APPENDIX A

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # MW-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: 04-4428.10
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Dale Erbes and J. Robinson
Date: 11/10/03
Weather: Warm and Sunny

PURGE VOLUME CALCULATION (casing volume):

(120 (TD feet) - 40.42 (WL feet)) X 4^2 (D inches) X 3 (# Vols) X 0.0408 = 155.85 (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
1006	40.42	0.0	7.30	65.7	2.1	4.27	18.02	215	
1016		30.0	7.40	63.5	0.00	11.16	17.48	224	
1026		60.0	7.40	63.7	0.00	5.12	17.30	217	
1036		90.0	7.44	63.3	0.00	4.42	17.31	226	
1046		120.0	7.50	62.7	0.00	10.62	17.29	237	
1056		150.0	7.54	62.5	0.00	10.10	17.45	238	
1058	40.42	156.0	7.53	62.5	0.00	10.21	17.70	235	

Total Purge Volume: 156 (Gallons)

Total Discharge: 3.00 (Casing Volumes)

Approx. Purge Rate: 3.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge Start: 1006; clear and odorless

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

WATER DISPOSAL

Purge water storage: Polytank trailer

Purge water disposal: combination

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-1	Sample ID:	Type:	Type:
Sample Time: 1100	Sample Time:	Sample ID:	Sample ID:
No. of Containers: 5	No. of Containers:	Sample Time:	Sample Time:
		No. of Containers:	No. of Containers:

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # MW-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: 04-4428.10
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Dale Erbes and J. Robinson
Date: 11/6/03
Weather: Cool and Sunny

PURGE VOLUME CALCULATION (casing volume):

(140 (TD feet) - 75.38 (WL feet)) X 4^2 (D inches) X 3 (# Vols) X 0.0408 = 126.55 (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
0752	75.38	0.0	7.20	37.2	36	9.19	15.28	226	H2O was pale yellow and odorless
0802		22.5	7.08	36.3	0.35	9.02	16.34	218	
0812		45.0	7.07	36.1	0.70	10.42	16.36	223	
0822		67.5	7.12	35.6	0.60	9.86	17.31	225	
0832		90.0	7.19	35.4	0.35	10.37	18.56	225	
0842		112.5	7.19	36.1	4.8	10.06	17.93	228	
0852	75.38	135.0	7.25	36.3	0.45	9.90	18.93	240	

Total Purge Volume: 135 (Gallons)

Total Discharge: 3.20 (Casing Volumes)

Approx. Purge Rate: 2.25 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge time start: 0752; clear and odorless

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

WATER DISPOSAL

Purge water storage: Polytank trailer

Purge water disposal: _____combination_____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***MS/MSD-4***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-5	Sample ID: MW-5	Type: _____	Type: _____
Sample Time: 0857	Sample Time: 0857	Sample ID: _____	Sample ID: _____
No. of Containers: 5	No. of Containers: 5	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # MW-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: 04-4428.10
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Dale Erbes and J. Robinson
Date: 11/7/03
Weather: Sunny and Cool

PURGE VOLUME CALCULATION (casing volume):

(245 - 180.95) X 4^2 X 3 X 0.0408 = 125.44 Gallons
TD (feet) WL (feet) D (inches) # Vols Calculated Purge Volume

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
0816	180.95	0	6.32	0.103	23	8.09	19.91	347	H2O was cloudy and odorless
0831		30	6.51	0.999	11	8.62	20.62	329	
0846		60	6.58	0.90	2.9	10.27	20.00	337	
0901		90	6.78	99.9	0.95	9.22	20.99	221	
0916		120	6.79	0.1	0.20	8.55	21.14	220	
0924	180.95	135	6.73	0.999	0.15	9.84	22.01	333	

Total Purge Volume: 136 (Gallons)

Total Discharge: 3.25 (Casing Volumes)

Approx. Purge Rate: 2.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Pump start: 0812; Purge Start: 0816; clear and odorless

