Groundwater Sample Logs
(TtNUS)

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW- MW04-0014- 032802

Tetra Tech NUS Job No./PMS N4123-0324
QC: NA (If applicable)

Sample Method: Low Flow
Depth Sampled: 14 Feet bgs Screened Interval Depth 8-18 feet bgs
Sample Date & Time: 3/ 28/ 02 1250 hours NA/Dup
Sampler(s): J. Danieli, C. Sanchez
Data Recorded By: J. Danieli Signature: J. Danieli
Notes: TOC = Top of Casing
MP: TOC = Stick up: 2.54 ft above Ground Surface

H&S Survey Meter NA PPM Field Instrument Group (A)/B/C/D
Pre-pump insertion WL 11.01 ft TOC Post - pump insertion WL NA ft
10.59' at Top of PVC (2.10 A ground surf.)

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOC	1291020				
metals	009130				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1219	10.59		145		9.02	1331	6.65	-97.1	4.71	1.14	
1225	10.64		145		8.87	1322	6.64	-97.7	4.06	0.75	
1230	11.19		145		8.91	1312	6.64	-98.3	3.87	0.93	
1235	11.16		145		8.90	1306	6.63	-98.4	3.60	0.97	
1240	11.16		145		8.91	1305	6.63	-98.4	3.61	0.95	
1245	11.16		145	~2gal	8.85	1308	6.63	-99.1	3.58	0.93	
1250	stop	purging	/ start	sampling							

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-MW4-0012

Tetra Tech NUS Job No./PMS N4123-0324
QC: Matrix spike collected (If applicable)

Sample Method: low flow
Depth Sampled: 11.5 Feet* Screened Interval Depth 15-25 feet bgs
Sample Date & Time: 3 / 25 / 02 0930 hours NA /Dup
Sampler(s): Brian Fennelly
Data Recorded By: Brian Fennelly Signature: [signature]
Notes:
* bgs.

MP: Top of PVC
PVC Stickup = 2.5' above Ground Surface

H&S Survey Meter 0.0 PPM
Pre-pump insertion WL 12.89 ft
Field Instrument Group A/B/C/D
Post - pump insertion WL 12.89 ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOCs					
metals					

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0855	12.89	NA	Start purge								
0900	13.02		120		9.99	2664	6.99	-135.5	0.91	2.25	
0905	13.02		120		10.09	2663	7.00	-139.6	0.55	1.19	
0910	13.02		120		10.14	2662	7.01	-140.2	0.51	0.36	
0915	13.02		120		10.21	2656	7.02	-133.2	0.37	0.26	
0920	13.03		120		10.30	2640	7.03	-137.2	0.34	0.25	
0925	13.02		120	2.25	10.28	2641	7.03	-139.2	0.34	0.21	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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Note: Sample collected above screened interval-7 install new shallow well for MW-4 on 3/28/02 & sample 30 log sheet for details. Use this well for intermediate sample at 23 bgs - see log sheet for details

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW - MW04 - 0023 - 032802

Tetra Tech NUS Job No./PMS N4123-0324
QC: MS/MSD ~~NA~~ (If applicable)

Sample Method: Low Flow
Depth Sampled: 23 Feet bgs Screened Interval Depth 15-25 feet bgs
Sample Date & Time: 3/28/02 1120 hours /Dup
Sampler(s): J. Danieli, C. Sanchez
Data Recorded By: J. Danieli Signature: J. Danieli
Notes: MP = Top of PVC (TPVC) bgs = below ground surface
PVC stickup = 2.5 ft above ground surface.

H&S Survey Meter NA PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL 12.6 ft TPVC Post - pump insertion WL NA ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOCs	1291020				
metals	010186				

Note sulfide odor

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1000	Start	Purge									
1009	12.75	NA	300		10.51	2451	6.96	-53.1	2.07	35.7	lower
1015	12.75		200		10.43	2442	6.98	-136.6	1.57	17.84	pump
1020	12.70		200		10.15	2451	6.99	-149.9	1.20	12.25	water=
1025	12.70		200		10.58	2436	7.00	-166.5	1.16	9.88	sulfur
1030	12.70		200		10.72	2426	7.03	-179	0.91	6.1	odor.
1035	12.70		200		10.72	2420	7.04	-187	0.76	5.7	
1040	12.73		200		10.76	2412	7.04	-188	0.74	6.0	
1045	12.73		200		10.79	2409	7.06	-191	0.77	5.9	
1050	12.71		200		10.85	2389	7.08	-191	0.67	5.3	
1055	12.71		200		10.86	2382	7.09	-198	0.68	5.0	
1100	12.72		200		10.96	2375	7.10	-203	0.70	5.1	
1105	12.72		200		10.95	2371	7.10	-204	0.69	4.9	
1110	12.72		200	≈4.5 gal	10.95	2369	7.10	-204	0.67	4.9	
1115	Stop	sampling / start sampling									

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IDGW - MW04 - 0036 - 032802

Tetra Tech NUS Job No./PMS N4123-0324
QC: (If applicable)

Sample Method: DPT / Peristaltic pump
Depth Sampled: 35.5 Feet Screened Interval Depth 35.5 feet
Sample Date & Time: 3 / 28 / 02 1005 hours /Dup
Sampler(s): K. O'Neill
Data Recorded By: Kevin O'Neill Signature:
Notes:

H&S Survey Meter N/A PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL N/A ft Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOA	3				
Metals	1				

GW at ~ 9.8' measured at MW-4
0810 Started purging 1140 completed sampling

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C*	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0920 *			12		11.30	7506	7.72	202.0	7.21	43.0	
0937				Sunny day	11.38	7695	7.72	186.2	7.07	40.3	
0947			11	+ warming	11.46	7722	7.73	178.6	7.06	39.1	
0957			10	up over day	11.64	7856	7.73	171.6	6.98	39.3	LKO 3/28/02
	1005	Started	sampling	at MW04	-0036						

