POWERTECH (USA) INC.

August 21, 2013

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 Project Groundwater Discharge Permit Application
April, May and June 2013 Analytical Results for Alluvial Compliance Wells

Dear Mr. Hicks:

Analytical results for samples collected from alluvial compliance wells at the Dewey-Burdock Project site in April, May and June 2013 are enclosed. Summary tables presenting all sampling results to date for each well are also provided.

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

John Mays, P.E.
Vice President Engineering

Encl. Data Summary Tables through June 2013
Laboratory Data Packages **R13040294** (DC1, DC2, DC2 DUP, BC1, BC2, BC3); **R13050339** (DC1, DC2, BC1, BC1 DUP, BC2, BC3); **R13060046** (DC1, DC2, BC1, BC1 DUP, BC2, BC3)
CD Copy

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POWERTECH (USA) INC.

cc: Richard Blubaugh, Powertech (USA) Inc. (w/out enclosure)
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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DATA SUMMARY TABLES
THROUGH
JUNE 2013

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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	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	1/8/2013	2/12/2013	3/5/2013	4/25/2013	5/21/2013	6/4/2013	
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	23.29	23.36	23.31	23.23	23.14	23.05	
Water Level Elevation (NGVD 29)	feet AMSL	3622.59	3622.45	3622.39	3622.29	3622.18	3622.16	3622.16	3622.09	3622.14	3622.22	3622.31	3622.4	
Well Volume	gal	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.7	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	2.2	2.07	2.1	2.25	2.19	2.25	
Field pH	s.u.	7.04	7.05	6.93	7.00	6.9	7.1	7.1	7.3	7.1	7.2	7.1	7.0	
Field Temperature	°C	14.8	10.0	11.4	11.3	11.2	10.3	11.1	10.8	10.1	10.1	10.6	10.9	
Field Conductivity	mS/cm	5.7	6.3	7.61	6.97	7.64	7.37	7.58	6.70	7.21	7.23	7.38	6.90	
Clarity	observed	sl. cloudy	cloudy	cloudy	cloudy	murky	murky	murky	murky	murky	turbid	murky	murky	
Color	observed	tan-yellow	tan	tan	tan	tan	gray-tan	yllw-brwn	tan	tan-yellow	tan	tan	tan	
Odor	observed	none	none	none	none	none	none	none	none	none	none	none	none	
Physical Properties														
Lab pH	s.u.	7.23	7.25	7.17	7.14	6.90	7.12	7.10	7.13	6.99	6.80	7.13	7.05	6.5 - 8.5
Total Dissolved Solids	mg/L	6400	5690	6090	6250	6730	6120	5780	5580	6600	7440	6250	5990	1000
Lab Conductivity	umhos/cm	6080	5940	6350	6260	6680	6480	6520	6650	6860	7590	6570	6450	
Common Elements and Ions														
Alkalinity, Total as $CaCO_3$	mg/L	404	366	392	390	430	392	368	380	388	356	354	352	
Bicarbonate as HCO_3	mg/L	492	446	478	475	524	478	449	463	473	434	432	429	
Calcium, Ca	mg/L	424	438	442	430	425	355	419	405	424	395	414	418	
Carbonate as CO_3	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chloride, Cl	mg/L	92	73	85	86	95	87	101	102	102	124	109	111	250
Magnesium, Mg	mg/L	348	353	400	369	364	347	348	349	394	341	387	379	
Nitrate, NO_3^- (as Nitrogen)	mg/L	5.5	7.5	7.7	9.1	6.2	9.5	12.6	12.1	9.4	5.3	19.6	18.3	10
Potassium, K	mg/L	15	13	14	18	10	9	12	11	14	8	9	9	
Sodium, Na	mg/L	1030	896	1210	1120	987	894	1290	1110	1160	923	1100	1020	
Sulfate, SO_4	mg/L	4010	3520	3970	4040	4110	3920	3890	4030	4190	4810	3630	3760	500
Trace and Minor Elements														
Dissolved Arsenic, As	mg/L	0.001	< 0.001	0.001	0.001	< 0.001	< 0.001	< 0.001	0.001	0.001	0.002	< 0.001	0.003	0.01
Dissolved Barium, Ba	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 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	1.12	1.42	1.40	1.36	1.22	1.33	
Dissolved Cadmium, Cd	mg/L	< 0.001	< 0.001	0.001	< 0.001	< 0.001	< 0.001	0.002	< 0.001	0.001	< 0.001	0.001	< 0.001	0.005
Dissolved Chromium, Cr	mg/L	< 0.005	< 0.005	0.010	0.007	< 0.005	< 0.005	< 0.005	< 0.005	0.007	0.012	< 0.005	< 0.005	0.1
Dissolved Copper, Cu	mg/L	0.038	< 0.005	0.009	0.011	< 0.005	< 0.005	< 0.005	0.007	0.009	0.005	< 0.005	< 0.005	1.0
Dissolved Fluoride, F	mg/L	1.1	1.2	1.1	1.3	0.9	1.0	1.1	1.1	0.8	1.0	1.2	1.4	4
Dissolved Iron, Fe	mg/L	0.04	< 0.03	< 0.03	0.04	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	0.05	< 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	0.015
Dissolved Manganese, Mn	mg/L	0.456	0.330	0.757	0.398	0.154	0.150	0.576	0.474	0.484	0.112	0.380	0.309	

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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	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	1/8/2013	2/12/2013	3/5/2013	4/25/2013	5/21/2013	6/4/2013	
Total Mercury, Hg	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 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	0.002	0.003	0.002	0.001	0.002	0.002	0.002	0.001	0.001	
Dissolved Nickel, Ni	mg/L	0.047	0.032	0.086	0.05	0.027	0.020	0.075	0.061	0.070	0.030	0.065	0.053	
Dissolved Selenium, Se	mg/L	0.034	0.032	0.060	0.040	0.028	0.031	0.050	0.050	0.054	0.039	0.057	0.047	0.05
Dissolved Silver, Ag	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	0.1
Dissolved Uranium, U	mg/L	0.0225	0.0243	0.0184	0.0189	0.0210	0.0228	0.0135	0.0164	0.0148	0.0186	0.0138	0.0142	0.03
Dissolved Vanadium, V	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Dissolved Zinc, Zn	mg/L	0.14	0.05	0.11	0.08	0.08	0.05	0.18	0.10	0.14	0.04	0.11	0.11	
Radiological Parameters														
Dissolved Gross Alpha	pCi/L	29.2	13.3	-0.4	-10	9.6	4.5	41.4	1.0	15.9	88.7	3.7	11.0	15
Precision (±)	pCi/L	13.3	17.7	17.8	16.3	15.8	13.9	13.7	12.8	14.2	16.4	13.4	11.8	
MDC	pCi/L	20.0	28.8	30.0	28.3	25.8	23.1	19.0	21.5	22.6	19.2	22.2	19.0	
Dissolved Gross Beta	pCi/L	2.0	-9	5.7	20.0	-9	4.2	-5	-8.0	9.2	22.0	9.6	-9	4 mrem/year[3]
Precision (±)	pCi/L	10.3	25.2	28.8	17.5	15.9	17.7	15.5	16.7	16.3	15.2	14.3	13.9	
MDC	pCi/L	17.2	42.5	48.1	28.8	27.0	29.6	26.1	28.3	27.0	24.7	23.6	23.6	
Dissolved Radium 228	pCi/L	1.1	0.3	0.4	2.5	1.5	1.9	0.7	1.0	1.2	-0.3	1.7	1	5[4]
Precision (±)	pCi/L	0.7	0.7	0.6	1.2	1.4	1	0.9	1.1	1.3	0.8	0.8	0.7	
MDC	pCi/L	1.1	1.1	0.9	1.8	2.3	1.5	1.4	1.9	2.0	1.4	1.2	1.1	
Dissolved Radium 226	pCi/L	1.1	0.8	0.9	1.5	0.06	0.5	0.4	0.4	1.3	0.6	0.8	0.8	5[4]
Precision (±)	pCi/L	0.2	0.2	0.2	0.2	0.09	0.2	0.2	0.2	0.3	0.2	0.2	0.2	
MDC	pCi/L	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	
Total Radon 222	pCi/L	1830	1440	1810	1920	1050	989	416	848	1650	981	1020	1110	300
Precision (±)	pCi/L	149	130	127	132	123	147	123	198	175	108	146	116	
MDC	pCi/L	210	187	173	180	184	224	198	313	258	159	222	170	

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.

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	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	1/7/2013	2/11/2013	3/4/2013	4/24/2013	5/21/2013	6/3/2013	
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	14.22	14.00	13.97	13.95	14.05	14.09	
Water Level Elevation (NGVD 29)	feet AMSL	3603.16	3601.96	3601.86	3601.79	3601.95	3602.00	3602.06	3602.28	3602.31	3602.33	3602.23	3602.19	
Well Volume	gal	3.2	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.08	3.08	
Volume Purged Prior to Sample Collection	gal	10.5	9	9	9	9	9	9	9.3	9.3	9.3	9.24	9.18	
Field pH	s.u.	7.24	7.32	7.22	7.20	7.4	7.4	7.4	7.40	7.5	7.4	7.4	7.4	
Field Temperature	°C	11.9	12.1	12.5	12.5	12.2	10.9	10.6	10.1	9.1	9.1	9.8	10.6	
Field Conductivity	mS/cm	4.9	4.7	5.63	5.45	5.48	5.68	5.69	5.67	5.68	5.60	5.53	5.54	
Clarity	observed	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	
Color	observed	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	
Odor	observed	none	none	none	none	none	none	none	none	none	none	none	none	
Physical Properties														
Lab pH	s.u.	7.17	7.13	7.19	7.09	7.24	6.99	7.06	7.14	7.20	7.25	7.32	7.14	6.5 - 8.5
Total Dissolved Solids	mg/L	4640	4560	4610	4630	4620	4550	4540	4690	4700	4680	4580	4660	1000
Lab Conductivity	umhos/cm	5010	5710	5540	5530	5670	5470	6250	5780	5730	5650	5920	5610	
Common Elements and Ions														
Alkalinity, Total as $CaCO_3$	mg/L	264	260	264	264	266	262	262	266	266	262	262	264	
Bicarbonate as HCO_3	mg/L	322	317	322	322	324	319	319	324	324	319	319	322	
Calcium, Ca	mg/L	524	524	516	518	481	521	550	483	500	513	533	519	
Carbonate as CO_3	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chloride, Cl	mg/L	854	756	753	824	827	813	788	863	885	870	782	784	250
Magnesium, Mg	mg/L	145	144	147	147	142	149	153	139	156	143	150	143	
Nitrate, NO_3^- (as Nitrogen)	mg/L	< 0.1	0.2	0.3	0.2	< 0.1	< 0.1	< 0.1	< 0.1	0.6	0.9	< 0.1	< 0.1	10
Potassium, K	mg/L	7	7	7	7	8	6	7	6	8	6	7	7	
Sodium, Na	mg/L	799	715	714	768	676	704	775	808	715	715	742	710	
Sulfate, SO_4	mg/L	2140	1920	1890	2080	1980	1960	1950	1970	2030	2070	1880	1880	500
Trace and Minor Elements														
Dissolved Arsenic, As	mg/L	< 0.001	< 0.001	0.002	0.001	0.001	< 0.001	0.001	< 0.001	0.001	0.002	< 0.001	0.005	0.01
Dissolved Barium, Ba	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 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	0.4	0.30	0.29	0.32	0.32	0.30	
Dissolved Cadmium, Cd	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	0.005
Dissolved Chromium, Cr	mg/L	< 0.005	< 0.005	0.005	< 0.005	< 0.005	0.010	< 0.005	< 0.005	< 0.005	0.011	< 0.005	0.008	0.1
Dissolved Copper, Cu	mg/L	< 0.005	< 0.005	< 0.005	0.006	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.0
Dissolved Fluoride, F	mg/L	0.7	0.6	0.6	0.7	0.5	0.6	0.7	0.6	0.6	0.7	0.6	0.8	4
Dissolved Iron, Fe	mg/L	0.48	0.36	0.42	0.80	2.79	4.73	4.08	0.92	0.71	4.09	1.31	0.94	
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	0.015
Dissolved Manganese, Mn	mg/L	3.88	3.41	3.13	3.05	2.95	3.07	3.28	2.96	3.20	2.78	2.90	3.11	

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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	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	1/7/2013	2/11/2013	3/4/2013	4/24/2013	5/21/2013	6/3/2013	
Total Mercury, Hg	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 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	0.003	0.004	0.004	0.004	0.004	0.004	
Dissolved Nickel, Ni	mg/L	< 0.005	< 0.005	0.010	0.022	0.013	< 0.005	< 0.005	0.010	< 0.005	0.010	0.007	0.009	
Dissolved Selenium, Se	mg/L	0.002	0.001	0.003	0.004	< 0.001	0.002	0.003	< 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	< 0.001	< 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	0.0079	0.0086	0.0111	0.0098	0.0086	0.0089	0.03
Dissolved Vanadium, V	mg/L	< 0.01	0.09	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 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	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.03	
Radiological Parameters														
Dissolved Gross Alpha	pCi/L	-10	-5	9.9	20.7	3.1	7.5	2.6	-5	7.3	41.7	-6	9.1	15
Precision (±)	pCi/L	9.4	13.3	17.7	15.6	9.2	11.1	11.4	7.3	8.4	10.4	9.2	8.2	
MDC	pCi/L	16.6	22.9	29.0	24.7	15.2	18.0	19.0	12.9	13.4	13.5	16.1	12.9	
Dissolved Gross Beta	pCi/L	-1	-10	2.2	-2	-10	3.1	-4	5.4	18.0	-6	-2	-10	4 mrem/year[3]
Precision (±)	pCi/L	8.3	21.4	22.0	21.9	11.6	13.0	13.3	11.7	17.4	10	11.7	13.1	
MDC	pCi/L	14.0	36.3	36.9	36.8	19.7	21.7	22.5	19.5	28.7	16.9	19.7	22.3	
Dissolved Radium 228	pCi/L	0.5	0.7	0.6	0.8	0.9	1.4	1.3	0.8	0.4	0.3	0.5	0.7	5[4]
Precision (±)	pCi/L	0.6	0.7	0.6	0.7	0.8	1	0.7	1.1	0.7	0.8	0.7	0.7	
MDC	pCi/L	1.0	1.1	0.9	1.1	1.2	1.5	1.1	1.7	1.2	1.4	1.1	1.1	
Dissolved Radium 226	pCi/L	0.4	0.4	0.3	0.7	0.2	0.6	0.3	0.2	0.6	0.3	0.3	0.4	5[4]
Precision (±)	pCi/L	0.2	0.1	0.1	0.1	0.08	0.2	0.2	0.1	0.2	0.1	0.1	0.2	
MDC	pCi/L	0.2	0.1	0.1	0.09	0.09	0.3	0.2	0.2	0.1	0.2	0.1	0.2	
Total Radon 222	pCi/L	1990	1850	2150	2040	2000	2000	1960	1990	2140	2110	1670	1680	300
Precision (±)	pCi/L	167	159	152	154	158	156	167	209	164	140	155	142	
MDC	pCi/L	237	226	208	215	222	220	238	306	230	189	223	201	

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.

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	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	1/8/2013	2/12/2013	3/5/2013	4/24/2013	5/21/2013	6/3/2013	
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	24.30	24.27	24.43	Not Sampled Due to Eagle	Not Sampled Due to Eagle	Not Sampled Due to Eagle	
Water Level Elevation (NGVD 29)	feet AMSL	Dry	Dry	Dry	3598.60	3598.95	3598.95	3599.00	3599.03	3598.87				
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.	Purged Approx. 1 c. Sample Vol. Approx. 1/2 c.	Purged Approx. 1 c. Sample Vol. Approx. 1/2 c.	Purged Approx. 1 1/2 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.	---	---	---	---	---	---	---	---	---	Not Sampled Due to Eagle	Not Sampled Due to Eagle	Not Sampled Due to Eagle	6.5 - 8.5
Total Dissolved Solids	mg/L	---	---	---	---	11300	10900	11400	11100	11300				1000
Lab Conductivity	umhos/cm	---	---	---	---	---	---	---	---	---				
Common Elements and Ions														
Alkalinity, Total as $CaCO_3$	mg/L	---	---	---	---	---	---	---	---	---	Not Sampled Due to Eagle	Not Sampled Due to Eagle	Not Sampled Due to Eagle	
Bicarbonate as HCO_3	mg/L	---	---	---	---	---	---	---	---	---				
Calcium, Ca	mg/L	---	---	---	---	404	475	442	456	422				
Carbonate as CO_3	mg/L	---	---	---	---	---	---	---	---	---				
Chloride, Cl	mg/L	---	---	---	---	1320	1400	1360	1480	1450				250
Magnesium, Mg	mg/L	---	---	---	---	701	771	770	768	715				
Nitrate, NO_3^- (as Nitrogen)	mg/L	---	---	---	---	1.7	3.2	3.6	5.8	7.9				10
Potassium, K	mg/L	---	---	---	---	55	50	46	40	36				
Sodium, Na	mg/L	---	---	---	---	1780	1590	1940	1870	1640				
Sulfate, SO_4	mg/L	---	---	---	---	6330	5940	6060	6150	6080				500
Trace and Minor Elements														
Dissolved Arsenic, As	mg/L	---	---	---	---	---	---	---	---	---	Not Sampled Due to Eagle	Not Sampled Due to Eagle	Not Sampled Due to Eagle	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	4.4	3.0	3.4				4
Dissolved Iron, Fe	mg/L	---	---	---	---	---	---	---	---	---				
Dissolved Lead, Pb	mg/L	---	---	---	---	---	---	---	---	---				0.015
Dissolved Manganese, Mn	mg/L	---	---	---	---	---	---	---	---	---				

POWERTECH (USA) INC.

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	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	1/8/2013	2/12/2013	3/5/2013	4/24/2013	5/21/2013	6/3/2013	
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	---	---	---	---	---	---	---	---	---	Not Sampled Due to Eagle	Not Sampled Due to Eagle	Not Sampled Due to Eagle	15
Precision (±)	pCi/L													
MDC	pCi/L													
Dissolved Gross Beta	pCi/L	---	---	---	---	---	---	---	---	---				4 mrem/year[3]
Precision (±)	pCi/L													
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.

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	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	1/7/2013	2/11/2013	3/5/2013	4/24/2013	5/21/2013	6/3/2013	
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	19.96	19.97	19.92	Not Sampled Due to Eagle	Not Sampled Due to Eagle	Not Sampled Due to Eagle	
Water Level Elevation (NGVD 29)	feet AMSL	3598.42	3598.36	3598.35	3598.36	3598.39	3598.36	3598.38	3598.37	3598.42				
Well Volume	gal	0.8	0.8	0.8	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	3	2.52	2.52				
Field pH	s.u.	7.44	7.43	7.48	7.50	7.4	7.6	7.5	7.6	7.6				
Field Temperature	°C	11.8	12.2	12.5	13.0	12.4	11.1	11.3	10.3	10.4				
Field Conductivity	mS/cm	8.9	8.3	10.52	10.37	10.77	10.70	10.76	10.79	10.58				
Clarity	observed	clear	clear	clear	clear	clear	clear	clear	clear	clear				
Color	observed	clear	clear	clear	clear	clear	clear	clear	clear	clear				
Odor	observed	none	none	none	none	none	none	none	none	none				
Physical Properties														
Lab pH	s.u.	7.42	7.44	7.47	7.42	7.36	7.29	7.35	7.47	7.36	Not Sampled Due to Eagle	Not Sampled Due to Eagle	Not Sampled Due to Eagle	6.5 - 8.5
Total Dissolved Solids	mg/L	10600	11400	10600	11400	10700	10800	11300	11100	11400				1000
Lab Conductivity	umhos/cm	9270	10400	10400	10300	11200	10200	11700	11100	10800				
Common Elements and Ions														
Alkalinity, Total as $CaCO_3$	mg/L	334	346	348	358	346	346	340	344	358	Not Sampled Due to Eagle	Not Sampled Due to Eagle	Not Sampled Due to Eagle	
Bicarbonate as HCO_3	mg/L	407	422	424	436	422	422	414	419	436				
Calcium, Ca	mg/L	388	389	398	414	380	394	430	353	402				
Carbonate as CO_3	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5				
Chloride, Cl	mg/L	116	114	117	123	128	129	131	136	138				250
Magnesium, Mg	mg/L	620	604	630	651	635	661	715	644	708				
Nitrate, NO_3^- (as Nitrogen)	mg/L	1.7	1.6	1.7	1.8	1.8	1.7	1.8	1.9	1.9				10
Potassium, K	mg/L	10	10	11	11	11	10	12	9	11				
Sodium, Na	mg/L	2080	1820	1820	2010	1780	1820	2080	2220	2000				
Sulfate, SO_4	mg/L	7450	6920	7330	7570	7230	7470	7450	7970	7650				500
Trace and Minor Elements														
Dissolved Arsenic, As	mg/L	< 0.001	< 0.001	0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.002	Not Sampled Due to Eagle	Not Sampled Due to Eagle	Not Sampled Due to Eagle	0.01
Dissolved Barium, Ba	mg/L	< 0.05	< 0.05	< 0.05	< 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	2.5	2.10	2.26				
Dissolved Cadmium, Cd	mg/L	< 0.001	< 0.001	< 0.001	< 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	< 0.005	< 0.005	0.009				0.1
Dissolved Copper, Cu	mg/L	< 0.005	< 0.005	0.008	0.012	< 0.005	0.011	< 0.005	0.008	0.009				1.0
Dissolved Fluoride, F	mg/L	2.9	2.5	2.6	2.7	2.2	2.2	2.2	1.8	1.6				4
Dissolved Iron, Fe	mg/L	< 0.03	< 0.03	< 0.03	< 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	< 0.001	< 0.001	< 0.001	Not Sampled Due to Eagle	Not Sampled Due to Eagle	Not Sampled Due to Eagle	0.015
Dissolved Manganese, Mn	mg/L	0.013	0.004	0.002	0.002	0.002	0.002	0.001	< 0.001	0.001				

POWERTECH (USA) INC.

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	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	1/7/2013	2/11/2013	3/5/2013	4/24/2013	5/21/2013	6/3/2013	
Total Mercury, Hg	mg/L	< 0.0001	< 0.0001	< 0.0001	< 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	< 0.001	0.003	0.003				
Dissolved Nickel, Ni	mg/L	< 0.005	< 0.005	0.008	0.016	0.009	< 0.005	< 0.005	0.007	0.007				
Dissolved Selenium, Se	mg/L	0.032	0.034	0.042	0.037	0.036	0.036	0.035	0.038	0.040				0.05
Dissolved Silver, Ag	mg/L	< 0.001	< 0.001	< 0.001	< 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	0.0149	0.0160	0.0160				0.03
Dissolved Vanadium, V	mg/L	< 0.01	< 0.01	< 0.01	< 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	< 0.01	0.02	0.02				
Radiological Parameters														
Dissolved Gross Alpha	pCi/L	-5	16.5	-10	29.6	-2	13.3	17.7	-20	3.7	Not Sampled Due to Eagle	Not Sampled Due to Eagle	Not Sampled Due to Eagle	15
Precision (±)	pCi/L	18.5	22.4	21.1	24.0	20.5	21.4	21.7	26.5	22.9				
MDC	pCi/L	31.8	36.2	36.6	37.8	34.8	34.9	35.2	46.2	38.3				
Dissolved Gross Beta	pCi/L	-9	-20	-100	-10	-10	-7	-20	-20	8.7				4 mrem/year[3]
Precision (±)	pCi/L	24.4	29.4	44.4	31.0	26.9	27.0	25.0	26.8	27.3				
MDC	pCi/L	41.2	49.8	77.7	52.3	45.6	45.5	42.6	45.7	45.6				
Dissolved Radium 228	pCi/L	-0.5	0.04	0.4	0.6	1.9	0.4	2.4	0.6	0.02				5[4]
Precision (±)	pCi/L	0.7	0.7	0.6	0.7	1.1	0.9	0.8	1.2	0.9				
MDC	pCi/L	1.2	1.2	0.9	1.1	1.7	1.6	1.1	2.0	1.6				
Dissolved Radium 226	pCi/L	0.4	0.2	0.2	0.2	-0.06	0.2	0.05	0.007	0.3				5[4]
Precision (±)	pCi/L	0.2	0.1	0.1	0.1	0.06	0.2	0.1	0.1	0.2				
MDC	pCi/L	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2				
Total Radon 222	pCi/L	4820	4530	4140	3990	4570	4710	4620	4620	5160				300
Precision (±)	pCi/L	180	188	173	175	184	184	194	241	214				
MDC	pCi/L	208	225	207	212	220	218	236	310	258				

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.

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	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	1/7/2013	2/11/2013	3/5/2013	4/24/2013	5/21/2013	6/3/2013	
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	15.72	15.59	15.45	15.26	15.15	15.14	
Water Level Elevation (NGVD 29)	feet AMSL	3624.61	3624.24	3623.97	3623.83	3623.88	3623.98	3624.12	3624.25	3624.39	3624.58	3624.69	3624.7	
Well Volume	gal	2.7	2.7	2.6	2.6	2.6	2.6	2.7	2.7	2.7	2.7	2.8	2.8	
Volume Purged Prior to Sample Collection	gal	11	9	9	9	7.8	8.25	8.25	8.1	8.25	8.25	6.3	6.3	
Field pH	s.u.	7.05	7.03	7.18	7.10	7.1	7.3	7.2	7.30	7.3	7.3	7.2	7.2	
Field Temperature	°C	11.9	12.7	12.2	12.4	12.2	11.0	11.5	10.6	10.6	9.4	10.0	10.9	
Field Conductivity	mS/cm	3.5	3.3	3.64	3.75	3.79	3.77	3.76	3.73	3.68	3.69	3.68	3.73	
Clarity	observed	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	
Color	observed	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	
Odor	observed	none	none	none	none	none	none	none	none	none	none	none	none	
Physical Properties														
Lab pH	s.u.	7.08	7.09	7.17	7.15	7.20	7.10	7.06	7.25	7.09	7.11	7.11	7.08	6.5 - 8.5
Total Dissolved Solids	mg/L	3640	3720	3660	3480	3670	3660	3800	3730	3740	3790	2770	3810	1000
Lab Conductivity	umhos/cm	3200	3630	3610	3550	3580	3500	4050	3740	3710	3600	3840	3680	
Common Elements and Ions														
Alkalinity, Total as $CaCO_3$	mg/L	288	290	300	292	294	294	294	292	300	292	292	312	
Bicarbonate as HCO_3	mg/L	351	354	366	356	358	358	358	356	366	356	356	380	
Calcium, Ca	mg/L	515	525	513	517	505	442	516	464	500	505	518	513	
Carbonate as CO_3	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chloride, Cl	mg/L	28	25	25	26	26	25	25	27	26	26	25	26	250
Magnesium, Mg	mg/L	236	238	234	240	234	225	251	230	243	225	249	250	
Nitrate, NO_3^- (as Nitrogen)	mg/L	< 0.1	0.2	0.3	< 0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	10
Potassium, K	mg/L	13	12	13	13	12	10	12	11	11	11	11	12	
Sodium, Na	mg/L	206	175	185	197	194	174	194	198	190	194	197	198	
Sulfate, SO_4	mg/L	2360	2170	2160	2300	2230	2220	2190	2210	2290	2220	2300	2190	500
Trace and Minor Elements														
Dissolved Arsenic, As	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.002	< 0.001	< 0.001	0.003	0.01
Dissolved Barium, Ba	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 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	0.77	0.70	0.67	0.56	0.64	0.75	
Dissolved Cadmium, Cd	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	0.005
Dissolved Chromium, Cr	mg/L	< 0.005	0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.007	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	< 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	0.7	0.6	0.6	0.7	0.6	0.5	0.7	0.6	0.8	4
Dissolved Iron, Fe	mg/L	0.06	< 0.03	0.08	0.06	0.13	0.17	0.08	0.05	< 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	0.015
Dissolved Manganese, Mn	mg/L	0.110	0.061	0.057	0.056	0.049	0.042	0.034	0.040	0.031	0.030	0.027	0.029	

POWERTECH (USA) INC.

