ATTACHMENT 4: FIELD LOGS

This attachment contains the groundwater sample collection field logs for the relatively shallow standpipe monitoring wells (MW-1, MW-5 through MW-10, MW-13, MW-15, and MW-16), as well as the field data sheets for the Westbay™ multiport wells (MW-3, MW-4, MW-11, MW-12, MW-14, and MW-17 through MW-26). Groundwater sample collection for the 4th Quarter 2007 sampling event was conducted by Insight Environmental, Inc.

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 1

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73805
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 12/05/07
Weather: clear and cool

PURGE VOLUME CALCULATION (casing volume):

(120 (TD feet) - 27.95 (WL feet)) X 4^2 (D inches) X 3 (# Vols) X 0.0408 = 180.27 (Calculated Purge Volume) Gallons

PURGE METHOD **PUMP INTAKE SETTING**

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
720	27.95	0	5.25	58.4	1.40	11.79	14.5	333	Clear, no odor
731	27.95	36	5.45	56.8	0.75	12.95	14.7	326	Clear, no odor
742	27.95	77	5.56	56.7	0.32	12.26	15.5	334	Clear, no odor
753	27.95	108	5.81	56.3	0.89	11.60	16.0	284	Clear, no odor
804	27.95	144	6.03	56.1	0.67	13.32	16.3	321	Clear, no odor
817	27.95	181	6.03	57.0	0.15	10.33	16.3	307	Clear, no odor

Total Purge Volume: 181 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 3.50 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 713 Purge time start: 720

RECHARGE BEHAVIOR: **X** Fast recharging
□ Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-1	Sample ID: _____	Type: _____	Type: _____
Sample Time: 816	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: 12 (MS/MSD)	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 5

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73805
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 12/6/07
Weather: cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(140 (TD feet) - 71.91 (WL feet)) X 4^2 (D inches) X 3 (# Vols) X 0.0408 = 133.35 (Calculated Purge Volume) Gallons

PURGE METHOD **PUMP INTAKE SETTING**

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
855	71.91	0	5.51	76.7	6.85	12.43	16.6	323	Clear, no odor
904	71.91	27	5.79	75.3	4.53	11.93	17.2	276	Clear, no odor
913	71.91	54	5.77	75.2	1.26	12.62	16.8	267	Clear, no odor
922	71.91	81	6.03	74.6	0.14	13.98	16.8	279	Clear, no odor
931	71.91	108	5.93	78.4	-0.18	11.79	16.8	239	Clear, no odor
940	71.91	135	6.14	75.2	-0.03	13.63	16.5	270	Clear, no odor

Total Purge Volume: 135 (Gallons)

Total Discharge: 3.04 (Casing Volumes)

Approx. Purge Rate: 3.00 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 850 Purge time start: 855

RECHARGE BEHAVIOR: **X** Fast recharging
□ Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank
Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-5	Sample ID: DUPE- 8 -4Q07	Type: _____	Type: _____
Sample Time: 940	Sample Time: ----------	Sample ID: _____	Sample ID: _____
No. of Containers: 6	No. of Containers: 6	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 6

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73805
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 12/6/07
Weather: partly cloudy, breezy, and cool

PURGE VOLUME CALCULATION (casing volume):

(245 (TD feet) - 173.71 (WL feet)) X 4^2 (D inches) X 3 (# Vols) X 0.0408 = 139.61 (Calculated Purge Volume) Gallons

PURGE METHOD **PUMP INTAKE SETTING**

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
1047	173.71	0	6.17	0.093	75.4	14.00	19.7	468	Reddish brown color, no odor
1106	173.71	28	6.38	0.090	21.4	13.61	19.3	445	Reddish brown color, no odor
1125	173.71	56	6.45	0.100	4.95	14.58	19.0	277	Clear, no odor
1144	173.71	84	6.51	0.090	5.14	14.19	19.1	371	Clear, no odor
1203	173.71	112	6.59	0.099	3.91	13.55	19.7	267	Clear, no odor
1222	173.71	140	6.46	0.091	1.57	12.97	19.4	363	Clear, no odor

Total Purge Volume: 140 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 1.50 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 1024 Purge time start: 1047

RECHARGE BEHAVIOR: **X** Fast recharging
□ Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank
Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-6	Sample ID: _____	Type: _____	Type: _____
Sample Time: 1222	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: 12 (MS/MSD)	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 7

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73805
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 11/28/07
Weather: partly cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(275 (TD feet) - 209.35 (WL feet)) X 4^2 (D inches) X 3 (# Vols) X 0.0408 = 128.57 (Calculated Purge Volume) Gallons

PURGE METHOD **PUMP INTAKE SETTING**

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
800	209.35	0	5.21	67.2	6.38	8.78	20.5	339	Clear, no odor
818	209.35	26	5.53	64.5	1.28	8.08	20.9	284	Clear, no odor
835	209.35	52	5.87	65.1	0.89	9.01	21.9	307	Clear, no odor
853	209.35	78	6.03	64.7	0.61	8.81	21.1	303	Clear, no odor
910	209.35	104	6.29	64.7	0.45	9.21	21.4	287	Clear, no odor
928	209.35	130	6.23	65.2	0.54	8.51	20.9	302	Clear, no odor

Total Purge Volume: 130 (Gallons)

Total Discharge: 3.03 (Casing Volumes)

Approx. Purge Rate: 1.50 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 750 Purge time start: 800

RECHARGE BEHAVIOR:
X Fast recharging
□ Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank
Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-7	Sample ID: DUPE- 4 - 4Q07	Type: _____	Type: _____
Sample Time: 930	Sample Time: -------	Sample ID: _____	Sample ID: _____
No. of Containers: 6	No. of Containers: 6	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 8

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73805
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 11/29/07
Weather: partly cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(205 (TD feet) - 136.86 (WL feet)) X 4^2 (D inches) X 3 (# Vols) X 0.0408 = 133.45 (Calculated Purge Volume) Gallons

PURGE METHOD **PUMP INTAKE SETTING**

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
1022	136.86	0	6.65	55.7	18.3	11.09	18.8	333	Clear, no odor
1036	136.86	27	6.64	55.2	3.97	10.87	18.6	312	Clear, no odor
1050	136.86	54	6.63	55.3	2.79	10.49	18.8	281	Clear, no odor
1104	136.86	81	6.67	55.6	0.16	10.87	19.0	299	Clear, no odor
1118	136.86	108	6.64	55.2	-0.11	11.13	18.7	281	Clear, no odor
1132	136.86	135	6.66	55.4	-0.58	10.36	18.9	261	Clear, no odor

Total Purge Volume: 135 (Gallons)

Total Discharge: 3.03 (Casing Volumes)

Approx. Purge Rate: 2.00 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 1012 Purge time start: 1022

RECHARGE BEHAVIOR:
X Fast recharging
□ Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank
Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-8	Sample ID:	Type:	Type:
Sample Time: 1132	Sample Time:	Sample ID:	Sample ID:
No. of Containers: 6	No. of Containers:	Sample Time:	Sample Time:
		No. of Containers:	No. of Containers:

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 9

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73805
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 12/5/07
Weather: sunny and warm

PURGE VOLUME CALCULATION (casing volume):

(68 TD (feet) - 23.60 WL (feet)) X 4^2 D (inches) X 3 # Vols X 0.0408 = 86.95 Calculated Purge Volume Gallons

PURGE METHOD **PUMP INTAKE SETTING**

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
915	23.60	0	6.28	56.3	4.03	12.39	19.1	358	Clear, no odor
921	23.60	18	6.18	55.3	27.9	10.92	18.9	336	Clear, no odor
927	23.60	36	6.22	55.2	10.37	11.41	18.9	317	Clear, no odor
933	23.60	54	6.40	55.2	2.92	12.08	19.0	306	Clear, no odor
939	23.60	72	6.35	55.2	0.78	11.75	19.1	309	Clear, no odor
945	23.60	90	6.38	55.2	0.12	12.13	19.1	302	Clear, no odor

Total Purge Volume: 90 (Gallons)

Total Discharge: 3.11 (Casing Volumes)

Approx. Purge Rate: 3.50 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 909 Purge time start: 915

RECHARGE BEHAVIOR: **X** Fast recharging
□ Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-9	Sample ID:	Type:	Type:
Sample Time: 945	Sample Time:	Sample ID:	Sample ID:
No. of Containers: 12(MS/MSD)	No. of Containers:	Sample Time:	Sample Time:
		No. of Containers:	No. of Containers:

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 10

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73805
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 12/7/07
Weather: clear and cool

PURGE VOLUME CALCULATION (casing volume):

(155 TD (feet) - 85.62 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 135.87 Calculated Purge Volume Gallons

PURGE METHOD **PUMP INTAKE SETTING**

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
750	85.62	0	5.08	0.092	32.7	10.30	15.9	406	Yellowish color, no odor
759	85.62	27	5.52	0.090	8.33	11.33	16.8	210	Clear, no odor
808	85.62	54	5.87	0.090	2.43	11.45	16.8	230	Clear, no odor
817	85.62	81	6.04	0.100	0.91	8.96	17.3	221	Clear, no odor
826	85.62	108	6.05	0.100	1.52	8.80	17.3	331	Clear, no odor
836	85.62	136	6.08	0.090	0.26	10.26	312	312	Clear, no odor

Total Purge Volume: 136 (Gallons)

Total Discharge: 3.00 (Casing Volumes)

Approx. Purge Rate: 3.00 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 740 Purge time start: 750

RECHARGE BEHAVIOR:
X Fast recharging
□ Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank
Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-10	Sample ID: DUPE- 7 -4Q07	Type: _____	Type: _____
Sample Time: 836	Sample Time: ----------	Sample ID: _____	Sample ID: _____
No. of Containers: 6	No. of Containers: 6	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 13

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73805
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 11/29/07
Weather: partly cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(235 (TD feet) - 179.55 (WL feet)) X 4^2 (D inches) X 3 (# Vols) X 0.0408 = 108.59 (Calculated Purge Volume) Gallons

PURGE METHOD **PUMP INTAKE SETTING**

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
721	179.55	0	5.27	88.2	17.1	10.44	18.6	312	Clear, no odor
743	179.55	22	5.48	79.7	3.64	10.45	19.2	244	Clear, no odor
805	179.55	44	5.89	82.0	0.05	10.72	19.4	245	Clear, no odor
827	179.55	66	6.15	82.5	1.12	10.34	20.1	255	Clear, no odor
849	179.55	88	6.33	83.5	-0.45	10.43	20.9	290	Clear, no odor
911	179.55	110	6.22	84.9	-0.68	10.64	21.2	284	Clear, no odor

Total Purge Volume: 110 (Gallons)

Total Discharge: 3.04 (Casing Volumes)

Approx. Purge Rate: 1.00 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 708 Purge time start: 721

' – ' DO meter not operational for first three measurements

RECHARGE BEHAVIOR: **X** Fast recharging
□ Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-13	Sample ID: DUPE- 6 -4Q07	Type: _____	Type: _____
Sample Time: 912	Sample Time: ----------	Sample ID: _____	Sample ID: _____
No. of Containers: 6	No. of Containers: 6	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 15

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73805
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 12/10/07
Weather: sunny and clear

PURGE VOLUME CALCULATION (casing volume):

(74 TD (feet) - 33.24 WL (feet)) X 4^2 D (inches) X 3 # Vols X 0.0408 = 79.82 Calculated Purge Volume Gallons

PURGE METHOD **PUMP INTAKE SETTING**

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
940	33.24	0	4.93	69.2	3.14	12.00	16.8	214	Clear, no odor
948	33.24	16	5.13	69.2	1.02	11.03	16.7	202	Clear, no odor
956	33.24	32	5.37	69.4	0.72	11.76	17.3	232	Clear, no odor
1004	33.24	48	5.57	698	0.21	11.65	17.0	214	Clear, no odor
1012	33.24	64	5.69	69.4	-0.15	12.37	16.8	231	Clear, no odor
1020	33.24	80	5.89	68.7	-0.51	9.73	15.9	173	Clear, no odor

Total Purge Volume: 80 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 2.00 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 928 Purge time start: 940

RECHARGE BEHAVIOR: **X** Fast recharging
□ Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-15	Sample ID:	Type:	Type:
Sample Time: 1020	Sample Time:	Sample ID:	Sample ID:
No. of Containers: 12 (MS/MSD)	No. of Containers:	Sample Time:	Sample Time:
		No. of Containers:	No. of Containers:

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # 16

GEOFON INCORPORATED
22632 Golden Springs Dr., Suite 270
Diamond Bar, CA 91765
Telephone: (909) 396-7662
Fax: (909) 396-1455

Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
Project No: 4-73805
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 11/28/07
Weather: partly cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(285 (TD feet) - 234.33 (WL feet)) X 4^2 (D inches) X 3 (# Vols) X 0.0408 = 99.23 (Calculated Purge Volume) Gallons

PURGE METHOD **PUMP INTAKE SETTING**

☐ Bailer – Type: _____ **X** Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (º C)	ORP (mV)	Comments
1050	234.33	0	6.55	57.3	6.46	9.95	23.8	337	Clear, no odor
1104	234.33	20	6.61	56.3	0	9.66	22.9	288	Clear, no odor
1118	234.33	40	6.77	55.3	-0.07	9.88	22.7	305	Clear, no odor
1132	234.33	60	6.70	55.8	-0.51	9.57	22.7	306	Clear, no odor
1146	234.33	80	6.87	55.9	-0.21	9.43	23.0	287	Clear, no odor
1200	234.33	100	6.77	56.1	-0.61	9.48	22.3	286	Clear, no odor

Total Purge Volume: 100 (Gallons)

Total Discharge: 3.02 (Casing Volumes)

Approx. Purge Rate: 1.50 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 1024 Purge time start: 1050

RECHARGE BEHAVIOR:
X Fast recharging
□ Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank
Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-16	Sample ID: DUPE- 5 -4Q07	Type: _____	Type: _____
Sample Time: 1200	Sample Time: ----------	Sample ID: _____	Sample ID: _____
No. of Containers: 6	No. of Containers: 6	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-3
Sampling Zone No.: 5 TO 1
Depth (ft): 653, 558, 346, 252, 172
Beginning of Session: 14.12 psia
End of Session: 14.15 psia

Start Time: 713
Finish Time: 1025

Date: 11/8/07
Page: 1 of 1

Water Pressure Inside Casing: —

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	250.46	✓	249.31	✓	249.30	✓	✓	250.44	740	5.37	1.48	48.7	12.46	15.7	97
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	209.11	✓	208.23	✓	208.22	✓	✓	209.02	913	6.04	0.87	37.7	12.06	15.6	90
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	116.54	✓	118.92	✓	118.90	✓	✓	116.63	840	6.01	0.41	37.8	11.56	15.7	107
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	116.54	✓	118.90	✓	118.91	✓	✓	116.61	—	6.34	0.39	38.0	11.72	16.2	91
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	76.23	✓	77.74	✓	77.74	✓	✓	76.18	934	6.46	6.85	45.4	10.55	15.4	144
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	41.36	✓	42.00	✓	43.00	✓	✓	41.34	1011	6.66	3.96	50.1	11.36	16.0	161

DUPE (3)

Notes:

port 5: CLEAR, STRONG ODOR port 4: CLEAR, STRONG ODOR port 3: CLEAR FAINT ODOR

port 2: CLEAR, NO ODOR port 1: CLEAR, NO ODOR

Total Volume: —

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-4
Sampling Zone No.: 5 TO 1
Depth (ft): 513, 392, 322, 240, 150
Beginning of Session: 14.10 psia
End of Session: 14.11 psia

Start Time: 710
Finish Time: 1000

Date: 11/14/07
Page: 1 of 1

Water Pressure Inside Casing: —

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe In	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	147.80	✓	199.74	✓	199.76	✓	✓	147.78	738	5.36	5.30	42.2	12.74	17.5	217
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	95.03	✓	147.35	✓	147.35	✓	✓	95.01	805	<30	1.38	47.9	12.42	18.8	145
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	64.46	✓	117.24	✓	117.24	✓	✓	64.48	840	6.17	12.5	58.1	13.62	22.0	184
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	29.19	✓	81.54	✓	81.54	✓	✓	29.20	910	6.41	0.37	0.1	16.85	22.3	201
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.18	✓	43.20	✓	42.16	✓	✓	14.24	945	6.79	8.90	66.5	16.24	23.1	189

Notes:
port 5: CLEAR, FAINT ODOR port 4: CLEAR, NO ODOR port 3: YELLOWISH COLOR, PETROLEUM ODOR
port 2: CLEAR, NO ODOR port 1: CLEAR, NO ODOR

Total Volume: —

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-11
Sampling Zone No.: 5 to 1
Depth (ft): 639, 524, 429, 259, 149
Beginning of Session: 14.03 psia
End of Session: 14.07 psia