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

* flow-thru cell filled

Note: Sulfide odor

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TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AA01-0009-020802

Tetra Tech NUS Job No./PMS N4123-0324
QC: SVOC, ~~VOA~~ 2/8/02 MS/MSD, Total metals - MS/MSD (If applicable)
VOA = Dup = IPGW-DP06-020802

Sample Method: Low Flow
Depth Sampled: _____ Feet Screened Interval Depth 3-11 feet bgs
Sample Date & Time: 2/8/02 1115 hours 1120 /Dup
Sampler(s): J. Danieli
Data Recorded By: J. Danieli Signature: J. Danieli
Notes: MP - Top of PVC

H&S Survey Meter NA PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL 3.62 ft From TPVC* Tubing
Post - ~~pump~~ insertion WL 3.63 ft From TPVC*

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOC	1290120				
SVOC	0242010				
Total metals.	010040				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1 NA	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C 3%	Spec. Cond. 2 uS/cm 3%	pH ±0.1	ORP/Eh3 mv ±10	DO mg/L 10%	Turbidity NTU 10%	Comments
0925 -	Begin Purging - water turbid - silty - allow it to Purge for few minutes Before connecting to YSI Flow through Cell.										
0935	3.64		150ml/min		9.42	477	6.37	-531.3	5.97	575	
0940	3.64		180		9.14	478	6.44	-525.4	4.15	418	
0945	3.64		190		9.27	477	6.47	-524.6	3.74	329	
0950	3.64		190		9.39	476	6.48	-478.2	3.54	296	
0955	3.64		190		9.28	477	6.47	-490.0	3.48	178	
1000	3.63		190		9.40	476	6.47	-462.2	3.41	124	
1005	3.63		190		9.50	476	6.48	-462.4	3.38	88	
1010	3.63		190		9.62	476	6.47	-451.4	3.39	60	
1015	3.63		190		9.68	474	6.46	-426.7	3.36	45	
1020	3.63		190		9.61	476	6.46	-423.0	3.36	28	
1025	3.63		190		9.69	475	6.48	-416.0	3.36	29	
1030	3.63		190		9.43	474	6.40	-422.3	3.36	17.5	
1035	3.63		190		9.53	474	6.47	-416.3	3.35	16.3	
1040	3.63		190		9.48	473	6.46	-418.2	3.33	13.6	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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* TPVC = Top of PVC.
PVC stickup = 2.62 ft above Ground Surface

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AB01-0009-020802

Tetra Tech NUS Job No./PMS N4123-0324
QC: MS/MSD = SVOCS & Total Metals (If applicable) DUP = VOCS = IPGW-DP06-020802

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1 N/A	Purge Rate ml/min	Cum. Volume Purged ~~liters~~ gals	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1045	3.63		190		9.13	472	6.45	-397.6	3.34	12.8	
1050	3.63		190		9.34	472	6.45	-381.3	3.34	8.8	
1055	3.63		190		9.41	472	6.47	-384.2	3.34	7.5	
1100	3.63		190		9.35	473	6.42	-374.8	3.34	6.1	
1105	3.63		190		9.34	473	6.47	-379.0	3.34	5.5	
1110	3.63		190	~5 gals	9.31	472	6.47	-379.3	3.33	5.1	
1111	Stop	Purging									
1115	Begin	Sampling.									

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AA01-0025-020802

Tetra Tech NUS Job No./PMS N4123-0324
QC: NA (If applicable)

Sample Method: Low Flow w/ peristaltic + YSI (waterloo)
Depth Sampled: 25.1 Feet* Screened Interval Depth _____ feet
Sample Date & Time: 2 / 8 /02 0900 hours _____ /Dup
Sampler(s): Brian Fennelly
Data Recorded By: B. Fennelly Signature: [signature]
Notes: * Bgs.

H&S Survey Meter _____ PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL NA ft Post - pump insertion WL NA ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0800	start	purge	18								
0830	NA	NA	18		8.99	451	6.51	-29.7	8.28	9.37	
0840			20		8.88	448	6.52	-36.2	7.50	4.63	
0845			20		8.86	447	6.53	-53.0	7.45	4.85	
0850			20		8.85	447	6.53	-53.5	7.43	4.56	
0855			20		8.83	447	6.53	-52.9	7.44	4.05	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AA02-0010-011702

Tetra Tech NUS Job No./PMS N4123-0324
QC: MS/MSD (If applicable)

Sample Method: low-flow
Depth Sampled: 10 Feet bgs Screened Interval Depth 15-5 feet bgs
Sample Date & Time: 1/17/02 1025 hours N/A /Dup
Sampler(s): J. Lambert, C. Sanchez
Data Recorded By: J. Lambert Signature: [signature]
Notes:
MP = TOP OF PVC
AVC = 0.3 ft bgs bgs = below ground surface

H&S Survey Meter ____ PPM
Pre-pump insertion WL 2.39 ft
Field Instrument Group A/B/C/D
Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOA	0144040				
S-VOA	0220010				
metals	1218030				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0915	2.39		Begin	purge							
0925	2.60		250		10.72	312	6.69	-405.4	1.39	69.1	*
0930	2.50		250		10.56	314	6.66	-397.3	1.29	65.2	
0935	2.50		250		10.63	314	6.62	-392.2	1.27	53.5	
0940	2.50		250		10.77	315	6.60	-355.3	1.26	39.8	
0945	2.50		250		10.87	315	6.60	-382.9	1.25	30.5	
0950	2.50		250		10.90	318	6.59	-379.8	1.22	21.3	
0955	2.50		250		10.91	320	6.59	-381.0	1.22	13.3	
1000	2.50		250		10.85	323	6.59	-374.0	1.24	16.3	
1005	2.50		250		11.00	322	6.60	-376.1	1.27	23.5	
1010	2.50		250		10.97	323	6.61	-377.2	1.28	21.4	
1015	2.50		250	4.5	10.96	323	6.61	-375.3	1.30	22.1	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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* turned pump down

