

Yenter, Cindy

From: Jason [jason.helms@brockwayeng.com]
Sent: Thursday, July 19, 2007 4:47 PM
To: John Simpson; randy@clearsprings.com; clh@ringertclark.com; fwmattys@cableone.net; Yenter, Cindy (Hodges)
Subject: Clear Springs Well Test Data

Please find attached data related to Clear Springs Foods Test Well. Descriptions follow.

① CSF_Weir_Transducer.zip: *map only attached. See me for full dataset (Cy)*
Data recorded by pressure transducer Global Water Model # WL15X-015, ser# 44114. (Listed accuracy +/- 0.1% of full range (15') = +/- 0.015 ft).

Transducer was located at existing 4' rectangular weir on Kanaka creek just upstream of road culvert prior to entering Wright property.

Measured datum shift included in spreadsheet calculation of 7 inches of head over weir corresponding to 1.13 ft of head transducer indication. (i.e. transducer located approximately 6.5 inches below weir lip). Weir flow calculation included for the 4' weir using standard contracted rectangular weir equation (US Department of Interior Water Measurement Manual 2nd edition: 1984)

CSF_pumptestdata-June2006.xls: ② *attached*
Data recorded during pump test regarding pumping rate and dynamic pumping level.

Well_Operation_report_012407.pdf: ③ *attached*
Electronic copy of report provided during pre-hearing conference last Friday

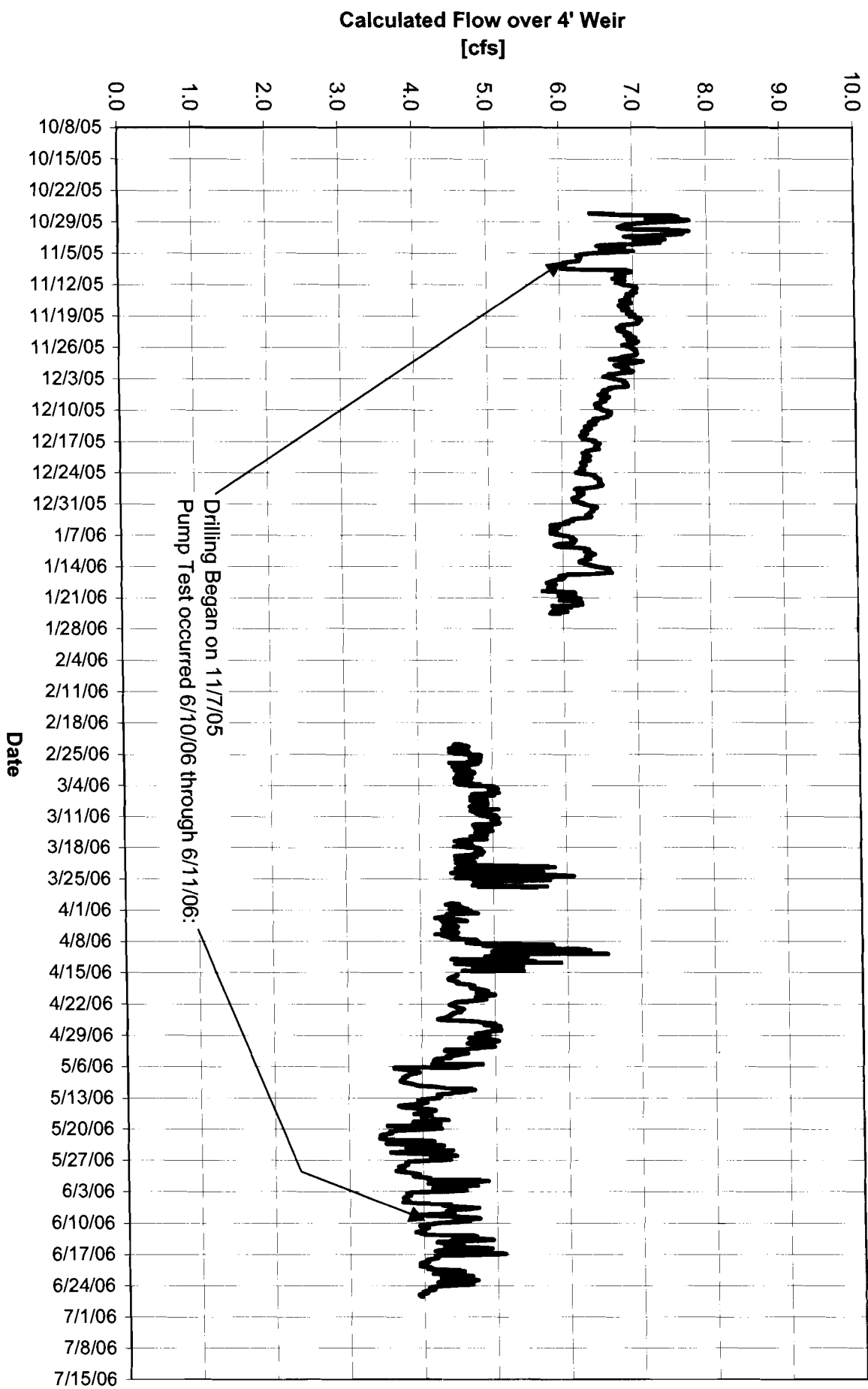
CSF_testwell_wqdata.pdf ④ *attached*
Water Quality results from Magic Valley Labs analysis of water sample taken during the pump test.

Sorry for the delay.

Jason C. Helms, P.E.
Brockway Engineering, PLLC
(208) 736-8543

8/20/2007

Kanaka Creek 24-hr. Averaged Weir Flow



CSF PUMP TEST TIME-DRAWDOWN DATA

Time [julian days]	Elapsed time [sec]	SWL [ft (BGS)]	Drawdown [ft]	notes
6/9/06 16:54:00	0	104.5	0	start1
6/9/06 16:56:00	120	123.9	19.4	
6/9/06 16:57:00	179.99	127.2	22.7	
6/9/06 16:58:00	239.985	127.5	23	
6/9/06 16:59:00	299.98	128.7	24.2	
6/9/06 17:01:00	419.97	129.2	24.7	
6/9/06 17:04:00	599.955	129.7	25.2	
6/9/06 17:08:30	870	130.1	25.6	broke pump shaft
6/9/06 19:55:00	10860	104.6	0.1	start2
6/9/06 19:56:30	10950	133.5	29	
6/9/06 19:57:40	11020	133.2	28.7	
6/9/06 19:58:30	11070	130.6	26.1	
6/9/06 19:59:30	11130	130.9	26.4	broke pump shaft
6/10/06 8:58:00	57840	104.5	0	start3
6/10/06 8:59:10	57910	104.5	0	
6/10/06 9:00:00	57960	104.5	0	
6/10/06 9:04:00	58200	129.7	25.2	
6/10/06 9:06:00	58320	129.75	25.25	
6/10/06 9:06:30	58350	130.7	26.2	
6/10/06 9:07:00	58380	130.9	26.4	
6/10/06 9:07:30	58410	131.3	26.8	
6/10/06 9:08:00	58440	131.35	26.85	
6/10/06 9:09:00	58500	131.4	26.9	
6/10/06 9:10:00	58560	131.5	27	
6/10/06 9:12:00	58680	131.55	27.05	
6/10/06 9:14:00	58800	132.2	27.7	
6/10/06 9:16:00	58920	132.25	27.75	
6/10/06 9:23:00	59340	132.9	28.4	
6/10/06 9:24:45	59445	132.9	28.4	
6/10/06 9:25:15	59475	138.4	33.9	
6/10/06 9:27:00	59580	144	39.5	
6/10/06 9:27:45	59625	145.4	40.9	
6/10/06 9:28:00	59640	145.8	41.3	
6/10/06 9:28:30	59670	146.1	41.6	
6/10/06 9:29:00	59700	146.4	41.9	
6/10/06 9:29:30	59730	146.5	42	
6/10/06 9:30:00	59760	146.6	42.1	
6/10/06 9:31:00	59820	147.1	42.6	
6/10/06 9:32:00	59880	147.2	42.7	
6/10/06 9:33:00	59940	147.4	42.9	
6/10/06 9:34:00	60000	147.6	43.1	
6/10/06 9:35:00	60060	147.8	43.3	
6/10/06 9:36:00	60120	147.9	43.4	
6/10/06 9:37:00	60180	148	43.5	
6/10/06 9:38:00	60240	148.1	43.6	
6/10/06 9:39:00	60300	148.15	43.65	
6/10/06 9:40:00	60360	148.2	43.7	
6/10/06 9:41:30	60450	148.3	43.8	

