ATTACHMENT 4: FIELD LOGS

This attachment contains the groundwater sample collection field logs for the relatively shallow standpipe monitoring wells (MW-5 through MW-8, MW-10, MW-13, 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 was conducted by Geofon Incorporated.

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: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/27/06
Weather: cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(140 TD (feet) - 32.28 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 210.96 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
725	32.28	0	5.13	51.6	140	1.5	14.2	121	Brownish and cloudy, no odor
737	32.28	42	5.33	46.5	34	1.1	14.3	72	Cloudy, no odor
749	32.28	85	5.48	45.9	12	1.0	14.2	36	Slightly cloudy, no odor
801	32.28	127	5.73	45.8	7.3	1.2	14.2	46	Slightly cloudy, no odor
813	32.28	170	5.72	45.0	3.9	1.3	14.1	59	Clear, no odor
825	32.28	212	5.81	45.4	2.3	1.1	14.2	11	Clear, no odor

Total Purge Volume: 212 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 3.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 715 Purge time start: 725

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:	Type:	Type:
Sample Time: 835	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 # 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: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/31/06
Weather: cloudy and cold

PURGE VOLUME CALCULATION (casing volume):

(245 TD (feet) - 142.71 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 200.32 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
712	142.71	0	4.81	0.1	79.0	1.7	18.1	145	Slightly brownish, no odor
732	142.71	40	5.25	0.1	44.6	1.7	17.8	52	Slightly brownish, no odor
752	142.71	80	5.47	0.1	7.52	2.0	17.5	154	Clear, no odor
812	142.71	120	5.84	0.09	4.61	0.7	16.3	-10	Clear, no odor
832	142.71	160	6.01	0.1	2.81	2.0	17.6	41	Clear, no odor
852	142.71	201	6.09	0.09	1.75	1.5	17.1	71	Clear, no odor

Total Purge Volume: 201 (Gallons)

Total Discharge: 3.0 (Casing Volumes)

Approx. Purge Rate: 2.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 708 Purge time start: 712

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: DUPE-8-1Q06	Type: _____	Type: _____
Sample Time: 902	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 # 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: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/29/06
Weather: partly cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(275 TD (feet) - 171.62 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 202.46 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
725	171.62	0	5.20	66.2	42.5	0.7	20.3	121	Slightly brownish, no odor
743	171.62	41	5.52	65.7	13.4	0.5	20.4	96	Slightly brownish, no odor
801	171.62	82	5.68	66.1	8.42	0.8	19.9	92	Clear, no odor
819	171.62	123	5.92	66.9	9.05	0.7	20.5	86	Clear, no odor
837	171.62	164	6.05	65.8	9.18	1.0	20.1	121	Clear, no odor
855	171.62	205	6.22	65.8	4.05	0.8	18.4	126	Clear, no odor

Total Purge Volume: 205 (Gallons)

Total Discharge: 3.04 (Casing Volumes)

Approx. Purge Rate: 2.25 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 715 Purge time start: 725

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:	Type:	Type:
Sample Time: 902	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 # 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: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/29/06
Weather: partly cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(205 TD (feet) - 98.07 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 209.41 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
946	98.07	0	6.32	45.9	10.27	1.3	16.6	79	Slightly cloudy, no odor
1000	98.07	42	6.41	47.4	3.97	1.4	17.0	83	Clear, no odor
1014	98.07	84	6.44	47.1	1.89	1.6	17.1	67	Clear, no odor
1028	98.07	126	6.49	47.0	1.23	1.6	17.0	88	Clear, no odor
1042	98.07	168	6.60	47.1	1.62	1.8	17.0	77	Clear, no odor
1058	98.07	210	6.54	47.3	1.01	1.7	17.0	48	Clear, no odor

Total Purge Volume: 210 (Gallons)

Total Discharge: 3.0 (Casing Volumes)

Approx. Purge Rate: 3.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 942 Purge time start: 946

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: 1059	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 # 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: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/30/06
Weather: cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(155 TD (feet) - 48.39 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 208.79 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
724	48.39	0	5.13	0.1	7.27	1.3	17.0	250	Clear, no odor
736	48.39	42	5.46	0.1	3.21	1.3	16.9	76	Clear, no odor
748	48.39	84	5.81	0.09	1.95	1.4	17.6	39	Clear, no odor
800	48.39	126	5.95	0.1	2.02	1.3	17.6	14	Clear, no odor
812	48.39	168	6.05	0.1	1.67	1.2	18.2	137	Clear, no odor
824	48.39	210	6.21	0.1	1.05	1.2	17.9	6	Clear, no odor

Total Purge Volume: 210 (Gallons)

Total Discharge: 3.02 (Casing Volumes)

Approx. Purge Rate: 3.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 720 Purge time start: 724

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: _____	Type: _____	Type: _____
Sample Time: 833	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 # 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: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/30/06
Weather: partly cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(235 TD (feet) - 142.35 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 181.45 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
928	142.35	0	6.34	74.5	29.3	1.9	21.3	110	Clear, no odor
946	142.35	36	6.39	73.5	14.3	1.6	22.2	68	Clear, no odor
1004	142.35	73	6.51	74.1	5.73	1.5	22.5	113	Clear, no odor
1022	142.35	109	6.47	75.6	2.99	1.5	23.3	102	Clear, no odor
1040	142.35	146	6.51	76.3	2.26	1.7	23.7	108	Clear, no odor
1058	142.35	182	6.52	75.1	2.23	1.6	22.4	114	Clear, no odor