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

WATER DISPOSAL

Purge water storage: Polytank Trailer

Purge water disposal: combination

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***MS/MSD***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-6	Sample ID:	Type:	Type:
Sample Time: 0926	Sample Time:	Sample ID:	Sample ID:
No. of Containers: 5	No. of Containers:	Sample Time:	Sample Time:
		No. of Containers:	No. of Containers:

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # MW-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: 04-4428.10
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Dale Erbes and J. Robinson
Date: 11/10/03
Weather: Cool and Sunny

PURGE VOLUME CALCULATION (casing volume):

(275 (TD feet) - 215.10 (WL feet)) X 4^2 (D inches) X 3 (# Vols) X 0.0408 = 117.31 (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
0818	215.10	0.0	6.64	49.9	0.00	8.15	18.20	240	
0833		22.5	6.74	51.7	0.00	8.04	19.72	236	
0848		45.0	6.90	0.2	0.00	7.55	19.10	257	
0903		67.5	6.98	53.5	0.00	8.03	19.43	239	
0918		90.0	7.07	53.8	0.00	9.34	21.26	241	
0933		112.5	7.13	54.6	0.00	9.75	22.74	246	
0938	215.10	120.0	7.28	55.4	0.00	11.12	22.19	244	

Total Purge Volume: 120 (Gallons)

Total Discharge: 3.07 (Casing Volumes)

Approx. Purge Rate: 1.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Pump Start: 0814; Purge Start: 0818; clear and odorless

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

WATER DISPOSAL

Purge water storage: Polytank Trailer
Purge water disposal: Combination

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***MS / MSD***	***Additional Sampling***	***Other***
Sample ID: MW-7	Sample ID:	Type:	Type:
Sample Time: 0940	Sample Time:	Sample ID:	Sample ID:
No. of Containers: 5	No. of Containers:	Sample Time:	Sample Time:
		No. of Containers:	No. of Containers:

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # MW-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: 04-4428.10
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Dale Erbes and J. Robinson
Date: 11/6/03
Weather: Cool and Sunny

PURGE VOLUME CALCULATION (casing volume):

(205 - 141.58) X 4^2 X 3 X 0.0408 = 124.20 Gallons
TD (feet) WL (feet) D (inches) # Vols Calculated Purge Volume

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
0923	141.58	0	7.19	42.8	3.3	11.48	18.03	227	
0938		30	7.21	41.9	1.1	9.81	17.64	223	
0953		60	7.30	41.8	1.2	10.98	18.01	217	
1008		90	7.39	41.9	0.60	9.74	18.02	229	
1023		120	7.40	41.2	0.60	10.77	18.06	230	
1031	141.58	130	7.37	43.0	0.00	9.37	18.46	226	

Total Purge Volume: 130 (Gallons)

Total Discharge: 3.14 (Casing Volumes)

Approx. Purge Rate: 2.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge Start: 0918; clear and odorless;

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

WATER DISPOSAL

Purge water storage: Polytank Trailer

Purge water disposal: Combination

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-8	Sample ID: Dupe-7-4-Q03	Type: _____	Type: _____
Sample Time: 1031	Sample Time: 1037	Sample ID: _____	Sample ID: _____
No. of Containers: 5	No. of Containers: 5	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # MW-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: 04-4428.10
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Dale Erbes and J. Robinson
Date: 11/5/03
Weather: Warm and Sunny

PURGE VOLUME CALCULATION (casing volume):

(68 (TD feet) - 32.45 (WL feet)) X 4^2 (D inches) X 3 (# Vols) X 0.0408 = 69.62 (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
0925	32.45	0	6.95	69.0	25	4.00	19.59	241	H2O was black and had medium odor
0930		15	6.68	64.5	23	3.28	19.31	240	
0935		30	6.76	60.8	29	9.85	18.74	237	
0940		45	6.84	60.1	27	9.75	18.70	225	
0945		60	6.90	60.4	14	4.90	18.47	217	
0950	32.45	75	6.95	60.1	5.4	4.31	19.26	215	

