CAMECO RESOURCES
CROW BUTTE OPERATION

86 Crow Butte Road
P.O. Box 169
Crawford, Nebraska 69339-0169

(308) 665-2215
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August 25, 2011

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Attn: Document Control Desk, Deputy Director
Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental Management Programs
Mailstop T8-F5
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Re: Source Materials License SUA-1534
Docket No. 40-8943
SM8-6 Monitor Well Excursion

Dear Deputy Director:

On May 24, 2011 during routine biweekly water sampling of Cameco Resources, Crow Butte Operation (CBO) shallow monitor well SM8-6, the single parameter upper control limit (SCL) for conductivity was exceeded. As required by License Condition 11.2 of Source Materials License SUA-1534, a second sample was collected within 48 hours and analyzed for the three excursion indicator parameters. The results of the second sample exceeded the SCL for conductivity and the multiple parameter upper control limit (MCL) for chloride.

In accordance with License Condition 11.2, CBO increased the sampling frequency for SM8-6 to weekly. Weekly samples were obtained from May 25, 2011 to August 23, 2011. The samples collected on July 19, and 26, and August 2, 9, 16, and 23, 2011, were below the excursion criteria from Section B.1 of the permit. Based on these results, CBO is removing SM8-6 from excursion status and is returning it to routine biweekly sampling. Attached are copies of the analytical data for each of the last six weekly samples and graphs for each parameter covering the period of March 15, 2011to August 23, 2011.

If you have any questions or require any further information, please do not hesitate to call me at (308) 665-2215 Ext. 114.