∇_0 = 2.39 TPVC

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AA03-0006-011602

Tetra Tech NUS Job No./PMS: N4123-0324
QC: (If applicable)

Sample Method: peristaltic pump w/ YSI
Depth Sampled** 6 Feet Screened Interval Depth _____ feet
Sample Date & Time: 1/16/02 1425 hours _____ /Dup
Sampler(s):
Data Recorded By: B. Farrell/ Signature: [signature]
Notes: * bgs

H&S Survey Meter NA PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL _____ ft Post - pump insertion WL _____ ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
SVOCS	022010				
VOCS	B0144040				
Total Metals	1218030				

bgs = below Ground Surface
MP = Top of PVC
PVC - Height = 3.05' above Ground Surface

Clock Time 24hr	Water Depth below MP** ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1310	7.18	start	purge 350								
1320	7.27	NA	375		7.15	254	6.09	-51.6	5.57	16.5	
1330	7.29		175		6.90	240	6.10	-49.2	3.21	12.1	
1340	7.30		200	1.0	6.85	240	6.11	-43.5	3.06	9.84	
1345	7.30		200		6.60	240	6.12	-40.9	3.09	5.90	
1350	7.30		200		6.82	240	6.13	-41.2	3.03	4.96	
1355	7.31		200		6.84	239	6.12	-35.3	3.00	6.50	
1400	7.31		200		6.84	239	6.13	-34.6	2.93	8.02	
1405	7.31		200		6.90	239	6.13	-30.7	2.88	4.32	
1410	7.31		200		6.88	239	6.13	-30.1	2.93	4.00	
1415	7.31		200		6.88	239	6.13	-29.2	2.91	3.76	
1420	7.31		200		6.89	239	6.13	-26.8	2.83	3.71	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

** from top of pvc.

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TETRA TECH NUS, INC. (Duplicate SVOC only)

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AA05-0022-022602
IPGW-DPD -022602

Tetra Tech NUS Job No./PMS N4123-0324
QC: LAB QC for ALL analyses plus ~~and~~ SVOC Duplicate (only) KO 2-26-02 (If applicable)

Sample Method: DPT / peristaltic pump
Depth Sampled: _____ Feet Screened Interval Depth _____ feet
Sample Date & Time: 2/26/02 _____ hours _____ /Dup
Sampler(s): K. O'Neill
Data Recorded By: KO Signature: Kevin O'Neill
Notes:

H&S Survey Meter _____ PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL ~43 ft Post - pump insertion WL _____ ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOA					
SVOC					
Metals					

Purge start @ 0845 YSI hookup at 0903

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	~~Cum. Volume Purged gallons~~ KO 2-26-02 N/A	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0933	~13	N/A	20		10.97	285	6.61	232.6	10.37	11.23	
0938			20	Sun's out - warming up	11.20	285	6.55	233.4	10.23	8.72	
0943					11.23	286	6.53	233.4	10.23	7.11	
0948					11.39	284	6.51	234.9	10.47	6.54	
0953					11.89	279	6.48	235.0	10.35	5.27	
1000	STOP										

Kevin O'Neill

NO SAMPLE collected - decided to install shallow well for better flow

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AA05-0024-022602

Tetra Tech NUS Job No./PMS N4123-0324
QC: IPGW-DP02-022602 (If applicable)
SVOC only

Sample Method: Peristaltic pump in shallow well
Depth Sampled: 24 Feet Screened Interval Depth ____ feet
Sample Date & Time: 2/26/02 1410 hours 1430 /Dup
Sampler(s): K. O'Neill
Data Recorded By: KO Signature: Kevin O'Neill
Notes:

H&S Survey Meter N/R PPM Field Instrument Group (A)/B/C/D
Pre-pump insertion WL 13.54 ft Post - pump insertion WL N/A ft
LAB QC volume

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOA					
SVOC					
Metal					

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
		N/A									
1307	13.58		275	In Flow Sub	15.06	278	6.50	-117.5	3.46	215	
1320			200		15.09	276	6.48	-150.9	3.39	100	
1340	13.60		200		15.08	273	6.46	-151.5	3.57	13.0	
1345	13.58		200		15.11	273	6.44	-151.8	3.60	10.5	
1350					15.06	272	6.45	-152.5	3.62	7.23	
1355	13.58		200		15.03	272	6.44	-154.1	3.61	4.53	
1400					15.04	271	6.43	-153.8	3.66	4.10	1402-26-02
~~1410~~ 1405	13.56		200		15.02	272	6.43	-152.3	3.64	3.92	
		Sampled at 1410									

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

Tt NUS Form 0009

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AA06-0008-012202

Tetra Tech NUS Job No./PMS N4123-0324
QC: NA (If applicable)

Sample Method: peristaltic pump w/ YSI
Depth Sampled: 8 Feet bgs Screened Interval Depth 4-4 feet bgs
Sample Date & Time: 1 / 22 / 02 1000 hours NA /Dup
Sampler(s): Brian Fennelly
Data Recorded By: B. Fennelly Signature: [signature]
Notes: MP = 0.25' below 03/2010 2 TOP OF PVC
PVC = 0.25' below ground surface (bgs) (TPVC)

H&S Survey Meter NA PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL 1.67 ft Post - pump insertion WL NA ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOCs					
~~metals~~					
~~SVOCs~~					

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0840	1.67	NA	200	Start							
0850	1.98		170		9.21	749	6.32	-397.3	2.66	165	
0900	1.95		170		9.30	719	6.37	-368.5	2.79	57.3	
0910	1.95		170		9.44	713	6.39	-363.8	2.27	39.2	
0920	1.95		170		9.56	715	6.41	-360.3	2.61	24.1	
0930	1.95		170		9.77	715	6.43	-336.0	1.80	11.6	
0935	1.96		170		9.90	714	6.43	-314.8	2.22	9.74	
0940	1.96		170		9.60	712	6.43	-309.7	1.98	6.55	
0945	1.96		170		9.61	712	6.43	-296.0	2.01	4.88	
0950	1.96		170		9.61	713	6.43	-303.4	2.02	4.42	
0955	1.96		170		9.62	711	6.44	-298.7	2.07	3.70	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

