

CROW BUTTE RESOURCES, INC.

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February 27, 2002

Mr. Melvyn Leach, Chief
Fuel Cycle Licensing Branch, FCSS
c/o Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Re: Source Materials License SUA-1534
Docket No. 40-8943
SM7-23 Monitor Well Excursion Quarterly Report

Dear Mr. Leach:

On April 27, 2000 during routine biweekly water sampling of Crow Butte Resources, Inc. (CBR) shallow monitor well SM7-23, the single parameter upper control limit (UCL) was exceeded for sulfate. Based upon the results from this sample and confirming samples, monitor well SM7-23 was placed on excursion status. This report is a quarterly report submitted to NRC to provide an update on the status of SM7-23.

As required by License Condition 11.2, CBR has sampled SM7-23 on a weekly basis. Laboratory results for the analysis of weekly samples from December 11, 2001 through February 26, 2002 are attached. In addition, graphs are attached for each excursion parameter and water level for SM7-23 for the period from August 5, 1999 through February 26, 2002. The data indicates that sulfate concentrations continue to exceed the single UCL of 62 mg/l. All other excursion monitoring parameters are at concentration levels that are well below their respective UCLs.

CBR believes that the exceedance of the sulfate UCL in SM7-23 is not due to the migration of mining solutions. At the time the excursion began in 2000, SM7-23 was located in a new area of Mine Unit 7 where mining activities had not begun. Mining has now commenced in this area, but has had no apparent affect on the excursion parameter concentrations.

The conclusion that this UCL exceedance is not caused by a migration of mining solutions is further supported by the trends for the other four excursion parameters. If the exceedance were due to mining solutions, it is certain that some of the other parameter concentrations would be affected.

CBR has continued to actively investigate the apparent change in the baseline sulfate concentration

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for this well. Additional monitoring data has been obtained during routine weekly sampling in an attempt to determine potential causes. In the meantime, CBR plans to continue to sample SM7-23 on a weekly basis. If three consecutive weekly samples are below the exceeded UCL, the well will be returned to normal status.

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

Sincerely,
CROW BUTTE RESOURCES, INC.

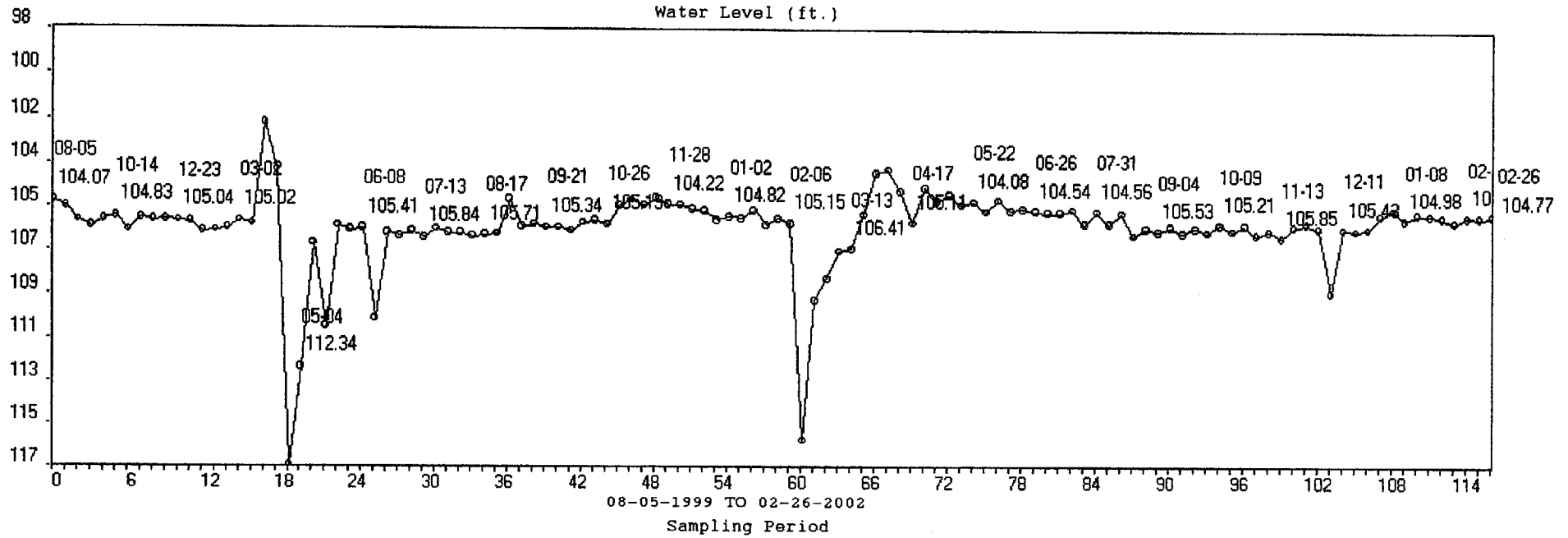
Michael Griffin
Manager of Health, Safety, and Environmental Affairs