Total Purge Volume: 182 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 2.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 925 Purge time start: 928

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: _____	Type: _____	Type: _____
Sample Time: 1101	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 # 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: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/27/06
Weather: cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(74 TD (feet) - 31.57 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 83.10 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
914	31.57	0	5.85	59.4	2.69	1.0	16.2	39	Clear, no odor
921	31.57	17	5.96	59.7	1.50	1.1	16.7	20	Clear, no odor
928	31.57	34	6.13	59.5	3.38	1.1	17.0	21	Clear, no odor
935	31.57	51	6.20	59.2	3.82	1.4	16.9	5	Clear, no odor
942	31.57	68	6.15	59.3	3.99	1.0	17.1	-2	Clear, no odor
949	31.57	85	6.23	59.7	3.62	0.9	16.6	-8	Clear, no odor

Total Purge Volume: 85 (Gallons)

Total Discharge: 3.07 (Casing Volumes)

Approx. Purge Rate: 2.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 910 Purge time start: 914

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: 949	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: 2	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: 4-73803
Navy Contract No.: Battelle
Sampled By: Marco Mendoza, Chase Brogdon
Date: 3/30/06
Weather: partly cloudy and cool

PURGE VOLUME CALCULATION (casing volume):

(285 TD (feet) - 195.19 WL (feet)) X 4² D (inches) X 3 # Vols X 0.0408 = 175.88 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
1222	195.19	0	6.57	59.7	93.3	1.6	22.0	152	Slightly brownish, no odor
1236	195.19	35	6.79	58.4	22.3	2.2	22.4	115	Clear, no odor
1250	195.19	71	6.79	58.0	8.87	2.0	22.5	111	Clear, no odor
1304	195.19	106	6.73	58.3	4.25	1.9	23.2	108	Clear, no odor
1318	195.19	142	6.71	58.4	2.78	1.2	22.7	115	Clear, no odor
1332	195.19	177	6.75	58.4	1.75	1.9	22.8	114	Clear, no odor

Total Purge Volume: 177 (Gallons)

Total Discharge: 3.02 (Casing Volumes)

Approx. Purge Rate: 2.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 1217 Purge time start: 1222

Pump removed from well due to unresponsiveness. Portable pump used for sampling.

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: _____	Type: _____	Type: _____
Sample Time: 1335	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

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-3
Sampling Zone No.: 4+2
Depth (ft): 653, 558, 346, 252, 172
Beginning of Session: 13.97 psia
End of Session: 14.03 psia

Start Time: 1032
Finish Time: 1223

Date: 3/20/06
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
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	211.66	✓	223.73	✓	223.73	✓	✓	211.64	1056	6.13	4.0	45.9	0.9	15.8	100
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	119.38	✓	134.44	✓	134.44	✓	✓	119.39	1123	6.88	1.5	52.9	1.0	15.6	-12
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	78.45	✓	93.69	✓	93.29	✓	✓	78.47	1200	6.93	6.9	56.6	0.9	16.2	105
NOPE 2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	80.05	✓	93.68	✓	93.68	✓	✓	80.08	—	—	—	—	—	—	—

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Notes:

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

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

Total Volume: —

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Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-4
Sampling Zone No.: 3 to 1
Depth (ft): ~~515, 382~~, 322, 240, 150
Beginning of Session: 14.09 psia
End of Session: 14.07 psia

Start Time: 740
Finish Time: 925

Date: 3/16/06
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
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	60.09	✓	132.46	✓	132.44	✓	✓	60.12	758	5.48	13	52.7	1.0	15.2	29
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	24.72	✓	97.02	✓	97.02	✓	✓	24.77	834	5.64	9.1	0.1	0.7	15.8	83
MS/MSD 2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	23.70	✓	97.02	✓	97.02	✓	✓	23.72	—	—	—	—	—	—	—
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.13	✓	60.31	✓	60.30	✓	✓	14.21	922	6.10	12	38.8	1.2	17.8	19

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Notes:

port 5: NO SAMPLE port 4: NO SAMPLE port 3: SLIGHTLY BROWN, 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-11
Sampling Zone No.: 4 & 1
Depth (ft): ~~639~~, 524, 429, 259, 149
Beginning of Session: 14.04 psia
End of Session: 14.09 psia

Start Time: 720
Finish Time: 930

Date: 3/24/06
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
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	192.62	✓	196.97	✓	196.92	✓	✓	192.60	734	5.38	1.5	34.3	1.0	16.9	81
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	153.68	✓	155.30	✓	155.16	✓	✓	153.70	800	5.52	25	48.5	1.1	17.2	45
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	79.90	✓	82.90	✓	82.84	✓	✓	79.91	828	5.71	2.2	55.0	1.6	17.4	33
DUPE 2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	79.38	✓	82.87	✓	82.86	✓	✓	79.36	—	—	—	—	—	—	—
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	31.93	✓	39.86	✓	39.86	✓	✓	31.92	909	5.78	1.7	64.5	0.9	18.4	53
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	31.90	✓	39.85	✓	39.85	✓	✓	31.90	—	—	—	—	—	—	—

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Notes:

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

port 2: CLEAR, SLIGHT 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-12
Sampling Zone No.: 5 to 1
Depth (ft): 548, 436, 323, 243, 140
Beginning of Session: 14.14 psia
End of Session: 14.12 psia

