TO OS ADAK CTM 2014 8/27/14
CONT. + SULFATE (300.0)

TEST KIT RESULTS		
D_{ppm}	Fe^{2+} ppm	CO_2 ppm
0.1	40	50

Fe^{2+} Dilution factor = 5

CONTAINED 2.5 GAL OF PURGE WATER FOR WASTE MANAGEMENT PARAMETER ARE: Purge 0.75 gal PH 6.51, COND 0.94 ms/cm, TURB 11 NTU, DO 0.00 mg/L, TEMP 8.64°C, Sal 0.0% ROPOX - 124 mv.

1400 - ON SITE NMCB BUILDING T-146 EXPANDED AREA WELL 02-818 SET UP TO SAMPLE WELL USING PERISTALTIC PUMP. [DTW 8.49 'BTOC] STRONG ODOR OF HYDROCARBON FROM PURGE WATER. TURB. IS BLINKING ON HORIBA, CLEANING SONSOR.

1429 - BEGIN COLLECTING PARAMETERS -NOTE: SLIGHT STRIPS OF SHEEN ON THE SURFACE OF THE PURGE WATER BUCKET WHILE COLLECTING

1444 - PARAMETERS STABILIZED

8/27/14

TO OS ADAK CTM 2014 8/27/14
CONT. PH 6.24, COND 0.664 ms/cm, TURB 0.0 NTU DO 0.0 mg/L, TEMP 10.50°C, SAL 0.0 %, Redox -94 mv.

1450 - BEGIN COLLECTING SAMPLES 02-818-2014
(4) 40ml VOC AMBER w/ HCL GRO (AK 101)
(4) 40 ml VOC amber w/ HCL METHANE (RSK 175)
(1) 500 ml poly ALKalinity (SM 2320B) AND SULFATE (300.0)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
3.0	10	23

Fe^{2+} Dilution Factor = 5

1521 - ON SITE AT 02-461 [DTW 6.40 'BTOC]

1540 - BEGIN COLLECTING PARAMETERS LIGHT SHEEN SLIGHT ODOR OF HYDROCARBON IN PURGE WATER.

1555 - PARAMETERS STABILIZED PURGE 0.75 GAL. PH 6.12, COND 0.99 MS/CM, TURB 5 NTU, DO 0.00 mg/L. TEMP 9.15°C

8/27/14

TO 05 ADAK LTM 2014 8/27/14
CONT. SAL 0.0 % REDOX - 71 mV
1600 - COLLECT SAMPLE 02-461-2014
(4) 40ml/AMBER w/ HCL GRO (AK 101)
(4) 40ml/AMBER w/ HCL METHANE (RSK 175)
(1) 1500ml poly Alkalinity (SM 2320B) & Sulfate (300.0)
1610 - COLLECT FIELD DUP 02-471-2014
(4) 40ml/AMBER w/ HCL GRO (AK 101)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
0.8	25	60

DILUTION FACTOR = 5 FOR Fe^{2+}
1641 - ONSITE AT E-201
[DTW 12.01' BTOC] SET UP TO SAMPLE USING PERISTALTIC PUMP
1700 - BEGIN COLLECTING PARAMETERS
SLIGHT HYDROCARBON ODOR IN PURGE WATER.
1735 - PARAMETERS STABILIZED
PURGE 1.75 gal, pH 6.15, COND 0.688 mS/cm
TURB 0 NTU, DO 0.00 mg/L TEMP 8.25°C
SAL 0.0 %, REDOX -75.
1740 - BEGIN COLLECTING SAMPLES
(4) 40 ml VOC amber w/ HCl GRO (AK 101)
(4) 40ml VOC amber w/ HCl Methane RSK 175

8/27/14

TO05 ADAK LTM 2014 8/27/14
CONT (1) 500ml poly Alkalinity (SM 2320B) + SULFATE (300.0)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
0.05	25	40

DILUTION FACTOR = 5 FOR Fe^{2+}
1800 - BACK TO OFFICE FOR DEMOB AND PAPERWORK
2000 - END OF DAY

8/27/14

TO OSADAK LTM 2014 8/28/14

0700 - MORNING MEETING HELD SAFETY BRIEF LOGGED IN SSHO LOG BOOK.

V22 HORIBA CALIBRATION

TIME	PH	SC	TURB	DO	TEMP	SAL	ORP
0802	3.98	463	0.0	10.14	14.35	0.2	279
	DID NOT USE SEE						
	PAGE BELOW FOR U52 HORIBA						

PID 0.0 ppm CALIBRATION / 108 ppm 7eml

0817 ON SITE SOUTH OF RUNWAY 18 36 AREA WELL 02-232

[DTB 15.88' BTOC] SET UP TO SAMPLE USING PERISTALTIC PUMP BK 8/28/14

~~0850 - BEGIN COLLECTING PARAMETERS~~

CONDUCTIVITY NOT STABLE U52 Cal.