FSME21

Sincerely,
CAMECO RESOURCES
CROW BUTTE OPERATION

Larry Teahon

Larry Teahon
SHEQ Manager

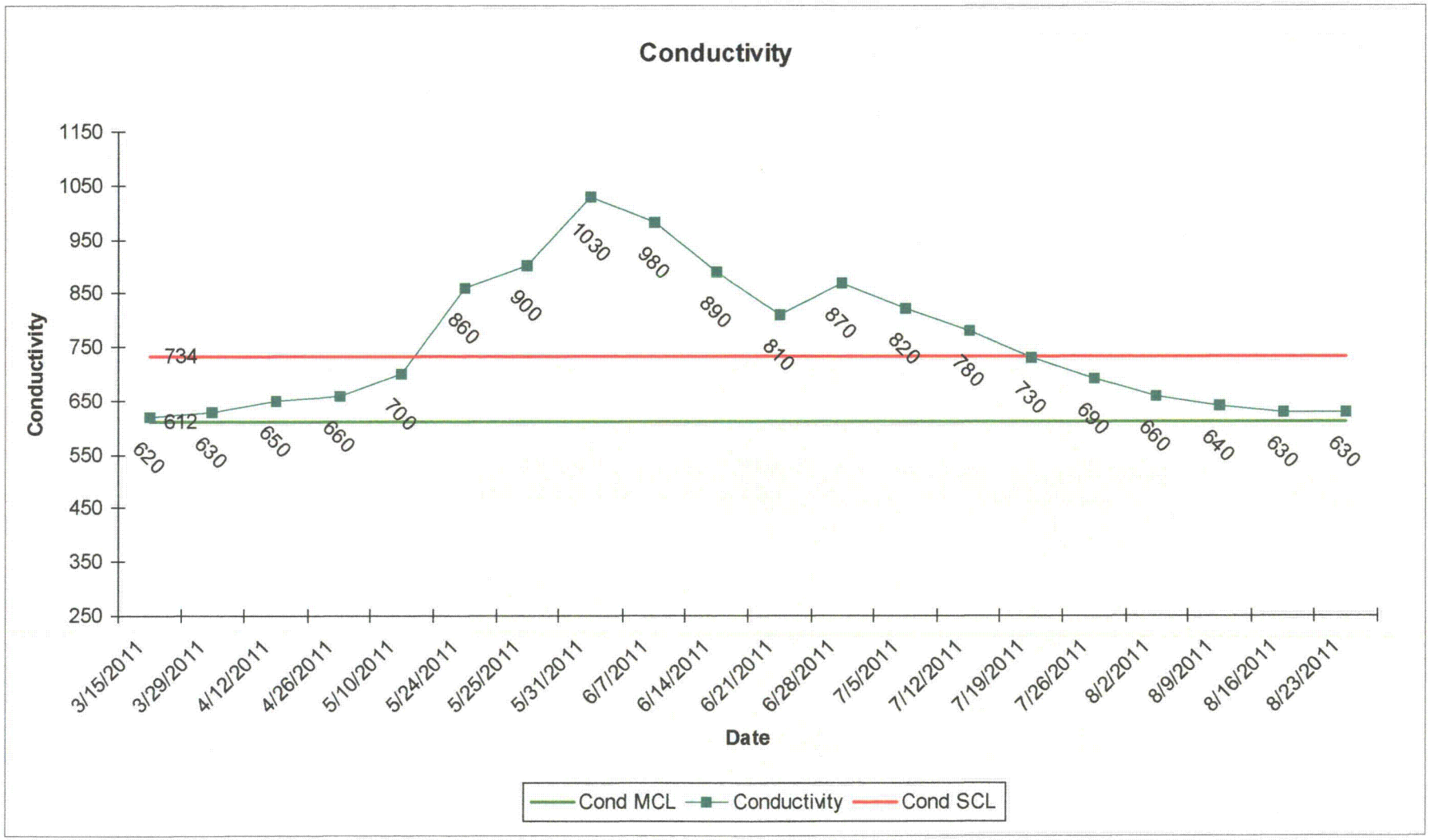
Enclosures: As Stated

cc: Ronald Burrows – NRC
CBO – File
ec: CR – Cheyenne Office

SM8-6

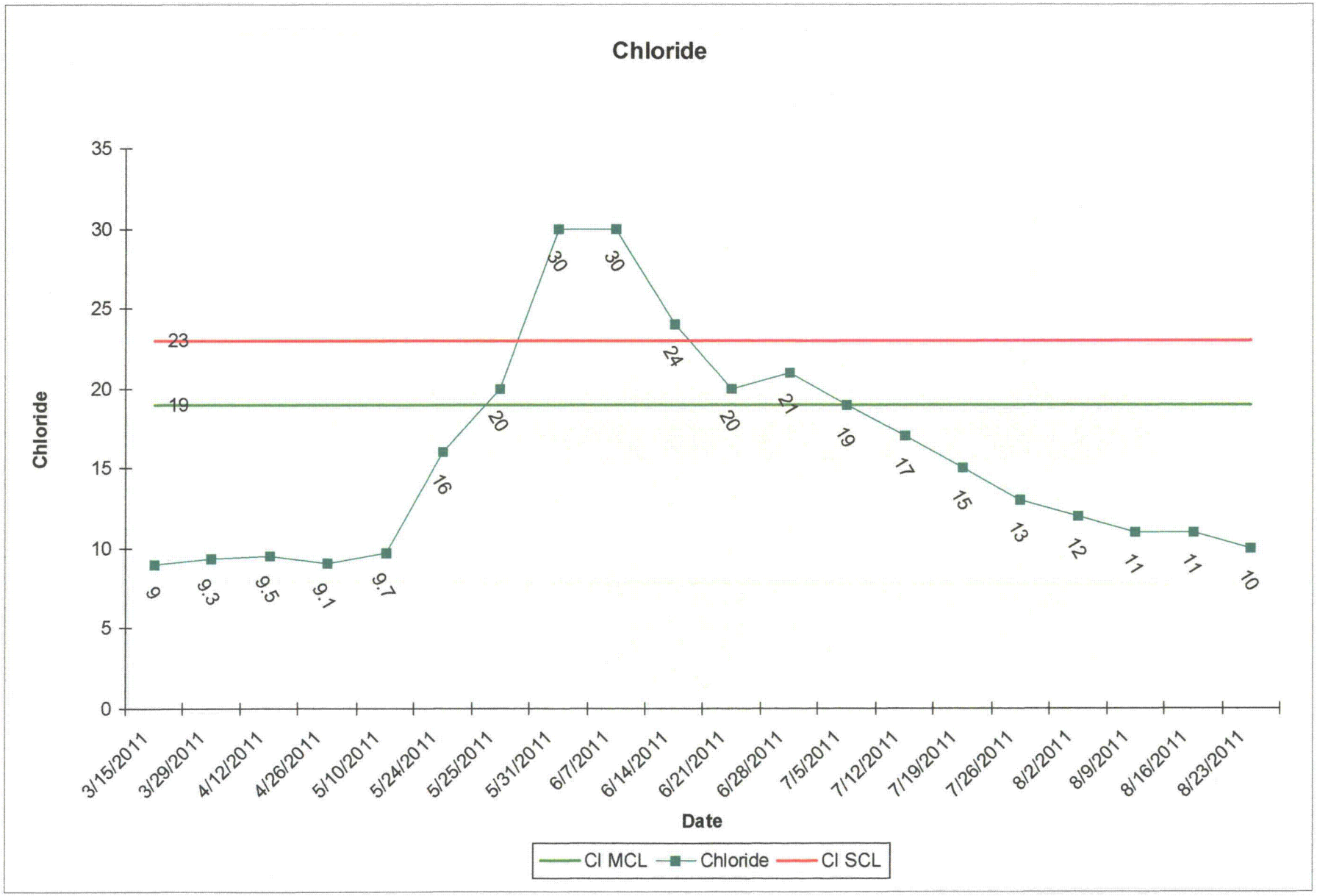
Thursday, August 25, 2011

SM8-6



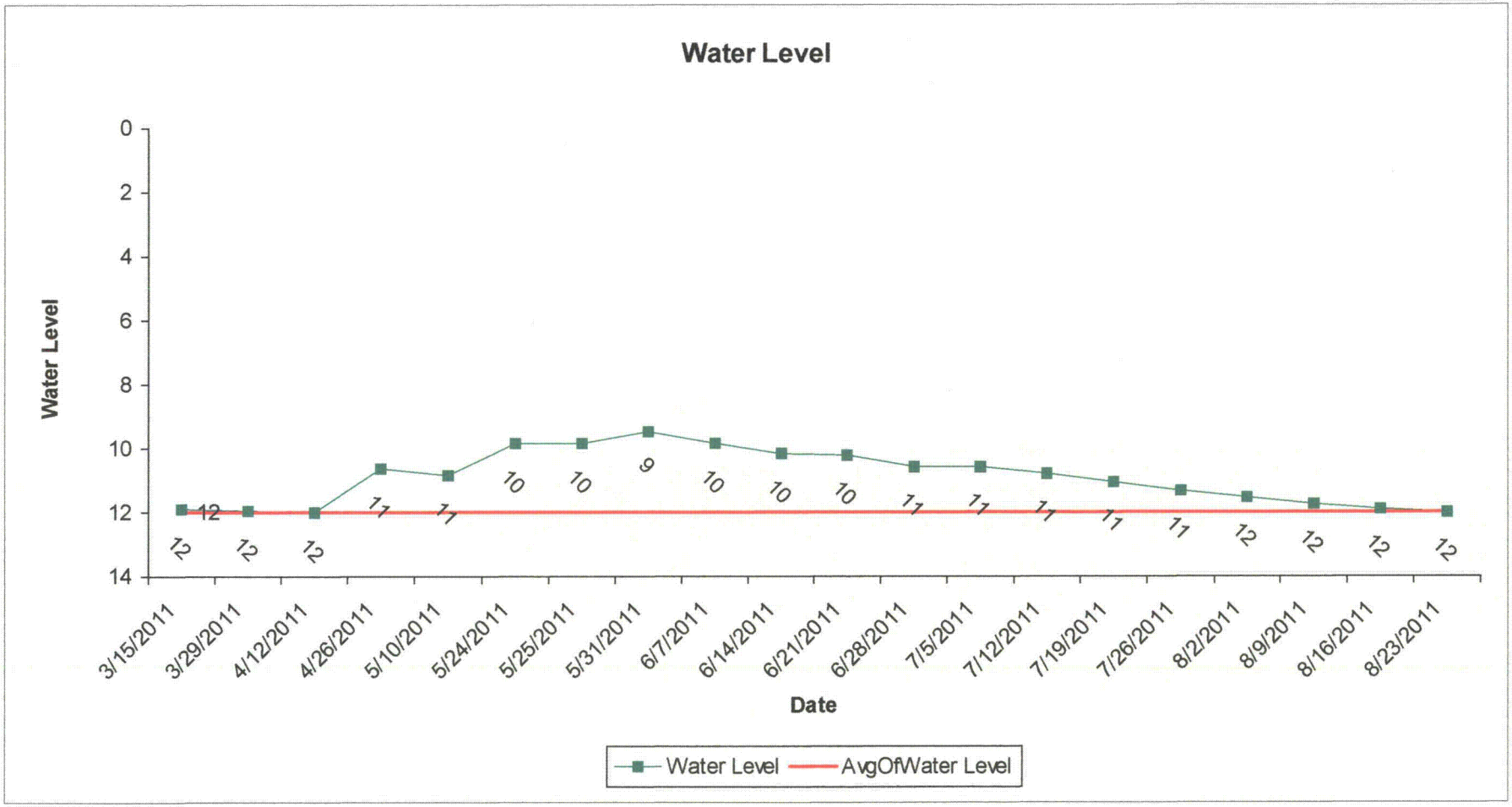
Thursday, August 25, 2011

SM8-6



Thursday, August 25, 2011

SM8-6



Thursday, August 25, 2011

Sample Date 7/19/2011
Analysis Date 7/19/2011

Crow Butte Project
Monitor Well Laboratory Report