Start Time: 735
Finish Time: 1015

Date: 3/23/06
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	199.03	✓	219.50	✓	219.46	✓	✓	198.04	814	5.38	5.8	59.9	1.0	18.9	146
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	150.19	✓	173.34	✓	173.29	✓	✓	150.22	834	5.47	1.2	60.0	0.6	20.0	22
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	102.97	✓	125.00	✓	125.00	✓	✓	102.94	858	5.67	4.7	49.5	0.9	20.1	43
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	67.99	✓	90.68	✓	90.68	✓	✓	67.99	922	5.87	2.6	64.6	0.8	20.7	88
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	23.41	✓	48.82	✓	48.82	✓	✓	23.42	954	6.12	3.2	42.7	0.8	21.0	118
DUPE C 1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	22.39	✓	48.82	✓	48.82	✓	✓	22.38	—	—	—	—	—	—	—

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Notes:

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

port 2: CLEAR, STRONG 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: 13.98 psia
End of Session: 14.01 psia

Start Time: 740
Finish Time: 1020

Date: 3/21/06
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	193.69	✓	192.73	✓	192.73	✓	✓	193.69	803	5.28	3.7	49.9	0.8	18.2	123
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	157.07	✓	156.37	✓	156.36	✓	✓	157.06	823	5.38	1.5	68.1	0.9	17.4	71
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	126.79	✓	124.32	✓	124.32	✓	✓	126.81	847	5.47	2.5	0.1	1.5	16.0	−1
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	81.01	✓	78.80	✓	78.79	✓	✓	81.01	915	5.78	1.9	.095	1.4	19.8	194
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	80.97	✓	78.77	✓	78.79	✓	✓	80.97	—	—	—	—	—	—	—
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	50.85	✓	48.79	✓	48.79	✓	✓	50.84	1012	5.94	8.8	.110	0.7	21.6	248

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Notes:

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

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

Total Volume: —

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GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-17
Sampling Zone No.: 4 to 2
Depth (ft): ~~726~~, 582, 468, 370, ~~260~~
Beginning of Session: 13.97 psia
End of Session: 13.97 psia

Start Time: 1115
Finish Time: 1305

Date: 3/21/06
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
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	185.37	✓	191.18	✓	191.15	✓	✓	185.39	1142	6.51	2.4	42.1	1.4	16.5	93
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	135.86	✓	139.05	✓	139.05	✓	✓	135.91	1211	6.38	12	85.8	1.8	15.5	87
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	135.84	✓	139.05	✓	139.05	✓	✓	135.79	—	—	—	—	—	—	—
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	93.27	✓	100.72	✓	100.71	✓	✓	93.27	1259	6.52	8.1	95.5	1.1	16.8	103

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Notes:

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

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

Total Volume: —

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-18
Sampling Zone No.: 1-5
Depth (ft): 684, 564, 424, 330, 270
Beginning of Session: 14.02 psia @ 17.67
End of Session: 14.01 psia @ 19.02

Start Time: 0745
Finish Time: 1019

Date: 3-14-06
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	158.15	✓	221.50	✓	221.50	✓	✓	158.16	0809	5.63	2.1	34.6	1.8	14.1	92
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	107.83	✓	169.95	✓	169.95	✓	✓	107.83	0840	5.54	4.0	50.7	1.2	15.2	86
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	46.78	✓	111.01	✓	111.01	✓	✓	46.77	0915	5.63	2.3	65.4	2.8	15.6	58
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.13	✓	70.08	✓	70.08	✓	✓	14.13	0948	5.85	7.4	57.0	1.8	15.2	47
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.10	✓	44.27	✓	44.28	✓	✓	14.19	1011	6.00	5.4	48.3	1.2	15.6	33

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-19
Sampling Zone No.: 5to1
Depth (ft): 498, 444, 392, 314, 242
Beginning of Session: 1430 psia
End of Session: 13.99 psia

Start Time: 807
Finish Time: 945

Date: 3/20/06
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	175.46	✓	177.85	✓	177.85	✓	✓	177.39	825	5.13	5.1	92.5	0.9	15.9	128
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	152.01	✓	154.46	✓	154.46	✓	✓	151.99	845	5.49	1.0	80.0	0.9	15.5	50
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.40	✓	131.74	✓	131.73	✓	✓	129.42	901	5.72	3.3	80.1	0.9	16.1	46
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	95.50	✓	97.55	✓	97.55	✓	✓	95.52	919	5.88	6.5	0.1	0.4	16.1	107
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	64.40	✓	66.30	✓	68.29	✓	✓	64.42	938	6.18	38	44.0	1.3	14.9	2

Notes:

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

port 2: PINKISH BROWN, NO ODOR port 1: PINKISH BROWN, 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.: 1 THRU 5
Depth (ft): 900, 700, 562, 392, 230
Beginning of Session: 13.98 psia @ 10.94c
End of Session: 13.97 psia @ 16.70c

Start Time: 0727
Finish Time: 1040

Date: 3-9-06
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	307.61	✓	335.39	✓	335.39	✓	✓	307.61	0745	5.87	1.7	38	2.4	15.0	-214
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	220.53	✓	251.84	✓	251.84	✓	✓	220.53	0821	6.25	13	37.6	1.8	15.4	-237
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	160.40	✓	190.47	✓	190.47	✓	✓	160.41	0855	6.13	3.1	67.0	1.9	16.0	-135
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	160.40	✓	190.47	✓	190.47	✓	✓	160.40	0930	6.31	1.4	68.7	2.5	16.2	-112
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	89.96	✓	116.48	✓	116.48	✓	✓	90.00	0957	6.38	3.0	45.4	1.5	16.2	-119
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	21.23	✓	45.70	✓	45.70	✓	✓	21.25	1031	6.59	3.7	57.7	1.9	16.3	-88