TIME	PH	SC	TURB	DO	TEMP	SAL	ORP
0903	3.99	4.51	0.0	9.32	14.05	0.24	271
1041	3.96	4.56	0.0	9.84	13.67	0.24	260
1805	3.99	4.50	0.0	9.19	14.63	0.24	272

0908 - BEGIN COLLECTING PARAMETERS USING U52 HORIBA SINCE COND. WAS NOT READING PROPERLY FROM V22 HORIBA METER WAS SWITCHING BETWEEN 0.99 AND 0.90. Sheen developed and milky color

8/28/14

TO OSADAK LTM 2014 8/28/14

0923 - PARAMETERS STABILIZED: PURGED 0.75 GAL, pH 6.8, COND 0.622 ms/cm, TURB 0.0 NTU, DO 0.60 mg/L, TEMP 8.79°C, Sal 0.03% Redox -109.

0930 - BEGIN COLLECTING SAMPLES 02-232-2014

(12) 40 ml VOC w/ HCL BTEX (8260 C)
(2) 1L AMBER U/P PAHs (16) (8270D SIM)
(1) 500ml poly u/p Alkalinity (SM 2320B) Sulfate (300.0)
(4) 40 ml amber w/ HCL METHANE (RSK 175)

0940 - BEGIN SAMPLE COLLECTION 02-242-2014 FIELD DUP.

(1) 500ml poly u/p Alkalinity (SM 2320B) SULFATE (300.0)
(4) 40 ml amber VOC w/ HCL Methane (RSK 175)

TEST KIT RESULTS		
D_2 ppm	Fe^{2+} ppm	Cl_2 ppm
1.2	50	70

Fe^{2+} DILUTION FACTOR = 5

1030 - BACK TO OFFICE FOR PACKING UP AND SHIPPING OFF

1343 - ON SITE AT ARTIC ACRES 03-890 FOR SAMPLING

8/28/14

TO OSADAK LTM 2014 8/28/14
CONT. TO SAMPLE USING PERISTALTIC PUMP. PID AT WELL HEAD 0.0PPM PID IN BREATHING ZONE 0.0 PPM [DTW 23.63 BTOC] [23.61 'DTP], THICKNESS AT THIS WELL = 0.02' WILL NOT SAMPLE. HYDROCARBON ODOR IS MILD. METAL SIDING AT SITE
1414 - ON SITE 03-416 FOR SAMPLING USING PERISTALTIC PUMP. PID 0.8PPM AT WELL HEAD AND 0.0 IN BREATHING ZONE [DTW 19.65' BTOC]
1425 - SET UP TO SAMPLE
1508 - BEGIN COLLECTING PARAMETERS
1524 - STABILIZED PARAMETERS PURGE 1.333 GAL, PH 6.44, COND 0.310, TURB 0 NTU, TEMP 8.18°C, SAL 0.01% Redox -36 mV
1530 - COLLECT SAMPLES 03-416-2014
(4) 40 ml amber VOC w/ HCL METHANE (RSK 175)
(1) 500 ml Poly w/ ALKALINITY (SM2320B) SULFATE (300.0)
(2) 1L AMBERS w/ HCL PRO (AK 102)

8/28/14

TO OSADAK LTM 2014 8/28/14

TEST	KIT RESULTS	
DO PPM	Fe^{2+} PPM	CO_2 PPM
1.0	30	36

Fe^{2+} DILUTION FACTOR = 5
DTB 30.06' Soft Do Horn
1611 - ON SITE AT 03-420
PID 4.0 PPM at well head
0.0 PPM at breathing zone
[DTW = 22.79' BTOC]
1626 - SET UP TO SAMPLE USING PERISTALTIC PUMP, HAZARD ANALYSIS PERFORMED NO HAZARDS IDENTIFIED AT THE WELL.
1645 BEGIN COLLECTING PARAMETERS
1705 PARAMETERS STABILIZED PURGED 2.0 gal, ph 6.20, Cond 0.278 ms/cm, TURBO NTU, DO 0.00 mg/L, TEMP 8.74 °C, Sal 0.01 %, Redox 3 mV
1710 - BEGIN COLLECTING SAMPLES
(4) 40 ml VOC amber w HCL METHANE (RSK 175
(1) 500 ml Poly w/ Alkalinity (SM2320B) + Sulfate 300.0
(2) 1L AMBER w/ HCL PRO (AK 102)

8/28/14

TO OS ADAK LTM 2014 8/28/14

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
1.0	20	35

DILUTION FACTOR Fe^{2+} = 5

DTB = 28.35' BTOC

1742 - ONSITE AT WELL 03-421 FOR VISUAL INSPECTION CHECKLIST. [DTW = 22.71' BTOC]