Tt NUS Form 0009

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AA06-0016-012102

Tetra Tech NUS Job No./PMS N4123-0324
QC: N/A (If applicable)

Sample Method: low-flow
Depth Sampled: 16 Feet Screened Interval Depth N/A feet
Sample Date & Time: 1/21/02 1155 hours N/A /Dup
Sampler(s): J. Lambert
Data Recorded By: J. Lambert Signature: J. Lambert
Notes:

H&S Survey Meter N/A PPM Field Instrument Group (A)/B/C/D
Pre-pump insertion WL 9.5 ft Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOA					
tot metals					
SVOAs					

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1030	N/A	N/A	Begin purge								
1100			40		7.79	339	6.98	-127.9	2.00	53.0	
1105			40		8.00	338	6.89	-139.4	1.56	39.5	
1110			50		7.92	336	6.86	-147.8	1.75	37.2	
1115			50		8.04	330	6.84	-145.9	1.68	79.8	
1120			40		7.96	328	6.79	-137.2	1.64	30.5	
1125			35		7.88	328	6.81	-135.6	1.81	24.0	
1130			35		7.64	326	6.79	-143.3	1.79	20.2	
1135			35		7.50	325	6.81	-129.0	2.02	12.47	
1140			35		7.37	323	6.80	-124.0	2.17	12.04	
1145			35		7.36	323	6.84	-123.0	2.29	11.91	
1150			35		7.33	320	6.81	-120.3	2.31	11.99	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

Tt NUS Form 0009

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX

Sample ID: IPGW - AA01e. ~~0024-012102~~ 0023-012102 BF 1/21/02

Tetra Tech NUS Job No./PMS N4123-0324

QC: NA (If applicable)

Sample Method: Low Flow - w/ Waterloo Sampler

Depth Sampled: 23 ~~24~~ Feet bgs Screened Interval Depth 24 feet bgs

Sample Date & Time: 1 / 21 / 02 1710 hours NA /Dup

Sampler(s): J. Danieli

Data Recorded By: J. Danieli Signature: J. Danieli

Notes: * Note - Water level at ~4.5ft bgs. - Can not continuously measure water level due to waterloo sample technique

H&S Survey Meter NA PPM

Field Instrument Group (A)/B/C/D

Pre-pump insertion WL NA ft

Post - pump insertion WL NA ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOCs					
SVOCs					
metals					

Clock Time 24hr	*Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1400 -	Begin Purging		No Flow								
1530	start pumping		40		9.59	243	6.71	-138.4	2.46	410	see below
1540	NA	NA			9.73	242	6.77	-175.3	1.68	327	
1550					9.71	243	6.83	-188.7	1.46	256	
1600					8.97	249	6.75	-177.4	1.37	104.3	
1605			45		8.00	252	6.82	-166.2	1.37	48.1	
1610			40		7.37	252	6.75	-156.3	1.44	31.6	
1615			50		7.25	253	6.97	-154.7	1.41	29.8	
1620			50		7.07	253	6.60	-152.8	1.50	25.6	
1625			45		6.77	253	6.58	-142.6	1.51	16.8	
1630			45		6.55	253	6.55	-143.4	1.56	15.4	
1635			45		6.34	254	6.57	-141.7	1.54	12.3	
1640			45		6.28	254	6.54	-145.9	1.53	10.4	
1645			45		6.25	255	6.60	-144.5	1.55	9.54	
1650			45		6.12	255	6.69	-142.3	1.53	6.60	
1655	↓	↓	40		6.13	254	6.67	-145.7	1.50	9.75	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

1530: could not get flow at 23.5' bgs. raised 0.5' to 23' bgs and got flow.

Tt NUS Form 0009

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AA06-0023-012102

Tetra Tech NUS Job No./PMS N4123-0324
QC: - NA - (If applicable)

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged liters	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1700	NA	NA	40		6.08	255	6.64	-149.5	1.48	9.72	
1705	↓	↓	40		6.12	256	6.70	-146.4	1.53	9.16	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

Tt NUS Form 0009

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AA07-0008-012102

Tetra Tech NUS Job No./PMS N4123-0324
QC: NA (If applicable)

Sample Method: peristaltic pump w/ YSI
Depth Sampled: 8 Feet Screened Interval Depth _____ feet
Sample Date & Time: 1 / 21 / 02 1010 hours NA /Dup
Sampler(s): B. Ferrelly
Data Recorded By: B. Ferrelly Signature: [signature]
Notes: MP = TOP OF PVC (TPVC)
PVC = 0.21 bgs (below ground surface)

H&S Survey Meter NA PPM
Pre-pump insertion WL _____ ft
Field Instrument Group A/B/C/D
Post - pump insertion WL _____ ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOCS					
SVOCS					
Metals					

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0920	2.20	NA	250	start	purge	—					
0930	2.20		200		5.97	963	6.48	-455.3	3.69	15.4	
0940	2.20		180		6.17	827	6.22	-469.6	3.45	4.79	
0945	2.20		180		6.30	813	6.25	-453.3	3.72	2.47	
0950	2.20		180		6.29	807	6.29	-436.1	3.68	2.11	
0955	2.20		180		6.30	803	6.33	-429.4	3.29	1.96	
1000	2.20		180		6.29	801	6.34	-420.0	3.14	1.73	
1005	2.20		180		6.30	801	6.38	-421.8	3.11	1.68	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

Tt NUS Form 0009

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AA07-0016-011802

Tetra Tech NUS Job No./PMS N4123-0324
QC: N/A (If applicable)

