32	
Alkalinity, Total as CaCO3		952	mg/L	5.0	95	90	110			
Sample ID: MBLK1_121109A		Method Blank				Run: PH_COND1-R_121109A			11/09/12 15:36	
Alkalinity, Total as CaCO3		ND	mg/L	2						
Sample ID: R12110069-001ADUP	3	Sample Duplicate				Run: PH_COND1-R_121109A			11/09/12 15:49	
Alkalinity, Total as CaCO3		298	mg/L	5.0				2.6	10	
Carbonate as CO3		ND	mg/L	5.0					10	
Bicarbonate as HCO3		363	mg/L	5.0				2.6	10	
Sample ID: R12110088-002AMS		Sample Matrix Spike				Run: PH_COND1-R_121109A			11/09/12 15:54	
Alkalinity, Total as CaCO3		370	mg/L	5.0	94	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 12/02/12
Report Date: 11/13/12
Work Order: R12110088

Client: Powertech USA Inc
Project: #708 plus Alluvial

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B									Batch: 121108_1_COND-PROBE-W	
Sample ID: MBLK-1_121108	Method Blank					Run: PH_COND2-R_121108A			11/08/12 09:25	
Conductivity @ 25 C		ND	umhos/cm	5						
Sample ID: R12110084-003ADUP	Sample Duplicate					Run: PH_COND2-R_121108A			11/08/12 09:29	
Conductivity @ 25 C		910	umhos/cm	5.0				0.1	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 12/02/12

Client: Powertech USA Inc

Report Date: 11/13/12

Project: #708 plus Alluvial

Work Order: R12110088

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: TDS121109A
Sample ID: MB-1_121109A		Method Blank				Run: BAL-TDS_121109A				11/09/12 16:36
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	3						
Sample ID: LCS-2_121109A		Laboratory Control Sample				Run: BAL-TDS_121109A				11/09/12 16:37
Solids, Total Dissolved TDS @ 180 C		510	mg/L	10	103	90	110			
Sample ID: R12110086-002A MS		Sample Matrix Spike				Run: BAL-TDS_121109A				11/09/12 16:40
Solids, Total Dissolved TDS @ 180 C		790	mg/L	10	101	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 12/02/12
Report Date: 11/13/12
Work Order: R12110088

Client: Powertech USA Inc
Project: #708 plus Alluvial

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B									Analytical Run: PH_COND2-R_121108B	
Sample ID: ICV-1_121108	Initial Calibration Verification Standard								11/08/12 10:02	
pH		7.46	su	0.010	101	98	102			
Method: A4500-H B									Batch: 121108_1_PH-W	
Sample ID: R12110087-001ADUP	Sample Duplicate					Run: PH_COND2-R_121108B			11/08/12 10:07	
pH		6.92	su	0.010				0.3	3	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 12/02/12
Report Date: 11/13/12
Work Order: R12110088

Client: Powertech USA Inc
Project: #708 plus Alluvial

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: SUB-C166967	
Sample ID: ICV	4	Initial Calibration Verification Standard							11/08/12 14:11	
Calcium		50	mg/L	0.50	99	95	105			
Magnesium		52	mg/L	0.50	103	95	105			
Potassium		47	mg/L	0.50	95	95	105			
Sodium		53	mg/L	0.50	105	95	105			
Sample ID: ICSA	4	Interference Check Sample A							11/08/12 14:40	
Calcium		490	mg/L	0.50	99	80	120			
Magnesium		530	mg/L	0.50	107	80	120			
Potassium		-0.0072	mg/L	0.50						
Sodium		0.033	mg/L	0.50						
Sample ID: ICSAB	4	Interference Check Sample AB							11/08/12 14:44	
Calcium		500	mg/L	0.50	99	80	120			
Magnesium		520	mg/L	0.50	104	80	120			
Potassium		-0.0062	mg/L	0.50						
Sodium		0.028	mg/L	0.50						
Method: E200.7									Batch: C_R166967	
Sample ID: MB-121108A	4	Method Blank				Run: SUB-C166967			11/08/12 15:08	
Calcium		ND	mg/L	0.06						
Magnesium		ND	mg/L	0.03						
Potassium		ND	mg/L	0.06						
Sodium		ND	mg/L	0.3						
Sample ID: LFB-121108A	4	Laboratory Fortified Blank				Run: SUB-C166967			11/08/12 15:12	
Calcium		48	mg/L	0.50	97	85	115			
Magnesium		50	mg/L	0.50	100	85	115			
Potassium		46	mg/L	0.50	92	85	115			
Sodium		49	mg/L	0.50	99	85	115			
Sample ID: C12110105-011BMS2	4	Sample Matrix Spike				Run: SUB-C166967			11/08/12 19:02	
Calcium		134	mg/L	1.0	84	70	130			
Magnesium		81.4	mg/L	1.0	98	70	130			
Potassium		50.3	mg/L	1.0	92	70	130			
Sodium		100	mg/L	1.0	99	70	130			
Sample ID: C12110105-011BMSD2	4	Sample Matrix Spike Duplicate				Run: SUB-C166967			11/08/12 19:06	
Calcium		135	mg/L	1.0	86	70	130	0.8	20	
Magnesium		81.0	mg/L	1.0	97	70	130	0.5	20	
Potassium		51.5	mg/L	1.0	94	70	130	2.3	20	
Sodium		101	mg/L	1.0	100	70	130	0.8	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 12/02/12
Report Date: 11/13/12
Work Order: R12110088

Client: Powertech USA Inc
Project: #708 plus Alluvial

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: DIONEX_121107A	
Sample ID: CCV110712-28	4	Continuing Calibration Verification Standard							11/08/12 02:12	
Chloride		71.7	mg/L	1.0	96	90	110			
Fluoride		7.29	mg/L	0.10	97	90	110			
Nitrogen, Nitrate as N		7.16	mg/L	0.10	96	90	110			
Sulfate		71.2	mg/L	1.0	95	90	110			
Sample ID: CCV110712-41	4	Continuing Calibration Verification Standard							11/08/12 06:23	
Chloride		71.9	mg/L	1.0	96	90	110			
Fluoride		7.31	mg/L	0.10	97	90	110			
Nitrogen, Nitrate as N		7.17	mg/L	0.10	96	90	110			
Sulfate		71.4	mg/L	1.0	95	90	110			
Method: E300.0									Batch: R58791	
Sample ID: LFB110712-14	4	Laboratory Fortified Blank				Run: DIONEX_121107A			11/07/12 22:19	
Chloride		38.4	mg/L	1.0	96	90	110			
Fluoride		3.98	mg/L	0.10	100	90	110			
Nitrogen, Nitrate as N		3.93	mg/L	0.10	98	90	110			
Sulfate		38.9	mg/L	1.0	97	90	110			
Sample ID: R12110087-001AMS	4	Sample Matrix Spike				Run: DIONEX_121107A			11/08/12 03:05	
Chloride		2070	mg/L	50	93	90	110			
Fluoride		205	mg/L	5.0	99	90	110			
Nitrogen, Nitrate as N		208	mg/L	5.0	96	90	110			
Sulfate		6480	mg/L	50	119	90	110			S
Sample ID: R12110087-001AMSD	4	Sample Matrix Spike Duplicate				Run: DIONEX_121107A			11/08/12 03:23	
Chloride		2070	mg/L	50	93	90	110	0.2	10	
Fluoride		205	mg/L	5.0	99	90	110	0.1	10	
Nitrogen, Nitrate as N		208	mg/L	5.0	96	90	110	0.1	10	
Sulfate		6480	mg/L	50	119	90	110	0.1	10	S
Sample ID: R12110088-005AMS	4	Sample Matrix Spike				Run: DIONEX_121107A			11/08/12 07:16	
Chloride		2010	mg/L	50	92	90	110			
Fluoride		206	mg/L	5.0	100	90	110			
Nitrogen, Nitrate as N		202	mg/L	5.0	101	90	110			
Sulfate		4170	mg/L	50	101	90	110			
Sample ID: R12110088-005AMSD	4	Sample Matrix Spike Duplicate				Run: DIONEX_121107A			11/08/12 07:34	
Chloride		2010	mg/L	50	92	90	110	0.1	10	
Fluoride		206	mg/L	5.0	100	90	110	0.3	10	
Nitrogen, Nitrate as N		202	mg/L	5.0	101	90	110	0.0	10	
Sulfate		4170	mg/L	50	101	90	110	0.1	10	

Qualifiers:

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

Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT (Provide as much information as possible.)

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
Scott Env.	Powertech alluvial wells	State:	Yes ☐ No ☐
Report Mail Address:	**Contact Name:** Phone/Fax:	**Email:**	**Sampler: (Please Print)**
Scott Env / Powertech	Allen Scott		
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**
Powertech			

Special Report/Formats:

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

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

ANALYSIS REQUESTED

Aspar Auto

SEE ATTACHED

Standard Turnaround (TAT)

R U S H

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

Comments:

Shipped by:

Cooler ID(s):

Receipt Temp 2.4 °C

On Ice: (Y) N

Custody Seal On Bottle Y N / On Cooler Y N

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX
1	DC-1	11-6-12	10:24	Water
2	PE-3	11-6-12	11:05	"
3	713	11-6-12	12:56	"
4	714	11-6-12	13:45	"
5	712	11-6-12	14:20	"
6	711	11-6-12	14:51	"
7	BT-2	11-6-12	15:45	"
8	715	11-6-12	16:33	"
9				
10				

LABORATORY USE ONLY

1211088-001
002
003
004
005
006
007

Custody Record MUST be Signed

	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
	Allen Scott	11-7-12 9:37				
	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
				Received by Laboratory:	Date/Time:	Signature:
				Steve Tonkovich	11-7-12 9:37	

Sample Disposal: Return to Client: _____ Lab Disposal: _____

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.

POWERTECH (USA) INC.

LABORATORY DATA PACKAGE

R12120137

(December 2012 for DC2, DC4, BC3, BC3 DUP, BC1, BC2)

5575 DTC Parkway, Suite 140
Greenwood Village, CO 80111 USA

Telephone: 303-790-7528
Facsimile: 303-790-3885

Website: www.powertechuranium.com
Email: info@powertechuranium.com

ANALYTICAL SUMMARY REPORT

February 06, 2013

Powertech USA Inc
PO Box 812
Edgemont, SD 57735

Workorder No.: R12120137 Quote ID: R411

Project Name: Alluvial Wells Dewey Burdock

Energy Laboratories Inc. Rapid City SD received the following 6 samples for Powertech USA Inc on 12/11/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R12120137-001	DC-2	12/10/12 10:33	12/11/12	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Anion - Cation Balance Conductivity Mercury, Total Anions by Ion Chromatography pH Dissolved Filtration Digestion, Mercury by CVAA Gross Alpha, Gross Beta Radium 226, Dissolved Radium 228, Dissolved Radon 222 Solids, Total Dissolved
R12120137-002	DC-4	12/10/12 11:25	12/11/12	Aqueous	Same As Above
R12120137-003	BC-3	12/10/12 12:40	12/11/12	Aqueous	Same As Above
R12120137-004	BC-3 Dup	12/10/12 12:41	12/11/12	Aqueous	Same As Above
R12120137-005	BC-1	12/10/12 14:08	12/11/12	Aqueous	Same As Above
R12120137-006	BC-2	12/10/12 15:08	12/11/12	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2821 Plant St., Rapid City, SD 57702. As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

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

Report Approved By:

Linda K. Larson
Branch Manager

Digitally signed by
Linda Larson
Date: 2013.02.06 14:15:16 -07:00

CLIENT: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Sample Delivery Group: R12120137

Revised Date: 02/06/13
Report Date: 01/22/13

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

After subsequent review of data, the result for Chromium on DC 4 was revised due to duplicate data that matched from a later run with an intial run. The intial reported value may have had a dilution error.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12120137-001
Client Sample ID: DC-2

Revised Date: 02/06/13
Report Date: 01/22/13
Collection Date: 12/10/12 10:33
Date Received: 12/11/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	5470	umhos/cm		5.0		1	A2510 B	12/11/12 16:25/tb
pH	6.99	su		0.01		1	A4500-H B	12/11/12 15:43/tb
Solids, Total Dissolved TDS @ 180 C	4550	mg/L		40		1	A2540 C	12/17/12 10:13/jmh
Alkalinity, Total as CaCO3	262	mg/L		5		1	A2320 B	12/17/12 15:08/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	12/17/12 15:08/ch
Bicarbonate as HCO3	319	mg/L		5		1	A2320 B	12/17/12 15:08/ch
INORGANIC PARAMETERS								
Chloride	813	mg/L	D	50		50	E300.0	12/12/12 00:17/tb
Fluoride	0.6	mg/L		0.1		1	E300.0	12/11/12 20:42/tb
Sulfate	1960	mg/L	D	50		50	E300.0	12/12/12 00:17/tb
DATA QUALITY PARAMETERS								
Anions	69.1	meq/L		1.00		1	A1030 E	01/22/13 00:00/lkl
Cations	69.0	meq/L		1.00		1	A1030 E	01/22/13 00:00/lkl
Conductivity, Calculated	5420	umhos/cm		1.00		1	A1030 E	01/22/13 00:00/lkl
TDS Ratio	1.05			0.0100		1	A1030 E	01/22/13 00:00/lkl
A/C Balance	-0.0600	%				1	A1030 E	01/22/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	ND	mg/L		0.1		1	E300.0	12/11/12 20:42/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	7.5	pCi/L	U			1	E900.0	12/31/12 18:12/eli-ca
Gross Alpha precision (±)	11.1	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Alpha MDC	18.0	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Beta	3.1	pCi/L	U			1	E900.0	12/31/12 18:12/eli-ca
Gross Beta precision (±)	13.0	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Beta MDC	21.7	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Radium 228	1.4	pCi/L	U			1	RA-05	12/20/12 17:38/eli-ca
Radium 228 precision (±)	1	pCi/L				1	RA-05	12/20/12 17:38/eli-ca
Radium 228 MDC	1.5	pCi/L				1	RA-05	12/20/12 17:38/eli-ca
Radium 226	0.6	pCi/L				1	E903.0	12/27/12 15:43/eli-ca
Radium 226 precision (±)	0.2	pCi/L				1	E903.0	12/27/12 15:43/eli-ca
Radium 226 MDC	0.3	pCi/L				1	E903.0	12/27/12 15:43/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	2000	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca
Radon 222 precision (±)	156	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca

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

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12120137-001
Client Sample ID: DC-2