CSF PUMP TEST TIME-DRAWDOWN DATA

Time [julian days]	Elapsed time [sec]	SWL [ft (BGS)]	Drawdown [ft]	notes
6/10/06 9:42:00	60480	148.4	43.9	
6/10/06 9:42:30	60510	148.5	44	
6/10/06 9:50:00	60960	149	44.5	
6/10/06 9:52:00	61080	149.1	44.6	
6/10/06 9:55:00	61260	149.3	44.8	
6/10/06 10:01:00	61620	149.6	45.1	
6/10/06 10:06:00	61920	149.9	45.4	
6/10/06 10:07:00	61980	149.9	45.4	
6/10/06 10:09:00	62100	161.8	57.3	
6/10/06 10:10:00	62160	162	57.5	
6/10/06 10:11:00	62220	162.2	57.7	
6/10/06 10:12:00	62280	162.4	57.9	
6/10/06 10:14:00	62400	162.8	58.3	
6/10/06 10:16:00	62520	163.1	58.6	
6/10/06 10:26:30	63150	164.1	59.6	
6/10/06 10:29:00	63300	164.3	59.8	
6/10/06 10:31:00	63420	164.4	59.9	
6/10/06 10:34:00	63600	164.5	60	
6/10/06 10:41:00	64020	164.9	60.4	
6/10/06 10:43:00	64140	164.9	60.4	
6/10/06 10:44:30	64230	180.3	75.8	
6/10/06 10:45:00	64260	180.7	76.2	
6/10/06 10:46:00	64320	181.4	76.9	
6/10/06 10:47:00	64380	181.7	77.2	
6/10/06 10:48:00	64440	182.1	77.6	
6/10/06 10:51:00	64620	182.9	78.4	
6/10/06 10:58:00	65040	183.5	79	
6/10/06 11:02:00	65280	183.8	79.3	
6/10/06 11:04:00	65400	184	79.5	
6/10/06 11:05:00	65460	184.1	79.6	
6/10/06 11:09:00	65700	184.3	79.8	
6/10/06 11:16:00	66120	184.9	80.4	
6/10/06 11:17:00	66180	184.9	80.4	
6/10/06 11:19:00	66300	210.2	105.7	
6/10/06 11:19:30	66330	211.4	106.9	
6/10/06 11:20:00	66360	212.3	107.8	
6/10/06 11:21:00	66420	213.5	109	
6/10/06 11:23:00	66540	214.2	109.7	
6/10/06 11:30:00	66960	216.6	112.1	
6/10/06 11:33:00	67140	217.1	112.6	
6/10/06 11:34:15	67215	217.2	112.7	
6/10/06 11:35:00	67260	217.4	112.9	
6/10/06 11:40:00	67560	218.1	113.6	
6/10/06 11:56:00	68520	219.6	115.1	
6/10/06 11:59:00	68700	219.6	115.1	
6/10/06 12:03:00	68940	231.2	126.7	
6/10/06 12:03:30	68970	231.3	126.8	
6/10/06 12:05:00	69060	231.6	127.1	

CSF PUMP TEST TIME-DRAWDOWN DATA

Time [julian days]	Elapsed time [sec]	SWL [ft (BGS)]	Drawdown [ft]	notes
6/10/06 12:06:00	69120	231.9	127.4	
6/10/06 12:08:00	69240	232.5	128	
6/10/06 12:13:00	69540	225.6	121.1	
6/10/06 12:16:00	69720	225.7	121.2	
6/10/06 12:28:00	70440	226.3	121.8	
6/10/06 18:31:00	92220	230.5	126	
6/11/06 7:01:00	137220	230.5	126	
6/11/06 8:46:00	143520	230.5	126	
6/11/06 8:48:00	143640	230.5	126	
6/11/06 8:50:00	143760	231.7	127.2	
6/11/06 8:52:00	143880	231.7	127.2	
6/11/06 8:57:00	144180	231.6	127.1	
6/11/06 8:58:30	144270	231.6	127.1	
6/11/06 9:00:12	144372	214.1	109.6	
6/11/06 9:01:00	144420	214.4	109.9	
6/11/06 9:01:30	144450	214.2	109.7	
6/11/06 9:02:00	144480	214.1	109.6	
6/11/06 9:02:30	144510	214	109.5	
6/11/06 9:03:00	144540	213.8	109.3	
6/11/06 9:04:00	144600	213.6	109.1	
6/11/06 9:05:00	144660	213.4	108.9	
6/11/06 9:06:00	144720	213.3	108.8	
6/11/06 9:07:00	144780	213.3	108.8	
6/11/06 9:08:00	144840	213.2	108.7	
6/11/06 9:09:00	144900	213.1	108.6	
6/11/06 9:14:00	145200	212.8	108.3	
6/11/06 9:18:30	145470	212.6	108.1	
6/11/06 9:20:30	145590	212.5	108	
6/11/06 9:22:00	145680	212.5	108	
6/11/06 9:23:00	145740	198.7	94.2	
6/11/06 9:24:00	145800	196.8	92.3	
6/11/06 9:25:00	145860	196.4	91.9	
6/11/06 9:26:00	145920	196.2	91.7	
6/11/06 9:27:00	145980	196	91.5	
6/11/06 9:28:17	146057	195.8	91.3	
6/11/06 9:29:40	146140	195.7	91.2	
6/11/06 9:32:30	146310	195.5	91	
6/11/06 9:34:30	146430	195.5	91	
6/11/06 9:36:00	146520	195.4	90.9	
6/11/06 9:38:00	146640	195.2	90.7	
6/11/06 9:43:30	146970	195	90.5	
6/11/06 9:45:00	147060	194.9	90.4	
6/11/06 9:49:00	147300	194.8	90.3	
6/11/06 9:49:20	147320	194.8	90.3	stop pump
6/11/06 9:51:00	147420	138.3	33.8	
6/11/06 9:53:00	147540	138.3	33.8	
6/11/06 9:55:00	147660	137.4	32.9	
6/11/06 10:02:00	148080	135.1	30.6	

CSF PUMP TEST TIME-DRAWDOWN DATA

Time [julian days]	Elapsed time [sec]	SWL [ft (BGS)]	Drawdown [ft]	notes
6/11/06 10:03:30	148170	134.6	30.1	
6/11/06 10:04:00	148200	134.5	30	
6/11/06 10:04:23	148223	134.4	29.9	
6/11/06 10:04:47	148247	134.3	29.8	
6/11/06 10:05:44	148304	134.1	29.6	
6/11/06 10:06:40	148360	133.9	29.4	
6/11/06 10:08:44	148484	133.5	29	
6/11/06 10:09:57	148557	133.3	28.8	
6/11/06 10:11:05	148625	133.1	28.6	
6/11/06 10:13:40	148780	132.7	28.2	
6/11/06 10:15:12	148872	132.5	28	
6/11/06 10:16:31	148951	132.3	27.8	
6/11/06 10:20:30	149190	131.8	27.3	
6/11/06 10:23:17	149357	131.5	27	
6/11/06 10:35:26	150086	130.3	25.8	
6/11/06 10:38:00	150240	130.1	25.6	
6/11/06 10:40:50	150410	129.9	25.4	
6/11/06 10:43:29	150569	129.7	25.2	
6/11/06 10:46:19	150739	129.5	25	
6/11/06 10:52:10	151090	129.1	24.6	
6/11/06 10:59:03	151503	128.7	24.2	
6/11/06 11:03:11	151751	128.5	24	
6/11/06 11:06:22	151942	128.3	23.8	
6/11/06 11:14:10	152410	127.9	23.4	