Start Time: 730
Finish Time: 1105

Date: 11/14/07
Page: 1 of 1

Water Pressure Inside Casing: —

		Surface Function Checks							Position Sampler		Sample Collection Checks								Water Quality Parameters							
Port #	Run #	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe In	Arm In	Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	240.70	✓	225.70	✓	225.63	✓	✓	240.73	815	5.57	28.0	38.2	14.05	19.9	185	
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	192.86	✓	184.01	✓	183.85	✓	✓	191.95	902	6.01	1.25	25.8	13.88	21.4	147	
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	151.93	✓	141.04	✓	149.90	✓	✓	157.96	932	5.72	0.96	46.2	13.29	22.3	178	
DUPE 2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	77.13	✓	68.23	✓	68.20	✓	✓	77.15	1000	5.86	-0.40	52.6	14.83	22.9	194	DUPE
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	77.07	✓	68.23	✓	68.21	✓	✓	77.11	—	7.07	-0.68	51.7	15.61	21.4	107	
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	31.21	✓	28.10	✓	28.07	✓	✓	31.23	1105	7.18	-0.38	64.1	14.87	24.3	162	

Notes:

port 5: CLEAR, FAINT ODOR port 4: CLEAR, STRONG ODOR port 3: CLEAR, STRONG ODOR

port 2: CLEAR, NO ODOR port 1: CLEAR, FAINT ODOR

Total Volume: —

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-12
Sampling Zone No.: 5 to 1
Depth (ft): 548, 436, 323, 243, 140
Beginning of Session: 14.10 psia
End of Session: 14.12 psia

Start Time: 711
Finish Time: 1015

Date: 11/13/07
Page: 1 of 1

Water Pressure Inside Casing: ——

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	208.32	✓	203.79	✓	203.74	✓	✓	208.36	730	5.35	2.11	46.5	15.46	17.9	150
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	159.39	✓	158.21	✓	158.07	✓	✓	159.40	811	5.50	-1.37	53.1	15.90	19.9	128
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	110.12	✓	109.33	✓	109.33	✓	✓	110.17	840	5.83	-0.69	50.7	16.70	21.3	134
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	75.21	✓	74.77	✓	74.81	✓	✓	75.24	910	5.99	-1.03	58.3	16.11	21.9	95
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	30.76	✓	31.27	✓	31.27	✓	✓	30.78	949	6.43	0.66	66.6	18.72	22.3	164
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	30.74	✓	31.26	✓	31.26	✓	✓	30.70	—	—	—	—	—	—	—

MS/MSD

MS/MSD

Notes:
port 5: CLEAR, NO ODOR port 4: CLEAR, FAINT ODOR port 3: CLEAR, FAINT ODOR
port 2: CLEAR, FAINT ODOR port 1: CLEAR NO ODOR

Total Volume: ——

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-14
Sampling Zone No.: 5 to 1
Depth (ft): 540, 456, 382, 277, 207
Beginning of Session: 14.07 psia
End of Session: 14.08 psia

Start Time: 720
Finish Time: 1025

Date: 10/16/07
Page: 1 of 1

Water Pressure Inside Casing: ——

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	192.66	✓	179.54	✓	179.51	✓	✓	192.61	748	5.53	1.16	38.0	9.38	15.6	189
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	155.97	✓	143.17	✓	143.16	✓	✓	155.98	821	5.66	0.17	61.8	13.15	16.3	164
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	123.67	✓	111.09	✓	111.08	✓	✓	123.67	851	5.83	1.54	0.1	12.07	17.9	269
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	77.86	✓	65.62	✓	65.62	✓	✓	77.87	922	6.02	6.08	0.092	10.67	18.9	305
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	47.81	✓	36.01	✓	36.02	✓	✓	47.79	957	6.12	13.8	0.1	11.35	18.9	275
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	47.77	✓	36.02	✓	36.03	✓	✓	47.77	—	—	—	—	—	—	—

os/MSD < >

Notes:
port 5: CLEAR, SLIGHT ODOR port 4: CLEAR, NO ODOR port 3: CLEAR, NO ODOR
port 2: CLEAR, NO ODOR port 1: CLEAR, NO ODOR

Total Volume: ——

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-17
Sampling Zone No.: 5 to 1
Depth (ft): 726, 582, 468, 370, 250
Beginning of Session: 14.03 psia
End of Session: 14.03 psia

Start Time: 706
Finish Time: 1035

Date: 11/7/07
Page: 1 of 1

Water Pressure Inside Casing: ———

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	246.08	✓	240.70	✓	240.66	✓	✓	246.08	741	5.34	100	33.0	12.26	15.8	230
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	183.65	✓	175.75	✓	175.72	✓	✓	183.65	822	5.57	0.30	33.1	12.54	16.8	223
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	134.20	✓	123.86	✓	123.87	✓	✓	134.17	855	5.47	22.4	71.3	10.07	16.7	185
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	91.54	✓	85.31	✓	85.33	✓	✓	91.59	932	5.71	0.78	93.5	13.93	17.1	207
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	91.57	✓	85.29	✓	85.31	✓	✓	91.55	—	—	—	—	—	—	—
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	39.35	✓	34.21	✓	34.22	✓	✓	39.58	1027	6.11	4.79	47.7	10.96	18.3	159

MS/MSD < 2 > 2

Notes:
port 5: Cloudy, no odor port 4: Clear no odor port 3: Clear. No odor
port 2: Clear no odor port 1: Clear slight odor

Total Volume: ———

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-18
Sampling Zone No.: 5 to 1
Depth (ft): 684, 564, 424, 330, 270
Beginning of Session: 14.02 psia
End of Session: 14.06 psia

Start Time: 740
Finish Time: 1025

Date: 11-5-07
Page: 1 of 1

Water Pressure Inside Casing: ——

Port #	Run #	Surface Function Checks							Position Sampler		Sample Collection Checks								Water Quality Parameters						
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	160.51	✓	204.97	✓	204.91	✓	✓	160.48	813	5.46	0.26	33.1	12.31	15.9	174
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	108.25	✓	152.91	✓	152.90	✓	✓	108.24	845	5.71	6.77	42.6	11.34	16.2	144
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	47.24	✓	94.75	✓	94.75	✓	✓	47.25	915	5.98	-0.03	52.9	11.30	16.7	124
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.25	✓	53.33	✓	53.32	✓	✓	14.25	947	6.13	0.58	52.1	13.25	18.5	156
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.20	✓	27.08	✓	27.07	✓	✓	14.21	1022	6.37	4.89	39.0	12.52	20.4	217

Notes:

port 5: CLEAR, STRONG ODOR port 4: CLEAR, STRONG ODOR port 3: CLEAR, SLIGHT ODOR

port 2: CLEAR, NO ODOR port 1: CLEAR, NO ODOR

Total Volume: ——

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-19
Sampling Zone No.: 5+01
Depth (ft): 498, 444, 392, 314, 242
Beginning of Session: 14.09 psia
End of Session: 14.10 psia

Start Time: 725
Finish Time: 1015

Date: 11/1/67
Page: 1 of 1

Water Pressure Inside Casing: ——

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe In	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	174.83	✓	164.90	✓	164.90	✓	✓	174.81	750	5.13	1.11	82.2	14.59	14.9	214
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	151.39	✓	141.52	✓	141.51	✓	✓	151.40	820	5.61	0.14	64.0	10.69	16.1	174
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	128.77	✓	119.17	✓	119.15	✓	✓	128.76	850	5.79	2.85	70.3	14.92	17.1	174
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	94.88	✓	84.87	✓	84.87	✓	✓	94.87	922	5.92	85.8	0.1	12.21	17.0	277
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	63.79	✓	53.02	✓	53.03	✓	✓	63.79	959	6.25	1.90	37.8	15.15	17.1	167
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	63.34	✓	53.02	✓	53.02	✓	✓	63.33	—	—	—	—	—	—	—

AS/MSD < 1 >

Notes:
port 5: CLEAR, SLIGHT ODOR port 4: CLEAR, FAINT ODOR port 3: CLEAR, NO ODOR
port 2: YELLOWISH BROWN COLOR, MURKY port 1: CLEAR, NO ODOR

Total Volume: ____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-20
Sampling Zone No.: 5 to 1
Depth (ft): 900, 700, 562, 392, 230
Beginning of Session: 14.05 psia
End of Session: 14.08 psia

Start Time: 718
Finish Time: 1042

Date: 11/2/07
Page: 1 of 1

Water Pressure Inside Casing: ——

Port #	Run #	Surface Function Checks							Position Sampler		Sample Collection Checks								Water Quality Parameters						
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	331.21	✓	325.12	✓	325.12	✓	✓	331.21	750	5.59	1.36	35.5	11.99	15.5	-12
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	244.41	✓	238.10	✓	238.03	✓	✓	244.40	827	6.14	1.91	33.7	11.72	15.6	-22
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	184.56	✓	177.20	✓	177.10	✓	✓	184.54	938	6.20	1.14	59.2	11.04	18.2	119
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	110.57	✓	103.41	✓	103.38	✓	✓	110.56	1007	6.00	0.22	68.1	11.23	18.2	122
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	40.29	✓	32.43	✓	32.45	✓	✓	40.29	1036	6.11	1.58	63.0	10.99	18.5	139

Notes:

port 5: CLEAR, STRONG H_2S ODOR port 4: CLEAR, STRONG [redacted] ODOR port 3: CLEAR, SLIGHT H_2S ODOR

port 2: CLEAR, [redacted] SLIGHT ODOR port 1: CLEAR, FAINT ODOR

Total Volume: ——

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-21
Sampling Zone No.: 5 to 1
Depth (ft): 372, 310, 240, 161, 90
Beginning of Session: 14.14 psia
End of Session: 14.18 psia

Start Time: 725
Finish Time: 1015

Date: 10/30/07
Page: 1 of 1

Water Pressure Inside Casing: —

Port #	Run #	Surface Function Checks							Position Sampler	Arm out	Sample Collection Checks								Water Quality Parameters						
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe In	Arm In	Deactivate Set Arm Locate Port		Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.79	✓	153.42	✓	153.39	✓	✓	129.77	751	5.28	0.84	9.24	10.86	15.3	251
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	102.72	✓	126.55	✓	126.55	✓	✓	102.72	832	5.68	1.96	82.7	10.42	15.0	150
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	72.64	✓	96.63	✓	96.62	✓	✓	72.63	905	5.71	1.26	0.1	11.23	16.5	174
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	38.67	✓	62.36	✓	62.34	✓	✓	38.67	935	6.05	0.67	0.094	11.16	16.7	276
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.24	✓	30.88	✓	30.90	✓	✓	14.30	1010	6.32	1.15	0.1	10.54	17.3	186

Notes:

port 5: CLEAR, NO ODOR port 4: CLEAR, NO ODOR port 3: CLEAR, NO ODOR

port 2: CLEAR, NO ODOR port 1: CLEAR, NO ODOR

Total Volume: —

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-22
Sampling Zone No.: 5 TO 1
Depth (ft): 588, 467, 389, 329, 245
Beginning of Session: 14.06 psia
End of Session: 14.07 psia

Start Time: 703
Finish Time: 945

Date: 11/9/07
Page: 1 of 1

Water Pressure Inside Casing: ~

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	203.17	✓	193.40	✓	193.40	✓	✓	203.15	725	5.25	0.78	39.9	10.45	18.0	-7
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	150.74	✓	142.37	✓	142.35	✓	✓	150.73	755	5.84	0.00	40.7	10.88	17.4	154
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	116.92	✓	110.16	✓	110.15	✓	✓	116.90	827	5.53	-0.86	72.4	10.90	17.7	163
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	90.87	✓	84.02	✓	84.00	✓	✓	90.85	857	5.79	-0.47	56.9	10.79	17.5	140
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	54.20	✓	46.89	✓	46.84	✓	✓	54.16	931	6.16	12.7	0.1	10.37	17.3	243

Notes:
port 5: CLEAR, STRONG ODOR port 4: CLEAR, FAINT ODOR port 3: CLEAR, NO ODOR
port 2: CLEAR NO ODOR port 1: CLEAR, NO ODOR

Total Volume: ~

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-23
Sampling Zone No.: 5 to 1
Depth (ft): 542, 445, 319, 254, 174
Beginning of Session: 14.10 psia
End of Session: 14.13 psia

Start Time: 713
Finish Time: 1015

Date: 11/16/07
Page: 1 of 1

Water Pressure Inside Casing: —

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe In	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	205.70	✓	202.54	✓	202.45	✓	✓	205.72	748	5.30	1.48	49.4	10.19	18.5	107
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	163.68	✓	160.59	✓	162.59	✓	✓	163.66	820	6.57	0.22	39.7	9.72	19.9	126
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	109.18	✓	107.40	✓	107.41	✓	✓	109.16	853	5.95	1.11	41.1	9.78	19.4	158
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	80.94	✓	79.14	✓	79.15	✓	✓	80.94	922	5.83	-0.07	98.4	9.90	20.6	152
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	46.39	✓	44.57	✓	44.56	✓	✓	46.40	1000	6.12	2.98	8.096	10.88	21.0	309

Notes:
port 5: CLEAR, STRONG ODOR port 4: CLEAR, NO ODOR port 3: CLEAR, NO ODOR
port 2: CLEAR, NO ODOR port 1: CLEAR, NO ODOR

Total Volume: —

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-24
Sampling Zone No.: 5 to 1
Depth (ft): 678, 554, 435, 373, 279
Beginning of Session: 14.01 psia
End of Session: 13.99 psia

Start Time: 730
Finish Time: 1107

Date: 11/15/07
Page: 1 of 1

Water Pressure Inside Casing: ____

		Surface Function Checks							Position Sampler		Sample Collection Checks								Water Quality Parameters						
Port #	Run #	Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	236.02	✓	219.28	✓	219.30	✓	✓	236.05	800	5.26	1.07	47.9	10.62	22.3	265
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	182.30	✓	167.19	✓	167.21	✓	✓	182.31	836	5.73	0.60	32.5	10.70	22.6	89
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	130.65	✓	116.95	✓	116.95	✓	✓	130.64	908	6.01	0.98	40.4	9.60	23.2	76
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	103.69	✓	89.96	✓	89.95	✓	✓	103.72	942	5.97	3.17	57.6	9.63	24.1	117
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	63.59	✓	49.61	✓	49.59	✓	✓	63.59	1027	6.06	33.9	63.3	11.81	25.8	209
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	63.58	✓	49.62	✓	49.62	✓	✓	63.57	—	6.47	21.4	63.4	11.09	23.7	154

DUPE (port 1, run 1) — DUPE (port 1, run 2)

Notes:

port 5: CLEAR, NO ODOR port 4: CLEAR, STRONG ODOR port 3: CLEAR STRONG ODOR

port 2: CLEAR, STRONG ODOR port 1: CLEAR STRONG ODOR

Total Volume: ____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-25
Sampling Zone No.: 5 TO 1
Depth (ft): 713, 633, 503, 423, 358
Beginning of Session: 14.17 psia
End of Session: 14.20 psia

Start Time: 0732
Finish Time: 1030

Date: 11/19/07
Page: 1 of 1

Water Pressure Inside Casing: ____

Port #	Run #	Surface Function Checks: Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Position Sampler: Deactivate Set Arm Locate Port	Arm out	Sample Collection Checks: Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Water Quality Parameters: Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	208.73	✓	208.35	✓	208.32	✓	✓	208.89	804	4.94	0.27	44.8	10.41	16.8	26
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	174.19	✓	175.38	✓	175.36	✓	✓	174.10	840	5.11	-0.08	72.5	11.07	18.3	159
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	117.67	✓	121.01	✓	121.00	✓	✓	117.71	915	5.27	0.19	72.7	10.54	18.5	152
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	82.92	✓	87.52	✓	87.52	✓	✓	82.90	950	5:50	-0.10	76.0	10.76	20.0	179
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	54.03	✓	59.86	✓	59.89	✓	✓	55.06	1028	5.77	30.7	97.1	10.55	20.8	204

Notes:

port 5: CLEAR, STRONG ODOR port 4: CLEAR, FAINT ODOR port 3: CLEAR, NO ODOR

port 2 CLEAR, NO ODOR. port 1: CLEAR NO ODOR

Total Volume: ____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-26
Sampling Zone No.: 2 to 1
Depth (ft): 215, 135
Beginning of Session: 14.12 psia
End of Session: 14.09 psia

Start Time: 0707
Finish Time: 0815

Date: 11/20/07
Page: 1 of 1

Water Pressure Inside Casing: —

Port #	Run #	Function Checks							Position Sampler	Sample Collection Checks									Water Quality Parameters							
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm in	Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	72.49	✓	72.51	✓	72.51	✓	✓	72.49	729	5.19	6.91	52.7	10.63	15.5	248
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	37.98	✓	36.51	✓	36.50	✓	✓	37.93	805	5.36	-0.51	95.6	10.31	15.4	190

Notes:

Total Volume: —

port 2: CLEAR, NO ODOR port 1: CLEAR NO ODOR

ATTACHMENT 5: WATER LEVEL MEASUREMENTS

This attachment contains water level measurements for the Westbay™ multiport JPL monitoring wells obtained during the 4th quarter of 2007. Water level measurements were recorded before the sampling event on October 29, 2007, and after the sampling event on December 11, 2007. Water levels in the shallow wells were measured using a Solinst™ water level meter and the results are provided with the field logs (Attachment 4). In the deep multiport wells, the hydraulic head at each sampling port was measured with a Westbay™ pressure-transducer probe. Water level measurements were conducted by Insight Environmental, Inc.