Revised Date: 02/06/13
Report Date: 01/22/13
Collection Date: 12/10/12 10:33
Date Received: 12/11/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Radon 222 MDC	220	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	12/17/12 14:07/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		5	E200.8	12/28/12 15:27/eli-ca
Barium	ND	mg/L		0.05		5	E200.7	12/19/12 15:54/eli-ca
Boron	0.32	mg/L		0.05		5	E200.7	12/19/12 15:54/eli-ca
Cadmium	ND	mg/L		0.001		5	E200.8	12/28/12 15:27/eli-ca
Chromium	0.010	mg/L		0.005		5	E200.8	12/28/12 15:27/eli-ca
Copper	ND	mg/L		0.005		5	E200.8	12/28/12 15:27/eli-ca
Iron	4.73	mg/L		0.03		5	E200.7	12/19/12 15:54/eli-ca
Lead	ND	mg/L		0.001		5	E200.8	12/28/12 15:27/eli-ca
Manganese	3.07	mg/L	D	0.005		5	E200.7	12/19/12 15:54/eli-ca
Molybdenum	0.026	mg/L		0.001		5	E200.8	12/28/12 15:27/eli-ca
Nickel	ND	mg/L		0.005		5	E200.8	12/28/12 15:27/eli-ca
Selenium	0.002	mg/L		0.001		5	E200.8	12/31/12 15:58/eli-ca
Silver	ND	mg/L		0.001		5	E200.8	12/28/12 15:27/eli-ca
Uranium	0.0089	mg/L	D	0.0005		5	E200.8	12/28/12 15:27/eli-ca
Vanadium	ND	mg/L		0.01		5	E200.7	12/19/12 15:54/eli-ca
Zinc	0.02	mg/L		0.01		5	E200.7	12/19/12 15:54/eli-ca
Calcium	521	mg/L		1		5	E200.7	12/19/12 15:54/eli-ca
Magnesium	149	mg/L		1		5	E200.7	12/19/12 15:54/eli-ca
Potassium	6	mg/L		1		5	E200.7	12/19/12 15:54/eli-ca
Sodium	704	mg/L		1		5	E200.7	12/19/12 15:54/eli-ca

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.
D - RL increased due to sample matrix.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12120137-002
Client Sample ID: DC-4

Revised Date: 02/06/13
Report Date: 01/22/13
Collection Date: 12/10/12 11:25
Date Received: 12/11/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	10200	umhos/cm		5.0		1	A2510 B	12/11/12 16:27/tb
pH	7.29	su		0.01		1	A4500-H B	12/11/12 15:45/tb
Solids, Total Dissolved TDS @ 180 C	10800	mg/L		100		1	A2540 C	12/17/12 10:15/jmh
Alkalinity, Total as CaCO3	346	mg/L		5		1	A2320 B	12/17/12 15:17/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	12/17/12 15:17/ch
Bicarbonate as HCO3	422	mg/L		5		1	A2320 B	12/17/12 15:17/ch
INORGANIC PARAMETERS								
Chloride	129	mg/L		1		1	E300.0	12/11/12 21:00/tb
Fluoride	2.2	mg/L		0.1		1	E300.0	12/11/12 21:00/tb
Sulfate	7470	mg/L	D	100		100	E300.0	12/12/12 00:35/tb
DATA QUALITY PARAMETERS								
Anions	166	meq/L		1.00		1	A1030 E	01/22/13 00:00/lkl
Cations	153	meq/L		1.00		1	A1030 E	01/22/13 00:00/lkl
Conductivity, Calculated	11400	umhos/cm		1.00		1	A1030 E	01/22/13 00:00/lkl
TDS Ratio	1.01			0.0100		1	A1030 E	01/22/13 00:00/lkl
A/C Balance	-4.05	%				1	A1030 E	01/22/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	1.7	mg/L		0.1		1	E300.0	12/11/12 21:00/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	13.3	pCi/L	U			1	E900.0	12/31/12 18:12/eli-ca
Gross Alpha precision (±)	21.4	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Alpha MDC	34.9	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Beta	-7	pCi/L	U			1	E900.0	12/31/12 18:12/eli-ca
Gross Beta precision (±)	27.0	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Beta MDC	45.5	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Radium 228	0.4	pCi/L	U			1	RA-05	12/20/12 19:12/eli-ca
Radium 228 precision (±)	0.9	pCi/L				1	RA-05	12/20/12 19:12/eli-ca
Radium 228 MDC	1.6	pCi/L				1	RA-05	12/20/12 19:12/eli-ca
Radium 226	0.2	pCi/L				1	E903.0	12/27/12 17:39/eli-ca
Radium 226 precision (±)	0.2	pCi/L				1	E903.0	12/27/12 17:39/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	12/27/12 17:39/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	4710	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca
Radon 222 precision (±)	184	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca

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

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12120137-002
Client Sample ID: DC-4

Revised Date: 02/06/13
Report Date: 01/22/13
Collection Date: 12/10/12 11:25
Date Received: 12/11/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Radon 222 MDC	218	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	12/17/12 14:11/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		5	E200.8	12/28/12 15:30/eli-ca
Barium	ND	mg/L		0.05		10	E200.7	12/19/12 15:58/eli-ca
Boron	2.27	mg/L		0.05		10	E200.7	12/19/12 15:58/eli-ca
Cadmium	ND	mg/L		0.001		5	E200.8	12/28/12 15:30/eli-ca
Chromium	ND	mg/L		0.005		5	E200.8	12/31/12 16:02/eli-ca
Copper	0.011	mg/L		0.005		5	E200.8	12/28/12 15:30/eli-ca
Iron	ND	mg/L		0.03		10	E200.7	12/19/12 15:58/eli-ca
Lead	ND	mg/L		0.001		5	E200.8	12/28/12 15:30/eli-ca
Manganese	0.002	mg/L		0.001		5	E200.8	12/28/12 15:30/eli-ca
Molybdenum	0.009	mg/L		0.001		5	E200.8	12/28/12 15:30/eli-ca
Nickel	ND	mg/L		0.005		5	E200.8	12/28/12 15:30/eli-ca
Selenium	0.036	mg/L		0.001		5	E200.8	12/31/12 16:02/eli-ca
Silver	ND	mg/L		0.001		5	E200.8	12/28/12 15:30/eli-ca
Uranium	0.0158	mg/L	D	0.0005		5	E200.8	12/28/12 15:30/eli-ca
Vanadium	ND	mg/L		0.01		5	E200.8	12/28/12 15:30/eli-ca
Zinc	0.02	mg/L		0.01		5	E200.8	12/28/12 15:30/eli-ca
Calcium	394	mg/L		1		10	E200.7	12/19/12 15:58/eli-ca
Magnesium	661	mg/L		1		10	E200.7	12/19/12 15:58/eli-ca
Potassium	10	mg/L		1		10	E200.7	12/19/12 15:58/eli-ca
Sodium	1820	mg/L	D	2		10	E200.7	12/19/12 15:58/eli-ca

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.
D - RL increased due to sample matrix.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12120137-003
Client Sample ID: BC-3

Revised Date: 02/06/13
Report Date: 01/22/13
Collection Date: 12/10/12 12:40
Date Received: 12/11/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3070	umhos/cm		5.0		1	A2510 B	12/11/12 16:29/tb
pH	7.12	su		0.01		1	A4500-H B	12/11/12 15:48/tb
Solids, Total Dissolved TDS @ 180 C	3160	mg/L		20		1	A2540 C	12/17/12 10:16/jmh
Alkalinity, Total as CaCO3	250	mg/L		5		1	A2320 B	12/17/12 15:22/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	12/17/12 15:22/ch
Bicarbonate as HCO3	305	mg/L		5		1	A2320 B	12/17/12 15:22/ch
INORGANIC PARAMETERS								
Chloride	19	mg/L		1		1	E300.0	12/11/12 21:18/tb
Fluoride	0.6	mg/L		0.1		1	E300.0	12/11/12 21:18/tb
Sulfate	1910	mg/L	D	50		50	E300.0	12/12/12 00:53/tb
DATA QUALITY PARAMETERS								
Anions	45.4	meq/L		1.00		1	A1030 E	01/22/13 00:00/lkl
Cations	43.1	meq/L		1.00		1	A1030 E	01/22/13 00:00/lkl
Conductivity, Calculated	3690	umhos/cm		1.00		1	A1030 E	01/22/13 00:00/lkl
TDS Ratio	1.09			0.0100		1	A1030 E	01/22/13 00:00/lkl
A/C Balance	-2.56	%				1	A1030 E	01/22/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.2	mg/L		0.1		1	E300.0	12/11/12 21:18/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	26.4	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Alpha precision (±)	7.7	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Alpha MDC	10.7	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Beta	5.0	pCi/L	U			1	E900.0	12/31/12 18:12/eli-ca
Gross Beta precision (±)	9.2	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Beta MDC	15.3	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Radium 228	-0.4	pCi/L	U			1	RA-05	12/20/12 19:12/eli-ca
Radium 228 precision (±)	0.7	pCi/L				1	RA-05	12/20/12 19:12/eli-ca
Radium 228 MDC	1.2	pCi/L				1	RA-05	12/20/12 19:12/eli-ca
Radium 226	0.07	pCi/L	U			1	E903.0	12/27/12 17:39/eli-ca
Radium 226 precision (±)	0.1	pCi/L				1	E903.0	12/27/12 17:39/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	12/27/12 17:39/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	1690	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca
Radon 222 precision (±)	150	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca

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

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12120137-003
Client Sample ID: BC-3

Revised Date: 02/06/13
Report Date: 01/22/13
Collection Date: 12/10/12 12:40
Date Received: 12/11/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Radon 222 MDC	216	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	12/17/12 14:15/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		2	E200.8	12/28/12 15:33/eli-ca
Barium	ND	mg/L		0.05		2	E200.7	12/19/12 16:13/eli-ca
Boron	0.50	mg/L		0.05		2	E200.7	12/19/12 16:13/eli-ca
Cadmium	0.001	mg/L		0.001		2	E200.7	12/19/12 16:13/eli-ca
Chromium	ND	mg/L		0.005		2	E200.7	12/19/12 16:13/eli-ca
Copper	ND	mg/L		0.005		2	E200.8	12/28/12 15:33/eli-ca
Iron	ND	mg/L		0.03		2	E200.7	12/19/12 16:13/eli-ca
Lead	ND	mg/L		0.001		2	E200.8	12/28/12 15:33/eli-ca
Manganese	0.451	mg/L	D	0.002		2	E200.7	12/19/12 16:13/eli-ca
Molybdenum	0.008	mg/L		0.001		2	E200.8	12/28/12 15:33/eli-ca
Nickel	ND	mg/L		0.005		2	E200.7	12/19/12 16:13/eli-ca
Selenium	0.003	mg/L		0.001		5	E200.8	12/31/12 16:06/eli-ca
Silver	ND	mg/L		0.001		2	E200.8	12/28/12 15:33/eli-ca
Uranium	0.0201	mg/L		0.0003		2	E200.8	12/28/12 15:33/eli-ca
Vanadium	ND	mg/L		0.01		2	E200.7	12/19/12 16:13/eli-ca
Zinc	ND	mg/L		0.01		2	E200.7	12/19/12 16:13/eli-ca
Calcium	488	mg/L		1		2	E200.7	12/19/12 16:13/eli-ca
Magnesium	144	mg/L		1		2	E200.7	12/19/12 16:13/eli-ca
Potassium	10	mg/L		1		2	E200.7	12/19/12 16:13/eli-ca
Sodium	153	mg/L		1		2	E200.7	12/19/12 16:13/eli-ca

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.
D - RL increased due to sample matrix.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12120137-004
Client Sample ID: BC-3 Dup

Revised Date: 02/06/13
Report Date: 01/22/13
Collection Date: 12/10/12 12:41
Date Received: 12/11/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3040	umhos/cm		5.0		1	A2510 B	12/11/12 16:31/tb
pH	7.12	su		0.01		1	A4500-H B	12/11/12 15:50/tb
Solids, Total Dissolved TDS @ 180 C	3120	mg/L		20		1	A2540 C	12/17/12 10:17/jmh
Alkalinity, Total as CaCO3	246	mg/L		5		1	A2320 B	12/17/12 15:25/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	12/17/12 15:25/ch
Bicarbonate as HCO3	300	mg/L		5		1	A2320 B	12/17/12 15:25/ch
INORGANIC PARAMETERS								
Chloride	19	mg/L		1		1	E300.0	12/11/12 21:36/tb
Fluoride	0.6	mg/L		0.1		1	E300.0	12/11/12 21:36/tb
Sulfate	1880	mg/L	D	50		50	E300.0	12/12/12 01:11/tb
DATA QUALITY PARAMETERS								
Anions	44.6	meq/L		1.00		1	A1030 E	01/22/13 00:00/lkl
Cations	41.6	meq/L		1.00		1	A1030 E	01/22/13 00:00/lkl
Conductivity, Calculated	3610	umhos/cm		1.00		1	A1030 E	01/22/13 00:00/lkl
TDS Ratio	1.10			0.0100		1	A1030 E	01/22/13 00:00/lkl
A/C Balance	-3.60	%				1	A1030 E	01/22/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.2	mg/L		0.1		1	E300.0	12/11/12 21:36/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	30.7	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Alpha precision (±)	8.1	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Alpha MDC	10.9	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Beta	-20	pCi/L	U			1	E900.0	12/31/12 18:12/eli-ca
Gross Beta precision (±)	10.2	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Beta MDC	17.8	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Radium 228	-0.2	pCi/L	U			1	RA-05	12/20/12 19:12/eli-ca
Radium 228 precision (±)	0.9	pCi/L				1	RA-05	12/20/12 19:12/eli-ca
Radium 228 MDC	1.6	pCi/L				1	RA-05	12/20/12 19:12/eli-ca
Radium 226	0.08	pCi/L	U			1	E903.0	12/27/12 17:39/eli-ca
Radium 226 precision (±)	0.1	pCi/L				1	E903.0	12/27/12 17:39/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	12/27/12 17:39/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	1580	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca
Radon 222 precision (±)	149	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca

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

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12120137-004
Client Sample ID: BC-3 Dup

Revised Date: 02/06/13
Report Date: 01/22/13
Collection Date: 12/10/12 12:41
Date Received: 12/11/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Radon 222 MDC	216	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	12/17/12 14:17/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		2	E200.8	12/28/12 15:37/eli-ca
Barium	ND	mg/L		0.05		2	E200.7	12/19/12 16:17/eli-ca
Boron	0.50	mg/L		0.05		2	E200.7	12/19/12 16:17/eli-ca
Cadmium	ND	mg/L		0.001		2	E200.7	12/19/12 16:17/eli-ca
Chromium	ND	mg/L		0.005		2	E200.7	12/19/12 16:17/eli-ca
Copper	ND	mg/L		0.005		2	E200.8	12/28/12 15:37/eli-ca
Iron	ND	mg/L		0.03		2	E200.7	12/19/12 16:17/eli-ca
Lead	ND	mg/L		0.001		2	E200.8	12/28/12 15:37/eli-ca
Manganese	0.439	mg/L	D	0.002		2	E200.7	12/19/12 16:17/eli-ca
Molybdenum	0.007	mg/L		0.001		2	E200.8	12/28/12 15:37/eli-ca
Nickel	ND	mg/L		0.005		2	E200.7	12/19/12 16:17/eli-ca
Selenium	0.003	mg/L		0.001		5	E200.8	12/31/12 16:11/eli-ca
Silver	ND	mg/L		0.001		2	E200.8	12/28/12 15:37/eli-ca
Uranium	0.0199	mg/L		0.0003		2	E200.8	12/28/12 15:37/eli-ca
Vanadium	ND	mg/L		0.01		2	E200.7	12/19/12 16:17/eli-ca
Zinc	ND	mg/L		0.01		2	E200.7	12/19/12 16:17/eli-ca
Calcium	469	mg/L		1		2	E200.7	12/19/12 16:17/eli-ca
Magnesium	140	mg/L		1		2	E200.7	12/19/12 16:17/eli-ca
Potassium	9	mg/L		1		2	E200.7	12/19/12 16:17/eli-ca
Sodium	147	mg/L		1		2	E200.7	12/19/12 16:17/eli-ca