CSF PUMP TEST TIME-FLOW DATA

Time [julian days]	Elapsed time [sec]	flow [gpm]	notes
6/9/06 16:54:00	0	0	start1
6/9/06 16:56:00	120	250	
6/9/06 16:57:00	179.99	250	
6/9/06 16:58:00	239.985	250	
6/9/06 16:59:00	299.98	250	
6/9/06 17:01:00	419.97	250	
6/9/06 17:04:00	599.955	250	
6/9/06 17:08:30	870	250	broke pump shaft
6/9/06 17:08:31	871	0	
6/9/06 19:55:00	10860	0	start2
6/9/06 19:56:30	10950	250	
6/9/06 19:57:40	11020	250	
6/9/06 19:58:30	11070	250	
6/9/06 19:59:30	11130	250	broke pump shaft
6/9/06 19:59:31	11131	0	
6/10/06 8:58:00	57840	0	start3
6/10/06 8:59:10	57910	280	
6/10/06 9:00:00	57960	280	
6/10/06 9:04:00	58200	280	
6/10/06 9:06:00	58320	280	
6/10/06 9:06:30	58350	280	
6/10/06 9:07:00	58380	280	
6/10/06 9:07:30	58410	280	
6/10/06 9:08:00	58440	280	
6/10/06 9:09:00	58500	280	
6/10/06 9:10:00	58560	280	
6/10/06 9:12:00	58680	280	
6/10/06 9:14:00	58800	280	
6/10/06 9:16:00	58920	280	
6/10/06 9:23:00	59340	280	
6/10/06 9:24:45	59445	390	
6/10/06 9:25:15	59475	390	
6/10/06 9:27:00	59580	390	
6/10/06 9:27:45	59625	390	
6/10/06 9:28:00	59640	390	
6/10/06 9:28:30	59670	390	
6/10/06 9:29:00	59700	390	
6/10/06 9:29:30	59730	390	
6/10/06 9:30:00	59760	390	
6/10/06 9:31:00	59820	360	
6/10/06 9:32:00	59880	360	
6/10/06 9:33:00	59940	360	
6/10/06 9:34:00	60000	360	
6/10/06 9:35:00	60060	360	
6/10/06 9:36:00	60120	360	
6/10/06 9:37:00	60180	360	
6/10/06 9:38:00	60240	360	
6/10/06 9:39:00	60300	360	
6/10/06 9:40:00	60360	350	

CSF PUMP TEST TIME-FLOW DATA

Time [julian days]	Elapsed time [sec]	flow [gpm]	notes
6/10/06 9:41:30	60450	350	
6/10/06 9:42:00	60480	350	
6/10/06 9:42:30	60510	350	
6/10/06 9:50:00	60960	350	
6/10/06 9:52:00	61080	350	
6/10/06 9:55:00	61260	350	
6/10/06 10:01:00	61620	350	
6/10/06 10:06:00	61920	350	
6/10/06 10:07:00	61980	440	
6/10/06 10:09:00	62100	440	
6/10/06 10:10:00	62160	440	
6/10/06 10:11:00	62220	440	
6/10/06 10:12:00	62280	440	
6/10/06 10:14:00	62400	440	
6/10/06 10:16:00	62520	440	
6/10/06 10:26:30	63150	440	
6/10/06 10:29:00	63300	440	
6/10/06 10:31:00	63420	440	
6/10/06 10:34:00	63600	440	
6/10/06 10:41:00	64020	440	
6/10/06 10:43:00	64140	550	
6/10/06 10:44:30	64230	550	
6/10/06 10:45:00	64260	550	
6/10/06 10:46:00	64320	550	
6/10/06 10:47:00	64380	550	
6/10/06 10:48:00	64440	550	
6/10/06 10:51:00	64620	550	
6/10/06 10:58:00	65040	540	
6/10/06 11:02:00	65280	540	
6/10/06 11:04:00	65400	540	
6/10/06 11:05:00	65460	540	
6/10/06 11:09:00	65700	540	
6/10/06 11:16:00	66120	530	
6/10/06 11:17:00	66180	700	
6/10/06 11:19:00	66300	700	
6/10/06 11:19:30	66330	700	
6/10/06 11:20:00	66360	700	
6/10/06 11:21:00	66420	700	
6/10/06 11:23:00	66540	700	
6/10/06 11:30:00	66960	690	
6/10/06 11:33:00	67140	690	
6/10/06 11:34:15	67215	690	
6/10/06 11:35:00	67260	690	
6/10/06 11:40:00	67560	690	
6/10/06 11:56:00	68520	690	
6/10/06 11:59:00	68700	760	
6/10/06 12:03:00	68940	760	
6/10/06 12:03:30	68970	760	
6/10/06 12:05:00	69060	760	

CSF PUMP TEST TIME-FLOW DATA

Time [julian days]	Elapsed time [sec]	flow [gpm]	notes
6/10/06 12:06:00	69120	760	
6/10/06 12:08:00	69240	760	
6/10/06 12:13:00	69540	700	
6/10/06 12:16:00	69720	700	
6/10/06 12:28:00	70440	700	
6/10/06 18:31:00	92220	680	
6/11/06 7:01:00	137220	650	
6/11/06 8:46:00	143520	650	
6/11/06 8:48:00	143640	650	
6/11/06 8:50:00	143760	600	
6/11/06 8:52:00	143880	600	
6/11/06 8:57:00	144180	600	
6/11/06 8:58:30	144270	600	
6/11/06 9:00:12	144372	500	
6/11/06 9:01:00	144420	500	
6/11/06 9:01:30	144450	500	
6/11/06 9:02:00	144480	500	
6/11/06 9:02:30	144510	500	
6/11/06 9:03:00	144540	500	
6/11/06 9:04:00	144600	500	
6/11/06 9:05:00	144660	500	
6/11/06 9:06:00	144720	500	
6/11/06 9:07:00	144780	500	
6/11/06 9:08:00	144840	500	
6/11/06 9:09:00	144900	500	
6/11/06 9:14:00	145200	500	
6/11/06 9:18:30	145470	500	
6/11/06 9:20:30	145590	500	
6/11/06 9:22:00	145680	500	
6/11/06 9:23:00	145740	400	
6/11/06 9:24:00	145800	400	
6/11/06 9:25:00	145860	400	
6/11/06 9:26:00	145920	400	
6/11/06 9:27:00	145980	400	
6/11/06 9:28:17	146057	400	
6/11/06 9:29:40	146140	400	
6/11/06 9:32:30	146310	420	
6/11/06 9:34:30	146430	420	
6/11/06 9:36:00	146520	420	
6/11/06 9:38:00	146640	420	
6/11/06 9:43:30	146970	420	
6/11/06 9:45:00	147060	420	
6/11/06 9:49:00	147300	420	
6/11/06 9:49:20	147320	0	
6/11/06 9:51:00	147420	0	
6/11/06 9:53:00	147540	0	
6/11/06 9:55:00	147660	0	
6/11/06 10:02:00	148080	0	
6/11/06 10:03:30	148170	0	

CSF PUMP TEST TIME-FLOW DATA

Time [julian days]	Elapsed time [sec]	flow [gpm]	notes
6/11/06 10:04:00	148200	0	
6/11/06 10:04:23	148223	0	
6/11/06 10:04:47	148247	0	
6/11/06 10:05:44	148304	0	
6/11/06 10:06:40	148360	0	
6/11/06 10:08:44	148484	0	
6/11/06 10:09:57	148557	0	
6/11/06 10:11:05	148625	0	
6/11/06 10:13:40	148780	0	
6/11/06 10:15:12	148872	0	
6/11/06 10:16:31	148951	0	
6/11/06 10:20:30	149190	0	
6/11/06 10:23:17	149357	0	
6/11/06 10:35:26	150086	0	
6/11/06 10:38:00	150240	0	
6/11/06 10:40:50	150410	0	
6/11/06 10:43:29	150569	0	
6/11/06 10:46:19	150739	0	
6/11/06 10:52:10	151090	0	
6/11/06 10:59:03	151503	0	
6/11/06 11:03:11	151751	0	
6/11/06 11:06:22	151942	0	
6/11/06 11:14:10	152410	0	



MAGIC VALLEY LABS

210 ADDISON AVE
TWIN FALLS, ID 83301
208-733-4250

Laboratory Supervisor: Brenda Ellis

RECEIVED

JUN 15 2006

**PWS #: 5550035
BROCKWAY ENGINEERING
2016 N. WASHINGTON #4
TWIN FALLS ID 83301**

LAB ID # ID000911

COLIFORM BACTERIA ANALYSIS REPORT

Date Collected 6/11/2006
Time Collected 8:30:00 AM

Date Received 6/12/2006
Time Received 9:35:00 AM

Sample # 306607771

Type

Location CLEAR SPRINGS NEW WELL

Collector JASON HELMS

Chlorine Residual: ppm

Date of Original Positive:

Copy:

Test Performed

Method

Result

Total Coliform

SM9223BCT

ABSENT

Completed Date: 6/13/2006

Analyzed: Date 6/12/2006

Analyst: JD

Time 10:00:00 AM

SM9223B CT Standard Method 9223B Colilert Reagent
SM9223B CS Standard Method 9223B Colisure Reagent
SM9222B Standard Method 9222B
SM9221E Standard Method 9221E