Notes:
port 5: CLEAR SULFUR ODOR
port 4: CLEAR SULFUR 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-21
Sampling Zone No.: 1-5
Depth (ft): 372, 310, 240, 161, 90
Beginning of Session: 14.09 psia @ 9,94c
End of Session: 14.13 psia @ 21,9/c

Start Time: 0741
Finish Time: 1051

Date: 3-8-06
Page: 1 of 1

Water Pressure Inside Casing: _____

2.5

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	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.15	✓	165.91	✓	165.90	✓	✓	129.15	0755	5.42	~~23~~	0.1	4.8	12.6	-93
5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.13	✓	165.91	✓	165.91	✓	✓	129.12	0827	6.35	2.9	0.1	3.8	14.5	-77
5	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.10	✓	165.91	✓	165.91	✓	✓	129.10	0852	6.43	1.8	.099	2.7	14.4	-64
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	102.01	✓	139.05	✓	139.05	✓	✓	102.01	0920	6.54	4.8	93.1	1.7	18.8	-78
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	71.89	✓	109.11	✓	109.11	✓	✓	71.89	0948	6.54	5.0	.104	1.2	19.6	61
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	37.32	✓	74.77	✓	74.77	✓	✓	37.32	1011	6.72	6.7	.120	1.3	20.2	37
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.15	✓	43.27	✓	43.27	✓	✓	14.15	1041	6.90	5.1	.116	1.6	21.6	20

Notes:
port 5: NO SAMPLE FROM RUN #1 CLEAR NO ODOR
port 4: CLEAR NO ODOR
port 3: CLEAR NO ODAR
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.: 3 to 1
Depth (ft): 588, 467, 389, 329, 245
Beginning of Session: 14.05 psia
End of Session: 14.04 psia

Start Time: 840
Finish Time: 1005

Date: 3/15/06
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
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	116.22	✓	124.22	✓	124.23	✓	✓	116.23	900	5.26	2.2	78.2	1.2	17.5	106
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	90.18	✓	98.13	✓	98.13	✓	✓	90.18	928	5.62	2.8	60.9	1.2	18.0	41
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	53.44	✓	61.33	✓	61.34	✓	✓	53.42	1000	5.69	38	.091	1.1	18.9	138

Notes:

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

port 2: CLEAR, NO ODOR port 1: SLIGHTLY BROWNISH IN COLOR, 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.: 4+01
Depth (ft): ~~542~~ 445, 319, 254, 174
Beginning of Session: 14.14 psia
End of Session: 14.11 psia

Start Time: 725
Finish Time: 950

Date: 3/22/06
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
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	164.82	✓	174.95	✓	174.95	✓	✓	164.82	745	5.30	1.7	46.7	0.9	15.7	144
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	110.38	✓	121.85	✓	121.84	✓	✓	110.35	809	5.43	13	48.6	0.9	16.9	113
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	82.21	✓	93.70	✓	93.71	✓	✓	82.14	834	5.51	1.7	0.1	1.6	18.4	171
DUPE MS/MSD 2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	82.13	✓	93.70	✓	93.70	✓	✓	82.12	—	—	—	—	—	—	—
2	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	81.88	✓	93.70	✓	93.70	✓	✓	81.89	—	—	—	—	—	—	—
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	47.52	✓	59.67	✓	59.65	✓	✓	47.53	944	5.70	8.0	.094	1.0	20.4	242

Notes:

port 5: NO SAMPLE 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-24
Sampling Zone No.: 4 to 1
Depth (ft): ~~678~~, 554, 435, 373, 279
Beginning of Session: 13.96 psia
End of Session: 14.03 psia

Start Time: 725
Finish Time: 1000

Date: 3/17/06
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	
	4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	183.46	✓	182.10	✓	182.10	✓	✓	183.41	754	5.36	1.1	42.0	1.1	17.1	122	
	3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	132.06	✓	131.76	✓	131.75	✓	✓	132.07	821	5.66	2.8	43.3	1.1	16.7	30	
DUPE	2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	105.14	✓	105.00	✓	104.99	✓	✓	105.17	850	5.20	2.0	59.1	1.8	16.6	3	
	2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	105.13	✓	104.98	✓	104.99	✓	✓	105.15	—	—	—	—	—	—	—	>2
	1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	64.15	✓	65.12	✓	65.12	✓	✓	64.15	940	5.85	35	61.8	1.1	16.2	61	
	1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	64.14	✓	65.12	✓	65.12	✓	✓	64.13	—	—	—	—	—	—	—	>1

Notes:

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

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

Total Volume: —

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #:Battelle

Well ID: MW-25
Sampling Zone No.: 1 THRU 5
Depth (ft): 713, 633, 503, 423, 358
Beginning of Session: 14.23 psia @ 7.94c
End of Session: 14.23 psia @ 22.11