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.
D - RL increased due to sample matrix.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12120137-005
Client Sample ID: BC-1

Revised Date: 02/06/13
Report Date: 01/22/13
Collection Date: 12/10/12 14:08
Date Received: 12/11/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3500	umhos/cm		5.0		1	A2510 B	12/11/12 16:32/tb
pH	7.10	su		0.01		1	A4500-H B	12/11/12 15:53/tb
Solids, Total Dissolved TDS @ 180 C	3660	mg/L		20		1	A2540 C	12/17/12 10:18/jmh
Alkalinity, Total as CaCO3	294	mg/L		5		1	A2320 B	12/17/12 15:29/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	12/17/12 15:29/ch
Bicarbonate as HCO3	358	mg/L		5		1	A2320 B	12/17/12 15:29/ch
INORGANIC PARAMETERS								
Chloride	25	mg/L		1		1	E300.0	12/11/12 21:54/tb
Fluoride	0.6	mg/L		0.1		1	E300.0	12/11/12 21:54/tb
Sulfate	2220	mg/L	D	50		50	E300.0	12/12/12 01:29/tb
DATA QUALITY PARAMETERS								
Anions	52.9	meq/L		1.00		1	A1030 E	01/22/13 00:00/lkl
Cations	48.5	meq/L		1.00		1	A1030 E	01/22/13 00:00/lkl
Conductivity, Calculated	4130	umhos/cm		1.00		1	A1030 E	01/22/13 00:00/lkl
TDS Ratio	1.11			0.0100		1	A1030 E	01/22/13 00:00/lkl
A/C Balance	-4.36	%				1	A1030 E	01/22/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.2	mg/L		0.1		1	E300.0	12/11/12 21:54/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	78.0	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Alpha precision (±)	11.3	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Alpha MDC	13.1	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Beta	27.0	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Beta precision (±)	11.8	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Beta MDC	18.8	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Radium 228	0.7	pCi/L	U			1	RA-05	12/20/12 19:12/eli-ca
Radium 228 precision (±)	0.9	pCi/L				1	RA-05	12/20/12 19:12/eli-ca
Radium 228 MDC	1.5	pCi/L				1	RA-05	12/20/12 19:12/eli-ca
Radium 226	0.3	pCi/L				1	E903.0	12/27/12 17:39/eli-ca
Radium 226 precision (±)	0.2	pCi/L				1	E903.0	12/27/12 17:39/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	12/27/12 17:39/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	2020	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca
Radon 222 precision (±)	153	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca

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

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12120137-005
Client Sample ID: BC-1

Revised Date: 02/06/13
Report Date: 01/22/13
Collection Date: 12/10/12 14:08
Date Received: 12/11/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Radon 222 MDC	214	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	12/17/12 14:18/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		2	E200.8	12/28/12 15:40/eli-ca
Barium	ND	mg/L		0.05		2	E200.7	12/19/12 16:28/eli-ca
Boron	0.72	mg/L		0.05		2	E200.7	12/19/12 16:28/eli-ca
Cadmium	ND	mg/L		0.001		2	E200.7	12/19/12 16:28/eli-ca
Chromium	ND	mg/L		0.005		2	E200.7	12/19/12 16:28/eli-ca
Copper	ND	mg/L		0.005		2	E200.8	12/28/12 15:40/eli-ca
Iron	0.17	mg/L		0.03		2	E200.7	12/19/12 16:28/eli-ca
Lead	ND	mg/L		0.001		2	E200.8	12/28/12 15:40/eli-ca
Manganese	0.042	mg/L	D	0.002		2	E200.7	12/19/12 16:28/eli-ca
Molybdenum	0.006	mg/L		0.001		2	E200.8	12/28/12 15:40/eli-ca
Nickel	ND	mg/L		0.005		2	E200.8	12/28/12 15:40/eli-ca
Selenium	0.001	mg/L		0.001		5	E200.8	12/31/12 16:28/eli-ca
Silver	ND	mg/L		0.001		2	E200.8	12/28/12 15:40/eli-ca
Uranium	0.0818	mg/L		0.0003		2	E200.8	12/28/12 15:40/eli-ca
Vanadium	ND	mg/L		0.01		2	E200.7	12/19/12 16:28/eli-ca
Zinc	ND	mg/L		0.01		2	E200.7	12/19/12 16:28/eli-ca
Calcium	442	mg/L		1		2	E200.7	12/19/12 16:28/eli-ca
Magnesium	225	mg/L		1		2	E200.7	12/19/12 16:28/eli-ca
Potassium	10	mg/L		1		2	E200.7	12/19/12 16:28/eli-ca
Sodium	174	mg/L		1		2	E200.7	12/19/12 16:28/eli-ca

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.
D - RL increased due to sample matrix.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12120137-006
Client Sample ID: BC-2

Revised Date: 02/06/13
Report Date: 01/22/13
Collection Date: 12/10/12 15:08
Date Received: 12/11/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3700	umhos/cm		5.0		1	A2510 B	12/11/12 16:34/tb
pH	7.10	su		0.01		1	A4500-H B	12/11/12 15:55/tb
Solids, Total Dissolved TDS @ 180 C	3790	mg/L		40		1	A2540 C	12/17/12 10:19/jmh
Alkalinity, Total as CaCO3	234	mg/L		5		1	A2320 B	12/17/12 15:31/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	12/17/12 15:31/ch
Bicarbonate as HCO3	285	mg/L		5		1	A2320 B	12/17/12 15:31/ch
INORGANIC PARAMETERS								
Chloride	22	mg/L		1		1	E300.0	12/11/12 22:11/tb
Fluoride	0.7	mg/L		0.1		1	E300.0	12/11/12 22:11/tb
Sulfate	2340	mg/L	D	50		50	E300.0	12/12/12 01:46/tb
DATA QUALITY PARAMETERS								
Anions	54.0	meq/L		1.00		1	A1030 E	01/22/13 00:00/lkl
Cations	52.3	meq/L		1.00		1	A1030 E	01/22/13 00:00/lkl
Conductivity, Calculated	4310	umhos/cm		1.00		1	A1030 E	01/22/13 00:00/lkl
TDS Ratio	1.09			0.0100		1	A1030 E	01/22/13 00:00/lkl
A/C Balance	-1.63	%				1	A1030 E	01/22/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.2	mg/L		0.1		1	E300.0	12/11/12 22:11/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	23.4	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Alpha precision (±)	9.3	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Alpha MDC	13.7	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Beta	7.8	pCi/L	U			1	E900.0	12/31/12 18:12/eli-ca
Gross Beta precision (±)	11.5	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Gross Beta MDC	19.1	pCi/L				1	E900.0	12/31/12 18:12/eli-ca
Radium 228	0.7	pCi/L	U			1	RA-05	12/20/12 19:12/eli-ca
Radium 228 precision (±)	0.9	pCi/L				1	RA-05	12/20/12 19:12/eli-ca
Radium 228 MDC	1.4	pCi/L				1	RA-05	12/20/12 19:12/eli-ca
Radium 226	0.2	pCi/L				1	E903.0	12/27/12 17:39/eli-ca
Radium 226 precision (±)	0.1	pCi/L				1	E903.0	12/27/12 17:39/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	12/27/12 17:39/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	2710	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca
Radon 222 precision (±)	160	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca

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

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12120137-006
Client Sample ID: BC-2

Revised Date: 02/06/13
Report Date: 01/22/13
Collection Date: 12/10/12 15:08
Date Received: 12/11/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Radon 222 MDC	212	pCi/L				1	D5072-92	12/13/12 11:59/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	12/17/12 14:19/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		5	E200.8	12/31/12 16:49/eli-ca
Barium	ND	mg/L		0.05		2	E200.7	12/19/12 16:32/eli-ca
Boron	0.50	mg/L		0.05		2	E200.7	12/19/12 16:32/eli-ca
Cadmium	ND	mg/L		0.001		2	E200.7	12/19/12 16:32/eli-ca
Chromium	ND	mg/L		0.005		2	E200.7	12/19/12 16:32/eli-ca
Copper	0.008	mg/L		0.005		5	E200.8	12/31/12 16:49/eli-ca
Iron	ND	mg/L		0.03		2	E200.7	12/19/12 16:32/eli-ca
Lead	ND	mg/L		0.001		2	E200.8	12/28/12 15:43/eli-ca
Manganese	0.038	mg/L	D	0.002		2	E200.7	12/19/12 16:32/eli-ca
Molybdenum	0.014	mg/L		0.001		2	E200.8	12/28/12 15:43/eli-ca
Nickel	ND	mg/L		0.005		2	E200.7	12/19/12 16:32/eli-ca
Selenium	ND	mg/L		0.001		5	E200.8	12/31/12 16:49/eli-ca
Silver	ND	mg/L		0.001		2	E200.8	12/28/12 15:43/eli-ca
Uranium	0.0230	mg/L		0.0003		2	E200.8	12/28/12 15:43/eli-ca
Vanadium	ND	mg/L		0.01		2	E200.7	12/19/12 16:32/eli-ca
Zinc	ND	mg/L		0.01		2	E200.7	12/19/12 16:32/eli-ca
Calcium	469	mg/L		1		2	E200.7	12/19/12 16:32/eli-ca
Magnesium	212	mg/L		1		2	E200.7	12/19/12 16:32/eli-ca
Potassium	11	mg/L		1		2	E200.7	12/19/12 16:32/eli-ca
Sodium	256	mg/L		1		2	E200.7	12/19/12 16:32/eli-ca

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.
D - RL increased due to sample matrix.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: 121217A-ALK-SEL-W	
Sample ID: LCS1_121217A		Laboratory Control Sample				Run: PH_COND1-R_121217A			12/17/12 14:06	
Alkalinity, Total as CaCO3		964	mg/L	5.0	96	90	110			
Sample ID: MBLK1_121217A		Method Blank				Run: PH_COND1-R_121217A			12/17/12 14:10	
Alkalinity, Total as CaCO3		ND	mg/L	2						
Sample ID: R12120046-009AMS		Sample Matrix Spike				Run: PH_COND1-R_121217A			12/17/12 14:16	
Alkalinity, Total as CaCO3		330	mg/L	5.0	99	80	120			
Sample ID: R12120137-006ADUP	3	Sample Duplicate				Run: PH_COND1-R_121217A			12/17/12 15:41	
Alkalinity, Total as CaCO3		230	mg/L	5.0				1.7	10	
Carbonate as CO3		ND	mg/L	5.0					10	
Bicarbonate as HCO3		280	mg/L	5.0				1.7	10	
Sample ID: R12120138-001AMS		Sample Matrix Spike				Run: PH_COND1-R_121217A			12/17/12 15:50	
Alkalinity, Total as CaCO3		414	mg/L	5.0	98	80	120			

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B									Batch: 121211_1_COND-PROBE-W	
Sample ID: MBLK-1_121211	Method Blank					Run: PH_COND2-R_121211B			12/11/12 16:13	
Conductivity @ 25 C		ND	umhos/cm	5						
Sample ID: R12120137-006ADUP	Sample Duplicate					Run: PH_COND2-R_121211B			12/11/12 16:35	
Conductivity @ 25 C		3700	umhos/cm	5.0				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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: TDS121217A
Sample ID: MB-1_121217A	Method Blank					Run: BAL-TDS_121217A				12/17/12 10:11
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	3						
Sample ID: LCS-2_121217A	Laboratory Control Sample					Run: BAL-TDS_121217A				12/17/12 10:12
Solids, Total Dissolved TDS @ 180 C		490	mg/L	10	98	90	110			
Sample ID: R12120137-001A DUP	Sample Duplicate					Run: BAL-TDS_121217A				12/17/12 10:14
Solids, Total Dissolved TDS @ 180 C		4500	mg/L	40				0.3	5	
Sample ID: R12120137-002A MS	Sample Matrix Spike					Run: BAL-TDS_121217A				12/17/12 10:15
Solids, Total Dissolved TDS @ 180 C		13000	mg/L	100	47	90	110			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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B									Analytical Run: PH_COND2-R_121211A	
Sample ID: ICV-1_121211	Initial Calibration Verification Standard								12/11/12 15:22	
pH		7.45	su	0.010	100	98	102			
Method: A4500-H B									Batch: 121211_1_PH-W	
Sample ID: ICV1-1_121211	Initial Calibration Verification Standard					Run: PH_COND2-R_121211A			12/11/12 15:19	
pH		12.1	su	0.010	101	99	101			
Sample ID: R12120137-004ADUP	Sample Duplicate					Run: PH_COND2-R_121211A			12/11/12 15:51	
pH		7.12	su	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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: D5072-92										Batch: C_R168237
Sample ID: C12120419-001MDUP	3	Sample Duplicate				Run: SUB-C168237				12/13/12 11:59
Radon 222		20.7	pCi/L					310	20	UR
Radon 222 precision (±)		108	pCi/L							
Radon 222 MDC		180	pCi/L							
- The Sample and the Duplicate are both below the MDC; the RPD is acceptable.										
Sample ID: MB-R168237	3	Method Blank				Run: SUB-C168237				12/13/12 11:59
Radon 222		10	pCi/L							U
Radon 222 precision (±)		70	pCi/L							
Radon 222 MDC		100	pCi/L							
Sample ID: LCS-R168237		Laboratory Control Sample				Run: SUB-C168237				12/13/12 11:59
Radon 222		484	pCi/L		91	80	120			

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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: SUB-C168442	
Sample ID: ICV	13	Initial Calibration Verification Standard							12/19/12 14:01	
Barium		0.98	mg/L	0.10	98	95	105			
Boron		1.0	mg/L	0.10	101	95	105			
Cadmium		0.47	mg/L	0.010	95	95	105			
Calcium		49	mg/L	0.50	99	95	105			
Chromium		0.96	mg/L	0.050	96	95	105			
Iron		5.0	mg/L	0.030	100	95	105			
Magnesium		49	mg/L	0.50	99	95	105			
Manganese		4.8	mg/L	0.010	95	95	105			
Nickel		0.95	mg/L	0.050	95	95	105			
Potassium		49	mg/L	0.50	98	95	105			
Sodium		51	mg/L	0.50	101	95	105			
Vanadium		0.99	mg/L	0.10	99	95	105			
Zinc		0.97	mg/L	0.010	97	95	105			
Sample ID: ICSA	13	Interference Check Sample A							12/19/12 14:15	
Barium		0.00037	mg/L	0.10						
Boron		-0.018	mg/L	0.10						
Cadmium		0.0013	mg/L	0.010						
Calcium		440	mg/L	0.50	88	80	120			
Chromium		-0.021	mg/L	0.050						
Iron		180	mg/L	0.030	90	80	120			
Magnesium		480	mg/L	0.50	97	80	120			
Manganese		0.011	mg/L	0.010						
Nickel		-0.00075	mg/L	0.050						
Potassium		-0.0049	mg/L	0.50						
Sodium		0.085	mg/L	0.50						
Vanadium		0.0019	mg/L	0.10						
Zinc		0.012	mg/L	0.010						
Sample ID: ICSAB	13	Interference Check Sample AB							12/19/12 14:19	
Barium		0.47	mg/L	0.10	94	80	120			
Boron		-0.014	mg/L	0.10						
Cadmium		0.85	mg/L	0.010	85	80	120			
Calcium		440	mg/L	0.50	89	80	120			
Chromium		0.42	mg/L	0.050	84	80	120			
Iron		180	mg/L	0.030	89	80	120			
Magnesium		480	mg/L	0.50	97	80	120			
Manganese		0.45	mg/L	0.010	89	80	120			
Nickel		0.84	mg/L	0.050	84	80	120			
Potassium		0.0050	mg/L	0.50						
Sodium		-0.045	mg/L	0.50						
Vanadium		0.46	mg/L	0.10	91	80	120			
Zinc		0.86	mg/L	0.010	86	80	120			
Method: E200.7									Batch: C_R168442	