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µmho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM11-3	148	210	175	340	490	408	1.4	20	17
SM11-4	142	200	167	310	446	372	1.3	20	17
SM11-5	146	204	170	330	475	396	1.9	20	17
SM11-6	144	207	173	330	490	408	3.5	25	21
SM4-1	159	248	206	370	772	643	2.4	52	43
SM4-2	197	513	393	660	1256	1039	13	127	88
SM4-5A	199	367	306	550	1236	1030	11	106	88
SM6-20	219	323	269	600	717	598	15	26	22
SM8-1	234	374	312	520	763	636	5.9	25	21
SM8-10	233	331	276	630	749	624	11	24	20
SM8-11	226	323	269	570	792	660	8.4	24	20
SM8-12	234	323	269	590	834	695	8.5	25	20
SM8-13	224	328	274	560	880	733	12	31	26
SM8-14	222	325	271	580	720	600	13	24	20
SM8-15	218	305	254	540	789	658	8.3	35	29
SM8-16	219	331	276	550	828	690	8.2	24	20
SM8-2	235	353	294	530	778	648	5.5	24	20
SM8-3	232	331	276	530	720	600	6.2	24	20
SM8-4	224	323	269	530	819	683	8.4	25	21
SM8-5	252	346	288	610	749	624	11	23	19
SM8-6	242	328	274	730	734	612	15	23	19
SM8-7	241	348	290	650	763	636	12	23	19
SM8-8	239	340	283	520	864	720	5.3	24	20
SM8-9	238	353	294	520	886	738	5.1	23	19
SM9-1	174	255	212	450	648	540	6	31	26