**MAGIC VALLEY LABS, INC.**

210 ADDISON AVE. / BOX 1867

TWIN FALLS, ID 83303-1867

(208) 733-4250

LAB ID #ID00911

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JUL 12 2006

PUBLIC DRINKING WATER INORGANIC CHEMICAL ANALYSIS REPORT
ACUTE IOC CONTAMINANTS For Public Drinking Water Systems

FRDS	Contaminant	Results (mg/L)	MCL (mg/L)	MDL	Method	Analysis Date	Analyst	MONITORING REQUIREMENTS
1040	Nitrate	<0.03	10	<0.03	EPA 300.0	6/12/2006	SK	Ground water systems with nitrate levels below 5 mg/L must monitor nitrate annually. Surface water systems and systems with nitrate levels of 5 or more mg/L must monitor quarterly, unless otherwise advised in writing.
1041	Nitrite	<0.02	1.0	<0.02	EPA 300.0	6/12/2006	SK	Once per nine years unless advised otherwise.
1038	Total (NO ₃ +NO ₂)	---	10					
1055	Sulfate	---	N/A					Sulfate is in the process of becoming a regulated contaminant. Monitoring is not yet required.

LAB RESULT REPORTING CODES:

ND = Not detected within sensitivity of instrument

---- = No analysis performed for this contaminant

Numerical entry = Detection at level indicated

COMMENTS:

PWS #	5550035
Lab Sample Tracking #	62241
Date Collected	6/11/2006
Sample Type	
Date Received	6/12/2006
Time Collected	8:30:00 AM
Location Tag #	
Sample Collection Location	CLEAR SPRINGS NEW WELL
Date Reported by Lab	6/14/2006
Jurisdiction	SCIRO
PWS Contact Phone (208)	

Signature of Lab Supervisor

Date

BROCKWAY ENGINEERING
 2016 N. WASHINGTON #4
 TWIN FALLS ID 83301

**MAGIC VALLEY LABS, INC.**

210 Addison Ave., P.O. Box 1867

Twin Falls, ID 83301

LAB ID# ID00911

**PUBLIC DRINKING WATER SYNTHETIC ORGANIC CHEMICAL ANALYSIS
REPORT REGULATED SOC CONTAMINANTS**

FRDS	CONTAMINANT	Result µg/L	Method	MCL µg/L	MDL µg/L	FRDS	CONTAMINANT	Result µg/L	Method	MCL µg/L	MDL µg/L
2946	EDB	ND	504.1	0.05	0.01	2383	PCBs	ND	505	0.5	0.01
2931	DBCP	ND	504.1	0.2	0.02	2031	Dalapon	ND	515.3	200	1
2051	Alachlor	ND	525.2	2.0	0.1	2041	Dinoseb	ND	515.3	7	0.1
2050	Atrazine	ND	525.2	3.0	0.1	2326	Pentachlorophenol	ND	515.3	1	0.04
2037	Simazine	ND	525.2	4.0	0.07	2040	Picloram	ND	515.3	500	0.1
2959	Chlordane	ND	505	2.0	0.1	2105	2,4-D	ND	515.3	70	0.1
2005	Endrin	ND	505	2.0	0.03	2110	2,4,5-TP	ND	515.3	50	0.1
2065	Heptachlor	ND	505	0.4	0.04	2306	Benzo[a]pyrene	ND	525.2	0.2	0.02
2067	Heptachlor epoxide	ND	505	0.2	0.02	2035	Di(2-ethylhexyl)adipate	ND	525.2	400	2
2274	Hexachlorobenzene	ND	525.2	1.0	0.1	2039	Di(2-ethylhexyl)phthalate	ND	525.2	6	0.6
2042	Hexachlorocyclopentadiene	ND	525.2	50.0	0.1	2046	Carbofuran	ND	531.1	40	0.9
2010	Lindane	ND	505	0.2	0.02	2036	Oxamyl	ND	531.1	200	1
2015	Methoxychlor	ND	505	40.0	0.1	2034	Glyphosate	ND	547	700	6
2020	Toxaphene	ND	505	3.0	1	2033	Endothall	ND	548.1	100	9
						2032	Diquat	ND	549	20	0.4

UNREGULATED SOC CONTAMINANTS

2076	Butachlor	ND	525.2		0.5	2047	Aldicarb	ND	531.1		1
2045	Metolachlor	ND	525.2		0.5	2044	Aldicarb Sulfone	ND	531.1		1
2595	Metribuzin	ND	525.2		0.5	2043	Aldicarb Sulfoxide	ND	531.1		1
2356	Aldrin	ND	505		0.1	2021	Carbaryl	ND	531.1		1
2070	Dieldrin	ND	505		0.1	2066	3-Hydroxycarbofuran	ND	531.1		1
2077	Propachlor	ND	525.1		0.5	2022	Methomyl	ND	531.1		1
2440	Dicamba	ND	515.3		0.5		2,4-DB		515.3		1

ANALYST	DATE	METHOD	COMPOSITE #
*	6/21/2006	504.1	
*	6/16/2006	505	
*	6/27/2006	515.3	
*	6/28/2006	525.2	

LAB RESULT REPORTING CODES:

ND = Not detected within sensitivity of instrument

* = TEST PERFORMED BY ANATEK LABS

Numerical entry = Detection of Contaminant at level indicated

COMMENTS:

ANALYST	DATE	METHOD	COMPOSITE #
*	6/25/2006	531.1	
*	6/21/2006	547	
*	6/28/2006	548.1	
*	6/26/2006	549.2	

PWS #	5550035
LAB SAMPLE TRACKING #	622371
DATE COLLECTED	6/11/2006
SAMPLE TYPE	
DATE RECEIVED	6/12/2006
TIME COLLECTED	8:30:00 AM
COLLECTION LOCATION	CLEAR SPRINGS NEW WELL
LOCATION TAG #	
DATE REPORTED BY LAB	7/11/2006
PWS CONTACT PHONE (208)	

Signature of Laboratory Supervisor

Date

BROCKWAY ENGINEERING
2016 N. WASHINGTON #4
TWIN FALLS ID 83301

**MAGIC VALLEY LABS, INC.**

210 Addison Ave., P.O. Box 1867

Twin Falls, ID 83301

LAB ID #ID00911

PUBLIC DRINKING WATER LABORATORY ANALYSIS REPORT

VOLATILE ORGANIC CONTAMINANTS - METHOD 524.2

FRDS	COMPOUND (MCL) (ug/L)	MDL (ug/L)	RESULT (ug/L)	FRDS	COMPOUND (MCL) (ug/L)	MDL (ug/L)	RESULT (ug/L)
REGULATED COMPOUNDS							
2990	Benzene (5.0)	0.5	ND	2987	Tetrachloroethylene (5.0)	0.5	ND
2982	Carbon Tetrachloride (5.0)	0.5	ND	2378	1,2,4-Trichlorobenzene (70.0)	0.5	1.6
2977	1,1-Dichloroethylene (7.0)	0.5	ND	2981	1,1,1-Trichloroethane (200.0)	0.5	ND
2380	cis-1,2-Dichloroethylene (70.0)	0.5	ND	2985	1,1,2-Trichloroethane (5.0)	0.5	ND
2979	trans-1,2-Dichloroethylene	0.5	ND	2984	Trichloroethylene (5.0)	0.5	ND
2980	1,2-Dichloroethane (5.0)	0.5	ND	2991	Toluene (1000.0)	0.5	ND
2983	1,2-Dichloropropane (5.0)	0.5	ND	2976	Vinyl Chloride (2.0)	0.5	ND
2968	o-Dichlorobenzene (600.0)	0.5	ND	2955	Xylenes - Total (10000)	0.5	3.3
2969	p-Dichlorobenzene (75.0)	0.5	ND	2950	Trihalomethanes - Total (100.0)	0.5	ND
2964	Dichloromethane (5.0)	0.5	ND	2941	Chloroform	0.5	ND
2992	Ethylbenzene (700.0)	0.5	ND	2943	Bromodichloromethane	0.5	ND
2989	Monochlorobenzene (100.0)	0.5	ND	2944	Chlorodibromomethane	0.5	ND
2996	Styrene (100.0)	0.5	ND	2942	Bromoform	0.5	ND
UNREGULATED COMPOUNDS							
2993	Bromobenzene	0.5	ND	2416	2,2-Dichloropropane	0.5	ND
2430	Bromochloromethane	0.5	ND	2410	1,1-Dichloropropene	0.5	ND
2214	Bromomethane	0.5	ND	2412	1,3-Dichloropropene	0.5	0.72
2422	n-Butylbenzene	0.5	ND	2246	Hexachlorobutadiene	0.5	ND
2428	s-Butylbenzene	0.5	ND	2994	Isopropylbenzene	0.5	ND
2426	t-Butylbenzene	0.5	ND	2030	p-Isopropyltoluene	0.5	ND
2216	Chloroethane	0.5	ND	2248	Naphthalene	0.5	ND
2210	Chloromethane	0.5	ND	2998	n-Propylbenzene	0.5	ND
2965	o-Chlorotoluene	0.5	ND	2986	1,1,1,2-Tetrachloroethane	0.5	ND
2966	p-Chlorotoluene	0.5	ND	2988	1,1,2,2-Tetrachloroethane	0.5	ND
2408	Dibromomethane	0.5	ND	2420	1,2,3-Trichlorobenzene	0.5	ND
2967	m-Dichlorobenzene	0.5	ND	2218	Trichlorofluoromethane	0.5	ND
2212	Dichlorodifluoromethane	0.5	ND	2414	1,2,3-Trichloropropane	0.5	ND
2978	1,1-Dichloroethane	0.5	ND	2424	1,3,5-Trimethylbenzene	0.5	ND
2413	1,3-Dichloropropane	0.5	ND	2418	1,2,4-Trimethylbenzene	0.5	ND