Enclosures: As Stated

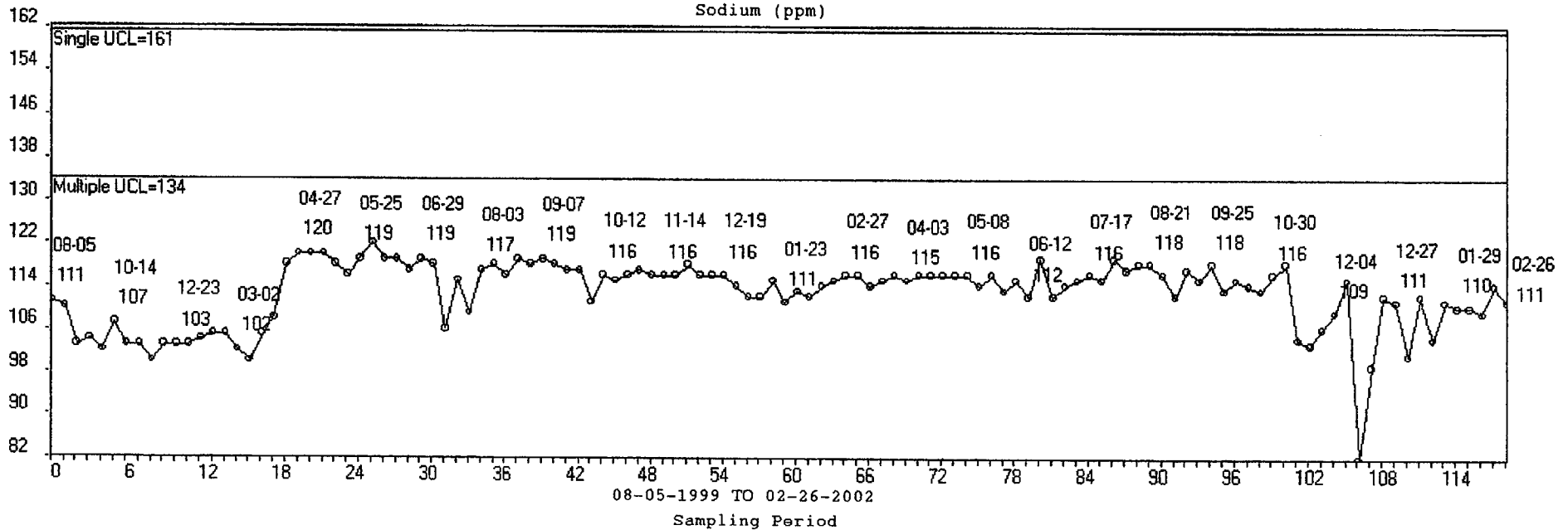
cc: Mr. Steve Collings - CBR, Denver

Mr. Mike Layton - ADDRESSEE ONLY
U.S. Nuclear Regulatory Commission
Fuel Cycle Licensing Branch
Mail Stop T-8A33
Washington, DC 20555

