

CROW BUTTE RESOURCES, INC.

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



(308) 665-2215
(308) 665-2341 – FAX

April 23, 2001

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

Subject: Source Materials License SUA-1534
Docket Number 40-8943
SM6-18 Monitor Well Excursion Final Report

Dear Mr. Gillen:

On March 6, 2000 during routine biweekly water sampling of Crow Butte Resources, Inc. (CBR) shallow monitor well SM6-18, the single parameter upper control limit (UCL) was exceeded for chloride. As required by SUA-1534, a second sample was collected within 48 hours and analyzed for the five excursion indicator parameters. The results of the second sample also exceeded the single UCL for chloride. Based upon these results, monitor well SM6-18 was placed on excursion status.

By letter dated August 23, 2000, CBR proposed alternate methods for calculation of UCLs for shallow monitor wells with good water quality. The purpose of the proposed calculational changes was to prevent reporting false excursions due to natural variation of background water quality. The U.S. Nuclear Regulatory Commission (NRC) approved these changes in Amendment 8 to SUA-1534 on February 1, 2001. The Nebraska Department of Environmental Quality (NDEQ) approved a similar change in CBR's Class III Underground Injection Control (UIC) Permit NE0122611.

On April 18, 2001, the CBR Safety and Environmental Review Panel (SERP) met to review proposed changes to the UCLs in Mine Units 5, 6, and 7 which met the criterion from License Condition 10.4(C). The CBR SERP approved these changes, including a new chloride UCL for SM6-18. The new UCL for chloride was set at 27 mg/l with a new single UCL of 32 mg/l.

Laboratory results for the analysis of weekly samples from January 31, 2001 through April 11, 2001 are attached. Also attached is a graph of monitoring results from September 7, 1999 through April 11, 2001. Based upon the new chloride UCL, SM6-18 is no longer on excursion status and has been returned to normal status.

NMSO1 Pubtz

CROW BUTTE RESOURCES, INC.



Mr. Dan Gillen
April 23, 2001
Page 2 of 2

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

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

Crow Butte Project
Monitor Well Laboratory Report

Page Number 2/2

Sample Date: 01-31-2001

Analyst:

Analysis Date: 02-01-2001

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM5-23	404	357	177	1930	300
Multiple	475	482	264	2430	361
Single	570	579	317	2916	433
CM5-24	401	344	181	1950	310
Multiple	478	469	264	2406	319
Single	573	563	317	2887	383
CM5-25	411	368	174	1960	300
Multiple	488	474	262	2485	365
Single	586	569	314	2982	438
CM5-26	405	361	179	1950	300
Multiple	481	463	252	2417	361
Single	577	556	302	2900	433
CM5-27	415	353	181	1970	305
Multiple	500	474	266	2478	371
Single	600	569	320	2974	445
CM6-17	404	361	177	1940	300
Multiple	462	449	229	2316	368
Single	554	539	275	2779	442
CM6-18	407	355	177	1940	300
Multiple	485	470	252	2424	368
Single	582	564	302	2909	442
CM6-19	420	359	181	1960	305
Multiple	487	457	246	2400	377
Single	585	549	295	2880	452
SM6-18	120	50*	20	580	200
Multiple	139	71	16	697	254
Single	167	85	19	837	305

* - Denotes 5% change from previous sample.

Crow Butte Project
Monitor Well Laboratory Report

Page Number 2/2

Sample Date: 02-07-2001
Analysis Date: 02-08-2001

Analyst: IG/TF

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM7-8	401	334	181	1890	300
Multiple	479	406	239	2280	360
Single	575	487	287	2736	432
CM7-9	401	332	177	1890	300
Multiple	490	406	252	2344	350
Single	588	487	302	2812	420
CM7-10	399	350	181	1930	305
Multiple	497	425	247	2398	378
Single	596	510	297	2877	454
CM7-11	400	353	185	1930	300
Multiple	475	444	234	2347	360
Single	570	533	281	2817	432
CM7-12	399	356	183	1930	295
Multiple	472	434	241	2328	352
Single	566	521	289	2794	422
CM7-13	400	366	181	1960	290
Multiple	491	451	239	2368	364
Single	589	541	287	2841	436
CM7-14	402	372	179	1950	295
Multiple	468	466	228	2310	352
Single	562	559	274	2772	422
CM7-15	409	358	181	1960	300
Multiple	490	443	236	2352	360
Single	588	531	284	2822	432
CM7-16	407	355	180	1950	300
Multiple	500	428	234	2359	367
Single	600	514	281	2831	441
SM6-18	120	52	20	580	200
Multiple	139	71	16	697	254
Single	167	85	19	837	305

* - Denotes 5% change from previous sample.