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	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	1/7/2013	2/11/2013	3/5/2013	4/24/2013	5/21/2013	6/3/2013	
Total Mercury, Hg	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 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	0.004	0.006	0.006	0.005	0.005	0.005	
Dissolved Nickel, Ni	mg/L	< 0.005	< 0.005	0.013	0.022	0.005	< 0.005	< 0.005	0.006	0.009	0.011	0.007	0.010	
Dissolved Selenium, Se	mg/L	0.001	0.001	0.002	0.003	0.003	0.001	< 0.001	< 0.001	0.008	0.002	0.002	0.002	0.05
Dissolved Silver, Ag	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	0.1
Dissolved Uranium, U	mg/L	0.0757	0.0842	0.0854	0.0802	0.0822	0.0818	0.0877	0.111	0.0891	0.100	0.0977	0.101	0.03
Dissolved Vanadium, V	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 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	< 0.01	< 0.01	0.02	< 0.01	< 0.01	0.01	
Radiological Parameters														
Dissolved Gross Alpha	pCi/L	65.9	71.1	78.7	68.9	50.1	78.0	69.6	108	72.1	91.4	83.3	78.0	15
Precision (±)	pCi/L	9.1	10.8	10.8	10.8	10.7	11.3	10	13.0	10.2	10.8	10.6	13.8	
MDC	pCi/L	10.5	12.8	12.7	12.9	14.0	13.1	11.6	15.9	12.3	10.3	12.0	18.6	
Dissolved Gross Beta	pCi/L	4.4	-4	0.3	7.8	19.8	27.0	15.7	22.8	17.4	16.0	13.1	2.6	4 mrem/year[3]
Precision (±)	pCi/L	6.2	10.6	11.0	10.4	10.6	11.8	10.9	10.3	9.7	9.4	8.8	13.5	
MDC	pCi/L	10.2	17.7	18.3	17.0	17.0	18.8	17.7	16.3	15.5	15.2	14.2	22.3	
Dissolved Radium 228	pCi/L	0.5	0.7	1.1	4.3	1.7	0.7	1.5	0.8	-0.5	0.2	0.8	1.5	5[4]
Precision (±)	pCi/L	0.7	0.7	0.6	0.9	1	0.9	0.7	1.0	1.1	0.8	0.7	0.7	
MDC	pCi/L	1.1	1.1	0.9	1.1	1.5	1.5	1.1	1.7	1.8	1.3	1.1	1.0	
Dissolved Radium 226	pCi/L	0.4	0.1	0.3	0.8	0.1	0.3	0.2	0.1	0.2	0.2	0.4	0.2	5[4]
Precision (±)	pCi/L	0.2	0.1	0.1	0.1	0.08	0.2	0.1	0.1	0.2	0.1	0.1	0.1	
MDC	pCi/L	0.2	0.1	0.1	0.09	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	
Total Radon 222	pCi/L	1870	1870	1730	1700	1900	2020	2110	2100	2040	2120	1560	2330	300
Precision (±)	pCi/L	169	156	143	146	153	153	165	208	180	136	158	147	
MDC	pCi/L	242	221	202	208	216	214	232	302	259	184	230	197	

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.

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	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	1/7/2013	2/11/2013	3/5/2013	4/24/2013	5/21/2013	6/3/2013	
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	5.12	4.95	4.81	4.34	4.37	4.21	
Water Level Elevation (NGVD 29)	feet AMSL	3630.42	3630.04	3629.86	3630.1	3630.73	3631.06	3631.21	3631.38	3631.52	3631.99	3631.96	3632.12	
Well Volume	gal	3.6	3.5	3.5	3.6	3.7	3.7	3.7	3.77	3.8	3.9	3.9	3.9	
Volume Purged Prior to Sample Collection	gal	10.8	10.5	10.5	12	15	11.25	11.25	11.31	11.40	11.7	13.5	13.65	
Field pH	s.u.	7.12	7.10	7.19	7.10	7.3	7.3	7.2	7.3	7.3	7.3	7.3	7.30	
Field Temperature	°C	10.3	10.1	10.3	10.1	9.9	9.1	9.40	9.2	9.0	8.8	9.0	9.9	
Field Conductivity	mS/cm	3.7	3.6	3.87	4.06	4.07	4.03	4.03	3.99	3.92	3.92	3.91	3.95	
Clarity	observed	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	
Color	observed	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	
Odor	observed	none	none	none	none	none	none	none	none	none	none	none	none	
Physical Properties														
Lab pH	s.u.	7.07	7.11	7.22	7.25	7.20	7.10	7.08	7.19	7.07	7.18	7.15	7.11	6.5 - 8.5
Total Dissolved Solids	mg/L	3840	3910	3870	3880	3910	3790	3880	3900	3900	3820	3880	3970	1000
Lab Conductivity	umhos/cm	3430	3860	3850	3810	3870	3700	4200	3910	3920	3850	4000	3850	
Common Elements and Ions														
Alkalinity, Total as $CaCO_3$	mg/L	230	234	234	232	230	234	230	230	232	228	228	230	
Bicarbonate as HCO_3	mg/L	280	285	285	283	280	285	280	280	283	278	278	280	
Calcium, Ca	mg/L	544	516	521	525	515	469	540	449	520	523	516	517	
Carbonate as CO_3	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chloride, Cl	mg/L	21	21	21	23	22	22	22	23	22	22	22	22	250
Magnesium, Mg	mg/L	200	218	220	216	223	212	230	212	220	214	221	225	
Nitrate, NO_3^- (as Nitrogen)	mg/L	< 0.1	0.2	0.2	< 0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	10
Potassium, K	mg/L	12	13	13	13	12	11	13	11	12	12	12	13	
Sodium, Na	mg/L	278	258	278	290	294	256	282	291	272	279	274	284	
Sulfate, SO_4	mg/L	2350	2390	2400	2520	2380	2340	2360	2360	2530	2490	2330	2470	500
Trace and Minor Elements														
Dissolved Arsenic, As	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.003	0.01
Dissolved Barium, Ba	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 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	0.5	0.47	0.52	0.54	0.49	0.48	
Dissolved Cadmium, Cd	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	0.005
Dissolved Chromium, Cr	mg/L	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.009	< 0.005	< 0.005	0.1
Dissolved Copper, Cu	mg/L	0.006	< 0.005	< 0.005	0.006	< 0.005	0.008	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.0
Dissolved Fluoride, F	mg/L	0.8	0.7	0.7	0.8	0.7	0.7	0.8	0.7	0.6	0.8	0.7	0.9	4
Dissolved Iron, Fe	mg/L	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 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	< 0.001	< 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	0.040	0.044	0.038	0.036	0.036	0.041	

POWERTECH (USA) INC.

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	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	1/7/2013	2/11/2013	3/5/2013	4/24/2013	5/21/2013	6/3/2013	
Total Mercury, Hg	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 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	0.012	0.014	0.014	0.013	0.013	0.012	
Dissolved Nickel, Ni	mg/L	< 0.005	< 0.005	0.011	0.022	0.006	< 0.005	< 0.005	0.007	0.006	0.011	0.007	0.012	
Dissolved Selenium, Se	mg/L	< 0.001	< 0.001	0.002	0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.001	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	< 0.001	< 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	0.0259	0.0297	0.0246	0.0270	0.0254	0.0258	0.03
Dissolved Vanadium, V	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 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	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.03	
Radiological Parameters														
Dissolved Gross Alpha	pCi/L	20.0	3.5	1.8	25.9	12.6	23.4	25.2	25.8	32.5	38.9	24.8	24.5	15
Precision (±)	pCi/L	7.8	9.7	7.0	9.3	8.6	9.3	8.6	8.9	8.9	9.4	8.6	8.6	
MDC	pCi/L	11.5	16.1	11.6	13.5	13.4	13.7	12.4	13.1	12.7	12.3	12.5	12.7	
Dissolved Gross Beta	pCi/L	4.5	0.5	-10	-10	9.2	7.8	-2	7.3	12.0	-3	11.3	-0.5	4 mrem/year[3]
Precision (±)	pCi/L	6.5	11.6	11.8	11.2	10.2	11.5	9.4	9.2	8.8	9.9	9.1	8.6	
MDC	pCi/L	10.7	19.5	20.1	19.1	16.8	19.1	15.8	15.1	14.3	16.7	14.9	14.3	
Dissolved Radium 228	pCi/L	0.1	-0.1	0.3	-0.1	0.5	0.7	0.8	0.7	0.5	0.01	1.2	2.1	5[4]
Precision (±)	pCi/L	0.6	0.6	0.6	0.6	1.2	0.9	0.7	1.1	1.1	0.8	0.7	0.7	
MDC	pCi/L	1	1.1	0.9	1	2.1	1.4	1.0	1.7	1.9	1.3	1.1	1.1	
Dissolved Radium 226	pCi/L	0.07	0.3	0.3	0.5	0.02	0.2	0.2	0.08	0.4	0.2	0.3	0.3	5[4]
Precision (±)	pCi/L	0.1	0.1	0.1	0.1	0.07	0.1	0.1	0.1	0.2	0.1	0.1	0.1	
MDC	pCi/L	0.2	0.1	0.1	0.08	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	
Total Radon 222	pCi/L	2860	2460	2480	2260	2530	2710	2670	2830	2800	2790	2170	2880	300
Precision (±)	pCi/L	180	162	151	152	159	160	170	215	188	143	164	152	
MDC	pCi/L	240	219	200	206	214	212	229	300	256	182	227	195	

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.

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	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	1/7/2013	2/11/2013	3/5/2013	4/24/2013	5/21/2013	6/3/2013	
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	11.23	10.90	10.77	10.36	10.34	10.42	
Water Level Elevation (NGVD 29)	feet AMSL	3642.7	3642.22	3641.9	3641.99	3642.96	3643.44	3643.72	3644.05	3644.18	3644.59	3644.61	3644.53	
Well Volume	gal	2.5	2.4	2.4	2.4	2.5	2.6	2.7	2.72	2.7	2.8	2.8	2.8	
Volume Purged Prior to Sample Collection	gal	7.5	7.5	7.5	7.5	7.5	8.25	8.25	8.16	8.25	8.4	8.43	8.40	
Field pH	s.u.	7.16	7.12	7.33	7.10	7.2	7.2	7.2	7.2	7.4	7.3	7.4	7.3	
Field Temperature	°C	10.3	10.8	10.8	10.9	10.6	9.7	10.3	9.1	8.8	8.3	8.4	9.2	
Field Conductivity	mS/cm	3.1	3.0	3.20	3.35	3.33	3.34	3.32	3.29	3.26	3.24	3.23	3.25	
Clarity	observed	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	
Color	observed	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear	
Odor	observed	none	none	none	none	none	none	none	none	none	none	none	none	
Physical Properties														
Lab pH	s.u.	7.15	7.17	7.22	7.16	7.21	7.12	7.11	7.17	7.13	7.17	7.17	7.20	6.5 - 8.5
Total Dissolved Solids	mg/L	3160	3130	3140	3180	3170	3160	3100	3180	3160	3160	3090	3210	1000
Lab Conductivity	umhos/cm	2870	3200	3200	3140	3110	3070	3550	3250	3200	3180	3340	3210	
Common Elements and Ions														
Alkalinity, Total as $CaCO_3$	mg/L	254	256	256	248	248	250	246	248	242	242	242	260	
Bicarbonate as HCO_3	mg/L	310	312	312	302	302	305	300	302	295	295	295	317	
Calcium, Ca	mg/L	532	531	535	525	520	488	552	475	541	529	539	532	
Carbonate as CO_3	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	
Chloride, Cl	mg/L	20	19	19	20	19	19	19	20	19	19	18	19	250
Magnesium, Mg	mg/L	150	148	152	150	150	144	159	139	151	149	154	153	
Nitrate, NO_3^- (as Nitrogen)	mg/L	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	< 0.1	0.3	< 0.1	10
Potassium, K	mg/L	11	11	12	11	11	10	11	10	12	11	10	11	
Sodium, Na	mg/L	174	158	157	164	172	153	160	157	163	162	164	162	
Sulfate, SO_4	mg/L	2010	1850	1820	1980	1860	1910	1890	1870	1830	1870	1850	1840	500
Trace and Minor Elements														
Dissolved Arsenic, As	mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.002	< 0.001	< 0.001	0.003	0.01
Dissolved Barium, Ba	mg/L	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.09	< 0.05	2
Dissolved Boron, B	mg/L	0.44	0.45	0.49	0.51	0.52	0.50	0.54	0.47	0.49	0.75	0.44	0.48	
Dissolved Cadmium, Cd	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	0.005
Dissolved Chromium, Cr	mg/L	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.007	0.010	< 0.005	< 0.005	0.1
Dissolved Copper, Cu	mg/L	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 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	0.6	0.6	0.5	0.6	0.6	0.7	4
Dissolved Iron, Fe	mg/L	0.05	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	0.06	0.05	0.20	0.59	< 0.03	0.12	
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	0.015
Dissolved Manganese, Mn	mg/L	0.498	0.461	0.447	0.436	0.456	0.451	0.528	0.557	0.594	0.565	0.576	0.575	

POWERTECH (USA) INC.

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	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	1/7/2013	2/11/2013	3/5/2013	4/24/2013	5/21/2013	6/3/2013	
Total Mercury, Hg	mg/L	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 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	0.005	0.006	0.007	0.006	0.006	0.006	
Dissolved Nickel, Ni	mg/L	< 0.005	< 0.005	0.012	0.022	0.006	< 0.005	< 0.005	< 0.005	0.010	0.011	0.007	0.014	
Dissolved Selenium, Se	mg/L	0.002	0.003	0.005	0.004	0.003	0.003	< 0.001	0.002	0.003	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	< 0.001	< 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	0.0197	0.0251	0.0204	0.0224	0.0208	0.0207	0.03
Dissolved Vanadium, V	mg/L	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 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	< 0.01	< 0.01	0.02	< 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	25.9	19.3	22.4	43.5	19.9	4.9	15
Precision (±)	pCi/L	7.0	7.1	6.0	7.6	8.6	7.7	6.8	6.3	8.5	7.6	7.2	8.1	
MDC	pCi/L	9.5	11.1	9.2	10.2	13.4	10.7	9.4	9.0	12.9	8.8	10.5	13.3	
Dissolved Gross Beta	pCi/L	4.7	2.0	-1	4.1	8.6	5.0	0.6	6.4	12.0	-1	11.1	3.6	4 mrem/year[3]
Precision (±)	pCi/L	5.6	9.4	10	9.1	8.6	9.2	7.7	7.6	8.0	7.5	7.4	10.3	
MDC	pCi/L	9.2	15.8	16.8	15.0	14.2	15.3	12.9	12.5	13.1	12.5	12.0	17.2	
Dissolved Radium 228	pCi/L	-0.1	-0.1	0.8	1.9	2.0	-0.4	1.5	1.2	1.7	-0.2	0.3	0.5	5[4]
Precision (±)	pCi/L	0.6	0.7	0.6	0.8	0.8	0.7	0.7	1.0	1.2	0.7	0.7	0.7	
MDC	pCi/L	1	1.1	0.9	1.2	1.2	1.2	1.1	1.7	1.9	1.3	1.1	1.1	
Dissolved Radium 226	pCi/L	0.08	0.1	0.1	0.4	0.09	0.07	0.3	0.3	0.2	0.2	1.6	0.2	5[4]
Precision (±)	pCi/L	0.1	0.1	0.09	0.1	0.06	0.1	0.1	0.1	0.2	0.1	0.2	0.1	
MDC	pCi/L	0.2	0.1	0.1	0.09	0.09	0.2	0.2	0.2	0.2	0.2	0.1	0.2	
Total Radon 222	pCi/L	1700	1710	1720	1490	1860	1690	1750	1970	1630	1570	1060	1830	300
Precision (±)	pCi/L	169	155	144	144	154	150	162	207	177	131	152	142	
MDC	pCi/L	245	223	204	209	218	216	233	304	262	186	231	199	

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.

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	Well BC-1	Well BC-1 Duplicate	Well DC-4	Well DC-4 Duplicate	Well BC-3	Well BC-3 Duplicate	Well BC-3 DENR Split	Well DC-2	Well DC-2 Duplicate	Well BC-1	Well BC-1 Duplicate	Well BC-1	Well BC-1 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	1/7/2013	1/7/2013	2/11/2013	2/11/2013	3/5/2013	3/5/2013	3/5/2013	4/24/2013	4/24/2013	5/21/2013	5/21/2013	6/3/2013	6/3/2013	
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	7.06	7.08	7.47	7.42	7.13	7.06	7.49	7.25	7.11	7.11	7.09	7.08	7.06	6.5 - 8.5
Total Dissolved Solids	mg/L	3160	3170	3720	3500	10600	10600	4630	4630	5080	3910	3870	3160	3120	3800	3730	11100	11300	3160	3180	3000	4680	4600	2770	3800	3810	3810	1000
Lab Conductivity	umhos/cm	2870	2860	3630	3630	10400	10300	5530	5510	5090	3870	3870	3070	3040	4050	4060	11100	11000	3200	3250	3170	5650	5670	3840	3840	3680	3680	
Common Elements and Ions																												
Alkalinity, Total as $CaCO_3$	mg/L	254	256	290	290	348	342	264	268	286	230	230	250	246	294	294	344	350	242	250	250	262	260	292	290	312	294	
Bicarbonate as HCO_3	mg/L	310	312	354	354	424	417	322	327	349	280	280	305	300	358	358	419	427	295	305	305	319	317	356	354	380	358	
Calcium, Ca	mg/L	532	518	525	515	398	401	518	528	481	515	517	488	469	516	539	353	353	541	565	502	513	508	518	513	513	513	
Carbonate as CO_3	mg/L	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	0.00	< 5	< 5	< 5	< 5	< 5	< 5	
Chloride, Cl	mg/L	20	20	25	25	117	118	824	822	926	22	22	19	19	25	25	136	137	19	20	19.3	870	830	25	26	26	26	250
Magnesium, Mg	mg/L	150	147	238	231	630	620	147	146	135	223	221	144	140	251	256	644	641	151	147	148	143	145	249	245	250	250	
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	0.2	< 0.1	1.9	1.9	0.2	0.2	< 0.050	0.9	0.8	0.3	0.3	0.3	0.3	10
Potassium, K	mg/L	11	11	12	12	11	11	7	7	11	12	12	10	9	12	13	9	9	12	11	10.1	6	6	11	11	12	12	
Sodium, Na	mg/L	174	175	175	179	1820	1910	768	764	832	294	288	153	147	194	196	2220	2200	163	160	140	715	704	197	195	198	201	
Sulfate, SO_4	mg/L	2010	2020	2170	2180	7330	7550	2080	2060	2070	2380	2370	1910	1880	2190	2210	7970	7870	1830	2190	1790	2070	1960	2300	2300	2190	2210	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	< 0.001	< 0.001	< 0.001	< 0.001	0.002	0.002	< 0.005	0.002	0.002	< 0.001	< 0.001	0.003	0.003	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	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.012	< 0.05	< 0.05	< 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	0.77	0.78	2.10	2.14	0.49	0.50	0.537	0.32	0.29	0.64	0.68	0.75	0.73	
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	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.005
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	< 0.005	< 0.005	< 0.005	< 0.005	0.007	0.006	< 0.001	0.011	0.012	< 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	< 0.005	< 0.005	0.008	0.008	< 0.005	< 0.005	< 0.005	< 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	2.6	2.7	0.7	0.7	0.4	0.7	0.7	0.6	0.6	0.7	0.7	1.8	1.9	0.5	0.5	0.475	0.7	0.7	0.6	0.7	0.8	0.8	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	0.08	0.11	< 0.03	< 0.03	0.20	0.11	0.496	4.09	4.21	< 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	< 0.001	< 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	0.034	0.040	< 0.001	< 0.001	0.594	0.595	0.521	2.78	2.88	0.027	0.027	0.029	0.030	
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	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0002	< 0.0001	< 0.0001	< 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	0.004	0.004	0.003	0.003	0.007	0.007	0.007	0.004	0.005	0.005	0.005	0.005	0.005	
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	< 0.005	< 0.005	0.007	0.007	0.010	0.011	0.021	0.010	0.008	0.007	0.008	0.010	0.015	
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	< 0.001	< 0.001	0.038	0.037	0.003	0.005	< 0.005	0.001	0.002	0.002	0.002	0.002	0.002	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	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.1
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	0.0877	0.0921	0.0160	0.0157	0.0204	0.0203	0.019	0.0098	0.0093	0.0977	0.0970	0.101	0.103	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	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.005	< 0.01	< 0.01	< 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	< 0.01	< 0.01	0.02	0.02	0.02	0.02	< 0.050	< 0.01	< 0.01	< 0.01	< 0.01	0.01	0.02	
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	69.6	112	-20	-10	22.4	17.7	11.9	41.7	34.6	83.3	84.0	78.0	82.3	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	10	11.5	26.5	20.6	8.5	5.9	3.70	10.4	9.8	10.6	11.0	13.8	11.4	
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	11.6	11.2	46.2	35.7	12.9	8.3	11.2	13.5	11.9	12.0	12.8	18.6	13.6	
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	15.7	21.7	-20	-30	12.0	11.5	15.6	-6	23.0	13.1	19.2	2.6	8.6	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	10.9	10.1	26.8	27.1	8.0	7.6	5.50	10	11.2	8.8	8.9	13.5	11.3	
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	17.7	16.0	45.7	46.3	13.1	12.4	17.6	16.9	18.1	14.2	14.1	22.3	18.5	
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	1.5	2.5	0.6	-0.1	1.7	0.6	0.932	0.3	-0.3	0.8	0.6	1.5	0.7	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	0.7	0.8	1.2	1.2	1.2	1.1	0.422	0.8	0.8	0.7	0.7	0.7	0.7	
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	1.1	1.1	2.0	1.9	1.9	1.9	0.852	1.4	1.4	1.1	1.1	1.0	1.0	
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	0.2	0.2	0.007	0.06	0.2	0.2	0.279	0.3	0.5	0.4	0.3	0.2	0.2	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	0.1	0.1	0.1	0.1	0.2	0.2	0.103	0.1	0.2	0.1	0.1	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	0.2	0.2	0.2	0.2	0.2	0.2	0.216	0.2	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	2110	2180	4620	4030	1630	1720	468	2110	2040	1560	1890	2330	2340	300
Precision (±)	pCi/L	169	168	156	155	173	175	154	152	24	159	160	150	149	165	165	241	235	177	179	96.0	140	139	158	162	147	147	
MDC	pCi/L	245	245	221	221	207	207	215	215	50	214	214	216	216	232	232	310	310	262	262	52.9	189	189	230	230	197	198	

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.

LABORATORY DATA PACKAGES

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ANALYTICAL SUMMARY REPORT

June 24, 2013

Powertech USA Inc
PO Box 812
Edgemont, SD 57735

Workorder No.: R13040294 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 4/25/2013 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R13040294-001	DC-2	04/24/13 10:23	04/25/13	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 Lead 210, Dissolved Radium 226, Dissolved Radium 228, Dissolved Radon 222 Thorium, Isotopic Solids, Total Dissolved
R13040294-002	DC-2 Dup	04/24/13 10:24	04/25/13	Aqueous	Same As Above
R13040294-003	BC-3	04/24/13 12:40	04/25/13	Aqueous	Same As Above
R13040294-004	BC-1	04/24/13 14:02	04/25/13	Aqueous	Same As Above
R13040294-005	BC-2	04/24/13 15:18	04/25/13	Aqueous	Same As Above
R13040294-006	DC-1	04/25/13 09:00	04/25/13	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:

CLIENT: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Sample Delivery Group: R13040294

Report Date: 06/24/13

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.

Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.
Comments imported for SUBBED Workorder: C13040837
TH230 ANALYSIS
USNRC Regulatory Guide 4.14 provides guidance on Minimum Detectable Concentrations (MDC) that should be achieved in samples for this radionuclide. The sample-specific MDC for this sample could not be achieved due to significant matrix interferences. Please consult with your local regulatory agency prior to using these results for compliance purposes.
End of comments imported for SUBBED Workorder: C13040837

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R13040294-001
Client Sample ID: DC-2

Report Date: 06/24/13
Collection Date: 04/24/13 10:23
Date Received: 04/25/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	5650	umhos/cm		5.0		1	A2510 B	04/26/13 14:53/tb
pH	7.25	su		0.01		1	A4500-H B	04/26/13 14:18/tb
Solids, Total Dissolved TDS @ 180 C	4680	mg/L		40		1	A2540 C	04/29/13 16:00/jmh
Alkalinity, Total as CaCO3	262	mg/L		5		1	A2320 B	05/03/13 15:34/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	05/03/13 15:34/ch
Bicarbonate as HCO3	319	mg/L		5		1	A2320 B	05/03/13 15:34/ch
INORGANIC PARAMETERS								
Chloride	870	mg/L	D	50		50	E300.0	04/26/13 01:25/tb
Fluoride	0.7	mg/L		0.1		1	E300.0	04/25/13 23:19/tb
Sulfate	2070	mg/L	D	50		50	E300.0	04/26/13 01:25/tb
DATA QUALITY PARAMETERS								
Anions	73.1	meq/L		1.00		1	A1030 E	05/30/13 00:00/lkl
Cations	68.6	meq/L		1.00		1	A1030 E	05/30/13 00:00/lkl
Conductivity, Calculated	5580	umhos/cm		1.00		1	A1030 E	05/30/13 00:00/lkl
TDS Ratio	1.04			0.0100		1	A1030 E	05/30/13 00:00/lkl
A/C Balance	-3.12	%				1	A1030 E	05/30/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.9	mg/L		0.1		1	E300.0	04/25/13 23:19/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	41.7	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Alpha precision (±)	10.4	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Alpha MDC	13.5	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Beta	-6	pCi/L	U			1	E900.0	05/10/13 05:06/eli-ca
Gross Beta precision (±)	10	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Beta MDC	16.9	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Lead 210	0.6	pCi/L	U			1	E909.0	05/09/13 11:50/eli-cs
Lead 210 precision (±)	0.6	pCi/L				1	E909.0	05/09/13 11:50/eli-cs
Lead 210 MDC	1.0	pCi/L				1	E909.0	05/09/13 11:50/eli-cs
Radium 228	0.3	pCi/L	U			1	RA-05	05/07/13 21:01/eli-ca
Radium 228 precision (±)	0.8	pCi/L				1	RA-05	05/07/13 21:01/eli-ca
Radium 228 MDC	1.4	pCi/L				1	RA-05	05/07/13 21:01/eli-ca
Radium 226	0.3	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Radium 226 precision (±)	0.1	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Thorium 230	0.07	pCi/L	U			1	E908.0	05/09/13 09:58/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: R13040294-001
Client Sample ID: DC-2

Report Date: 06/24/13
Collection Date: 04/24/13 10:23
Date Received: 04/25/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.1	pCi/L				1	E908.0	05/09/13 09:58/eli-ca
Thorium 230 MDC	0.2	pCi/L				1	E908.0	05/09/13 09:58/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	2110	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
Radon 222 precision (±)	140	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
Radon 222 MDC	189	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	05/02/13 12:28/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	0.002	mg/L		0.001		1	E200.8	04/30/13 15:50/eli-ca
Barium	ND	mg/L		0.05		1	E200.8	04/30/13 15:50/eli-ca
Boron	0.32	mg/L		0.05		2	E200.7	05/20/13 18:44/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	04/30/13 15:50/eli-ca
Chromium	0.011	mg/L		0.005		1	E200.8	04/30/13 15:50/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	04/30/13 15:50/eli-ca
Iron	4.09	mg/L		0.03		2	E200.7	05/20/13 18:44/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	04/30/13 15:50/eli-ca
Manganese	2.78	mg/L		0.001		1	E200.8	04/30/13 15:50/eli-ca
Molybdenum	0.004	mg/L		0.001		1	E200.8	04/30/13 15:50/eli-ca
Nickel	0.010	mg/L		0.005		1	E200.8	04/30/13 15:50/eli-ca
Selenium	0.001	mg/L		0.001		1	E200.8	04/30/13 15:50/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	04/30/13 15:50/eli-ca
Uranium	0.0098	mg/L		0.0003		1	E200.8	04/30/13 15:50/eli-ca
Vanadium	ND	mg/L		0.01		1	E200.8	04/30/13 15:50/eli-ca
Zinc	ND	mg/L		0.01		1	E200.8	04/30/13 15:50/eli-ca
Calcium	513	mg/L		1		5	E200.7	05/24/13 16:45/eli-ca
Magnesium	143	mg/L		1		2	E200.7	05/20/13 18:44/eli-ca
Potassium	6	mg/L		1		5	E200.7	05/24/13 16:45/eli-ca
Sodium	715	mg/L		1		5	E200.7	05/24/13 16:45/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.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R13040294-002
Client Sample ID: DC-2 Dup