Sample Date 7/26/2011
Analysis Date 7/26/2011

Crow Butte Project
Monitor Well Laboratory Report

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µmho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM10-22	**243**	360	300	**550**	778	648	**8.9**	23	20
SM3-1	**208**	374	312	**690**	1122	935	**15**	85	71
SM3-2	**179**	305	254	**460**	805	671	**3.8**	40	34
SM3-3	**178**	297	247	**470**	729	607	**6.3**	30	25
SM4-10A	304	354	295	**730**	1053	877	**13**	36	30
SM4-11A	**297**	554	462	**720**	1469	1224	**11**	139	115
SM6-20	**217**	323	269	**590**	717	598	**15**	26	22
SM7-15	**146**	200	167	**340**	495	413	**1.8**	24	20
SM7-16	**142**	199	166	**330**	451	376	**2**	24	20
SM7-17	179	209	174	**400**	539	449	**3.1**	30	25
SM7-18	**141**	217	181	**340**	513	427	**2.8**	23	19
SM7-19	**145**	212	176	**360**	599	499	**4.2**	38	31
SM7-20	**148**	228	190	**350**	583	486	**1.7**	28	23
SM7-21	**145**	216	180	**350**	534	445	**2.3**	27	23
SM7-22	**148**	217	181	**350**	644	536	**2.3**	54	45
SM7-23	**178**	278	232	**460**	850	708	**4.1**	59	50
SM7-24	**189**	259	216	**590**	809	674	**9.6**	45	37
SM7-25	**157**	202	168	**360**	645	538	**1.9**	52	44
SM8-6	**242**	328	274	690	734	612	**13**	23	19

Sample Date 8/2/2011
Analysis Date 8/2/2011

Crow Butte Project
Monitor Well Laboratory Report

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µmho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM11-3	149	210	175	340	490	408	1.4	20	17
SM11-4	143	200	167	310	446	372	1.4	20	17
SM11-5	147	204	170	330	475	396	2	20	17
SM11-6	145	207	173	330	490	408	3.5	25	21
SM4-1	158	248	206	370	772	643	2.5	52	43
SM4-2	195	513	393	660	1256	1039	13	127	88
SM4-5A	199	367	306	550	1236	1030	12	106	88
SM8-1	233	374	312	520	763	636	6.3	25	21
SM8-10	234	331	276	620	749	624	11	24	20
SM8-11	226	323	269	570	792	660	8.7	24	20
SM8-12	236	323	269	590	834	695	9	25	20
SM8-13	227	328	274	560	880	733	12	31	26
SM8-14	223	325	271	590	720	600	14	24	20
SM8-15	216	305	254	540	789	658	8.5	35	29
SM8-16	220	331	276	550	828	690	8.7	24	20
SM8-2	238	353	294	530	778	648	5.8	24	20
SM8-3	232	331	276	530	720	600	6.4	24	20
SM8-4	224	323	269	530	819	683	8.6	25	21
SM8-5	247	346	288	590	749	624	9.4	23	19
SM8-6	241	328	274	660	734	612	12	23	19
SM8-7	241	348	290	640	763	636	12	23	19
SM8-8	239	340	283	520	864	720	5.6	24	20
SM8-9	237	353	294	520	886	738	5.5	23	19
SM9-1	174	255	212	450	648	540	5.7	31	26
SM9-2	163	230	192	400	665	554	4.1	72	60