Crow Butte Project
Monitor Well Laboratory Report

Page Number 2/2

Sample Date: 02-14-2001
Analysis Date: 02-15-2001

Analyst: LG/TF

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM5-23	398	361	177	1930	295
Multiple	475	482	264	2430	361
Single	570	579	317	2916	433
CM5-24	398	363*	181	1950	305
Multiple	478	469	264	2406	319
Single	573	563	317	2887	383
CM5-25	412	377	174	1960	300
Multiple	488	474	262	2485	365
Single	586	569	314	2982	438
CM5-26	403	365	181	1950	305
Multiple	481	463	252	2417	361
Single	577	556	302	2900	433
CM5-27	409	353	181	1970	305
Multiple	500	474	266	2478	371
Single	600	569	320	2974	445
CM6-17	400	364	179	1940	300
Multiple	462	449	229	2316	368
Single	554	539	275	2779	442
CM6-18	406	361	177	1940	308
Multiple	485	470	252	2424	368
Single	582	564	302	2909	442
CM6-19	412	356	181	1950	300
Multiple	487	457	246	2400	377
Single	585	549	295	2880	452
SM6-18	120	52	20	580	200
Multiple	139	71	16	697	254
Single	167	85	19	837	305

* - Denotes 5% change from previous sample.

Crow Butte Project
Monitor Well Laboratory Report

Page Number 2/2

Sample Date: 02-21-2001

Analyst: LG/TF

Analysis Date: 02-22-2001

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM7-8					
Multiple	479	406	239	2280	360
Single	575	487	287	2736	432
CM7-9					
Multiple	490	406	252	2344	350
Single	588	487	302	2812	420
CM7-10					
Multiple	497	425	247	2398	378
Single	596	510	297	2877	454
CM7-11					
Multiple	475	444	234	2347	360
Single	570	533	281	2817	432
CM7-12					
Multiple	472	434	241	2328	352
Single	566	521	289	2794	422
CM7-13					
Multiple	491	451	239	2368	364
Single	589	541	287	2841	436
CM7-14					
Multiple	468	466	228	2310	352
Single	562	559	274	2772	422
CM7-15					
Multiple	490	443	236	2352	360
Single	588	531	284	2822	432
CM7-16					
Multiple	500	428	234	2359	367
Single	600	514	281	2831	441
SM6-18					
Multiple	120	52	19	580	200
Single	139	71	16	697	254
Single	167	85	19	837	305

* - Denotes 5% change from previous sample.

Crow Butte Project
Monitor Well Laboratory Report

Page Number 2/2

Sample Date: 02-28-2001
Analysis Date: 03-01-2001

Analyst: IG/TF

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM5-23	399	346	177	1930	293
Multiple	475	482	264	2430	361
Single	570	579	317	2916	433
CM5-24	400	350	181	1940	310
Multiple	478	469	264	2406	319
Single	573	563	317	2887	383
CM5-25	404	370	174	1950	300
Multiple	488	474	262	2485	365
Single	586	569	314	2982	438
CM5-26	400	366	181	1950	300
Multiple	481	463	252	2417	361
Single	577	556	302	2900	433
CM5-27	407	351	181	1970	305
Multiple	500	474	266	2478	371
Single	600	569	320	2974	445
CM6-17	405	359	177	1930	300
Multiple	462	449	229	2316	368
Single	554	539	275	2779	442
CM6-18	406	350	179	1930	305
Multiple	485	470	252	2424	368
Single	582	564	302	2909	442
CM6-19	406	346	181	1950	305
Multiple	487	457	246	2400	377
Single	585	549	295	2880	452
SM6-18	119	52	19	580	200
Multiple	139	71	16	697	254
Single	167	85	19	837	305

* - Denotes 5% change from previous sample.