DTB = 28.18' BTOC PID 2.6ppm well head/ 0.0 BREATING ZONE

1800 - BACK TO OFFICE FOR DEMOB AND PAPERWORK, ENTERING PHOTOLOG, COMPLETING COC FORM

PHOTOLOG

• ARCTIC ACRES

DATE	TIME	DESCRIPTION
8-28-14	14:09	03-890 - LOOKING E
8-28-14	17:43	03-420
8-28-14	17:43	03-420 LOOKING W
8-28-14	17:45	03-416
8-28-14	17:46	03-416 LOOKING W
8-28-14	17:56	03-421

8/28/14

TO OS ADAK LTM 2014 8/29/14

0700 - MORNING MEETING HELD SSHO MEETING MINUTES COVERED AND LOGGED IN THE SSHO LOG BOOK WX 56° OVERCAST W/ 43% CHANCE OF RAIN AND WINDS UP TO 20 MPH SW.

CALIBRATION FOR HORIBA

TEMP	pH	SC	TURB	DO	TEMP	SAL	ORP
0804	3.99	4.50	0.0	9.59	13.92	0.24	286
1214	3.98	4.50	0.0	9.80	14.50	0.24	261
1715	3.99	4.51	0.0	9.99	14.30	0.24	256

NEW PID SN# = 08-02458

0.0 ppm = 106 ppm CALIBRATION

0900 - ONSITE AT ARCTIC ACRES 03-421 TO SAMPLE USING PERISTALTIC PUMP LOW FLOW

LET WELL BREATHE [DTW = 22.71' BTOC]

0938 - BEGIN COLLECTING PARAMETERS

0950: - PARAMETER STABILIZED PURGE 1.0 gal, PH 6.39, COND 0.418 MS/CM, TURB 0 NTU, DO 0.00 mg/L, TEMP 8.00°C SAL 0.02 %, REDOX -27 mV

095 - BEGIN COLLECTING SAMPLES 03-421-2014

(4) 40ML AMBER W/HCL VOC Methane (RSK 175)

8/29/14

TO 05 ADAK LTM 2014 8/29/14

CONT. (1) 500ml poly u/p ALKALINITY (SM2320B) & SULFATE (300.0)

(2) 1L BOTTLE AMBER u/HCL DRO (AK102)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
1.0	40	50

DILUTION FACTOR Fe^{2+} = 5

1030 - AT WASTE BUNKER TO DUMP 25 GALLONS PURGE WATER INTO PETROLEUM PURGE WATER DRUM PID INITIAL AT BREATING ZONE 0.0 ppm, 14" OFF BASE FLOOR AT ENTRY PID = 2.6 ppm, PID IN MIDDLE OF BUNKER BY BOOMS 3.6 ppm, PID WHILE OPENING WASTE BARREL 2.6 ppm. ENTERED DATA INTO SSHO LOG BOOK.

1300 - ON SITE AT SA 80, STEAM PLANT 4 WELL 04-158, PID AT WELLHEAD 3.0 ppm VOC BREATHE ZONE 0.0 ppm [DTW 19.42' btoc]. SET UP TO SAMPLE USING PARISTALTIC PUMP LOW FLOW. SHEEN IN PURGE BUCKET WHILE PURGING WATER AND STRONG HYDROCARBON ODOR

8/29/14

TO 05 ADAK LTM 2014 8/29/14

1335 - BEGIN COLLECTING PARAMETERS FLOW IS 1/8 GAL PER 5 MINUTE

1350 - PARAMETERS STABILIZED PURGE 0.375 GALLONS, pH 6.28, COND 0.428, TURB 0 NTU; DO 0.00 mg/L, TEMP 10.51, SAL 0.02 %, REDOX -19 mV

1355 - COLLECT SAMPLES 04-158-2014

(2) 1L AMBERS u/HCL DRO (AK102)

(1) 500ml poly u/p ALKALINITY (SM2320B)

(4) 40ml VOC AMBERS HCL METHANE (RSK175)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
1.0	50	100

8/29/14 Fe^{2+} dilution factor = 5

1500 - ON SITE AT ROICC CONSTRUCTION AREA, UST ROICC-7 PID WELLHEAD 0.0 ppm PID BREATING ZONE ~~[DTW = 3.78' btoc]~~ BZ [DTW = 3.74' btoc]

1535 - BEGIN COLLECTING PARAMETERS PARAMETERS STABILIZED PURGE 1 gallon, pH 6.60, COND 1.92 ms/cm, TURB 0 NTU, DO 0.00 mg/L, TEMP 10.13 °C SAL 0.10 %, REDOX -87

1600 BEGIN COLLECTING 08-200-2014

8/29/14

TO 05 ADAK LTM 2014 8/29/14

CONT (4) 40ml VOCw/HCl BENZENE (8260C)
(1) 500ml poly u/p Alkalinity SM2320B and Sulfate (300.0)
(4) 40ml amber VOC w/ HCl Methane (RSK 175)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm *	CO_2 ppm
1.0	50	330