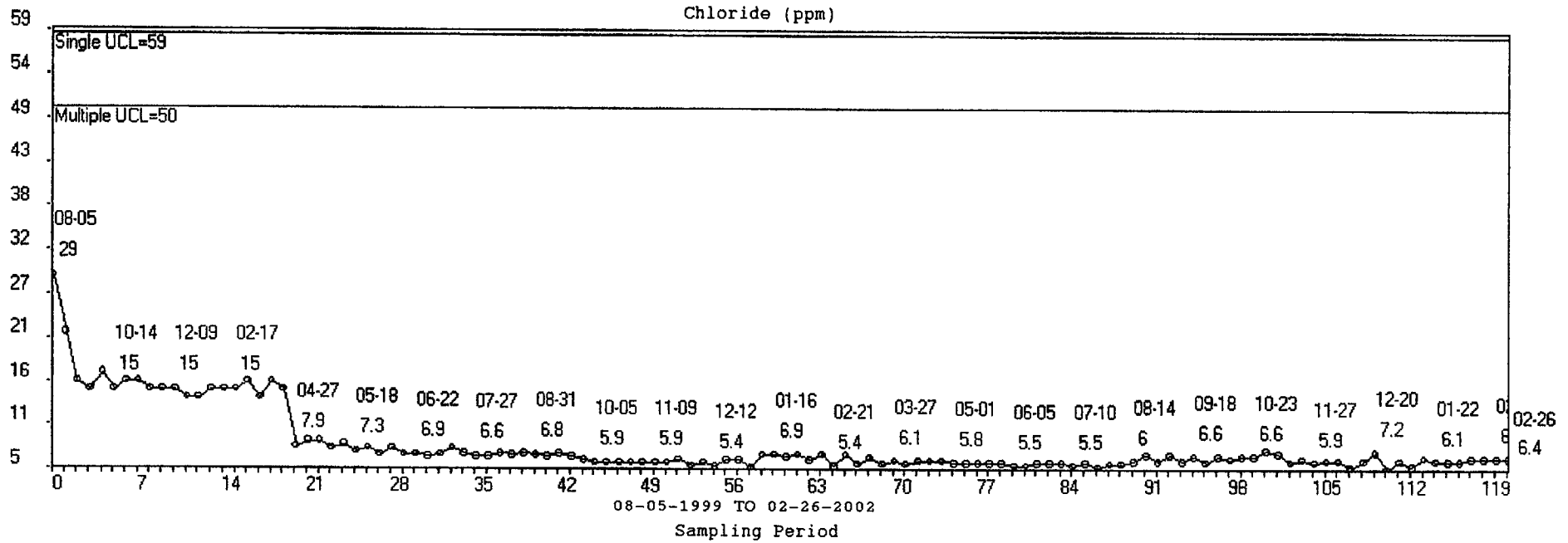
SM7-23
Water Level (ft.)



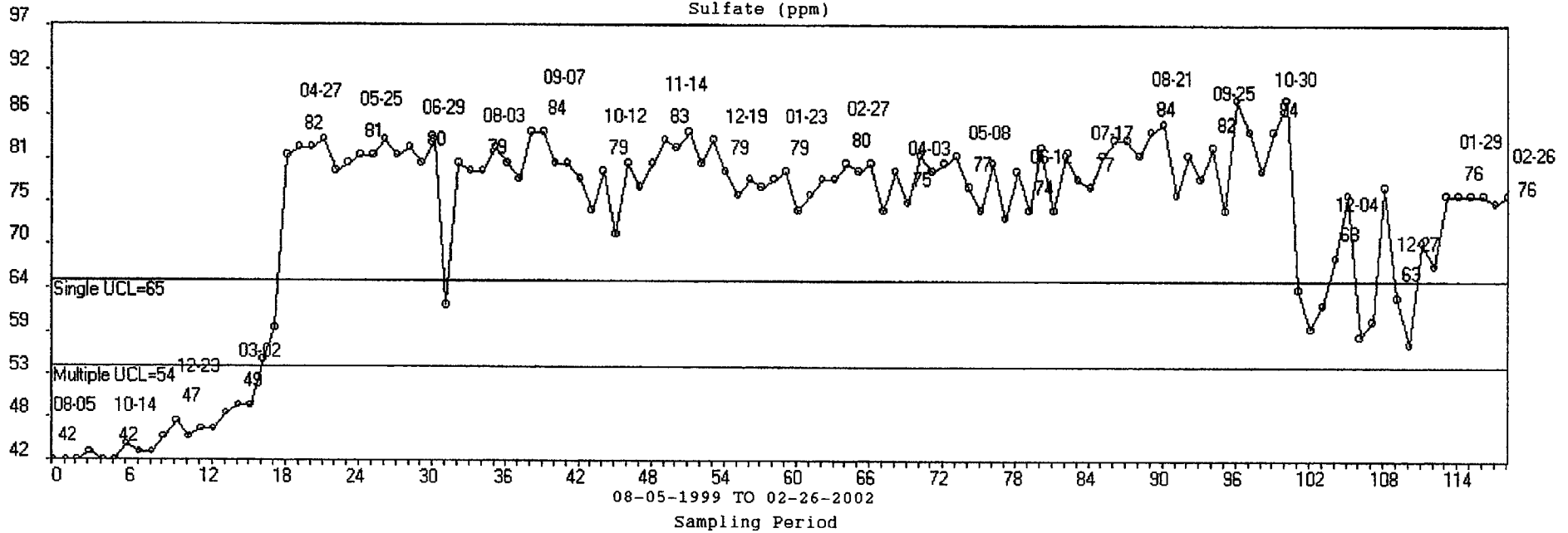
SM7-23
Sodium (ppm)



SM7-23
Chloride (ppm)