GEOFON, Inc.
Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name:	JPL Pasadena	Well ID:	MW-3
Project No:	4-73803	Probe Type:	Westbay
Date:	10/29/07	Serial No.:	2508
Personnel:	Marco Mendoza, Chase Brogdon		
Datum:	TOC	Casing Size/Type:	1.5" Westbay
	Elevation of Datum (ft. + MSL):	1,100.34	
Weather:	partly cloudy and cool		

Ambient Readings	Start	Finish
Time	958	1016
Pressure (psia)	14.16	14.15
Temperature (°C)	17.91	15.55

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	653	248.17	251.57	248.16	21.99	1004		
							105.30	995.04
4	558	206.92	210.47	206.92	22.39	1005		
							105.11	995.23
3	346	114.72	119.93	114.65	21.84	1007		
							101.99	998.35
2	252	73.86	78.81	73.88	20.85	1008		
							102.85	997.49
1	172	39.16	43.78	39.16	15.80	1014		
							103.67	996.67

GEOFON, Inc.
Piezometric Pressures/Levels
Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 10/29/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (ft. +MSL): 1,082.84
Weather: partly cloudy and cool

Well ID: MW-4
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	1316	1427
Pressure (psia)	14.17	14.18
Temperature (°C)	19.17	19.28

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	513	144.34	200.87	144.35	0.75	1318		
							82.28	1000.56
4	392	91.73	148.44	91.67	21.24	1320		
							82.24	1000.60
3	322	61.29	118.22	61.36	21.05	1322		
							81.96	1000.88
2	240	25.64	82.50	25.69	20.68	1324		
							82.36	1000.48
1	150	14.25	43.60	14.25	19.89	1325		
							82.10	1000.74

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 10/29/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Well ID: MW-11
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay
Elevation of Datum (Ft. + MSL): 1,139.30
Weather: partly cloudy and cool

Ambient Readings	Start	Finish
Time	937	949
Pressure (psia)	14.13	14.11
Temperature (°C)	20.11	17.84

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	639	238.40	227.77	238.41	21.11	941		
							146.13	993.17
4	524	188.86	184.90	188.86	21.22	943		
							130.03	1009.27
3	429	147.96	141.87	147.95	20.61	944		
							134.30	1005.00
2	259	74.43	68.90	74.39	19.46	946		
							132.65	1006.65
1	149	27.09	28.19	27.07	18.34	947		
							116.56	1022.74

GEOFON, Inc.
Piezometric Pressures/Levels
Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena | Well ID: MW-12
Project No: 4-73803 | Probe Type: Westbay
Date: 10/29/07 | Serial No.: 2508
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC | Casing Size/Type: 1.5" Westbay
Elevation of Datum (Ft. + MSL): 1,102.14
Weather: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1300	1310
Pressure (psia)	14.14	14.14
Temperature (°C)	20.90	18.01

Screen No.	Depth (Ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	548	204.92	206.03	204.97	20.60	1303		
							105.31	996.83
4	436	156.35	159.46	156.29	20.95	1305		
							100.75	1001.39
3	323	107.17	110.32	107.12	20.08	1306		
							101.11	1001.03
2	243	72.25	75.66	72.28	19.32	1307		
							101.07	1001.07
1	140	27.42	31.67	27.42	18.46	1308		
							99.56	1002.58

GEOFON, Inc.
Piezometric Pressures/Levels
Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 10/29/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,173.47
Weather: partly cloudy and cool

Well ID: MW-14
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	745	809
Pressure (psia)	14.07	14.12
Temperature (°C)	18.48	18.93

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	540	189.37	179.78	189.42	21.18	757		
							157.71	1015.76
4	456	152.82	143.41	152.78	20.88	759		
							157.61	1015.86
3	382	120.66	111.33	120.62	20.29	801		
							157.62	1015.85
2	277	74.95	65.85	74.94	19.69	803		
							157.54	1015.93
1	207	44.45	36.22	44.47	19.20	805		
							155.90	1017.57

GEOFON, Inc.
Piezometric Pressures/Levels
Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 10/29/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,191.21
Weather: partly cloudy and cool

Well ID: MW-17
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	1101	1111
Pressure (psia)	14.09	14.06
Temperature (°C)	17.06	15.65

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	726	244.71	242.49	244.73	18.23	1105		
							199.08	992.13
4	582	182.37	180.08	182.34	190.00	1106		
							199.06	992.15
3	468	132.85	129.55	132.91	18.33	1108		
							201.63	989.58
2	370	90.35	88.17	90.35	17.57	1109		
							199.10	992.11
1	250	38.24	34.90	38.22	16.43	1110		
							201.99	989.22

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 10/29/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Well ID: MW-18
Probe Type: Westbay
Serial No.:
Casing Size/Type: 1.5" Westbay
Elevation of Datum (Ft. + MSL): 1,225.41
Note: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1121	1131
Pressure (psia)	14.09	14.11
Temperature (°C)	17.60	16.68

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	684	157.24	207.80	157.24	19.32	1124		
							237.11	988.30
4	564	105.12	156.43	105.12	20.04	1125		
							235.62	989.79
3	424	44.24	96.47	44.22	19.30	1127		
							233.95	991.46
2	330	14.26	53.86	14.26	18.02	1128		
							238.25	987.16
1	270	14.21	27.18	14.25	17.16	1130		
							239.80	985.61

GEOFON, Inc.
Piezometric Pressures/Levels
Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 10/29/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (ft. +MSL): 1,142.94
Weather: partly cloudy and cool

Well ID: MW-19
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	1044	1054
Pressure (psia)	14.15	14.13
Temperature (°C)	18.48	16.68

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	498	173.48	164.79	173.49	18.71	1048		
							150.47	992.47
4	444	150.50	141.41	150.02	18.88	1049		
							150.41	992.53
3	392	127.48	119.07	127.46	18.85	1050		
							149.95	992.99
2	314	93.64	84.79	93.65	18.69	1051		
							151.03	991.91
1	242	62.44	52.99	62.40	17.85	1052		
							152.40	990.54

GEOFON, Inc.
Piezometric Pressures/Levels
Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 10/29/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,165.05
Weather: partly cloudy and cool

Well ID: MW-20
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	1142	1158
Pressure (psia)	14.13	14.15
Temperature (°C)	17.94	17.29

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	900	329.78	325.26	329.75	21.44	1147		
							182.22	982.83
4	700	243.05	239.00	243.08	21.98	1151		
							181.22	983.83
3	562	183.24	178.35	183.25	20.40	1153		
							183.14	981.91
2	392	109.50	103.76	109.53	19.26	1155		
							185.22	979.83
1	230	39.18	32.74	39.19	17.68	1156		
							187.07	977.98

GEOFON, Inc.
Piezometric Pressures/Levels
Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 10/29/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: partly cloudy and cool

Well ID: MW-21
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay
Elevation of Datum (Ft. + MSL): 1,059.10

Ambient Readings	Start	Finish
Time	820	833
Pressure (psia)	14.19	14.16
Temperature (°C)	18.47	18.64

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	372	126.63	153.40	126.66	19.72	824		
							50.84	1008.26
4	310	99.66	126.56	99.64	19.82	826		
							50.76	1008.34
3	240	69.64	96.62	69.60	19.60	828		
							49.83	1009.27
2	161	35.24	62.34	35.26	19.03	829		
							49.92	1009.18
1	90	14.22	30.87	14.19	18.67	832		
							51.52	1007.58

GEOFON, Inc.
Piezometric Pressures/Levels
Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 10/29/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: partly cloudy and cool

Well ID: MW-22
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay
Elevation of Datum (Ft. + MSL): 1,176.98

Ambient Readings	Start	Finish
Time	851	908
Pressure (psia)	14.12	14.09
Temperature (°C)	18.26	20.00

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	588	201.81	194.45	201.79	21.13	855		
							171.98	1005.00
4	467	149.42	143.17	149.40	21.27	902		
							169.28	1007.70
3	389	115.61	110.59	115.61	21.19	904		
							166.44	1010.54
2	329	89.60	84.45	89.60	20.92	905		
							166.75	1010.23
1	245	52.71	47.07	52.70	20.47	906		
							168.98	1008.00

GEOFON, Inc.
Piezometric Pressures/Levels
Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 10/29/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,108.84
Weather: partly cloudy and cool

Well ID: MW-23
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	710	734
Pressure (psia)	14.15	14.17
Temperature (°C)	19.58	19.27

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	542	204.38	203.59	204.38	21.02	714		
							104.96	1003.88
4	445	162.37	161.67	162.37	21.30	717		
							104.67	1004.17
3	319	107.80	108.11	107.79	20.41	723		
							102.23	1006.61
2	254	79.59	79.81	79.60	19.75	727		
							102.52	1006.32
1	174	44.84	44.93	44.88	19.36	731		
							102.99	1005.85

GEOFON, Inc.
Piezometric Pressures/Levels
Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 10/29/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,200.94
Weather: partly cloudy and cool

Well ID: MW-24
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	915	928
Pressure (psia)	14.11	14.12
Temperature (°C)	19.65	20.62

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	678	234.53	220.97	234.61	21.24	919		
							200.77	1000.17
4	554	180.99	168.44	181.06	21.61	921		
							197.96	1002.98
3	435	129.46	117.72	129.41	21.50	922		
							195.97	1004.97
2	373	102.56	90.66	102.56	21.40	923		
							196.40	1004.54
1	279	61.86	49.93	61.83	20.85	926		
							196.36	1004.58

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 10/29/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: partly cloudy and cool

Well ID: MW-25
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. + MSL): 934.52

Ambient Readings	Start	Finish
Time	1212	1231
Pressure (psia)	14.26	14.25
Temperature (°C)	19.46	19.72

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	713	205.48	208.30	205.46	22.04	1220		
							265.35	669.17
4	633	171.05	175.34	171.03	21.91	1223		
							261.39	673.13
3	503	114.79	120.96	114.78	20.87	1226		
							256.84	677.68
2	423	80.06	87.45	80.02	20.80	1228		
							254.15	680.37
1	358	51.76	59.83	51.76	20.18	1229		
							252.87	681.65

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 10/29/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: partly cloudy and cool

Well ID: MW-26
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. + MSL): 1,059.08

Ambient Readings	Start	Finish
Time	1243	1248
Pressure (psia)	14.18	14.19
Temperature (°C)	21.15	19.16

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
2	215	73.53	7.57					
				73.54	20.46	1245		
							230.25	828.83
1	135	39.13	36.88					
				39.03	19.97	12.47		
							82.63	976.45

GEOFON, Inc.
Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 12/11/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: partly cloudy and cool

Well ID: MW-3
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. + MSL): 1,100.34

Ambient Readings	Start	Finish
Time	933	957
Pressure (psia)	14.07	14.11
Temperature (°C)	17.81	15.69

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	653	246.80	249.27	246.81	21.90	935		
							110.39	989.95
4	558	205.53	208.17	205.53	22.36	939		
							110.21	990.13
3	346	113.30	118.53	113.29	20.36	942		
							105.01	995.33
2	252	72.49	77.27	72.50	18.28	950		
							106.20	994.14
1	172	37.72	42.47	37.73	16.11	955		
							106.48	993.86

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 12/11/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (ft. +MSL): 1,082.84
Weather: partly cloudy and cool

Well ID: MW-4
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	1328	1340
Pressure (psia)	14.18	14.13
Temperature (°C)	17.32	19.03

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	513	144.57	199.72	144.59	21.26	1330		
							84.96	997.88
4	392	91.93	147.33	91.92	21.45	1332		
							84.82	998.02
3	322	61.47	117.19	61.47	21.12	1334		
							84.36	998.48
2	240	25.78	81.42	25.78	19.98	1336		
							84.88	997.96
1	150	14.22	58.61	14.23	19.54	1338		
							47.50	1035.34

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 12/11/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: partly cloudy and cool

Well ID: MW-11
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay
Elevation of Datum (Ft. + MSL): 1,139.30

Ambient Readings	Start	Finish
Time	904	916
Pressure (psia)	14.13	14.11
Temperature (°C)	19.58	17.51

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	639	237.87	225.81	237.82	20.06	906		
							150.65	988.65
4	524	188.35	184.06	188.34	20.69	909		
							131.97	1007.33
3	429	147.54	141.00	147.46	20.22	910		
							136.31	1002.99
2	259	73.88	68.02	73.84	18.98	913		
							134.68	1004.62
1	149	26.56	28.01	26.57	18.00	915		
							116.98	1022.32

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 12/11/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,102.14
Weather: partly cloudy and cool

Well ID: MW-12
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	1310	1324
Pressure (psia)	14.15	14.14
Temperature (°C)	18.47	17.70

Screen No.	Depth (Ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	548	205.45	203.89	205.44	20.12	1313		
							110.27	991.87
4	436	156.75	158.15	156.74	20.54	1315		
							103.79	998.35
3	323	107.48	109.12	107.52	19.77	1317		
							103.90	998.24
2	243	72.76	74.52	72.71	18.94	1319		
							103.73	998.41
1	140	27.85	31.02	27.81	18.07	1321		
							101.08	1001.06

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 12/11/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,173.47
Weather: partly cloudy and cool

Well ID: MW-14
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	723	737
Pressure (psia)	14.11	14.07
Temperature (°C)	16.88	18.95

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	540	186.91	348.08	186.88	19.55	726		
							-230.47	1403.94
4	456	150.30	338.09	150.33	20.17	729		
							-291.42	1464.89
3	382	118.05	284.36	118.13	19.99	731		
							-241.47	1414.94
2	277	72.44	232.10	72.43	19.53	733		
							-225.90	1399.37
1	207	42.01	217.88	41.96	19.19	735		
							-263.10	1436.57

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 12/11/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,191.21
Weather: partly cloudy and cool

Well ID: MW-17
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	1100	1116
Pressure (psia)	14.11	14.10
Temperature (°C)	15.87	15.35

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	726	244.54	240.36	244.53	18.05	1104		
							204.04	987.17
4	582	182.14	176.16	182.13	19.07	1108		
							208.15	983.06
3	468	132.74	123.58	132.77	18.24	1110		
							215.45	975.76
2	370	90.18	84.50	90.16	17.38	1112		
							207.61	983.60
1	250	38.03	33.05	38.03	16.20	1114		
							206.31	984.90

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 12/11/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Well ID: MW-18
Probe Type: Westbay
Serial No.:
Casing Size/Type: 1.5" Westbay
Elevation of Datum (Ft. + MSL): 1,225.41
Note: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1129	1141
Pressure (psia)	14.07	14.09
Temperature (°C)	16.57	16.50

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	684	157.44	204.45	157.43	19.59	1131		
							244.79	980.62
4	564	105.29	152.51	105.27	20.12	1133		
							244.62	980.79
3	424	44.41	93.97	44.40	18.91	1135		
							239.67	985.74
2	330	14.24	43.21	14.23	17.34	1137		
							262.77	962.64
1	270	14.17	25.82	14.18	16.83	1139		
							242.89	982.52

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 12/11/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (ft. +MSL): 1,142.94
Weather: partly cloudy and cool

Well ID: MW-19
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	1038	1050
Pressure (psia)	14.14	14.12
Temperature (°C)	16.44	16.54

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	498	173.31	162.41	173.34	17.91	1042		
							155.94	987.00
4	444	149.91	138.99	149.94	18.50	1045		
							155.97	986.97
3	392	127.33	117.34	127.45	18.58	1046		
							153.92	989.02
2	314	93.44	83.07	93.46	18.51	1047		
							154.98	987.96
1	242	62.17	51.67	62.22	17.87	1048		
							155.42	987.52

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 12/11/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: partly cloudy and cool

Well ID: MW-20
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay
Elevation of Datum (Ft. + MSL): 1,165.05

Ambient Readings	Start	Finish
Time	1153	1209
Pressure (psia)	14.11	14.09
Temperature (°C)	16.79	17.05

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	900	328.69	323.74	328.69	20.63	1156		
							185.68	979.37
4	700	241.99	235.37	241.97	21.68	1200		
							189.55	975.50
3	562	182.19	173.46	182.20	20.88	1202		
							194.38	970.67
2	392	108.53	101.22	108.50	18.70	1205		
							191.04	974.01
1	230	38.13	30.78	38.10	17.35	1207		
							191.54	973.51

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 12/11/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: partly cloudy and cool