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: C_R168442	
Sample ID: MB-121219A	13	Method Blank			Run: SUB-C168442				12/19/12 14:38	
Barium		ND	mg/L	0.0002						
Boron		ND	mg/L	0.002						
Cadmium		ND	mg/L	0.0004						
Calcium		ND	mg/L	0.02						
Chromium		ND	mg/L	0.002						
Iron		ND	mg/L	0.002						
Magnesium		ND	mg/L	0.02						
Manganese		ND	mg/L	0.0010						
Nickel		ND	mg/L	0.002						
Potassium		ND	mg/L	0.04						
Sodium		ND	mg/L	0.2						
Vanadium		ND	mg/L	0.001						
Zinc		0.002	mg/L	0.001						
Sample ID: LFB-121219A	13	Laboratory Fortified Blank			Run: SUB-C168442				12/19/12 14:41	
Barium		0.89	mg/L	0.10	89	85	115			
Boron		0.90	mg/L	0.10	90	85	115			
Cadmium		0.89	mg/L	0.010	89	85	115			
Calcium		47	mg/L	0.50	94	85	115			
Chromium		0.88	mg/L	0.050	88	85	115			
Iron		0.91	mg/L	0.030	91	85	115			
Magnesium		47	mg/L	0.50	94	85	115			
Manganese		0.89	mg/L	0.010	89	85	115			
Nickel		0.87	mg/L	0.050	87	85	115			
Potassium		46	mg/L	0.50	92	85	115			
Sodium		47	mg/L	0.50	94	85	115			
Vanadium		0.91	mg/L	0.10	91	85	115			
Zinc		0.89	mg/L	0.010	89	85	115			
Sample ID: C12120416-004CMS2	13	Sample Matrix Spike			Run: SUB-C168442				12/19/12 16:20	
Barium		1.72	mg/L	0.050	84	70	130			
Boron		2.26	mg/L	0.050	86	70	130			
Cadmium		1.73	mg/L	0.0010	85	70	130			
Chromium		1.70	mg/L	0.0050	83	70	130			
Iron		1.91	mg/L	0.030	93	70	130			
Manganese		2.20	mg/L	0.0020	86	70	130			
Nickel		1.67	mg/L	0.0050	82	70	130			
Vanadium		1.79	mg/L	0.010	88	70	130			
Zinc		1.72	mg/L	0.010	84	70	130			
Calcium		576	mg/L	1.0		70	130			A
Magnesium		243	mg/L	1.0	101	70	130			
Potassium		99.5	mg/L	1.0	88	70	130			
Sodium		244	mg/L	1.0	95	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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: C_R168442	
Sample ID: C12120416-004CMSD2	13	Sample Matrix Spike Duplicate				Run: SUB-C168442			12/19/12 16:24	
Barium		1.70	mg/L	0.050	83	70	130	1.0	20	
Boron		2.22	mg/L	0.050	84	70	130	1.6	20	
Cadmium		1.73	mg/L	0.0010	85	70	130	0.3	20	
Chromium		1.68	mg/L	0.0050	82	70	130	1.0	20	
Iron		1.81	mg/L	0.030	88	70	130	5.4	20	
Manganese		2.20	mg/L	0.0020	86	70	130	0.1	20	
Nickel		1.65	mg/L	0.0050	81	70	130	1.0	20	
Vanadium		1.78	mg/L	0.010	87	70	130	0.4	20	
Zinc		1.72	mg/L	0.010	84	70	130	0.0	20	
Calcium		573	mg/L	1.0		70	130	0.5	20	A
Magnesium		243	mg/L	1.0	101	70	130	0.1	20	
Potassium		98.6	mg/L	1.0	87	70	130	0.9	20	
Sodium		243	mg/L	1.0	94	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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Analytical Run: SUB-C168702	
Sample ID: ICV	12	Initial Calibration Verification Standard							12/28/12 14:13	
Arsenic		0.0506	mg/L	0.0010	101	90	110			
Cadmium		0.0478	mg/L	0.0010	96	90	110			
Chromium		0.0506	mg/L	0.0010	101	90	110			
Copper		0.0505	mg/L	0.0010	101	90	110			
Lead		0.0502	mg/L	0.0010	100	90	110			
Manganese		0.0495	mg/L	0.0010	99	90	110			
Molybdenum		0.0489	mg/L	0.0010	98	90	110			
Nickel		0.0503	mg/L	0.0010	101	90	110			
Silver		0.0196	mg/L	0.0010	98	90	110			
Uranium		0.0500	mg/L	0.00030	100	90	110			
Vanadium		0.0501	mg/L	0.0010	100	90	110			
Zinc		0.0509	mg/L	0.0010	102	90	110			
Method: E200.8									Batch: C_R168702	
Sample ID: LRB	12	Method Blank				Run: SUB-C168702			12/28/12 14:39	
Arsenic		ND	mg/L	0.00010						
Cadmium		0.0003	mg/L	2E-05						
Chromium		0.003	mg/L	6E-05						
Copper		ND	mg/L	0.0001						
Lead		ND	mg/L	3E-05						
Manganese		3E-05	mg/L	2E-05						
Molybdenum		0.0001	mg/L	4E-05						
Nickel		ND	mg/L	3E-05						
Silver		ND	mg/L	5E-05						
Uranium		3E-05	mg/L	1E-05						
Vanadium		ND	mg/L	3E-05						
Zinc		ND	mg/L	0.0006						
Sample ID: LFB	12	Laboratory Fortified Blank				Run: SUB-C168702			12/28/12 14:42	
Arsenic		0.0503	mg/L	0.0010	101	85	115			
Cadmium		0.0512	mg/L	0.0010	102	85	115			
Chromium		0.0538	mg/L	0.0010	101	85	115			
Copper		0.0481	mg/L	0.0010	96	85	115			
Lead		0.0511	mg/L	0.0010	102	85	115			
Manganese		0.0509	mg/L	0.0010	102	85	115			
Molybdenum		0.0520	mg/L	0.0010	104	85	115			
Nickel		0.0494	mg/L	0.0010	99	85	115			
Silver		0.0188	mg/L	0.0010	94	85	115			
Uranium		0.0526	mg/L	0.00030	105	85	115			
Vanadium		0.0519	mg/L	0.0010	104	85	115			
Zinc		0.0523	mg/L	0.0010	105	85	115			
Sample ID: C12120416-006CMS4	12	Post Digestion Spike				Run: SUB-C168702			12/28/12 15:46	
Arsenic		0.0980	mg/L	0.0010	98	70	130			
Cadmium		0.103	mg/L	0.0010	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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: C_R168702
Sample ID: C12120416-006CMS4	12	Post Digestion Spike				Run: SUB-C168702				12/28/12 15:46
Chromium		0.0982	mg/L	0.0050	98	70	130			
Copper		0.0973	mg/L	0.0050	95	70	130			
Lead		0.105	mg/L	0.0010	105	70	130			
Manganese		0.131	mg/L	0.0010	94	70	130			
Molybdenum		0.120	mg/L	0.0010	106	70	130			
Nickel		0.0986	mg/L	0.0050	98	70	130			
Silver		0.0365	mg/L	0.0010	91	70	130			
Uranium		0.129	mg/L	0.00030	106	70	130			
Vanadium		0.102	mg/L	0.010	101	70	130			
Zinc		0.112	mg/L	0.010	105	70	130			
Sample ID: C12120416-006CMSD4	12	Post Digestion Spike Duplicate				Run: SUB-C168702				12/28/12 16:03
Arsenic		0.0974	mg/L	0.0010	97	70	130	0.6	20	
Cadmium		0.0989	mg/L	0.0010	99	70	130	3.9	20	
Chromium		0.100	mg/L	0.0050	100	70	130	2.1	20	
Copper		0.0981	mg/L	0.0050	96	70	130	0.8	20	
Lead		0.104	mg/L	0.0010	104	70	130	0.9	20	
Manganese		0.133	mg/L	0.0010	96	70	130	1.1	20	
Molybdenum		0.118	mg/L	0.0010	104	70	130	1.8	20	
Nickel		0.0997	mg/L	0.0050	99	70	130	1.2	20	
Silver		0.0372	mg/L	0.0010	93	70	130	2.0	20	
Uranium		0.129	mg/L	0.00030	106	70	130	0.1	20	
Vanadium		0.102	mg/L	0.010	101	70	130	0.2	20	
Zinc		0.108	mg/L	0.010	101	70	130	3.9	20	
Sample ID: C12120275-005EMS		Sample Matrix Spike				Run: SUB-C168702				12/29/12 01:39
Uranium		0.059	mg/L	0.00030	103	70	130			
Sample ID: C12120275-005EMSD		Sample Matrix Spike Duplicate				Run: SUB-C168702				12/29/12 01:42
Uranium		0.059	mg/L	0.00030	103	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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Analytical Run: SUB-C168759	
Sample ID: ICV	4	Initial Calibration Verification Standard							12/31/12 13:05	
Arsenic		0.0501	mg/L	0.0010	100	90	110			
Chromium		0.0488	mg/L	0.0010	98	90	110			
Copper		0.0500	mg/L	0.0010	100	90	110			
Selenium		0.0491	mg/L	0.0010	98	90	110			
Method: E200.8									Batch: C_R168759	
Sample ID: LRB	4	Method Blank				Run: SUB-C168759			12/31/12 13:40	
Arsenic		ND	mg/L	5E-05						
Chromium		ND	mg/L	4E-05						
Copper		ND	mg/L	3E-05						
Selenium		ND	mg/L	7E-05						
Sample ID: LFB	4	Laboratory Fortified Blank				Run: SUB-C168759			12/31/12 13:44	
Arsenic		0.0534	mg/L	0.0010	107	85	115			
Chromium		0.0532	mg/L	0.0010	106	85	115			
Copper		0.0527	mg/L	0.0010	105	85	115			
Selenium		0.0540	mg/L	0.0010	108	85	115			
Sample ID: C12120416-004CMS4	4	Post Digestion Spike				Run: SUB-C168759			12/31/12 16:15	
Arsenic		0.291	mg/L	0.0010	116	70	130			
Chromium		0.282	mg/L	0.0050	113	70	130			
Copper		0.273	mg/L	0.0050	109	70	130			
Selenium		0.294	mg/L	0.0010	117	70	130			
Sample ID: C12120416-004CMSD4	4	Post Digestion Spike Duplicate				Run: SUB-C168759			12/31/12 16:19	
Arsenic		0.283	mg/L	0.0010	113	70	130	2.7	20	
Chromium		0.277	mg/L	0.0050	111	70	130	1.8	20	
Copper		0.266	mg/L	0.0050	106	70	130	2.6	20	
Selenium		0.294	mg/L	0.0010	116	70	130	0.1	20	
Sample ID: C12120526-001CMS4	3	Post Digestion Spike				Run: SUB-C168759			01/01/13 04:58	
Arsenic		0.0508	mg/L	0.0010	101	70	130			
Copper		0.0483	mg/L	0.0050	94	70	130			
Selenium		0.0513	mg/L	0.0010	101	70	130			
Sample ID: C12120526-001CMSD4	3	Post Digestion Spike Duplicate				Run: SUB-C168759			01/01/13 05:20	
Arsenic		0.0514	mg/L	0.0010	103	70	130	1.2	20	
Copper		0.0485	mg/L	0.0050	95	70	130	0.5	20	
Selenium		0.0516	mg/L	0.0010	102	70	130	0.6	20	

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E245.1									Analytical Run: SUB-C168303	
Sample ID: ICV		Initial Calibration Verification Standard							12/17/12 13:53	
Mercury		0.0055	mg/L	0.00010	110	90	110			
Sample ID: CCV1		Continuing Calibration Verification Standard							12/17/12 13:56	
Mercury		0.0052	mg/L	0.00010	105	95	105			
Method: E245.1									Batch: C_36042	
Sample ID: MB-36042		Method Blank				Run: SUB-C168303			12/17/12 13:59	
Mercury		ND	mg/L	3E-05						
Sample ID: LCS-36042		Laboratory Control Sample				Run: SUB-C168303			12/17/12 14:00	
Mercury		0.0053	mg/L	0.00010	107	85	115			
Sample ID: R12120137-001B		Sample Matrix Spike				Run: SUB-C168303			12/17/12 14:08	
Mercury		0.0051	mg/L	0.00010	103	70	130			
Sample ID: R12120137-001B		Sample Matrix Spike Duplicate				Run: SUB-C168303			12/17/12 14:10	
Mercury		0.0045	mg/L	0.00010	90	70	130	13	10	R
Sample ID: C12120461-001DMS		Sample Matrix Spike				Run: SUB-C168303			12/17/12 14:22	
Mercury		0.0050	mg/L	0.00010	99	70	130			
Sample ID: C12120461-001DMSD		Sample Matrix Spike Duplicate				Run: SUB-C168303			12/17/12 14:23	
Mercury		0.0052	mg/L	0.00010	104	70	130	4.3	10	

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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: DIONEX_121211A	
Sample ID: CCV121112-28	4	Continuing Calibration Verification Standard							12/11/12 22:47	
Chloride		71.8	mg/L	1.0	96	90	110			
Fluoride		7.32	mg/L	0.10	98	90	110			
Nitrogen, Nitrate as N		7.15	mg/L	0.10	95	90	110			
Sulfate		71.7	mg/L	1.0	96	90	110			
Method: E300.0									Batch: R59207	
Sample ID: LFB121112-14	4	Laboratory Fortified Blank				Run: DIONEX_121211A			12/11/12 18:54	
Chloride		37.6	mg/L	1.0	94	90	110			
Fluoride		3.91	mg/L	0.10	98	90	110			
Nitrogen, Nitrate as N		3.82	mg/L	0.10	96	90	110			
Sulfate		38.2	mg/L	1.0	96	90	110			
Sample ID: R12120092-003AMS	4	Sample Matrix Spike				Run: DIONEX_121211A			12/11/12 19:30	
Chloride		89.7	mg/L	2.0	91	90	110			
Fluoride		7.98	mg/L	0.20	94	90	110			
Nitrogen, Nitrate as N		24.1	mg/L	0.20	101	90	110			
Sulfate		228	mg/L	2.0	104	90	110			
Sample ID: R12120092-003AMSD	4	Sample Matrix Spike Duplicate				Run: DIONEX_121211A			12/11/12 19:48	
Chloride		89.7	mg/L	2.0	91	90	110	0.0	10	
Fluoride		7.98	mg/L	0.20	94	90	110	0.0	10	
Nitrogen, Nitrate as N		24.1	mg/L	0.20	101	90	110	0.0	10	
Sulfate		228	mg/L	2.0	104	90	110	0.0	10	
Sample ID: R12120138-002AMS	4	Sample Matrix Spike				Run: DIONEX_121211A			12/11/12 23:41	
Chloride		58.8	mg/L	1.0	96	90	110			
Fluoride		4.15	mg/L	0.10	88	90	110			S
Nitrogen, Nitrate as N		3.76	mg/L	0.10	94	90	110			
Sulfate		3200	mg/L	1.0		90	110			A
Sample ID: R12120138-002AMSD	4	Sample Matrix Spike Duplicate				Run: DIONEX_121211A			12/11/12 23:59	
Chloride		58.8	mg/L	1.0	96	90	110	0.0	10	
Fluoride		4.16	mg/L	0.10	88	90	110	0.1	10	S
Nitrogen, Nitrate as N		3.76	mg/L	0.10	94	90	110	0.1	10	
Sulfate		3200	mg/L	1.0		90	110	0.1	10	A
Sample ID: R12120114-005AMS	4	Sample Matrix Spike				Run: DIONEX_121211A			12/12/12 03:52	
Chloride		2150	mg/L	50	90	90	110			
Fluoride		656	mg/L	5.0	111	90	110			S
Nitrogen, Nitrate as N		188	mg/L	5.0	89	90	110			S
Sulfate		3240	mg/L	50	99	90	110			
Sample ID: R12120114-005AMSD	4	Sample Matrix Spike Duplicate				Run: DIONEX_121211A			12/12/12 04:10	
Chloride		2150	mg/L	50	90	90	110	0.2	10	
Fluoride		657	mg/L	5.0	112	90	110	0.2	10	S
Nitrogen, Nitrate as N		188	mg/L	5.0	89	90	110	0.1	10	S