LAB RESULT REPORTING CODES:

ND = Not detected within sensitivity of instrument

--- = No analysis performed for this contaminant

Comments:

PWS #	5550035
Lab Sample Tracking #	622381
Date Collected	6/11/2006 8:30:00 AM
Sample Type	PLANT TAP
Date Received	6/12/2006 9:35:00 AM
Time Collected	8:30:00 AM
Sample Collection Location	CLEAR SPRINGS NEW WELL
Location Tag #	
Composite Tag #'s (if any)	
Analyst and Analysis Date	ANATEK LABS 12:00:00 AM
Date Reported by Lab	7/11/2006

BROCKWAY ENGINEERING
2016 N. WASHINGTON #4
TWIN FALLS ID 83301

Mary S. Bernick 7/12/06
Lab Supervisor's Signature Date

LAB FEDERAL ID#: ID 00911	LAB SAMPLE #: 62239
DATE LAB REC'D SAMPLE: 6/12/2006	DATE REPORTED BY LAB: 8/25/2006
COMPLIANCE SAMPLE: ☒ YES	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 6/11/2006	
COLLECTION TIME: 8:30:00 AM	
SAMPLE ☐ CO- ☐ RP-repeat ☐ SP-special ☐ OTHER: _____ ☒ RT-routine ☐ DU-duplicate	
PWS#: 5550035	
PWS NAME: BROCKWAY ENGINEERING	
SAMPLING POINT/LOCATION: CLEAR	
TAG #/FACILITY ID:	
SPRINGS NEW WELL	
COLLECTOR'S NAME: JASON HELMS	
CONTACT PHONE #:	

MAGIC VALLEY LABS
 210 ADDISON AVE, PO BOX 1867
 TWIN FALLS, ID 83301
 (208) 733-4250



PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II										Phase V									
FRDS	Contaminant	Result	MCL	PQL	Method	Analysis Date	Analyst	FRDS	Contaminant	Result	MCL	PQL	Method	Analysis Date	Analyst				
1010	Barium	<0.5	2	0.5	3111D		RB	1024	Cyanide	0.2									
1015	Cadmium	<0.0005	0.005	0.0005	3113B		RB	1036	Nickel	<0.01	N/A	0.01	3113B		RB				
1020	Chromium	<0.005	0.1	0.005	3113B		RB	1074	Antimony	<0.005	0.006	0.005	200.9		RB				
1035	Mercury	<0.001	0.002	0.001	245.1		RB	1075	Beryllium	<0.0005	0.004	0.0005	200.9		RB				
1038	Td (NO2/NO3)		10	10				1085	Thallium	<0.002	0.002	0.002	200.9		RB				
1040	Nitrate		10					Other IOCs											
1041	Nitrite		1.0					1005	Arsenic	0.018	0.05	0.005	200.9		RB				
1045	Selenium	<0.005	0.05	0.005	200.9		RB	1025	Fluoride	3.70	4.0	0.02	300.0		SK				
1094	Asbestos		7 MFL	0.18	100.1 *		**	1052	Sodium	46.2	N/A	0.5	3111B		RB				
Secondary IOCs (optional)																			
1002	Aluminum	<0.1	0.05-0.2	0.1	200.7		**	1050	Silver	<0.05	0.1	0.05	3111B		RB				
1003	Ammonia as N	< 0.05	0.05	0.05	350.2		SK	1055	Sulfate	28.8	250	1	300.0		SK				
1016	Calcium	21.0		0.5	3111B		RB	1095	Zinc	<0.05	5	0.05	3111B		RB				
1017	Chloride	10.5	250	0.14	300.0		SK	1905	Color	ND	15c.u.	1	110.2		RB				
1022	Copper	<0.1	1.0	0.1	3111B		RB	1915	Hardness as CaCO3	52.5		5	2340B		RB				
1026†	Conductivity µg/cm	350		10	120.1		RB	1920	Odor (threshold #)	ND	3	1	140.1		RB				
1027	Hydrogen Sulfide	<0.01			8131		SK	1925	pH	7.0	6.5-8.5		150.1		MW				
1028	Iron	<0.1	0.3	0.1	3111B		RB	1927	Alkalinity as CaCO3	100		5	310.1		JD				
1031	Magnesium	1.20		0.2	3111B		RB	1930	Dissolved Solids	290	500	1	160.1		JD				
1032	Manganese	<0.05	0.05	0.05	3111B		RB	1997	Langlier Index	-1.12					RB				
1042	Potassium	7.0		0.5	3111B		RB	2905	Surfactants	<0.01		0.01	5540C		RB				
1049	Silica as SiO2	66.0		1	200.8		RB		LEAD	<0.005		0.005	3113B		RB				

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Quality limit -- = No analysis performed ND = Not detected within sensitivity of instrument
 *EPA 600/4-83-043 **Test performed by ANATEK LABORATORIES

BROCKWAY ENGINEERING
 2016 N. WASHINGTON #4
 TWIN FALLS ID 83301

Signature of Laboratory Supervisor
 Date 8/28/06

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 SEP 0 1 2006

LAB FEDERAL ID #ID00911		LAB SAMPLE #: 622401	
DATE LAB REC'D SAMPLE: 6/12/2006		DATE REPORTED BY LAB: 8/15/2006	
COMPLIANCE SAMPLE ☒ YES ☐ NO		☐ REPLACEMENT SAMPLE	
COLLECTION DATE: 6/11/2006		COLLECTION TIME: 8:30:00 AM (24 hour clock)	
SAMPLE TYPE: RADS		☐ PRIVATE ☒ PUBLIC	
PWS#: 5550035	PWS NAME: BROCKWAY ENGINEERING		
SAMPLING POINT/LOCATION: CLEAR SPRINGS NEW WELL		TAG #/FACILITY ID:	
COLLECTOR'S NAME: JASON HELMS		CONTACT PHONE #:	



MAGIC VALLEY LABS, INC.