Well ID: MW-21
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay
Elevation of Datum (Ft. + MSL): 1,059.10

Ambient Readings	Start	Finish
Time	750	80
Pressure (psia)	14.14	1.60
Temperature (°C)	16.34	1847.00

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	372	124.37	299.29	124.34	18.64	752		
							-285.84	1344.94
4	310	97.40	256.78	97.38	19.16	755		
							-249.77	1308.87
3	240	67.37	245.53	67.32	19.14	756		
							-293.82	1352.92
2	161	32.94	207.04	32.95	18.82	758		
							-284.02	1343.12
1	90	14.22	91.32	14.21	18.59	800		
							-88.05	1147.15

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 12/11/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: partly cloudy and cool

Well ID: MW-22
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay
Elevation of Datum (Ft. + MSL): 1,176.98

Ambient Readings	Start	Finish
Time	814	827
Pressure (psia)	14.08	14.11
Temperature (°C)	16.23	19.73

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	588	199.52	332.93	199.51	19.12	818		
							-147.59	1324.57
4	467	147.14	288.67	147.14	20.49	820		
							-166.48	1343.46
3	389	112.47	220.10	112.46	20.64	822		
							-86.29	1263.27
2	329	88.49	195.68	86.52	20.48	823		
							-89.95	1266.93
1	245	49.55	174.70	49.54	20.09	825		
							-125.55	1302.53

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 12/11/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: partly cloudy and cool

Well ID: MW-23
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay
Elevation of Datum (Ft. + MSL): 1,108.84

Ambient Readings	Start	Finish
Time	656	712
Pressure (psia)	14.06	14.11
Temperature (°C)	12.33	19.65

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	542	202.14	314.44	202.14	20.85	700		
							-150.98	1259.82
4	445	162.27	160.82	162.28	21.11	706		
							106.42	1002.42
3	319	107.69	107.52	107.68	20.83	708		
							103.39	1005.45
2	254	79.51	79.19	79.51	20.48	709		
							103.75	1005.09
1	174	44.77	44.35	44.79	19.99	711		
							104.12	1004.72

GEOFON, Inc.
Piezometric Pressures/Levels
Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 12/11/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,200.94
Weather: partly cloudy and cool

Well ID: MW-24
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	837	853
Pressure (psia)	14.11	14.08
Temperature (°C)	17.36	20.72

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	678	234.50	219.57	234.65	19.90	840		
							204.00	996.94
4	554	178.60	327.03	178.61	21.00	842		
							-167.91	1368.85
3	435	126.96	277.67	127.03	21.30	845		
							-173.03	1373.97
2	373	100.13	223.65	100.17	21.27	849		
							-110.41	1311.35
1	279	59.44	119.13	59.45	21.07	851		
							36.72	1164.22

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 12/11/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: partly cloudy and cool

Well ID: MW-25
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. + MSL): 934.52

Ambient Readings	Start	Finish
Time	1225	1240
Pressure (psia)	14.26	14.22
Temperature (°C)	18.83	19.67

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	713	205.27	207.19	205.28	20.77	1228		
							267.91	666.61
4	633	170.77	171.02	170.77	21.27	1230		
							271.35	663.17
3	503	114.51	118.33	114.51	20.95	1234		
							262.91	671.61
2	423	79.77	86.94	79.78	20.58	1236		
							255.33	679.19
1	358	51.52	59.96	51.51	20.18	1238		
							252.57	681.95

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 12/11/07
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: partly cloudy and cool

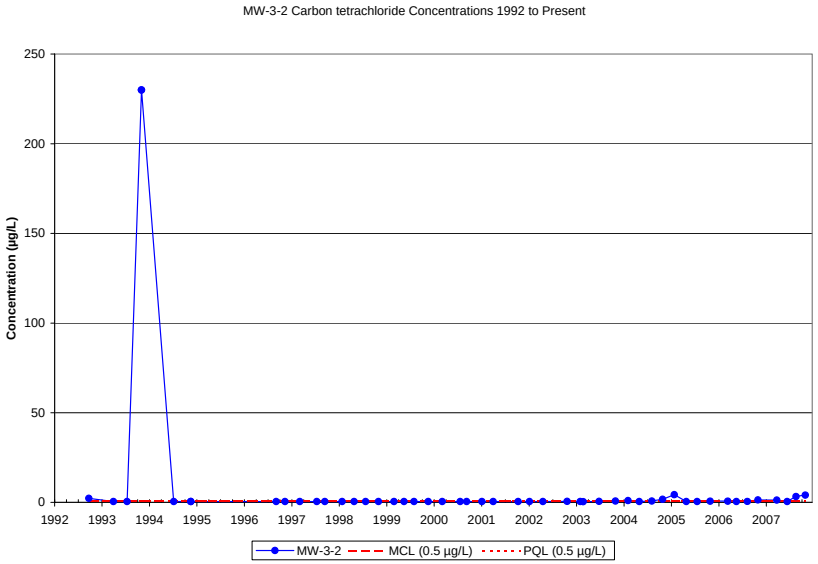
Well ID: MW-26
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay
Elevation of Datum (ft. + MSL): 1,059.08

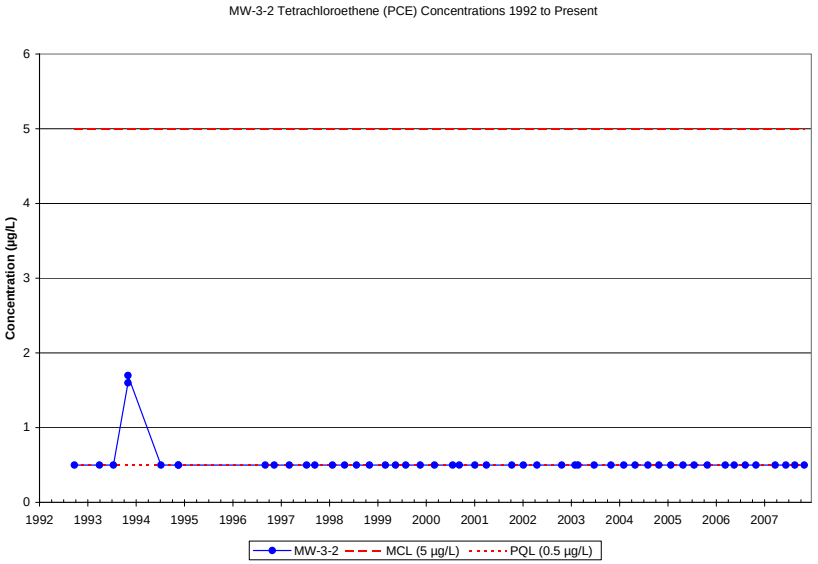
Ambient Readings	Start	Finish
Time	1254	1258
Pressure (psia)	14.17	14.21
Temperature (°C)	18.54	18.53

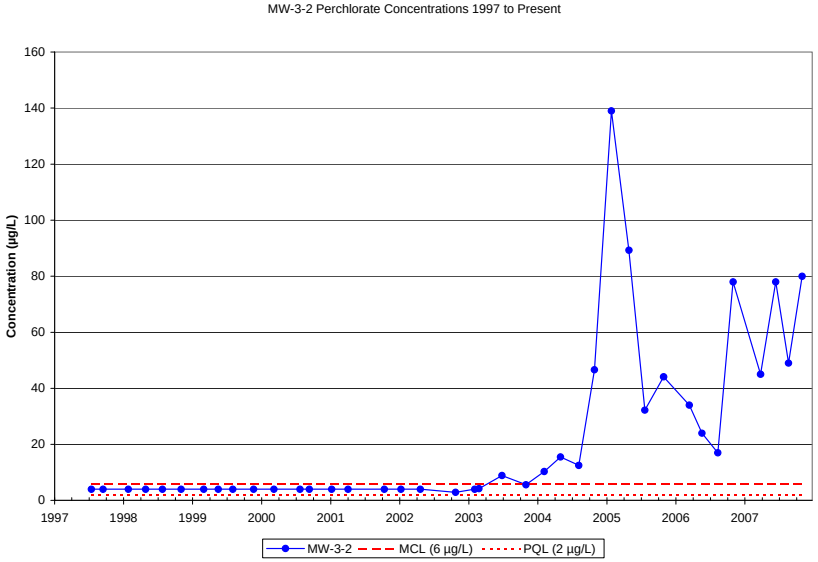
Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
2	215	72.47	72.54	72.57	18.71	1255		
							80.34	978.74
1	135	38.18	36.23	38.07	18.82	1256		
							84.11	974.97

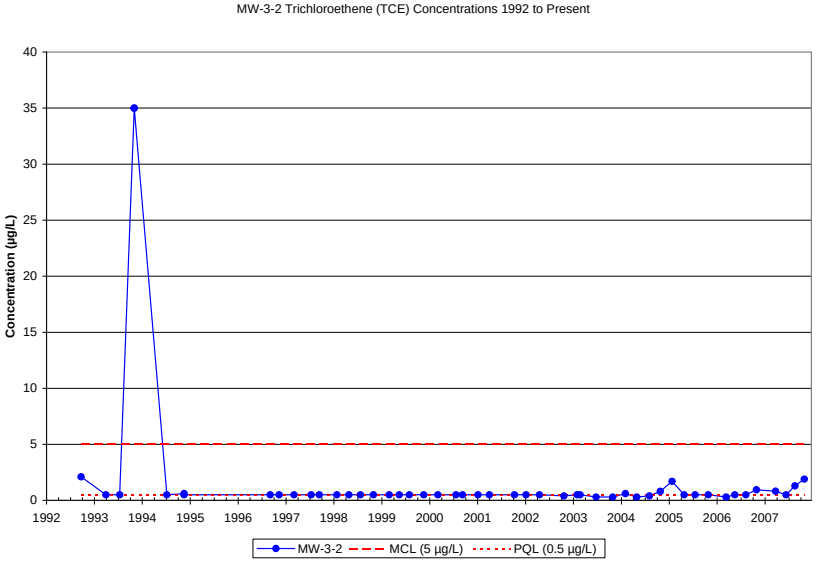
ATTACHMENT 6: TIME-SERIES CONCENTRATION PLOTS

This attachment contains time-series concentrations plots for perchlorate and VOCs in critical wells within the JPL monitoring well network. In general, critical wells have been determined based on the presence of perchlorate and VOC concentrations at levels that exceed cleanup goals or wells that are directly influenced by the operation of the OU-1 treatment system. These plots provide a graphical representation of perchlorate and VOC concentrations trends over time with respect to the cleanup goals for each chemical.