1610 - Collect Dup 08-210-2014
(1) 500 ml u/p poly ALKALINITY (SM2320B) + Sulfate (300.0)
(4) 40 ml Amber VOC w/HCl Methane (RSK 175)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm *	CO_2 ppm
1.0	50	290

*Dilution Factor Fe^{2+} = 5

DTB 16.9' btoc

1646 - AT 08-202 FOR WELL INSPECTION CHECKLIST PERFORMED
DTW 2.51' btoc DTB 14.75 btoc

1700 - BACK TO OFFICE FOR DEMOB AND PAPERWORK 8/29/14

PHOTOLOG 8-29-14

DATE	TIME	DESCRIPTION

8/28/14

PHOTOLOG CONT

DATE	TIME	DESCRIPTION @ 8/29/14
~~8-29-14~~	~~1658~~	~~RICCO 08-202 LOOKING~~ SW (BN 8/29/14)
~~8-29-14~~	~~1700~~	~~RICCO 08-200 LOOKING~~ NE
~~8-29-14~~	~~1658~~	~~RICC-08-200 LOOKING~~ NE (PH 8/29/14)
8-29-14	1658	RICC-08-202 LOOKING SW
8-29-14	1700	RICC-08-200 LOOKING NE

END OF DAY - 1900

8/29/14

TO 05 ADAK CTM 2014 8/30/14

0700 - SAFETY MEETING AND DAILY BRIEF HELD AND LOGGED INTO SSHO LOGBOOK. WX 54°F WIND 12mph NW OVERCAST w/ 40% CHANCE OF RAIN. 8/30/14

HORIBA U52 CALIBRATION U52

TEMP	pH	SC	TURB	DO	TEMP	SAL	REDOX
0809	4.00	4.50	0.0	10.24	13.66	0.24	329
241	3.99 4.00	4.53	0.0	10.10	12.86	0.24	237
522	3.96	4.53	0.0	10.04	12.96	0.24	242

8/30/14

0827 - PID 0.0 CAL 105 PPM

0850 - ONSITE 08-202 FOR SAMPLING SET UP USING PERISTALTIC PUMP. [DTW = 2.67 BTOC]

1006 - PARAMETERS STABILIZED

8/31/14 1015 - PURGED 1.33 GAL, pH 7.24, COND 1.01 mS/cm TURB 11 NTU, DO 0.0 mg/L TEMP 8.48 °C, SAL, NM 0.05 % Redox -6

1015 - BEGIN COLLECTING SAMPLES 08-202-2014

(1) 500ml Poly UP Alkalinity (SM 2320B) Sulfate 300.0

(4) 40ml Amber VOC w/ HCl Methane (RSK175)

TEST KIT RESULTS

DO PPM	Fe2+ ppm	CO2 PPM
0.05	100	800

TO 05 ADAK CTM 2014 8/30/14

CONT USE Fe^{2+} DILUTION FACTOR OF 10.

LATE ENTRY

(4) 40ml Amber w/HCl BTEX (8260D)

DTB = 14.75 BTOC SHEEN OBSERVED HALF-WAY THROUGH SAMPLE COLLECTION

1105 - ONSITE AT 04-175 TANKER SIDED UST TO SAMPLE USING PERISTALTIC LOW FLOW PUMP

- BEGIN COLLECTING PARAMETERS HAZARD ANALYSIS PERFORMED AREA CLEAR OF DEBRIS. BAILED. PID 0.0 PPM WELLHEAD, 0.0 PPM BREATHING ZONE. [DTW = 6.44 BTOC] SHEEN IN PURGE WATER

1135 - BEGIN COLLECTING PARAMETERS

1150 - PARAMETERS STABILIZED

1155 - BEGIN COLLECTING SAMPLES 04-175-2014 PURGED 1.5 GAL, pH 6.86, COND 0.305 mS/cm, TURB 1 NTU, DO 0.6 mg/L, TEMP 9.65 °C, SAL 0.01 % Redox -15 collect samples.

(2) 1L Amber w/HCl DRO (AK102)

(1) 500ml Poly UP Alkalinity (SM 2320B)

8/30/14

TO 05 ADAK LTM 2014 8/30/14

CONT. (4) 40ml amber VOC HCl Methane (RSK 175)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
0.2	40	32

Dilution Factor Fe^{2+} = 5

DTB = 14.45 btoc

1230 - BACK TO UNIT

1345 - ON SITE TANKER SHED UST

1352 - WELL 04-290 LOCATION

SET UP TO SAMPLE USING PERISTALTIC PUMP LOW FLOW PID 0.0 ppm WELL HEAD, 0.0 ppm BREATHING ZONE. HAZARD ANALYSIS PERFORMED, NO HAZARDS AT THE WELL. [DTW = 6.91' btoc]