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0										Batch: R59207
Sample ID: R12120114-005AMSD	4	Sample Matrix Spike Duplicate				Run: DIONEX_121211A				12/12/12 04:10
Sulfate		3230	mg/L	50	99	90	110	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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0										Batch: C_GrAB-1424
Sample ID: Th230-GrAB-1424		Laboratory Control Sample				Run: SUB-C168740				12/31/12 18:12
Gross Alpha		122	pCi/L		118	80	120			
Sample ID: Sr90-GrAB-1424		Laboratory Control Sample				Run: SUB-C168740				12/31/12 18:12
Gross Beta		174	pCi/L		94	80	120			
Sample ID: MB-GrAB-1424	6	Method Blank				Run: SUB-C168740				12/31/12 18:12
Gross Alpha		0.4	pCi/L							U
Gross Alpha precision (±)		0.8	pCi/L							
Gross Alpha MDC		1	pCi/L							
Gross Beta		0.4	pCi/L							U
Gross Beta precision (±)		2	pCi/L							
Gross Beta MDC		3	pCi/L							
Sample ID: R12120137-003E	6	Sample Duplicate				Run: SUB-C168740				12/31/12 18:12
Gross Alpha		35	pCi/L					27	61.6	
Gross Alpha precision (±)		8.2	pCi/L							
Gross Alpha MDC		11	pCi/L							
Gross Beta		19	pCi/L					120	143.7	
Gross Beta precision (±)		9.7	pCi/L							
Gross Beta MDC		16	pCi/L							
Sample ID: R12120137-005E		Sample Matrix Spike				Run: SUB-C168740				12/31/12 18:12
Gross Alpha		730	pCi/L		90	70	130			
Sample ID: R12120137-005E		Sample Matrix Spike Duplicate				Run: SUB-C168740				12/31/12 18:12
Gross Alpha		770	pCi/L		95	70	130	4.9	17.1	
Sample ID: R12120137-005E		Sample Matrix Spike				Run: SUB-C168740				12/31/12 18:12
Gross Beta		1300	pCi/L		100	70	130			
Sample ID: R12120137-005E		Sample Matrix Spike Duplicate				Run: SUB-C168740				12/31/12 18:12
Gross Beta		1400	pCi/L		103	70	130	3.3	13.8	

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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: C_RA226-6416
Sample ID: R12120137-001E		Sample Matrix Spike				Run: SUB-C168652				12/27/12 17:39
Radium 226		13	pCi/L		98	70	130			
Sample ID: R12120137-001E		Sample Matrix Spike Duplicate				Run: SUB-C168652				12/27/12 17:39
Radium 226		11	pCi/L		82	70	130	17	27.2	
Sample ID: MB-RA226-6416	3	Method Blank				Run: SUB-C168652				12/27/12 19:25
Radium 226		-0.1	pCi/L							U
Radium 226 precision (±)		0.09	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Sample ID: LCS-RA226-6416		Laboratory Control Sample				Run: SUB-C168652				12/27/12 19:25
Radium 226		5.6	pCi/L		90	80	120			

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 Rapid City, SD Branch

Revised Date: 02/06/13
Report Date: 01/22/13
Work Order: R12120137

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: C_RA228-4292
Sample ID: LCS-228-RA226-6416		Laboratory Control Sample				Run: SUB-C168661				12/20/12 17:38
Radium 228		4.8	pCi/L		94	80	120			
Sample ID: MB-RA226-6416	3	Method Blank				Run: SUB-C168661				12/20/12 17:38
Radium 228		0.5	pCi/L							U
Radium 228 precision (±)		0.8	pCi/L							
Radium 228 MDC		1	pCi/L							
Sample ID: C12120424-001EMS		Sample Matrix Spike				Run: SUB-C168661				12/20/12 17:38
Radium 228		12	pCi/L		112	70	130			
Sample ID: C12120424-001EMSD		Sample Matrix Spike Duplicate				Run: SUB-C168661				12/20/12 17:38
Radium 228		13	pCi/L		126	70	130	9.9	41.1	

Qualifiers:

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

Chain of Custody and Analytical Request Record

PLEASE PRINT (Provide as much information as possible.)

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
Sc# Environmental	Powertech alluvial wells	State:	Yes ☐ No ☐
Report Mail Address:	**Contact Name:** Phone/Fax:	Email:	Sampler: (Please Print)
Sc# Env. Powertech	Allen Sc# / Lisa Schmidt		
Invoice Address:	**Invoice Contact & Phone:**	**Purchase Order:**	**Quote/Bottle Order:**
Powertech			

Special Report/Formats:

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

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

ANALYSIS REQUESTED

SEE ATTACHED

As per note

Standard Turnaround (TAT)

R U S H

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

Comments:

Shipped by:

Cooler ID(s):

Receipt Temp 0.8 °C

On Ice: Y N

Custody Seal On Bottle Y N / On Cooler Y N

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	LABORATORY USE ONLY
1	DC-2	12-10-12	10:33	Water	B12120137-001
2	DC-4	"	11:25	"	002
3	BC-3	"	12:40	"	003
4	BC-3 Dup	"	12:41	"	004
5	BC-1	"	14:08	"	005
6	BC-2	"	15:08	"	006
7	708	"	15:58	"	
8	712	"	16:40	"	
9					
10					

Custody Record MUST be Signed

Relinquished by (print): Allen Sc#	Date/Time: 12-11-12 8:00Am	Signature:	Received by (print): Cook Hill	Date/Time: 12.11.12 08:01	Signature:
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

Received by Laboratory: Date/Time: Signature:

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.

POWERTECH (USA) INC.

LABORATORY DATA PACKAGE

R12120173

(December 2012 for DC1)

5575 DTC Parkway, Suite 140
Greenwood Village, CO 80111 USA

Telephone: 303-790-7528
Facsimile: 303-790-3885

Website: www.powertechuranium.com
Email: info@powertechuranium.com

ANALYTICAL SUMMARY REPORT

January 21, 2013

Powertech USA Inc
PO Box 812
Edgemont, SD 57735

Workorder No.: R12120173 Quote ID: R411

Project Name: Alluvial Wells Dewey Burdock

Energy Laboratories Inc. Rapid City SD received the following 1 sample for Powertech USA Inc on 12/12/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R12120173-001	DC-1	12/11/12 10:31	12/12/12	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Anion - Cation Balance Conductivity Mercury, Total Anions by Ion Chromatography pH Dissolved Filtration Digestion, Mercury by CVAA Gross Alpha, Gross Beta Radium 226, Dissolved Radium 228, Dissolved Radon 222 Solids, Total Dissolved

This report was prepared by Energy Laboratories, Inc., 2821 Plant St., Rapid City, SD 57702. As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

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

Report Approved By:

Linda K. Larson
Branch Manager

Digitally signed by
Linda Larson
Date: 2013.01.21 17:08:15 -07:00

CLIENT: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Sample Delivery Group: R12120173

Report Date: 01/21/13

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12120173-001
Client Sample ID: DC-1

Report Date: 01/21/13
Collection Date: 12/11/12 10:31
Date Received: 12/12/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	6480	umhos/cm		5.0		1	A2510 B	12/13/12 15:55/tb
pH	7.12	su		0.01		1	A4500-H B	12/13/12 15:28/tb
Solids, Total Dissolved TDS @ 180 C	6120	mg/L		100		1	A2540 C	12/17/12 10:49/jmh
Alkalinity, Total as CaCO3	392	mg/L		5		1	A2320 B	12/24/12 09:21/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	12/24/12 09:21/ch
Bicarbonate as HCO3	478	mg/L		5		1	A2320 B	12/24/12 09:21/ch
INORGANIC PARAMETERS								
Chloride	87	mg/L		1		1	E300.0	12/12/12 22:51/tb
Fluoride	1.0	mg/L		0.1		1	E300.0	12/12/12 22:51/tb
Sulfate	3920	mg/L	D	50		50	E300.0	12/13/12 23:24/tb
DATA QUALITY PARAMETERS								
Anions	92.6	meq/L		1.00		1	A1030 E	01/21/13 00:00/lkl
Cations	85.4	meq/L		1.00		1	A1030 E	01/21/13 00:00/lkl
Conductivity, Calculated	6700	umhos/cm		1.00		1	A1030 E	01/21/13 00:00/lkl
TDS Ratio	1.04			0.0100		1	A1030 E	01/21/13 00:00/lkl
A/C Balance	-4.08	%				1	A1030 E	01/21/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	9.5	mg/L		0.1		1	E300.0	12/12/12 22:51/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	4.5	pCi/L	U			1	E900.0	01/09/13 18:39/eli-ca
Gross Alpha precision (±)	13.9	pCi/L				1	E900.0	01/09/13 18:39/eli-ca
Gross Alpha MDC	23.1	pCi/L				1	E900.0	01/09/13 18:39/eli-ca
Gross Beta	4.2	pCi/L	U			1	E900.0	01/09/13 18:39/eli-ca
Gross Beta precision (±)	17.7	pCi/L				1	E900.0	01/09/13 18:39/eli-ca
Gross Beta MDC	29.6	pCi/L				1	E900.0	01/09/13 18:39/eli-ca
Radium 228	1.9	pCi/L				1	RA-05	12/21/12 22:18/eli-ca
Radium 228 precision (±)	1	pCi/L				1	RA-05	12/21/12 22:18/eli-ca
Radium 228 MDC	1.5	pCi/L				1	RA-05	12/21/12 22:18/eli-ca
Radium 226	0.5	pCi/L				1	E903.0	12/27/12 11:53/eli-ca
Radium 226 precision (±)	0.2	pCi/L				1	E903.0	12/27/12 11:53/eli-ca
Radium 226 MDC	0.1	pCi/L				1	E903.0	12/27/12 11:53/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	989	pCi/L				1	D5072-92	12/14/12 14:27/eli-ca
Radon 222 precision (±)	147	pCi/L				1	D5072-92	12/14/12 14:27/eli-ca

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

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R12120173-001
Client Sample ID: DC-1

Report Date: 01/21/13
Collection Date: 12/11/12 10:31
Date Received: 12/12/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - TOTAL								
Radon 222 MDC	224	pCi/L				1	D5072-92	12/14/12 14:27/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	12/17/12 14:25/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		1	E200.8	01/01/13 04:49/eli-ca
Barium	ND	mg/L		0.05		1	E200.7	12/31/12 13:48/eli-ca
Boron	1.32	mg/L		0.05		1	E200.7	12/31/12 13:48/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.7	12/31/12 13:48/eli-ca
Chromium	ND	mg/L		0.005		1	E200.7	12/31/12 13:48/eli-ca
Copper	ND	mg/L		0.005		1	E200.7	12/31/12 13:48/eli-ca
Iron	ND	mg/L		0.03		1	E200.7	12/31/12 13:48/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	01/01/13 04:49/eli-ca
Manganese	0.150	mg/L		0.001		1	E200.7	12/31/12 13:48/eli-ca
Molybdenum	0.002	mg/L		0.001		1	E200.8	01/01/13 04:49/eli-ca
Nickel	0.020	mg/L		0.005		1	E200.7	12/31/12 13:48/eli-ca
Selenium	0.031	mg/L		0.001		1	E200.8	01/01/13 04:49/eli-ca
Silver	ND	mg/L		0.001		5	E200.8	01/08/13 13:44/eli-ca
Uranium	0.0228	mg/L		0.0003		1	E200.8	01/01/13 04:49/eli-ca
Vanadium	ND	mg/L		0.01		1	E200.7	12/31/12 13:48/eli-ca
Zinc	0.05	mg/L		0.01		1	E200.7	12/31/12 13:48/eli-ca
Calcium	355	mg/L		1		1	E200.7	12/31/12 13:48/eli-ca
Magnesium	347	mg/L		1		1	E200.7	12/31/12 13:48/eli-ca
Potassium	9	mg/L		1		1	E200.7	12/31/12 13:48/eli-ca
Sodium	894	mg/L		1		1	E200.7	12/31/12 13:48/eli-ca

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.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 01/21/13
Project: Alluvial Wells Dewey Burdock
Work Order: R12120173

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: 121224A-ALK-SEL-W	
Sample ID: LCS1_121224A	Laboratory Control Sample					Run: PH_COND1-R_121224A			12/24/12 09:05	
Alkalinity, Total as CaCO3		948	mg/L	5.0	95	90	110			
Sample ID: MBLK1_121224A	Method Blank					Run: PH_COND1-R_121224A			12/24/12 09:09	
Alkalinity, Total as CaCO3		ND	mg/L	2						
Sample ID: R12120174-002AMS	Sample Matrix Spike					Run: PH_COND1-R_121224A			12/24/12 09:31	
Alkalinity, Total as CaCO3		366	mg/L	5.0	96	80	120			

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 01/21/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R12120173

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **A2510 B**									Batch: 121213_1_COND-PROBE-W	
Sample ID: **MBLK-1_121213**	Method Blank					Run: PH_COND2-R_121213B			12/13/12 15:53	
Conductivity @ 25 C		5	umhos/cm	5						
Sample ID: **R12120173-001ADUP**	Sample Duplicate					Run: PH_COND2-R_121213B			12/13/12 15:57	
Conductivity @ 25 C		6490	umhos/cm	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 Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 01/21/13
Project: Alluvial Wells Dewey Burdock
Work Order: R12120173

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: TDS121217A	
Sample ID: MB-1_121217A	Method Blank					Run: BAL-TDS_121217A			12/17/12 10:11	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	3						
Sample ID: LCS-2_121217A	Laboratory Control Sample					Run: BAL-TDS_121217A			12/17/12 10:12	
Solids, Total Dissolved TDS @ 180 C		490	mg/L	10	98	90	110			
Sample ID: R12120174-005A MS	Sample Matrix Spike					Run: BAL-TDS_121217A			12/17/12 10:57	
Solids, Total Dissolved TDS @ 180 C		6000	mg/L	40	106	90	110			