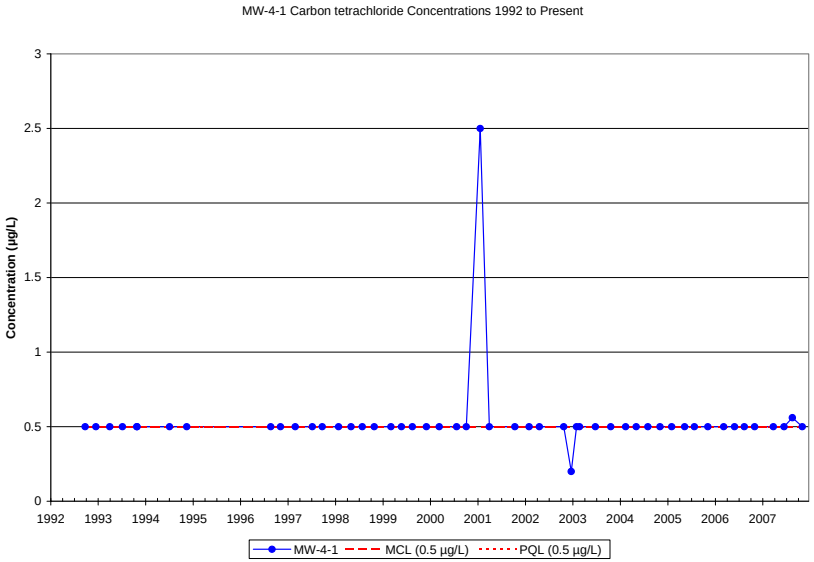


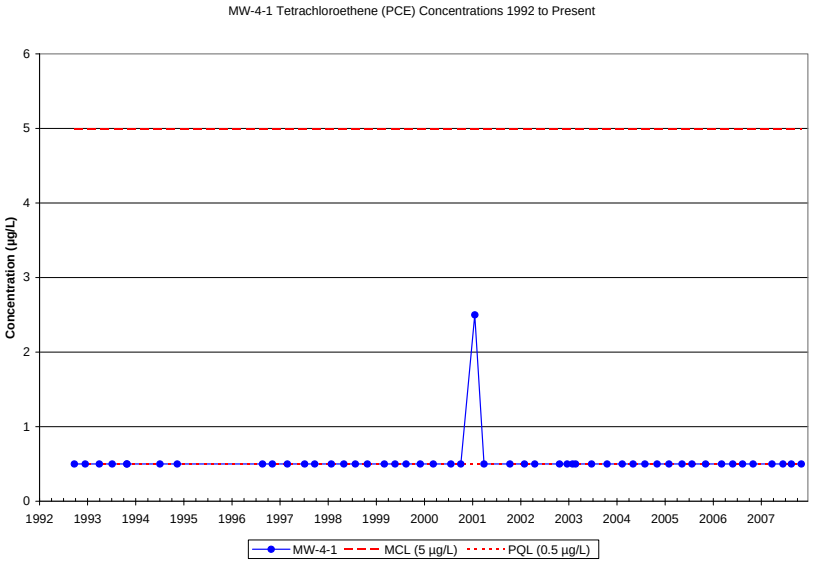


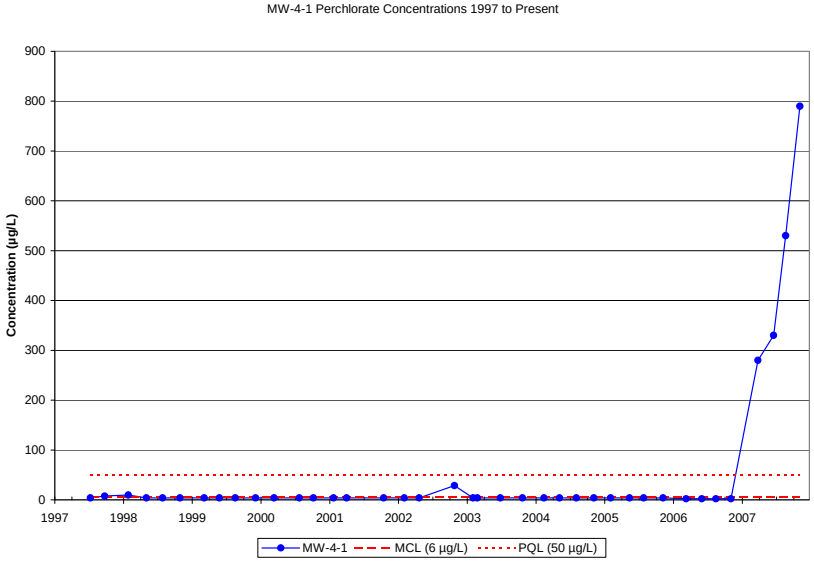


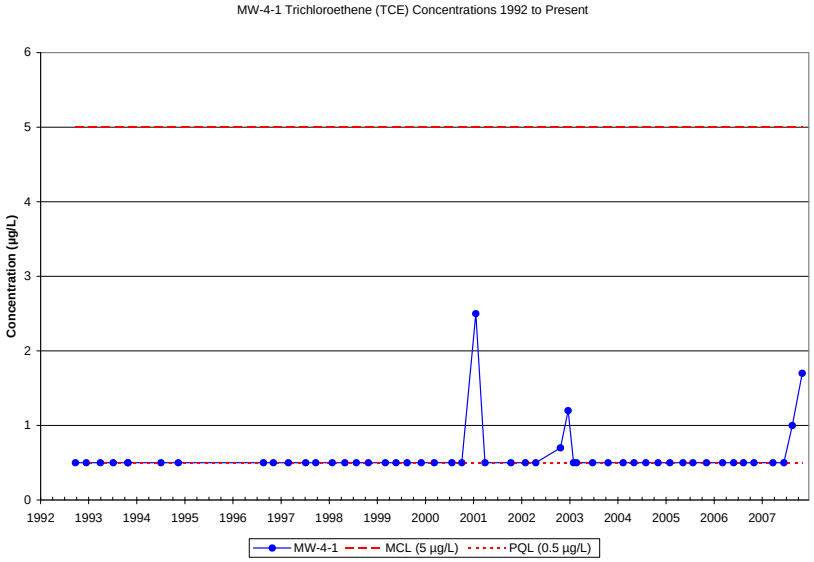


VOCs and Perchlorate Time Series Plots for MW-3-2

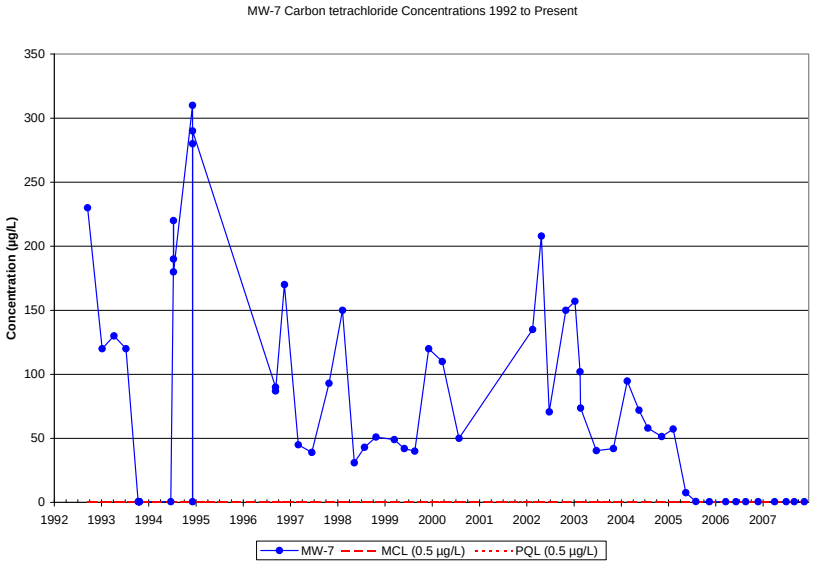


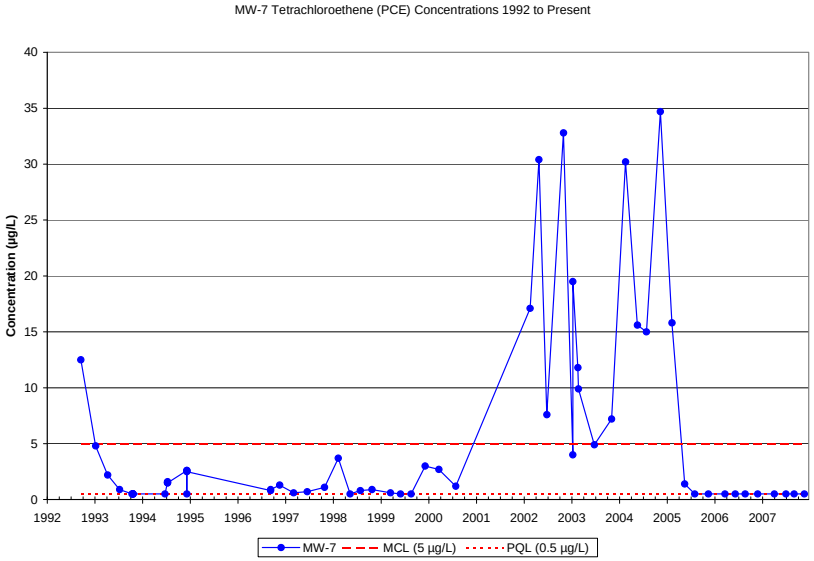


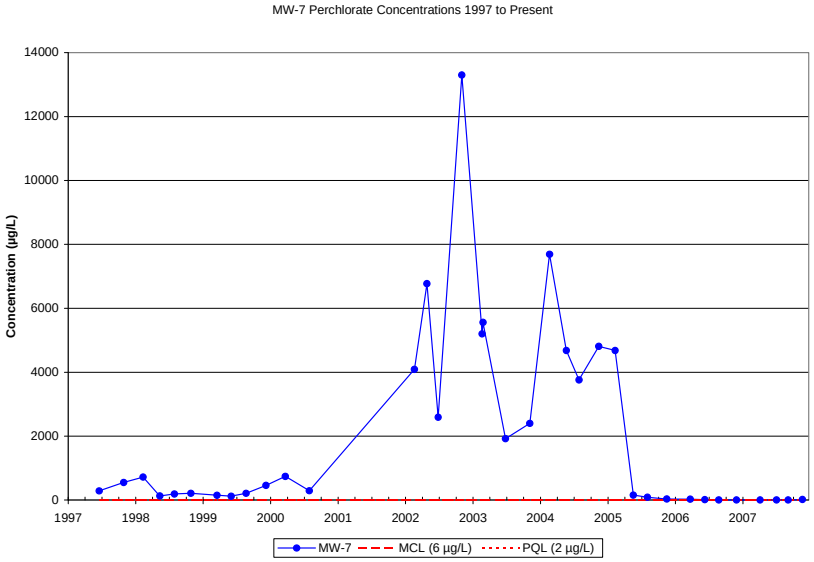


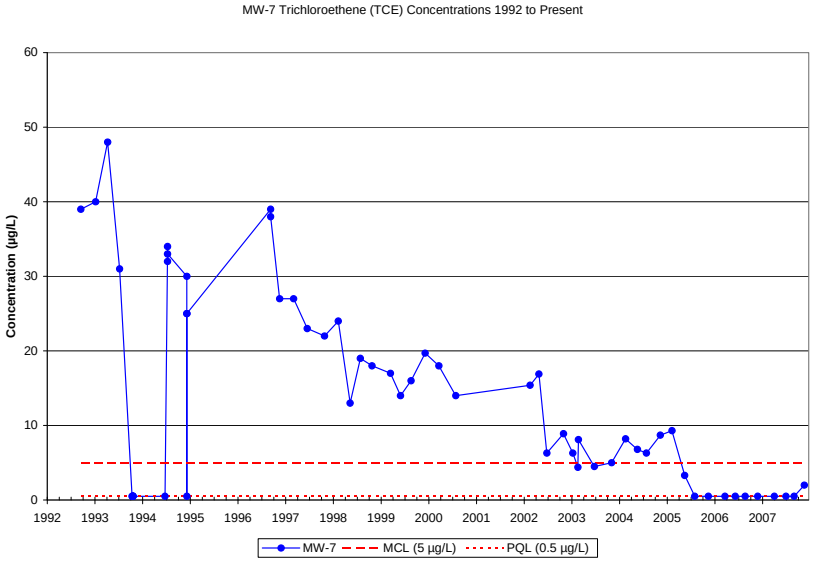


VOCs and Perchlorate Time Series Plots for MW-4-1

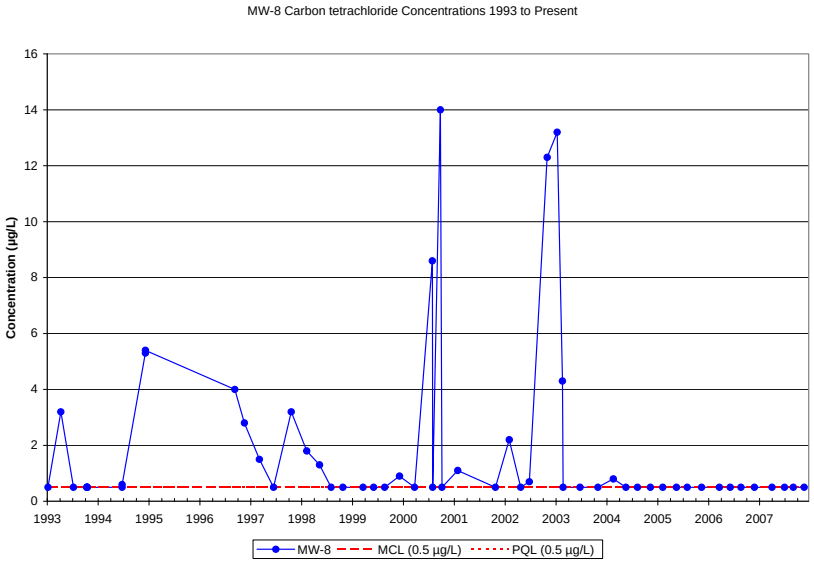


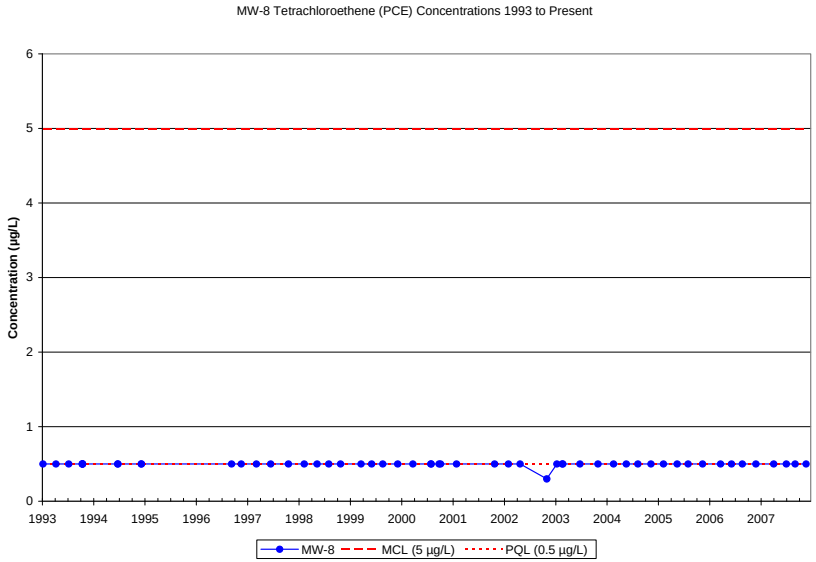


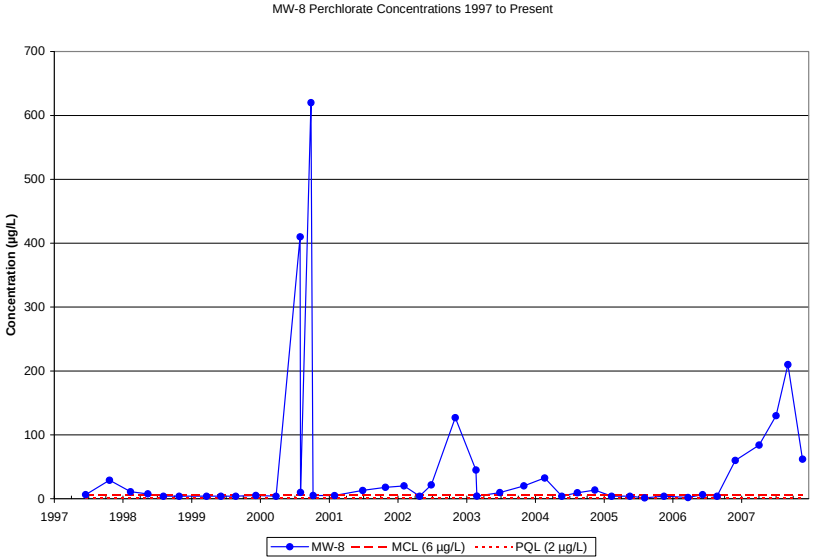


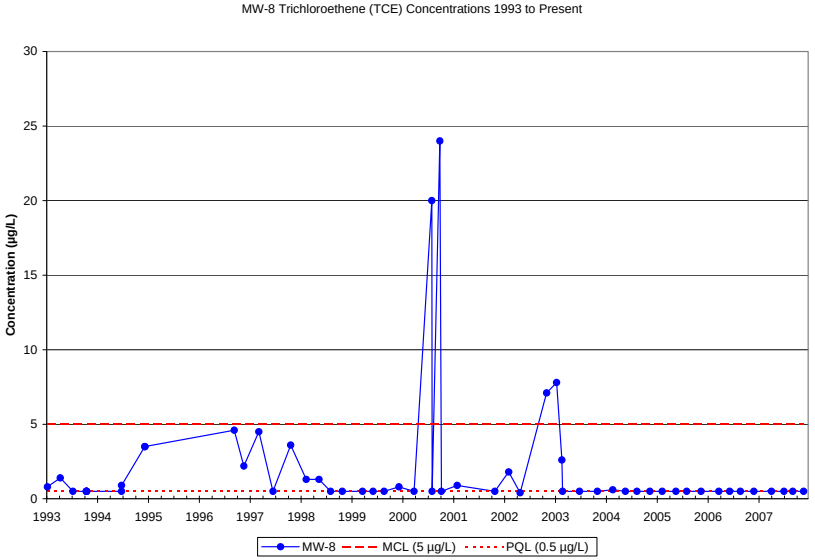


VOCs and Perchlorate Time Series Plots for MW-7

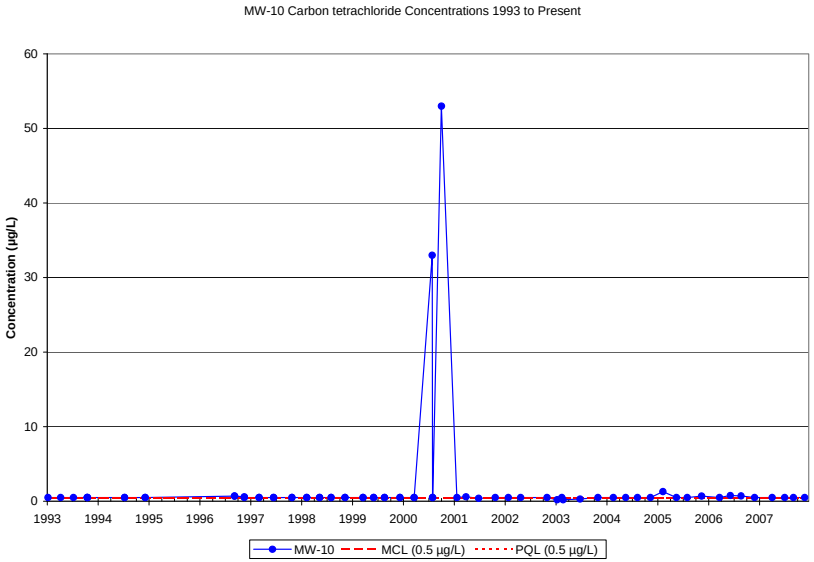


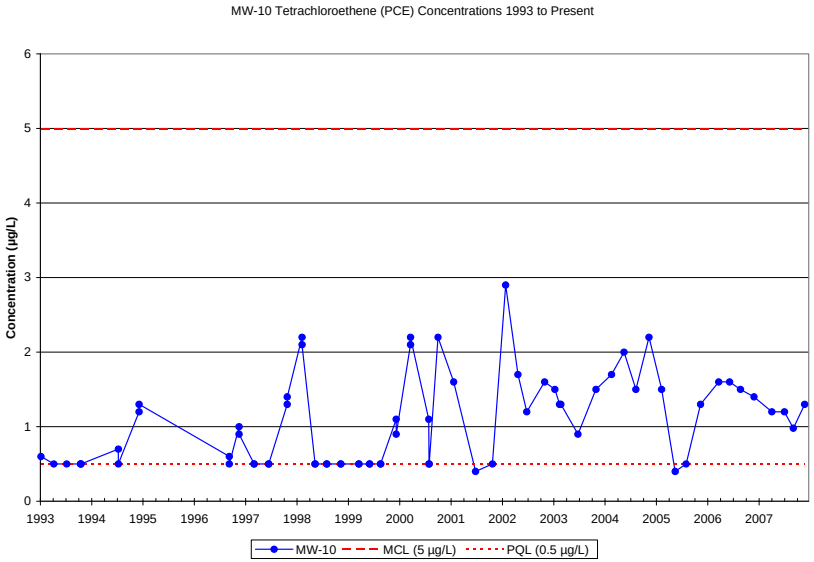


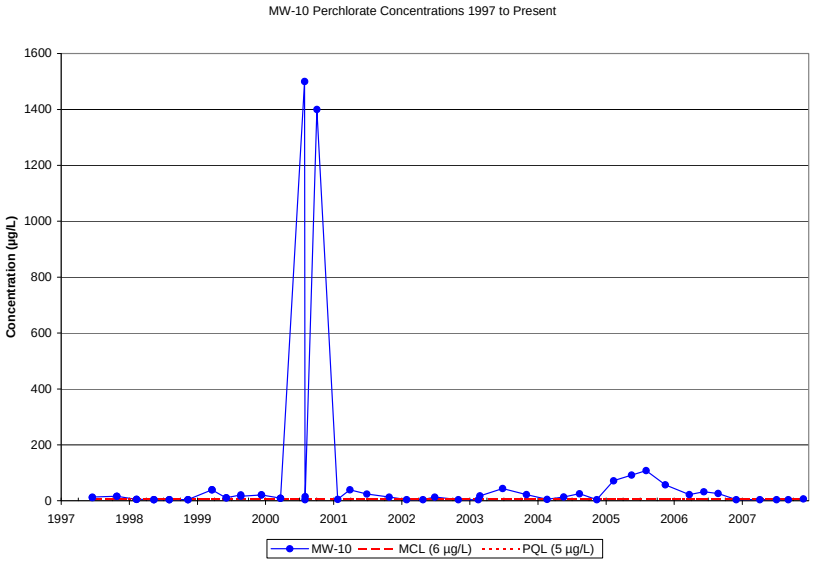