210 Addison Ave. PO Box 1867

Twin Falls ID 83301

Phone: 208-733-4250

Fax: 208-734-8539

RECEIVED

AUG 24 2006

PUBLIC DRINKING WATER SYSTEM RADIOLOGICAL ANALYSIS REPORT:

FRDS	CONTAMINANT	RESULT µg/L	RESULT pCi/L	MCL	ANALYSIS DATE	ANALYSIS T	METHOD
4002	Gross Alpha Activity (includes radium and uranium)		0.11		6/22/06	*	E900.0
4006	Uranium, Combined convert to activity; multiply concentration in µg/L x 1.0 (required if gross alpha exceeds 15pCi/L)	1.0		30 µg/L	6/28/06	**	E200.8
4000	Net Alpha subtract Uranium activity from Gross alpha activity (includes radium but excludes uranium)			15 pCi/L			
4020	Radium-226 (required if alpha activity is greater than 5pCi/L)		0.19		7/1/06	*	E903.0
4030	Radium-228		0.27		6/30/06	*	E904.0
4010	Radium, Combined (226 & 228) add results of Ra-226 and Ra-228			5 pCi/L			
4100	Gross Beta/Photon Activity (required to measure major isotopes if activity exceeds 50pCi/L)			4 mREM			

ND = Not detected within sensitivity of instrument

— = No analysis performed

Gary J. Fenwick 8/17/06

Signature of Laboratory Supervisor Date

*TEST PERFORMED BY

BENCHMARK Analytics

**Test performed by Idaho
Bureau of Laboratories

(Reserved for
comments/notations)

COMPOSITE SAMPLE DATES:

1ST Quarterly Sample:

2nd Quarterly Sample:

3rd Quarterly Sample:

Enter 4th Quarter or latest
sample date beside

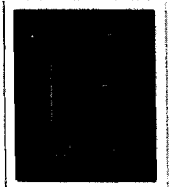
Collection Date at top of form

BROCKWAY ENGINEERING

2016 N. WASHINGTON #4

TWIN FALLS ID 83301

BROCKWAY ENGINEERING
2016 N. WASHINGTON #4
TWIN FALLS ID 83301



BROCKWAY
ENGINEERING
PLLC

Hydraulics

Hydrology

Water Resources

January 24, 2007

Mr. Keith Quigley
Clear Springs Foods, Inc.
P.O. Box 712
Buhl, ID 83316

Re: New Well Operation

Dear Keith:

This letter report summarizes the final results and hydrologic details associated with the new groundwater source well drilled under drilling permit #794502 specifically relating to the potential for impacts to existing spring sources due to operation of the new well. Several factors indicate that the well production zone is a separate system from the spring flow and will not produce any noticeable impact to annual spring flows. This opinion is primarily based on measurements of creek flow recorded throughout the drilling program and pump test in addition to comparison of water chemistry between spring water samples and samples taken from the well at the end of the pumping test conducted in May, 2006.

Background

The new well is located in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 2, Township 9 South, Range 14 East. The completed depth of the well is 397 feet. The well contains a 12" steel inner casing extending to the full depth of the well with screens placed at several production zone locations to develop the maximum quantity water supply. The proposed pump bowl depth is 240' below ground surface (BGS). The static water level (SWL) in the well was measured to be 104.5' below ground in May of 2006 prior to any pumping.

Well Construction Details

In order to minimize potential impacts to spring flows in the local area, a solid steel 16" casing extends approximately 200' below ground which has an outer bentonite clay seal extending no less than 60' below ground. The first open screen interval from which ground water can enter the well bore occurs at a depth of 250' below ground. Additional screen sections occur at increasing depth. A drawing showing overall well construction and lithology logged

Charles E.
Brockway,
PH.D., P.E.

Charles G.
Brockway,
PH.D., P.E.

2016 North
Washington
Street • Suite 4

Twin Falls,
Idaho 83301

208•736•8543

FAX: 736•8506

during the drilling program is attached. A significant amount of clay layers were encountered which serve to restrict ground water migration vertically providing additional evidence against lack of direct connectivity between the ground water extraction zone and the spring source water

Spring Creek Flow Monitoring During Test Pumping

In order to evaluate the potential impact of ground water diversion on the nearby springs, a pressure transducer and recorder were installed just upstream of the existing 4' contracted weir which is located on the spring fed stream just prior to entering a culvert which exits on the Wright property to the west. Water level measurements were automatically recorded at 5 minute intervals prior to and throughout the pumping test and for two weeks after to develop a good baseline for evaluation. The weir data collected during well construction and pump testing does not exhibit any noticeable effects on spring flows into Kanaka creek due to well construction or diversion of ground water from the newly constructed well. The pumping test occurred over a 24 hour period on May 10-11th, 2006. A chart showing the recorded weir data with the test pump period superimposed is attached. During the weekend of the test, the measured weir flow is approximately 4.5 cfs with normal weekend variation as low as 3 cfs. It is clear that the 1.2 cfs pumped from the well did not directly reduce spring flows by any noticeable fraction.

Water Quality Comparison

Water quality samples were taken near the end of the well pumping test on Sunday, June 11th 2006. Comparison of available water quality parameters from regular spring source testing shows significant differences in water chemistry. This indicates that the ground water well and the nearby springs originate from significantly different systems. Five individual parameters were specifically compared: Arsenic, Nitrate, Alkalinity, Chloride and Fluoride. In each case, the chemical analyses show strong differences in the quantity of each constituent indicating separate source waters. For instance the chloride concentration, which is a good indicator of differences in ground water origin, shows that the spring samples are more indicative of recent contributions from surface water leaching compared to the well water from deeper sources.

Conclusions

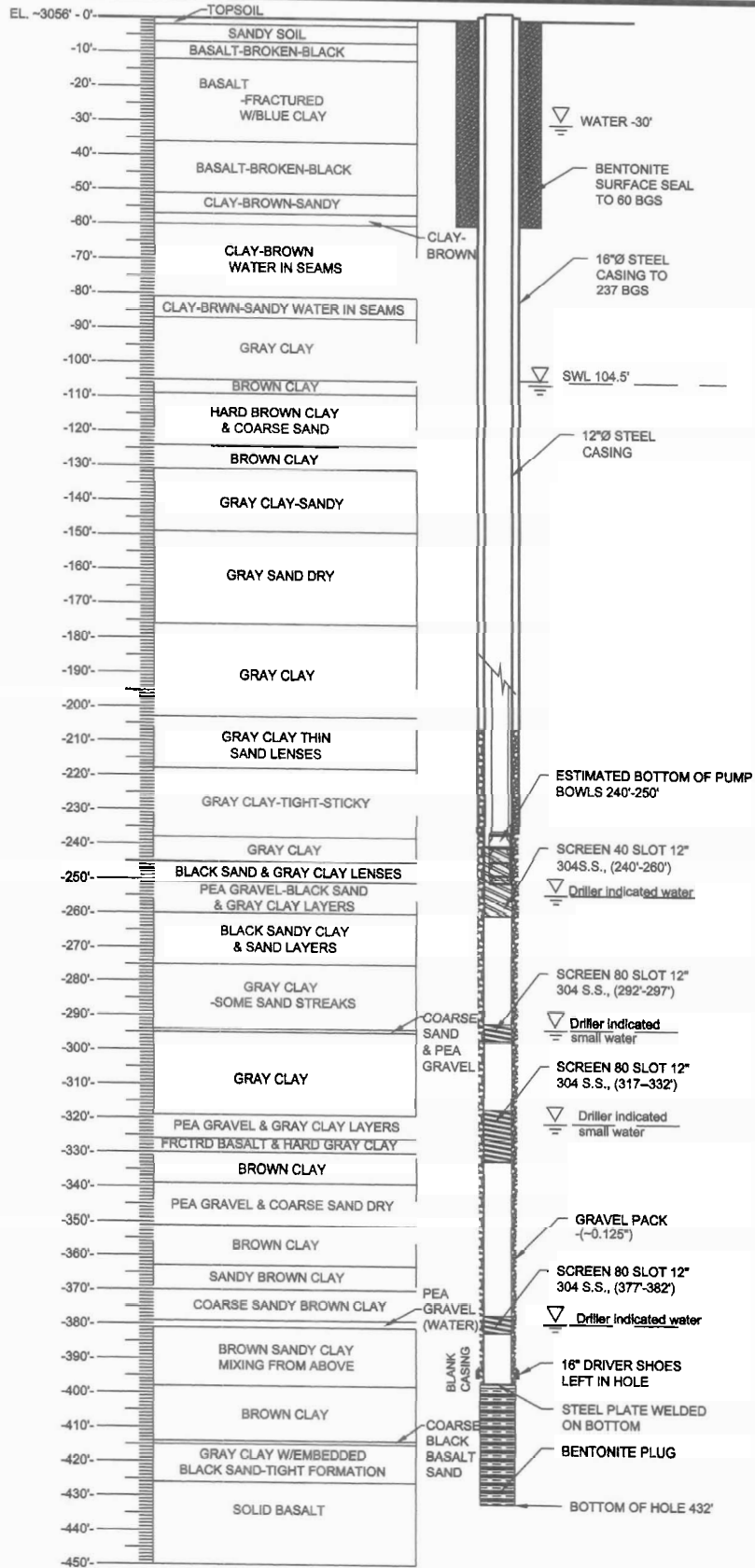
Based on analysis of the criteria and data discussed above, no significant impact to the spring flows in the immediate vicinity of the new well is anticipated due to continuous operation of the ground water supply well.