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 01/21/13
Project: Alluvial Wells Dewey Burdock
Work Order: R12120173

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B									Analytical Run: PH_COND2-R_121213A	
Sample ID: ICV-1_121213	Initial Calibration Verification Standard								12/13/12 15:02	
pH		7.43	su	0.010	100	98	102			
Method: A4500-H B									Batch: 121213_1_PH-W	
Sample ID: R12120154-001ADUP	Sample Duplicate					Run: PH_COND2-R_121213A			12/13/12 15:26	
pH		8.06	su	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 Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 01/21/13
Project: Alluvial Wells Dewey Burdock
Work Order: R12120173

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: D5072-92										Batch: C_R168307
Sample ID: R12120173-001D	3	Sample Duplicate				Run: SUB-C168307				12/14/12 14:27
Radon 222		982	pCi/L					0.7	20	
Radon 222 precision (±)		147	pCi/L							
Radon 222 MDC		224	pCi/L							
Sample ID: MB-R168307	3	Method Blank				Run: SUB-C168307				12/14/12 14:27
Radon 222		20	pCi/L							U
Radon 222 precision (±)		70	pCi/L							
Radon 222 MDC		100	pCi/L							
Sample ID: LCS-R168307		Laboratory Control Sample				Run: SUB-C168307				12/14/12 14:27
Radon 222		478	pCi/L		89	80	120			

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 Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 01/21/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R12120173

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: SUB-C168758	
Sample ID: ICV	14	Initial Calibration Verification Standard							12/31/12 13:05	
Barium		1.0	mg/L	0.10	100	95	105			
Boron		1.0	mg/L	0.10	101	95	105			
Cadmium		0.48	mg/L	0.010	97	95	105			
Calcium		50	mg/L	0.50	99	95	105			
Chromium		0.98	mg/L	0.050	98	95	105			
Copper		0.99	mg/L	0.010	99	95	105			
Iron		5.1	mg/L	0.030	101	95	105			
Magnesium		51	mg/L	0.50	101	95	105			
Manganese		4.8	mg/L	0.010	95	95	105			
Nickel		0.96	mg/L	0.050	96	95	105			
Potassium		49	mg/L	0.50	98	95	105			
Sodium		52	mg/L	0.50	103	95	105			
Vanadium		0.99	mg/L	0.10	99	95	105			
Zinc		0.97	mg/L	0.010	97	95	105			
Sample ID: ICSA	14	Interference Check Sample A							12/31/12 13:19	
Barium		0.00036	mg/L	0.10						
Boron		-0.012	mg/L	0.10						
Cadmium		6.0E-05	mg/L	0.010						
Calcium		440	mg/L	0.50	87	80	120			
Chromium		-0.019	mg/L	0.050						
Copper		0.0026	mg/L	0.010						
Iron		170	mg/L	0.030	86	80	120			
Magnesium		480	mg/L	0.50	95	80	120			
Manganese		0.011	mg/L	0.010						
Nickel		-0.0028	mg/L	0.050						
Potassium		-0.016	mg/L	0.50						
Sodium		-0.100	mg/L	0.50						
Vanadium		0.0015	mg/L	0.10						
Zinc		0.011	mg/L	0.010						
Sample ID: ICSAB	14	Interference Check Sample AB							12/31/12 13:23	
Barium		0.47	mg/L	0.10	93	80	120			
Boron		-0.023	mg/L	0.10						
Cadmium		0.82	mg/L	0.010	82	80	120			
Calcium		440	mg/L	0.50	88	80	120			
Chromium		0.42	mg/L	0.050	83	80	120			
Copper		0.47	mg/L	0.010	93	80	120			
Iron		170	mg/L	0.030	87	80	120			
Magnesium		480	mg/L	0.50	97	80	120			
Manganese		0.44	mg/L	0.010	88	80	120			
Nickel		0.83	mg/L	0.050	83	80	120			
Potassium		-0.024	mg/L	0.50						
Sodium		-0.030	mg/L	0.50						
Vanadium		0.45	mg/L	0.10	90	80	120			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 01/21/13
Project: Alluvial Wells Dewey Burdock
Work Order: R12120173

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: SUB-C168758	
Sample ID: ICSAB	14	Interference Check Sample AB							12/31/12 13:23	
Zinc		0.83	mg/L	0.010	83	80	120			
Method: E200.7									Batch: C_R168758	
Sample ID: MB-121231A	14	Method Blank				Run: SUB-C168758			12/31/12 13:41	
Barium		ND	mg/L	0.0002						
Boron		ND	mg/L	0.002						
Cadmium		ND	mg/L	0.0004						
Calcium		ND	mg/L	0.02						
Chromium		ND	mg/L	0.002						
Copper		ND	mg/L	0.004						
Iron		ND	mg/L	0.002						
Magnesium		ND	mg/L	0.02						
Manganese		ND	mg/L	0.0010						
Nickel		ND	mg/L	0.002						
Potassium		ND	mg/L	0.04						
Sodium		ND	mg/L	0.2						
Vanadium		ND	mg/L	0.001						
Zinc		0.003	mg/L	0.001						
Sample ID: LFB-121231A	14	Laboratory Fortified Blank				Run: SUB-C168758			12/31/12 13:45	
Barium		0.92	mg/L	0.10	92	85	115			
Boron		0.92	mg/L	0.10	92	85	115			
Cadmium		0.90	mg/L	0.010	90	85	115			
Calcium		45	mg/L	0.50	90	85	115			
Chromium		0.91	mg/L	0.050	91	85	115			
Copper		0.91	mg/L	0.010	91	85	115			
Iron		0.94	mg/L	0.030	94	85	115			
Magnesium		46	mg/L	0.50	92	85	115			
Manganese		0.90	mg/L	0.010	90	85	115			
Nickel		0.90	mg/L	0.050	90	85	115			
Potassium		45	mg/L	0.50	89	85	115			
Sodium		46	mg/L	0.50	92	85	115			
Vanadium		0.92	mg/L	0.10	92	85	115			
Zinc		0.90	mg/L	0.010	90	85	115			
Sample ID: R12120173-001C	14	Sample Matrix Spike				Run: SUB-C168758			12/31/12 13:52	
Barium		0.878	mg/L	0.050	85	70	130			
Boron		2.15	mg/L	0.050	81	70	130			
Cadmium		0.778	mg/L	0.0010	76	70	130			
Chromium		0.805	mg/L	0.0050	79	70	130			
Copper		0.878	mg/L	0.0050	86	70	130			
Iron		0.860	mg/L	0.030	84	70	130			
Manganese		0.980	mg/L	0.0010	81	70	130			
Nickel		0.810	mg/L	0.0050	77	70	130			
Vanadium		0.856	mg/L	0.010	84	70	130			

Qualifiers:

RL - Analyte reporting limit.
MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 01/21/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R12120173

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: C_R168758	
Sample ID: R12120173-001C	14 Sample Matrix Spike					Run: SUB-C168758			12/31/12 13:52	
Zinc		0.823	mg/L	0.010	76	70	130			
Calcium		406	mg/L	1.0		70	130			A
Magnesium		402	mg/L	1.0		70	130			A
Potassium		53.0	mg/L	1.0	87	70	130			
Sodium		978	mg/L	1.0		70	130			A
Sample ID: R12120173-001C	14 Sample Matrix Spike Duplicate					Run: SUB-C168758			12/31/12 13:56	
Barium		0.853	mg/L	0.050	82	70	130	2.9	20	
Boron		2.12	mg/L	0.050	78	70	130	1.4	20	
Cadmium		0.764	mg/L	0.0010	75	70	130	1.7	20	
Chromium		0.790	mg/L	0.0050	77	70	130	1.9	20	
Copper		0.848	mg/L	0.0050	83	70	130	3.4	20	
Iron		0.845	mg/L	0.030	82	70	130	1.7	20	
Manganese		0.958	mg/L	0.0010	79	70	130	2.2	20	
Nickel		0.797	mg/L	0.0050	76	70	130	1.6	20	
Vanadium		0.833	mg/L	0.010	81	70	130	2.8	20	
Zinc		0.811	mg/L	0.010	75	70	130	1.5	20	
Calcium		397	mg/L	1.0		70	130	2.3	20	A
Magnesium		393	mg/L	1.0		70	130	2.3	20	A
Potassium		50.8	mg/L	1.0	83	70	130	4.2	20	
Sodium		947	mg/L	1.0		70	130	3.2	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 Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 01/21/13
Project: Alluvial Wells Dewey Burdock
Work Order: R12120173

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Analytical Run: SUB-C168759	
Sample ID: ICV	5	Initial Calibration Verification Standard							12/31/12 13:05	
Arsenic		0.0501	mg/L	0.0010	100	90	110			
Lead		0.0490	mg/L	0.0010	98	90	110			
Molybdenum		0.0481	mg/L	0.0010	96	90	110			
Selenium		0.0491	mg/L	0.0010	98	90	110			
Uranium		0.0490	mg/L	0.00030	98	90	110			
Method: E200.8									Batch: C_R168759	
Sample ID: LRB	5	Method Blank				Run: SUB-C168759			12/31/12 13:40	
Arsenic		ND	mg/L	5E-05						
Lead		ND	mg/L	2E-05						
Molybdenum		ND	mg/L	3E-05						
Selenium		ND	mg/L	7E-05						
Uranium		2E-05	mg/L	9E-06						
Sample ID: LFB	5	Laboratory Fortified Blank				Run: SUB-C168759			12/31/12 13:44	
Arsenic		0.0534	mg/L	0.0010	107	85	115			
Lead		0.0521	mg/L	0.0010	104	85	115			
Molybdenum		0.0509	mg/L	0.0010	102	85	115			
Selenium		0.0540	mg/L	0.0010	108	85	115			
Uranium		0.0526	mg/L	0.00030	105	85	115			
Sample ID: C12120526-001CMS4	5	Post Digestion Spike				Run: SUB-C168759			01/01/13 04:58	
Arsenic		0.0508	mg/L	0.0010	101	70	130			
Lead		0.0499	mg/L	0.0010	100	70	130			
Molybdenum		0.0752	mg/L	0.0010	94	70	130			
Selenium		0.0513	mg/L	0.0010	101	70	130			
Uranium		3.96	mg/L	0.00030		70	130			A
Sample ID: C12120526-001CMSD4	5	Post Digestion Spike Duplicate				Run: SUB-C168759			01/01/13 05:20	
Arsenic		0.0514	mg/L	0.0010	103	70	130	1.2	20	
Lead		0.0524	mg/L	0.0010	105	70	130	4.8	20	
Molybdenum		0.0792	mg/L	0.0010	102	70	130	5.3	20	
Selenium		0.0516	mg/L	0.0010	102	70	130	0.6	20	
Uranium		4.20	mg/L	0.00030		70	130	5.8	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 Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 01/21/13
Project: Alluvial Wells Dewey Burdock
Work Order: R12120173

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Analytical Run: SUB-C169008	
Sample ID: ICV		Initial Calibration Verification Standard							01/08/13 11:22	
Silver		0.0198	mg/L	0.0010	99	90	110			
Method: E200.8									Batch: C_R169008	
Sample ID: LRB		Method Blank				Run: SUB-C169008			01/08/13 11:56	
Silver		0.002	mg/L	6E-05						
Sample ID: LFB		Laboratory Fortified Blank				Run: SUB-C169008			01/08/13 12:01	
Silver		0.0187	mg/L	0.0010	85	85	115			
Sample ID: R12120173-001C		Sample Matrix Spike				Run: SUB-C169008			01/08/13 13:48	
Silver		0.0859	mg/L	0.0010	69	70	130			S
Sample ID: R12120173-001C		Sample Matrix Spike Duplicate				Run: SUB-C169008			01/08/13 14:09	
Silver		0.0938	mg/L	0.0010	75	70	130	8.7	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 Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 01/21/13
Project: Alluvial Wells Dewey Burdock
Work Order: R12120173

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E245.1									Analytical Run: SUB-C168303	
Sample ID: ICV	Initial Calibration Verification Standard								12/17/12 13:53	
Mercury		0.0055	mg/L	0.00010	110	90	110			
Sample ID: CCV1	Continuing Calibration Verification Standard								12/17/12 13:56	
Mercury		0.0052	mg/L	0.00010	105	95	105			
Method: E245.1									Batch: C_36042	
Sample ID: MB-36042	Method Blank					Run: SUB-C168303			12/17/12 13:59	
Mercury		ND	mg/L	3E-05						
Sample ID: LCS-36042	Laboratory Control Sample					Run: SUB-C168303			12/17/12 14:00	
Mercury		0.0053	mg/L	0.00010	107	85	115			
Sample ID: R12120137-001B	Sample Matrix Spike					Run: SUB-C168303			12/17/12 14:08	
Mercury		0.0051	mg/L	0.00010	103	70	130			
Sample ID: R12120137-001B	Sample Matrix Spike Duplicate					Run: SUB-C168303			12/17/12 14:10	
Mercury		0.0045	mg/L	0.00010	90	70	130	13	10	R
Sample ID: C12120461-001DMS	Sample Matrix Spike					Run: SUB-C168303			12/17/12 14:22	
Mercury		0.0050	mg/L	0.00010	99	70	130			
Sample ID: C12120461-001DMSD	Sample Matrix Spike Duplicate					Run: SUB-C168303			12/17/12 14:23	
Mercury		0.0052	mg/L	0.00010	104	70	130	4.3	10	

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 Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 01/21/13
Project: Alluvial Wells Dewey Burdock
Work Order: R12120173

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0										Batch: R59215
Sample ID: LFB121212-14	3	Laboratory Fortified Blank				Run: DIONEX_121212A				12/12/12 21:40
Chloride		37.9	mg/L	1.0	95	90	110			
Fluoride		3.94	mg/L	0.10	99	90	110			
Nitrogen, Nitrate as N		3.85	mg/L	0.10	96	90	110			
Sample ID: R12120182-001BMS	3	Sample Matrix Spike				Run: DIONEX_121212A				12/12/12 22:16
Chloride		38.8	mg/L	1.0	88	90	110			S
Fluoride		3.99	mg/L	0.10	94	90	110			
Nitrogen, Nitrate as N		4.16	mg/L	0.10	92	90	110			
Sample ID: R12120182-001BMSD	3	Sample Matrix Spike Duplicate				Run: DIONEX_121212A				12/12/12 22:33
Chloride		38.8	mg/L	1.0	88	90	110	0.0	10	S
Fluoride		3.99	mg/L	0.10	94	90	110	0.1	10	
Nitrogen, Nitrate as N		4.16	mg/L	0.10	92	90	110	0.0	10	
Method: E300.0										Batch: R59230
Sample ID: LFB121312-14		Laboratory Fortified Blank				Run: DIONEX_121213A				12/13/12 21:36
Sulfate		38.0	mg/L	1.0	95	90	110			
Sample ID: R12120191-001AMS		Sample Matrix Spike				Run: DIONEX_121213A				12/13/12 22:12
Sulfate		249	mg/L	1.0		90	110			A
Sample ID: R12120191-001AMSD		Sample Matrix Spike Duplicate				Run: DIONEX_121213A				12/13/12 22:30
Sulfate		249	mg/L	1.0		90	110	0.0	10	A