Crow Butte Project
Monitor Well Laboratory Report

Page Number 2/2

Sample Date: 03-07-2001
Analysis Date: 03-08-2001

Analyst: LG/TF

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM7-8	396	316	181	1890	300
Multiple	479	406	239	2280	360
Single	575	487	287	2736	432
CM7-9	402	333	177	1900	300
Multiple	490	406	252	2344	350
Single	588	487	302	2812	420
CM7-10	400	346	181	1920	300
Multiple	497	425	247	2398	378
Single	596	510	297	2877	454
CM7-11	398	345	183	1930	295
Multiple	475	444	234	2347	360
Single	570	533	281	2817	432
CM7-12	396	352	179	1940	295
Multiple	472	434	241	2328	352
Single	566	521	289	2794	422
CM7-13	396	365	179	1960	290
Multiple	491	451	239	2368	364
Single	589	541	287	2841	436
CM7-14	396	361	179	1950	293
Multiple	468	466	228	2310	352
Single	562	559	274	2772	422
CM7-15	409	354	181	1960	300
Multiple	490	443	236	2352	360
Single	588	531	284	2822	432
CM7-16	407	358	183	1950	295
Multiple	500	428	234	2359	367
Single	600	514	281	2831	441
SM6-18	121	51	19	580	200
Multiple	139	71	16	697	254
Single	167	85	19	837	305

* - Denotes 5% change from previous sample.

Crow Butte Project
Monitor Well Laboratory Report

Page Number 2/2

Sample Date: 03-14-2001
Analysis Date: 03-15-2001

Analyst: IG/TF

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM5-23	394	336	175	1930	295
Multiple	475	482	264	2430	361
Single	570	579	317	2916	433
CM5-24	398	351	179	1940	310
Multiple	478	469	264	2406	319
Single	573	563	317	2887	383
CM5-25	400	366	173	1950	300
Multiple	488	474	262	2485	365
Single	586	569	314	2982	438
CM5-26	398	342*	179	1940	300
Multiple	481	463	252	2417	361
Single	577	556	302	2900	433
CM5-27	401	349	181	1970	310
Multiple	500	474	266	2478	371
Single	600	569	320	2974	445
CM6-17	400	352	177	1930	300
Multiple	462	449	229	2316	368
Single	554	539	275	2779	442
CM6-18	403	347	179	1930	300
Multiple	485	470	252	2424	368
Single	582	564	302	2909	442
CM6-19	407	335	181	1950	305
Multiple	487	457	246	2400	377
Single	585	549	295	2880	452
SM6-18	119	53	19	580	200
Multiple	139	71	16	697	254
Single	167	85	19	837	305

* - Denotes 5% change from previous sample.

Crow Butte Project
Monitor Well Laboratory Report

Page Number 2/2

Sample Date: 03-21-2001
Analysis Date: 03-22-2001

Analyst: IG-TF

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM7-8	400	333*	181	1880	308
Multiple	479	406	239	2280	360
Single	575	487	287	2736	432
CM7-9	400	339	177	1900	300
Multiple	490	406	252	2344	350
Single	588	487	302	2812	420
CM7-10	404	334	181	1920	300
Multiple	497	425	247	2398	378
Single	596	510	297	2877	454
CM7-11	402	345	183	1930	290
Multiple	475	444	234	2347	360
Single	570	533	281	2817	432
CM7-12	400	364	179	1930	305
Multiple	472	434	241	2328	352
Single	566	521	289	2794	422
CM7-13	403	359	179	1950	295
Multiple	491	451	239	2368	364
Single	589	541	287	2841	436
CM7-14	405	352	179	1940	290
Multiple	468	466	228	2310	352
Single	562	559	274	2772	422
CM7-15	410	350	181	1960	295
Multiple	490	443	236	2352	360
Single	588	531	284	2822	432
CM7-16	412	358	183	1950	300
Multiple	500	428	234	2359	367
Single	600	514	281	2831	441
SM6-18	122	52	19	580	200
Multiple	139	71	16	697	254
Single	167	85	19	837	305

* - Denotes 5% change from previous sample.