1421 - BEGIN COLLECTING PARAMETERS

- PARAMETERS STABILIZED ODOR NOT PETROLEUM LIGHT PURGE

1436 - PARAMETER STABILIZED PURGE 15 GAL, pH 6.47, Cond 0.339 mS/cm TURB ONTU DO 0.00 mg/L, TEMP 9.54°C SAL 0.02 %, Redox -9 mV

1440 - Collect Samples 04-290-2014

(1) 500ml poly u/p Alkalinity (SM2320D) + Sulfate (300.0)

8/30/14

TO 05 ADAK LTM 2014 8/30/14

CONT. (4) 40ml Amber VOC w/ HCl Methane (RSK 175)

(2) 1L Amber glass w/ HCL DRO (AK102)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
0.05	40	60

1450 - Collect Sample 04-300-2014 FIELD DUP

(2) ~~1m~~ 1L amber glass w/ HCL DRO (AK102)

Dilution FACTOR FOR Fe^{2+} = 5

PHOTOLOG

DATE	TIME	DESCRIPTION
08-30-14	1401	TANKER SHED 04-175 LOOKING N
08-30-14	1519	TANKER SHED 04-290 LOOKING N
08-30-14	1519	TANKER SHED 04-290

1900 - END OF DAY

8/30/14

TO OS ADAK LTM 2014 8/31/14

1000- PREPARE TO PACK UP COOLERS, PACK UP COOLERS FOR FORTEEN HUNDRED TRANSPORT TO AIRPORT

1100 END OF DAY

9-1-14

TO OS ADAK LTM 2014 9/1/14

0700 MORNING MEETING HELD SAFETY BRIEF LOGGED IN SSHO LOG BOOK,

HORIBA CALIBRATION OSZ

TIME	PH	SC	TVRB	DO	TEMP	SAL	REDOX
0751	4.01	4.52	0.0	9.18	14.42	0.24	325
1243	3.97	4.51	0.0	10.73	14.69	0.24	396
1506	4.00	4.50	0.0	10.19	15.66	0.24	308

PID CALIBRATION 0.0 100.01

0820- AT WASTE BUCKER TO DISPOSE OF PURGE WATER. INTIAL PID 2.3 IN BREATING ZONE. LET BREATH 0825 PID 0.7 ppm WITH FEW HITS OF 1.7 ppm AT THE DOOR ~~END~~ ENTRY 9/1/14

WAITED 0833 FOR 0.0 - 0.3 READINGS TO ENTER AND DUMP PURGE WASTE.

0900- SET UP AT ~~SM~~ SWMU13 9/1/14

METALS LANDFILL FOR SAMPLING AT MW13-1 CH_4 = ~~0.0 ppm~~ 0.0 % 9/1/14 9/1/14

AT WELLHEAD AND BREATING ZONE PID READING 0.0 ppm AT wellhead AND BREATING ZONE [DTW 19.77' btoc]

0955- BEGIN COLLECTING PARAMETERS

1015- PARAMETERS STABILIZED

1020- COLLECT SAMPLES MW13-1-2014

9/1/14

TO OS ADAK LTM 2014 9/1/14

CONT (1) 500ml HDPE w NH3 TOTAL ARSENIC 6020A, TOTAL BARIUM (6020A) UF
(1) 500ml HDPE w/ HNO3 Filtered Dissolved AS & BA (6020A)
(1) 500ml HDPE Alkalinity (SM 2320B) Sulfate (300.0), TDS (SM2540C)
(1) 500ml w/ HDPE w/ H2SO4 COD (SM5220C) TKN (ASTM D1426-93B) NH3 (SM4500G)
DTB = 26.97' btoc]

1032 ~~0932~~ 9/1/14 ON SITE AT MW-604 TO SAMPLE USING PERISTALTIC PUMP LOW FLOW. CH4 AT wellhead and breathing zone 0% PID at wellhead and breathing zone 0.0ppm
[DTW = 23.63' btoc]

LATE ENTRY MW13-1 Parameters
Purge 2.0 gal, pH 7.10, Cond 0.966 ms/cm Turb 0 NTU, DO 0.0, TEMP 7.11 °C, Sal 0.05 % Redox -82 mV

1120 - Collect Parameters
1200 - PARAMETERS STABILIZED
1205 - Collect Samples MW-604-2014
Purged 4 gal, pH 6.93, Cond 0.569, Turb 0 NTU, DO 4.24 mg/L Temp 7.93 °C

9/1/14

TO05 ADAK LTM 2014 9/1/14

Cont. Sal 0.03%, Redox 139
(1) 500ml HDPE w/ HNO3 TOTAL AS (6020A) TOTAL BA (6020A)
(1) 500ml HDPE w/ HNO3 Dissolved AS AND BA (6020A)
(1) 500ml HDPE Alkalinity (SM 2320B) Sulfate (300.0) TDS (SM 2540C)
(1) ~~HS~~ 500ml HDPE w/ H2SO4 COD (SM5220C) TKN (ASTM D1426-93B) Ammonia Nitrogen (SM 4500G)
[DTB 33.26' btoc]

1240 - BACK TO OFFICE AND CALIBRATE HORIBA.