Report Date: 06/24/13
Collection Date: 04/24/13 10:24
Date Received: 04/25/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	5670	umhos/cm		5.0		1	A2510 B	04/26/13 14:56/tb
pH	7.11	su		0.01		1	A4500-H B	04/26/13 14:25/tb
Solids, Total Dissolved TDS @ 180 C	4600	mg/L		40		1	A2540 C	04/29/13 16:01/jmh
Alkalinity, Total as CaCO3	260	mg/L		5		1	A2320 B	05/03/13 15:41/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	05/03/13 15:41/ch
Bicarbonate as HCO3	317	mg/L		5		1	A2320 B	05/03/13 15:41/ch
INORGANIC PARAMETERS								
Chloride	830	mg/L	D	50		50	E300.0	04/26/13 01:42/tb
Fluoride	0.7	mg/L		0.1		1	E300.0	04/25/13 23:37/tb
Sulfate	1960	mg/L	D	50		50	E300.0	04/26/13 01:42/tb
DATA QUALITY PARAMETERS								
Anions	69.4	meq/L		1.00		1	A1030 E	05/30/13 00:00/lkl
Cations	68.8	meq/L		1.00		1	A1030 E	05/30/13 00:00/lkl
Conductivity, Calculated	5430	umhos/cm		1.00		1	A1030 E	05/30/13 00:00/lkl
TDS Ratio	1.06			0.0100		1	A1030 E	05/30/13 00:00/lkl
A/C Balance	-0.480	%				1	A1030 E	05/30/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.8	mg/L		0.1		1	E300.0	04/25/13 23:37/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	34.6	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Alpha precision (±)	9.8	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Alpha MDC	11.9	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Beta	23.0	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Beta precision (±)	11.2	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Beta MDC	18.1	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Lead 210	0.2	pCi/L	U			1	E909.0	05/09/13 13:00/eli-cs
Lead 210 precision (±)	0.6	pCi/L				1	E909.0	05/09/13 13:00/eli-cs
Lead 210 MDC	1.0	pCi/L				1	E909.0	05/09/13 13:00/eli-cs
Radium 228	-0.3	pCi/L	U			1	RA-05	05/07/13 21:01/eli-ca
Radium 228 precision (±)	0.8	pCi/L				1	RA-05	05/07/13 21:01/eli-ca
Radium 228 MDC	1.4	pCi/L				1	RA-05	05/07/13 21:01/eli-ca
Radium 226	0.5	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Radium 226 precision (±)	0.2	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Thorium 230	0.02	pCi/L	U			1	E908.0	05/09/13 09:57/eli-ca

Report Definitions:
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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: R13040294-002
Client Sample ID: DC-2 Dup

Report Date: 06/24/13
Collection Date: 04/24/13 10:24
Date Received: 04/25/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.07	pCi/L				1	E908.0	05/09/13 09:57/eli-ca
Thorium 230 MDC	0.1	pCi/L				1	E908.0	05/09/13 09:57/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	2040	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
Radon 222 precision (±)	139	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
Radon 222 MDC	189	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	05/02/13 12:33/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	0.002	mg/L		0.001		1	E200.8	04/30/13 15:53/eli-ca
Barium	ND	mg/L		0.05		1	E200.8	04/30/13 15:53/eli-ca
Boron	0.29	mg/L		0.05		5	E200.7	05/24/13 16:52/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	04/30/13 15:53/eli-ca
Chromium	0.012	mg/L		0.005		1	E200.8	04/30/13 15:53/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	04/30/13 15:53/eli-ca
Iron	4.21	mg/L		0.03		5	E200.7	05/24/13 16:52/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	04/30/13 15:53/eli-ca
Manganese	2.88	mg/L		0.001		1	E200.8	04/30/13 15:53/eli-ca
Molybdenum	0.005	mg/L		0.001		1	E200.8	04/30/13 15:53/eli-ca
Nickel	0.008	mg/L		0.005		1	E200.8	04/30/13 15:53/eli-ca
Selenium	0.002	mg/L		0.001		1	E200.8	04/30/13 15:53/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	04/30/13 15:53/eli-ca
Uranium	0.0093	mg/L		0.0003		1	E200.8	04/30/13 15:53/eli-ca
Vanadium	ND	mg/L		0.01		1	E200.8	04/30/13 15:53/eli-ca
Zinc	ND	mg/L		0.01		1	E200.8	04/30/13 15:53/eli-ca
Calcium	508	mg/L		1		5	E200.7	05/24/13 16:52/eli-ca
Magnesium	145	mg/L		1		5	E200.7	05/24/13 16:52/eli-ca
Potassium	6	mg/L		1		5	E200.7	05/24/13 16:52/eli-ca
Sodium	704	mg/L		1		5	E200.7	05/24/13 16:52/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.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R13040294-003
Client Sample ID: BC-3

Report Date: 06/24/13
Collection Date: 04/24/13 12:40
Date Received: 04/25/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3180	umhos/cm		5.0		1	A2510 B	04/26/13 14:58/tb
pH	7.17	su		0.01		1	A4500-H B	04/26/13 14:27/tb
Solids, Total Dissolved TDS @ 180 C	3160	mg/L		20		1	A2540 C	04/29/13 16:02/jmh
Alkalinity, Total as CaCO3	242	mg/L		5		1	A2320 B	05/03/13 15:43/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	05/03/13 15:43/ch
Bicarbonate as HCO3	295	mg/L		5		1	A2320 B	05/03/13 15:43/ch
INORGANIC PARAMETERS								
Chloride	19	mg/L		1		1	E300.0	04/25/13 23:55/tb
Fluoride	0.6	mg/L		0.1		1	E300.0	04/25/13 23:55/tb
Sulfate	1870	mg/L	D	50		50	E300.0	04/26/13 02:36/tb
DATA QUALITY PARAMETERS								
Anions	44.4	meq/L		1.00		1	A1030 E	05/30/13 00:00/lkl
Cations	46.0	meq/L		1.00		1	A1030 E	05/30/13 00:00/lkl
Conductivity, Calculated	3740	umhos/cm		1.00		1	A1030 E	05/30/13 00:00/lkl
TDS Ratio	1.09			0.0100		1	A1030 E	05/30/13 00:00/lkl
A/C Balance	1.76	%				1	A1030 E	05/30/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	ND	mg/L		0.1		1	E300.0	04/25/13 23:55/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	43.5	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Alpha precision (±)	7.6	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Alpha MDC	8.8	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Beta	-1	pCi/L	U			1	E900.0	05/10/13 05:06/eli-ca
Gross Beta precision (±)	7.5	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Beta MDC	12.5	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Lead 210	-0.2	pCi/L	U			1	E909.0	05/09/13 00:59/eli-cs
Lead 210 precision (±)	0.6	pCi/L				1	E909.0	05/09/13 00:59/eli-cs
Lead 210 MDC	1	pCi/L				1	E909.0	05/09/13 00:59/eli-cs
Radium 228	-0.2	pCi/L	U			1	RA-05	05/07/13 21:01/eli-ca
Radium 228 precision (±)	0.7	pCi/L				1	RA-05	05/07/13 21:01/eli-ca
Radium 228 MDC	1.3	pCi/L				1	RA-05	05/07/13 21:01/eli-ca
Radium 226	0.2	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Radium 226 precision (±)	0.1	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Thorium 230	0.01	pCi/L	U			1	E908.0	05/09/13 09:57/eli-ca

Report Definitions:
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MDC - Minimum detectable concentration
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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: R13040294-003
Client Sample ID: BC-3

Report Date: 06/24/13
Collection Date: 04/24/13 12:40
Date Received: 04/25/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.08	pCi/L				1	E908.0	05/09/13 09:57/eli-ca
Thorium 230 MDC	0.2	pCi/L				1	E908.0	05/09/13 09:57/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	1570	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
Radon 222 precision (±)	131	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
Radon 222 MDC	186	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	05/02/13 12:48/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		1	E200.8	04/30/13 16:09/eli-ca
Barium	ND	mg/L		0.05		1	E200.8	04/30/13 16:09/eli-ca
Boron	0.75	mg/L		0.05		2	E200.7	05/20/13 18:51/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	04/30/13 16:09/eli-ca
Chromium	0.010	mg/L		0.005		1	E200.8	04/30/13 16:09/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	04/30/13 16:09/eli-ca
Iron	0.59	mg/L		0.03		5	E200.7	05/24/13 16:56/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	04/30/13 16:09/eli-ca
Manganese	0.565	mg/L		0.001		1	E200.8	04/30/13 16:09/eli-ca
Molybdenum	0.006	mg/L		0.001		1	E200.8	04/30/13 16:09/eli-ca
Nickel	0.011	mg/L		0.005		1	E200.8	04/30/13 16:09/eli-ca
Selenium	0.001	mg/L		0.001		1	E200.8	04/30/13 16:09/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	04/30/13 16:09/eli-ca
Uranium	0.0224	mg/L		0.0003		1	E200.8	04/30/13 16:09/eli-ca
Vanadium	ND	mg/L		0.01		1	E200.8	04/30/13 16:09/eli-ca
Zinc	ND	mg/L		0.01		1	E200.8	04/30/13 16:09/eli-ca
Calcium	529	mg/L		1		5	E200.7	05/24/13 16:56/eli-ca
Magnesium	149	mg/L		1		10	E200.7	05/31/13 12:22/eli-ca
Potassium	11	mg/L		1		5	E200.7	05/24/13 16:56/eli-ca
Sodium	162	mg/L		1		5	E200.7	05/24/13 16:56/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.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R13040294-004
Client Sample ID: BC-1

Report Date: 06/24/13
Collection Date: 04/24/13 14:02
Date Received: 04/25/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3600	umhos/cm		5.0		1	A2510 B	04/26/13 15:00/tb
pH	7.11	su		0.01		1	A4500-H B	04/26/13 14:28/tb
Solids, Total Dissolved TDS @ 180 C	3790	mg/L		40		1	A2540 C	04/29/13 16:06/jmh
Alkalinity, Total as CaCO3	292	mg/L		5		1	A2320 B	05/03/13 15:46/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	05/03/13 15:46/ch
Bicarbonate as HCO3	356	mg/L		5		1	A2320 B	05/03/13 15:46/ch
INORGANIC PARAMETERS								
Chloride	26	mg/L		1		1	E300.0	04/26/13 00:13/tb
Fluoride	0.7	mg/L		0.1		1	E300.0	04/26/13 00:13/tb
Sulfate	2220	mg/L	D	50		50	E300.0	04/26/13 03:30/tb
DATA QUALITY PARAMETERS								
Anions	52.8	meq/L		1.00		1	A1030 E	05/30/13 00:00/lkl
Cations	52.5	meq/L		1.00		1	A1030 E	05/30/13 00:00/lkl
Conductivity, Calculated	4250	umhos/cm		1.00		1	A1030 E	05/30/13 00:00/lkl
TDS Ratio	1.12			0.0100		1	A1030 E	05/30/13 00:00/lkl
A/C Balance	-0.340	%				1	A1030 E	05/30/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.3	mg/L		0.1		1	E300.0	04/26/13 00:13/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	91.4	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Alpha precision (±)	10.8	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Alpha MDC	10.3	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Beta	16.0	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Beta precision (±)	9.4	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Beta MDC	15.2	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Lead 210	-0.2	pCi/L	U			1	E909.0	05/09/13 15:18/eli-cs
Lead 210 precision (±)	0.6	pCi/L				1	E909.0	05/09/13 15:18/eli-cs
Lead 210 MDC	1	pCi/L				1	E909.0	05/09/13 15:18/eli-cs
Radium 228	0.2	pCi/L	U			1	RA-05	05/07/13 21:01/eli-ca
Radium 228 precision (±)	0.8	pCi/L				1	RA-05	05/07/13 21:01/eli-ca
Radium 228 MDC	1.3	pCi/L				1	RA-05	05/07/13 21:01/eli-ca
Radium 226	0.2	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Radium 226 precision (±)	0.1	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Thorium 230	-0.008	pCi/L	U			1	E908.0	05/09/13 09:57/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: R13040294-004
Client Sample ID: BC-1

Report Date: 06/24/13
Collection Date: 04/24/13 14:02
Date Received: 04/25/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.1	pCi/L				1	E908.0	05/09/13 09:57/eli-ca
Thorium 230 MDC	0.3	pCi/L				1	E908.0	05/09/13 09:57/eli-ca
- See Case Narrative regarding Th230 analysis.								
RADIONUCLIDES - TOTAL								
Radon 222	2120	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
Radon 222 precision (±)	136	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
Radon 222 MDC	184	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	05/02/13 12:50/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		1	E200.8	04/30/13 16:14/eli-ca
Barium	ND	mg/L		0.05		1	E200.8	04/30/13 16:14/eli-ca
Boron	0.56	mg/L		0.05		2	E200.7	05/20/13 18:55/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	04/30/13 16:14/eli-ca
Chromium	0.005	mg/L		0.005		2	E200.8	05/01/13 18:30/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	04/30/13 16:14/eli-ca
Iron	ND	mg/L		0.03		2	E200.7	05/20/13 18:55/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	04/30/13 16:14/eli-ca
Manganese	0.030	mg/L		0.001		2	E200.8	05/01/13 18:30/eli-ca
Molybdenum	0.005	mg/L		0.001		1	E200.8	04/30/13 16:14/eli-ca
Nickel	0.011	mg/L		0.005		1	E200.8	04/30/13 16:14/eli-ca
Selenium	0.002	mg/L		0.001		1	E200.8	04/30/13 16:14/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	04/30/13 16:14/eli-ca
Uranium	0.100	mg/L		0.0003		1	E200.8	04/30/13 16:14/eli-ca
Vanadium	ND	mg/L		0.01		2	E200.8	05/01/13 18:30/eli-ca
Zinc	ND	mg/L		0.01		1	E200.8	04/30/13 16:14/eli-ca
Calcium	505	mg/L		1		5	E200.7	05/24/13 17:00/eli-ca
Magnesium	225	mg/L		1		2	E200.7	05/20/13 18:55/eli-ca
Potassium	11	mg/L		1		5	E200.7	05/24/13 17:00/eli-ca
Sodium	194	mg/L		1		5	E200.7	05/24/13 17:00/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.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R13040294-005
Client Sample ID: BC-2

Report Date: 06/24/13
Collection Date: 04/24/13 15:18
Date Received: 04/25/13
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	04/26/13 15:01/tb
pH	7.18	su		0.01		1	A4500-H B	04/26/13 14:31/tb
Solids, Total Dissolved TDS @ 180 C	3820	mg/L		40		1	A2540 C	04/29/13 16:07/jmh
Alkalinity, Total as CaCO3	228	mg/L		5		1	A2320 B	05/03/13 15:58/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	05/03/13 15:58/ch
Bicarbonate as HCO3	278	mg/L		5		1	A2320 B	05/03/13 15:58/ch
INORGANIC PARAMETERS								
Chloride	22	mg/L		1		1	E300.0	04/26/13 00:31/tb
Fluoride	0.8	mg/L		0.1		1	E300.0	04/26/13 00:31/tb
Sulfate	2490	mg/L	D	20		20	E300.0	04/26/13 03:48/tb
DATA QUALITY PARAMETERS								
Anions	57.0	meq/L		1.00		1	A1030 E	05/30/13 00:00/lkl
Cations	56.1	meq/L		1.00		1	A1030 E	05/30/13 00:00/lkl
Conductivity, Calculated	4560	umhos/cm		1.00		1	A1030 E	05/30/13 00:00/lkl
TDS Ratio	1.04			0.0100		1	A1030 E	05/30/13 00:00/lkl
A/C Balance	-0.810	%				1	A1030 E	05/30/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.3	mg/L		0.1		1	E300.0	04/26/13 00:31/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	38.9	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Alpha precision (±)	9.4	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Alpha MDC	12.3	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Beta	-3	pCi/L	U			1	E900.0	05/10/13 05:06/eli-ca
Gross Beta precision (±)	9.9	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Gross Beta MDC	16.7	pCi/L				1	E900.0	05/10/13 05:06/eli-ca
Lead 210	0.08	pCi/L	U			1	E909.0	05/09/13 16:28/eli-cs
Lead 210 precision (±)	0.6	pCi/L				1	E909.0	05/09/13 16:28/eli-cs
Lead 210 MDC	1.0	pCi/L				1	E909.0	05/09/13 16:28/eli-cs
Radium 228	0.01	pCi/L	U			1	RA-05	05/07/13 21:01/eli-ca
Radium 228 precision (±)	0.8	pCi/L				1	RA-05	05/07/13 21:01/eli-ca
Radium 228 MDC	1.3	pCi/L				1	RA-05	05/07/13 21:01/eli-ca
Radium 226	0.2	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Radium 226 precision (±)	0.1	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Thorium 230	0.08	pCi/L	U			1	E908.0	05/09/13 09:58/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: R13040294-005
Client Sample ID: BC-2

Report Date: 06/24/13
Collection Date: 04/24/13 15:18
Date Received: 04/25/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.1	pCi/L				1	E908.0	05/09/13 09:58/eli-ca
Thorium 230 MDC	0.2	pCi/L				1	E908.0	05/09/13 09:58/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	2790	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
Radon 222 precision (±)	143	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
Radon 222 MDC	182	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	05/02/13 12:51/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		1	E200.8	04/30/13 16:17/eli-ca
Barium	ND	mg/L		0.05		1	E200.8	04/30/13 16:17/eli-ca
Boron	0.54	mg/L		0.05		5	E200.7	05/24/13 17:03/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	04/30/13 16:17/eli-ca
Chromium	0.009	mg/L		0.005		1	E200.8	04/30/13 16:17/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	04/30/13 16:17/eli-ca
Iron	ND	mg/L		0.03		2	E200.7	05/20/13 18:59/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	04/30/13 16:17/eli-ca
Manganese	0.036	mg/L		0.001		1	E200.8	04/30/13 16:17/eli-ca
Molybdenum	0.013	mg/L		0.001		1	E200.8	04/30/13 16:17/eli-ca
Nickel	0.011	mg/L		0.005		1	E200.8	04/30/13 16:17/eli-ca
Selenium	0.001	mg/L		0.001		1	E200.8	04/30/13 16:17/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	04/30/13 16:17/eli-ca
Uranium	0.0270	mg/L		0.0003		1	E200.8	04/30/13 16:17/eli-ca
Vanadium	ND	mg/L		0.01		1	E200.8	04/30/13 16:17/eli-ca
Zinc	ND	mg/L		0.01		1	E200.8	04/30/13 16:17/eli-ca
Calcium	523	mg/L		1		5	E200.7	05/24/13 17:03/eli-ca
Magnesium	214	mg/L		1		10	E200.7	05/31/13 12:37/eli-ca
Potassium	12	mg/L		1		5	E200.7	05/24/13 17:03/eli-ca
Sodium	279	mg/L		1		5	E200.7	05/24/13 17:03/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.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R13040294-006
Client Sample ID: DC-1

Report Date: 06/24/13
Collection Date: 04/25/13 09:00
Date Received: 04/25/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	7590	umhos/cm		5.0		1	A2510 B	04/26/13 15:03/tb
pH	6.80	su		0.01		1	A4500-H B	04/26/13 14:33/tb
Solids, Total Dissolved TDS @ 180 C	7440	mg/L		100		1	A2540 C	04/29/13 16:08/jmh
Alkalinity, Total as CaCO3	356	mg/L		5		1	A2320 B	05/03/13 16:01/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	05/03/13 16:01/ch
Bicarbonate as HCO3	434	mg/L		5		1	A2320 B	05/03/13 16:01/ch
INORGANIC PARAMETERS								
Chloride	124	mg/L		1		1	E300.0	04/26/13 00:49/tb
Fluoride	1.0	mg/L		0.1		1	E300.0	04/26/13 00:49/tb
Sulfate	4810	mg/L	D	50		50	E300.0	04/26/13 04:06/tb
DATA QUALITY PARAMETERS								
Anions	111	meq/L		1.00		1	A1030 E	05/30/13 00:00/lkl
Cations	88.1	meq/L		1.00		1	A1030 E	05/30/13 00:00/lkl
Conductivity, Calculated	7540	umhos/cm		1.00		1	A1030 E	05/30/13 00:00/lkl
TDS Ratio	1.08			0.0100		1	A1030 E	05/30/13 00:00/lkl
A/C Balance	-11.6	%				1	A1030 E	05/30/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	5.3	mg/L		0.1		1	E300.0	04/26/13 00:49/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	88.7	pCi/L				1	E900.0	06/22/13 07:10/eli-ca
Gross Alpha precision (±)	16.4	pCi/L				1	E900.0	06/22/13 07:10/eli-ca
Gross Alpha MDC	19.2	pCi/L				1	E900.0	06/22/13 07:10/eli-ca
Gross Beta	22.0	pCi/L	U			1	E900.0	06/22/13 07:10/eli-ca
Gross Beta precision (±)	15.2	pCi/L				1	E900.0	06/22/13 07:10/eli-ca
Gross Beta MDC	24.7	pCi/L				1	E900.0	06/22/13 07:10/eli-ca
Lead 210	0.5	pCi/L	U			1	E909.0	05/09/13 17:37/eli-cs
Lead 210 precision (±)	0.8	pCi/L				1	E909.0	05/09/13 17:37/eli-cs
Lead 210 MDC	1.3	pCi/L				1	E909.0	05/09/13 17:37/eli-cs
Radium 228	-0.3	pCi/L	U			1	RA-05	05/07/13 21:01/eli-ca
Radium 228 precision (±)	0.8	pCi/L				1	RA-05	05/07/13 21:01/eli-ca
Radium 228 MDC	1.4	pCi/L				1	RA-05	05/07/13 21:01/eli-ca
Radium 226	0.6	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Radium 226 precision (±)	0.2	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	05/13/13 08:46/eli-ca
Thorium 230	0.04	pCi/L	U			1	E908.0	05/09/13 09:58/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: R13040294-006
Client Sample ID: DC-1

Report Date: 06/24/13
Collection Date: 04/25/13 09:00
Date Received: 04/25/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.08	pCi/L				1	E908.0	05/09/13 09:58/eli-ca
Thorium 230 MDC	0.1	pCi/L				1	E908.0	05/09/13 09:58/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	981	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
Radon 222 precision (±)	108	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
Radon 222 MDC	159	pCi/L				1	D5072-92	04/26/13 12:49/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	05/02/13 12:53/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	0.002	mg/L		0.001		1	E200.8	04/30/13 16:20/eli-ca
Barium	ND	mg/L		0.05		1	E200.8	04/30/13 16:20/eli-ca
Boron	1.36	mg/L		0.05		5	E200.7	05/24/13 17:21/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	04/30/13 16:20/eli-ca
Chromium	0.012	mg/L		0.005		1	E200.8	04/30/13 16:20/eli-ca
Copper	0.005	mg/L		0.005		1	E200.8	04/30/13 16:20/eli-ca
Iron	0.05	mg/L		0.03		2	E200.7	05/20/13 19:03/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	04/30/13 16:20/eli-ca
Manganese	0.112	mg/L		0.001		1	E200.8	04/30/13 16:20/eli-ca
Molybdenum	0.002	mg/L		0.001		1	E200.8	04/30/13 16:20/eli-ca
Nickel	0.030	mg/L		0.005		1	E200.8	04/30/13 16:20/eli-ca
Selenium	0.039	mg/L		0.001		1	E200.8	04/30/13 16:20/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	04/30/13 16:20/eli-ca
Uranium	0.0186	mg/L		0.0003		1	E200.8	04/30/13 16:20/eli-ca
Vanadium	ND	mg/L		0.01		1	E200.8	04/30/13 16:20/eli-ca
Zinc	0.04	mg/L		0.01		1	E200.8	04/30/13 16:20/eli-ca
Calcium	395	mg/L		1		10	E200.7	05/31/13 12:40/eli-ca
Magnesium	341	mg/L		1		10	E200.7	05/31/13 12:40/eli-ca
Potassium	8	mg/L		1		5	E200.7	05/24/13 17:21/eli-ca
Sodium	923	mg/L		1		5	E200.7	05/24/13 17:21/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: 06/24/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: 130503A-ALK-SEL-W	
Sample ID: LCS1_130503A		Laboratory Control Sample				Run: PH_COND1-R_130503A			05/03/13 14:34	
Alkalinity, Total as CaCO3		964	mg/L	5.0	96	90	110			
Sample ID: MBLK1_130503A		Method Blank				Run: PH_COND1-R_130503A			05/03/13 14:38	
Alkalinity, Total as CaCO3		ND	mg/L	3						
Sample ID: R13040272-006ADUP	3	Sample Duplicate				Run: PH_COND1-R_130503A			05/03/13 15:18	
Alkalinity, Total as CaCO3		102	mg/L	5.0				2.0	10	
Carbonate as CO3		ND	mg/L	5.0					10	
Bicarbonate as HCO3		124	mg/L	5.0				2.0	10	
Sample ID: R13040294-001AMS		Sample Matrix Spike				Run: PH_COND1-R_130503A			05/03/13 15:37	
Alkalinity, Total as CaCO3		378	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:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **A2510 B**									Batch: 130426_1_COND-PROBE-W	
Sample ID: **MBLK-1_130426**	Method Blank					Run: PH_COND2-R_130426B			04/26/13 14:51	
Conductivity @ 25 C		ND	umhos/cm	5						
Sample ID: **R13040294-001ADUP**	Sample Duplicate					Run: PH_COND2-R_130426B			04/26/13 14:55	
Conductivity @ 25 C		5640	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: 06/24/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: TDS130429A
Sample ID: MB-1_130429A		Method Blank				Run: BAL-TDS_130429A				04/29/13 15:49
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	2						
Sample ID: LCS-2_130429A		Laboratory Control Sample				Run: BAL-TDS_130429A				04/29/13 15:50
Solids, Total Dissolved TDS @ 180 C		490	mg/L	10	99	90	110			
Sample ID: R13040272-001A MS		Sample Matrix Spike				Run: BAL-TDS_130429A				04/29/13 15:54
Solids, Total Dissolved TDS @ 180 C		11000	mg/L	200	106	90	110			
Sample ID: R13040294-003A DUP		Sample Duplicate				Run: BAL-TDS_130429A				04/29/13 16:04
Solids, Total Dissolved TDS @ 180 C		3200	mg/L	20				0.3	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: 06/24/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **A4500-H B**									Analytical Run: PH_COND2-R_130426A	
Sample ID: **ICV-1_130426**		Initial Calibration Verification Standard							04/26/13 14:07	
pH		7.42	su	0.010	100	98	102			
Method: **A4500-H B**									Batch: 130426_1_PH-W	
Sample ID: **ICV1-1_130426**		Initial Calibration Verification Standard				Run: PH_COND2-R_130426A			04/26/13 14:06	
pH		12.0	su	0.010	100	99	101			
Sample ID: **R13040294-001ADUP**		Sample Duplicate				Run: PH_COND2-R_130426A			04/26/13 14:23	
pH		7.20	su	0.010				0.7	3	