Total Purge Volume: 75 (Gallons)

Total Discharge: 3.23 (Casing Volumes)

Approx. Purge Rate: 3 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge Start: 0923; clear and odorless;

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

WATER DISPOSAL

Purge water storage: Polytank

Purge water disposal: 100

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-9	Sample ID:	Type:	Type:
Sample Time: 0952	Sample Time:	Sample ID:	Sample ID:
No. of Containers: 5	No. of Containers:	Sample Time:	Sample Time:
		No. of Containers:	No. of Containers:

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # MW-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: 04-4428.10
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Dale Erbes and J. Robinson
Date: 11/6/03
Weather: Cold and clear

PURGE VOLUME CALCULATION (casing volume):

(155 (TD feet) - 89.38 (WL feet)) X 4^2 (D inches) X 3 (# Vols) X 0.0408 = 128.51 (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
0644	89.38	25	5.32	0.118	19	9.04	16.08	337	
0654		50	6.44	0.999	2.4	8.33	17.70	211	
0704		75	6.62	0.999	0.35	8.66	18.35	323	
0714		100	6.74	0.999	0.05	8.31	18.17	220	
0724		125	6.85	0.1	0.05	9.58	17.40	216	
0728	89.38	130	6.84	0.1	0.05	8.16	18.19	217	

Total Purge Volume: 130 (Gallons)

Total Discharge: 3.03 (Casing Volumes)

Approx. Purge Rate: 2.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge Start: 0639; clear and odorless;

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

WATER DISPOSAL

Purge water storage: Polytank Trailer

Purge water disposal: Combination

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-10	Sample ID:	Type:	Type:
Sample Time: 0728	Sample Time:	Sample ID:	Sample ID:
No. of Containers: 5	No. of Containers:	Sample Time:	Sample Time:
		No. of Containers:	No. of Containers:

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # MW-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: 04-4428.10
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Dale Erbes and J. Robinson
Date: 11/7/03
Weather: Cool and Clear

PURGE VOLUME CALCULATION (casing volume):

(235 (TD feet) - 183.72 (WL feet)) X 4^2 (D inches) X 3 (# Vols) X 0.0408 = 100.43 (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
0714	183.72	0	5.79	64.1	12	8.65	16.75	225	
0722		20	5.95	57.2	1.8	7.65	18.83	228	
0730		40	6.04	56.8	0.45	7.58	19.29	229	
0738		60	6.11	56.8	0.05	7.81	19.41	227	
0746		80	6.19	57.1	0.00	7.98	18.56	219	
0754	183.72	100	6.38	57.5	0.00	8.45	18.03	216	

Total Purge Volume: 100 (Gallons)

Total Discharge: 2.98 (Casing Volumes)

Approx. Purge Rate: 2.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Pump Start: 0712; Purge Start: 0714; clear and odorless;

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

WATER DISPOSAL

Purge water storage: Polytank Trailer

Purge water disposal: Combination

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original
Sample ID: MW-13
Sample Time: 0757
No. of Containers: 5

MS/MSD- 5
Sample ID: MW-13
Sample Time: 0757
No. of Containers: 5

Blank
Type: _____
Sample ID: _____
Sample Time: _____
No. of Containers: _____

Other (Trip / Source / _____)
Type: _____
Sample ID: _____
Sample Time: _____
No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # MW-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: 04-4428.10
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Dale Erbes and J. Robinson
Date: 11/7/03
Weather: Sunny and Luke Warm

PURGE VOLUME CALCULATION (casing volume):