1330 - ON SITE MW-603 TO SAMPLE USING Low Flow PERISTALTIC PUMP CH4 AT wellhead and breathing zone IS 0%, PID FOR VOC AT WELLHEAD AND BREATHING ZONE IS 0.0ppm [DTW 27.40 btoc]

1404 - COLLECT PARAMETERS

1430 - PARAMETER NOT STABLE WENT TO 3x CASING VOLUME AND COLLECTED SAMPLES.
- Parameter: 2 gal purge, pH 7.0 Cond 9.51 ms/cm, Turb 3, DO 2.86 mg/L temp 11.51 °C, SAL 0.05 % Redox 175

9/1/14

TOOS ADAK LTM 2014 9/1/14

(1) 500ml HDPE w/HNO3 UF TOTAL AS + BA (6020A

(1) 500ml HDPE w/HNO3 Filtered Dissolved AS & BA (6020A

(1) 500ml HDPE Alkalinity (SM 2320B) Sulfate (300.0), TDS (SM2540C)

(1) 500ml HDPE w/ H_2SO_4 COD (SM5220C) TKN (EPA 351.2 ~~ASTM~~ D1426-93B) Ammonia Nitrogen (SM4500G)

[DTB = 31.01 btoc]

1500 - BACK TO OFFICE FOR DEMOB AND PAPERWORK

PHOTOLOG

DATE	TIME	DESCRIPTION
9-1-14	1041	METALS LANDFILL-MW13-1-LOOKING S
9-1-14	1454	METALS LANDFILL-MW603-LOOKING E
9-1-14	1225	METALS LANDFILL-MW604-LOOKING E

1600 - END OF DAY

9/1/14

TOOS ADAK LTM 2014 9/2/14

0700 - MORNING BRIEF AND SAFETY MEETING HELD AND LOGGED IN THE SSHO LOG BOOK

HORIBA U52 - TEAM 2

TIME	PH	SC	TURB	DO	TEMP	SAL	ORP
0633	3.59	452	0.0	9.71	13.66	0.24	329
1446	3.96	4.56	0.0	9.67	14.78	0.24	328

HORIBA U22 TEAM 2

TIME	PH	SC	TURB	DO	TEMP	SAL	ORP
0738	3.95	4.50	0.0	10.53	8.51	0.2	296
1445	3.97	4.60	0.0	10.57	15.02	0.2	311
1719	3.99	4.54	0.1	10.21	16.12	0.2	300

PID CALIBRATION 0.0 ppm / 110 ppm

0925 - ONSITE AT MW13-2 TO COLLECT SAMPLES USING PERISTALTIC PUMP LOW FLOW. WELL INSPECTION PERFORMED 9-1-14 BY TEAM #3. [DTW 19.97' btoc]

PID 0.0 ppm @ 0% WELL HEAD AND BREATHING ZONE. Trace product ON probe reading. drawdown Slow purge rate 1/8 gal IN 5 MIN

1000 - BEGIN COLLECTING PARAMETERS - U52

1105 - PARAMETERS STABILIZED PURGE

1110 - Collect SAMPLES MW13-2-2014

9/2/14

TO 05 APAK LTM 2014 9/2/14
Purged 1.625 gal, pH 7.63, Cond 0.476 ms/cm, Turb 22 NTU, DO 0.28 mg/L, Temp 9.20 °C, Sal 0.02 % Redox 175 mV.
Collect
(1) 500 ml HDPE w/ NH_3 TOTAL As & BA (6020A
(1) 500 ml HDPE w/ NH_3 Dissolved As & BA (6020A)
(1) 500 ml HDPE w/ H_2SO_4 COD (SM 5220C) TKN (ASTM D1426-93B) NH_3 (SM 4500 G)
(1) 500 ml HDPE w/ppally Alkalinity (SM 2320B) Sulfate (300.0) TDS (SM 2540C)
1200 - PARKED VAN TO WALK TO SWMU 25 @ Roberts Landfill A-3 CH_4 = 0 % LEL wellhead O_2 = 20.9 %, 4 GAS MOTOR. PID VOC 0.0 ppm well head and breathing ZONE CH_4 = 0 %, IN BREATHING ZONE [DTW = 27.41' btoc] USE U22 HORIBA
1231 - SET UP TO SAMPLE LS, RW. PERISTALTIC PUMP LOW FLOW
1257 - BEGIN COLLECTING PARAMETERS
1332 - PARAMETERS STABILIZED PURGED 0.875 gal, pH 4.78, Cond 0.697 ms/cm Turb 74 NTU, DO 9.92 mg/L, Temp 9.09 °C