Sample Method: low flow - DPT / water100
Depth Sampled: 16 Feet Screened Interval Depth NA feet
Sample Date & Time: 1/18/02 1235 hours N/A /Dup
Sampler(s): J. Lambert; B. Fennelly
Data Recorded By: J. Lambert Signature: J Lambert
Notes:

H&S Survey Meter N/A PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL 1.9 ft Post - pump insertion WL NA ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOA	0144040				
SVOA	0220810				
metals	1218030				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0945	1.90 ft	N/A		Begin	purge						
1020	NA	NA	50		8.09	390	5.91	-174.5	1.24	46.4	
1025			50		8.17	380	5.80	-184.3	1.08	41.6	
1030			50		7.71	374	5.76	-193.5	1.08	44.8	
1035			50		7.21	350	5.72	-198.1	1.04	27.1	
1040			50		7.14	347	5.71	-196.1	1.07	21.0	
1050			50		6.74	323	5.70	-210.4	0.91	512	see below
1055			50		6.73	320	5.69	-213.0	0.83	154	
1100			50		7.16	317	5.67	-232.8	0.69	307	*
1105			55		6.90	317	5.66	-240.3	0.72	25.7	
1110			50		6.73	317	5.66	-235.9	0.76	29.0	
1115			50		6.53	317	5.65	-234.7	0.80	15.6	
1120			50		6.38	317	5.65	~~-188.2~~ -185.2	0.84	26.5	
1125			50		6.23	317	5.64	-183.6	0.86	10.3	
1130			50		5.98	317	5.64	-197.5	0.87	10.12	
1135			50		5.90	317	5.64	-199.3	0.88	5.44	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

Tt NUS Form 0009

1040: Turbidity increased due to well drilling / installation approx 10' from sampling location.
* Drilling stopped at approx. 1058

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AA07-0016-011802

Tetra Tech NUS Job No./PMS N4123-0324
QC: N/A (If applicable)

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged liters	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1140	NA	NA	50		5.74	316	5.64	-224.5	0.89	4.49	
1145			50		5.57	317	5.63	-225.5	0.89	5.71	
1150			50		5.35	317	5.62	-216.5	0.90	3.97	
1155			50		5.32	316	5.63	-200.8	0.90	4.35	
1200			50		5.24	315	5.61	-215.9	0.92	3.27	
1205			50		5.21	315	5.62	-215.4	0.94	2.90	
1210			50		5.16	314	5.61	-220.8	0.96	2.42	
1215			50		5.14	314	5.61	-216.2	0.98	4.90	
1220			50		5.21	313	5.61	-222.5	1.06	1.91	
1225			50		5.25	313	5.60	-221.0	1.02	2.88	
1230			50		5.26	313	5.61	216.3	1.02	3.85	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

Tt NUS Form 0009

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AA07-0035-011802

Tetra Tech NUS Job No./PMS N4123-0324
QC: N/A (If applicable)

Sample Method: Waterloo w/ direct push
Depth Sampled: 35 Feet Screened Interval Depth NA feet
Sample Date & Time: 1 / 18 /02 1520 hours /Dup
Sampler(s): B. Fennelly
Data Recorded By: B. Fennelly Signature: [signature]
Notes: gw level reported to be 2.5' bgs.

H&S Survey Meter _____ PPM Field Instrument Group (A)/B/C/D
Pre-pump insertion WL NA ft Post - pump insertion WL NA ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
SVOC	0220010				
VOC	0144040				
Metals	1218030				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	*Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1420	Start	purge	35								
1435	NA	NA	35		6.65	441	6.28	-118.1	5.20	4.78	
1440			35		6.65	449	6.45	-150.5	4.04	1.55	
1445			35		6.47	455	6.51	-167.0	3.66	0.90	
1450			35		5.25	466	6.57	-189.2	3.37	0.87	
1455			35		5.15	467	6.57	-192.1	3.30	0.78	
1500			35		4.69	467	6.59	-195.0	3.20	0.81	
1505			35		4.34	469	6.60	-200.0	2.99	0.83	
1510			35		4.15	470	6.59	-200.7	3.00	0.77	
1515			35		4.09	469	6.59	-199.7	2.95	0.75	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

Tt NUS Form 0009

* gw temp continually decreasing due to continual drop in ambient temperature. Since all other parameters were stable sample was collected.

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AA08-0013-012502

Tetra Tech NUS Job No./PMS N4123-0324
QC: NA (If applicable)

Sample Method: low flow w/ peristaltic pump + YSI
Depth Sampled: 13 Feet Screened Interval Depth 5-15.4 feet bgs
Sample Date & Time: 1 / 25 / 02 1250 hours NA /Dup
Sampler(s): Brian Fennelly
Data Recorded By: B. Fennelly Signature: Brian Fennelly
Notes: bgs = below ground surface
MP = Top of PVC (TPVC)
PVC = 0.12' below ground surface

H&S Survey Meter NA PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL _____ ft Post - pump insertion WL _____ ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
Metals					
SVOCs					
VOA					

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1145	4.00	NA	Start								
1150	4.07		200		6.65	541	5.97	-153.3	3.10	7.84	
1200	4.10		170		6.54	540	5.93	-168.0	3.13	4.12	
1205	4.10		170		6.66	545	5.90	-123.0	2.64	3.17	
1210	4.10		170		6.70	546	5.92	-140.7	2.72	2.74	
1215	4.10		170		6.72	546	5.90	-139.9	2.25	2.49	
1220	4.10		170		6.71	544	5.89	-158.4	2.11	2.35	
1225	4.10		170		6.72	543	5.89	-173.5	1.77	2.24	
1230	4.10		170		6.62	545	5.88	-172.4	2.00	2.31	
1235	4.10		170		6.62	547	5.89	-161.0	1.61	2.40	
1240	4.08		170		6.60	547	5.89	-158.6	1.67	2.27	
1245	4.07		170		6.56	546	5.88	-156.4	1.58	2.39	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

Tt NUS Form 0009

AA03 0021

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AA09-0010-012502

Tetra Tech NUS Job No./PMS N4123-0324
QC: NA (If applicable)

Sample Method: low-flow w/ peristaltic pump + YSI
Depth Sampled: 10 Feet Screened Interval Depth 4.7-110 feet bgs
Sample Date & Time: 1 / 25 / 02 0845 hours NA /Dup
Sampler(s): B. Fennelly; Craig Sanchez
Data Recorded By: B. Fennelly Signature: [signature]
Notes: bgs = below ground surface
MP = Top of PVC
PVC = 0.1' below ground surface.