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: D5072-92									Batch: C_R172970	
Sample ID: C13040816-001JDUP	3	Sample Duplicate				Run: SUB-C172970			04/26/13 12:49	
Radon 222		-349	pCi/L					9.1	20	U
Radon 222 precision (±)		105	pCi/L							
Radon 222 MDC		184	pCi/L							
Sample ID: C13040834-001ADUP	3	Sample Duplicate				Run: SUB-C172970			04/26/13 12:49	
Radon 222		5300	pCi/L					1.5	20	
Radon 222 precision (±)		174	pCi/L							
Radon 222 MDC		192	pCi/L							
Sample ID: R13040294-006D	3	Sample Duplicate				Run: SUB-C172970			04/26/13 12:49	
Radon 222		1020	pCi/L					3.9	20	
Radon 222 precision (±)		108	pCi/L							
Radon 222 MDC		159	pCi/L							
Sample ID: MB-R172970	3	Method Blank				Run: SUB-C172970			04/26/13 12:49	
Radon 222		40	pCi/L							U
Radon 222 precision (±)		80	pCi/L							
Radon 222 MDC		100	pCi/L							
Sample ID: LCS-R172970		Laboratory Control Sample				Run: SUB-C172970			04/26/13 12:49	
Radon 222		474	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:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: SUB-C173805	
Sample ID: ICV	4	Initial Calibration Verification Standard							05/20/13 12:15	
Boron		1.0	mg/L	0.10	102	95	105			
Calcium		50	mg/L	0.50	100	95	105			
Iron		5.0	mg/L	0.030	100	95	105			
Magnesium		50	mg/L	0.50	100	95	105			
Sample ID: ICSA	4	Interference Check Sample A							05/20/13 12:29	
Boron		0.018	mg/L	0.10						
Calcium		450	mg/L	0.50	91	80	120			
Iron		180	mg/L	0.030	89	80	120			
Magnesium		500	mg/L	0.50	99	80	120			
Sample ID: ICSAB	4	Interference Check Sample AB							05/20/13 12:33	
Boron		0.012	mg/L	0.10						
Calcium		460	mg/L	0.50	91	80	120			
Iron		180	mg/L	0.030	89	80	120			
Magnesium		500	mg/L	0.50	100	80	120			
Method: E200.7									Batch: C_R173805	
Sample ID: MB-130520A	4	Method Blank				Run: SUB-C173805			05/20/13 12:52	
Boron		ND	mg/L	0.002						
Calcium		ND	mg/L	0.02						
Iron		0.002	mg/L	0.002						
Magnesium		ND	mg/L	0.01						
Sample ID: LCS3-37096	4	Laboratory Control Sample				Run: SUB-C173805			05/20/13 14:05	
Boron		0.56	mg/L	0.10	112	85	115			
Calcium		28	mg/L	0.50	111	85	115			
Iron		2.8	mg/L	0.030	112	85	115			
Magnesium		28	mg/L	0.50	111	85	115			
Sample ID: LFB-130520A	4	Laboratory Fortified Blank				Run: SUB-C173805			05/20/13 14:09	
Boron		1.0	mg/L	0.10	103	85	115			
Calcium		50	mg/L	0.50	101	85	115			
Iron		1.0	mg/L	0.030	101	85	115			
Magnesium		51	mg/L	0.50	102	85	115			
Sample ID: C13050678-006BMS	4	Sample Matrix Spike				Run: SUB-C173805			05/20/13 17:48	
Boron		1.72	mg/L	0.050	85	70	130			
Iron		1.73	mg/L	0.030	87	70	130			
Calcium		130	mg/L	1.0	90	70	130			
Magnesium		93.8	mg/L	1.0	90	70	130			
Sample ID: C13050678-006BMSD	4	Sample Matrix Spike Duplicate				Run: SUB-C173805			05/20/13 18:29	
Boron		1.80	mg/L	0.050	90	70	130	4.7	20	
Iron		1.78	mg/L	0.030	89	70	130	2.7	20	
Calcium		134	mg/L	1.0	95	70	130	3.6	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

Client: Powertech USA Inc
Report Date: 06/24/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: C_R173805
Sample ID: C13050678-006BMSD	4	Sample Matrix Spike Duplicate				Run: SUB-C173805				05/20/13 18:29
Magnesium		97.0	mg/L	1.0	93	70	130	3.3	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:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: SUB-C174036	
Sample ID: ICV	5	Initial Calibration Verification Standard							05/24/13 13:08	
Boron		0.99	mg/L	0.10	99	95	105			
Calcium		49	mg/L	0.50	98	95	105			
Iron		4.9	mg/L	0.030	99	95	105			
Potassium		49	mg/L	0.50	97	95	105			
Sodium		50	mg/L	0.50	99	95	105			
Sample ID: ICSA	5	Interference Check Sample A							05/24/13 13:22	
Boron		0.0048	mg/L	0.10						
Calcium		450	mg/L	0.50	90	80	120			
Iron		180	mg/L	0.030	88	80	120			
Potassium		0.053	mg/L	0.50						
Sodium		-0.036	mg/L	0.50						
Sample ID: ICSAB	5	Interference Check Sample AB							05/24/13 13:27	
Boron		0.012	mg/L	0.10						
Calcium		450	mg/L	0.50	89	80	120			
Iron		170	mg/L	0.030	87	80	120			
Potassium		0.034	mg/L	0.50						
Sodium		-0.085	mg/L	0.50						
Method: E200.7									Batch: C_R174036	
Sample ID: MB-130524A	5	Method Blank				Run: SUB-C174036			05/24/13 13:45	
Boron		ND	mg/L	0.002						
Calcium		ND	mg/L	0.02						
Iron		ND	mg/L	0.002						
Potassium		ND	mg/L	0.04						
Sodium		ND	mg/L	0.2						
Sample ID: LFB-130524A	5	Laboratory Fortified Blank				Run: SUB-C174036			05/24/13 13:49	
Boron		0.93	mg/L	0.10	93	85	115			
Calcium		47	mg/L	0.50	95	85	115			
Iron		0.93	mg/L	0.030	93	85	115			
Potassium		46	mg/L	0.50	92	85	115			
Sodium		47	mg/L	0.50	94	85	115			
Sample ID: C13050833-001CMS2	4	Sample Matrix Spike				Run: SUB-C174036			05/24/13 15:42	
Iron		1.89	mg/L	0.030	92	70	130			
Calcium		99.9	mg/L	1.0	92	70	130			
Potassium		90.8	mg/L	1.0	87	70	130			
Sodium		396	mg/L	1.0	80	70	130			
Sample ID: C13050833-001CMSD2	4	Sample Matrix Spike Duplicate				Run: SUB-C174036			05/24/13 15:46	
Iron		1.89	mg/L	0.030	92	70	130	0.2	20	
Calcium		99.7	mg/L	1.0	92	70	130	0.2	20	
Potassium		90.6	mg/L	1.0	87	70	130	0.2	20	
Sodium		397	mg/L	1.0	81	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

Client: Powertech USA Inc **Report Date:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: C_R174036
Sample ID: C13050833-001CMSD2	4	Sample Matrix Spike Duplicate				Run: SUB-C174036				05/24/13 15:46
Sample ID: C13050133-001CMS2	5	Sample Matrix Spike				Run: SUB-C174036				05/24/13 17:29
Boron		1.98	mg/L	0.050	97	70	130			
Iron		1.94	mg/L	0.030	95	70	130			
Calcium		136	mg/L	1.0	95	70	130			
Potassium		99.1	mg/L	1.0	96	70	130			
Sodium		107	mg/L	1.0	96	70	130			
Sample ID: C13050133-001CMSD2	5	Sample Matrix Spike Duplicate				Run: SUB-C174036				05/24/13 17:32
Boron		1.96	mg/L	0.050	96	70	130	0.9	20	
Iron		1.96	mg/L	0.030	96	70	130	0.8	20	
Calcium		136	mg/L	1.0	95	70	130	0.1	20	
Potassium		99.6	mg/L	1.0	96	70	130	0.4	20	
Sodium		107	mg/L	1.0	96	70	130	0.1	20	
Method: E200.7										Analytical Run: SUB-C174277
Sample ID: ICV	2	Initial Calibration Verification Standard								05/31/13 11:34
Calcium		50	mg/L	0.50	99	95	105			
Magnesium		49	mg/L	0.50	99	95	105			
Sample ID: ICSA	2	Interference Check Sample A								05/31/13 11:48
Calcium		460	mg/L	0.50	91	80	120			
Magnesium		490	mg/L	0.50	99	80	120			
Sample ID: ICSAB	2	Interference Check Sample AB								05/31/13 11:52
Calcium		450	mg/L	0.50	89	80	120			
Magnesium		490	mg/L	0.50	98	80	120			
Method: E200.7										Batch: C_R174277
Sample ID: MB-130531A	2	Method Blank				Run: SUB-C174277				05/31/13 12:11
Calcium		ND	mg/L	0.02						
Magnesium		0.06	mg/L	0.01						
Sample ID: LFB-130531A	2	Laboratory Fortified Blank				Run: SUB-C174277				05/31/13 12:15
Calcium		47	mg/L	0.50	94	85	115			
Magnesium		47	mg/L	0.50	94	85	115			
Sample ID: C13040837-003CMS2	2	Sample Matrix Spike				Run: SUB-C174277				05/31/13 12:26
Calcium		989	mg/L	1.0	93	70	130			
Magnesium		630	mg/L	1.0	94	70	130			
Sample ID: C13040837-003CMSD2	2	Sample Matrix Spike Duplicate				Run: SUB-C174277				05/31/13 12:29
Calcium		966	mg/L	1.0	89	70	130	2.3	20	
Magnesium		616	mg/L	1.0	92	70	130	2.2	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

Client: Powertech USA Inc **Report Date:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Analytical Run: SUB-C173053	
Sample ID: ICV	14	Initial Calibration Verification Standard							04/30/13 14:01	
Arsenic		0.0497	mg/L	0.0010	99	90	110			
Barium		0.0496	mg/L	0.0010	99	90	110			
Cadmium		0.0497	mg/L	0.0010	99	90	110			
Chromium		0.0501	mg/L	0.0010	100	90	110			
Copper		0.0496	mg/L	0.0010	99	90	110			
Lead		0.0504	mg/L	0.0010	101	90	110			
Manganese		0.0498	mg/L	0.0010	100	90	110			
Molybdenum		0.0489	mg/L	0.0010	98	90	110			
Nickel		0.0499	mg/L	0.0010	100	90	110			
Selenium		0.0492	mg/L	0.0010	98	90	110			
Silver		0.0198	mg/L	0.0010	99	90	110			
Uranium		0.0510	mg/L	0.00030	102	90	110			
Vanadium		0.0507	mg/L	0.0010	101	90	110			
Zinc		0.0498	mg/L	0.0010	100	90	110			
Method: E200.8									Batch: C_R173053	
Sample ID: LRB	14	Method Blank				Run: SUB-C173053			04/30/13 14:27	
Arsenic		ND	mg/L	0.00010						
Barium		ND	mg/L	3E-05						
Cadmium		ND	mg/L	2E-05						
Chromium		ND	mg/L	6E-05						
Copper		ND	mg/L	0.0001						
Lead		ND	mg/L	3E-05						
Manganese		ND	mg/L	2E-05						
Molybdenum		ND	mg/L	4E-05						
Nickel		ND	mg/L	3E-05						
Selenium		ND	mg/L	0.0002						
Silver		ND	mg/L	5E-05						
Uranium		ND	mg/L	1E-05						
Vanadium		ND	mg/L	3E-05						
Zinc		0.002	mg/L	0.0006						
Sample ID: LFB	14	Laboratory Fortified Blank				Run: SUB-C173053			04/30/13 14:30	
Arsenic		0.0493	mg/L	0.0010	99	85	115			
Barium		0.0496	mg/L	0.0010	99	85	115			
Cadmium		0.0489	mg/L	0.0010	98	85	115			
Chromium		0.0499	mg/L	0.0010	100	85	115			
Copper		0.0494	mg/L	0.0010	99	85	115			
Lead		0.0494	mg/L	0.0010	99	85	115			
Manganese		0.0497	mg/L	0.0010	99	85	115			
Molybdenum		0.0484	mg/L	0.0010	97	85	115			
Nickel		0.0495	mg/L	0.0010	99	85	115			
Selenium		0.0488	mg/L	0.0010	98	85	115			
Silver		0.0186	mg/L	0.0010	93	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

Client: Powertech USA Inc **Report Date:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: C_R173053	
Sample ID: LFB	14	Laboratory Fortified Blank				Run: SUB-C173053			04/30/13 14:30	
Uranium		0.0502	mg/L	0.00030	100	85	115			
Vanadium		0.0508	mg/L	0.0010	102	85	115			
Zinc		0.0503	mg/L	0.0010	97	85	115			
Sample ID: C13040914-001BMS4	14	Post Digestion Spike				Run: SUB-C173053			04/30/13 16:33	
Arsenic		0.0561	mg/L	0.0010	108	70	130			
Barium		0.119	mg/L	0.050	110	70	130			
Cadmium		0.0506	mg/L	0.0010	101	70	130			
Chromium		0.0525	mg/L	0.0050	99	70	130			
Copper		0.0486	mg/L	0.0050	96	70	130			
Lead		0.0532	mg/L	0.0010	106	70	130			
Manganese		0.0621	mg/L	0.0010	101	70	130			
Molybdenum		0.0539	mg/L	0.0010	102	70	130			
Nickel		0.0511	mg/L	0.0050	97	70	130			
Selenium		0.0529	mg/L	0.0010	106	70	130			
Silver		0.0172	mg/L	0.0010	86	70	130			
Uranium		0.0583	mg/L	0.00030	112	70	130			
Vanadium		0.0530	mg/L	0.010	104	70	130			
Zinc		0.0512	mg/L	0.010	98	70	130			
Sample ID: C13040914-001BMSD4	14	Post Digestion Spike Duplicate				Run: SUB-C173053			04/30/13 16:36	
Arsenic		0.0562	mg/L	0.0010	108	70	130	0.1	20	
Barium		0.117	mg/L	0.050	107	70	130	1.2	20	
Cadmium		0.0502	mg/L	0.0010	100	70	130	0.9	20	
Chromium		0.0510	mg/L	0.0050	96	70	130	2.9	20	
Copper		0.0485	mg/L	0.0050	95	70	130	0.2	20	
Lead		0.0528	mg/L	0.0010	106	70	130	0.8	20	
Manganese		0.0610	mg/L	0.0010	99	70	130	1.8	20	
Molybdenum		0.0545	mg/L	0.0010	103	70	130	1.1	20	
Nickel		0.0510	mg/L	0.0050	97	70	130	0.3	20	
Selenium		0.0531	mg/L	0.0010	106	70	130	0.4	20	
Silver		0.0176	mg/L	0.0010	88	70	130	2.1	20	
Uranium		0.0586	mg/L	0.00030	112	70	130	0.4	20	
Vanadium		0.0515	mg/L	0.010	101	70	130	3.0	20	
Zinc		0.0518	mg/L	0.010	99	70	130	1.3	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:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Analytical Run: SUB-C173114	
Sample ID: ICV	3	Initial Calibration Verification Standard							05/01/13 13:07	
Chromium		0.0497	mg/L	0.0010	99	90	110			
Manganese		0.0496	mg/L	0.0010	99	90	110			
Vanadium		0.0501	mg/L	0.0010	100	90	110			
Method: E200.8									Batch: C_R173114	
Sample ID: LRB	3	Method Blank				Run: SUB-C173114			05/01/13 13:32	
Chromium		8E-05	mg/L	6E-05						
Manganese		ND	mg/L	2E-05						
Vanadium		ND	mg/L	3E-05						
Sample ID: LFB	3	Laboratory Fortified Blank				Run: SUB-C173114			05/01/13 13:36	
Chromium		0.0492	mg/L	0.0010	98	85	115			
Manganese		0.0485	mg/L	0.0010	97	85	115			
Vanadium		0.0498	mg/L	0.0010	100	85	115			
Sample ID: C13040940-001BMS4	3	Post Digestion Spike				Run: SUB-C173114			05/01/13 18:49	
Chromium		0.0536	mg/L	0.0050	104	70	130			
Manganese		0.268	mg/L	0.0010		70	130			A
Vanadium		0.0538	mg/L	0.010	107	70	130			
Sample ID: C13040940-001BMSD4	3	Post Digestion Spike Duplicate				Run: SUB-C173114			05/01/13 18:52	
Chromium		0.0546	mg/L	0.0050	106	70	130	1.8	20	
Manganese		0.272	mg/L	0.0010		70	130	1.6	20	A
Vanadium		0.0542	mg/L	0.010	107	70	130	0.8	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:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E245.1									Analytical Run: SUB-C173137	
Sample ID: ICV		Initial Calibration Verification Standard							05/02/13 12:19	
Mercury		0.0051	mg/L	0.00010	101	90	110			
Method: E245.1									Batch: C_130502B	
Sample ID: IPC		Instrument Performance Check Sample				Run: SUB-C173137			05/02/13 12:22	
Mercury		0.0050	mg/L	0.00010	100	95	105			
Method: E245.1									Batch: C_37342	
Sample ID: MB-37342		Method Blank				Run: SUB-C173137			05/02/13 12:25	
Mercury		ND	mg/L	7E-05						
Sample ID: LCS-37342		Laboratory Control Sample				Run: SUB-C173137			05/02/13 12:27	
Mercury		0.0048	mg/L	0.00010	95	85	115			
Sample ID: R13040294-001B		Sample Matrix Spike				Run: SUB-C173137			05/02/13 12:30	
Mercury		0.0042	mg/L	0.00010	84	70	130			
Sample ID: R13040294-001B		Sample Matrix Spike Duplicate				Run: SUB-C173137			05/02/13 12:31	
Mercury		0.0042	mg/L	0.00010	84	70	130	0.6	10	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: DIONEX_130425A	
Sample ID: CCV042513-28	4	Continuing Calibration Verification Standard							04/26/13 02:00	
Chloride		71.8	mg/L	1.0	96	90	110			
Fluoride		7.25	mg/L	0.10	97	90	110			
Nitrogen, Nitrate as N		7.10	mg/L	0.10	95	90	110			
Sulfate		71.1	mg/L	1.0	95	90	110			
Method: E300.0									Batch: R60760	
Sample ID: LFB042513-14	4	Laboratory Fortified Blank				Run: DIONEX_130425A			04/25/13 22:07	
Chloride		38.1	mg/L	1.0	95	90	110			
Fluoride		3.93	mg/L	0.10	98	90	110			
Nitrogen, Nitrate as N		3.80	mg/L	0.10	95	90	110			
Sulfate		37.9	mg/L	1.0	95	90	110			
Sample ID: R13040287-001BMS	4	Sample Matrix Spike				Run: DIONEX_130425A			04/25/13 22:43	
Chloride		40.1	mg/L	1.0	88	90	110			S
Fluoride		4.02	mg/L	0.10	89	90	110			S
Nitrogen, Nitrate as N		4.08	mg/L	0.10	91	90	110			
Sulfate		42.4	mg/L	1.0	91	90	110			
Sample ID: R13040287-001BMSD	4	Sample Matrix Spike Duplicate				Run: DIONEX_130425A			04/25/13 23:01	
Chloride		40.2	mg/L	1.0	88	90	110	0.1	10	S
Fluoride		4.02	mg/L	0.10	90	90	110	0.0	10	
Nitrogen, Nitrate as N		4.09	mg/L	0.10	92	90	110	0.1	10	
Sulfate		42.4	mg/L	1.0	91	90	110	0.1	10	
Sample ID: R13040294-003AMS	4	Sample Matrix Spike				Run: DIONEX_130425A			04/26/13 02:54	
Chloride		1950	mg/L	50	90	90	110			
Fluoride		199	mg/L	5.0	95	90	110			
Nitrogen, Nitrate as N		192	mg/L	5.0	96	90	110			
Sulfate		4010	mg/L	50	107	90	110			
Sample ID: R13040294-003AMSD	4	Sample Matrix Spike Duplicate				Run: DIONEX_130425A			04/26/13 03:12	
Chloride		1950	mg/L	50	90	90	110	0.0	10	
Fluoride		199	mg/L	5.0	95	90	110	0.1	10	
Nitrogen, Nitrate as N		192	mg/L	5.0	96	90	110	0.0	10	
Sulfate		3990	mg/L	50	106	90	110	0.3	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

Client: Powertech USA Inc **Report Date:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0									Batch: C_GrAB-1525	
Sample ID: Th230-GrAB-1518		Laboratory Control Sample				Run: SUB-C173410			05/10/13 05:06	
Gross Alpha		110	pCi/L		104	80	120			
Sample ID: Sr90-GrAB-1518		Laboratory Control Sample				Run: SUB-C173410			05/10/13 05:06	
Gross Beta		178	pCi/L		98	80	120			
Sample ID: MB-GrAB-1518	6	Method Blank				Run: SUB-C173410			05/10/13 05:06	
Gross Alpha		0.8	pCi/L							U
Gross Alpha precision (±)		0.6	pCi/L							
Gross Alpha MDC		1	pCi/L							
Gross Beta		-2	pCi/L							U
Gross Beta precision (±)		1	pCi/L							
Gross Beta MDC		2	pCi/L							
Sample ID: C13040837-001EDUP	6	Sample Duplicate				Run: SUB-C173410			05/10/13 05:06	
Gross Alpha		46	pCi/L					10	58.4	
Gross Alpha precision (±)		11	pCi/L							
Gross Alpha MDC		14	pCi/L							
Gross Beta		-4.0	pCi/L					42	401.9	U
Gross Beta precision (±)		10	pCi/L							
Gross Beta MDC		18	pCi/L							
Sample ID: C13040837-003EMS		Sample Matrix Spike				Run: SUB-C173410			05/10/13 05:06	
Gross Alpha		470	pCi/L		77	70	130			
Sample ID: C13040837-003EMSD		Sample Matrix Spike Duplicate				Run: SUB-C173410			05/10/13 05:05	
Gross Alpha		470	pCi/L		77	70	130	0.8	18.3	
Sample ID: C13040837-003EMS		Sample Matrix Spike				Run: SUB-C173410			05/10/13 05:06	
Gross Beta		1000	pCi/L		106	70	130			
Sample ID: C13040837-003EMSD		Sample Matrix Spike Duplicate				Run: SUB-C173410			05/10/13 05:06	
Gross Beta		960	pCi/L		101	70	130	5.8	13.7	

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:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0										Batch: C_GrAB-1553
Sample ID: Th230-GrAB-1553		Laboratory Control Sample				Run: SUB-C175107				06/21/13 19:03
Gross Alpha		105	pCi/L		99	80	120			
Sample ID: Sr90-GrAB-1553		Laboratory Control Sample				Run: SUB-C175107				06/21/13 19:03
Gross Beta		166	pCi/L		91	80	120			
Sample ID: MB-GrAB-1553	6	Method Blank				Run: SUB-C175107				06/21/13 19:03
Gross Alpha		0.7	pCi/L							U
Gross Alpha precision (±)		0.6	pCi/L							
Gross Alpha MDC		1	pCi/L							
Gross Beta		0.1	pCi/L							U
Gross Beta precision (±)		1	pCi/L							
Gross Beta MDC		2	pCi/L							
Sample ID: C13051106-014EMS		Sample Matrix Spike				Run: SUB-C175107				06/21/13 19:03
Gross Alpha		170	pCi/L		71	70	130			
Sample ID: C13051106-014EMSD		Sample Matrix Spike Duplicate				Run: SUB-C175107				06/21/13 19:03
Gross Alpha		180	pCi/L		73	70	130	2.1	18	
Sample ID: C13051106-014EMS		Sample Matrix Spike				Run: SUB-C175107				06/21/13 19:03
Gross Beta		380	pCi/L		109	70	130			
Sample ID: C13051106-014EMSD		Sample Matrix Spike Duplicate				Run: SUB-C175107				06/21/13 19:03
Gross Beta		370	pCi/L		108	70	130	0.8	13.5	
Sample ID: R13040294-006E	6	Sample Duplicate				Run: SUB-C175107				06/22/13 07:10
Gross Alpha		70	pCi/L					23	48.5	
Gross Alpha precision (±)		14	pCi/L							
Gross Alpha MDC		16	pCi/L							
Gross Beta		21	pCi/L					6.9	153.4	U
Gross Beta precision (±)		15	pCi/L							
Gross Beta MDC		25	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: C_RA226-6618
Sample ID: R13040294-001E	3	Sample Duplicate				Run: SUB-C173494				05/13/13 08:46
Radium 226		0.41	pCi/L					25	93.1	
Radium 226 precision (±)		0.16	pCi/L							
Radium 226 MDC		0.17	pCi/L							
Sample ID: R13040294-004E		Sample Matrix Spike				Run: SUB-C173494				05/13/13 08:46
Radium 226		23	pCi/L		101	70	130			
Sample ID: MB-RA226-6618	3	Method Blank				Run: SUB-C173494				05/13/13 08:46
Radium 226		0.04	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Sample ID: LCS-RA226-6618		Laboratory Control Sample				Run: SUB-C173494				05/13/13 10:23
Radium 226		13	pCi/L		112	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:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0										Batch: C_RA-TH-ISO-1836
Sample ID: LCS-RA-TH-ISO-1836		Laboratory Control Sample				Run: SUB-C173447				05/09/13 09:58
Thorium 230		6.5	pCi/L		105	80	120			
Sample ID: R13040294-005E		Sample Matrix Spike				Run: SUB-C173447				05/09/13 09:58
Thorium 230		14	pCi/L		111	70	130			
Sample ID: R13040294-005E		Sample Matrix Spike Duplicate				Run: SUB-C173447				05/09/13 09:58
Thorium 230		11	pCi/L		85	70	130	27	37.5	
Sample ID: MB-RA-TH-ISO-1836	3	Method Blank				Run: SUB-C173447				05/09/13 09:58
Thorium 230		0.2	pCi/L							
Thorium 230 precision (±)		0.1	pCi/L							
Thorium 230 MDC		0.1	pCi/L							

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0									Batch: T_PB-210-0370	
Sample ID: MB-PB-210-0370	3	Method Blank				Run: SUB-T50752			05/08/13 19:40	
Lead 210		0.1	pCi/L							U
Lead 210 precision (±)		0.6	pCi/L							
Lead 210 MDC		0.9	pCi/L							
Sample ID: LCS-PB-210-0370		Laboratory Control Sample				Run: SUB-T50752			05/08/13 20:49	
Lead 210		20	pCi/L		95	70	130			
Sample ID: T13050005-001FMS		Sample Matrix Spike				Run: SUB-T50752			05/08/13 23:08	
Lead 210		59	pCi/L		97	70	130			
Sample ID: T13050005-001FMSD		Sample Matrix Spike Duplicate				Run: SUB-T50752			05/09/13 00:17	
Lead 210		56	pCi/L		92	70	130	6.1	21	

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:** 06/24/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: C_RA228-4404
Sample ID: LCS-228-RA226-6618		Laboratory Control Sample				Run: SUB-C173341				05/07/13 21:01
Radium 228		8.2	pCi/L		105	80	120			
Sample ID: MB-RA226-6618	3	Method Blank				Run: SUB-C173341				05/07/13 21:01
Radium 228		-0.1	pCi/L							U
Radium 228 precision (±)		0.9	pCi/L							
Radium 228 MDC		1	pCi/L							
Sample ID: R13040294-001E	3	Sample Duplicate				Run: SUB-C173341				05/07/13 21:01
Radium 228		-0.4	pCi/L					1300	430.1	UR
Radium 228 precision (±)		0.8	pCi/L							
Radium 228 MDC		1.3	pCi/L							
- The Sample and the Duplicate are both below the MDC; the RPD is acceptable.										
Sample ID: R13040294-006E		Sample Matrix Spike				Run: SUB-C173341				05/07/13 21:01
Radium 228		15.5	pCi/L		99	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

U - Not detected at minimum detectable concentration

ND - Not detected at the reporting limit.