Start Time: 0725
Finish Time: 1022

Date: 3-13-06
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	210.39	✓	208.10	✓	208.09	✓	✓	210.38	0747	5.62	1.7	54.6	92	20.8	-51
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	175.80	✓	174.41	✓	174.40	✓	✓	175.80	0823	5.66	3.4	79.5	1.2	18.9	15
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	119.40	✓	119.29	✓	119.29	✓	✓	119.40	0857	5.74	6.6	79.6	1.1	19.1	19
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	84.57	✓	84.98	✓	84.99	✓	✓	84.57	0930	6.13	1.8	71.3	1.2	19.7	15
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	56.67	✓	56.54	✓	56.54	✓	✓	56.66	1005	5.66	11.0	.999	1.0	19.8	101

Notes:
port 5: CLEAR SLIGHT SULFUR 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-26
Sampling Zone No.: 1+2
Depth (ft): 215, 135
Beginning of Session: 13.95 psia @ 16.33c
End of Session: 13.95 psia @ 16.89c

Start Time: 0711
Finish Time: 0830

Date: 3-10-06
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	✓	✓	✓	✓	✓	✓	✓	✓	✓	82.49	✓	82.49	✓	82.49	✓	✓	82.48	0739	5.33	6.1	75.0	1.3	15.9	49
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	~~47.92~~	✓	~~58.85~~												
											47.79	✓	44.18	✓	44.18	✓	✓	47.80	0819	5.54	2.9	.999	1.4	15.6	120

Notes:

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

Total Volume: _____

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ATTACHMENT 5: WATER LEVEL MEASUREMENTS

This attachment contains water level measurements for the Westbay™ multiport JPL monitoring wells obtained during the first quarter of 2006. Water level measurements were recorded before the sampling event on March 6, 2006, and after the sampling event on April 3, 2006. Water levels in the shallow wells were measured using a Solinst™ water level meter and the results are provided in 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 taken by Geofon Incorporated.

GEOFON INCORPORATED
22632 Golden Springs Drive, Suite 270
Diamond Bar, CA 91765
Telephone (909)396-7662 Fax (909)396-1455
Internet: www.geofon.com

Pre- SHALLOW WELL SOUNDING LOG

Project Name: JPL GW Monitoring 1Q06 | **Project No.: 4-73803**

WELL #	*DATE*	*TIME*	*DEPTH (FT.)*
MW-1	3/6/06	1236	24.13
MW-5	3/6/06	1325	33.95
MW-6	3/6/06	1506	144.30
MW-7	3/6/06	1446	174.35
MW-8	3/6/06	1500	106.84
MW-9	3/6/06	1239	24.50
MW-10	3/6/06	1332	50.75
MW-13	3/6/06	1456	144.85
MW-15	3/6/06	1246	30.35
MW-16	3/6/06	1438	197.95

GEOFON INCORPORATED
22632 Golden Springs Drive, Suite 270
Diamond Bar, CA 91765
Telephone (909)396-7662 Fax (909)396-1455
Internet: www.geofon.com

Post- SHALLOW WELL SOUNDING LOG

Project Name: JPL GW Monitoring 1Q06 | **Project No.: 4-73803**

WELL #	*DATE*	*TIME*	*DEPTH (FT.)*
MW-1	4/3/06	1233	24.40
MW-5	4/3/06	1219	30.98
MW-6	4/3/06	1254	142.59
MW-7	4/3/06	1244	171.12
MW-8	4/3/06	1329	97.31
MW-9	4/3/06	1229	20.05
MW-10	4/3/06	1258	47.95
MW-13	4/3/06	632	141.81
MW-15	4/3/06	1224	30.56
MW-16	4/3/06	1248	194.71

GEOFON, Inc.
Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 3/6/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: 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		
Time	1215	1227
Pressure (psia)	14.25	14.22
Temperature (°C)	19.36	17.10

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	249.67	265.05	249.70	21.00	1219		
							74.40	1025.94
4	558	208.42	223.99	208.38	29.95	1220		
							74.13	1026.21
3	346	116.28	134.41	116.29	21.32	1222		
							68.79	1031.55
2	252	75.45	93.70	75.43	20.14	1224		
							68.71	1031.63
1	172	40.70	59.94	40.70	18.71	1225		
							66.59	1033.75

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 3/6/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (ft. +MSL): 1,082.84
Weather: cloudy and cool

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

Ambient Readings	Start	Finish
Time	1310	1324
Pressure (psia)	14.24	14.24
Temperature (°C)	16.57	19.02

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	140.10	214.62	140.12	19.44	1313		
							50.72	1032.12
4	392	87.47	162.25	84.47	20.62	1314		
							50.54	1032.30
3	322	57.00	132.21	57.01	20.53	1316		
							49.84	1033.00
2	240	21.32	96.75	21.30	20.13	1317		
							49.65	1033.19
1	150	14.32	59.82	14.32	19.46	1319		
							44.85	1037.99

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 3/6/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: 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	1400	1410
Pressure (psia)	14.22	14.20
Temperature (°C)	19.32	17.60

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	240.84	241.28	240.85	19.75	1404		
							115.17	1024.13
4	524	191.34	196.75	191.34	20.50	1405		
							102.90	1036.40
3	429	150.46	154.92	150.46	20.20	1406		
							104.41	1034.89
2	259	76.81	82.33	76.82	19.19	1409		
							101.87	1037.43
1	149	29.52	39.18	29.54	18.14	1410		
							91.42	1047.88

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 3/6/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,102.14
Weather: cloudy and cool

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

Ambient Readings	Start	Finish
Time	1251	1301
Pressure (psia)	14.24	14.23
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	548	197.20	219.68	197.72	19.26	1255		
							74.05	1028.09
4	436	149.00	173.22	149.01	20.17	1256		
							69.23	1032.91
3	323	99.83	124.68	99.82	19.52	1257		
							68.21	1033.93
2	243	64.99	90.25	64.98	18.81	1258		
							67.64	1034.50
1	140	20.10	47.95	20.09	17.92	1300		
							62.23	1039.91