H&S Survey Meter NA PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL 4.30 ft Post - pump insertion WL 4.30 ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOCs					
SVOCs					
Metals					

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0740	4.30	NA	Start								
0750	5.05		140		10.34	781	6.35	-391.9	4.49	83.1	
0800	5.40		140		10.97	731	6.17	-428.0	4.25	34.1	
0805	5.42		145		11.08	727	6.17	-383.5	4.00	45.1	
0810	5.42		145		11.11	727	6.21	-368.5	3.08	12.5	
0815	5.42		145		11.10	727	6.22	-428.7	2.46	4.28	
0820	5.42		145		11.20	726	6.25	-401.1	2.49	2.24	
0825	5.42		145		11.19	725	6.25	-387.5	2.52	1.48	
0830	5.42		145		11.32	725	6.26	-402.5	2.23	1.23	
0835	5.42		145		11.36	724	6.26	-407.4	2.25	1.19	
0840	5.42		145		11.36	725	6.26	-399.4	2.23	1.16	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

Tt NUS Form 0009

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW-FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW- ACO1 - DEEP - 012902 (NO SAMPLE)

Tetra Tech NUS Job No./PMS 4123-0324
QC: _____ (If applicable)

Sample Method/Pump Type peristaltic pump / DPT
Depth of Pump Insertion from MP: _____ Feet

Sample Date & Time: 1 29 /2002 _____ hours _____ /Dup

Sampler(s): NO SAMPLE

Data Recorded By (Signature): Kevin O'Neill

H&S Survey Meter _____ PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL _____ ft Post - pump insertion WL _____ ft

Analytical Parameters Collected (check appropriate):
VOA _____ 3-40mL VOA vials w/HCl
SVOC _____ -One liter amber glass
Metals _____ 1-1Liter poly (HNO3 less than 2 pH)
Other _____

Notes: Two attempts today: C-1b & C-1c see logbook for details

Clock Time 24hr	Water Depth below MP ft	Probe depth	Purge Rate ML/min	NOTES	Temp °C	Spec. Cond. 2 uS/cm	DO mg/L	pH	ORP/Eh3 Mv	Turbidity NTU	Comments
PURGE	START:	Note refusal at 53' bgs at C-1a on 1-28-02									
C-1b		50.0	< 1 ml/min		2nd attempt @ C-1						
0938	pumped down	51.0	< 3 ml/min								
– 1030		52.5	< 2 ml/min								
C-1c	moved ~ 140' east towards tracks			3RD ATTEMPT at C-1 location							
1410		50.5	6-7 ml/min	noted flow slowing over time							
1515			5 ml/min								
1530			< 4 ml/min								
1530	Stopped purging* barely filled flow-thru cell after 1' 20" – pH & Bullard dell										

1
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

Tt NUS Form 0009

KONeill

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW-FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW- AC01 - DEEP * 012802 (1)
1st attempt at C-1 location

Tetra Tech NUS Job No./PMS 4123-0324
QC: NO SAMPLE COLLECTD (If applicable)
3- Attempts made total for location on 1/28 and 1/29

Sample Method/Pump Type peristaltic pump / DPT
Depth of Pump Insertion from MP: 50-51 Feet bgs

H&S Survey Meter _____ PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL _____ ft Post - pump insertion WL _____ ft

Sample Date & Time: 1 28 /2002 _____ hours _____ /Dup

Sampler(s): (1) NO SAMPLE

Data Recorded By (Signature): Kevin O'Neill

Notes: Attempt #1 (C-1a) at C-1 location

Analytical Parameters Collected (check appropriate):
VOA _____ 3-40mL VOA vials w/HCl
SVOC _____ -One liter amber glass
Metals _____ 1-1Liter poly (HNO3 less than 2 pH)
Other _____

Clock Time 24hr	Water Depth below MP ft	Sampler depth	Purge Rate ML/min	NOTES	Temp °C	Spec. Cond. 2 uS/cm	DO mg/L	pH	ORP/Eh3 Mv	Turbidity NTU	Comments
PURGE	START:										
1452		* 53	refusal	No flow							
1520		* 52.5	bumped up	No flow							
		* 51	bumped up	No flow							
		* 48.5		No flow							
1603		* 47'	bumped up	No Flow		Abandoned	attempt		Pulled	rod + grouted	

1
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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Note: Drillers reported that fine sands + silt had clogged S/S tubing near screen intakes

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AC01-0019-013102

Tetra Tech NUS Job No./PMS N4123-0324
QC: MS/MSD for metals only (If applicable)

Sample Method: low-flow
Depth Sampled: 19.0 Feet Screened Interval Depth 11-21 feet bgs
Sample Date & Time: 1/31/02 0815 hours N/A /Dup
Sampler(s): B. Fennelly, J. Lambert
Data Recorded By: J. Lambert Signature: J. Lambert
Notes: bgs = below Ground surface
mp = Top of PVC (TPVC) = 0.2' bgs.