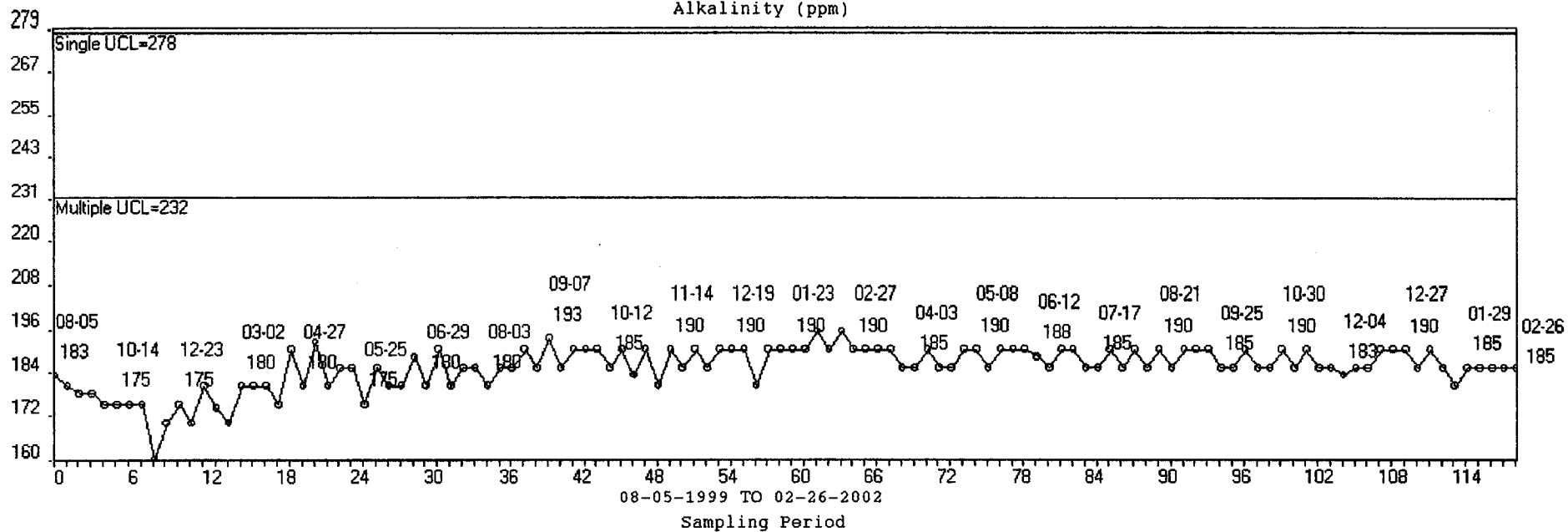


SM7-23
Sulfate (ppm)