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 3/6/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,173.47
Weather: cloudy and cool

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

Ambient Readings	Start	Finish
Time	0807	0820
Pressure (psia)	14.20	14.22
Temperature (°C)	17.76	18.89

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	192.46	192.50	192.47	20.15	812		
							128.66	1044.81
4	456	155.93	156.15	155.92	20.44	0814		
							128.52	1044.95
3	382	123.72	124.06	123.72	19.96	815		
							128.55	1044.92
2	277	78.04	78.56	78.03	19.41	817		
							128.52	1044.95
1	207	47.53	48.59	47.54	19.10	818		
							127.66	1045.81

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 3/6/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,191.21
Weather: cloudy and cool

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

Ambient Readings	Start	Finish
Time	0959	1009
Pressure (psia)	14.22	14.22
Temperature (°C)	15.22	14.91

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	246.46	255.79	246.46	17.35	1001		
							168.70	1022.51
4	582	184.07	193.58	184.08	18.38	1003		
							168.22	1022.99
3	468	134.60	143.66	134.61	17.74	1005		
							169.38	1021.83
2	370	92.07	102.77	92.07	16.74	1006		
							165.72	1025.49
1	250	39.92	51.66	39.90	15.91	1007		
							163.63	1027.58

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 3/6/06
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: cloudy and cool

Ambient Readings	Start	Finish
Time	1016	1029
Pressure (psia)	14.21	14.21
Temperature (°C)	14.30	16.22

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	156.42	221.20	156.42	17.22	1021		
							206.47	1018.94
4	564	104.25	170.35	104.26	18.92	1022		
							203.79	1021.62
3	424	43.41	111.45	43.40	18.46	1024		
							199.67	1025.74
2	330	14.36	69.78	14.36	17.34	1025		
							201.80	1023.61
1	270	14.33	43.61	14.33	16.67	1027		
							202.17	1023.24

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 3/6/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (ft. +MSL): 1,142.94
Weather: cloudy and cool

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

Ambient Readings	Start	Finish
Time	0940	0950
Pressure (psia)	14.22	14.22
Temperature (°C)	15.50	16.37

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	175.02	178.05	175.02	17.16	943		
							120.04	1022.90
4	444	151.57	154.66	151.59	17.82	944		
							120.00	1022.94
3	392	129.03	131.70	129.01	17.99	946		
							120.97	1021.97
2	314	95.15	97.45	95.16	17.95	947		
							121.99	1020.95
1	242	63.91	65.83	63.90	17.51	948		
							122.94	1020.00

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 3/6/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,165.05
Weather: cloudy and cool

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

Ambient Readings	Start	Finish
Time	1039	1057
Pressure (psia)	14.22	14.22
Temperature (°C)	15.87	16.38

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	304.44	335.41	304.44	20.11	1044		
							159.01	1006.04
4	700	217.50	251.76	217.49	21.36	1047		
							152.00	1013.05
3	562	157.45	190.16	157.46	20.44	1049		
							156.11	1008.94
2	392	83.56	116.13	83.56	18.17	1052		
							156.89	1008.16
1	230	14.33	45.46	14.32	16.67	1055		
							157.93	1007.12

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 3/6/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,059.10
Weather: cloudy and cool

Well ID: MW-21
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	0837	0847
Pressure (psia)	14.28	14.28
Temperature (°C)	17.54	18.36

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	126.00	165.77	126.00	18.75	840		
							22.51	1036.59
4	310	99.03	138.93	99.03	19.17	841		
							22.43	1036.67
3	240	69.00	108.97	68.99	19.14	842		
							21.55	1037.55
2	161	34.61	74.67	34.60	18.75	844		
							21.68	1037.42
1	90	14.33	43.17	14.32	18.50	845		
							23.35	1035.75

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 3/6/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,176.98
Weather: cloudy and cool

Well ID: MW-22
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	1342	1352
Pressure (psia)	14.19	14.19
Temperature (°C)	19.13	19.83

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	201.08	207.77	201.07	20.44	1345		
							141.41	1035.57
4	467	148.67	156.44	148.69	21.06	1346		
							138.83	1038.15
3	389	114.88	123.91	114.88	20.99	1347		
							135.88	1041.10
2	329	88.84	97.82	88.86	20.70	1349		
							136.07	1040.91
1	245	51.99	60.87	51.99	20.19	1350		
							137.31	1039.67

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

Project Name: JPL Pasadena | Well ID: MW-23
Project No: 4-73803 | Probe Type: Westbay
Date: 3/6/06 | Serial No.: 2508
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC | Casing Size/Type: 1.5" Westbay
Elevation of Datum (Ft. + MSL): 1,108.84
Weather: cloudy and cool

Ambient Readings	Start	Finish
Time	0731	0741
Pressure (psia)	14.19	14.26
Temperature (°C)	16.88	19.54

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	542	205.63	216.89	205.62	20.09	734		
							74.37	1034.47
4	445	163.65	175.02	163.62	20.78	736		
							73.97	1034.87
3	319	109.03	121.60	109.03	20.64	738		
							71.21	1037.63
2	254	80.83	93.41	80.83	20.23	739		
							71.24	1037.60
1	174	46.13	59.05	46.11	19.82	740		
							70.51	1038.33

