0077415

FIELD SCREENING
FINAL DATA DELIVERABLE COVER SHEET

Date: Tuesday, October 23, 2007

Sample Authorization Form (SAF) Number: F07-006

SDG Number (assigned by Sample Management): FP0503 Dayes 10/30/07

Attachments (check all that apply or N/A):

X	Test Results
N/A	Narrative Summary
X	Chain of Custody(s)
X	Logbook Pages
N/A	Anomaly Report

TMJ 10/31/07

Total number of pages (including cover sheet): #8

Comments: C5855

T4/T5, Well C5243 & ~~C5244~~, VOA- Water All Samples below

THESE TESTS WERE CONDUCTED USING QC-1

192' are from well C5855. TMJ 10/31/07

OCT 2007

M.G. Buchler for M.J. Hacking
Analyst Signature

OCT 23 2007
Date

M.G. Buchler
Reviewer's Signature

OCT 23 2007
Date

Distribution: CPP Sample Management A0-21
Project (Specify)

_____ Requires distribution to listed project personnel by Sample Management (check if applicable)

RECEIVED
MAY 22 2008
EDMC

00000001

On-Site Measurement of NO_3

T-4/T-5 Well Installation Characterization-Groundwater

SAF: F07-006

Procedure: GRP-EE-05-1.17

Logbook: HNF-N-296 10 Page 14

9/4/2007

Location	HEIS	SAF	Date Sampled	Time Sampled	Sampler	Sample Media	Date Analyzed	Time Analyzed	Analyst	NO_3 mg/L
C5244	B1PK11	F07-006	8/29/2007	8:10	JM	Water	9/4/2007	12:58	MJH	23

Analyst(s): MJ Hocking Date: 9/4/2007

T4/T5 Well Installation Characterization - Groundwater
Field Screening Results
C5855
SAF: F07-006

						HP 5890 Gas Chromatograph		
Sample Location	***HEIS Number***	***Sample Date***	***Sample Time***	***Sample Depth (ft)***	***Analysis Date***	***TCM (ug/L)***	***CCl_4 (ug/L)***	***TCE (ug/L)***
C5855	B1PK10	08/24/07	13:25	-	09/04/07	6.80	2.63	<2.0
C5855	B1PK11	08/29/07	08:10	420	09/04/07	<2.0	<2.0	<2.0

Note: C5244 after 192 Feet became C5855

atsfieldsc\VOA\T4_T5well installation\C5855_090407.xls

00000003

TCM = Chloroform, CCl_4 = Carbontetrachloride, TCE = Trichloroethylene, PCE = Tetrachloroethylene

200-ZP-1 Monthly / T4/T5 Analysis

D. TODAK / C-S

MO-612 Field GC Daily Activity Log
(Logbook HNF-N-292 2, SAFs F02-001/F02-002)
Date: 09/04/07 (SAF F07-006)