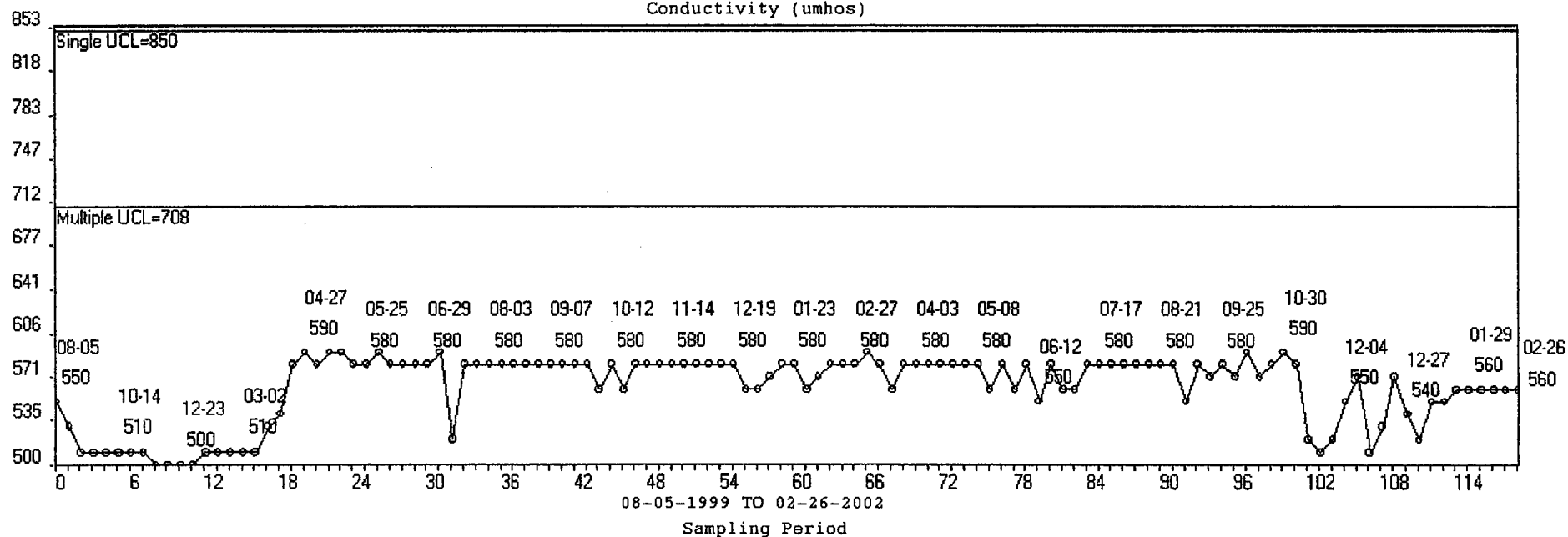
SM7-23

Alkalinity (ppm)



SM7-23

Conductivity (umhos)



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Sample Date: 12-11-2001

Analyst: LG/TF

Analysis Date: 12-12-2001

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM4-4	392	319	183	1850	305
Multiple	491	390	258	2502	361
Single	589	468	310	3002	433
CM4-5	382	323	177	1840	300
Multiple	493	395	280	2642	344
Single	592	474	336	3171	413
CM4-6	384	323	177	1850	300
Multiple	445	402	220	2344	337
Single	534	482	264	2812	405
CM4-7	386	324	179	1850	300
Multiple	514	394	341	2777	348
Single	616	472	409	3332	418
CM6-4	408	351	183	1940	300
Multiple	480	450	241	2364	367
Single	576	540	289	2837	441
CM7-2	388	321	183	1850	300
Multiple	492	408	296	2448	354
Single	590	490	356	2938	425
CM7-3	392	324	181	1870	300
Multiple	524	409	317	2544	372
Single	629	491	380	3053	446
CM7-4	382	307*	180	1840	300
Multiple	463	379	241	2257	359
Single	556	455	289	2709	431
CM7-5	387	321	183	1860	300
Multiple	484	391	277	2368	366
Single	580	469	333	2841	439
CM7-6	397	321	185	1880	300
Multiple	484	397	263	2356	362
Single	580	477	315	2827	435
SM7-23	82*	58*	5.3*	510*	185
Multiple	134	54	50	708	232
Single	161	65	59	850	278

* - Denotes 5% change from previous sample.

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Sample Date: 12-18-2001

Analyst: IG/TF

Analysis Date: 12-19-2001

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM5-8	407	345	179	1900	310
Multiple	475	449	241	2396	373
Single	570	539	289	2876	448
CM5-9	404	341	184	1900	305
Multiple	475	446	241	2387	361
Single	570	536	289	2864	433
CM5-10	408	359	183	1940	310
Multiple	480	460	277	2453	336
Single	576	552	333	2943	403
CM5-11	412	350	187	1950	300
Multiple	478	443	256	2414	365
Single	573	531	307	2897	438
CM5-12	408	346	183	1920	295
Multiple	494	452	269	2485	380
Single	593	543	323	2982	456
CM6-1	395	354	176	1900	283
Multiple	510	460	278	2640	360
Single	612	552	334	3168	432
CM6-2	412	362	181	1960	295
Multiple	485	461	233	2352	364
Single	582	553	279	2822	436
CM6-3	408	363	179	1930	300
Multiple	488	454	224	2340	367
Single	586	544	269	2808	441
SM6-12	22	11	3.4*	510	240
Multiple	39	28	19	613	290
Single	46	33	23	736	348
SM7-23	99*	60	6.1*	530	190
Multiple	134	54	50	708	232
Single	161	65	59	850	278

* - Denotes 5% change from previous sample.

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Sample Date: 12-20-2001

Analyst: LG/TF

Analysis Date: 12-21-2001

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM6-26	396	342	179	1910	305
Multiple	479	449	282	2460	373
Single	575	539	338	2952	448
CM6-27	398	331	183	1880	310
Multiple	485	406	263	2352	388
Single	582	487	315	2822	465
CM6-28	392	317	179	1860	310
Multiple	475	416	256	2412	374
Single	570	500	307	2894	449
CM6-29	401	343	183	1910	305
Multiple	469	446	268	2520	373
Single	563	536	321	3024	448
CM6-30	392	323	179	1880	310
Multiple	467	415	274	2460	383
Single	560	498	328	2952	459
CM6-31	401	316	179	1890	305
Multiple	470	440	251	2376	386
Single	564	528	301	2851	464
CM6-32	404	332	181	1910	310
Multiple	476	439	244	2484	384
Single	572	527	292	2981	461
SM7-23	112*	77*	7.2*	570*	190
Multiple	134	54	50	708	232
Single	161	65	59	850	278

* - Denotes 5% change from previous sample.