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 3/6/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,200.94
Weather: cloudy and cool

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

Ambient Readings	Start	Finish
Time	1420	1431
Pressure (psia)	14.19	14.20
Temperature (°C)	16.90	20.31

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	236.02	234.45	236.04	19.97	1423		
							169.86	1031.08
4	554	182.33	181.87	182.34	20.81	1425		
							167.16	1033.78
3	435	130.76	131.45	130.77	21.02	1427		
							164.48	1036.46
2	373	103.89	104.61	103.91	21.07	1428		
							164.40	1036.54
1	279	63.18	64.43	63.17	20.82	1429		
							163.10	1037.84

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 3/6/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (ft. + MSL): 934.52
Weather: cloudy and cool

Well ID: MW-25
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	1128	1141
Pressure (psia)	14.34	14.34
Temperature (°C)	19.50	19.54

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	713	207.10	208.03	207.12	20.71	1132		
							266.16	668.36
4	633	172.64	174.35	172.62	21.31	1134		
							263.86	670.66
3	503	116..7	119.23	116.37	21.00	1136		
							261.02	673.50
2	423	81.66	84.95	81.65	20.55	1138		
							260.10	674.42
1	358	53.38	56.54	53.38	20.02	1139		
							260.64	673.88

GEOFON, Inc.

Piezometric Pressure/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 3/6/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: 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	1154	1202
Pressure (psia)	14.28	14.27
Temperature (°C)	19.60	18.74

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	82.39	82.40	82.40	19.45	1159		
							57.85	1001.23
1	135	47.80	44.23	47.79	19.12	1201		
							65.91	993.17

GEOFON, Inc.
Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 4/3/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: 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		
Time	851	904
Pressure (psia)	14.07	14.11
Temperature (°C)	17.50	17.61

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	251.26	265.67	251.29	21.55	856		
							72.56	1027.78
4	558	210.02	224.59	210.17	22.51	859		
							72.33	1028.01
3	346	117.88	135.18	117.85	22.14	901		
							66.60	1033.74
2	252	77.07	94.48	77.11	21.17	902		
							66.49	1033.85
1	172	42.36	61.04	42.37	19.66	903		
							63.64	1036.70

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 4/3/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (ft. +MSL): 1,082.84
Weather: cloudy and cool

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

Ambient Readings	Start	Finish
Time	1154	1203
Pressure (psia)	14.09	14.10
Temperature (°C)	17.02	19.81

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	140.14	215.39	140.27	20.08	1157		
							48.60	1034.24
4	392	87.51	163.03	87.46	20.85	1158		
							48.40	1034.44
3	322	57.05	133.05	57.09	20.97	1159		
							47.56	1035.28
2	240	21.30	97.67	21.31	20.78	1200		
							47.18	1035.66
1	150	14.21	61.17	14.20	20.17	1201		
							41.39	1041.45

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 4/3/06
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: cloudy and cool

Ambient Readings	Start	Finish
Time	832	840
Pressure (psia)	14.05	14.10
Temperature (°C)	19.74	18.10

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	240.59	241.97	240.59	20.23	834		
							113.19	1026.11
4	524	191.14	197.49	191.15	20.89	836		
							100.80	1038.50
3	429	150.27	155.77	150.27	20.69	837		
							102.05	1037.25
2	259	76.59	83.38	76.64	19.86	838		
							99.06	1040.24
1	149	29.26	40.22	29.31	18.93	839		
							88.63	1050.67

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 4/3/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,102.14
Weather: cloudy and cool

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

Ambient Readings	Start	Finish
Time	1135	1148
Pressure (psia)	14.08	14.07
Temperature (°C)	19.31	18.18

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	197.53	220.29	197.46	19.99	1140		
							72.27	1029.87
4	436	148.79	173.96	148.80	20.56	1141		
							67.16	1034.98
3	323	99.67	125.56	99.61	20.21	1142		
							65.82	1036.32
2	243	64.74	91.24	64.76	19.58	1143		
							64.99	1037.15
1	140	19.75	49.48	19.77	17.02	1147		
							58.33	1043.81

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 4/3/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,173.47
Weather: cloudy and cool

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

Ambient Readings	Start	Finish
Time	733	741
Pressure (psia)	14.01	14.10
Temperature (°C)	18.83	19.49

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	192.18	193.11	192.19	19.66	735		
							126.82	1046.65
4	456	155.66	156.77	155.68	20.31	737		
							126.65	1046.82
3	382	123.47	124.70	123.45	20.28	738		
							126.64	1046.83
2	277	77.74	79.20	77.75	20.00	739		
							126.61	1046.86
1	207	47.25	49.14	47.25	19.72	740		
							125.96	1047.51

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 4/3/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,191.21
Weather: cloudy and cool

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

Ambient Readings	Start	Finish
Time	955	1004
Pressure (psia)	14.05	14.07
Temperature (°C)	15.91	15.24

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	246.29	256.56	246.34	18.03	958		
							166.53	1024.68
4	582	183.94	193.94	183.99	19.04	1000		
							166.99	1024.22
3	468	134.48	141.77	134.56	18.51	1001		
							173.35	1017.86
2	370	91.94	102.30	91.95	17.77	1002		
							166.41	1024.80
1	250	40.68	51.33	40.65	16.60	1003		
							164.00	1027.21

GEOFON, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 4/3/06
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: cloudy and cool