0955	D. Todak arrived on-site at MO-612 laboratory trailer located at 200-ZP-1 to perform analysis of monthly 200-ZP-1 pump and treat samples and C5585 samples. Turned on HP 6890N gas chromatograph S/N US10437002 and HP G1888 headspace autosampler S/N IT00430023. Opened inside and outside hydrogen and breathing air valves. Loaded method HSECDFID.M.
1010	Split / splitless inlet vent = 42.3 mL/min. Septum purge vent = 2.26 mL/min.
1015	Created sample sequence "Z070904.S".
1040	Prepared calibration standards of 5, 100, 200, 2000, 4000, and 8000 µg/L.
1132	Started sequence. ECD signal =204.3.
1206	Started calibration of HP 6890N gas chromatograph.
1256	Prepared 100 µg/L LCS calibration check standard.
1301	Completed calibration.
1314	D. Todak started preparing water samples for analysis. Noted significant air bubbles in B1PK10 and B1PK11 (C5585 intervals 56 and 57). Of the three vials for each sample, none were closed with zero headspace. NO CHAIN OF CUSTODY WITH SAMPLE B1PK11.
1334	100 µg/L calibration check: DCM = 104.6(105%), TCM =107.4(107%), CCl_4 =109.3(109 %); TCE = 109.0(109%), PCE =108.9 (109%). Acceptable recoveries.
1400	Prepared matrix spike and matrix spike duplicate. Added 2 µL of 50 µg/mL of LCS parent stock to 10 mL of T2-02MS and T2-03MSD for a total of 10 µg/L per sample.
1406	Started analysis of water samples.
1450	Matrix spike recovery for T2-02MS = 109%
1501	Matrix spike duplicate recovery for T2-03MSD = 109%. Relative Percent Difference (RPD) = 0.1%.
1615	Noticed results on W2-01 (sample B1PK33) were unusually low, 240 µg/L CCl_4 versus 2300 µg/L in July. Prepared a lab duplicate from a different vial of B1PK33 and added it to the end of the run.
1715	Prepared 3000 µg/L calibration check standard.
1734	Completed analysis of process water samples. Second analysis of B1PK33 returned normally trending results, including 2200 µg/L CCl_4 therefore these will be the reported results.
1755	3000 µg/L calibration check: DCM = 3046 (102 %), TCM = 3105 (104%), CCl_4 = 3191 (106%), TCE = 3186 (106%), PCE = 3164 (105%). Acceptable recoveries.
1828	Sequence run completed. Saved sequence "Z070904.S". Saved method HSECDFID.M with annotation "ZP-1 Monthly – 09-04-07".
1835	Disposed of liquid and solid waste.
1840	Turned off inside hydrogen and breathing air supply valves. Turned off outside hydrogen and breathing air gas bottle valves.
1845	Loaded standby method, shut down computer equipment, and left trailer

Data recorded in real time using the GC computer in MO-612.

D. TODAK
SEP 0 5 2007

00000004

Reviewed by: TM Johansen
9/4/07

D. TODAK / GS

121

200-ZP-1 Monthly / C5585 ~ T4/T5
Well Installation

MOBILE LABORATORY DATA/LOG SHEET (Logbook HNF-N-293 1, SAF F02-001/F02-002)