(74 (TD feet) - 45.24 (WL feet)) X 4^2 (D inches) X 3 (# Vols) X 0.0408 = 56.32 (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
0941	45.24	0.0	7.02	59.8	5.1	11.06	17.51	218	
0946		12.5	7.06	57.2	1.6	11.17	16.88	212	
0951		25.0	7.08	56.6	3.5	10.94	17.26	206	
0956		37.5	7.14	57.3	7.1	6.99	16.67	202	
1001		50.0	7.11	56.6	2.7	10.01	17.25	205	
1006	45.24	62.5	7.13	56.5	1.2	9.21	18.86	213	

Total Purge Volume: 62.5 (Gallons)

Total Discharge: 3.33 (Casing Volumes)

Approx. Purge Rate: 2.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Pump Start: 0938; Purge Start: 0941; clear and odorless;

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

WATER DISPOSAL

Purge water storage: Polytank Trailer

Purge water disposal: Combination

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	***Duplicate***	***Blank***	***Other (Trip / Source / _____)***
Sample ID: MW-15	Sample ID: Dupe-2-4-Q03	Type:	Type:
Sample Time: 1003	Sample Time: 1007	Sample ID:	Sample ID:
No. of Containers: 5	No. of Containers: 5	Sample Time:	Sample Time:
		No. of Containers:	No. of Containers:

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG
WELL ID # MW-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: 04-4428.10
Navy Contract No.: N68711-01-D-6008, D.O. No. 0001
Sampled By: Dale Erbes and J. Robinson
Date: 11/10/03
Weather: Cool and Clear

PURGE VOLUME CALCULATION (casing volume):

(285 (TD feet) - 237 (WL feet)) X 4^2 (D inches) X 3 (# Vols) X 0.0408 = 94 (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
0651	237	0.0	5.51	62.5	3.9	8.39	15.84	273	
0708		22.5	5.79	0.2	0.00	7.06	18.48	267	
0723		45.0	5.95	47.4	0.00	6.83	18.90	250	
0738		67.5	6.14	47.1	0.00	7.02	18.87	247	
0753		90.0	6.32	47.3	0.30	7.29	17.48	244	
0801	237	101.25	6.41	47.6	0.00	8.76	18.96	243	

Total Purge Volume: 101.25 (Gallons)

Total Discharge: 3.23 (Casing Volumes)

Approx. Purge Rate: 1.5 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Pump Start: 0647; Purge Start: 0649; clear and odorless;

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

WATER DISPOSAL

Purge water storage: Polytank Trailer

Purge water disposal: Combination

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original
Sample ID: MW-16
Sample Time: 0804
No. of Containers: 5

MS / MSD
Sample ID: _____
Sample Time: _____
No. of Containers: _____

Additional Sampling
Type: _____
Sample ID: _____
Sample Time: _____
No. of Containers: _____

Additional Sampling
Type: _____
Sample ID: _____
Sample Time: _____
No. of Containers: _____

ORIGINAL FIELD RECORD

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Well ID: MW-11
Sampling Zone No.: 5-1
Depth (ft): 639, 524, 429, 259+149
Beginning of Session: 14.26
End of Session: 14.23

Start Time: 0726
Finish Time: 0936

Date: 10·22·03
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	172.52	✓	223.42	✓	223.24	✓	✓	172.54	0739	5.03	2.0	19.24	0.4	>5
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	123.21	✓	181.52	✓	181.31	✓	✓	123.12	0803	6.04	0.40	19.18	32.8	>4
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	82.77	✓	138.53	✓	138.37	✓	✓	82.81	0836	6.05	1.80	20.25	45.2	>3
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.24	✓	66.20	✓	Ide.14	✓	✓	14.31	0904	6.75	5.1	21.19	44.0	>2
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.21	✓	27.01	✓	27.00	✓	✓	14.29	0927	6.82	0.35	24.62	54.1	>1

Notes:

5: Clear + odorless
4: Clear + odorless
3: brownish black sediment 2: " "
1: Clear + odorless

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

(2)

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Well ID: MW-22
Sampling Zone No.: 5-1
Depth (ft): 588, 467, 389, 329, 245
Beginning of Session: 14.14
End of Session: 14.12