Crow Butte Project
Monitor Well Laboratory Report

Page Number 2/2

Sample Date: 03-28-2001
Analysis Date: 03-29-2001

Analyst: LG/TF

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM5-23	400	333	175	1920	295
Multiple	475	482	264	2430	361
Single	570	579	317	2916	433
CM5-24					
Multiple	478	469	264	2406	319
Single	573	563	317	2887	383
CM5-25	407	368	173	1960	300
Multiple	488	474	262	2485	365
Single	586	569	314	2982	438
CM5-26	407	352	179	1950	300
Multiple	481	463	252	2417	361
Single	577	556	302	2900	433
CM5-27	410	340	181	1960	303
Multiple	500	474	266	2478	371
Single	600	569	320	2974	445
CM6-17	400	355	177	1930	300
Multiple	462	449	229	2316	368
Single	554	539	275	2779	442
CM6-18	406	344	179	1930	305
Multiple	485	470	252	2424	368
Single	582	564	302	2909	442
CM6-19	409	345	181	1950	305
Multiple	487	457	246	2400	377
Single	585	549	295	2880	452
SM6-18	121	51	19	580	200
Multiple	139	71	16	697	254
Single	167	85	19	837	305

* - Denotes 5% change from previous sample.

Crow Butte Project
Monitor Well Laboratory Report

Page Number 2/2

Sample Date: 04-04-2001
Analysis Date: 04-05-2001

Analyst: LG/TF

Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM7-8	401	326	181	1890	303
Multiple	479	406	239	2280	360
Single	575	487	287	2736	432
CM7-9	399	332	179	1890	300
Multiple	490	406	252	2344	350
Single	588	487	302	2812	420
CM7-10	401	347	181	1920	300
Multiple	497	425	247	2398	378
Single	596	510	297	2877	454
CM7-11	397	351	183	1930	290
Multiple	475	444	234	2347	360
Single	570	533	281	2817	432
CM7-12	398	350	179	1930	295
Multiple	472	434	241	2328	352
Single	566	521	289	2794	422
CM7-13	407	353	180	1950	295
Multiple	491	451	239	2368	364
Single	589	541	287	2841	436
CM7-14	405	349	179	1950	290
Multiple	468	466	228	2310	352
Single	562	559	274	2772	422
CM7-15	415	346	183	1950	295
Multiple	490	443	236	2352	360
Single	588	531	284	2822	432
CM7-16	411	350	183	1950	298
Multiple	500	428	234	2359	367
Single	600	514	281	2831	441
SM6-18	121	53	19	580	200
Multiple	139	71	16	697	254
Single	167	85	19	837	305

* - Denotes 5% change from previous sample.