Site Name: 200-ZP-1 Phase III (Monthly/Quarterly) Analyzed: 09-04-07

Sample Number	HEIS Number	Sample Time	Sample Type	Sampler (Initials)	Analysis Time	Analytical Results			Comments
						TCM µg/L	CCl4 µg/L	TCE µg/L	
DI Blank	—	1040	Water	DT	1323	<2.0	<2.0	<2.0	hs010.d
100µg/L Cal. Check	—	1256	Water	DT	1334	107.4 107%	109.3 109%	109.0 109%	hs011.d; Acceptable recoveries.
DI Blank	—	1040	Water	DT	1345	<2.0	<2.0	<2.0	hs012.d
TMJ 10/31/07 ~~C5585~~; I-56	B1PK10 8/24/07	1325	Water	JM	1406	6.80	2.63	<2.0	hs014.d
TMJ 10/31/07 ~~C5585~~; I-57	B1PK11 8/29/07	0810	Water	JM	1417	<2.0	<2.0	<2.0	hs015.d
Field Blank	B1PK28	0800*	Water	RTP/MDW	1428	<2.0	<2.0	<2.0	hs016.d
Z-T2-01	B1PK29	0800*	Water	RTP/MDW	1439	<2.0	<2.0	<2.0	hs017.d
Z-T2-02 MS	—	0800*	Water	RTP/MDW	1450	10.7 107%	10.9 109%	10.7 107%	hs018.d
Z-T2-03 MSD	—	0800*	Water	RTP/MDW	1501	10.8 108%	10.9 109%	10.8 108%	hs019.d; (RPD=0.1%)
Z-V1-01	B1PK30	0807*	Water	RTP/MDW	1512	<2.0	<2.0	<2.0	hs020.d
Z-T1-01	B1PK31	0812*	Water	RTP/MDW	1534	12	1300	5.5	hs021.d
Z-W1-01	B1PK32	0815*	Water	RTP/MDW	1554	6.4	800	<2.0	hs022.d
Z-W2-01	B1PK33	0820*	Water	RTP/MDW	1545	3.2	240	<2.0	hs023.d; unusually low, see log and W2-02 below
Z-W3-01	B1PK34	0925*	Water	RTP/MDW	1555	13	1600	6.7	hs024.d; Manifold Bldg. 1
Z-W4-01.	B1PK35	0930*	Water	RTP/MDW	1606	12	940	4.3	hs025.d; Manifold Bldg. 1
Z-W5-01	B1PK36	0944*	Water	RTP/MDW	1617	11	330	<2.0	hs026.d; Manifold Bldg. 2
Z-W6-01.	B1PK37	0938*	Water	RTP/MDW	1628	14	1600	8.2	hs027.d; Manifold Bldg. 2
Z-W6-02 Dupl.	B1PK38	0938*	Water	RTP/MDW	1639	14	1700	8.5	hs028.d; Manifold Bldg. 2 (RPD=5.9 %)
Z-W7-01	B1PK39	0824*	Water	RTP/MDW	1650	15	2200	14	hs029.d
Z-W8-01	B1PK40	0830*	Water	RTP/MDW	1701	9.9	1300	3.5	hs030.d
Z-W9-01	B1PK41	0835*	Water	RTP/MDW	1712	15	2300	14	hs031.d
Z-W10-01	B1PK42	0840*	Water	RTP/MDW	1723	15	2300	13	hs032.d
Z-W2-02	B1PK33	0820*	Water	RTP/MDW	1734	17	2200	4.7	hs033.d
DI Blank	—	1040	Water	DT	1744	<2.0	<2.0	<2.0	hs034.d
3000µg/L Cal. Check	—	1715	Water	DT	1755	3105 104%	3191 106%	3186 106%	hs035.d; Acceptable recoveries.
DI Blank	—	1040	Water	DT	1817	<2.0	<2.0	<2.0	hs037.d
[redacted]									
Blank	—	—	Air	DJA	1045*	<2.0	<2.0	NA	B&K 1302
25.37 ppm Cal. Check	—	—	Air	DJA	1049*	NA	21.2 83%	NA	B&K 1302 Acceptable recovery.
Z-A3-01	B1PK43	0846*	Air	RTP/MDW	1051*	<2.0	<2.0	NA	B&K 1302
Z-A2-01	B1PK44	0850*	Air	RTP/MDW	1055*	<2.0	8.98	NA	B&K 1302
Blank	—	—	Air	DJA	1101*	<2.0	<2.0	NA	B&K 1302

C5855
~~C5244~~
~~C5244~~
C5855

* Times with asterisks are from 08-21-07 sampling and analysis. All other dates are either noted or are from second date of analysis – 09-04-07.
Data recorded in real-time on GC computer in MO-612. For instrument operation information, please refer to logbook HNF-N-292-2, page 22.

D. TODAK
SEP 0 5 2007

00000005

Reviewed by: TMJohansen / TMJohansen 9/4/07

T4/T5 Well installation ~ C5244

T4/T5 Well Installation Characterization - Groundwater
C5244/299-W10-32
Logbook HNF-N-296 10
SAF No. F07-006
Date: 08/28/07

900	Rich Mahood on-site at 200W, MO-612 field laboratory. Set up to analyze samples for nitrate using test stripes (Hach catalog No. 307-49).
908	Prepared to analyze strips with HACH 44.3 mg/L +/- 0.04 mg/L Nitrate Exp. 12/09, lot# A5171.
916	Analyzed samples using the reflectometer.

Sample #	Well # / Depth	SAF #	Concentration Nitrate (mg/L)	Date Sampled	Time Sampled	Samplers	Dilution	Turbidity (NTU)	Specific Conductance (us/cm)	Temperature (°C)	pH	Dissolved Oxygen mg/L
Blank	----	----	5	----	----	----	----	----	----	----	----	----
44.3 mg/L std.	----	----	56	----	----	----	----	----	----	----	----	----
B1L988	381	F07-006	78	8/13/2007	8:35	Pope, Pfister, Hughes, Wise	----	----	----	----	----	----
B1L987	370	F07-006	110	8/8/2007	14:00	Pope, Pfister, Hughes, Wise	2X	----	----	----	----	----
B1L986	360	F07-006	240	8/6/2007	13:15	Pope, Pfister, Hughes, Wise	5X	----	----	----	----	----
B1L989	389-391	F07-006	54	8/15/2007	10:22	Connolly	----	----	----	----	----	----
B1L990	400.5	F07-006	730	8/21/2007	14:15	Pope, Pfister, Hughes, Wise	10X	----	----	----	----	----
B1PK10	----	F07-006	41	8/24/2007	13:25	Mokler	----	----	----	----	----	----
Blank	----	----	4	----	----	----	----	----	----	----	----	----
44.3 mg/L std.	----	----	55	----	----	----	----	----	----	----	----	----