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

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 Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 01/21/13
Project: Alluvial Wells Dewey Burdock
Work Order: R12120173

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0									Batch: C_GrAB-1434	
Sample ID: Th230-GrAB-1434		Laboratory Control Sample				Run: SUB-C169035			01/09/13 18:39	
Gross Alpha		122	pCi/L		120	80	120			
Sample ID: Sr90-GrAB-1434		Laboratory Control Sample				Run: SUB-C169035			01/09/13 18:39	
Gross Beta		175	pCi/L		96	80	120			
Sample ID: MB-GrAB-1434	6	Method Blank				Run: SUB-C169035			01/09/13 18:39	
Gross Alpha		-0.5	pCi/L							U
Gross Alpha precision (±)		0.6	pCi/L							
Gross Alpha MDC		1	pCi/L							
Gross Beta		-1	pCi/L							U
Gross Beta precision (±)		1	pCi/L							
Gross Beta MDC		3	pCi/L							
Sample ID: C12120514-002EDUP	6	Sample Duplicate				Run: SUB-C169035			01/09/13 18:39	
Gross Alpha		140	pCi/L					14	16	
Gross Alpha precision (±)		4.3	pCi/L							
Gross Alpha MDC		2.0	pCi/L							
Gross Beta		50	pCi/L					1.8	19.9	
Gross Beta precision (±)		2.5	pCi/L							
Gross Beta MDC		2.7	pCi/L							
Sample ID: C13010076-003EMS		Sample Matrix Spike				Run: SUB-C169035			01/10/13 06:42	
Gross Alpha		140	pCi/L		107	70	130			
Sample ID: C13010076-003EMSD		Sample Matrix Spike Duplicate				Run: SUB-C169035			01/10/13 06:42	
Gross Alpha		130	pCi/L		97	70	130	7.9	16.5	
Sample ID: C13010076-003EMS		Sample Matrix Spike				Run: SUB-C169035			01/10/13 06:42	
Gross Beta		180	pCi/L		92	70	130			
Sample ID: C13010076-003EMSD		Sample Matrix Spike Duplicate				Run: SUB-C169035			01/10/13 06:42	
Gross Beta		190	pCi/L		96	70	130	3.7	14	

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 Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 01/21/13
Project: Alluvial Wells Dewey Burdock
Work Order: R12120173

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: C_RA226-6419
Sample ID: C12120514-001EMS		Sample Matrix Spike				Run: SUB-C168643				12/27/12 11:53
Radium 226		14	pCi/L		91	70	130			
Sample ID: C12120514-001EMSD		Sample Matrix Spike Duplicate				Run: SUB-C168643				12/27/12 11:53
Radium 226		16	pCi/L		107	70	130	13	24.5	
Sample ID: MB-RA226-6419	3	Method Blank				Run: SUB-C168643				12/27/12 13:54
Radium 226		-0.01	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Sample ID: LCS-RA226-6419		Laboratory Control Sample				Run: SUB-C168643				12/27/12 13:54
Radium 226		7.5	pCi/L		119	80	120			

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 Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 01/21/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R12120173

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: C_RA228-4296
Sample ID: LCS-228-RA226-6419		Laboratory Control Sample				Run: SUB-C168588				12/21/12 20:44
Radium 228		4.9	pCi/L		108	80	120			
Sample ID: MB-RA226-6419	3	Method Blank				Run: SUB-C168588				12/21/12 20:44
Radium 228		-0.1	pCi/L							U
Radium 228 precision (±)		1.0	pCi/L							
Radium 228 MDC		2	pCi/L							
Sample ID: C12120514-003EMS		Sample Matrix Spike				Run: SUB-C168588				12/21/12 20:44
Radium 228		12	pCi/L		114	70	130			
Sample ID: C12120514-003EMSD		Sample Matrix Spike Duplicate				Run: SUB-C168588				12/21/12 20:44
Radium 228		10	pCi/L		99	70	130	12	51.7	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

Chain of Custody and Analytical Request Record

Page _____ of _____

PLEASE PRINT (Provide as much information as possible.)

Company Name: Scott Env.	Project Name, PWS, Permit, Etc.: Powertech alluvial wells	Sample Origin State:	EPA/State Compliance: Yes ☐ No ☐
Report Mail Address: Scott Env. Powertech	Contact Name: Phone/Fax: Allen Scott / Lisa Schroost	Email:	Sampler: (Please Print)
Invoice Address: Powertech	Invoice Contact & Phone:	Purchase Order:	Quote/Bottle Order:

Special Report/Formats:

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

ANALYSIS REQUESTED

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

As per quote

SEE ATTACHED

Standard Turnaround (TAT)

R U S H

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

Comments:

Shipped by:

Cooler ID(s):

Receipt Temp 1.8 °C

On Ice: (Y) N

Custody Seal
On Bottle Y N
On Cooler Y N

Intact Y N

Signature Match Y N

LABORATORY USE ONLY 1212013 33-001

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX
1	DC-1	12-11-12	10:31	Water
2	DC-3	"	10:55	"
3	713	"	12:20	"
4	714	"	13:05	"
5	711	"	13:45	"
6	BI-2	"	14:42	"
7	715	"	15:34	"
8				
9				
10				

Custody Record MUST be Signed

Relinquished by (print): Allen Scott	Date/Time: 9:49 12-12-12	Signature:	Received by (print):	Date/Time:	Signature:
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
Sample Disposal: Return to Client: _____ Lab Disposal: _____			Received by Laboratory: Steve Troiland	Date/Time: 12-12-12 9:49	Signature:

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.

POWERTECH (USA) INC.

LABORATORY DATA PACKAGE

R12120174

(December 2012 for DC3)

5575 DTC Parkway, Suite 140
Greenwood Village, CO 80111 USA

Telephone: 303-790-7528
Facsimile: 303-790-3885

Website: www.powertechuranium.com
Email: info@powertechuranium.com

ANALYTICAL SUMMARY REPORT

January 04, 2013

Powertech USA Inc
PO Box 812
Edgemont, SD 57735

Workorder No.: R12120174 Quote ID: R412

Project Name: #708 Plus Alluvial

Energy Laboratories Inc. Rapid City SD received the following 6 samples for Powertech USA Inc on 12/12/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R12120174-001	DC-3	12/11/12 10:55	12/12/12	Aqueous	Metals by ICP/ICPMS, Dissolved Anion - Cation Balance Anions by Ion Chromatography Dissolved Filtration Solids, Total Dissolved
R12120174-002	713	12/11/12 12:20	12/12/12	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Anion - Cation Balance Conductivity Anions by Ion Chromatography pH Dissolved Filtration Solids, Total Dissolved
R12120174-003	714	12/11/12 13:05	12/12/12	Aqueous	Same As Above
R12120174-004	711	12/11/12 13:45	12/12/12	Aqueous	Same As Above
R12120174-005	BI-2	12/11/12 14:42	12/12/12	Aqueous	Same As Above
R12120174-006	715	12/11/12 15:34	12/12/12	Aqueous	Same As Above

This report was prepared by Energy Laboratories, Inc., 2821 Plant St., Rapid City, SD 57702. As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

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

Report Approved By:

Linda K. Larson
Branch Manager

Digitally signed by
Linda Larson
Date: 2013.01.04 15:42:06 -07:00

CLIENT: Powertech USA Inc
Project: #708 Plus Alluvial
Sample Delivery Group: R12120174

Report Date: 01/04/13

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: #708 Plus Alluvial
Lab ID: R12120174-001
Client Sample ID: DC-3

Report Date: 01/04/13
Collection Date: 12/11/12 10:55
Date Received: 12/12/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Solids, Total Dissolved TDS @ 180 C	10900	mg/L		100		1	A2540 C	12/17/12 10:50/jmh
INORGANIC PARAMETERS								
Chloride	1400	mg/L	D	100		100	E300.0	12/13/12 23:42/tb
Fluoride	3.1	mg/L		0.1		1	E300.0	12/12/12 23:09/tb
Sulfate	5940	mg/L	D	100		100	E300.0	12/13/12 23:42/tb
DATA QUALITY PARAMETERS								
Anions	163	meq/L		1.00		1	A1030 E	01/02/13 00:00/lkl
Cations	158	meq/L		1.00		1	A1030 E	01/02/13 00:00/lkl
Conductivity, Calculated	10300	umhos/cm		1.00		1	A1030 E	01/02/13 00:00/lkl
TDS Ratio	1.06			0.0100		1	A1030 E	01/02/13 00:00/lkl
A/C Balance	-1.84	%				1	A1030 E	01/02/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	3.2	mg/L		0.1		1	E300.0	12/12/12 23:09/tb
DISSOLVED METALS ANALYSES								
Calcium	475	mg/L		1		2	E200.7	12/17/12 20:59/eli-ca
Magnesium	771	mg/L		1		2	E200.7	12/17/12 20:59/eli-ca
Potassium	50	mg/L		1		2	E200.7	12/17/12 20:59/eli-ca
Sodium	1590	mg/L		1		5	E200.7	12/19/12 16:40/eli-ca

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 Rapid City, SD Branch

Client: Powertech USA Inc
Project: #708 Plus Alluvial
Lab ID: R12120174-002
Client Sample ID: 713

Report Date: 01/04/13
Collection Date: 12/11/12 12:20
Date Received: 12/12/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	4230	umhos/cm		5.0		1	A2510 B	12/13/12 15:59/tb
pH	7.17	su		0.01		1	A4500-H B	12/13/12 15:30/tb
Solids, Total Dissolved TDS @ 180 C	4260	mg/L		40		1	A2540 C	12/17/12 10:51/jmh
Alkalinity, Total as CaCO3	250	mg/L		5		1	A2320 B	12/24/12 09:24/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	12/24/12 09:24/ch
Bicarbonate as HCO3	305	mg/L		5		1	A2320 B	12/24/12 09:24/ch
INORGANIC PARAMETERS								
Chloride	26	mg/L		1		1	E300.0	12/12/12 23:27/tb
Fluoride	0.7	mg/L		0.1		1	E300.0	12/12/12 23:27/tb
Sulfate	2600	mg/L	D	50		50	E300.0	12/14/12 00:00/tb
DATA QUALITY PARAMETERS								
Anions	59.9	meq/L		1.00		1	A1030 E	01/02/13 00:00/lkl
Cations	65.0	meq/L		1.00		1	A1030 E	01/02/13 00:00/lkl
Conductivity, Calculated	3970	umhos/cm		1.00		1	A1030 E	01/02/13 00:00/lkl
TDS Ratio	1.07			0.0100		1	A1030 E	01/02/13 00:00/lkl
A/C Balance	4.11	%				1	A1030 E	01/02/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	ND	mg/L		0.1		1	E300.0	12/12/12 23:27/tb
DISSOLVED METALS ANALYSES								
Calcium	510	mg/L		1		2	E200.7	12/17/12 21:03/eli-ca
Magnesium	281	mg/L		1		2	E200.7	12/17/12 21:03/eli-ca
Potassium	18	mg/L		1		2	E200.7	12/17/12 21:03/eli-ca
Sodium	366	mg/L		1		2	E200.7	12/17/12 21:03/eli-ca

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 Rapid City, SD Branch

Client: Powertech USA Inc
Project: #708 Plus Alluvial
Lab ID: R12120174-003
Client Sample ID: 714

Report Date: 01/04/13
Collection Date: 12/11/12 13:05
Date Received: 12/12/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3840	umhos/cm		5.0		1	A2510 B	12/13/12 16:00/tb
pH	7.13	su		0.01		1	A4500-H B	12/13/12 15:32/tb
Solids, Total Dissolved TDS @ 180 C	3870	mg/L		40		1	A2540 C	12/17/12 10:51/jmh
Alkalinity, Total as CaCO3	226	mg/L		5		1	A2320 B	12/24/12 09:39/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	12/24/12 09:39/ch
Bicarbonate as HCO3	275	mg/L		5		1	A2320 B	12/24/12 09:39/ch
INORGANIC PARAMETERS								
Chloride	22	mg/L		1		1	E300.0	12/12/12 23:45/tb
Fluoride	0.7	mg/L		0.1		1	E300.0	12/12/12 23:45/tb
Sulfate	2340	mg/L	D	50		50	E300.0	12/14/12 00:18/tb
DATA QUALITY PARAMETERS								
Anions	53.9	meq/L		1.00		1	A1030 E	01/02/13 00:00/lkl
Cations	59.1	meq/L		1.00		1	A1030 E	01/02/13 00:00/lkl
Conductivity, Calculated	3580	umhos/cm		1.00		1	A1030 E	01/02/13 00:00/lkl
TDS Ratio	1.08			0.0100		1	A1030 E	01/02/13 00:00/lkl
A/C Balance	4.61	%				1	A1030 E	01/02/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.3	mg/L		0.1		1	E300.0	12/12/12 23:45/tb
DISSOLVED METALS ANALYSES								
Calcium	531	mg/L		1		2	E200.7	12/17/12 21:07/eli-ca
Magnesium	243	mg/L		1		2	E200.7	12/17/12 21:07/eli-ca
Potassium	12	mg/L		1		2	E200.7	12/17/12 21:07/eli-ca
Sodium	283	mg/L		1		2	E200.7	12/17/12 21:07/eli-ca

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 Rapid City, SD Branch

Client: Powertech USA Inc
Project: #708 Plus Alluvial
Lab ID: R12120174-004
Client Sample ID: 711

Report Date: 01/04/13
Collection Date: 12/11/12 13:45
Date Received: 12/12/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3510	umhos/cm		5.0		1	A2510 B	12/13/12 16:02/tb
pH	7.17	su		0.01		1	A4500-H B	12/13/12 15:33/tb
Solids, Total Dissolved TDS @ 180 C	3450	mg/L		40		1	A2540 C	12/17/12 10:54/jmh
Alkalinity, Total as CaCO3	220	mg/L		5		1	A2320 B	12/24/12 09:44/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	12/24/12 09:44/ch
Bicarbonate as HCO3	268	mg/L		5		1	A2320 B	12/24/12 09:44/ch
INORGANIC PARAMETERS								
Chloride	24	mg/L		1		1	E300.0	12/13/12 00:03/tb
Fluoride	0.8	mg/L		0.1		1	E300.0	12/13/12 00:03/tb
Sulfate	2070	mg/L	D	50		50	E300.0	12/14/12 00:36/tb
DATA QUALITY PARAMETERS								
Anions	48.2	meq/L		1.00		1	A1030 E	01/02/13 00:00/lkl
Cations	52.6	meq/L		1.00		1	A1030 E	01/02/13 00:00/lkl
Conductivity, Calculated	3230	umhos/cm		1.00		1	A1030 E	01/02/13 00:00/lkl
TDS Ratio	1.07			0.0100		1	A1030 E	01/02/13 00:00/lkl
A/C Balance	4.31	%				1	A1030 E	01/02/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	ND	mg/L		0.1		1	E300.0	12/13/12 00:03/tb
DISSOLVED METALS ANALYSES								
Calcium	550	mg/L		1		2	E200.7	12/17/12 21:23/eli-ca
Magnesium	164	mg/L		1		2	E200.7	12/17/12 21:23/eli-ca
Potassium	12	mg/L		1		2	E200.7	12/17/12 21:23/eli-ca
Sodium	261	mg/L		1		2	E200.7	12/17/12 21:23/eli-ca