Crow Butte Project
Monitor Well Laboratory Report

Page Number 2/2

Sample Date: 04-11-2001

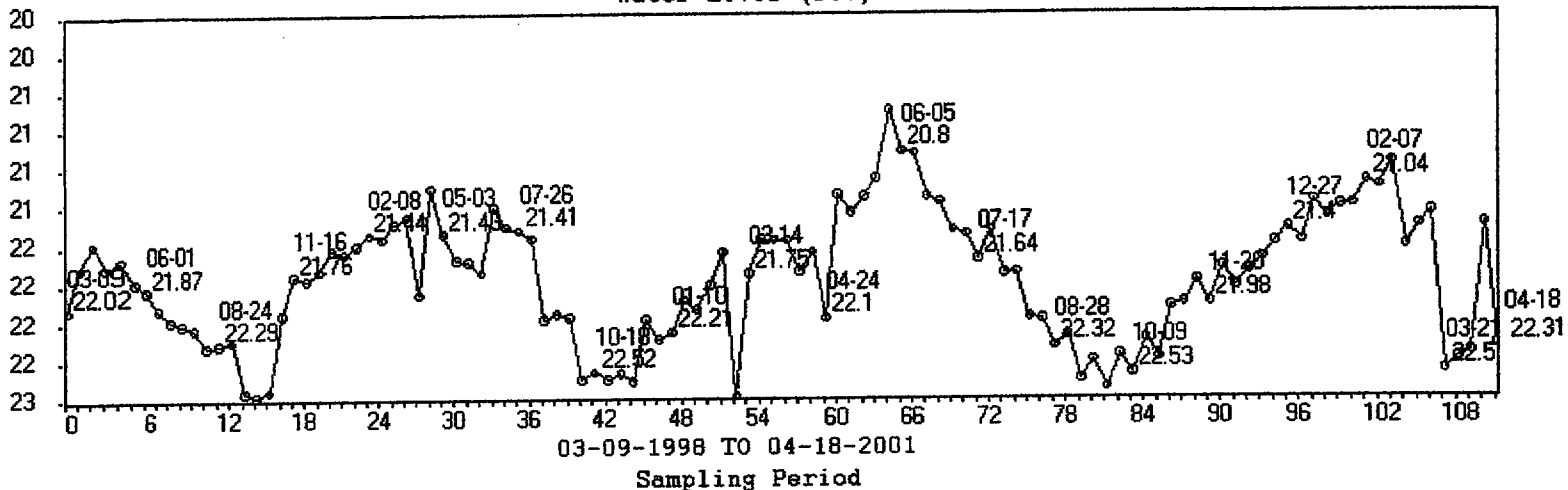
Analyst: LG/TF

Analysis Date: 04-12-2001

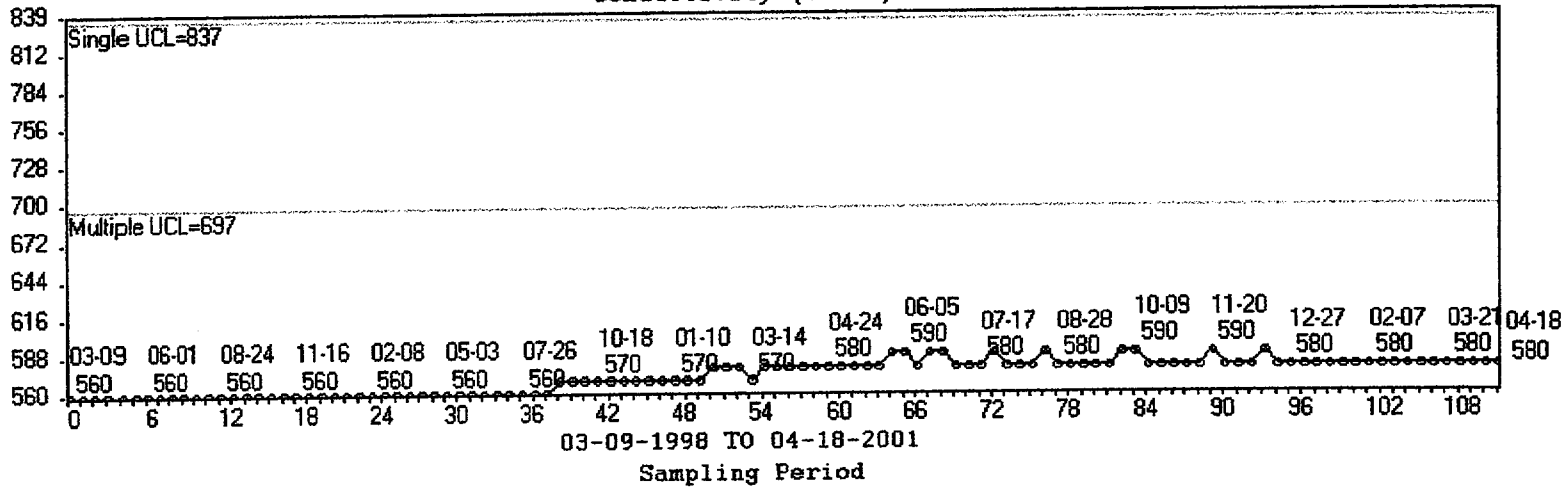
Well Number	Sodium (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	Conductivity (UMHOS)	Alkalinity (mg/L)
CM5-23	404	356*	175	1930	300
Multiple	475	482	264	2430	361
Single	570	579	317	2916	433
CM5-24	402	348	179	1940	310
Multiple	478	469	264	2406	319
Single	573	563	317	2887	383
CM5-25	406	364	175	1950	295
Multiple	488	474	262	2485	365
Single	586	569	314	2982	438
CM5-26	406	348	179	1940	305
Multiple	481	463	252	2417	361
Single	577	556	302	2900	433
CM5-27	410	341	181	1960	310
Multiple	500	474	266	2478	371
Single	600	569	320	2974	445
CM6-17	403	360	179	1930	300
Multiple	462	449	229	2316	368
Single	554	539	275	2779	442
CM6-18	407	353	179	1930	295
Multiple	485	470	252	2424	368
Single	582	564	302	2909	442
CM6-19	409	339	183	1950	310
Multiple	487	457	246	2400	377
Single	585	549	295	2880	452
SM6-18	120	51	19	580	200
Multiple	139	71	16	697	254
Single	167	85	19	837	305

* - Denotes 5% change from previous sample.