If you have any questions or need additional information please don't hesitate to call.

Sincerely,
(original signed)

Charles E. Brockway, Ph.D., P.E.

Attachments: Figure – Well Construction Drawing
Graph – Stream Flow Weir Data
Charts – Water Quality Parameter Comparisons (4 pgs)



THIS DRAWING HAS BEEN PREPARED BY BROCKWAY ENGINEERING, PLLC FOR A SPECIFIC PROJECT TAKING INTO ACCOUNT THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM BOTH BROCKWAY ENGINEERING & THE CLIENT IS GRANTED.

SCALE 0"=000'
(SEE 11 DWG ONLY)

DESIGNED BY

DRAFTED BY
ALR

BROCKWAY ENGINEERING, PLLC
HYDRAULICS - HYDROLOGY - WATER RESOURCES
2016 NORTH WASHINGTON, SUITE 4
WTIN FALLS, ID 83301
(208) 736-8543

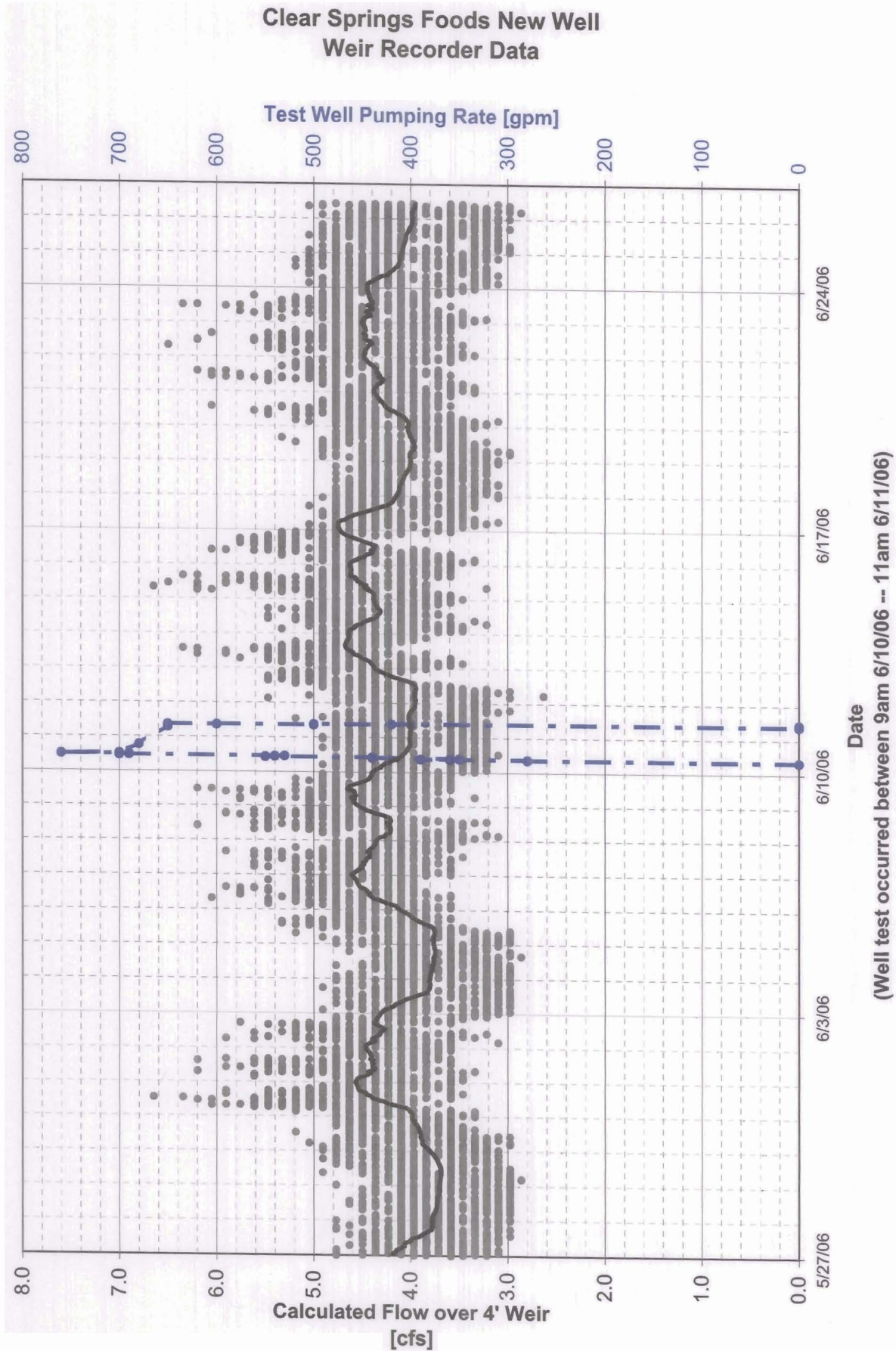
CLEAR SPRINGS WELL LOG DATA

WELL LOG

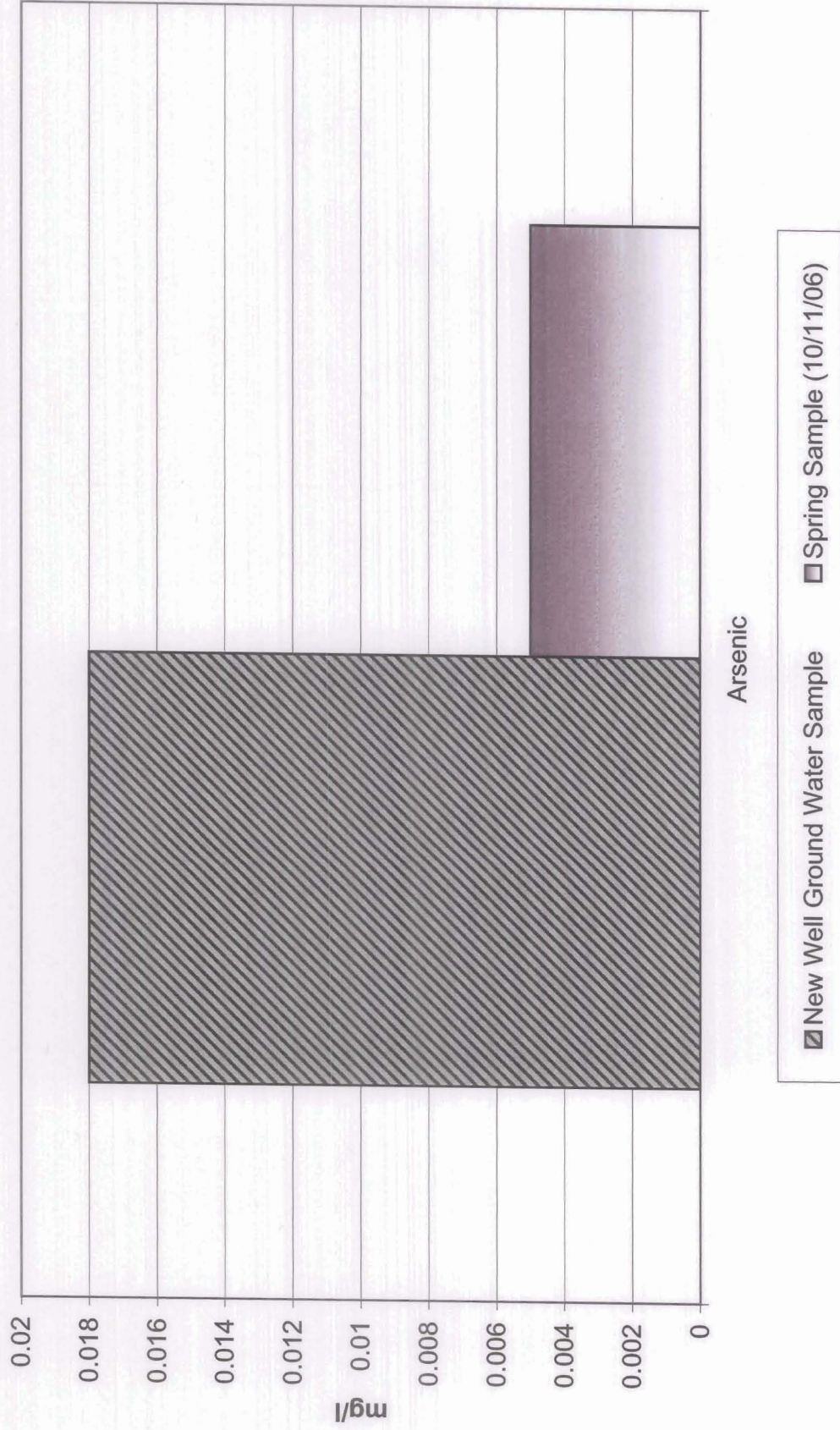
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65-04-2002