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Sample Date: 12-27-2001

Analyst: LG/TF

Analysis Date: 12-28-2001

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM7-8	396	323	182	1880	300
Multiple	479	406	239	2280	360
Single	575	487	287	2736	432
CM7-9	395	320	183	1910	300
Multiple	490	406	252	2344	350
Single	588	487	302	2812	420
CM7-10	394	341	183	1930	295
Multiple	497	425	247	2398	378
Single	596	510	297	2877	454
CM7-11	392	345	181	1930	300
Multiple	475	444	234	2347	360
Single	570	533	281	2817	432
CM7-12	396	350	181	1940	300
Multiple	472	434	241	2328	352
Single	566	521	289	2794	422
CM7-13	397	357	183	1950	290
Multiple	491	451	239	2368	364
Single	589	541	287	2841	436
CM7-14	399	346	181	1940	290
Multiple	468	466	228	2310	352
Single	562	559	274	2772	422
CM7-15	408	339	186	1960	295
Multiple	490	443	236	2352	360
Single	588	531	284	2822	432
CM7-16	405	354	183	1950	295
Multiple	500	428	234	2359	367
Single	600	514	281	2831	441
SM7-23	111	63*	5.1*	540*	190
Multiple	134	54	50	708	232
Single	161	65	59	850	278

* - Denotes 5% change from previous sample.

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Sample Date: 01-03-2002

Analyst: LG/TF

Analysis Date: 01-04-2002

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM5-23	399	348	183	1920	305
Multiple	475	482	264	2430	361
Single	570	579	317	2916	433
CM5-24	402	357	183	1940	305
Multiple	478	469	264	2406	319
Single	573	563	317	2887	383
CM5-25	406	369	174	1950	300
Multiple	488	474	262	2485	365
Single	586	569	314	2982	438
CM5-26	406	348	185	1950	300
Multiple	481	463	252	2417	361
Single	577	556	302	2900	433
CM5-27	413	358	183	1970	300
Multiple	500	474	266	2478	371
Single	600	569	320	2974	445
CM6-17	401	348	183	1930	305
Multiple	462	449	229	2316	368
Single	554	539	275	2779	442
CM6-18	404	345	183	1940	303
Multiple	485	470	252	2424	368
Single	582	564	302	2909	442
CM6-19					
Multiple	487	457	246	2400	377
Single	585	549	295	2880	452
SM6-18	122	52	18	580	200
Multiple	139	71	27	697	254
Single	167	85	33	837	305
SM7-23	101*	57*	6.1*	520	185
Multiple	134	54	50	708	232
Single	161	65	59	850	278

* - Denotes 5% change from previous sample.

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Sample Date: 01-08-2002
Analysis Date: 01-09-2002

Analyst:

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM4-4	390	311	180	1860	310
Multiple	491	390	258	2502	361
Single	589	468	310	3002	433
CM4-5	384	322	176	1840	305
Multiple	493	395	280	2642	344
Single	592	474	336	3171	413
CM4-6	390	320	177	1860	305
Multiple	445	402	220	2344	337
Single	534	482	264	2812	405
CM4-7	387	318	180	1860	305
Multiple	514	394	341	2777	348
Single	616	472	409	3332	418
CM6-4	408	354	180	1940	300
Multiple	480	450	241	2364	367
Single	576	540	289	2837	441
CM7-2	390	317	180	1850	300
Multiple	492	408	296	2448	354
Single	590	490	356	2938	425
CM7-3	390	311	184	1860	305
Multiple	524	409	317	2544	372
Single	629	491	380	3053	446
CM7-4	385	311	178	1850	305
Multiple	463	379	241	2257	359
Single	556	455	289	2709	431
CM7-5	388	317	184	1860	300
Multiple	484	391	277	2368	366
Single	580	469	333	2841	439
CM7-6	398	313	186	1880	300
Multiple	484	397	263	2356	362
Single	580	477	315	2827	435
SM7-23	112*	70*	5.4*	550*	190
Multiple	134	54	50	708	232
Single	161	65	59	850	278

* - Denotes 5% change from previous sample.