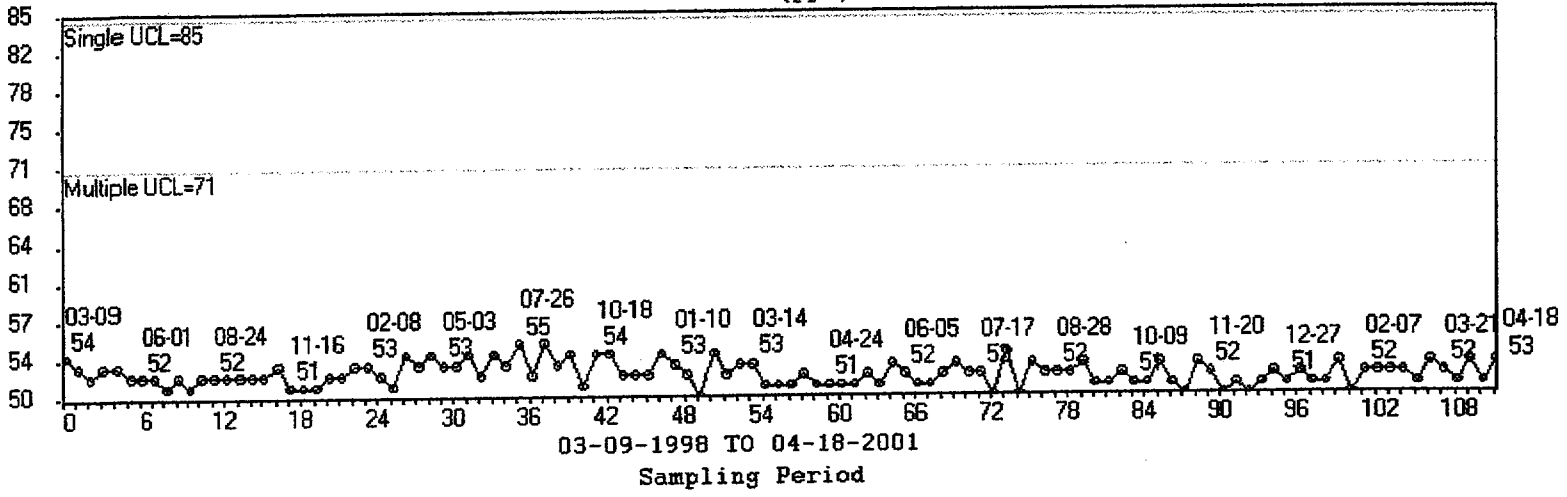
SM6-18
Water Level (ft.)