Sample Date 8/9/2011
Analysis Date 8/9/2011

Crow Butte Project
Monitor Well Laboratory Report

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µmho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM10-22	245	360	300	550	778	648	8.9	23	20
SM3-1	207	374	312	690	1122	935	15	85	71
SM3-2	179	305	254	460	805	671	3.7	40	34
SM3-3	178	297	247	470	729	607	6.6	30	25
SM4-10A	302	354	295	730	1053	877	13	36	30
SM4-11A	292	554	462	720	1469	1224	11	139	115
SM7-15	145	200	167	340	495	413	1.9	24	20
SM7-16	142	199	166	330	451	376	2.1	24	20
SM7-17	179	209	174	410	539	449	3.2	30	25
SM7-18	140	217	181	340	513	427	3	23	19
SM7-19	144	212	176	360	599	499	4.2	38	31
SM7-20	148	228	190	350	583	486	1.7	28	23
SM7-21	145	216	180	350	534	445	2.3	27	23
SM7-22	148	217	181	350	644	536	2.2	54	45
SM7-23	178	278	232	460	850	708	4.2	59	50
SM7-24	187	259	216	600	809	674	9.6	45	37
SM7-25	157	202	168	360	645	538	2	52	44
SM8-6	240	328	274	640	734	612	11	23	19

Sample Date 8/16/2011
Analysis Date 8/16/2011

Crow Butte Project
Monitor Well Laboratory Report

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µmho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM11-3	147	210	175	340	490	408	1.5	20	17
SM11-4	142	200	167	310	446	372	1.4	20	17
SM11-5	145	204	170	330	475	396	2	20	17
SM11-6	144	207	173	330	490	408	3.4	25	21
SM4-1	157	248	206	370	772	643	2.5	52	43
SM4-2	194	513	393	660	1256	1039	13	127	88
SM4-5A	197	367	306	550	1236	1030	12	106	88
SM8-1	235	374	312	520	763	636	6	25	21
SM8-10	233	331	276	610	749	624	10	24	20
SM8-11	227	323	269	570	792	660	8.8	24	20
SM8-12	236	323	269	590	834	695	8.9	25	20
SM8-13	225	328	274	560	880	733	12	31	26
SM8-14	226	325	271	590	720	600	14	24	20
SM8-15	220	305	254	540	789	658	8.6	35	29
SM8-16	221	331	276	560	828	690	8.8	24	20
SM8-2	236	353	294	530	778	648	6	24	20
SM8-3	233	331	276	530	720	600	6.5	24	20
SM8-4	226	323	269	530	819	683	8.7	25	21
SM8-5	246	346	288	570	749	624	8.7	23	19
SM8-6	242	328	274	630	734	612	11	23	19
SM8-7	243	348	290	630	763	636	11	23	19
SM8-8	239	340	283	520	864	720	5.5	24	20
SM8-9	240	353	294	520	886	738	5.4	23	19
SM9-1	173	255	212	450	648	540	6.2	31	26
SM9-2	161	230	192	400	665	554	4.3	72	60

Sample Date 8/23/2011
Analysis Date 8/23/2011

Crow Butte Project
Monitor Well Laboratory Report

Well ID	Alkalinity (mg/L)	Alk SCL	Alk MCL	Conductivity (µmho/cm)	Cond SCL	Cond MCL	Chloride (mg/L)	Cl SCL	Cl MCL
SM10-22	243	360	300	560	778	648	9	23	20
SM3-1	210	374	312	690	1122	935	15	85	71
SM3-2	180	305	254	460	805	671	3.9	40	34
SM3-3	178	297	247	470	729	607	6.3	30	25
SM4-10A	305	354	295	730	1053	877	14	36	30
SM4-11A	294	554	462	720	1469	1224	12	139	115
SM7-15	146	200	167	340	495	413	2	24	20
SM7-16	142	199	166	330	451	376	2.1	24	20
SM7-17	177	209	174	400	539	449	3.2	30	25
SM7-18	141	217	181	340	513	427	3	23	19
SM7-19	145	212	176	360	599	499	4.2	38	31
SM7-20	148	228	190	350	583	486	1.9	28	23
SM7-21	145	216	180	350	534	445	2.4	27	23
SM7-22	147	217	181	350	644	536	2.3	54	45
SM7-23	178	278	232	460	850	708	4.3	59	50
SM7-24	190	259	216	600	809	674	9.7	45	37
SM7-25	157	202	168	360	645	538	1.9	52	44
SM8-6	242	328	274	630	734	612	10	23	19