9/2/14

TO 05 APAK LTM 2014 9/2/14
Cont. Sal 0.0 %, Redox 368 mV
1335 - BEGIN COLLECTING SAMPLES
A-3-2014
(1) 500 ml HDPE w/ HNO_3 TOTAL PP Metals 6020A/7470Hg) TOTAL Aluminum (6020A)
(1) 500 ml HDPE w/ HNO_3 Dissolved PP Metals (6020A/7470Hg) TOTAL Aluminum (6020A)
(1) 500 ml HDPE Alkalinity (2320B), Sulfate (300.0), TDS (SM 2540C)
(1) 500 ml HDPE w/ H_2SO_4 COD (SM 5220C) TKN (ASTM D1426-93B) Ammonia (SM 4500G)
(4) 40 ml VOC Ambers w/ HCL VOCs (36) (8260C),
DTB = 33.03 btoc
1440 - BACK TO OFFICE FOR CALIBRATION
1540 - AT TRAILHEAD TO RLSW02 FOR SURFACE WATER SAMPLES
1605 - INITIAL PARAMETERS TAKEN
1615 - SAMPLES COLLECTED RLSW02-2014
(1) 500 ml HDPE HNO_3 TOTAL PP METALS (6020A 7470 Hg) TOTAL Aluminum (6020A)
(1) 500 ml HDPE Alkalinity (2320B), Sulfate (300.0) TDS (SM 2540C)
(1) 500 ml HDPE w/ HNO_3 Dissolved PP METALS (6020A/7470Hg) Dissolved Aluminum (6020A)

9/2/14

TOOS ADAK LTM 2014 9/2/14
CONT. (4) 40ml VOC's (30) (8260C)
SCOUTED WELLS COLLECTING SAMPLES AT,
-BACK TO OFFICE TO DEMOB AND COMPLETE PAPERWORK

PHOTOLOG

DATE	TIME	DESCRIPTION
9-2-14	0920	METALS @ OVERVIEW - LOOKING S
9-2-14	1423	ROBERTS LANDFILL - A-3 - LOOKING E
9-2-14	1635	ROBERTS LANDFILL - RLSW02 - LOOKING W

1900 - END OF DAY

9/2/14

TOOS ADAK LTM 2014 9/3/14
0700 MORNING BRIEF
A. LEWIS, S. WUNDERLICH, B. SCHLEIGER, R. BOYD, W. KAAGE J. SANTINI, A. VERNICK, A. FRANZEN.
SAFETY BRIEF HELD AND LOGGED IN SSHO LOGBOOK.

HORIBA U22 CALIBRATIONS

TIME	PH	SC	TURB	DO	TEMP	SAL	ORP
0808	3.98	4.52	0.0	10.02	13.95	0.2	287
	DID NOT USE						

PID 0.0ppm / 107 ppm CALIBRATION
H_2S-10, CO-48, CH_4-48, O_2-17.6 (%)
FRESH AIR CAL FOR 4 GAS METER
0835 - ON SITE SWMU 25 ROBERTS LANDFILL WELL A-5 TO COLLECT GW SAMPLES. PID 0.0ppm WELLHEAD AND BREATHING ZONE. 4 GAS METER CH_4 - 0.0% AT WELL HEAD AND BREATHING ZONE. [DTW TAKE 9/3/14] Pg 45
INITIAL NO READING 32.5 AND DTB is 32.7'. TOOK DTB = 32.52' TOC AND ASSUMED WELL TO NOT HAVE ENOUGH WATER METER MALFUNCTION

9/3/14

TO OS ADAK LTM 2014 9/3/14

CONS- WE will COLLECT WATER SAMPLES TOMORROW AT A-5

0915- ON SITE AT B-1 TO COLLECT GW SAMPLES USING LOW FLOW PERISTALTIC PUMP PID=0.0 ppm AT WELLHEAD AND BREATHING ZONE, 4 GAS METER CH4 0% AT WELLHEAD AND BREATING ZONE [DTW=10.6' BTOC] Well Inspection

0920- SET UP TO SAMPLE COND. READING 0.99-0.90 WITH U22 CHANGING TO U52 HORIBA CALIBRATIONS

TEMP	pH	SC	TURB	DO	TEMP	SAL	ORP
1010	3.94	4.55	0.0	9.32	13.26	0.24	325
1040	3.99	4.85	0.0	10.03	12.50	0.24	321
1146	3.97	4.53	0.0	9.62	13.33	0.24	305

1034- BEGIN COLLECTING PARAMETERS

1042- PARAMETERS STABILIZED Purged 1 gal, pH 4.67, COND 0.243 mS/cm, TURB 0 NTU, DO 0.0 mg/L TEMP 6.40 °C SAL 0.01 %, Redox 280 mV