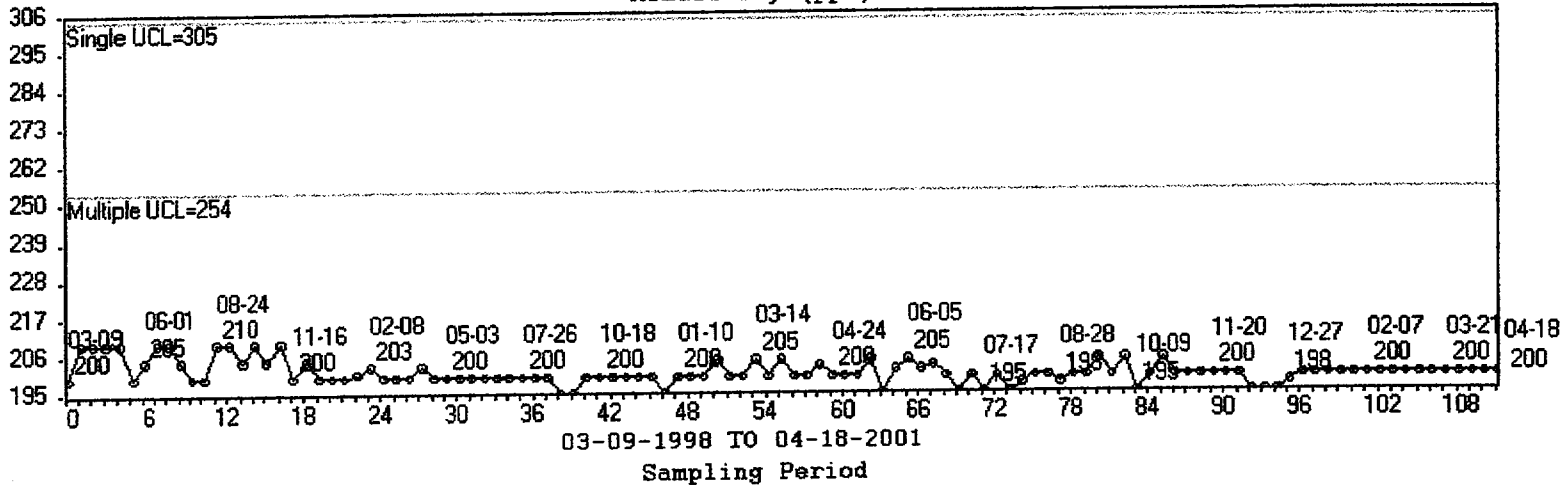
SM6-18
Conductivity (umhos)



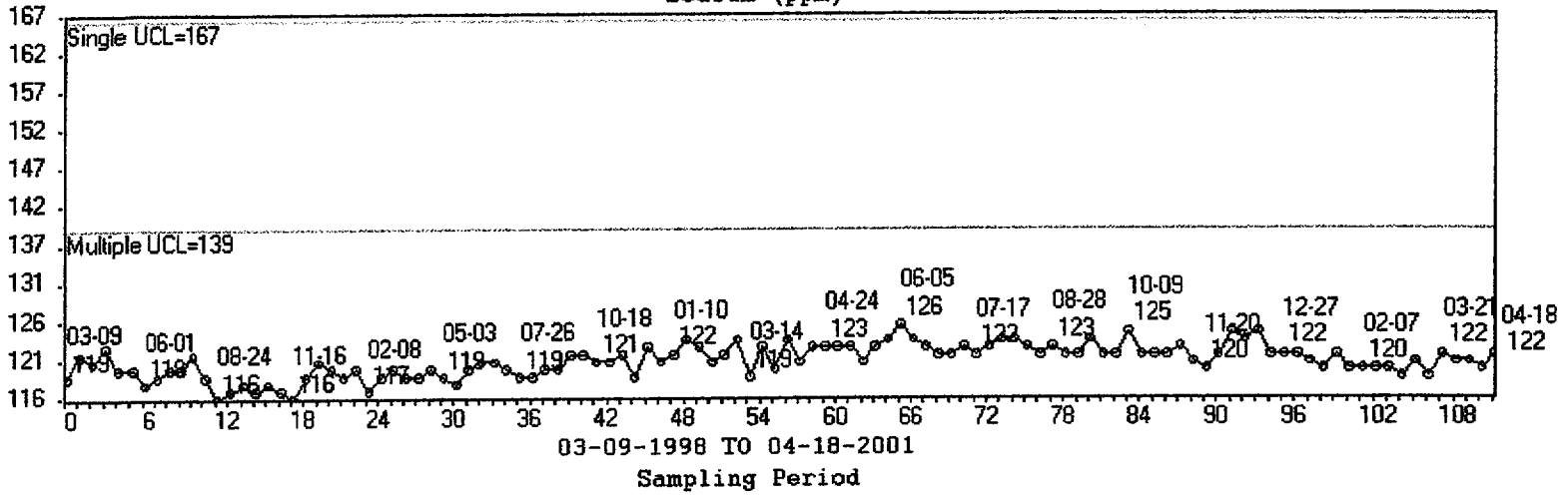
SM6-18
Sulfate (ppm)



SM6-18
Alkalinity (ppm)



SM6-18
Sodium (ppm)



SM6-18
Chloride (ppm)