Start Time: 1000
Finish Time: 1143

Date: 10·22·03
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)	Temp. (oC)	Cond (mmhos)	
5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	202.12	✓	190.90	✓	190.91	✓	✓	202.25	1028	7.95	0.90	23.11	41.0	>5
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	149.71	✓	139.78	✓	139.75	✓	✓	149.71	1035	7.83	0.80	21.79	36.1	>4
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	115.75	✓	107.45	✓	107.47	✓	✓	115.84	1055	7.44	0.20	22.15	56.1	>3
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	89.81	✓	81.36	✓	81.37	✓	✓	89.81	1114	7.52	1.3	22.1	51.3	>2
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	53.18	✓	44.60	✓	44.63	✓	✓	53.15	1134	7.24	19	22.03	0.99	>1

Notes:
5: clear + odorless, 4: clear + odorless, 3: clear + odorless
2: " " , 1: " "

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

(3)

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Well ID: MW-#23
Sampling Zone No.: 5-1
Depth (ft): 342, 345, 319, 254, 174.2
Beginning of Session: 14.13
End of Session: 14.13

Start Time: 0645
Finish Time: 0904

Date: 10.23.03
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	208.60	✓	200.12	✓	199.83	✓	✓	208.62	0725	5.69	2.6	19.06	55.5	} 5
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	166.59	✓	158.18	✓	158.18	✓	✓	166.56	0726	6.57	~~8.00~~ 6.80	19.20	36.7	} 4
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	111.99	✓	105.07	✓	105.04	✓	✓	111.97	0728	6.62	2.6	18.99	39.5	} 3
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	~~83.86~~	✓	76.84	✓	76.87	✓	✓	83.78	0815	7.01	1.8	R.I.J	90.0	} 2 MS/MSD
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	83.88	✓	76.84	✓	76.86	✓	✓	83.75	0837	7.22	4.0	19.53	93.5	
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	49.23	✓	42.63	✓	42.62	✓	✓	49.23	0855	7.25	4.7	~~17.67~~ 20.91	0.094	} 1

Notes:
5: Clear + odorless, 4: Clear + odorless, 3: Clear + odorless,
2: " ", 1: " "

Total Volume: _____

(4)

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Well ID: MW-12
Sampling Zone No.: 5-1
Depth (ft): 548, 434, 323, 243+140
Beginning of Session: 14.11
End of Session: 14.11

Start Time: 1027
Finish Time: 1244

Date: 10/23/03
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	203.28	✓	201.47	✓	201.46	✓	✓	203.28	1040	7.63	21	24.74	41.4	>5
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	155.42	✓	155.87	✓	155.72	✓	✓	154.50	1107	7.68	0.40	23.21	47.3	>4
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	105.21	✓	107.13	✓	107.17	✓	✓	105.17	1128	7.95	2.3	23.66	41.6	>3
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	70.28	✓	72.68	✓	72.73	✓	✓	70.29	1146	7.87	1.5	23.44	48.9	>2
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	25.76	✓	29.64	✓	29.64	✓	✓	25.79	1208	7.78	3.9	25.33	54.4	1
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	25.65	✓	29.63	✓	29.64	✓	✓	25.75	1233	7.95	8.4	22.87	53.8	Dup-4

Notes:
5: Clear + odorless, 4: clear + odorless, 3: Clear + odorless, 2: Clear + odorless
1: " "

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

(5)

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Well ID: MW-20
Sampling Zone No.: 5-1
Depth (ft): 900, 700, 562, 392 + 230
Beginning of Session: 14.07
End of Session: 14.16