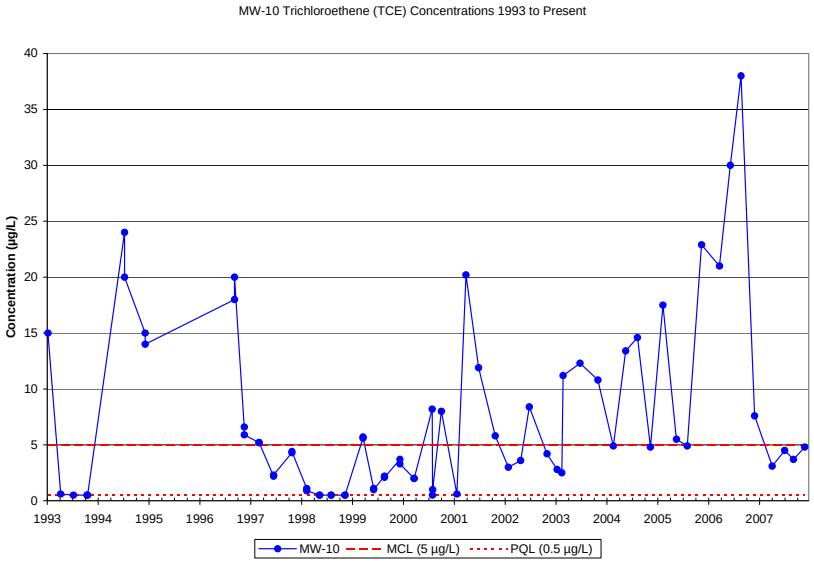


VOCs and Perchlorate Time Series Plots for MW-8

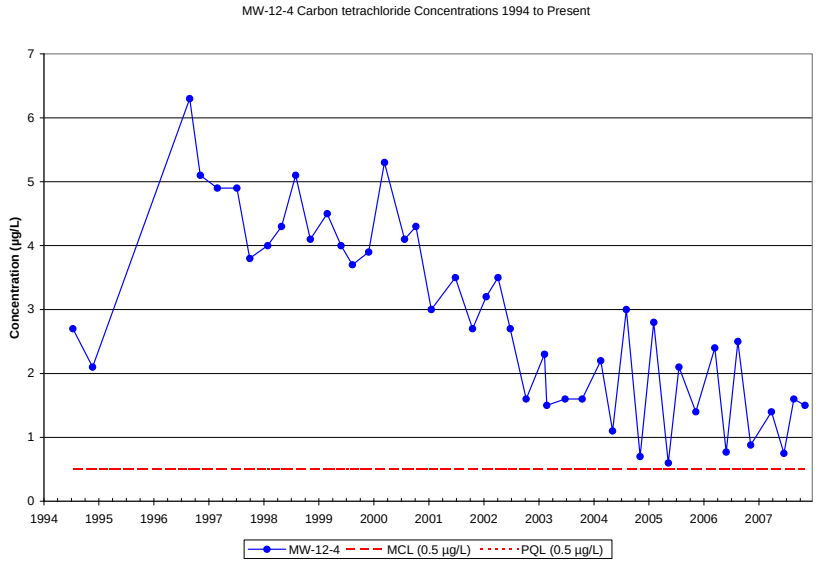


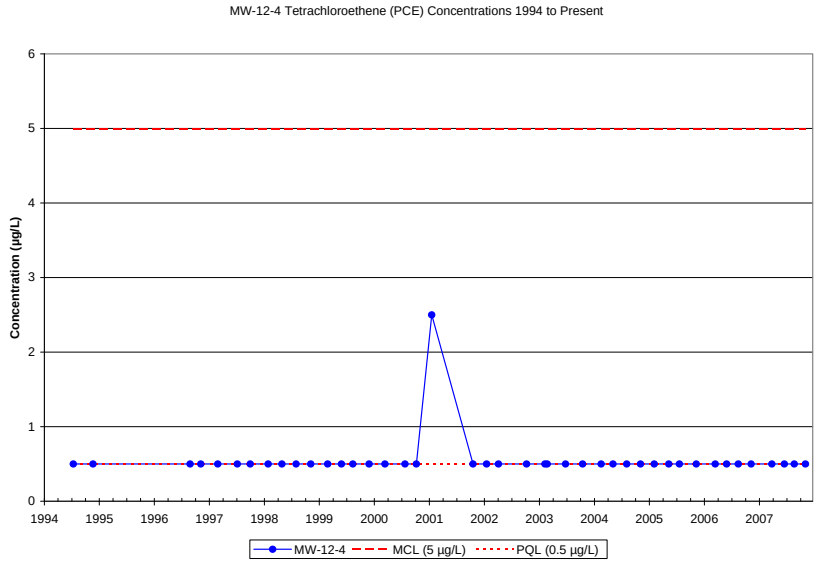


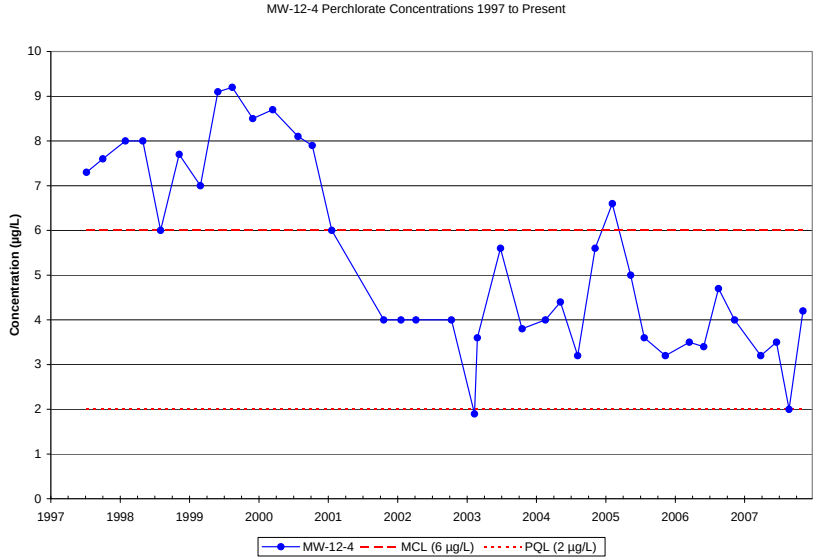


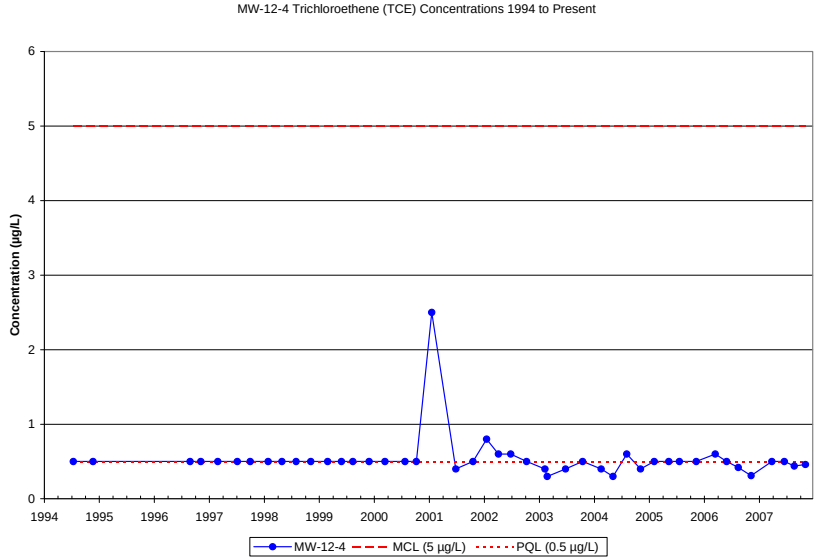


VOCs and Perchlorate Time Series Plots for MW-10

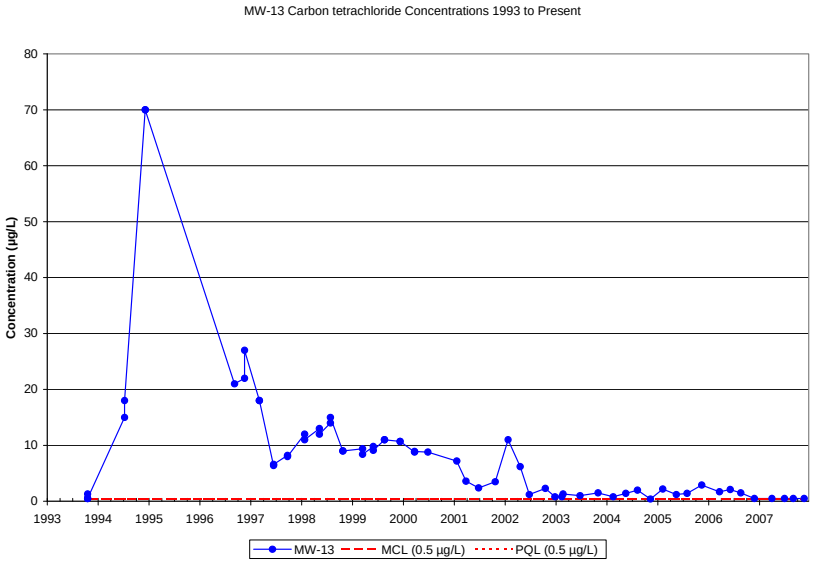


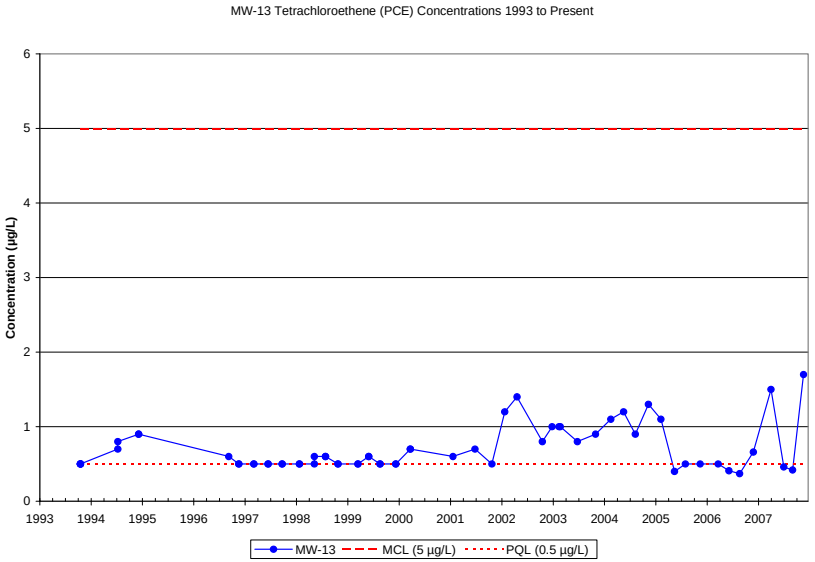


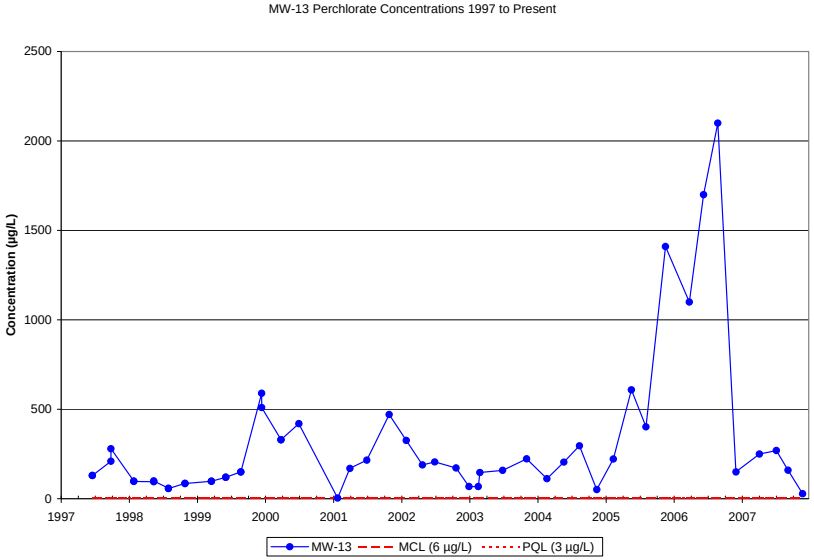


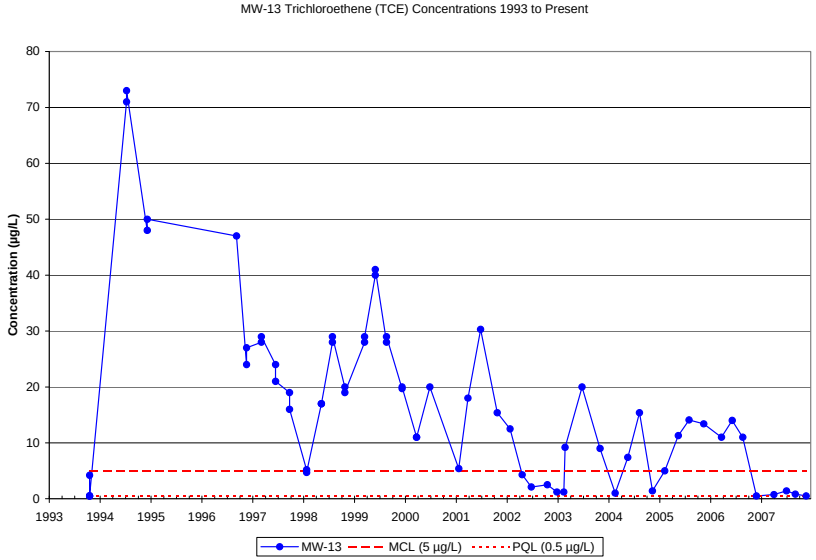


VOCs and Perchlorate Time Series Plots for MW-12-4



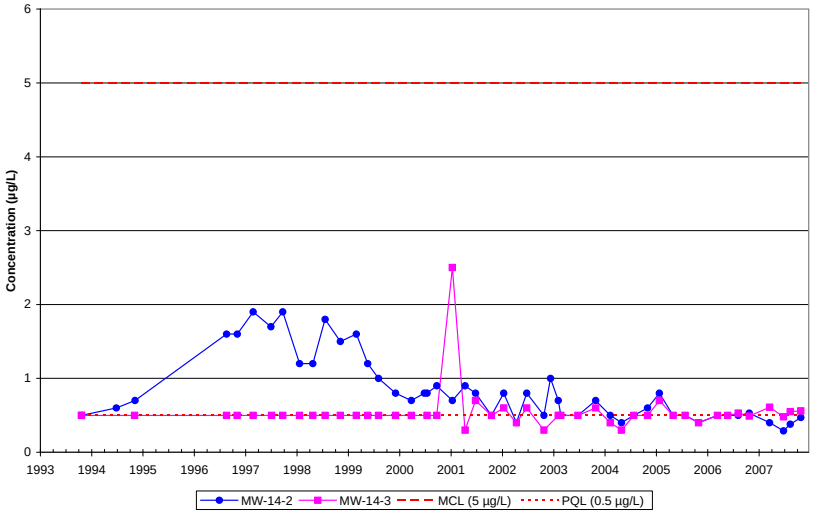




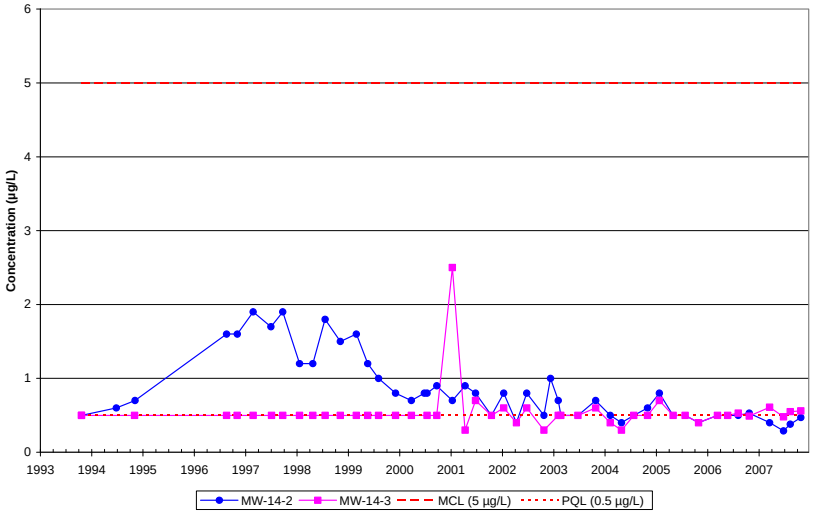


VOCs and Perchlorate Time Series Plots for MW-13

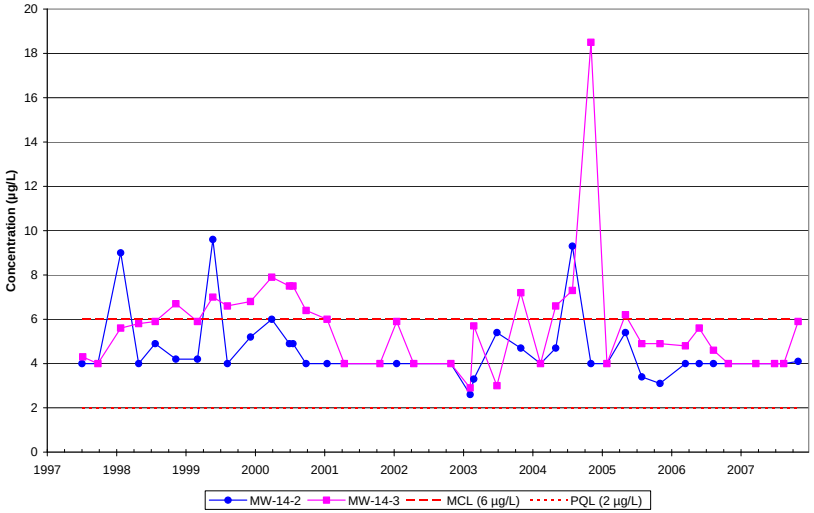
MW-14-2 and MW-14-3 Tetrachloroethene (PCE) Concentrations 1993 to Present