R.O. Mahood
Richard O. Mahood
8/29/07

Reviewed by: [illegible]
8/29/07

C5244, T5 NO_3

GRAM, Inc.
M. J. Hocking

9/5/07

Nitrate Daily Activity Log
Project: C5244, T5
SAF: F07-006
Logbook HNF-N-296 10
Date: 9/04/07

1140	M.J. Hocking arrived on-site at 200W, MO-612 field laboratory. Set up to analyze samples for Nitrate using a Reflectoquant, Method 706.
1235	Calibrated the Reflectoquant by feeding the CAL strip through the machine and placing the calibration reader (notch up) into the reader slot. Screen read "CAL" and automatically shut-off. Turned the machine back on and tested blank (DI water) and standard (44.3 mg/L NO_3) on reader strips, using 5-225 mg/L range strips.
1258	Analyzed samples for nitrate, using 5-225 mg/L range reader strips.

Sample #	Well #	SAF #	Concentration (mg/L)	Date Sampled	Time Sampled	Sampler	Dilution
Blank	-----	-----	5	-----	-----	-----	-----
44.3 mg/L std.	-----	-----	64 ①	-----	-----	-----	-----
B1PK11	C5244-I-57	F07-006	23	8/29/07	08:10	JM	None
44.3 mg/L std.	-----	-----	61 ①	-----	-----	-----	-----
Blank	-----	-----	7	-----	-----	-----	-----

① Standards outside ±25% recovery limits. MAB 10/23/07

MJH
9/5/07

00000007

SEP 10 2007

Reviewed
By: M.A. Baechler

M. J. Hocking
SEP 5 2007

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F07-006-216 PAGE 1 OF 1

COLLECTOR
PopePfisterMokIerConnollyParchen

COMPANY CONTACT
ROHAY, VJ

TELEPHONE NO.
373-3807

PROJECT COORDINATOR
TRENT, SJ

PRICE CODE **FIELD**

DATA TURNAROUND
0 Days / 0 Days

SAMPLING LOCATION
C5244 - 1-57 -420'

PROJECT DESIGNATION
T4/T5 Well Installation Characterization - Groundwater

SAF NO.
F07-006

AIR QUALITY

ICE CHEST NO.

FIELD LOGBOOK NO.
HNF-N-502 1

COA
122597ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO
Field Analysis Activities

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegitation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C/Cool ~4C	HCl to pH <2/Cool~4C
TYPE OF CONTAINER	P	aGs*
NO. OF CONTAINER(S)	1	3
VOLUME	120mL	40mL
SAMPLE ANALYSIS	Nitrate;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS

ANALYZED 9/4/07 HCH

COPY

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B1PK11	WATER	8/29/7	0810

025886

HA 716201

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J. Mokler	8/29/7 0810	MO 612 REF	8/29/7 0810
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
** The laboratory is to analyze pH within 24 hours of sample receipt.
(2)VOLATILE ORGANICS BY FIELD GC {Carbon tetrachloride, Chloroform, Trichloroethene}

pH = 9.022
Temperature = 21.0 °C
Conductivity = 319 uS/cm
Turbidity = 9.49 NTU
Dissolved Oxygen = 5.74 mg/L

NOTE ACCT OF AIR @ SAMPLING

LABORATORY SECTION **RECEIVED BY** **TITLE** **DATE/TIME**

FINAL SAMPLE DISPOSITION **DISPOSAL METHOD** **DISPOSED BY** **DATE/TIME**

A-6003-618(01/06)

80000000