Start Time: 0705
Finish Time: 0952

Date: 10.24.03
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	303.93	✓	321.79	✓	321.77	✓	✓	303.87	0721	6.17	0.20	17.01	46.1	>5
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	216.77	✓	230.36	✓	230.29	✓	✓	216.79	0757	6.95	4.4	16.39	31.8	>4
5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	302.96	✓	321.80	✓	321.79	✓	✓	303.15	0815	7.52	0.15	16.85	30.7	>5
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	156.78	✓	169.10	✓	169.03	✓	✓	156.73	0841	7.98	0.20	18.00	49.4	>3
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	82.72	✓	98.09	✓	98.08	✓	✓	82.74	0904	7.88	0.00	17.97	36.3	>2
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	82.71	✓	98.01	✓	98.02	✓	✓	82.72	0924	7.65	0.35	16.47	35.2	Dup-2
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.23	✓	27.58	✓	27.54	✓	✓	14.29	0945	7.52	1.5	20.21	65.9	>1

Notes:

5: Clear + odorless, 4: Clear + odorless, 3: Clear + odorless, 2: Clear + odorless
1: " "
Side record run for 5, due to wrong sample bottle collection 9. — 10.24.03

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

(2)

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Well ID: MW-4
Sampling Zone No.: 5-1
Depth (ft): 513, 392, 322, 240 + 150
Beginning of Session: 14.16
End of Session: 14.25

Start Time: 0715
Finish Time: 0954

Date: 10.27.03
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	138.94	✓	197.41	✓	197.41	✓	✓	138.96	0731	6.59	8.9	22.42	40.2	
5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	138.91	✓	197.40	✓	197.39	✓	✓	138.94	0891	6.93	2.5	22.96	35.3	5 type
4	31	✓	✓	✓	✓	✓	✓	✓	✓	✓	86.11	✓	145.04	✓	145.03	✓	✓	86.20	0829	7.12	3.5	24.91	38.4	3 4
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	55.64	✓	115.02	✓	115.03	✓	✓	55.66	0853	7.32	33	25.47	39.0	3
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	19.90	✓	79.44	✓	79.43	✓	✓	19.93	0915	7.21	35	25.10	88.1	2
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.24	✓	41.50	✓	41.47	✓	✓	14.29	0940	7.53	4.3	27.89	45.0	1

Notes:
5: light brown tint + odorless, 4: Clear + ~~slight~~ - slight odor, 3: ~~slight~~ brownish, yellow + H_2S odor, 2: Slight tint + ~~odorless~~, 1: clear + odorless

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

(9)

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Well ID: MW-24
Sampling Zone No.: 5-1
Depth (ft): 1678ft, 554.435, 373+ 279
Beginning of Session: 14.06
End of Session: 14.06

Start Time: 0723
Finish Time: 1089

Date: 10.28.03
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	167.85	✓	214.99	✓	214.99	✓	✓	167.90	0746	6.14	0.40	24.90	44.6	>5
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	113.92	✓	164.78	✓	164.78	✓	✓	113.91	0818	7.61	0.15	22.89	31.5	
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	113.87	✓	164.74	✓	164.74	✓	✓	113.87	0909	8.64	0.45	24.65	29.8	4 dupe 1
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	62.02	✓	114.49	✓	114.49	✓	✓	62.04	0939	8.53	2.8	25.28	34.3	>3
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	35.07	✓	87.64	✓	87.68	✓	✓	35.03	1004	8.29	3.9	25.16	40.6	>2
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.13	✓	47.62	✓	47.59	✓	✓	14.19	1032	~~8.00~~	~~4.73~~	27.36	49.1	>1
																			✓	7.93	11			

Notes:
5: Clear + odorless, 4: clear + odorless, 3: clear + odorless, 2: clear + odorless
1: " "

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Well ID: MW-28
Sampling Zone No.: 5-1
Depth (ft): 484, 564, 424, 330, ±270
Beginning of Session: 14.00
End of Session: 14.06