H&S Survey Meter N/A PPM
Pre-pump insertion WL 11.45 ft
Field Instrument Group A/B/C/D
Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
metals	1218030				
VOAs	1291020				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0730	11.45	NA	Begin	purge							
0740	11.47		100		12.42	1685	6.33	-33.9	4.18	42.3	
0750	11.45		100		12.90	1673	6.36	-92.4	3.20	12.6	
0755	11.45		100		13.09	1669	6.37	-89.3	2.74	5.1	
0800	11.45		100		13.13	1664	6.40	-106.9	2.55	3.32	
0805	11.45		100		12.92	1665	6.40	-107.5	2.48	3.42	
0810	11.45		100		13.05	1663	6.40	-107.6	2.47	3.15	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AC01-0037-012802

Tetra Tech NUS Job No./PMS N4123-0324
QC: _____ (If applicable)

Sample Method: waterra w/direct push + YSI
Depth Sampled: 36.5 Feet Screened Interval Depth _____ feet
Sample Date & Time: 1 / 28 / 02 1300 hours _____ /Dup
Sampler(s): B. Fennelly
Data Recorded By: B. Fennelly Signature: [signature]
Notes: GW reached at 7.4' bgs.

H&S Survey Meter _____ PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL _____ ft Post - pump insertion WL _____ ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1200	NA	NA	Start								
1225			20		12.12	2183	6.39	-76.8	8.67	7.71	
1235			20		12.72	2222	6.40	-83.0	7.72	4.66	
1240			20		13.28	2262	6.38	-81.6	7.12	3.63	
1245			20		13.63	2283	6.37	-77.3	6.62	2.64	
1250			27		13.75	2290	6.38	-76.1	6.51	2.27	
1255			27		13.99	2300	6.36	-70.4	6.13	2.25	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IP GW-- AC02-0015-041102

Tetra Tech NUS Job No./PMS N4123-0324
QC: MS/MSD (If applicable)

Sample Method: low flow w/ peristaltic
Depth Sampled: 15 Feet bgs Screened Interval Depth 6-16 feet
Sample Date & Time: 4 / 11 / 02 1055 hours /Dup
Sampler(s): C. Sanchez
Data Recorded By: C. Sanchez Signature: [signature]
Notes: MP = TPVC TPVC = 2.70ft above ground surface

H&S Survey Meter 0 PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL 7.72 ft Post - pump insertion WL NA ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOA	1091020				
TM	010288				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1025	8.77		250		13.13	1113	6.57	-328	3.49	97	
1030	8.77		200		12.52	1117	6.55	-360	2.28	71	
1035	8.79		200		12.49	1115	6.55	-391	2.37	33	
1040	8.80		200		12.45	1112	6.56	-419	2.48	17	
1045	8.80		200		12.41	1122	6.54	-426	2.94	2.9	
1050	8.80		200		12.41	1121	6.56	-423	2.90	2.7	
1050	8.80		200	≈ 1.5	12.40	1121	6.59	-427	2.90	2.3	
1055		start	sampling								

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW - AC02 - 0020 - 041102

Tetra Tech NUS Job No./PMS N4123-0324
QC: _____ (If applicable)

Sample Method: DPT / Peristaltic pump
Depth Sampled: 20.4 Feet Screened Interval Depth 20.4 feet
Sample Date & Time: 4 / 11 / 02 1140 hours _____ /Dup
Sampler(s): K. O'Neill
Data Recorded By: _____ Signature: Kevin O'Neill
Notes:
Started purge at 1013
Sampling complete at 1240 hours

H&S Survey Meter N/R PPM
Pre-pump insertion WL 6.4 ft
Field Instrument Group A/B/C/D
Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOA	3				
Metals	1				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1041	6.4		10	* Ambient temp increasing during day	13.75	451	6.40	289.3	9.07	295	
1053			10		14.02	660	6.43	265.2	7.92	87.8	
1108					14.44	777	6.49	230.1	7.83	13.49	
1118					14.59	800	6.49	200.4	7.81	7.26	
1128					14.65	806	6.49	195.0	7.79	7.35	
1138			10		14.77	808	6.49	190.2	7.74	7.37	27 100 41 40
1140	—	Started sampling									

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AC02-0037-041102

Tetra Tech NUS Job No./PMS N4123-0324
QC: _____ (If applicable)

Sample Method: DPT / peristaltic pump
Depth Sampled: 37.2 Feet Screened Interval Depth 37.2 feet
Sample Date & Time: 4 / 11 / 02 / 1605 hours _____ /Dup
Sampler(s): K. O'Neill
Data Recorded By: K. O'Neill Signature: K. O'Neill
Notes: Started purge at 1300

H&S Survey Meter N/R PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL 6.4 ft Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOM					
Metals					

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1410	6.4		5		17.46	280	6.32	117.3	8.81	483	
1435					17.83	735	6.43	100.2	8.44	141.2	
1500					17.02	910	6.50	88.9	9.43	44.3	
1523					16.57	974	6.50	83.6	10.30	15.8	
1533					16.41	982	6.51	83.0	10.04	9.46	
1543					16.24	990	6.51	83.6	9.12	8.31	
1553					16.18	996	6.52	84.3	9.09	8.23	
1605	Started Sampling				16.15	998	6.54	89.3	9.11	8.15	

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

Tt NUS Form 0009

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IFGW-AC03-0015-041102

Tetra Tech NUS Job No./PMS N4123-0324
QC: DUP02 (If applicable)

Sample Method: low flow w/ peristaltic pump
Depth Sampled: 15 Feetbgs Screened Interval Depth 6-16 feet
Sample Date & Time: 4 / 11 / 02 0835 hours 0840/Dup
Sampler(s): C. Sanchez
Data Recorded By: C. Sanchez Signature: Craig Sanchez
Notes: MP = TPVC TPVC = 3.41 above gr. surf
parameters stabilized using YSI & seperate turbidity meter

H&S Survey Meter 0 PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL 9.68 ft Post - pump insertion WL NA ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
TM	016293				
VOA	1291020				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0800	9.7	~~150~~	150		11.67	978	6.37	-392	2.63	27	
0805	9.7	~~150~~	150		11.82	1120	6.44	-408	2.60	20	
0810	9.7		150		11.82	1130	6.47	-408	2.72	7.1	
0815	9.7		150		11.83	1129	6.48	-403	2.64	2.0	
0820	9.7		150		11.84	1137	6.49	-410	2.39	1.8	
0825	9.7		150		11.87	1141	6.49	-405	2.35	2.0	
0830	9.7		150	≈2 gal	11.88	1143	6.51	-401	2.31	1.7	
0835	Start sampling										