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Sample Date: 01-15-2002
Analysis Date: 01-16-2002

Analyst: ld=tf

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM5-8	402	349	182	1910	305
Multiple	475	449	241	2396	373
Single	570	539	289	2876	448
CM5-9	398	338	178	1910	300
Multiple	475	446	241	2387	361
Single	570	536	289	2864	433
CM5-10	403	355	182	1930	303
Multiple	480	460	277	2453	336
Single	576	552	333	2943	403
CM5-11	410	349	188	1950	305
Multiple	478	443	256	2414	365
Single	573	531	307	2897	438
CM5-12	402	351	183	1920	300
Multiple	494	452	269	2485	380
Single	593	543	323	2982	456
CM6-1	393	364	171	1900	283
Multiple	510	460	278	2640	360
Single	612	552	334	3168	432
CM6-2	403	373	180	1940	290
Multiple	485	461	233	2352	364
Single	582	553	279	2822	436
CM6-3	401	365	179	1930	300
Multiple	488	454	224	2340	367
Single	586	544	269	2808	441
SM6-12	22	12*	3.4*	520	240
Multiple	39	28	19	613	290
Single	46	33	23	736	348
SM7-23	104*	67	6.5*	550	185
Multiple	134	54	50	708	232
Single	161	65	59	850	278

* - Denotes 5% change from previous sample.

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Sample Date: 01-22-2002

Analyst: LG/TF

Analysis Date: 01-23-2002

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM4-4	382	307	181	1850	310
Multiple	491	390	258	2502	361
Single	589	468	310	3002	433
CM4-5	381	318	180	1850	303
Multiple	493	395	280	2642	344
Single	592	474	336	3171	413
CM4-6	385	318	178	1860	305
Multiple	445	402	220	2344	337
Single	534	482	264	2812	405
CM4-7	382	314	178	1850	300
Multiple	514	394	341	2777	348
Single	616	472	409	3332	418
CM6-4	406	362	182	1940	300
Multiple	480	450	241	2364	367
Single	576	540	289	2837	441
CM7-2	392	314	180	1860	300
Multiple	492	408	296	2448	354
Single	590	490	356	2938	425
CM7-3	388	311	182	1860	308
Multiple	524	409	317	2544	372
Single	629	491	380	3053	446
CM7-4	385	307	180	1840	305
Multiple	463	379	241	2257	359
Single	556	455	289	2709	431
CM7-5	387	305	182	1860	300
Multiple	484	391	277	2368	366
Single	580	469	333	2841	439
CM7-6	399	316	184	1880	305
Multiple	484	397	263	2356	362
Single	580	477	315	2827	435
SM7-23	111*	76*	6.1*	560	180
Multiple	134	54	50	708	232
Single	161	65	59	850	278

* - Denotes 5% change from previous sample.

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Sample Date: 01-29-2002

Analyst: LG/TF

Analysis Date: 01-30-2002

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM5-8	397	351	179	1910	305
Multiple	475	449	241	2396	373
Single	570	539	289	2876	448
CM5-9	397	334	181	1910	300
Multiple	475	446	241	2387	361
Single	570	536	289	2864	433
CM5-10	403	360	190	1930	303
Multiple	480	460	277	2453	336
Single	576	552	333	2943	403
CM5-11	406	353	188	1940	300
Multiple	478	443	256	2414	365
Single	573	531	307	2897	438
CM5-12	397	354	189	1920	305
Multiple	494	452	269	2485	380
Single	593	543	323	2982	456
CM6-1	389	349	177	1910	285
Multiple	510	460	278	2640	360
Single	612	552	334	3168	432
CM6-2	398	379	181	1950	295
Multiple	485	461	233	2352	364
Single	582	553	279	2822	436
CM6-3	403	371	181	1930	300
Multiple	488	454	224	2340	367
Single	586	544	269	2808	441
SM6-12	22	12	3.2*	510	240
Multiple	39	28	19	613	290
Single	46	33	23	736	348
SM7-23	110	76	6.0	560	185
Multiple	134	54	50	708	232
Single	161	65	59	850	278

* - Denotes 5% change from previous sample.

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Sample Date: 02-05-2002
Analysis Date: 02-06-2002

Analyst: LG/TF

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM4-4	388	311	185	1850	310
Multiple	491	390	258	2502	361
Single	589	468	310	3002	433
CM4-5	381	333	181	1850	310
Multiple	493	395	280	2642	344
Single	592	474	336	3171	413
CM4-6	388	328	181	1860	300
Multiple	445	402	220	2344	337
Single	534	482	264	2812	405
CM4-7	386	315	179	1860	310
Multiple	514	394	341	2777	348
Single	616	472	409	3332	418
CM6-4	405	356	182	1940	300
Multiple	480	450	241	2364	367
Single	576	540	289	2837	441
CM7-2	392	314	181	1860	300
Multiple	492	408	296	2448	354
Single	590	490	356	2938	425
CM7-3	392	308	185	1860	305
Multiple	524	409	317	2544	372
Single	629	491	380	3053	446
CM7-4	385	313	180	1850	305
Multiple	463	379	241	2257	359
Single	556	455	289	2709	431
CM7-5	388	314	181	1860	300
Multiple	484	391	277	2368	366
Single	580	469	333	2841	439
CM7-6	404	311	187	1880	305
Multiple	484	397	263	2356	362
Single	580	477	315	2827	435
SM7-23	110	76	6.0	560	185
Multiple	134	54	50	708	232
Single	161	65	59	850	278

* - Denotes 5% change from previous sample.