DWG#
2

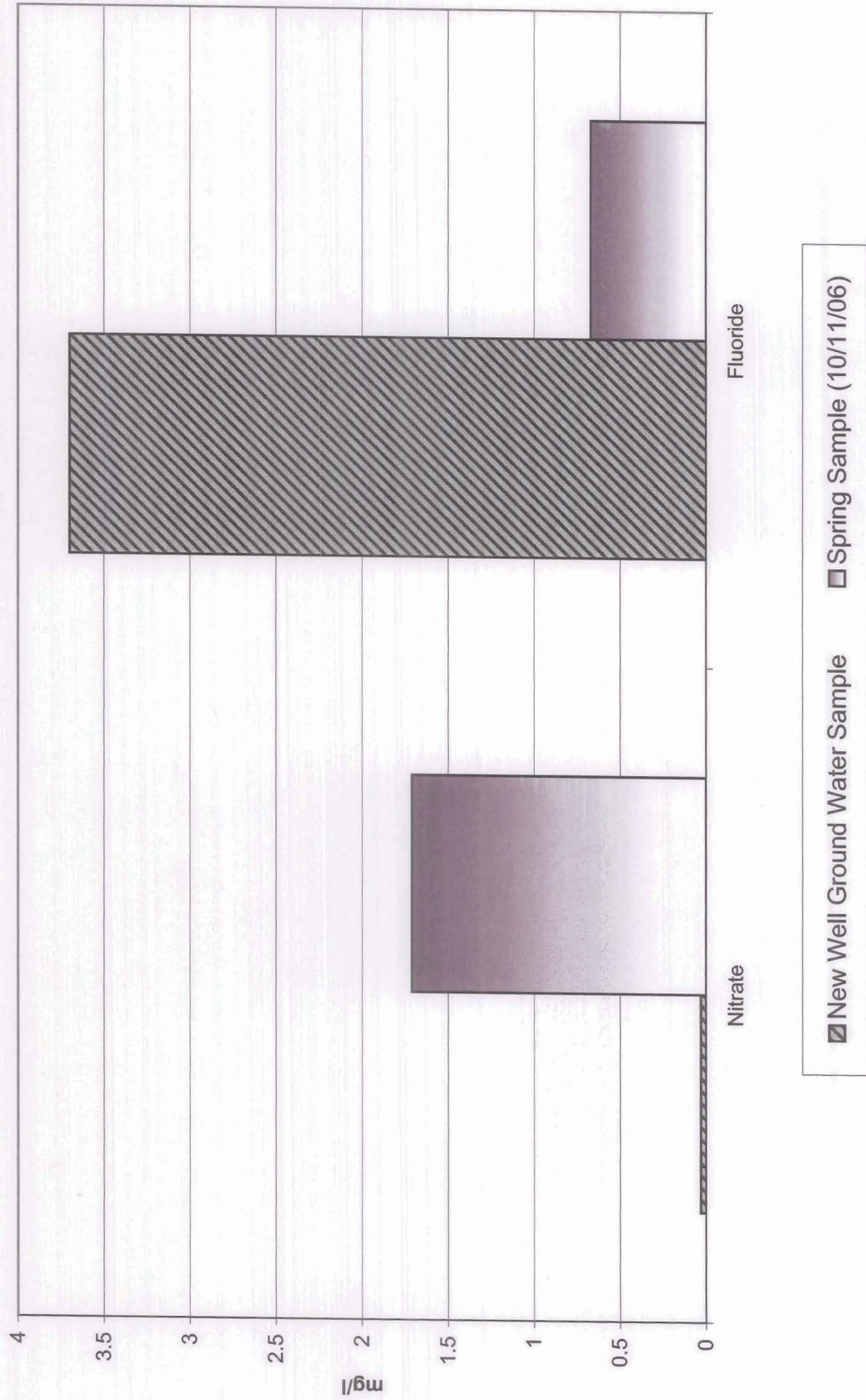
REV
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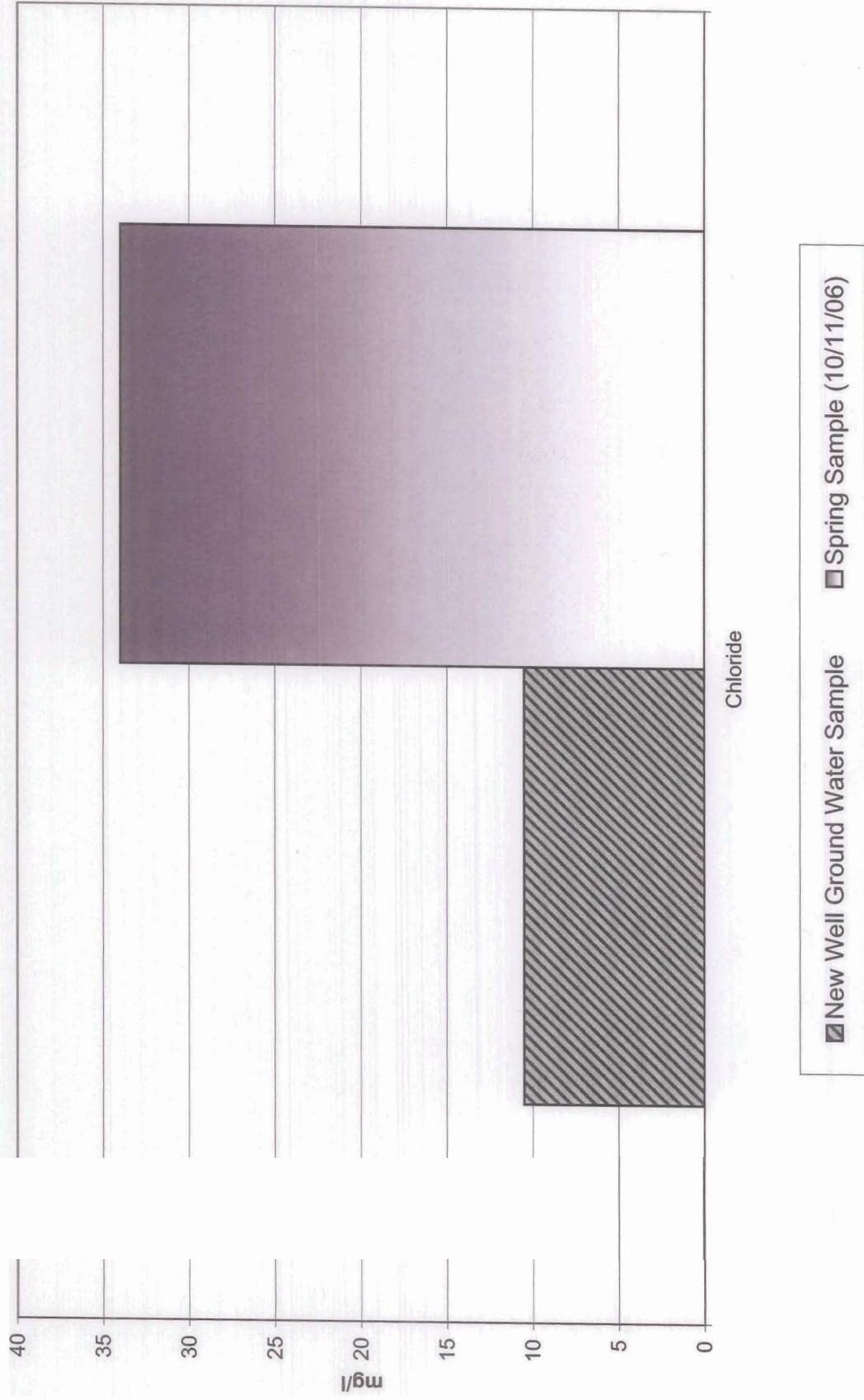
Relative Concentrations of Characteristic Water Quality Constituents



Relative Concentrations of Characteristic Water Quality Constituents



Relative Concentrations of Characteristic Water Quality Constituents



Relative Concentrations of Characteristic Water Quality Constituents