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AC04-0047-040902

Tetra Tech NUS Job No./PMS N4123-0324
QC: _____ (If applicable)

Sample Method: DPT / Peristaltic pump
Depth Sampled: 47 Feet Screened Interval Depth 47 feet
Sample Date & Time: 4 / 9 / 02 1245 hours _____ /Dup
Sampler(s): K. O'Neill
Data Recorded By: Kevin O'Neill Signature: _____
Notes:
Started purge at 1130 hrs
Sampling completed: 1410 hrs

H&S Survey Meter N/A PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL 7.0 ft Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOA	3				
Metals	1				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
1202	7.0		10		24.46	159	7.99	129.8	6.25	19.59	
1209	↓				24.39	221	6.43	122.6	8.04	12.62	
1217			10	*Very Warm outside	24.50	352	6.57	117.1	8.10	6.52	
1225			8		24.90	386	6.68	109.8	7.64	2.78	
1234					24.80	397	6.70	106.2	7.62	2.15	
1239			8		24.87	399	6.70	102.4	7.55	2.22	
1244					24.88	403	6.70	100.2	7.50	2.12	
1245	Started sample collection										

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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JP 4/10/02

Note: After Sampling. Drill Rod was pushed to hard Refusal = 60' bgs - less than 1ml/min Flow beyond 47' bgs. Could not collect sample at a depth Greater than 47' bgs.

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AC05-0015-041002

Tetra Tech NUS Job No./PMS N4123-0324
QC: IPGW-DUP01-041002 (If applicable)

Sample Method: low flow w/ peristaltic pump
Depth Sampled: 15 Feet* Screened Interval Depth 6-16 feet
Sample Date & Time: 4/10/02 0835 hours 0840/Dup
Sampler(s): C. Sanchez
Data Recorded By: C. Sanchez Signature: CSA
Notes: * Depth Sampled = 15' bgs
MP = TPVC = 3.01 ft above gr. surf.
parameters stabilized using YSI & separate turbidity meter

H&S Survey Meter 0 PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL 9.97 ftbmp Post - pump insertion WL NA ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
TM	010245				
VOA	1291020				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
0750	9.97	~~200~~	200		12.16	1222	6.62	-418	1.27	68	
0755	9.97		200		12.24	1202	6.64	-410	1.13	53	
0800	9.97		200		12.20	1197	6.66	-410	1.13	36	
0805	9.97		200		12.21	1172	6.67	-410	1.62	20	
0810	9.97		200		12.17	1150	6.68	-413	0.88	10	
0815	9.97		200		12.16	1140	6.68	-414	0.91	6.8	
0820	9.97		200		12.30	1129	6.69	-414	0.93	3.7	
0825	9.97		200		12.32	1127	6.67	-413	0.87	4.2	
0830	9.97		200	≈2.5 gal	12.32	1122	6.70	-414	0.85	3.9	
0835	Start	Sampling									

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-AC05-0029-040802

Tetra Tech NUS Job No./PMS N4123-0324
QC: _____ (If applicable)

Sample Method: DPT / peristaltic pump
Depth Sampled: 28.5 Feet Screened Interval Depth 28.5 feet
Sample Date & Time: 4 / 8 / 02 1250 hours _____ /Dup
Sampler(s): K. O'Neill
Data Recorded By: Kevin O'Neill Signature:
Notes:
Purge start 1135
Sample complete time: 1315

H&S Survey Meter N/R PPM
Pre-pump insertion WL N/A ft
Field Instrument Group A/B/C/D
Post - pump insertion WL N/A ft

Analysis	Bottle Lot#	Analysis	Bottle Lot #	Analysis	Bottle Lot #
VOA	3				
metals	1				

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L NOT Functioning	Turbidity NTU	Comments
1215	7.21'		30		14.49	585	6.61	-386.4	5.2		
1228			30	Ambient	14.58	579	6.60	-393.3	4.55		
1234				WARMING	14.75	580	6.60	-391.7	2.45		
1239				UP	14.83	580	6.60	-390.2	2.20		
1246			30		14.94	580	6.60	390.9	2.17		
1250	Started sampling										

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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CLICK TO CONTINUE

TETRA TECH NUS, INC.

SAMPLE LOG SHEET - "LOW FLOW" GROUNDWATER

Site Name: INDUSTRI-PLEX
Sample ID: IPGW-ACOS-DEEP-040802

Tetra Tech NUS Job No./PMS N4123-0324
QC: _____ (If applicable)

Sample Method: NO SAMPLE COLLECTED
Depth Sampled: _____ Feet Screened Interval Depth _____ feet
Sample Date & Time: ___/___/___, _____ hours _____/Dup
Sampler(s): _____
Data Recorded By: Kevin O'Neill Signature: _____
Notes: Two attempts made 51.3' (1st) & 48.2' (2nd) (48.2')
Refusal at 51.3' Spent 1 hour trying to get flow (Surge & purge) Only flow of < 1 ml/min

H&S Survey Meter _____ PPM Field Instrument Group A/B/C/D
Pre-pump insertion WL _____ ft Post - pump insertion WL _____ ft

Analysis Bottle Lot# Analysis Bottle Lot # Analysis Bottle Lot #

Clock Time 24hr	Water Depth below MP ft	Pump Dial 1	Purge Rate ml/min	Cum. Volume Purged gallons	Temp °C	Spec. Cond. 2 uS/cm	pH	ORP/Eh3 mv	DO mg/L	Turbidity NTU	Comments
				NO SAMPLE							

1. Pump dial setting (for example: hertz, cycle/min, etc.)
2. Siemens per cm (same as umhos/cm) at 25 °C.
3. Oxidation reduction potential (stand in for Eh).

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