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 Rapid City, SD Branch

Client: Powertech USA Inc
Project: #708 Plus Alluvial
Lab ID: R12120174-005
Client Sample ID: BI-2

Report Date: 01/04/13
Collection Date: 12/11/12 14:42
Date Received: 12/12/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3850	umhos/cm		5.0		1	A2510 B	12/13/12 16:04/tb
pH	7.26	su		0.01		1	A4500-H B	12/13/12 15:36/tb
Solids, Total Dissolved TDS @ 180 C	3890	mg/L		40		1	A2540 C	12/17/12 10:56/jmh
Alkalinity, Total as CaCO3	228	mg/L		5		1	A2320 B	12/24/12 09:48/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	12/24/12 09:48/ch
Bicarbonate as HCO3	278	mg/L		5		1	A2320 B	12/24/12 09:48/ch
INORGANIC PARAMETERS								
Chloride	21	mg/L		1		1	E300.0	12/13/12 00:21/tb
Fluoride	0.8	mg/L		0.1		1	E300.0	12/13/12 00:21/tb
Sulfate	2400	mg/L	D	50		50	E300.0	12/14/12 00:53/tb
DATA QUALITY PARAMETERS								
Anions	55.2	meq/L		1.00		1	A1030 E	01/02/13 00:00/lkl
Cations	58.9	meq/L		1.00		1	A1030 E	01/02/13 00:00/lkl
Conductivity, Calculated	3630	umhos/cm		1.00		1	A1030 E	01/02/13 00:00/lkl
TDS Ratio	1.07			0.0100		1	A1030 E	01/02/13 00:00/lkl
A/C Balance	3.18	%				1	A1030 E	01/02/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.3	mg/L		0.1		1	E300.0	12/13/12 00:21/tb
DISSOLVED METALS ANALYSES								
Calcium	532	mg/L		1		2	E200.7	12/17/12 21:40/eli-ca
Magnesium	252	mg/L		1		2	E200.7	12/17/12 21:40/eli-ca
Potassium	13	mg/L		1		2	E200.7	12/17/12 21:40/eli-ca
Sodium	258	mg/L		1		2	E200.7	12/17/12 21:40/eli-ca

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 Rapid City, SD Branch

Client: Powertech USA Inc
Project: #708 Plus Alluvial
Lab ID: R12120174-006
Client Sample ID: 715

Report Date: 01/04/13
Collection Date: 12/11/12 15:34
Date Received: 12/12/12
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3330	umhos/cm		5.0		1	A2510 B	12/13/12 16:06/tb
pH	7.23	su		0.01		1	A4500-H B	12/13/12 15:38/tb
Solids, Total Dissolved TDS @ 180 C	3270	mg/L		20		1	A2540 C	12/17/12 10:59/jmh
Alkalinity, Total as CaCO3	220	mg/L		5		1	A2320 B	12/24/12 10:04/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	12/24/12 10:04/ch
Bicarbonate as HCO3	268	mg/L		5		1	A2320 B	12/24/12 10:04/ch
INORGANIC PARAMETERS								
Chloride	21	mg/L		1		1	E300.0	12/13/12 00:39/tb
Fluoride	0.6	mg/L		0.1		1	E300.0	12/13/12 00:39/tb
Sulfate	1970	mg/L	D	50		50	E300.0	12/14/12 01:11/tb
DATA QUALITY PARAMETERS								
Anions	46.1	meq/L		1.00		1	A1030 E	01/02/13 00:00/lkl
Cations	49.6	meq/L		1.00		1	A1030 E	01/02/13 00:00/lkl
Conductivity, Calculated	3060	umhos/cm		1.00		1	A1030 E	01/02/13 00:00/lkl
TDS Ratio	1.07			0.0100		1	A1030 E	01/02/13 00:00/lkl
A/C Balance	3.62	%				1	A1030 E	01/02/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.4	mg/L		0.1		1	E300.0	12/13/12 00:39/tb
DISSOLVED METALS ANALYSES								
Calcium	564	mg/L		1		2	E200.7	12/17/12 21:44/eli-ca
Magnesium	163	mg/L		1		2	E200.7	12/17/12 21:44/eli-ca
Potassium	11	mg/L		1		2	E200.7	12/17/12 21:44/eli-ca
Sodium	176	mg/L		1		2	E200.7	12/17/12 21:44/eli-ca

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.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: #708 Plus Alluvial

Report Date: 01/04/13
Work Order: R12120174

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: 121224A-ALK-SEL-W	
Sample ID: LCS1_121224A	Laboratory Control Sample					Run: PH_COND1-R_121224A			12/24/12 09:05	
Alkalinity, Total as CaCO3		948	mg/L	5.0	95	90	110			
Sample ID: MBLK1_121224A	Method Blank					Run: PH_COND1-R_121224A			12/24/12 09:09	
Alkalinity, Total as CaCO3		ND	mg/L	2						
Sample ID: R12120174-002AMS	Sample Matrix Spike					Run: PH_COND1-R_121224A			12/24/12 09:31	
Alkalinity, Total as CaCO3		366	mg/L	5.0	96	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 01/04/13
Project: #708 Plus Alluvial
Work Order: R12120174

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B									Batch: 121213_1_COND-PROBE-W	
Sample ID: MBLK-1_121213	Method Blank					Run: PH_COND2-R_121213B			12/13/12 15:53	
Conductivity @ 25 C		5	umhos/cm	5						
Sample ID: R12120173-001ADUP	Sample Duplicate					Run: PH_COND2-R_121213B			12/13/12 15:57	
Conductivity @ 25 C		6490	umhos/cm	5.0				0.2	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: #708 Plus Alluvial

Report Date: 01/04/13
Work Order: R12120174

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C									Batch: TDS121217A	
Sample ID: MB-1_121217A	Method Blank					Run: BAL-TDS_121217A			12/17/12 10:11	
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	3						
Sample ID: LCS-2_121217A	Laboratory Control Sample					Run: BAL-TDS_121217A			12/17/12 10:12	
Solids, Total Dissolved TDS @ 180 C		490	mg/L	10	98	90	110			
Sample ID: R12120174-004A DUP	Sample Duplicate					Run: BAL-TDS_121217A			12/17/12 10:55	
Solids, Total Dissolved TDS @ 180 C		3400	mg/L	40				0.5	5	
Sample ID: R12120174-005A MS	Sample Matrix Spike					Run: BAL-TDS_121217A			12/17/12 10:57	
Solids, Total Dissolved TDS @ 180 C		6000	mg/L	40	106	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 01/04/13
Project: #708 Plus Alluvial
Work Order: R12120174

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B									Analytical Run: PH_COND2-R_121213A	
Sample ID: ICV-1_121213	Initial Calibration Verification Standard								12/13/12 15:02	
pH		7.43	su	0.010	100	98	102			
Method: A4500-H B									Batch: 121213_1_PH-W	
Sample ID: R12120154-001ADUP	Sample Duplicate					Run: PH_COND2-R_121213A			12/13/12 15:26	
pH		8.06	su	0.010				0.1	3	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 01/04/13
Project: #708 Plus Alluvial
Work Order: R12120174

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: SUB-C168323	
Sample ID: ICV	4	Initial Calibration Verification Standard							12/17/12 14:41	
Calcium		51	mg/L	0.50	102	95	105			
Magnesium		48	mg/L	0.50	97	95	105			
Potassium		47	mg/L	0.50	95	95	105			
Sodium		51	mg/L	0.50	102	95	105			
Sample ID: ICSA	4	Interference Check Sample A							12/17/12 15:09	
Calcium		500	mg/L	0.50	100	80	120			
Magnesium		470	mg/L	0.50	95	80	120			
Potassium		-0.0064	mg/L	0.50						
Sodium		-0.22	mg/L	0.50						
Sample ID: ICSAB	4	Interference Check Sample AB							12/17/12 15:13	
Calcium		490	mg/L	0.50	99	80	120			
Magnesium		490	mg/L	0.50	97	80	120			
Potassium		-0.0066	mg/L	0.50						
Sodium		-0.32	mg/L	0.50						
Method: E200.7									Batch: C_R168323	
Sample ID: MB-121217A	4	Method Blank				Run: SUB-C168323			12/17/12 15:37	
Calcium		ND	mg/L	0.06						
Magnesium		ND	mg/L	0.03						
Potassium		ND	mg/L	0.06						
Sodium		ND	mg/L	0.3						
Sample ID: LFB-121217A	4	Laboratory Fortified Blank				Run: SUB-C168323			12/17/12 15:41	
Calcium		50	mg/L	0.50	101	85	115			
Magnesium		47	mg/L	0.50	95	85	115			
Potassium		46	mg/L	0.50	92	85	115			
Sodium		49	mg/L	0.50	98	85	115			
Sample ID: R12120174-004B	4	Sample Matrix Spike				Run: SUB-C168323			12/17/12 21:27	
Calcium		647	mg/L	1.0		70	130			A
Magnesium		267	mg/L	1.0	101	70	130			
Potassium		106	mg/L	1.0	92	70	130			
Sodium		376	mg/L	1.0	113	70	130			
Sample ID: R12120174-004B	4	Sample Matrix Spike Duplicate				Run: SUB-C168323			12/17/12 21:32	
Calcium		660	mg/L	1.0		70	130	2.0	20	A
Magnesium		264	mg/L	1.0	98	70	130	1.1	20	
Potassium		105	mg/L	1.0	91	70	130	0.8	20	
Sodium		380	mg/L	1.0	117	70	130	1.0	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.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 01/04/13
Project: #708 Plus Alluvial
Work Order: R12120174

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: SUB-C168442	
Sample ID: ICV		Initial Calibration Verification Standard							12/19/12 14:01	
Sodium		51	mg/L	0.50	101	95	105			
Sample ID: ICSA		Interference Check Sample A							12/19/12 14:15	
Sodium		0.085	mg/L	0.50						
Sample ID: ICSAB		Interference Check Sample AB							12/19/12 14:19	
Sodium		-0.045	mg/L	0.50						
Method: E200.7									Batch: C_R168442	
Sample ID: MB-121219A		Method Blank				Run: SUB-C168442			12/19/12 14:38	
Sodium		ND	mg/L	0.2						
Sample ID: LFB-121219A		Laboratory Fortified Blank				Run: SUB-C168442			12/19/12 14:41	
Sodium		47	mg/L	0.50	94	85	115			
Sample ID: R12120137-004C		Sample Matrix Spike				Run: SUB-C168442			12/19/12 16:20	
Sodium		244	mg/L	1.0	95	70	130			
Sample ID: R12120137-004C		Sample Matrix Spike Duplicate				Run: SUB-C168442			12/19/12 16:24	
Sodium		243	mg/L	1.0	94	70	130	0.5	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 01/04/13

Project: #708 Plus Alluvial **Work Order:** R12120174

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0										Batch: R59215
Sample ID: LFB121212-14	3	Laboratory Fortified Blank				Run: DIONEX_121212A				12/12/12 21:40
Chloride		37.9	mg/L	1.0	95	90	110			
Fluoride		3.94	mg/L	0.10	99	90	110			
Nitrogen, Nitrate as N		3.85	mg/L	0.10	96	90	110			
Sample ID: R12120182-001BMS	3	Sample Matrix Spike				Run: DIONEX_121212A				12/12/12 22:16
Chloride		38.8	mg/L	1.0	88	90	110			S
Fluoride		3.99	mg/L	0.10	94	90	110			
Nitrogen, Nitrate as N		4.16	mg/L	0.10	92	90	110			
Sample ID: R12120182-001BMSD	3	Sample Matrix Spike Duplicate				Run: DIONEX_121212A				12/12/12 22:33
Chloride		38.8	mg/L	1.0	88	90	110	0.0	10	S
Fluoride		3.99	mg/L	0.10	94	90	110	0.1	10	
Nitrogen, Nitrate as N		4.16	mg/L	0.10	92	90	110	0.0	10	
Sample ID: R12120184-003CMS	3	Sample Matrix Spike				Run: DIONEX_121212A				12/13/12 02:26
Chloride		45.2	mg/L	1.0	92	90	110			
Fluoride		4.10	mg/L	0.10	95	90	110			
Nitrogen, Nitrate as N		3.84	mg/L	0.10	96	90	110			
Sample ID: R12120184-003CMSD	3	Sample Matrix Spike Duplicate				Run: DIONEX_121212A				12/13/12 02:44
Chloride		45.2	mg/L	1.0	92	90	110	0.0	10	
Fluoride		4.11	mg/L	0.10	95	90	110	0.1	10	
Nitrogen, Nitrate as N		3.84	mg/L	0.10	96	90	110	0.1	10	
Method: E300.0										Batch: R59230
Sample ID: LFB121312-14	2	Laboratory Fortified Blank				Run: DIONEX_121213A				12/13/12 21:36
Chloride		37.6	mg/L	1.0	94	90	110			
Sulfate		38.0	mg/L	1.0	95	90	110			
Sample ID: R12120191-001AMS	2	Sample Matrix Spike				Run: DIONEX_121213A				12/13/12 22:12
Chloride		42.1	mg/L	1.0	90	90	110			
Sulfate		249	mg/L	1.0		90	110			A
Sample ID: R12120191-001AMSD	2	Sample Matrix Spike Duplicate				Run: DIONEX_121213A				12/13/12 22:30
Chloride		42.1	mg/L	1.0	90	90	110	0.1	10	
Sulfate		249	mg/L	1.0		90	110	0.0	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.

S - Spike recovery outside of advisory limits.

Chain of Custody and Analytical Request Record

ENERGY LABORATORIES

Page _____ of _____

PLEASE PRINT (Provide as much information as possible.)

Company Name:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
Scott Env.	Powertech alluvial wells	State:	Yes ☐ No ☐
Report Mail Address:	**Contact Name:** Phone/Fax:	Email:	Sampler: (Please Print)
Scott Env. Powertech	Allen Scott / Lisa Schroost		
Invoice Address:	**Invoice Contact & Phone:**	Purchase Order:	Quote/Bottle Order:
Powertech			

Special Report/Formats:

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

Number of Containers
Sample Type: A W S V B O DW
Air Water Soils/Solids
Vegetation Bioassay Other
DW - Drinking Water

ANALYSIS REQUESTED

As per Quote

SEE ATTACHED

Standard Turnaround (TAT)

R U S H

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

Comments:

Shipped by:

Cooler ID(s):

Receipt Temp 1.8 °C

On Ice: (Y) N

Custody Seal On Bottle Y N / On Cooler Y N

Intact Y N

Signature Match Y N

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX
1	DC-1	12-11-12	10:31	Water
2	DC-3	"	10:55	"
3	713	"	12:20	"
4	714	"	13:05	"
5	711	"	13:45	"
6	BI-2	"	14:42	"
7	715	"	15:34	"
8				
9				
10				

LABORATORY USE ONLY

R12120174-001
002
003
004
005
006

Custody Record MUST be Signed

Relinquished by (print): Allen Scott Date/Time: 9:49 12-12-12 Signature:

Relinquished by (print): Date/Time: Signature:

Received by (print): Date/Time: Signature:

Received by (print): Date/Time: Signature:

Received by Laboratory: Steve Troiland Date/Time: 12-12-12 9:49 Signature:

Sample Disposal: Return to Client: _____ Lab Disposal: _____

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