R - RPD exceeds advisory limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 06/24/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13040294

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW7470A									Analytical Run: SUB-C173137	
Sample ID: ICV	Initial Calibration Verification Standard								05/02/13 12:19	
Mercury		0.0051	mg/L	0.00010	101	90	110			

Qualifiers:

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

Chain of Custody and Analytical Request Record

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		
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 D DW - Drinking Water

ANALYSIS REQUESTED

	SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	4 per Quote	SEE ATTACHED
1	DC-2	4-24-13	10:23	Water	✓	
2	DC-2 Dup.	4-24-13	10:24	"	✓	
3	BC-3	4-24-13	12:40	"	✓	
4	BC-1	4-24-13	14:02	"	✓	
5	BC-2	4-24-13	15:18	"	✓	
6	708	4-24-13	16:15	"	✓	
7	DC-1	4-25	9:00	"	✓	
8						
9						
10						

Standard Turnaround (TAT)

RUSH

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

Comments:

Shipped by:

Cooler ID(s):

Receipt Temp 2.0 °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

B1304294-001
002
003
004
005
006

Custody Record MUST be Signed

	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
	Allen Scott	12:32 4-25-13				
	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
				Received by Laboratory:	Date/Time:	Signature:
				Steve Troiano	4-25-13 1232	

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.

ENERGY LABORATORIES
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Helena, MT 877-472-0711 • Billings, MT 800-735-4489 • Casper, WY 888-235-0515
Gillette, WY 866-686-7175 • Rapid City, SD 888-672-1225 • College Station, TX 888-690-2218

ANALYTICAL SUMMARY REPORT

July 10, 2013

Powertech USA Inc
PO Box 812
Edgemont, SD 57735

Workorder No.: R13050339 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 5/22/2013 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R13050339-001	BC-3	05/21/13 09:22	05/22/13	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 Lead 210, Dissolved Radium 226, Dissolved Radium 228, Dissolved Radon 222 Thorium, Isotopic Solids, Total Dissolved
R13050339-002	BC-1	05/21/13 10:16	05/22/13	Aqueous	Same As Above
R13050339-003	BC-1 Dup	05/21/13 10:17	05/22/13	Aqueous	Same As Above
R13050339-004	BC-2	05/21/13 11:34	05/22/13	Aqueous	Same As Above
R13050339-005	DC-2	05/21/13 13:52	05/22/13	Aqueous	Same As Above
R13050339-006	DC-1	05/21/13 14:25	05/22/13	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:

CLIENT: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Sample Delivery Group: R13050339

Report Date: 07/10/13

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.

Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.
Comments imported for SUBBED Workorder: T13050106
Prep Comments for Sample R13050339-001F, Test FILTERING: The prep hold time was exceeded by 2.28 days.
Prep Comments for Sample R13050339-002F, Test FILTERING: The prep hold time was exceeded by 2.24 days.
Prep Comments for Sample R13050339-003F, Test FILTERING: The prep hold time was exceeded by 2.24 days.
Prep Comments for Sample R13050339-004F, Test FILTERING: The prep hold time was exceeded by 2.19 days.
Prep Comments for Sample R13050339-005F, Test FILTERING: The prep hold time was exceeded by 2.09 days.
Prep Comments for Sample R13050339-006F, Test FILTERING: The prep hold time was exceeded by 2.07 days.
End of comments imported for SUBBED Workorder: T13050106

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R13050339-001
Client Sample ID: BC-3

Report Date: 07/10/13
Collection Date: 05/21/13 09:22
Date Received: 05/22/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3340	umhos/cm		5.0		1	A2510 B	05/22/13 12:09/tb
pH	7.17	su		0.01		1	A4500-H B	05/22/13 11:09/tb
Solids, Total Dissolved TDS @ 180 C	3090	mg/L		10		1	A2540 C	05/23/13 16:17/tb
Alkalinity, Total as CaCO3	242	mg/L		5		1	A2320 B	05/29/13 16:24/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	05/29/13 16:24/ch
Bicarbonate as HCO3	295	mg/L		5		1	A2320 B	05/29/13 16:24/ch
INORGANIC PARAMETERS								
Chloride	18	mg/L		1		1	E300.0	05/22/13 21:51/tb
Fluoride	0.6	mg/L		0.1		1	E300.0	05/22/13 21:51/tb
Sulfate	1850	mg/L	D	50		50	E300.0	05/24/13 16:17/tb
DATA QUALITY PARAMETERS								
Anions	43.8	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Cations	47.0	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Conductivity, Calculated	3740	umhos/cm		1.00		1	A1030 E	07/01/13 00:00/lkl
TDS Ratio	1.07			0.0100		1	A1030 E	07/01/13 00:00/lkl
A/C Balance	3.40	%				1	A1030 E	07/01/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.3	mg/L		0.1		1	E300.0	05/22/13 21:51/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	19.9	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Alpha precision (±)	7.2	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Alpha MDC	10.5	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Beta	11.1	pCi/L	U			1	E900.0	06/07/13 05:04/eli-ca
Gross Beta precision (±)	7.4	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Beta MDC	12.0	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Lead 210	-0.05	pCi/L	U			1	E909.0	06/14/13 22:21/eli-ca
Lead 210 precision (±)	0.8	pCi/L				1	E909.0	06/14/13 22:21/eli-ca
Lead 210 MDC	1.3	pCi/L				1	E909.0	06/14/13 22:21/eli-ca
Radium 228	0.3	pCi/L	U			1	RA-05	06/04/13 09:33/eli-ca
Radium 228 precision (±)	0.7	pCi/L				1	RA-05	06/04/13 09:33/eli-ca
Radium 228 MDC	1.1	pCi/L				1	RA-05	06/04/13 09:33/eli-ca
Radium 226	1.6	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Radium 226 precision (±)	0.2	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Radium 226 MDC	0.1	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Thorium 230	0.009	pCi/L	U			1	E908.0	05/31/13 08:57/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: R13050339-001
Client Sample ID: BC-3

Report Date: 07/10/13
Collection Date: 05/21/13 09:22
Date Received: 05/22/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.06	pCi/L				1	E908.0	05/31/13 08:57/eli-ca
Thorium 230 MDC	0.2	pCi/L				1	E908.0	05/31/13 08:57/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	1060	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
Radon 222 precision (±)	152	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
Radon 222 MDC	231	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	05/29/13 16:29/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		2	E200.8	06/04/13 09:29/eli-ca
Barium	0.09	mg/L		0.05		1	E200.8	05/24/13 21:43/eli-ca
Boron	0.44	mg/L		0.05		2	E200.8	06/04/13 09:29/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	05/24/13 21:43/eli-ca
Chromium	ND	mg/L		0.005		1	E200.8	05/24/13 21:43/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	05/24/13 21:43/eli-ca
Iron	ND	mg/L		0.03		2	E200.8	06/04/13 09:29/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	05/24/13 21:43/eli-ca
Manganese	0.576	mg/L		0.001		1	E200.8	05/24/13 21:43/eli-ca
Molybdenum	0.006	mg/L		0.001		1	E200.8	05/24/13 21:43/eli-ca
Nickel	0.007	mg/L		0.005		1	E200.8	05/24/13 21:43/eli-ca
Selenium	ND	mg/L		0.001		1	E200.8	05/24/13 21:43/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	05/24/13 21:43/eli-ca
Uranium	0.0208	mg/L		0.0003		1	E200.8	05/24/13 21:43/eli-ca
Vanadium	ND	mg/L		0.01		1	E200.8	05/24/13 21:43/eli-ca
Zinc	ND	mg/L		0.01		1	E200.8	05/24/13 21:43/eli-ca
Calcium	539	mg/L		1		5	E200.7	06/07/13 18:05/eli-ca
Magnesium	154	mg/L		1		5	E200.7	06/07/13 18:05/eli-ca
Potassium	10	mg/L		1		5	E200.7	06/07/13 18:05/eli-ca
Sodium	164	mg/L		1		5	E200.7	06/07/13 18:05/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.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R13050339-002
Client Sample ID: BC-1

Report Date: 07/10/13
Collection Date: 05/21/13 10:16
Date Received: 05/22/13
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	05/22/13 12:10/tb
pH	7.11	su		0.01		1	A4500-H B	05/22/13 11:11/tb
Solids, Total Dissolved TDS @ 180 C	2770	mg/L		10		1	A2540 C	05/23/13 16:17/tb
Alkalinity, Total as CaCO3	292	mg/L		5		1	A2320 B	05/29/13 16:26/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	05/29/13 16:26/ch
Bicarbonate as HCO3	356	mg/L		5		1	A2320 B	05/29/13 16:26/ch
INORGANIC PARAMETERS								
Chloride	25	mg/L		1		1	E300.0	05/22/13 22:09/tb
Fluoride	0.6	mg/L		0.1		1	E300.0	05/22/13 22:09/tb
Sulfate	2300	mg/L	D	20		20	E300.0	05/24/13 16:35/tb
DATA QUALITY PARAMETERS								
Anions	54.4	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Cations	55.2	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Conductivity, Calculated	4390	umhos/cm		1.00		1	A1030 E	07/01/13 00:00/lkl
TDS Ratio	0.790			0.0100		1	A1030 E	07/01/13 00:00/lkl
A/C Balance	0.690	%				1	A1030 E	07/01/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.3	mg/L		0.1		1	E300.0	05/22/13 22:09/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	83.3	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Alpha precision (±)	10.6	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Alpha MDC	12.0	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Beta	13.1	pCi/L	U			1	E900.0	06/07/13 05:04/eli-ca
Gross Beta precision (±)	8.8	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Beta MDC	14.2	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Lead 210	-0.3	pCi/L	U			1	E909.0	06/14/13 23:42/eli-ca
Lead 210 precision (±)	0.7	pCi/L				1	E909.0	06/14/13 23:42/eli-ca
Lead 210 MDC	1.3	pCi/L				1	E909.0	06/14/13 23:42/eli-ca
Radium 228	0.8	pCi/L	U			1	RA-05	06/04/13 09:33/eli-ca
Radium 228 precision (±)	0.7	pCi/L				1	RA-05	06/04/13 09:33/eli-ca
Radium 228 MDC	1.1	pCi/L				1	RA-05	06/04/13 09:33/eli-ca
Radium 226	0.4	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Radium 226 precision (±)	0.1	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Radium 226 MDC	0.1	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Thorium 230	0.06	pCi/L	U			1	E908.0	05/31/13 08:57/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: R13050339-002
Client Sample ID: BC-1

Report Date: 07/10/13
Collection Date: 05/21/13 10:16
Date Received: 05/22/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.1	pCi/L				1	E908.0	05/31/13 08:57/eli-ca
Thorium 230 MDC	0.2	pCi/L				1	E908.0	05/31/13 08:57/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	1560	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
Radon 222 precision (±)	158	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
Radon 222 MDC	230	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	05/29/13 16:30/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		2	E200.8	06/04/13 09:33/eli-ca
Barium	ND	mg/L		0.05		1	E200.8	05/24/13 21:46/eli-ca
Boron	0.64	mg/L		0.05		2	E200.8	06/04/13 09:33/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	05/24/13 21:46/eli-ca
Chromium	ND	mg/L		0.005		1	E200.8	05/24/13 21:46/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	05/24/13 21:46/eli-ca
Iron	0.03	mg/L		0.03		2	E200.8	06/04/13 09:33/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	05/24/13 21:46/eli-ca
Manganese	0.027	mg/L		0.001		1	E200.8	05/24/13 21:46/eli-ca
Molybdenum	0.005	mg/L		0.001		1	E200.8	05/24/13 21:46/eli-ca
Nickel	0.007	mg/L		0.005		1	E200.8	05/24/13 21:46/eli-ca
Selenium	0.002	mg/L		0.001		2	E200.8	06/04/13 09:33/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	05/24/13 21:46/eli-ca
Uranium	0.0977	mg/L		0.0003		1	E200.8	05/24/13 21:46/eli-ca
Vanadium	ND	mg/L		0.01		1	E200.8	05/24/13 21:46/eli-ca
Zinc	ND	mg/L		0.01		1	E200.8	05/24/13 21:46/eli-ca
Calcium	518	mg/L		1		5	E200.7	06/07/13 18:09/eli-ca
Magnesium	249	mg/L		1		5	E200.7	06/07/13 18:09/eli-ca
Potassium	11	mg/L		1		5	E200.7	06/07/13 18:09/eli-ca
Sodium	197	mg/L		1		5	E200.7	06/07/13 18:09/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.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R13050339-003
Client Sample ID: BC-1 Dup

Report Date: 07/10/13
Collection Date: 05/21/13 10:17
Date Received: 05/22/13
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	05/22/13 12:11/tb
pH	7.09	su		0.01		1	A4500-H B	05/22/13 11:13/tb
Solids, Total Dissolved TDS @ 180 C	3800	mg/L		10		1	A2540 C	05/23/13 16:18/tb
Alkalinity, Total as CaCO3	290	mg/L		5		1	A2320 B	05/29/13 16:31/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	05/29/13 16:31/ch
Bicarbonate as HCO3	354	mg/L		5		1	A2320 B	05/29/13 16:31/ch
INORGANIC PARAMETERS								
Chloride	26	mg/L		1		1	E300.0	05/22/13 22:27/tb
Fluoride	0.7	mg/L		0.1		1	E300.0	05/22/13 22:27/tb
Sulfate	2300	mg/L	D	20		20	E300.0	05/24/13 16:53/tb
DATA QUALITY PARAMETERS								
Anions	54.6	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Cations	54.6	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Conductivity, Calculated	4380	umhos/cm		1.00		1	A1030 E	07/01/13 00:00/lkl
TDS Ratio	1.09			0.0100		1	A1030 E	07/01/13 00:00/lkl
A/C Balance	0.0100	%				1	A1030 E	07/01/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.3	mg/L		0.1		1	E300.0	05/22/13 22:27/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	84.0	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Alpha precision (±)	11.0	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Alpha MDC	12.8	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Beta	19.2	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Beta precision (±)	8.9	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Beta MDC	14.1	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Lead 210	-0.03	pCi/L	U			1	E909.0	06/15/13 01:02/eli-ca
Lead 210 precision (±)	0.8	pCi/L				1	E909.0	06/15/13 01:02/eli-ca
Lead 210 MDC	1.3	pCi/L				1	E909.0	06/15/13 01:02/eli-ca
Radium 228	0.6	pCi/L	U			1	RA-05	06/04/13 09:33/eli-ca
Radium 228 precision (±)	0.7	pCi/L				1	RA-05	06/04/13 09:33/eli-ca
Radium 228 MDC	1.1	pCi/L				1	RA-05	06/04/13 09:33/eli-ca
Radium 226	0.3	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Radium 226 precision (±)	0.1	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Radium 226 MDC	0.1	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Thorium 230	0.06	pCi/L	U			1	E908.0	05/31/13 08:57/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: R13050339-003
Client Sample ID: BC-1 Dup

Report Date: 07/10/13
Collection Date: 05/21/13 10:17
Date Received: 05/22/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.08	pCi/L				1	E908.0	05/31/13 08:57/eli-ca
Thorium 230 MDC	0.2	pCi/L				1	E908.0	05/31/13 08:57/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	1890	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
Radon 222 precision (±)	162	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
Radon 222 MDC	230	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	05/29/13 16:32/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		2	E200.8	06/04/13 09:38/eli-ca
Barium	ND	mg/L		0.05		1	E200.8	05/24/13 21:49/eli-ca
Boron	0.68	mg/L		0.05		5	E200.7	06/07/13 18:13/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	05/24/13 21:49/eli-ca
Chromium	ND	mg/L		0.005		1	E200.8	05/24/13 21:49/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	05/24/13 21:49/eli-ca
Iron	ND	mg/L		0.03		2	E200.8	06/04/13 09:38/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	05/24/13 21:49/eli-ca
Manganese	0.027	mg/L		0.001		1	E200.8	05/24/13 21:49/eli-ca
Molybdenum	0.005	mg/L		0.001		1	E200.8	05/24/13 21:49/eli-ca
Nickel	0.008	mg/L		0.005		1	E200.8	05/24/13 21:49/eli-ca
Selenium	0.002	mg/L		0.001		2	E200.8	06/04/13 09:38/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	05/24/13 21:49/eli-ca
Uranium	0.0970	mg/L		0.0003		1	E200.8	05/24/13 21:49/eli-ca
Vanadium	ND	mg/L		0.01		1	E200.8	05/24/13 21:49/eli-ca
Zinc	ND	mg/L		0.01		1	E200.8	05/24/13 21:49/eli-ca
Calcium	513	mg/L		1		5	E200.7	06/07/13 18:13/eli-ca
Magnesium	245	mg/L		1		5	E200.7	06/07/13 18:13/eli-ca
Potassium	11	mg/L		1		5	E200.7	06/07/13 18:13/eli-ca
Sodium	195	mg/L		1		5	E200.7	06/07/13 18:13/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.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R13050339-004
Client Sample ID: BC-2

Report Date: 07/10/13
Collection Date: 05/21/13 11:34
Date Received: 05/22/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	4000	umhos/cm		5.0		1	A2510 B	05/22/13 12:13/tb
pH	7.15	su		0.01		1	A4500-H B	05/22/13 11:17/tb
Solids, Total Dissolved TDS @ 180 C	3880	mg/L		10		1	A2540 C	05/23/13 16:19/tb
Alkalinity, Total as CaCO3	228	mg/L		5		1	A2320 B	05/29/13 16:34/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	05/29/13 16:34/ch
Bicarbonate as HCO3	278	mg/L		5		1	A2320 B	05/29/13 16:34/ch
INORGANIC PARAMETERS								
Chloride	22	mg/L		1		1	E300.0	05/22/13 22:45/tb
Fluoride	0.7	mg/L		0.1		1	E300.0	05/22/13 22:45/tb
Sulfate	2330	mg/L	D	50		50	E300.0	05/24/13 17:47/tb
DATA QUALITY PARAMETERS								
Anions	53.7	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Cations	56.1	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Conductivity, Calculated	4410	umhos/cm		1.00		1	A1030 E	07/01/13 00:00/lkl
TDS Ratio	1.10			0.0100		1	A1030 E	07/01/13 00:00/lkl
A/C Balance	2.21	%				1	A1030 E	07/01/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.3	mg/L		0.1		1	E300.0	05/22/13 22:45/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	24.8	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Alpha precision (±)	8.6	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Alpha MDC	12.5	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Beta	11.3	pCi/L	U			1	E900.0	06/07/13 05:04/eli-ca
Gross Beta precision (±)	9.1	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Beta MDC	14.9	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Lead 210	-0.2	pCi/L	U			1	E909.0	06/15/13 02:22/eli-ca
Lead 210 precision (±)	0.7	pCi/L				1	E909.0	06/15/13 02:22/eli-ca
Lead 210 MDC	1.3	pCi/L				1	E909.0	06/15/13 02:22/eli-ca
Radium 228	1.2	pCi/L				1	RA-05	06/04/13 09:33/eli-ca
Radium 228 precision (±)	0.7	pCi/L				1	RA-05	06/04/13 09:33/eli-ca
Radium 228 MDC	1.1	pCi/L				1	RA-05	06/04/13 09:33/eli-ca
Radium 226	0.3	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Radium 226 precision (±)	0.1	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Radium 226 MDC	0.1	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Thorium 230	0.02	pCi/L	U			1	E908.0	05/31/13 08:57/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: R13050339-004
Client Sample ID: BC-2

Report Date: 07/10/13
Collection Date: 05/21/13 11:34
Date Received: 05/22/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.07	pCi/L				1	E908.0	05/31/13 08:57/eli-ca
Thorium 230 MDC	0.2	pCi/L				1	E908.0	05/31/13 08:57/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	2170	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
Radon 222 precision (±)	164	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
Radon 222 MDC	227	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	05/29/13 16:34/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		2	E200.8	06/13/13 12:55/eli-ca
Barium	ND	mg/L		0.05		1	E200.8	05/24/13 21:52/eli-ca
Boron	0.49	mg/L		0.05		5	E200.7	06/07/13 18:16/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	05/24/13 21:52/eli-ca
Chromium	ND	mg/L		0.005		1	E200.8	05/24/13 21:52/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	05/24/13 21:52/eli-ca
Iron	ND	mg/L		0.03		5	E200.7	06/07/13 18:16/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	05/24/13 21:52/eli-ca
Manganese	0.036	mg/L		0.001		1	E200.8	05/24/13 21:52/eli-ca
Molybdenum	0.013	mg/L		0.001		1	E200.8	05/24/13 21:52/eli-ca
Nickel	0.007	mg/L		0.005		1	E200.8	05/24/13 21:52/eli-ca
Selenium	ND	mg/L		0.001		1	E200.8	05/24/13 21:52/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	05/24/13 21:52/eli-ca
Uranium	0.0254	mg/L		0.0003		1	E200.8	05/24/13 21:52/eli-ca
Vanadium	ND	mg/L		0.01		1	E200.8	05/24/13 21:52/eli-ca
Zinc	ND	mg/L		0.01		1	E200.8	05/24/13 21:52/eli-ca
Calcium	516	mg/L		1		5	E200.7	06/07/13 18:16/eli-ca
Magnesium	221	mg/L		1		5	E200.7	06/07/13 18:16/eli-ca
Potassium	12	mg/L		1		5	E200.7	06/07/13 18:16/eli-ca
Sodium	274	mg/L		1		5	E200.7	06/07/13 18:16/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.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R13050339-005
Client Sample ID: DC-2

Report Date: 07/10/13
Collection Date: 05/21/13 13:52
Date Received: 05/22/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	5920	umhos/cm		5.0		1	A2510 B	05/22/13 12:14/tb
pH	7.32	su		0.01		1	A4500-H B	05/22/13 11:21/tb
Solids, Total Dissolved TDS @ 180 C	4580	mg/L		10		1	A2540 C	05/23/13 16:21/tb
Alkalinity, Total as CaCO3	262	mg/L		5		1	A2320 B	05/29/13 16:38/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	05/29/13 16:38/ch
Bicarbonate as HCO3	319	mg/L		5		1	A2320 B	05/29/13 16:38/ch
INORGANIC PARAMETERS								
Chloride	782	mg/L	D	50		50	E300.0	05/24/13 18:41/tb
Fluoride	0.6	mg/L		0.1		1	E300.0	05/22/13 23:03/tb
Sulfate	1880	mg/L	D	50		50	E300.0	05/24/13 18:41/tb
DATA QUALITY PARAMETERS								
Anions	66.5	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Cations	71.4	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Conductivity, Calculated	5380	umhos/cm		1.00		1	A1030 E	07/01/13 00:00/lkl
TDS Ratio	1.07			0.0100		1	A1030 E	07/01/13 00:00/lkl
A/C Balance	3.55	%				1	A1030 E	07/01/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	ND	mg/L		0.1		1	E300.0	05/22/13 23:03/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	-6	pCi/L	U			1	E900.0	06/07/13 05:04/eli-ca
Gross Alpha precision (±)	9.2	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Alpha MDC	16.1	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Beta	-2	pCi/L	U			1	E900.0	06/07/13 05:04/eli-ca
Gross Beta precision (±)	11.7	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Beta MDC	19.7	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Lead 210	-0.1	pCi/L	U			1	E909.0	06/15/13 03:42/eli-ca
Lead 210 precision (±)	0.7	pCi/L				1	E909.0	06/15/13 03:42/eli-ca
Lead 210 MDC	1.2	pCi/L				1	E909.0	06/15/13 03:42/eli-ca
Radium 228	0.5	pCi/L	U			1	RA-05	06/04/13 09:33/eli-ca
Radium 228 precision (±)	0.7	pCi/L				1	RA-05	06/04/13 09:33/eli-ca
Radium 228 MDC	1.1	pCi/L				1	RA-05	06/04/13 09:33/eli-ca
Radium 226	0.3	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Radium 226 precision (±)	0.1	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Radium 226 MDC	0.1	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Thorium 230	0.05	pCi/L	U			1	E908.0	05/31/13 08:57/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: R13050339-005
Client Sample ID: DC-2

Report Date: 07/10/13
Collection Date: 05/21/13 13:52
Date Received: 05/22/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.07	pCi/L				1	E908.0	05/31/13 08:57/eli-ca
Thorium 230 MDC	0.2	pCi/L				1	E908.0	05/31/13 08:57/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	1670	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
Radon 222 precision (±)	155	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
Radon 222 MDC	223	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	05/29/13 16:36/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		2	E200.8	06/04/13 09:47/eli-ca
Barium	ND	mg/L		0.05		1	E200.8	05/24/13 21:56/eli-ca
Boron	0.32	mg/L		0.05		5	E200.7	06/07/13 19:01/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	05/24/13 21:56/eli-ca
Chromium	ND	mg/L		0.005		1	E200.8	05/24/13 21:56/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	05/24/13 21:56/eli-ca
Iron	1.31	mg/L		0.03		2	E200.8	06/04/13 09:47/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	05/24/13 21:56/eli-ca
Manganese	2.90	mg/L		0.001		1	E200.8	05/24/13 21:56/eli-ca
Molybdenum	0.004	mg/L		0.001		1	E200.8	05/24/13 21:56/eli-ca
Nickel	0.007	mg/L		0.005		1	E200.8	05/24/13 21:56/eli-ca
Selenium	ND	mg/L		0.001		2	E200.8	06/04/13 09:47/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	05/24/13 21:56/eli-ca
Uranium	0.0086	mg/L		0.0003		1	E200.8	05/24/13 21:56/eli-ca
Vanadium	ND	mg/L		0.01		1	E200.8	05/24/13 21:56/eli-ca
Zinc	ND	mg/L		0.01		1	E200.8	05/24/13 21:56/eli-ca
Calcium	533	mg/L		1		5	E200.7	06/07/13 19:01/eli-ca
Magnesium	150	mg/L		1		5	E200.7	06/07/13 19:01/eli-ca
Potassium	7	mg/L		1		5	E200.7	06/07/13 19:01/eli-ca
Sodium	742	mg/L		1		5	E200.7	06/07/13 19:01/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.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R13050339-006
Client Sample ID: DC-1

Report Date: 07/10/13
Collection Date: 05/21/13 14:25
Date Received: 05/22/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	6570	umhos/cm		5.0		1	A2510 B	05/22/13 12:17/tb
pH	7.13	su		0.01		1	A4500-H B	05/22/13 11:22/tb
Solids, Total Dissolved TDS @ 180 C	6250	mg/L		10		1	A2540 C	05/23/13 16:22/tb
Alkalinity, Total as CaCO3	354	mg/L		5		1	A2320 B	06/03/13 15:12/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	06/03/13 15:12/ch
Bicarbonate as HCO3	432	mg/L		5		1	A2320 B	06/03/13 15:12/ch
INORGANIC PARAMETERS								
Chloride	109	mg/L		1		1	E300.0	05/22/13 23:20/tb
Fluoride	1.2	mg/L		0.1		1	E300.0	05/22/13 23:20/tb
Sulfate	3630	mg/L	D	50		50	E300.0	05/24/13 15:06/tb
DATA QUALITY PARAMETERS								
Anions	87.4	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Cations	101	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Conductivity, Calculated	6900	umhos/cm		1.00		1	A1030 E	07/01/13 00:00/lkl
TDS Ratio	1.05			0.0100		1	A1030 E	07/01/13 00:00/lkl
A/C Balance	7.04	%				1	A1030 E	07/01/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	19.6	mg/L	D	0.2		2	E300.0	05/24/13 14:48/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	3.7	pCi/L	U			1	E900.0	06/07/13 05:04/eli-ca
Gross Alpha precision (±)	13.4	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Alpha MDC	22.2	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Beta	9.6	pCi/L	U			1	E900.0	06/07/13 05:04/eli-ca
Gross Beta precision (±)	14.3	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Gross Beta MDC	23.6	pCi/L				1	E900.0	06/07/13 05:04/eli-ca
Lead 210	0.5	pCi/L	U			1	E909.0	06/15/13 05:03/eli-ca
Lead 210 precision (±)	0.8	pCi/L				1	E909.0	06/15/13 05:03/eli-ca
Lead 210 MDC	1.3	pCi/L				1	E909.0	06/15/13 05:03/eli-ca
Radium 228	1.7	pCi/L				1	RA-05	06/04/13 09:33/eli-ca
Radium 228 precision (±)	0.8	pCi/L				1	RA-05	06/04/13 09:33/eli-ca
Radium 228 MDC	1.2	pCi/L				1	RA-05	06/04/13 09:33/eli-ca
Radium 226	0.8	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Radium 226 precision (±)	0.2	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Radium 226 MDC	0.1	pCi/L				1	E903.0	06/10/13 22:37/eli-ca
Thorium 230	0.05	pCi/L	U			1	E908.0	05/31/13 08:57/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: R13050339-006
Client Sample ID: DC-1