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Sample Date: 02-12-2002

Analyst: LG/TF

Analysis Date: 02-13-2002

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM5-8	396	362	181	1920	305
Multiple	475	449	241	2396	373
Single	570	539	289	2876	448
CM5-9	397	355*	179	1910	300
Multiple	475	446	241	2387	361
Single	570	536	289	2864	433
CM5-10	403	364	189	1950	305
Multiple	480	460	277	2453	336
Single	576	552	333	2943	403
CM5-11	410	351	187	1950	305
Multiple	478	443	256	2414	365
Single	573	531	307	2897	438
CM5-12	400	346	185	1930	300
Multiple	494	452	269	2485	380
Single	593	543	323	2982	456
CM6-1	386	363	174	1910	290
Multiple	510	460	278	2640	360
Single	612	552	334	3168	432
CM6-2	402	384	181	1960	290
Multiple	485	461	233	2352	364
Single	582	553	279	2822	436
CM6-3	398	361	181	1940	300
Multiple	488	454	224	2340	367
Single	586	544	269	2808	441
SM6-12	22	11*	3.2	510	240
Multiple	39	28	19	613	290
Single	46	33	23	736	348
SM7-23	109	76	6.4*	560	185
Multiple	134	54	50	708	232
Single	161	65	59	850	278

* - Denotes 5% change from previous sample.

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Monitor Well Laboratory Report

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Sample Date: 02-19-2002
Analysis Date: 02-20-2002

Analyst: tf\lg

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM2-5	416	341	193	1970	325
Multiple	535	421	320	2828	408
Single	642	505	384	3394	490
CM2-6	400	335	179	1900	305
Multiple	484	425	246	2621	360
Single	580	510	295	3145	432
CM2-7	400	348	184	1900	310
Multiple	486	442	239	2549	364
Single	583	530	287	3059	436
CM5-1	422	364	189	1980	315
Multiple	482	456	253	2404	385
Single	579	547	304	2884	462
CM5-2	405	359	185	1930	310
Multiple	481	446	247	2383	373
Single	577	536	297	2860	448
CM5-3	400	327	181	1890	310
Multiple	479	428	270	2458	374
Single	575	514	324	2949	449
CM5-4	407	330	183	1890	310
Multiple	476	430	254	2413	378
Single	572	516	305	2896	454
CM5-5	403	330	181	1890	315
Multiple	476	430	247	2400	379
Single	572	516	297	2880	455
CM7-1	399	397*	181	1930	290
Multiple	440	402	199	2136	342
Single	528	482	239	2563	410
SM7-23	114	75	6.4	560	185
Multiple	134	54	50	708	232
Single	161	65	59	850	278

* - Denotes 5% change from previous sample.

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Sample Date: 02-26-2002
Analysis Date: 02-27-2002

Analyst: LG/TF

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM5-8	400	363	181	1920	305
Multiple	475	449	241	2396	373
Single	570	539	289	2876	448
CM5-9	399	340	183	1910	300
Multiple	475	446	241	2387	361
Single	570	536	289	2864	433
CM5-10	400	372	188	1950	300
Multiple	480	460	277	2453	336
Single	576	552	333	2943	403
CM5-11	412	363	189	1960	300
Multiple	478	443	256	2414	365
Single	573	531	307	2897	438
CM5-12	402	360	185	1930	295
Multiple	494	452	269	2485	380
Single	593	543	323	2982	456
CM6-1	388	354	182	1920	290
Multiple	510	460	278	2640	360
Single	612	552	334	3168	432
CM6-2	404	373	185	1990	295
Multiple	485	461	233	2352	364
Single	582	553	279	2822	436
CM6-3	402	372	185	1930	300
Multiple	488	454	224	2340	367
Single	586	544	269	2808	441
SM6-12	22	11	3.2	510	235
Multiple	39	28	19	613	290
Single	46	33	23	736	348
SM7-23	111	76	6.4	560	185
Multiple	134	54	50	708	232
Single	161	65	59	850	278

* - Denotes 5% change from previous sample.