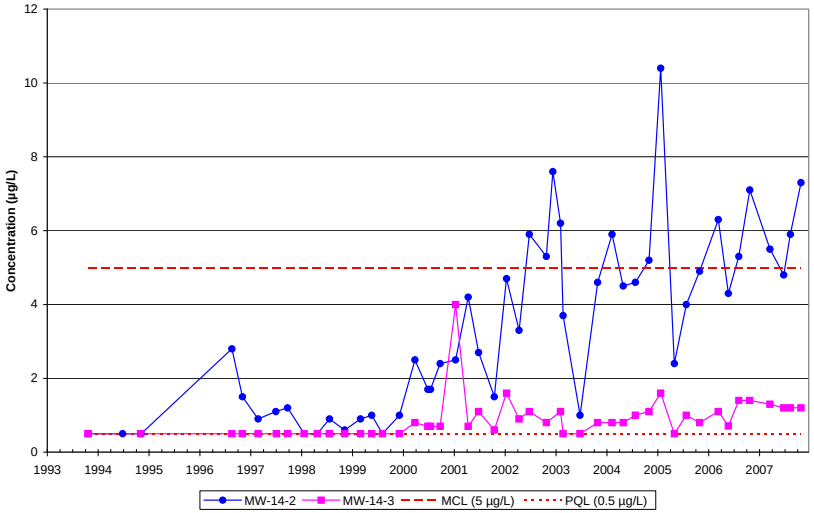
MW-14-2 and MW-14-3 Tetrachloroethene (PCE) Concentrations 1993 to Present



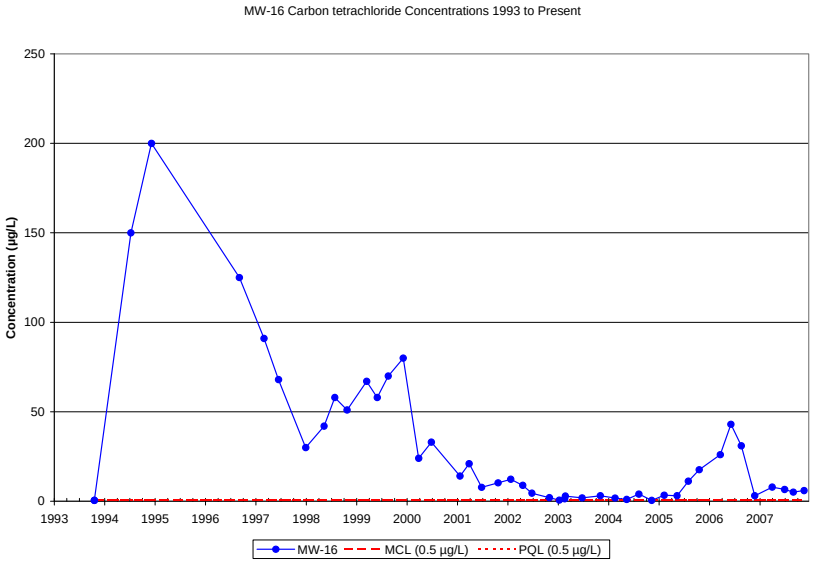
MW-14-2 and MW-14-3 Perchlorate Concentrations 1997 to Present

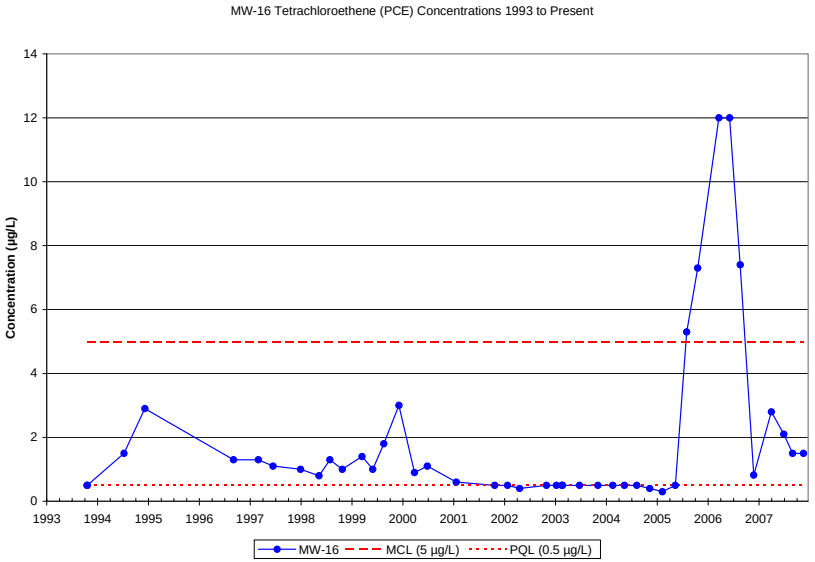


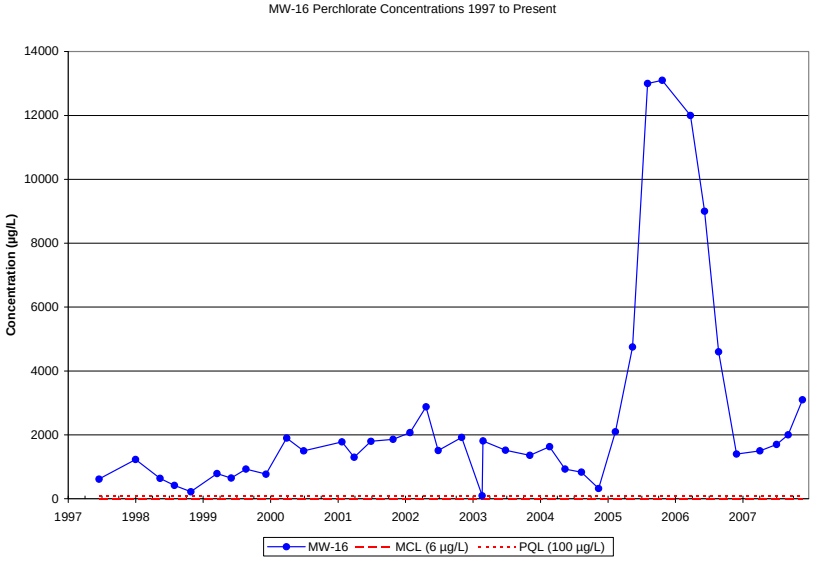
MW-14-2 and MW-14-3 Trichloroethene (TCE) Concentrations 1993 to Present

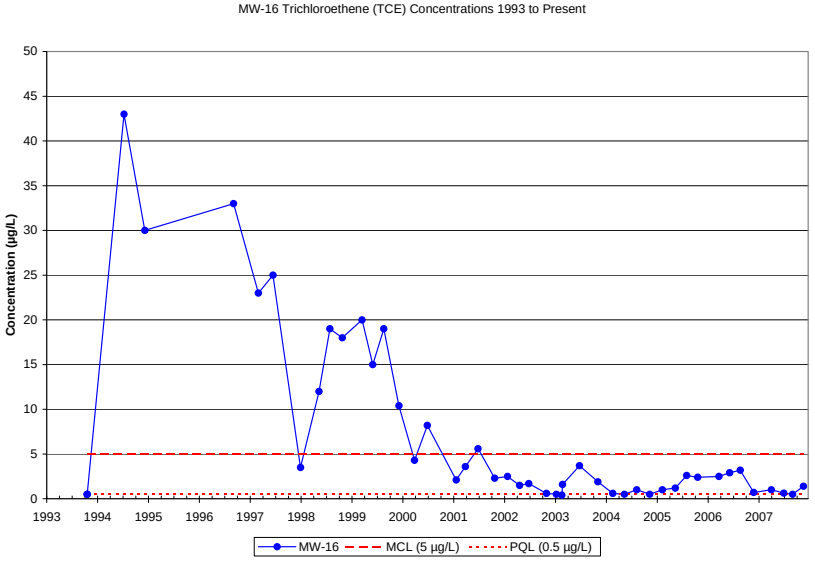


VOCs and Perchlorate Time Series Plots for MW-14-2 and MW-14-3



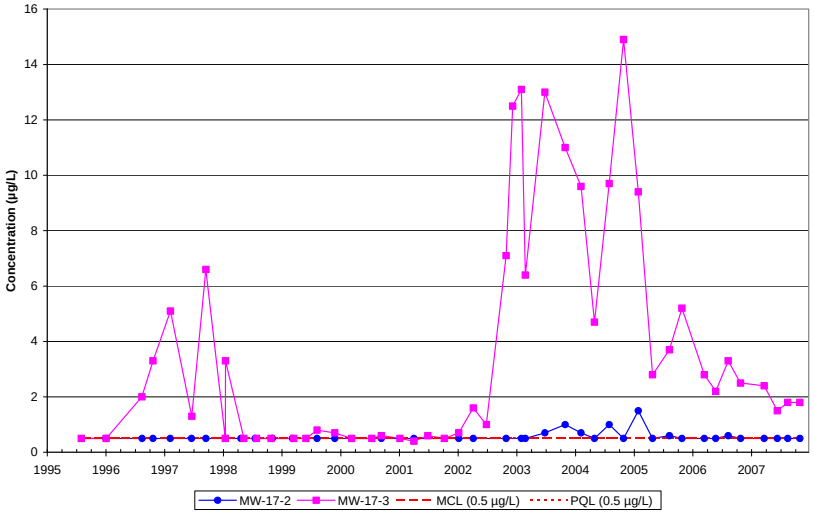




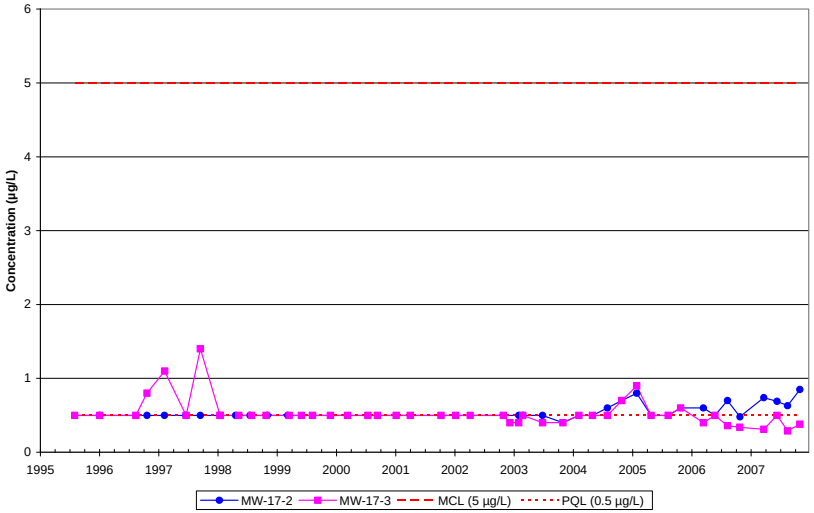


VOCs and Perchlorate Time Series Plots for MW-16

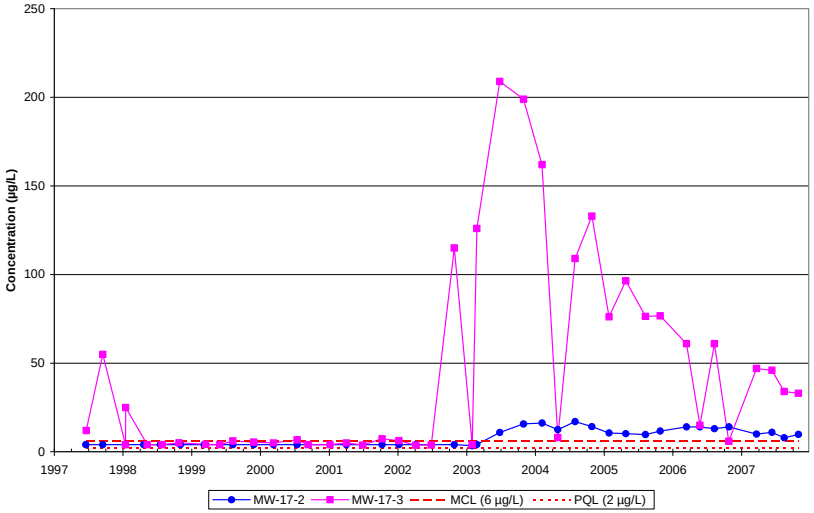
MW-17-2 and MW-17-3 Carbon tetrachloride Concentrations 1995 to Present



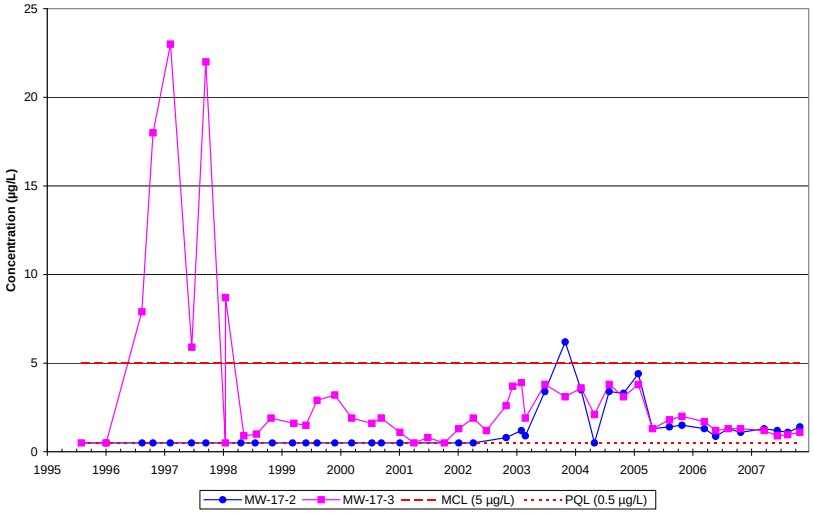
MW-17-2 and MW-17-3 Tetrachloroethene (PCE) Concentrations 1995 to Present



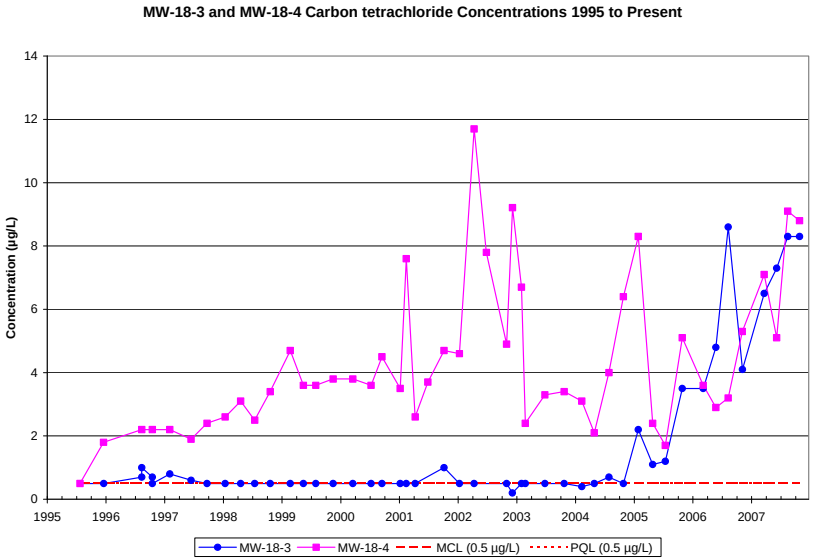
MW-17-2 and MW-17-3 Perchlorate Concentrations 1997 to Present