Report Date: 07/10/13
Collection Date: 05/21/13 14:25
Date Received: 05/22/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.07	pCi/L				1	E908.0	05/31/13 08:57/eli-ca
Thorium 230 MDC	0.1	pCi/L				1	E908.0	05/31/13 08:57/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	1020	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
Radon 222 precision (±)	146	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
Radon 222 MDC	222	pCi/L				1	D5072-92	05/24/13 13:03/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	05/29/13 16:38/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	ND	mg/L		0.001		2	E200.8	06/04/13 09:53/eli-ca
Barium	ND	mg/L		0.05		1	E200.8	05/24/13 22:12/eli-ca
Boron	1.22	mg/L		0.05		2	E200.8	06/04/13 09:53/eli-ca
Cadmium	0.001	mg/L		0.001		1	E200.8	05/24/13 22:12/eli-ca
Chromium	ND	mg/L		0.005		1	E200.8	05/24/13 22:12/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	05/24/13 22:12/eli-ca
Iron	ND	mg/L		0.03		2	E200.8	06/04/13 09:53/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	05/24/13 22:12/eli-ca
Manganese	0.380	mg/L		0.001		1	E200.8	05/24/13 22:12/eli-ca
Molybdenum	0.001	mg/L		0.001		1	E200.8	05/24/13 22:12/eli-ca
Nickel	0.065	mg/L		0.005		2	E200.8	06/04/13 09:53/eli-ca
Selenium	0.057	mg/L		0.001		1	E200.8	05/24/13 22:12/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	05/24/13 22:12/eli-ca
Uranium	0.0138	mg/L		0.0003		1	E200.8	05/24/13 22:12/eli-ca
Vanadium	ND	mg/L		0.01		1	E200.8	05/24/13 22:12/eli-ca
Zinc	0.11	mg/L		0.01		1	E200.8	05/24/13 22:12/eli-ca
Calcium	414	mg/L		1		5	E200.7	07/02/13 14:15/eli-ca
Magnesium	387	mg/L		1		5	E200.7	07/02/13 14:15/eli-ca
Potassium	9	mg/L		1		5	E200.7	07/02/13 14:15/eli-ca
Sodium	1100	mg/L		1		5	E200.7	07/02/13 14:15/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:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: 130529A-ALK-SEL-W	
Sample ID: LCS1_130529A		Laboratory Control Sample				Run: PH_COND1-R_130529A			05/29/13 14:59	
Alkalinity, Total as CaCO3		976	mg/L	5.0	98	90	110			
Sample ID: MBLK1_130529A		Method Blank				Run: PH_COND1-R_130529A			05/29/13 15:03	
Alkalinity, Total as CaCO3		ND	mg/L	3						
Sample ID: R13050313-001ADUP	3	Sample Duplicate				Run: PH_COND1-R_130529A			05/29/13 15:15	
Alkalinity, Total as CaCO3		154	mg/L	5.0				1.3	10	
Carbonate as CO3		ND	mg/L	5.0					10	
Bicarbonate as HCO3		188	mg/L	5.0				1.3	10	
Sample ID: R13050313-002AMS		Sample Matrix Spike				Run: PH_COND1-R_130529A			05/29/13 15:28	
Alkalinity, Total as CaCO3		364	mg/L	5.0	99	80	120			
Method: A2320 B									Batch: 130603A-ALK-SEL-W	
Sample ID: LCS1_130603A		Laboratory Control Sample				Run: PH_COND1-R_130603A			06/03/13 15:01	
Alkalinity, Total as CaCO3		948	mg/L	5.0	95	90	110			
Sample ID: MBLK1_130603A		Method Blank				Run: PH_COND1-R_130603A			06/03/13 15:07	
Alkalinity, Total as CaCO3		ND	mg/L	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:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **A2510 B**									Batch: 130522_1_COND-PROBE-W	
Sample ID: **MBLK-1_130522**		Method Blank				Run: PH_COND2-R_130522B			05/22/13 11:46	
Conductivity @ 25 C		ND	umhos/cm	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: 07/10/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: TDS130523A
Sample ID: MB-1_130523A		Method Blank				Run: BAL-TDS_130523A				05/23/13 15:58
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	2						
Sample ID: LCS-2_130523A		Laboratory Control Sample				Run: BAL-TDS_130523A				05/23/13 15:59
Solids, Total Dissolved TDS @ 180 C		510	mg/L	10	101	90	110			
Sample ID: R13050310-002A MS		Sample Matrix Spike				Run: BAL-TDS_130523A				05/23/13 16:05
Solids, Total Dissolved TDS @ 180 C		2600	mg/L	10	100	90	110			
Sample ID: R13050339-004A DUP		Sample Duplicate				Run: BAL-TDS_130523A				05/23/13 16:20
Solids, Total Dissolved TDS @ 180 C		3900	mg/L	10				0.2	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: 07/10/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B									Analytical Run: PH_COND2-R_130522A	
Sample ID: ICV-1_130522	Initial Calibration Verification Standard								05/22/13 10:56	
pH		7.41	su	0.010	100	98	102			
Method: A4500-H B									Batch: 130522_1_PH-W	
Sample ID: ICV1-1_130522	Initial Calibration Verification Standard					Run: PH_COND2-R_130522A			05/22/13 10:54	
pH		12.1	su	0.010	101	99	101			
Sample ID: R13050323-001ADUP	Sample Duplicate					Run: PH_COND2-R_130522A			05/22/13 11:01	
pH		8.07	su	0.010				0.9	3	

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 07/10/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: D5072-92									Batch: C_R174202	
Sample ID: C13050848-001ADUP	3	Sample Duplicate				Run: SUB-C174202			05/24/13 13:03	
Radon 222		2720	pCi/L					19	20	
Radon 222 precision (±)		167	pCi/L							
Radon 222 MDC		222	pCi/L							
Sample ID: MB-R174202	3	Method Blank				Run: SUB-C174202			05/24/13 13:03	
Radon 222		30	pCi/L							U
Radon 222 precision (±)		80	pCi/L							
Radon 222 MDC		100	pCi/L							
Sample ID: LCS-R174202		Laboratory Control Sample				Run: SUB-C174202			05/24/13 13:03	
Radon 222		476	pCi/L		87	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:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: SUB-C174557	
Sample ID: ICV	5	Initial Calibration Verification Standard							06/07/13 12:42	
Boron		1.0	mg/L	0.10	101	95	105			
Calcium		50	mg/L	0.50	101	95	105			
Magnesium		50	mg/L	0.50	100	95	105			
Potassium		51	mg/L	0.50	102	95	105			
Sodium		52	mg/L	0.50	104	95	105			
Sample ID: ICSA	5	Interference Check Sample A							06/07/13 12:57	
Boron		0.018	mg/L	0.10						
Calcium		470	mg/L	0.50	95	80	120			
Magnesium		510	mg/L	0.50	101	80	120			
Potassium		0.018	mg/L	0.50						
Sodium		-0.018	mg/L	0.50						
Sample ID: ICSAB	5	Interference Check Sample AB							06/07/13 13:01	
Boron		0.015	mg/L	0.10						
Calcium		470	mg/L	0.50	95	80	120			
Magnesium		510	mg/L	0.50	102	80	120			
Potassium		0.035	mg/L	0.50						
Sodium		-0.087	mg/L	0.50						
Method: E200.7									Batch: C_R174557	
Sample ID: MB-130607A	5	Method Blank				Run: SUB-C174557			06/07/13 13:20	
Boron		0.003	mg/L	0.002						
Calcium		ND	mg/L	0.02						
Magnesium		0.03	mg/L	0.01						
Potassium		0.04	mg/L	0.04						
Sodium		ND	mg/L	0.2						
Sample ID: LFB-130607A	5	Laboratory Fortified Blank				Run: SUB-C174557			06/07/13 13:23	
Boron		0.96	mg/L	0.10	96	85	115			
Calcium		50	mg/L	0.50	99	85	115			
Magnesium		49	mg/L	0.50	98	85	115			
Potassium		50	mg/L	0.50	100	85	115			
Sodium		50	mg/L	0.50	100	85	115			
Sample ID: R13050339-006C	5	Sample Matrix Spike				Run: SUB-C174557			06/07/13 19:09	
Boron		6.11	mg/L	0.050	93	70	130			
Calcium		667	mg/L	1.0	91	70	130			
Magnesium		650	mg/L	1.0	97	70	130			
Potassium		261	mg/L	1.0	99	70	130			
Sodium		1380	mg/L	1.0		70	130			A
Sample ID: R13050339-006C	5	Sample Matrix Spike Duplicate				Run: SUB-C174557			06/07/13 19:12	
Boron		6.13	mg/L	0.050	94	70	130	0.3	20	
Calcium		664	mg/L	1.0	90	70	130	0.4	20	
Magnesium		647	mg/L	1.0	96	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

Client: Powertech USA Inc
Report Date: 07/10/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: C_R174557	
Sample ID: R13050339-006C	5	Sample Matrix Spike Duplicate				Run: SUB-C174557			06/07/13 19:12	
Potassium		259	mg/L	1.0	98	70	130	0.7	20	
Sodium		1380	mg/L	1.0		70	130	0.5	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:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Analytical Run: SUB-C174045	
Sample ID: ICV	13	Initial Calibration Verification Standard							05/24/13 13:41	
Barium		0.0493	mg/L	0.0010	99	90	110			
Cadmium		0.0497	mg/L	0.0010	99	90	110			
Chromium		0.0496	mg/L	0.0010	99	90	110			
Copper		0.0498	mg/L	0.0010	100	90	110			
Lead		0.0498	mg/L	0.0010	100	90	110			
Manganese		0.0497	mg/L	0.0010	99	90	110			
Molybdenum		0.0506	mg/L	0.0010	101	90	110			
Nickel		0.0501	mg/L	0.0010	100	90	110			
Selenium		0.0488	mg/L	0.0010	98	90	110			
Silver		0.0199	mg/L	0.0010	100	90	110			
Uranium		0.0505	mg/L	0.00030	101	90	110			
Vanadium		0.0508	mg/L	0.0010	102	90	110			
Zinc		0.0498	mg/L	0.0010	100	90	110			
Method: E200.8									Batch: C_R174045	
Sample ID: LRB	13	Method Blank				Run: SUB-C174045			05/24/13 14:07	
Barium		ND	mg/L	3E-05						
Cadmium		ND	mg/L	2E-05						
Chromium		0.0002	mg/L	6E-05						
Copper		ND	mg/L	0.0001						
Lead		ND	mg/L	3E-05						
Manganese		ND	mg/L	2E-05						
Molybdenum		4E-05	mg/L	4E-05						
Nickel		5E-05	mg/L	3E-05						
Selenium		ND	mg/L	0.0002						
Silver		ND	mg/L	5E-05						
Uranium		ND	mg/L	1E-05						
Vanadium		ND	mg/L	3E-05						
Zinc		ND	mg/L	0.0006						
Sample ID: LFB	13	Laboratory Fortified Blank				Run: SUB-C174045			05/24/13 14:10	
Barium		0.0490	mg/L	0.0010	98	85	115			
Cadmium		0.0490	mg/L	0.0010	98	85	115			
Chromium		0.0486	mg/L	0.0010	97	85	115			
Copper		0.0494	mg/L	0.0010	99	85	115			
Lead		0.0489	mg/L	0.0010	98	85	115			
Manganese		0.0485	mg/L	0.0010	97	85	115			
Molybdenum		0.0511	mg/L	0.0010	102	85	115			
Nickel		0.0492	mg/L	0.0010	98	85	115			
Selenium		0.0500	mg/L	0.0010	100	85	115			
Silver		0.0191	mg/L	0.0010	96	85	115			
Uranium		0.0500	mg/L	0.00030	100	85	115			
Vanadium		0.0485	mg/L	0.0010	97	85	115			
Zinc		0.0510	mg/L	0.0010	102	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

Client: Powertech USA Inc **Report Date:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: C_R174045	
Sample ID: C13050561-002BMS		Sample Matrix Spike				Run: SUB-C174045			05/24/13 17:45	
Uranium		0.27	mg/L	0.00050	108	70	130			
Sample ID: C13050561-002BMSD		Sample Matrix Spike Duplicate				Run: SUB-C174045			05/24/13 17:48	
Uranium		0.27	mg/L	0.00050	107	70	130	0.9	20	
Method: E200.8									Analytical Run: SUB-C174356	
Sample ID: ICV	5	Initial Calibration Verification Standard							06/03/13 15:32	
Arsenic		0.0512	mg/L	0.0010	102	90	110			
Boron		0.0525	mg/L	0.0010	105	90	110			
Iron		0.995	mg/L	0.0010	100	90	110			
Nickel		0.0514	mg/L	0.0010	103	90	110			
Selenium		0.0518	mg/L	0.0010	104	90	110			
Method: E200.8									Batch: C_R174356	
Sample ID: LRB	5	Method Blank				Run: SUB-C174356			06/03/13 16:24	
Arsenic		ND	mg/L	5E-05						
Boron		ND	mg/L	0.0004						
Iron		0.0006	mg/L	0.0006						
Nickel		ND	mg/L	9E-05						
Selenium		ND	mg/L	7E-05						
Sample ID: LFB	5	Laboratory Fortified Blank				Run: SUB-C174356			06/03/13 16:28	
Arsenic		0.0525	mg/L	0.0010	105	85	115			
Boron		0.0538	mg/L	0.0010	108	85	115			
Iron		1.25	mg/L	0.0010	100	85	115			
Nickel		0.0529	mg/L	0.0010	106	85	115			
Selenium		0.0526	mg/L	0.0010	105	85	115			
Sample ID: C13050677-002BMS4	5	Post Digestion Spike				Run: SUB-C174356			06/04/13 05:18	
Arsenic		0.358	mg/L	0.0010	99	70	130			
Boron		1.33	mg/L	0.050		70	130			A
Iron		7.50	mg/L	0.030	97	70	130			
Nickel		0.251	mg/L	0.0050	99	70	130			
Selenium		0.230	mg/L	0.0010	91	70	130			
Sample ID: C13050677-002BMSD4	5	Post Digestion Spike Duplicate				Run: SUB-C174356			06/04/13 05:22	
Arsenic		0.358	mg/L	0.0010	99	70	130	0.2	20	
Boron		1.35	mg/L	0.050		70	130	1.9	20	A
Iron		7.52	mg/L	0.030	97	70	130	0.2	20	
Nickel		0.252	mg/L	0.0050	99	70	130	0.2	20	
Selenium		0.230	mg/L	0.0010	91	70	130	0.2	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

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

MDC - Minimum detectable concentration

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 07/10/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Analytical Run: SUB-C174771	
Sample ID: ICV		Initial Calibration Verification Standard							06/12/13 15:55	
Arsenic		0.0500	mg/L	0.0010	100	90	110			
Method: E200.8									Batch: C_R174771	
Sample ID: LRB		Method Blank				Run: SUB-C174771			06/12/13 16:45	
Arsenic		ND	mg/L	5E-05						
Sample ID: LFB		Laboratory Fortified Blank				Run: SUB-C174771			06/12/13 16:49	
Arsenic		0.0509	mg/L	0.0010	102	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

Client: Powertech USA Inc **Report Date:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E245.1									Analytical Run: SUB-C174153	
Sample ID: ICV		Initial Calibration Verification Standard							05/29/13 14:51	
Mercury		0.0054	mg/L	0.00010	108	90	110			
Method: E245.1									Batch: C_37671	
Sample ID: MB-37671		Method Blank				Run: SUB-C174153			05/29/13 15:48	
Mercury		ND	mg/L	7E-05						
Sample ID: LCS-37671		Laboratory Control Sample				Run: SUB-C174153			05/29/13 15:49	
Mercury		0.0052	mg/L	0.00010	104	80	120			
Sample ID: C13050817-001BMSD		Sample Matrix Spike Duplicate				Run: SUB-C174153			05/29/13 15:59	
Mercury		0.0051	mg/L	0.00010	101	70	130	2.9	10	
Method: E245.1									Batch: C_R174153	
Sample ID: IPC		Instrument Performance Check Sample				Run: SUB-C174153			05/29/13 15:33	
Mercury		0.0051	mg/L	0.00020	102	95	105			

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: 07/10/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: DIONEX_130522A	
Sample ID: CCV052213-28	3	Continuing Calibration Verification Standard							05/22/13 20:21	
Chloride		72.0	mg/L	1.0	96	90	110			
Fluoride		7.26	mg/L	0.10	97	90	110			
Nitrogen, Nitrate as N		7.05	mg/L	0.10	94	90	110			
Method: E300.0									Batch: R61126	
Sample ID: LFB052213-14	3	Laboratory Fortified Blank				Run: DIONEX_130522A			05/22/13 12:18	
Chloride		38.0	mg/L	1.0	95	90	110			
Fluoride		3.89	mg/L	0.10	97	90	110			
Nitrogen, Nitrate as N		3.75	mg/L	0.10	94	90	110			
Sample ID: R13050338-001AMS	3	Sample Matrix Spike				Run: DIONEX_130522A			05/22/13 21:15	
Chloride		80.3	mg/L	1.0	103	90	110			
Fluoride		4.63	mg/L	0.10	89	90	110			S
Nitrogen, Nitrate as N		3.77	mg/L	0.10	94	90	110			
Sample ID: R13050338-001AMSD	3	Sample Matrix Spike Duplicate				Run: DIONEX_130522A			05/22/13 21:33	
Chloride		80.3	mg/L	1.0	103	90	110	0.1	10	
Fluoride		4.65	mg/L	0.10	89	90	110	0.4	10	S
Nitrogen, Nitrate as N		3.76	mg/L	0.10	94	90	110	0.3	10	
Sample ID: R13050361-002AMS	3	Sample Matrix Spike				Run: DIONEX_130522A			05/23/13 01:26	
Chloride		66.3	mg/L	1.0	102	90	110			
Fluoride		4.19	mg/L	0.10	96	90	110			
Nitrogen, Nitrate as N		3.88	mg/L	0.10	97	90	110			
Sample ID: R13050361-002AMSD	3	Sample Matrix Spike Duplicate				Run: DIONEX_130522A			05/23/13 01:44	
Chloride		66.3	mg/L	1.0	102	90	110	0.0	10	
Fluoride		4.20	mg/L	0.10	96	90	110	0.1	10	
Nitrogen, Nitrate as N		3.89	mg/L	0.10	97	90	110	0.2	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

Client: Powertech USA Inc **Report Date:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0									Analytical Run: DIONEX_130524A	
Sample ID: CCV052413-28	3	Continuing Calibration Verification Standard							05/24/13 17:11	
Chloride		72.0	mg/L	1.0	96	90	110			
Nitrogen, Nitrate as N		7.06	mg/L	0.10	94	90	110			
Sulfate		70.7	mg/L	1.0	94	90	110			
Method: E300.0									Batch: R61167	
Sample ID: LFB052413-14	3	Laboratory Fortified Blank				Run: DIONEX_130524A			05/24/13 13:18	
Chloride		38.2	mg/L	1.0	96	90	110			
Nitrogen, Nitrate as N		3.79	mg/L	0.10	95	90	110			
Sulfate		37.9	mg/L	1.0	95	90	110			
Sample ID: R13050368-001BMS	3	Sample Matrix Spike				Run: DIONEX_130524A			05/24/13 13:54	
Chloride		54.1	mg/L	1.0	98	90	110			
Nitrogen, Nitrate as N		3.94	mg/L	0.10	89	90	110			S
Sulfate		52.3	mg/L	1.0	94	90	110			
Sample ID: R13050368-001BMSD	3	Sample Matrix Spike Duplicate				Run: DIONEX_130524A			05/24/13 14:12	
Chloride		54.2	mg/L	1.0	98	90	110	0.2	10	
Nitrogen, Nitrate as N		3.95	mg/L	0.10	89	90	110	0.1	10	S
Sulfate		52.2	mg/L	1.0	94	90	110	0.2	10	
Sample ID: R13050339-004AMS	3	Sample Matrix Spike				Run: DIONEX_130524A			05/24/13 18:05	
Chloride		1940	mg/L	50	89	90	110			S
Nitrogen, Nitrate as N		190	mg/L	5.0	95	90	110			
Sulfate		4390	mg/L	50	103	90	110			
Sample ID: R13050339-004AMSD	3	Sample Matrix Spike Duplicate				Run: DIONEX_130524A			05/24/13 18:23	
Chloride		1940	mg/L	50	89	90	110	0.0	10	S
Nitrogen, Nitrate as N		190	mg/L	5.0	95	90	110	0.1	10	
Sulfate		4390	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

Client: Powertech USA Inc **Report Date:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0									Batch: C_GrAB-1545	
Sample ID: Th230-GrAB-1545		Laboratory Control Sample				Run: SUB-C174546			06/06/13 16:29	
Gross Alpha		107	pCi/L		101	80	120			
Sample ID: MB-GrAB-1545	6	Method Blank				Run: SUB-C174546			06/06/13 16:29	
Gross Alpha		0.5	pCi/L							U
Gross Alpha precision (±)		0.7	pCi/L							
Gross Alpha MDC		1	pCi/L							
Gross Beta		0.3	pCi/L							U
Gross Beta precision (±)		1	pCi/L							
Gross Beta MDC		2	pCi/L							
Sample ID: C13050760-002HDUP	6	Sample Duplicate				Run: SUB-C174546			06/07/13 05:04	
Gross Alpha		1920	pCi/L					4.2	12.2	
Gross Alpha precision (±)		20.9	pCi/L							
Gross Alpha MDC		3.82	pCi/L							
Gross Beta		407	pCi/L					0.4	13.8	
Gross Beta precision (±)		7.69	pCi/L							
Gross Beta MDC		4.29	pCi/L							
Sample ID: C13050798-001DMS		Sample Matrix Spike				Run: SUB-C174546			06/07/13 05:04	
Gross Beta		192	pCi/L		102	70	130			
Sample ID: C13050798-001DMSD		Sample Matrix Spike Duplicate				Run: SUB-C174546			06/07/13 05:04	
Gross Beta		199	pCi/L		106	70	130	3.7	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

Client: Powertech USA Inc **Report Date:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0										Batch: C_RA226-6662
Sample ID: C13050896-003AMS		Sample Matrix Spike				Run: SUB-C174598				06/11/13 00:15
Radium 226		23	pCi/L		101	70	130			
Sample ID: C13050896-003AMSD		Sample Matrix Spike Duplicate				Run: SUB-C174598				06/11/13 00:15
Radium 226		21	pCi/L		94	70	130	7.6	21.4	
Sample ID: MB-RA226-6662	3	Method Blank				Run: SUB-C174598				06/11/13 01:54
Radium 226		-0.09	pCi/L							U
Radium 226 precision (±)		0.09	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Sample ID: LCS-RA226-6662		Laboratory Control Sample				Run: SUB-C174598				06/11/13 01:54
Radium 226		9.1	pCi/L		82	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: 07/10/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0									Batch: C_RA-TH-ISO-1844	
Sample ID: LCS-RA-TH-ISO-1844		Laboratory Control Sample				Run: SUB-C174302				05/31/13 08:56
Thorium 230		5.9	pCi/L		98	80	120			
Sample ID: C13050758-001EMS		Sample Matrix Spike				Run: SUB-C174302				05/31/13 08:56
Thorium 230		13	pCi/L		104	70	130			
Sample ID: C13050758-001EMSD		Sample Matrix Spike Duplicate				Run: SUB-C174302				05/31/13 08:56
Thorium 230		12	pCi/L		95	70	130	9.4	40	
Sample ID: MB-RA-TH-ISO-1844	3	Method Blank				Run: SUB-C174302				05/31/13 14:37
Thorium 230		0.05	pCi/L							U
Thorium 230 precision (±)		0.09	pCi/L							
Thorium 230 MDC		0.2	pCi/L							

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0										Batch: T_PB-210-0377R
Sample ID: MB-PB-210-0377	3	Method Blank				Run: SUB-T51417				06/13/13 20:53
Lead 210		-0.2	pCi/L							U
Lead 210 precision (±)		0.5	pCi/L							
Lead 210 MDC		0.9	pCi/L							
Sample ID: LCS-PB-210-0377		Laboratory Control Sample				Run: SUB-T51417				06/14/13 01:23
Lead 210		24	pCi/L		117	70	130			
Sample ID: T13050116-003DMS		Sample Matrix Spike				Run: SUB-T51417				06/14/13 08:07
Lead 210		73	pCi/L		116	70	130			
Sample ID: T13050116-003DMSD		Sample Matrix Spike Duplicate				Run: SUB-T51417				06/14/13 10:22
Lead 210		68	pCi/L		107	70	130	6.4	18.6	

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: 07/10/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13050339

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **RA-05**										Batch: C_RA228-4427
Sample ID: **LCS-228-RA226-6662**		Laboratory Control Sample				Run: SUB-C174411				06/04/13 09:33
Radium 228		7.0	pCi/L		89	80	120			
Sample ID: **MB-RA226-6662**	3	Method Blank				Run: SUB-C174411				06/04/13 09:33
Radium 228		0.03	pCi/L							U
Radium 228 precision (±)		1	pCi/L							
Radium 228 MDC		2	pCi/L							
Sample ID: **R13050339-001E**		Sample Matrix Spike				Run: SUB-C174411				06/04/13 09:33
Radium 228		17.9	pCi/L		112	70	130			
Sample ID: **R13050339-001E**		Sample Matrix Spike Duplicate				Run: SUB-C174411				06/04/13 09:33
Radium 228		17.0	pCi/L		106	70	130	5.1	34.6	

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:	Project Name, PWS, Permit, Etc.	Sample Origin	EPA/State Compliance:
Scott Environmental	Powertech alluvial wells	State:	Yes ☐ No ☐
Report Mail Address:	**Contact Name:** Phone/Fax:	Email:	Sampler: (Please Print)
Powertech	Allan Scott		Allan 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

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 4.4 °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	Argon Dioxide	SEE ATTACHED	Comments	LABORATORY USE ONLY
1	BC 3	5-21-13	9:22	Water	✓		A. Scott 7-8-13	B1306039-001
2	BC 2	5-21-13	10:16	"	✓	BC-2	mislabled - should be BC-1	002
3	BC 2 Dup.	5-21-13	10:17	"	✓	BC-1	mislabled - should be BC-2	003
4	BC1	5-21-13	11:34	"	✓			004
5	708	5-21-13	12:30	"	✓			005
6	DC2	5-21-13	13:52	"	✓			006
7	DC1	5-21-13	14:25	"	✓			
8								
9								
10								

Custody Record MUST be Signed

	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
	Allan Scott	5-22-13 8:11				
	Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:
				Received by Laboratory:	Date/Time:	Signature:
				Steve Troiland	5-22-31 8:11	

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.

ANALYTICAL SUMMARY REPORT

July 10, 2013

Powertech USA Inc
PO Box 812
Edgemont, SD 57735

Workorder No.: R13060046 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 6/4/2013 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
R13060046-001	DC-2	06/03/13 10:13	06/04/13	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 Lead 210, Dissolved Radium 226, Dissolved Radium 228, Dissolved Radon 222 Thorium, Isotopic Solids, Total Dissolved
R13060046-002	BC-3	06/03/13 11:31	06/04/13	Aqueous	Same As Above
R13060046-003	BC-1	06/03/13 12:33	06/04/13	Aqueous	Same As Above
R13060046-004	BC-1 Dup	06/03/13 12:34	06/04/13	Aqueous	Same As Above
R13060046-005	BC-2	06/03/13 14:06	06/04/13	Aqueous	Same As Above
R13060046-006	DC-1	06/04/13 08:00	06/04/13	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:

CLIENT: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Sample Delivery Group: R13060046

Report Date: 07/10/13

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.