Start Time: 0719
Finish Time: 0857

Date: 10.29.03
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	159.65	✓	200.85	✓	200.78	✓	✓	159.64	0736	6.43	1.2	16.67	42.0	>5
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	107.40	✓	149.92	✓	149.92	✓	✓	107.40	0805	6.51	2.0	17.98	57.7	>4
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	47.27	✓	~~91.95~~ 91.99	✓	91.99	✓	✓	46.45	0831	6.94	0.35	18.23	53.0	>3
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.18	✓	50.70	✓	50.70	✓	✓	14.25	0858	7.28	1.2	18.59	44.4	2
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.17	✓	50.75	✓	50.73	✓	✓	14.19	0923	7.39	3.5	19.61	43.7	M3/MSL
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.16	✓	24.43	✓	24.41	✓	✓	14.19	0948	7.41	0.50	22.02	46.2	

Notes:
5: Clear + Odorless, 4: Clear + odorless, 3: Clear + odorless, 2: Clear + odorless
1: " "

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

(9)

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Well ID: MW-19
Sampling Zone No.: S-1
Depth (ft): 498 ft, 444, 392, 314+242
Beginning of Session: 14.04
End of Session: 14.08

Start Time: 1048
Finish Time: 1320

Date: 10.29.03
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	~~88.30~~	~~✓~~	~~103.~~											
											81.49	✓	160.37	✓	160.39	✓	✓	81.50	1109	7.61	13.7	21.54	61.8	5
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	57.92	✓	137.02	✓	137.01	✓	✓	57.92	1134	7.80	1.12	21.70	51.9	4
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	35.23	✓	115.60	✓	115.62	✓	✓	35.22	1200	7.55	8.61	22.61	88.6	
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	35.18	✓	115.59	✓	115.62	✓	✓	35.14	1224	7.22	5.91	21.89	92.9	3
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.16	✓	81.48	✓	81.46	✓	✓	14.21	1247	7.32	38.9	23.81	0.1	MS/MSD 2
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.11	✓	50.47	✓	50.46	✓	✓	14.18	1109	7.66	46.9	24.88	37.7	1

Notes:
5: Clear + odorless, 4: Clear + odorless, 3: Clear + odorless, 2: Light ~~Clear~~ brownish, yellow + odorless, 1: Yellowish brown + odorless

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

(10)

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Well ID: MW-21
Sampling Zone No.: 5-1
Depth (ft): 372, 310, 240, 161 + 90 ft
Beginning of Session: 14.09
End of Session: 14.08

Start Time: 0753
Finish Time: 1023

Date: 10.30.03
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)	Temp. (oC)	Cond (mmhos)	
5	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.61	✓	150.39	✓	150.38	✓	✓	129.61	0810	6.10	3.0	18.32	85.1	> 5
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	103.23	✓	123.55	✓	123.54	✓	✓	102.72	0835	6.29	0.25	17.70	76.4	> 4
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	102.72	✓	123.55	✓	123.55	✓	✓	102.63	0859	6.76	1.0	18.51	75.3	4 rsa 5
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	92.53	✓	93.66	✓	93.66	✓	✓	92.47	0919	7.11	1.4	19.14	0.090	> 3
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	38.01	✓	59.47	✓	59.48	✓	✓	38.09	0940	7.33	1.3	18.44	0.103	> 2
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.11	✓	28.28	✓	28.26	✓	✓	14.18	1004	7.33	6.8	21.48	93.7	> 1

Notes:
5: Clear + odorless, 4: Clear + odorless, 3: Clear + odorless, 2: Clear + odorless
1: " "

Total Volume: _____

(11)

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Well ID: MW-3
Sampling Zone No.: 5-3
Depth (ft): 653,558,346,252 & 172
Beginning of Session: 14.12
End of Session: 14.18

Start Time: 0742
Finish Time: 0911

Date: 11.3.03
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	180.60	✓	247.50	✓	247.50	✓	✓	180.75	0757	6.84	2.0	16.53	43.1	} 5
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	139.30	✓	206.53	✓	206.54	✓	✓	139.29	0820	6.91	1.3	15.33	33.1	} 4
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	46.95	✓	117.09	✓	117.10	✓	✓	46.98	0843	6.88	1.1	15.78	41.3	} 3
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	Pulled Out for the day													