Ambient Readings	Start	Finish
Time	1012	1022
Pressure (psia)	14.02	14.09
Temperature (°C)	15.71	17.03

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	684	156.34	221.92	156.35	18.54	1016		
							204.37	1021.04
4	564	104.18	170.59	104.20	19.81	1017		
							202.79	1022.62
3	424	43.27	111.81	43.29	19.50	1019		
							198.40	1027.01
2	330	14.22	70.98	14.23	18.31	1020		
							198.59	1026.82
1	270	14.18	45.26	14.18	17.68	1021		
							197.93	1027.48

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 4/3/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (ft. +MSL): 1,142.94
Weather: cloudy and cool

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

Ambient Readings	Start	Finish
Time	930	947
Pressure (psia)	14.04	14.11
Temperature (°C)	17.79	16.32

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	174.88	178.65	174.91	18.01	933		
							118.24	1024.70
4	444	151.50	155.28	151.49	18.45	934		
							118.16	1024.78
3	392	128.92	132.41	128.95	18.54	935		
							118.92	1024.02
2	314	95.04	98.24	95.06	16.64	945		
							119.75	1023.19
1	242	63.79	67.01	63.78	16.87	946		
							119.80	1023.14

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 4/3/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,165.05
Weather: cloudy and cool

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

Ambient Readings	Start	Finish
Time	1031	1043
Pressure (psia)	14.08	14.07
Temperature (°C)	17.26	17.89

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	337.35	336.25	337.30	19.99	1035		
							156.75	1008.30
4	700	250.69	252.74	250.64	21.73	1037		
							149.41	1015.64
3	562	190.85	190.90	190.84	21.32	1039		
							154.08	1010.97
2	392	117.14	117.18	117.11	19.99	1041		
							154.15	1010.90
1	230	46.75	46.70	46.76	18.43	1042		
							154.75	1010.30

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 4/3/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,059.10
Weather: cloudy and cool

Well ID: MW-21
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	752	800
Pressure (psia)	14.12	14.14
Temperature (°C)	19.17	19.08

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	125.79	166.49	125.80	19.52	755		
							20.48	1038.62
4	310	98.77	139.65	98.75	19.85	756		
							20.40	1038.70
3	240	68.83	109.72	68.74	19.79	757		
							19.45	1039.65
2	161	34.31	75.42	34.33	19.51	758		
							19.58	1039.52
1	90	14.19	43.95	14.18	19.23	759		
							21.18	1037.92

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 4/3/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,176.98
Weather: cloudy and cool

Well ID: MW-22
Probe Type: Westbay
Serial No.: 2508
Casing Size/Type: 1.5" Westbay

Ambient Readings	Start	Finish
Time	713	722
Pressure (psia)	14.02	14.08
Temperature (°C)	18.58	20.30

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	201.03	208.54	201.02	20.00	717		
							139.24	1037.74
4	467	148.60	157.20	148.64	20.94	718		
							136.68	1040.30
3	389	114.88	124.74	114.87	21.11	719		
							133.57	1043.41
2	329	88.82	98.67	88.81	20.98	720		
							133.71	1043.27
1	245	51.91	61.98	51.89	20.62	721		
							134.36	1042.62

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

Project Name: JPL Pasadena
Project No: 4-73803
Date: 4/3/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,108.84
Weather: cloudy and cool

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

Ambient Readings	Start	Finish
Time	655	703
Pressure (psia)	14.06	14.10
Temperature (°C)	16.02	19.83

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	205.47	217.68	205.45	18.77	658		
							72.25	1036.59
4	445	163.45	175.79	163.45	20.02	659		
							71.89	1036.95
3	319	108.92	122.47	108.88	20.34	700		
							68.90	1039.94
2	254	80.61	94.32	80.70	20.30	701		
							68.84	1040.00
1	174	45.90	60.26	45.92	20.05	702		
							67.42	1041.42

GEOFON, Inc.
Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 4/3/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Elevation of Datum (Ft. + MSL): 1,200.94
Weather: cloudy and cool

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

Ambient Readings	Start	Finish
Time	814	823
Pressure (psia)	14.00	14.08
Temperature (°C)	18.35	20.86

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	235.86	235.17	235.88	20.52	817		
							167.76	1033.18
4	554	182.21	182.65	182.20	21.35	819		
							164.92	1036.02
3	435	130.61	132.31	130.69	21.46	820		
							162.06	1038.88
2	373	103.80	105.61	103.80	21.49	821		
							161.66	1039.28
1	279	63.03	65.85	63.05	21.37	822		
							159.38	1041.56

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 4/3/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: 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	1057	1107
Pressure (psia)	14.16	14.17
Temperature (°C)	18.57	20.23

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	206.91	208.41	206.83	21.30	1101		
							264.87	669.65
4	633	172.37	174.74	172.37	21.67	1102		
							262.54	671.98
3	503	116.10	119.63	116.10	21.41	1104		
							259.68	674.84
2	423	81.38	85.31	81.37	21.11	1105		
							258.86	675.66
1	358	53.07	56.80	53.05	20.73	1106		
							259.63	674.89

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena
Project No: 4-73803
Date: 4/3/06
Personnel: Marco Mendoza, Chase Brogdon
Datum: TOC
Weather: 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	1119	1122
Pressure (psia)	14.11	14.16
Temperature (°C)	19.93	19.34

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	83.15	83.16	83.18	19.79	1120		
							55.70	1003.38
1	135	48.77	44.87	48.64	19.68	1121		
							64.04	995.04