Tests associated with analyst identified as ELI-CS were subcontracted to Energy Laboratories, 415 Graham Rd., College Station, TX, EPA Number TX01520.
Comments imported for SUBBED Workorder: C13060124
TH230 ANALYSIS
USNRC Regulatory Guide 4.14 provides guidance on Minimum Detectable Concentrations (MDC) that should be achieved in samples for this radionuclide. The sample-specific MDC for this sample could not be achieved due to significant matrix interferences, restricting the volume of sample to be used in the analysis. Please consult with your local regulatory agency prior to using these results for compliance purposes.
End of comments imported for SUBBED Workorder: C13060124

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R13060046-001
Client Sample ID: DC-2

Report Date: 07/10/13
Collection Date: 06/03/13 10:13
Date Received: 06/04/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	5610	umhos/cm		5.0		1	A2510 B	06/06/13 09:49/tb
pH	7.14	su		0.01		1	A4500-H B	06/06/13 08:48/tb
Solids, Total Dissolved TDS @ 180 C	4660	mg/L		40		1	A2540 C	06/07/13 15:15/jmh
Alkalinity, Total as CaCO3	264	mg/L		5		1	A2320 B	06/11/13 15:44/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	06/11/13 15:44/ch
Bicarbonate as HCO3	322	mg/L		5		1	A2320 B	06/11/13 15:44/ch
INORGANIC PARAMETERS								
Chloride	784	mg/L	D	50		50	E300.0	06/07/13 18:35/tb
Fluoride	0.8	mg/L		0.1		1	E300.0	06/04/13 20:34/tb
Sulfate	1880	mg/L	D	50		50	E300.0	06/07/13 18:35/tb
DATA QUALITY PARAMETERS								
Anions	66.6	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Cations	68.7	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Conductivity, Calculated	5310	umhos/cm		1.00		1	A1030 E	07/01/13 00:00/lkl
TDS Ratio	1.11			0.0100		1	A1030 E	07/01/13 00:00/lkl
A/C Balance	1.60	%				1	A1030 E	07/01/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	ND	mg/L		0.1		1	E300.0	06/04/13 20:34/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	9.1	pCi/L	U			1	E900.0	06/18/13 08:37/eli-ca
Gross Alpha precision (±)	8.2	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Alpha MDC	12.9	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Beta	-10	pCi/L	U			1	E900.0	06/18/13 08:37/eli-ca
Gross Beta precision (±)	13.1	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Beta MDC	22.3	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Lead 210	ND	pCi/L	U			1	E909.0	06/24/13 23:05/eli-ca
Lead 210 precision (±)	0.8	pCi/L				1	E909.0	06/24/13 23:05/eli-ca
Lead 210 MDC	1.3	pCi/L				1	E909.0	06/24/13 23:05/eli-ca
Radium 228	0.7	pCi/L	U			1	RA-05	06/14/13 11:48/eli-ca
Radium 228 precision (±)	0.7	pCi/L				1	RA-05	06/14/13 11:48/eli-ca
Radium 228 MDC	1.1	pCi/L				1	RA-05	06/14/13 11:48/eli-ca
Radium 226	0.4	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Radium 226 precision (±)	0.2	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Thorium 230	0.09	pCi/L	U			1	E908.0	06/13/13 09:09/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: R13060046-001
Client Sample ID: DC-2

Report Date: 07/10/13
Collection Date: 06/03/13 10:13
Date Received: 06/04/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.1	pCi/L				1	E908.0	06/13/13 09:09/eli-ca
Thorium 230 MDC	0.2	pCi/L				1	E908.0	06/13/13 09:09/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	1680	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
Radon 222 precision (±)	142	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
Radon 222 MDC	201	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	06/12/13 14:36/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	0.005	mg/L		0.001		1	E200.8	06/21/13 01:27/eli-ca
Barium	ND	mg/L		0.05		5	E200.7	06/18/13 17:13/eli-ca
Boron	0.30	mg/L		0.05		5	E200.7	06/18/13 17:13/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	06/21/13 01:27/eli-ca
Chromium	0.008	mg/L		0.005		1	E200.8	06/21/13 01:27/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	06/21/13 01:27/eli-ca
Iron	0.94	mg/L		0.03		5	E200.7	06/18/13 17:13/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	06/21/13 01:27/eli-ca
Manganese	3.11	mg/L	D	0.005		5	E200.7	06/18/13 17:13/eli-ca
Molybdenum	0.004	mg/L		0.001		1	E200.8	06/21/13 01:27/eli-ca
Nickel	0.009	mg/L		0.005		1	E200.8	06/21/13 01:27/eli-ca
Selenium	ND	mg/L		0.001		1	E200.8	06/21/13 01:27/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	06/21/13 01:27/eli-ca
Uranium	0.0089	mg/L		0.0003		1	E200.8	06/21/13 01:27/eli-ca
Vanadium	ND	mg/L		0.01		5	E200.7	06/18/13 17:13/eli-ca
Zinc	0.03	mg/L		0.01		5	E200.7	06/18/13 17:13/eli-ca
Calcium	519	mg/L		1		5	E200.7	06/18/13 17:13/eli-ca
Magnesium	143	mg/L		1		5	E200.7	06/18/13 17:13/eli-ca
Potassium	7	mg/L		1		5	E200.7	06/18/13 17:13/eli-ca
Sodium	710	mg/L		1		5	E200.7	06/18/13 17:13/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: R13060046-002
Client Sample ID: BC-3

Report Date: 07/10/13
Collection Date: 06/03/13 11:31
Date Received: 06/04/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3210	umhos/cm		5.0		1	A2510 B	06/06/13 09:50/tb
pH	7.20	su		0.01		1	A4500-H B	06/06/13 08:50/tb
Solids, Total Dissolved TDS @ 180 C	3210	mg/L		20		1	A2540 C	06/07/13 15:46/jmh
Alkalinity, Total as CaCO3	260	mg/L		5		1	A2320 B	06/11/13 15:55/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	06/11/13 15:55/ch
Bicarbonate as HCO3	317	mg/L		5		1	A2320 B	06/11/13 15:55/ch
INORGANIC PARAMETERS								
Chloride	19	mg/L		1		1	E300.0	06/04/13 21:27/tb
Fluoride	0.7	mg/L		0.1		1	E300.0	06/04/13 21:27/tb
Sulfate	1840	mg/L	D	50		50	E300.0	06/07/13 18:53/tb
DATA QUALITY PARAMETERS								
Anions	44.0	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Cations	46.4	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Conductivity, Calculated	3730	umhos/cm		1.00		1	A1030 E	07/01/13 00:00/lkl
TDS Ratio	1.11			0.0100		1	A1030 E	07/01/13 00:00/lkl
A/C Balance	2.65	%				1	A1030 E	07/01/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	ND	mg/L		0.1		1	E300.0	06/04/13 21:27/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	4.9	pCi/L	U			1	E900.0	06/18/13 08:37/eli-ca
Gross Alpha precision (±)	8.1	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Alpha MDC	13.3	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Beta	3.6	pCi/L	U			1	E900.0	06/18/13 08:37/eli-ca
Gross Beta precision (±)	10.3	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Beta MDC	17.2	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Lead 210	0.2	pCi/L	U			1	E909.0	06/25/13 00:25/eli-ca
Lead 210 precision (±)	0.8	pCi/L				1	E909.0	06/25/13 00:25/eli-ca
Lead 210 MDC	1.3	pCi/L				1	E909.0	06/25/13 00:25/eli-ca
Radium 228	0.5	pCi/L	U			1	RA-05	06/14/13 11:48/eli-ca
Radium 228 precision (±)	0.7	pCi/L				1	RA-05	06/14/13 11:48/eli-ca
Radium 228 MDC	1.1	pCi/L				1	RA-05	06/14/13 11:48/eli-ca
Radium 226	0.2	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Radium 226 precision (±)	0.1	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Thorium 230	0.09	pCi/L	U			1	E908.0	06/13/13 09:09/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: R13060046-002
Client Sample ID: BC-3

Report Date: 07/10/13
Collection Date: 06/03/13 11:31
Date Received: 06/04/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.1	pCi/L				1	E908.0	06/13/13 09:09/eli-ca
Thorium 230 MDC	0.2	pCi/L				1	E908.0	06/13/13 09:09/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	1830	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
Radon 222 precision (±)	142	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
Radon 222 MDC	199	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	06/12/13 14:40/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	0.003	mg/L		0.001		1	E200.8	06/21/13 03:12/eli-ca
Barium	ND	mg/L		0.05		5	E200.7	06/18/13 17:16/eli-ca
Boron	0.48	mg/L		0.05		5	E200.7	06/18/13 17:16/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	06/21/13 03:12/eli-ca
Chromium	ND	mg/L		0.005		1	E200.8	06/21/13 03:12/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	06/21/13 03:12/eli-ca
Iron	0.12	mg/L		0.03		5	E200.7	06/18/13 17:16/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	06/21/13 03:12/eli-ca
Manganese	0.575	mg/L	D	0.005		5	E200.7	06/18/13 17:16/eli-ca
Molybdenum	0.006	mg/L		0.001		1	E200.8	06/21/13 03:12/eli-ca
Nickel	0.014	mg/L		0.005		1	E200.8	06/21/13 03:12/eli-ca
Selenium	0.001	mg/L		0.001		1	E200.8	06/21/13 03:12/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	06/21/13 03:12/eli-ca
Uranium	0.0207	mg/L		0.0003		1	E200.8	06/21/13 03:12/eli-ca
Vanadium	ND	mg/L		0.01		5	E200.7	06/18/13 17:16/eli-ca
Zinc	0.01	mg/L		0.01		5	E200.7	06/18/13 17:16/eli-ca
Calcium	532	mg/L		1		5	E200.7	06/18/13 17:16/eli-ca
Magnesium	153	mg/L		1		5	E200.7	06/18/13 17:16/eli-ca
Potassium	11	mg/L		1		5	E200.7	06/18/13 17:16/eli-ca
Sodium	162	mg/L		1		5	E200.7	06/18/13 17:16/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: R13060046-003
Client Sample ID: BC-1

Report Date: 07/10/13
Collection Date: 06/03/13 12:33
Date Received: 06/04/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3680	umhos/cm		5.0		1	A2510 B	06/06/13 09:52/tb
pH	7.08	su		0.01		1	A4500-H B	06/06/13 08:52/tb
Solids, Total Dissolved TDS @ 180 C	3810	mg/L		40		1	A2540 C	06/07/13 15:47/jmh
Alkalinity, Total as CaCO3	312	mg/L		5		1	A2320 B	06/11/13 16:15/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	06/11/13 16:15/ch
Bicarbonate as HCO3	380	mg/L		5		1	A2320 B	06/11/13 16:15/ch
INORGANIC PARAMETERS								
Chloride	26	mg/L		1		1	E300.0	06/04/13 21:45/tb
Fluoride	0.8	mg/L		0.1		1	E300.0	06/04/13 21:45/tb
Sulfate	2190	mg/L	D	50		50	E300.0	06/07/13 19:11/tb
DATA QUALITY PARAMETERS								
Anions	52.7	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Cations	55.1	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Conductivity, Calculated	4310	umhos/cm		1.00		1	A1030 E	07/01/13 00:00/lkl
TDS Ratio	1.12			0.0100		1	A1030 E	07/01/13 00:00/lkl
A/C Balance	2.25	%				1	A1030 E	07/01/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.3	mg/L		0.1		1	E300.0	06/04/13 21:45/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	78.0	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Alpha precision (±)	13.8	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Alpha MDC	18.6	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Beta	2.6	pCi/L	U			1	E900.0	06/18/13 08:37/eli-ca
Gross Beta precision (±)	13.5	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Beta MDC	22.3	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Lead 210	-0.1	pCi/L	U			1	E909.0	06/25/13 01:46/eli-ca
Lead 210 precision (±)	0.8	pCi/L				1	E909.0	06/25/13 01:46/eli-ca
Lead 210 MDC	1.3	pCi/L				1	E909.0	06/25/13 01:46/eli-ca
Radium 228	1.5	pCi/L				1	RA-05	06/14/13 11:48/eli-ca
Radium 228 precision (±)	0.7	pCi/L				1	RA-05	06/14/13 11:48/eli-ca
Radium 228 MDC	1.0	pCi/L				1	RA-05	06/14/13 11:48/eli-ca
Radium 226	0.2	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Radium 226 precision (±)	0.1	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Thorium 230	0.04	pCi/L	U			1	E908.0	06/13/13 09:09/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: R13060046-003
Client Sample ID: BC-1

Report Date: 07/10/13
Collection Date: 06/03/13 12:33
Date Received: 06/04/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.09	pCi/L				1	E908.0	06/13/13 09:09/eli-ca
Thorium 230 MDC	0.2	pCi/L				1	E908.0	06/13/13 09:09/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	2330	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
Radon 222 precision (±)	147	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
Radon 222 MDC	197	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	06/12/13 14:42/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	0.003	mg/L		0.001		1	E200.8	06/21/13 03:16/eli-ca
Barium	ND	mg/L		0.05		5	E200.7	06/18/13 17:20/eli-ca
Boron	0.75	mg/L		0.05		5	E200.7	06/18/13 17:20/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	06/21/13 03:16/eli-ca
Chromium	ND	mg/L		0.005		1	E200.8	06/21/13 03:16/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	06/21/13 03:16/eli-ca
Iron	ND	mg/L		0.03		5	E200.7	06/18/13 17:20/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	06/21/13 03:16/eli-ca
Manganese	0.029	mg/L		0.001		1	E200.8	06/21/13 03:16/eli-ca
Molybdenum	0.005	mg/L		0.001		1	E200.8	06/21/13 03:16/eli-ca
Nickel	0.010	mg/L		0.005		1	E200.8	06/21/13 03:16/eli-ca
Selenium	0.002	mg/L		0.001		1	E200.8	06/21/13 03:16/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	06/21/13 03:16/eli-ca
Uranium	0.101	mg/L		0.0003		1	E200.8	06/21/13 03:16/eli-ca
Vanadium	ND	mg/L		0.01		5	E200.7	06/18/13 17:20/eli-ca
Zinc	0.01	mg/L		0.01		5	E200.7	06/18/13 17:20/eli-ca
Calcium	513	mg/L		1		5	E200.7	06/18/13 17:20/eli-ca
Magnesium	250	mg/L		1		5	E200.7	06/18/13 17:20/eli-ca
Potassium	12	mg/L		1		5	E200.7	06/18/13 17:20/eli-ca
Sodium	198	mg/L		1		5	E200.7	06/18/13 17:20/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.

LABORATORY ANALYTICAL REPORT

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Project: Alluvial Wells Dewey Burdock
Lab ID: R13060046-004
Client Sample ID: BC-1 Dup

Report Date: 07/10/13
Collection Date: 06/03/13 12:34
Date Received: 06/04/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	3680	umhos/cm		5.0		1	A2510 B	06/06/13 09:53/tb
pH	7.06	su		0.01		1	A4500-H B	06/06/13 08:54/tb
Solids, Total Dissolved TDS @ 180 C	3810	mg/L		40		1	A2540 C	06/07/13 15:48/jmh
Alkalinity, Total as CaCO3	294	mg/L		5		1	A2320 B	06/11/13 16:21/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	06/11/13 16:21/ch
Bicarbonate as HCO3	358	mg/L		5		1	A2320 B	06/11/13 16:21/ch
INORGANIC PARAMETERS								
Chloride	26	mg/L		1		1	E300.0	06/04/13 22:03/tb
Fluoride	0.8	mg/L		0.1		1	E300.0	06/04/13 22:03/tb
Sulfate	2210	mg/L	D	50		50	E300.0	06/07/13 20:05/tb
DATA QUALITY PARAMETERS								
Anions	52.7	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Cations	55.2	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Conductivity, Calculated	4320	umhos/cm		1.00		1	A1030 E	07/01/13 00:00/lkl
TDS Ratio	1.12			0.0100		1	A1030 E	07/01/13 00:00/lkl
A/C Balance	2.37	%				1	A1030 E	07/01/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.3	mg/L		0.1		1	E300.0	06/04/13 22:03/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	82.3	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Alpha precision (±)	11.4	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Alpha MDC	13.6	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Beta	8.6	pCi/L	U			1	E900.0	06/18/13 08:37/eli-ca
Gross Beta precision (±)	11.3	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Beta MDC	18.5	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Lead 210	-0.1	pCi/L	U			1	E909.0	06/25/13 03:06/eli-ca
Lead 210 precision (±)	0.8	pCi/L				1	E909.0	06/25/13 03:06/eli-ca
Lead 210 MDC	1.3	pCi/L				1	E909.0	06/25/13 03:06/eli-ca
Radium 228	0.7	pCi/L	U			1	RA-05	06/14/13 11:48/eli-ca
Radium 228 precision (±)	0.7	pCi/L				1	RA-05	06/14/13 11:48/eli-ca
Radium 228 MDC	1.0	pCi/L				1	RA-05	06/14/13 11:48/eli-ca
Radium 226	0.2	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Radium 226 precision (±)	0.1	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Thorium 230	0.08	pCi/L	U			1	E908.0	06/13/13 09:09/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: R13060046-004
Client Sample ID: BC-1 Dup

Report Date: 07/10/13
Collection Date: 06/03/13 12:34
Date Received: 06/04/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.1	pCi/L				1	E908.0	06/13/13 09:09/eli-ca
Thorium 230 MDC	0.2	pCi/L				1	E908.0	06/13/13 09:09/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	2340	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
Radon 222 precision (±)	147	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
Radon 222 MDC	198	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	06/12/13 14:43/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	0.003	mg/L		0.001		1	E200.8	06/21/13 03:20/eli-ca
Barium	ND	mg/L		0.05		5	E200.7	06/18/13 17:35/eli-ca
Boron	0.73	mg/L		0.05		5	E200.7	06/18/13 17:35/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	06/21/13 03:20/eli-ca
Chromium	ND	mg/L		0.005		1	E200.8	06/21/13 03:20/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	06/21/13 03:20/eli-ca
Iron	0.03	mg/L		0.03		5	E200.7	06/18/13 17:35/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	06/21/13 03:20/eli-ca
Manganese	0.030	mg/L	D	0.002		5	E200.7	06/18/13 17:35/eli-ca
Molybdenum	0.005	mg/L		0.001		1	E200.8	06/21/13 03:20/eli-ca
Nickel	0.015	mg/L		0.005		1	E200.8	06/21/13 03:20/eli-ca
Selenium	0.002	mg/L		0.001		1	E200.8	06/21/13 03:20/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	06/21/13 03:20/eli-ca
Uranium	0.103	mg/L		0.0003		1	E200.8	06/21/13 03:20/eli-ca
Vanadium	ND	mg/L		0.01		5	E200.7	06/18/13 17:35/eli-ca
Zinc	0.02	mg/L		0.01		5	E200.7	06/18/13 17:35/eli-ca
Calcium	513	mg/L		1		5	E200.7	06/18/13 17:35/eli-ca
Magnesium	250	mg/L		1		5	E200.7	06/18/13 17:35/eli-ca
Potassium	12	mg/L		1		5	E200.7	06/18/13 17:35/eli-ca
Sodium	201	mg/L		1		5	E200.7	06/18/13 17:35/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: R13060046-005
Client Sample ID: BC-2

Report Date: 07/10/13
Collection Date: 06/03/13 14:06
Date Received: 06/04/13
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	06/06/13 09:57/tb
pH	7.11	su		0.01		1	A4500-H B	06/06/13 08:56/tb
Solids, Total Dissolved TDS @ 180 C	3970	mg/L		40		1	A2540 C	06/07/13 15:49/jmh
Alkalinity, Total as CaCO3	230	mg/L		5		1	A2320 B	06/11/13 16:24/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	06/11/13 16:24/ch
Bicarbonate as HCO3	280	mg/L		5		1	A2320 B	06/11/13 16:24/ch
INORGANIC PARAMETERS								
Chloride	22	mg/L		1		1	E300.0	06/04/13 22:21/tb
Fluoride	0.9	mg/L		0.1		1	E300.0	06/04/13 22:21/tb
Sulfate	2470	mg/L	D	20		20	E300.0	06/07/13 20:59/tb
DATA QUALITY PARAMETERS								
Anions	56.7	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Cations	57.0	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Conductivity, Calculated	4570	umhos/cm		1.00		1	A1030 E	07/01/13 00:00/lkl
TDS Ratio	1.08			0.0100		1	A1030 E	07/01/13 00:00/lkl
A/C Balance	0.260	%				1	A1030 E	07/01/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	0.3	mg/L		0.1		1	E300.0	06/04/13 22:21/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	24.5	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Alpha precision (±)	8.6	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Alpha MDC	12.7	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Beta	-0.5	pCi/L	U			1	E900.0	06/18/13 08:37/eli-ca
Gross Beta precision (±)	8.6	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Beta MDC	14.3	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Lead 210	0.3	pCi/L	U			1	E909.0	06/25/13 04:26/eli-ca
Lead 210 precision (±)	0.8	pCi/L				1	E909.0	06/25/13 04:26/eli-ca
Lead 210 MDC	1.3	pCi/L				1	E909.0	06/25/13 04:26/eli-ca
Radium 228	2.1	pCi/L				1	RA-05	06/14/13 11:48/eli-ca
Radium 228 precision (±)	0.7	pCi/L				1	RA-05	06/14/13 11:48/eli-ca
Radium 228 MDC	1.1	pCi/L				1	RA-05	06/14/13 11:48/eli-ca
Radium 226	0.3	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Radium 226 precision (±)	0.1	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Thorium 230	0.004	pCi/L	U			1	E908.0	06/13/13 09:09/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: R13060046-005
Client Sample ID: BC-2

Report Date: 07/10/13
Collection Date: 06/03/13 14:06
Date Received: 06/04/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.06	pCi/L				1	E908.0	06/13/13 09:09/eli-ca
Thorium 230 MDC	0.2	pCi/L				1	E908.0	06/13/13 09:09/eli-ca
RADIONUCLIDES - TOTAL								
Radon 222	2880	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
Radon 222 precision (±)	152	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
Radon 222 MDC	195	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	06/12/13 14:45/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	0.003	mg/L		0.001		1	E200.8	06/21/13 03:25/eli-ca
Barium	ND	mg/L		0.05		5	E200.7	06/18/13 17:39/eli-ca
Boron	0.48	mg/L		0.05		5	E200.7	06/18/13 17:39/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	06/21/13 03:25/eli-ca
Chromium	ND	mg/L		0.005		1	E200.8	06/21/13 03:25/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	06/21/13 03:25/eli-ca
Iron	ND	mg/L		0.03		5	E200.7	06/18/13 17:39/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	06/21/13 03:25/eli-ca
Manganese	0.041	mg/L	D	0.002		5	E200.7	06/18/13 17:39/eli-ca
Molybdenum	0.012	mg/L		0.001		1	E200.8	06/21/13 03:25/eli-ca
Nickel	0.012	mg/L		0.005		1	E200.8	06/21/13 03:25/eli-ca
Selenium	0.001	mg/L		0.001		1	E200.8	06/21/13 03:25/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	06/21/13 03:25/eli-ca
Uranium	0.0258	mg/L		0.0003		1	E200.8	06/21/13 03:25/eli-ca
Vanadium	ND	mg/L		0.01		5	E200.7	06/18/13 17:39/eli-ca
Zinc	0.03	mg/L		0.01		5	E200.7	06/18/13 17:39/eli-ca
Calcium	517	mg/L		1		5	E200.7	06/18/13 17:39/eli-ca
Magnesium	225	mg/L		1		5	E200.7	06/18/13 17:39/eli-ca
Potassium	13	mg/L		1		5	E200.7	06/18/13 17:39/eli-ca
Sodium	284	mg/L		1		5	E200.7	06/18/13 17:39/eli-ca

Report Definitions:
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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: R13060046-006
Client Sample ID: DC-1

Report Date: 07/10/13
Collection Date: 06/04/13 08:00
Date Received: 06/04/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
PHYSICAL PARAMETERS								
Conductivity @ 25 C	6450	umhos/cm		5.0		1	A2510 B	06/06/13 10:00/tb
pH	7.05	su		0.01		1	A4500-H B	06/06/13 08:59/tb
Solids, Total Dissolved TDS @ 180 C	5990	mg/L		100		1	A2540 C	06/10/13 14:33/jmh
Alkalinity, Total as CaCO3	352	mg/L		5		1	A2320 B	06/11/13 16:27/ch
Carbonate as CO3	ND	mg/L		5		1	A2320 B	06/11/13 16:27/ch
Bicarbonate as HCO3	429	mg/L		5		1	A2320 B	06/11/13 16:27/ch
INORGANIC PARAMETERS								
Chloride	111	mg/L		1		1	E300.0	06/04/13 22:39/tb
Fluoride	1.4	mg/L		0.1		1	E300.0	06/04/13 22:39/tb
Sulfate	3760	mg/L	D	50		50	E300.0	06/07/13 21:17/tb
DATA QUALITY PARAMETERS								
Anions	90.0	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Cations	96.7	meq/L		1.00		1	A1030 E	07/01/13 00:00/lkl
Conductivity, Calculated	6910	umhos/cm		1.00		1	A1030 E	07/01/13 00:00/lkl
TDS Ratio	1.00			0.0100		1	A1030 E	07/01/13 00:00/lkl
A/C Balance	3.56	%				1	A1030 E	07/01/13 00:00/lkl
NUTRIENT PARAMETERS								
Nitrogen, Nitrate as N	18.3	mg/L	D	0.2		2	E300.0	06/04/13 22:57/tb
RADIONUCLIDES - DISSOLVED								
Gross Alpha	11.0	pCi/L	U			1	E900.0	06/18/13 08:37/eli-ca
Gross Alpha precision (±)	11.8	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Alpha MDC	19.0	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Beta	-9	pCi/L	U			1	E900.0	06/18/13 08:37/eli-ca
Gross Beta precision (±)	13.9	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Gross Beta MDC	23.6	pCi/L				1	E900.0	06/18/13 08:37/eli-ca
Lead 210	-0.5	pCi/L	U			1	E909.0	06/25/13 05:46/eli-ca
Lead 210 precision (±)	0.8	pCi/L				1	E909.0	06/25/13 05:46/eli-ca
Lead 210 MDC	1.4	pCi/L				1	E909.0	06/25/13 05:46/eli-ca
Radium 228	1	pCi/L	U			1	RA-05	06/14/13 11:48/eli-ca
Radium 228 precision (±)	0.7	pCi/L				1	RA-05	06/14/13 11:48/eli-ca
Radium 228 MDC	1.1	pCi/L				1	RA-05	06/14/13 11:48/eli-ca
Radium 226	0.8	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Radium 226 precision (±)	0.2	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Radium 226 MDC	0.2	pCi/L				1	E903.0	06/19/13 06:59/eli-ca
Thorium 230	0.2	pCi/L	U			1	E908.0	06/13/13 09:09/eli-ca

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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: R13060046-006
Client Sample ID: DC-1

Report Date: 07/10/13
Collection Date: 06/04/13 08:00
Date Received: 06/04/13
Matrix: AQUEOUS

Analyses	Result	Units	Qual	RL	MCL/ QCL	DF	Method	Analysis Date / By
RADIONUCLIDES - DISSOLVED								
Thorium 230 precision (±)	0.2	pCi/L				1	E908.0	06/13/13 09:09/eli-ca
Thorium 230 MDC	0.3	pCi/L				1	E908.0	06/13/13 09:09/eli-ca
- See Case Narrative regarding Th230 analysis.								
RADIONUCLIDES - TOTAL								
Radon 222	1110	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
Radon 222 precision (±)	116	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
Radon 222 MDC	170	pCi/L				1	D5072-92	06/05/13 16:22/eli-ca
TOTAL METALS ANALYSES								
Mercury	ND	mg/L		0.0001		1	E245.1	06/12/13 14:46/eli-ca
DISSOLVED METALS ANALYSES								
Arsenic	0.003	mg/L		0.001		1	E200.8	06/21/13 03:29/eli-ca
Barium	ND	mg/L		0.05		5	E200.7	06/18/13 17:42/eli-ca
Boron	1.33	mg/L		0.05		5	E200.7	06/18/13 17:42/eli-ca
Cadmium	ND	mg/L		0.001		1	E200.8	06/21/13 03:29/eli-ca
Chromium	ND	mg/L		0.005		1	E200.8	06/21/13 03:29/eli-ca
Copper	ND	mg/L		0.005		1	E200.8	06/21/13 03:29/eli-ca
Iron	ND	mg/L		0.03		5	E200.7	06/18/13 17:42/eli-ca
Lead	ND	mg/L		0.001		1	E200.8	06/25/13 15:37/eli-ca
Manganese	0.309	mg/L	D	0.005		5	E200.7	06/18/13 17:42/eli-ca
Molybdenum	0.001	mg/L		0.001		1	E200.8	06/21/13 03:29/eli-ca
Nickel	0.053	mg/L		0.005		1	E200.8	06/21/13 03:29/eli-ca
Selenium	0.047	mg/L		0.001		1	E200.8	06/21/13 03:29/eli-ca
Silver	ND	mg/L		0.001		1	E200.8	06/21/13 03:29/eli-ca
Uranium	0.0142	mg/L		0.0003		1	E200.8	06/25/13 15:37/eli-ca
Vanadium	ND	mg/L		0.01		5	E200.7	06/18/13 17:42/eli-ca
Zinc	0.11	mg/L		0.01		5	E200.7	06/18/13 17:42/eli-ca
Calcium	418	mg/L		1		5	E200.7	06/18/13 17:42/eli-ca
Magnesium	379	mg/L		1		5	E200.7	06/18/13 17:42/eli-ca
Potassium	9	mg/L		1		5	E200.7	06/18/13 17:42/eli-ca
Sodium	1020	mg/L		1		5	E200.7	06/18/13 17:42/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