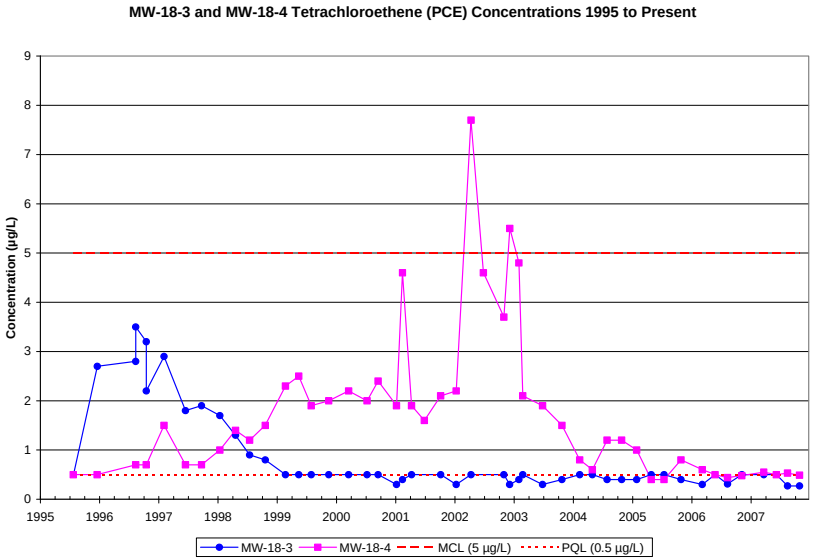


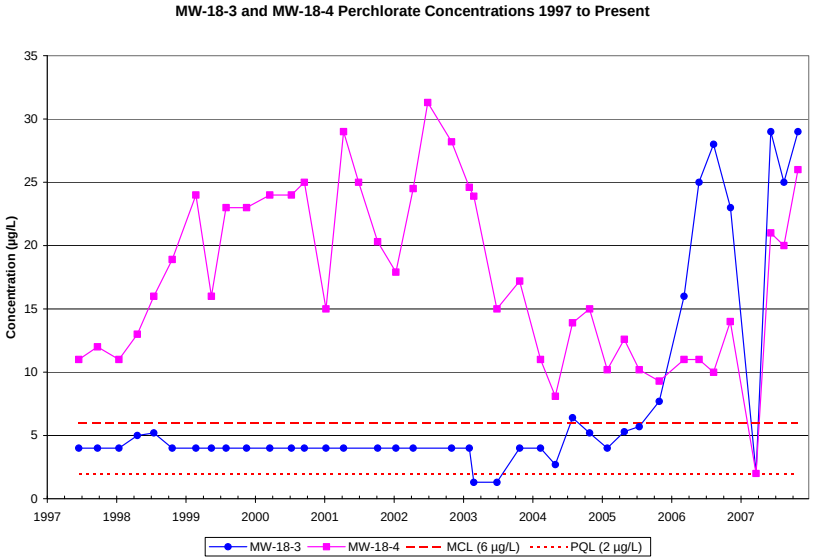
MW-17-2 and MW-17-3 Trichloroethene (TCE) Concentrations 1995 to Present

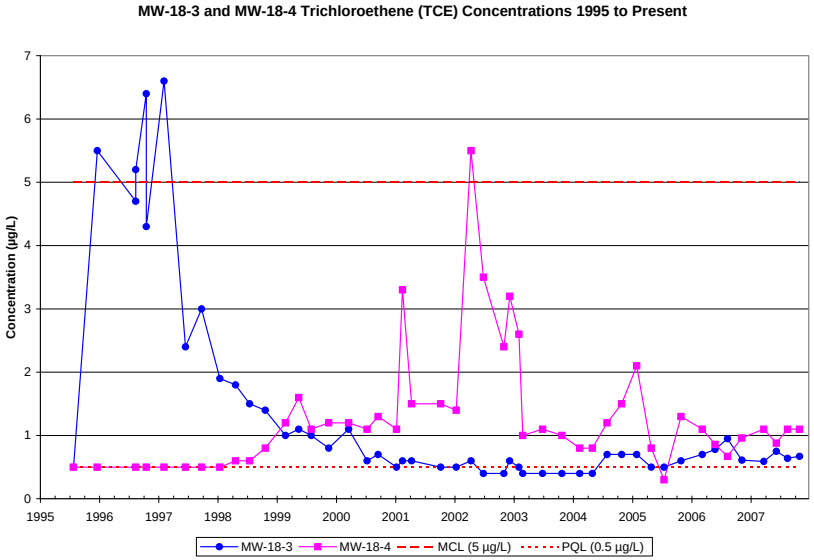


VOCs and Perchlorate Time Series Plots for MW-17-2 and MW-17-3



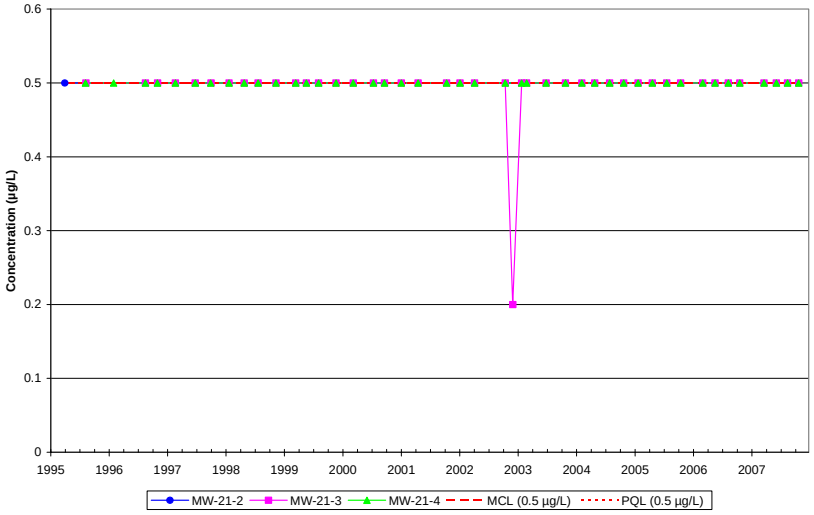




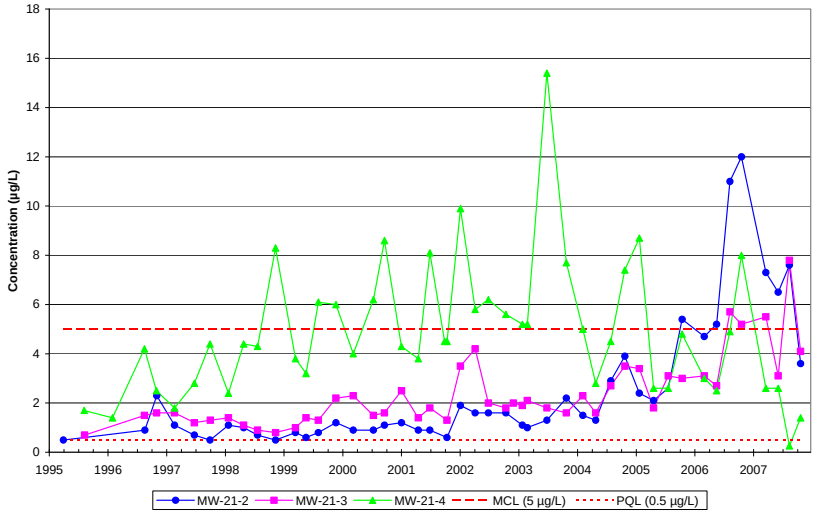


VOCs and Perchlorate Time Series Plots for MW-18-3 and MW-18-4

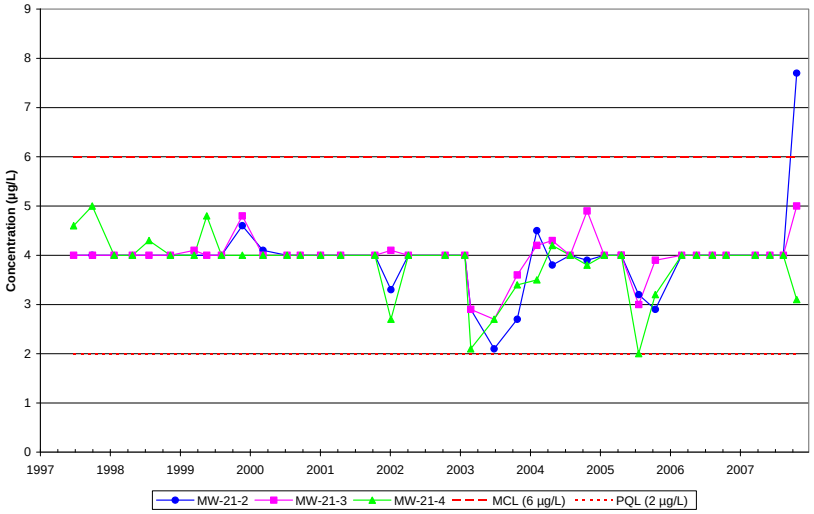
MW-21-2, MW-21-3, and MW-21-4 Carbon tetrachloride Concentrations 1995 to Present



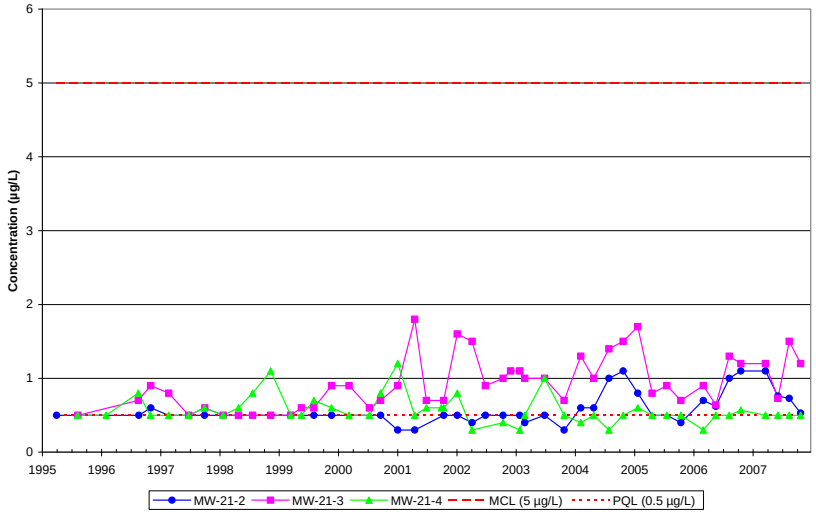
MW-21-2, MW-21-3, and MW-21-4 Tetrachloroethene (PCE) Concentrations 1995 to Present



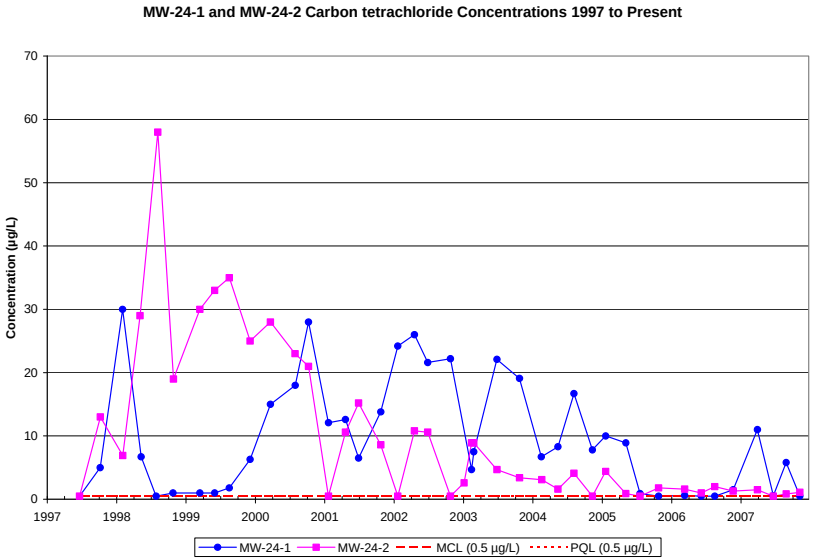
MW-21-2, MW-21-3, and MW-21-4 Perchlorate Concentrations 1997 to Present

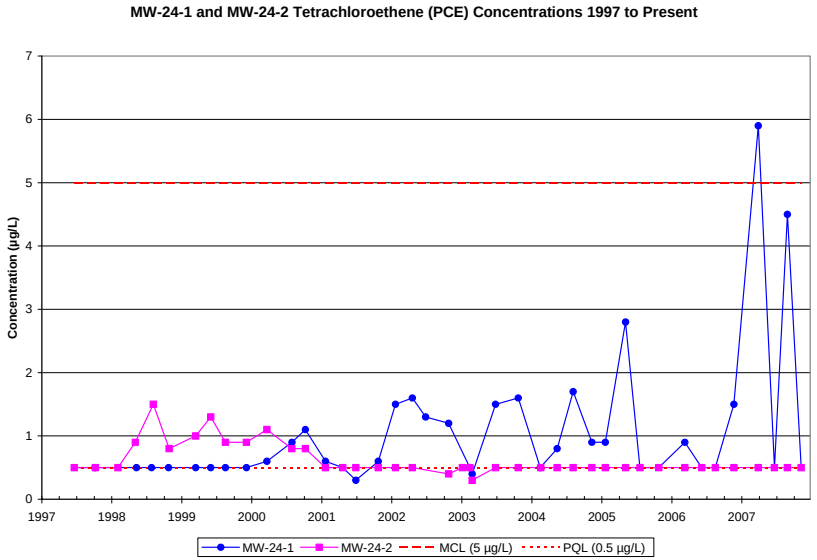


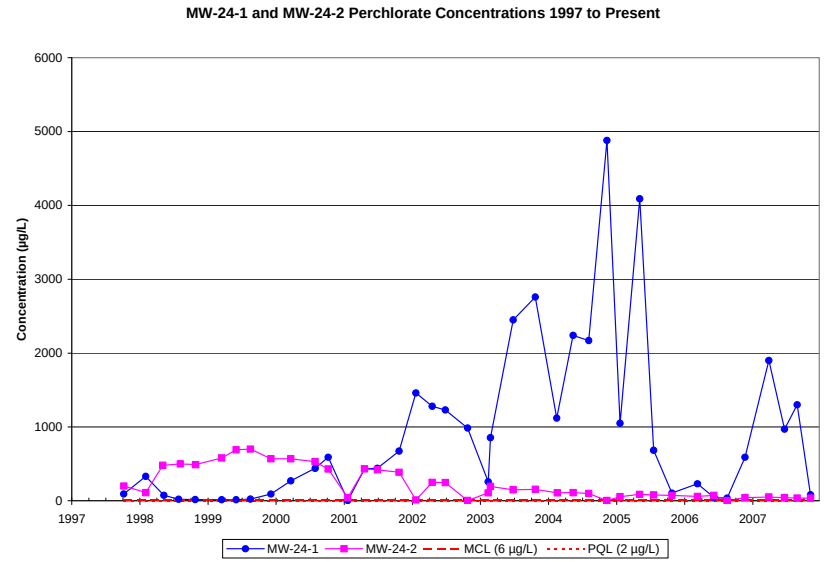
MW-21-2, MW-21-3, and MW-21-4 Trichloroethene (TCE) Concentrations 1995 to Present

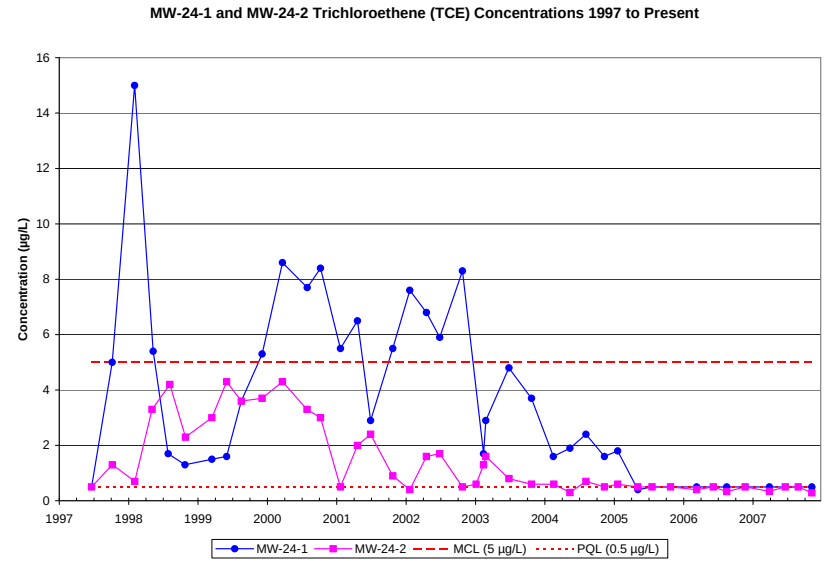


VOCs and Perchlorate Time Series Plots for MW-21-2, MW-21-3 and MW-21-4









VOCs and Perchlorate Time Se ries Plots for MW-24-1 and MW-24-2