Notes:
5: medium odor of diesel + clear, 4: Slight odor + clear, 3: ~~Slight~~ Slight Odor + clear

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

(12)

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Well ID: MW-14
Sampling Zone No.: 5-1
Depth (ft): 510, 456, 382, 277 & 207
Beginning of Session: 14.07
End of Session: 14.15

Start Time: 0659
Finish Time: 0847

Date: 11.4.03
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	146.87	✓	177.28	✓	177.21	✓	✓	146.82	0711	5.59	1.7	17.82	53.4	>5
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	110.10	✓	140.76	✓	140.76	✓	✓	110.11	0732	6.27	0.05	16.24	56.1	>4
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	77.79	✓	108.68	✓	108.63	✓	✓	77.89	0754	6.54	0.45	17.35	95.6	>3
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	32.14	✓	63.02	✓	63.03	✓	✓	32.13	0815	7.03	2.2	17.20	0.1	>2
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.23	✓	32.74	✓	32.74	✓	✓	14.31	0838	7.41	15	17.21	0.094	>1

Notes:
5: very slight H_2S odor + clear, 4: clear + no odor, 3: clear + odorless, 2: clear + odorless
1: clear + odorless

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

(13)

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Well ID: MW-17
Sampling Zone No.: 5-1
Depth (ft): 726, 582, 468, 370, 250 ft
Beginning of Session: 14.14
End of Session: 14.10

Start Time: 0931
Finish Time: 1153

Date: 11.4.03
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)	Temp. (oC)	Cond (mmhos)	
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	167.37	✓	237.99	✓	237.74	✓	✓	167.37	0948	7.97	6.5	20.33	31.0	>5
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	~~165.55~~ Had relocate port													
4	1										104.75	✓	174.27	✓	174.24	✓	✓	104.69	1015	7.95	1.6	18.57	29.7	>4
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	55.01	✓	122.01	✓	121.94	✓	✓	55.02	1039	7.92	11	17.77	43.6	>3
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	54.97	✓	121.83	✓	121.79	✓	✓	54.98	1102	7.92	13	16.12	44.5	Dup. 5
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.31	✓	82.95	✓	82.93	✓	✓	14.36	1123	7.90	1.9	17.90	57.0	>2
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.25	✓	32.01	✓	31.99	✓	✓	14.29	1145	7.96	2.7	17.44	42.8	>1

Notes:
5: Cloudy, light yellow (pale) & odorless, 4: clear & odorless, 3: light brown & odorless,
2: clear & odorless, 1: clear & odorless

Total Volume: _____

GEOFON INCORPORATED

Groundwater Sampling

Multi-Port Well Field Data Sheet

11

JPL Pasadena
Contract #: N68711-01-D-6008
Delivery Order #: 0001

Well ID: MW-3
Sampling Zone No.: 2 + 1
Depth (ft): 252 / 172
Beginning of Session: 14.17
End of Session: 14.20

Start Time: 0707
Finish Time: 0818

Date: 11·5·03
Page: 2 of 2

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)	Temp. (oC)	Cond (mmhos)	
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.30	✓	76.05	✓	76.05	✓	✓	14.41	0724	5.94	2.2	14.62	44.5	> 2
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	~~14.23~~	✓	14.93		20 mins purge									
1	2	—	—	—	—	—	—	—	—	—	14.26	✓	41.32	✓	41.31	✓	✓	14.33	0749	6.95	5.6	14.49	0.995	1 MS/MSD (3)
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.30	✓	41.27	✓	41.27	✓	✓	14.33	0808	4.84	23	15.20	45.8	

Notes:
2: clear + odorless, 1: cloudy + odorless

Total Volume: _____