Client: Powertech USA Inc **Report Date:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B									Batch: 130611A-ALK-SEL-W	
Sample ID: LCS1_130611A		Laboratory Control Sample				Run: PH_COND1-R_130611A			06/11/13 10:26	
Alkalinity, Total as CaCO3		972	mg/L	5.0	97	90	110			
Sample ID: MBLK1_130611A		Method Blank				Run: PH_COND1-R_130611A			06/11/13 10:34	
Alkalinity, Total as CaCO3		ND	mg/L	3						
Sample ID: R13060021-002AMS		Sample Matrix Spike				Run: PH_COND1-R_130611A			06/11/13 11:34	
Alkalinity, Total as CaCO3		520	mg/L	5.0	83	80	120			
Sample ID: R13060046-002ADUP	3	Sample Duplicate				Run: PH_COND1-R_130611A			06/11/13 16:00	
Alkalinity, Total as CaCO3		246	mg/L	5.0				5.5	10	
Carbonate as CO3		ND	mg/L	5.0					10	
Bicarbonate as HCO3		300	mg/L	5.0				5.5	10	

Qualifiers:

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QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 07/10/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **A2510 B**									Batch: 130606_1_COND-PROBE-W	
Sample ID: **MBLK-1_130606**		Method Blank				Run: PH_COND2-R_130606B			06/06/13 09:37	
Conductivity @ 25 C		ND	umhos/cm	5						

Qualifiers:

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QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc
Report Date: 07/10/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **A2540 C**										Batch: TDS130607A
Sample ID: **MB-1_130607A**		Method Blank				Run: BAL-TDS_130607A				06/07/13 15:05
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	2						
Sample ID: **LCS-2_130607A**		Laboratory Control Sample				Run: BAL-TDS_130607A				06/07/13 15:06
Solids, Total Dissolved TDS @ 180 C		500	mg/L	10	101	90	110			
Sample ID: **R13060021-004A MS**		Sample Matrix Spike				Run: BAL-TDS_130607A				06/07/13 15:10
Solids, Total Dissolved TDS @ 180 C		1500	mg/L	20	99	90	110			
Sample ID: **R13060046-004A DUP**		Sample Duplicate				Run: BAL-TDS_130607A				06/07/13 15:49
Solids, Total Dissolved TDS @ 180 C		3800	mg/L	40				0.5	5	

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QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **A4500-H B**									Analytical Run: PH_COND2-R_130606A	
Sample ID: **ICV-1_130606**		Initial Calibration Verification Standard							06/06/13 08:33	
pH		7.42	su	0.010	100	98	102			
Method: **A4500-H B**									Batch: 130606_1_PH-W	
Sample ID: **ICV1-1_130606**		Initial Calibration Verification Standard				Run: PH_COND2-R_130606A			06/06/13 08:31	
pH		12.1	su	0.010	101	99	101			
Sample ID: **R13060046-005ADUP**		Sample Duplicate				Run: PH_COND2-R_130606A			06/06/13 08:57	
pH		7.11	su	0.010				0.0	3	

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QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: D5072-92									Batch: C_R174568	
Sample ID: C13060103-002GDUP	3	Sample Duplicate				Run: SUB-C174568			06/05/13 16:22	
Radon 222		326	pCi/L					15	20	
Radon 222 precision (±)		120	pCi/L							
Radon 222 MDC		194	pCi/L							
Sample ID: C13060125-005ADUP	3	Sample Duplicate				Run: SUB-C174568			06/05/13 16:22	
Radon 222		2650	pCi/L					0.8	20	
Radon 222 precision (±)		150	pCi/L							
Radon 222 MDC		196	pCi/L							
Sample ID: C13060150-009FDUP	3	Sample Duplicate				Run: SUB-C174568			06/05/13 16:22	
Radon 222		512	pCi/L					7.6	20	
Radon 222 precision (±)		106	pCi/L							
Radon 222 MDC		166	pCi/L							
Sample ID: MB-R174568	3	Method Blank				Run: SUB-C174568			06/05/13 16:22	
Radon 222		30	pCi/L							U
Radon 222 precision (±)		80	pCi/L							
Radon 222 MDC		100	pCi/L							
Sample ID: LCS-R174568		Laboratory Control Sample				Run: SUB-C174568			06/05/13 16:22	
Radon 222		459	pCi/L		83	80	120			

Qualifiers:

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QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: SUB-C174943	
Sample ID: ICV	10	Initial Calibration Verification Standard							06/18/13 09:14	
Barium		1.0	mg/L	0.10	102	95	105			
Boron		1.0	mg/L	0.10	101	95	105			
Calcium		51	mg/L	0.50	102	95	105			
Iron		5.1	mg/L	0.030	102	95	105			
Magnesium		51	mg/L	0.50	101	95	105			
Manganese		4.8	mg/L	0.010	96	95	105			
Potassium		52	mg/L	0.50	104	95	105			
Sodium		52	mg/L	0.50	104	95	105			
Vanadium		0.98	mg/L	0.10	98	95	105			
Zinc		0.98	mg/L	0.010	98	95	105			
Sample ID: ICSA	10	Interference Check Sample A							06/18/13 09:29	
Barium		0.00030	mg/L	0.10						
Boron		0.0058	mg/L	0.10						
Calcium		470	mg/L	0.50	94	80	120			
Iron		180	mg/L	0.030	89	80	120			
Magnesium		500	mg/L	0.50	101	80	120			
Manganese		-0.017	mg/L	0.010						
Potassium		0.021	mg/L	0.50						
Sodium		0.45	mg/L	0.50						
Vanadium		-0.0026	mg/L	0.10						
Zinc		0.015	mg/L	0.010						
Sample ID: ICSAB	10	Interference Check Sample AB							06/18/13 09:33	
Barium		0.46	mg/L	0.10	93	80	120			
Boron		0.0048	mg/L	0.10						
Calcium		460	mg/L	0.50	92	80	120			
Iron		170	mg/L	0.030	87	80	120			
Magnesium		500	mg/L	0.50	100	80	120			
Manganese		0.42	mg/L	0.010	83	80	120			
Potassium		0.039	mg/L	0.50						
Sodium		0.52	mg/L	0.50						
Vanadium		0.44	mg/L	0.10	89	80	120			
Zinc		0.84	mg/L	0.010	84	80	120			
Method: E200.7									Batch: C_R174943	
Sample ID: MB-130618A	10	Method Blank				Run: SUB-C174943			06/18/13 09:52	
Barium		0.0002	mg/L	0.0002						
Boron		ND	mg/L	0.002						
Calcium		ND	mg/L	0.02						
Iron		ND	mg/L	0.002						
Magnesium		0.05	mg/L	0.01						
Manganese		ND	mg/L	0.0010						
Potassium		0.04	mg/L	0.04						
Sodium		ND	mg/L	0.2						

Qualifiers:

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ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: C_R174943
Sample ID: MB-130618A	10	Method Blank				Run: SUB-C174943				06/18/13 09:52
Vanadium		ND	mg/L	0.001						
Zinc		0.003	mg/L	0.001						
Sample ID: LFB-130618A	10	Laboratory Fortified Blank				Run: SUB-C174943				06/18/13 09:55
Barium		0.92	mg/L	0.10	92	85	115			
Boron		0.91	mg/L	0.10	91	85	115			
Calcium		47	mg/L	0.50	95	85	115			
Iron		0.93	mg/L	0.030	93	85	115			
Magnesium		47	mg/L	0.50	94	85	115			
Manganese		0.89	mg/L	0.010	89	85	115			
Potassium		47	mg/L	0.50	93	85	115			
Sodium		47	mg/L	0.50	94	85	115			
Vanadium		0.90	mg/L	0.10	90	85	115			
Zinc		0.89	mg/L	0.010	89	85	115			
Sample ID: R13060046-003C	10	Sample Matrix Spike				Run: SUB-C174943				06/18/13 17:24
Barium		4.90	mg/L	0.050	96	70	130			
Boron		5.48	mg/L	0.050	93	70	130			
Iron		4.81	mg/L	0.030	94	70	130			
Manganese		4.68	mg/L	0.0050	91	70	130			
Vanadium		4.78	mg/L	0.010	94	70	130			
Zinc		4.47	mg/L	0.010	87	70	130			
Calcium		740	mg/L	1.0	89	70	130			
Magnesium		493	mg/L	1.0	95	70	130			
Potassium		264	mg/L	1.0	99	70	130			
Sodium		444	mg/L	1.0	96	70	130			
Sample ID: R13060046-003C	10	Sample Matrix Spike Duplicate				Run: SUB-C174943				06/18/13 17:27
Barium		4.87	mg/L	0.050	95	70	130	0.6	20	
Boron		5.36	mg/L	0.050	90	70	130	2.2	20	
Iron		4.79	mg/L	0.030	94	70	130	0.4	20	
Manganese		4.66	mg/L	0.0050	91	70	130	0.4	20	
Vanadium		4.75	mg/L	0.010	93	70	130	0.6	20	
Zinc		4.43	mg/L	0.010	87	70	130	0.8	20	
Calcium		735	mg/L	1.0	87	70	130	0.6	20	
Magnesium		491	mg/L	1.0	95	70	130	0.4	20	
Potassium		263	mg/L	1.0	99	70	130	0.4	20	
Sodium		442	mg/L	1.0	96	70	130	0.5	20	

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Analytical Run: SUB-C175115	
Sample ID: ICV	11	Initial Calibration Verification Standard							06/20/13 22:45	
Arsenic		0.0511	mg/L	0.0010	102	90	110			
Cadmium		0.0497	mg/L	0.0010	99	90	110			
Chromium		0.0514	mg/L	0.0010	103	90	110			
Copper		0.0496	mg/L	0.0010	99	90	110			
Lead		0.0494	mg/L	0.0010	99	90	110			
Manganese		0.0504	mg/L	0.0010	101	90	110			
Molybdenum		0.0477	mg/L	0.0010	95	90	110			
Nickel		0.0515	mg/L	0.0010	103	90	110			
Selenium		0.0546	mg/L	0.0010	109	90	110			
Silver		0.0205	mg/L	0.0010	103	90	110			
Uranium		0.0488	mg/L	0.00030	98	90	110			
Method: E200.8									Batch: C_R175115	
Sample ID: LRB	11	Method Blank				Run: SUB-C175115			06/20/13 13:40	
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						
Manganese		ND	mg/L	3E-05						
Molybdenum		9E-05	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						
Sample ID: LFB	11	Laboratory Fortified Blank				Run: SUB-C175115			06/20/13 13:45	
Arsenic		0.0503	mg/L	0.0010	101	85	115			
Cadmium		0.0490	mg/L	0.0010	98	85	115			
Chromium		0.0510	mg/L	0.0010	102	85	115			
Copper		0.0484	mg/L	0.0010	97	85	115			
Lead		0.0497	mg/L	0.0010	99	85	115			
Manganese		0.0510	mg/L	0.0010	102	85	115			
Molybdenum		0.0484	mg/L	0.0010	97	85	115			
Nickel		0.0509	mg/L	0.0010	102	85	115			
Selenium		0.0513	mg/L	0.0010	103	85	115			
Silver		0.0207	mg/L	0.0010	104	85	115			
Uranium		0.0504	mg/L	0.00030	101	85	115			
Sample ID: R13060046-001C	11	Post Digestion Spike				Run: SUB-C175115			06/21/13 01:48	
Arsenic		0.0536	mg/L	0.0010	98	70	130			
Cadmium		0.0414	mg/L	0.0010	83	70	130			
Chromium		0.0592	mg/L	0.0050	102	70	130			
Copper		0.0475	mg/L	0.0050	93	70	130			
Lead		0.0563	mg/L	0.0010	112	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:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: C_R175115	
Sample ID: R13060046-001C	11	Post Digestion Spike			Run: SUB-C175115				06/21/13 01:48	
Manganese		3.27	mg/L	0.0010		70	130			A
Molybdenum		0.0560	mg/L	0.0010	103	70	130			
Nickel		0.0573	mg/L	0.0050	96	70	130			
Selenium		0.0517	mg/L	0.0010	102	70	130			
Silver		0.0169	mg/L	0.0010	84	70	130			
Uranium		0.0730	mg/L	0.00030	128	70	130			
Sample ID: R13060046-001C	11	Post Digestion Spike Duplicate			Run: SUB-C175115				06/21/13 01:52	
Arsenic		0.0561	mg/L	0.0010	103	70	130	4.4	20	
Cadmium		0.0388	mg/L	0.0010	78	70	130	6.4	20	
Chromium		0.0639	mg/L	0.0050	111	70	130	7.7	20	
Copper		0.0514	mg/L	0.0050	101	70	130	8.0	20	
Lead		0.0534	mg/L	0.0010	107	70	130	5.3	20	
Manganese		3.19	mg/L	0.0010		70	130	2.6	20	A
Molybdenum		0.0531	mg/L	0.0010	97	70	130	5.4	20	
Nickel		0.0635	mg/L	0.0050	109	70	130	10	20	
Selenium		0.0561	mg/L	0.0010	111	70	130	8.3	20	
Silver		0.0160	mg/L	0.0010	80	70	130	5.5	20	
Uranium		0.0703	mg/L	0.00030	123	70	130	3.8	20	
Method: E200.8									Analytical Run: SUB-C175208	
Sample ID: ICV	2	Initial Calibration Verification Standard							06/25/13 15:01	
Lead		0.0494	mg/L	0.0010	99	90	110			
Uranium		0.0510	mg/L	0.00030	102	90	110			
Sample ID: ICV	2	Initial Calibration Verification Standard							06/25/13 13:53	
Lead		0.0510	mg/L	0.0010	102	90	110			
Uranium		0.0512	mg/L	0.00030	102	90	110			
Method: E200.8									Batch: C_R175208	
Sample ID: LRB	2	Method Blank			Run: SUB-C175208				06/25/13 14:19	
Lead		ND	mg/L	3E-05						
Uranium		ND	mg/L	1E-05						
Sample ID: LFB	2	Laboratory Fortified Blank			Run: SUB-C175208				06/25/13 14:22	
Lead		0.0528	mg/L	0.0010	106	85	115			
Uranium		0.0524	mg/L	0.00030	105	85	115			
Sample ID: R13060046-006C	2	Post Digestion Spike			Run: SUB-C175208				06/25/13 15:40	
Lead		0.0512	mg/L	0.0010	102	70	130			
Uranium		0.0726	mg/L	0.00030	117	70	130			
Sample ID: R13060046-006C	2	Post Digestion Spike Duplicate			Run: SUB-C175208				06/25/13 15:43	
Lead		0.0496	mg/L	0.0010	99	70	130	3.1	20	
Uranium		0.0698	mg/L	0.00030	111	70	130	3.9	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: 07/10/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E245.1									Analytical Run: SUB-C174702	
Sample ID: ICV		Initial Calibration Verification Standard							06/12/13 14:07	
Mercury		0.0053	mg/L	0.00010	106	90	110			
Method: E245.1									Batch: C_130612A	
Sample ID: IPC		Instrument Performance Check Sample				Run: SUB-C174702			06/12/13 14:14	
Mercury		0.0052	mg/L	0.00010	104	95	105			
Method: E245.1									Batch: C_37871	
Sample ID: MB-37871		Method Blank				Run: SUB-C174702			06/12/13 14:33	
Mercury		ND	mg/L	7E-05						
Sample ID: LCS-37871		Laboratory Control Sample				Run: SUB-C174702			06/12/13 14:35	
Mercury		0.0056	mg/L	0.00010	111	85	115			
Sample ID: R13060046-001B		Sample Matrix Spike				Run: SUB-C174702			06/12/13 14:38	
Mercury		0.0050	mg/L	0.00010	101	70	130			
Sample ID: R13060046-001B		Sample Matrix Spike Duplicate				Run: SUB-C174702			06/12/13 14:39	
Mercury		0.0050	mg/L	0.00010	101	70	130	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:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0										Batch: R61271
Sample ID: LFB060413-14	3	Laboratory Fortified Blank				Run: DIONEX_130604A				06/04/13 20:16
Chloride		38.4	mg/L	1.0	96	90	110			
Fluoride		3.94	mg/L	0.10	98	90	110			
Nitrogen, Nitrate as N		3.78	mg/L	0.10	94	90	110			
Sample ID: R13060046-001AMS	3	Sample Matrix Spike				Run: DIONEX_130604A				06/04/13 20:52
Chloride		917	mg/L	1.0		90	110			A
Fluoride		4.47	mg/L	0.10	92	90	110			
Nitrogen, Nitrate as N		3.88	mg/L	0.10	97	90	110			
Sample ID: R13060046-001AMSD	3	Sample Matrix Spike Duplicate				Run: DIONEX_130604A				06/04/13 21:10
Chloride		919	mg/L	1.0		90	110	0.2	10	A
Fluoride		4.48	mg/L	0.10	92	90	110	0.2	10	
Nitrogen, Nitrate as N		3.89	mg/L	0.10	97	90	110	0.2	10	
Sample ID: R13060028-003AMS	3	Sample Matrix Spike				Run: DIONEX_130604A				06/05/13 01:02
Chloride		39.8	mg/L	1.0	92	90	110			
Fluoride		4.38	mg/L	0.10	95	90	110			
Nitrogen, Nitrate as N		4.07	mg/L	0.10	91	90	110			
Sample ID: R13060028-003AMSD	3	Sample Matrix Spike Duplicate				Run: DIONEX_130604A				06/05/13 01:20
Chloride		39.9	mg/L	1.0	92	90	110	0.1	10	
Fluoride		4.38	mg/L	0.10	95	90	110	0.0	10	
Nitrogen, Nitrate as N		4.07	mg/L	0.10	91	90	110	0.0	10	
Method: E300.0										Analytical Run: DIONEX_130606A
Sample ID: CCV060613-42	2	Continuing Calibration Verification Standard								06/07/13 15:18
Chloride		71.1	mg/L	1.0	95	90	110			
Sulfate		70.1	mg/L	1.0	93	90	110			
Sample ID: CCV060613-56	2	Continuing Calibration Verification Standard								06/07/13 19:29
Chloride		70.4	mg/L	1.0	94	90	110			
Sulfate		69.8	mg/L	1.0	93	90	110			
Method: E300.0										Batch: R61331
Sample ID: LFB060613-14	2	Laboratory Fortified Blank				Run: DIONEX_130606A				06/06/13 20:21
Chloride		38.9	mg/L	1.0	97	90	110			
Sulfate		38.5	mg/L	1.0	96	90	110			
Sample ID: R13060046-004AMS	2	Sample Matrix Spike				Run: DIONEX_130606A				06/07/13 20:23
Chloride		1920	mg/L	50	88	90	110			S
Sulfate		4210	mg/L	50	100	90	110			
Sample ID: R13060046-004AMSD	2	Sample Matrix Spike Duplicate				Run: DIONEX_130606A				06/07/13 20:41
Chloride		1920	mg/L	50	88	90	110	0.1	10	S
Sulfate		4200	mg/L	50	99	90	110	0.2	10	

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:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E900.0									Batch: C_GrAB-1555	
Sample ID: Th230-GrAB-1555		Laboratory Control Sample				Run: SUB-C174886			06/17/13 19:07	
Gross Alpha		105	pCi/L		102	80	120			
Sample ID: Sr90-GrAB-1555		Laboratory Control Sample				Run: SUB-C174886			06/17/13 19:07	
Gross Beta		166	pCi/L		92	80	120			
Sample ID: MB-GrAB-1555	6	Method Blank				Run: SUB-C174886			06/17/13 19:07	
Gross Alpha		-2	pCi/L							U
Gross Alpha precision (±)		0.8	pCi/L							
Gross Alpha MDC		2	pCi/L							
Gross Beta		-2	pCi/L							U
Gross Beta precision (±)		2	pCi/L							
Gross Beta MDC		3	pCi/L							
Sample ID: C13050779-001DDUP	6	Sample Duplicate				Run: SUB-C174886			06/17/13 19:07	
Gross Alpha		13	pCi/L					61	89.5	
Gross Alpha precision (±)		7.0	pCi/L							
Gross Alpha MDC		11	pCi/L							
Gross Beta		6.4	pCi/L					680	298	UR
Gross Beta precision (±)		14	pCi/L							
Gross Beta MDC		23	pCi/L							
- For Gross Beta the Sample and the Duplicate are both below the MDC; the RPD is acceptable.										
Sample ID: C13051140-004EMS		Sample Matrix Spike				Run: SUB-C174886			06/18/13 08:37	
Gross Alpha		90	pCi/L		79	70	130			
Sample ID: C13051140-004EMSD		Sample Matrix Spike Duplicate				Run: SUB-C174886			06/18/13 08:37	
Gross Alpha		90	pCi/L		79	70	130	0.0	16.5	
Sample ID: C13051140-004EMS		Sample Matrix Spike				Run: SUB-C174886			06/18/13 08:37	
Gross Beta		200	pCi/L		103	70	130			
Sample ID: C13051140-004EMSD		Sample Matrix Spike Duplicate				Run: SUB-C174886			06/18/13 08:37	
Gross Beta		190	pCi/L		100	70	130	3.2	13.9	

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: 07/10/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0									Batch: C_RA226-6689	
Sample ID: R13060046-004E	3	Sample Duplicate				Run: SUB-C174974			06/19/13 06:59	
Radium 226		0.14	pCi/L					45	140.2	U
Radium 226 precision (±)		0.11	pCi/L							
Radium 226 MDC		0.16	pCi/L							
Sample ID: R13060046-006E		Sample Matrix Spike				Run: SUB-C174974			06/19/13 06:59	
Radium 226		23	pCi/L		100	70	130			
Sample ID: MB-RA226-6689	3	Method Blank				Run: SUB-C174974			06/19/13 11:36	
Radium 226		0.007	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Sample ID: LCS-RA226-6689		Laboratory Control Sample				Run: SUB-C174974			06/19/13 11:36	
Radium 226		11	pCi/L		94	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: 07/10/13
Project: Alluvial Wells Dewey Burdock
Work Order: R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E908.0									Batch: C_RA-TH-ISO-1854	
Sample ID: LCS-RA-TH-ISO-1854		Laboratory Control Sample				Run: SUB-C174792			06/13/13 09:09	
Thorium 230		5.7	pCi/L		95	80	120			
Sample ID: C13060222-002GMS		Sample Matrix Spike				Run: SUB-C174792			06/13/13 09:09	
Thorium 230		15	pCi/L		125	70	130			
Sample ID: C13060222-002GMSD		Sample Matrix Spike Duplicate				Run: SUB-C174792			06/13/13 09:09	
Thorium 230		12	pCi/L		101	70	130	21	44.1	
Sample ID: MB-RA-TH-ISO-1854	3	Method Blank				Run: SUB-C174792			06/13/13 09:10	
Thorium 230		0.08	pCi/L							U
Thorium 230 precision (±)		0.09	pCi/L							
Thorium 230 MDC		0.2	pCi/L							

Qualifiers:

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

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E909.0										Batch: T_PB-210-0382R
Sample ID: MB-PB-210-0382	3	Method Blank				Run: SUB-T51585				06/24/13 09:42
Lead 210		0.07	pCi/L							U
Lead 210 precision (±)		0.7	pCi/L							
Lead 210 MDC		1	pCi/L							
Sample ID: LCS-PB-210-0382		Laboratory Control Sample				Run: SUB-T51585				06/24/13 12:22
Lead 210		15	pCi/L		69	80	120			S
- LCS response is outside of the acceptance range for this analysis. Since the MB, MS, and MSD are acceptable the batch is approved.										
Sample ID: T13050129-003EMS		Sample Matrix Spike				Run: SUB-T51585				06/24/13 15:03
Lead 210		710	pCi/L		176	70	130			S A
- Sample activity for this radionuclide is much larger than the spike activity added. Therefore the matrix spike recovery could not be calculated. The RPD of the MS/MSD pair are acceptable; this batch is approved.										
Sample ID: T13050129-003EMSD		Sample Matrix Spike Duplicate				Run: SUB-T51585				06/24/13 16:23
Lead 210		730	pCi/L		202	70	130	2.4	30	S A

Qualifiers:

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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

U - Not detected at minimum detectable concentration

QA/QC Summary Report

Prepared by Rapid City, SD Branch

Client: Powertech USA Inc **Report Date:** 07/10/13

Project: Alluvial Wells Dewey Burdock **Work Order:** R13060046

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: RA-05										Batch: C_RA228-4441
Sample ID: LCS-228-RA226-6689		Laboratory Control Sample				Run: SUB-C174840				06/14/13 11:48
Radium 228		8.2	pCi/L		109	80	120			
Sample ID: MB-RA226-6689	3	Method Blank				Run: SUB-C174840				06/14/13 11:48
Radium 228		-0.4	pCi/L							U
Radium 228 precision (±)		0.7	pCi/L							
Radium 228 MDC		1	pCi/L							
Sample ID: R13060046-004E	3	Sample Duplicate				Run: SUB-C174840				06/14/13 11:48
Radium 228		1.4	pCi/L					64	131.2	
Radium 228 precision (±)		0.7	pCi/L							
Radium 228 MDC		1.0	pCi/L							
Sample ID: C13060210-001AMS		Sample Matrix Spike				Run: SUB-C174840				06/14/13 11:48
Radium 228		16.5	pCi/L		102	70	130			

Qualifiers:

RL - Analyte reporting limit.

MDC - Minimum detectable concentration

ND - Not detected at the reporting limit.

U - Not detected at minimum detectable concentration

Chain of Custody and Analytical Request Record

ENERGY LABORATORIES

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 (Required):	**Contact Name:** Phone/Fax:	Cell:	Sampler: (Please Print)
Scott Envr., PowerTech Inc.	Allen Scott, Lisa Schinost		
❑ No Hard Copy Email:	Invoice Contact & Phone:	Purchase Order:	Quote/Bottle Order:
Invoice Address (Required):			
PowerTech			
❑ No Hard Copy Email:			

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

SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	As per Quote									SEE ATTACHED	Standard Turnaround (TAT)
1 DC-2	6-3-13	10:13	water	✓										
2 BC-3	6-3-13	11:31	"	✓										
3 BC-1	6-3-13	12:33	"	✓										
4 BC-1 Dup.	6-3-13	12:34	"	✓										
5 BC-2	6-3-13	14:06	"	✓										
6 TDS	6-3-13	14:59	"	✓										
7 DC-1	6-4-13	8:00	"	✓										
8														
9														
10														

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 2.8 °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

L13060046-001
002
003
004
005
006

Custody Record MUST be Signed

Relinquished by (print):	Date/Time:	Signature:	Received by (print)	Date/Time:	Signature:
Allen Scott	6-4-13 12:46				
Relinquished by (print):	Date/Time:	Signature:	Received by (print):	Date/Time:	Signature:

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

Received by Laboratory: Linda Larsen 6/4/13 1247

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.