1045 Collect Samples B-1-2014

(1) 500ml HDPE w/ HNO3 Total pp Metals (6020A/7470Hg) Total Aluminum ~~HDPE~~ 9/3/14 ~~w/ HNO3~~ (6020A)

9/3/14

TO OS ADAK LTM 2014 9/3/14

CONS (1) 500ml HDPE w/ HNO3 Dissolved pp Metals (6020A/7470Hg) Dissolved Aluminum (6020A)

(1) 500ml HDPE Alkalinity (SM2320B) Sulfate 300.0 TDS (SM2540C)

(1) 500ml w/ HDPE w/ H2SO4 COD (SM5220C) TKN (ASTM D1426-93B), ~~Alumin~~ 9/3/14 Ammonia Nitrogen (SM4500G)

(4) 40ml VOC w/ HCL VOCs (30) (8260C)

1055- COLLECTED FIELD DUP B-12-2014

(1) TOTAL pp Metals (6020A/7470Hg) Total Aluminum (6020A)

(1) Dissolved metals (6020A/7470Hg) Total Aluminum (6020A)

(4) 40ml VOCs (30) 8260C

1255- ONSITE A-5 TO Sample [DTW 25.3' BTOC] 4 GAS 0% Breathing zone & wellhead PID 0.0 ppm wellhead and Breathing zone

1326 Collect Parameters

1341- Parameters Stabilized

1345 Collect Samples A-5-2014

Purged 1.25 gal, pH 5.46, COND 0.276 mS/cm Turb 18 NTU, DO 0.00 mg/L TEMP 16.24 °C, Sal 0.01% Redox 126 mV- Collect-

(1) 500ml HDPE w HNO3 TOTAL pp Metals (6020A/7470Hg) TOTAL Aluminum (6020A)

9/3/14

TO 05 ADAK LTM 2014 9/3/14

(1) 500ml HDPE HNO_3 Dissolved PP Metals (6020A/7470Hg) Aluminum DS (6020A)

(1) 500 ml HDPE Alkalinity (SM2320B) Sulfate (300.0) TDS (SM2540C)

(1) 500ml HDPE w/ H_2SO_4 COD (SM5220C) TKN (ASTM D1426-93B) Ammonia Nitrogen (SM 4500G)

(4) 40ml VOCs (30) (8260C)

DTB = 32.52' BTOC

1435 - PARKED UP TOP TO GO TO A-2 WELL 4 GAS METER

VOC PEAK 0.3ppm wellhead 0.0ppm breathing zone CH4 0% wellhead and BREATHING ZONE. [DTW = 3.81' BTOC]

1500 - SET UP TO SAMPLE USING PERISTALTIC PUMP LOW FLOW. WELL IS SATURATED

1524 - COLLECT PARAMETERS

1544 - PARAMETERS STABILIZED. Purged 2.5gal, pH 7.08, Cond 6.443 ms/cm, TURB 0 NTU, DO 0.00 mg/L, TEMP 6.66°C SAL 0.02 % Redox -25

1545 - Collect samples A-2-2014 WITH MS/MSD

(12) 40ml VOCs w/ HCL (8260C)

(3) 500ml HDPE w/ HNO_3 TOTAL PP Metals

9/3/14

TO 05 ADAK LTM 2014 9/3/14

CONT (3) (6020A/7470Hg) Total Aluminum (6020A) 9/3/14

(3) 500ml HDPE w/ HNO_3 Dissolved PP Metals (6020A/7470Hg) Dissolved Aluminum (6020A)

(1) 500ml HDPE Alkalinity (SM 2320B) Sulfate (300.0) TDS (SM2540C)

(1) 500ml HDPE w/ H_2SO_4 COD (SM5220C) TKN (SM5220C), Ammonia Nitrogen (SM4500G)

DTB = 53.03' BTOC Soft bottom

- ON SITE AT WASTE BUNKER TO DUMP 25 GALLONS CERCLA WATER PURGED FROM SWMU 25 AND SWMU 13

PHOTOLOG

DATE	TIME	DESCRIPTION
9-3-14	1113	ROBERTS LANDFILL - B-1 - LOOKING SE
9-3-14	1413	ROBERTS LANDFILL - A-5 - LOOKING NE
9-3-14	1621	ROBERTS LANDFILL - A-2 - LOOKING N

1900 - END OF DAY

9/3/14

TOOS ADAK LTM 2014 9/4/14

0700 - MORNING MEETING HELD SAFETY BRIEF HELD AND LOGGED IN SSHO LOG BOOK. ADEWUS, A. FRANZEN, AVERRICE, B. SCHREIBER, S. WONDERLICH, W. KAAGE, J. SANTINI, R. BOYD,

U52 HORIBA CALIBRATION

TIME	PH	SC	TURB	DO	TEMP	SAL	ORP
0822	3.99	4.50	0.0	10.0	13.31	0.24	1.50221
1423	3.99	4.52	0.0	11.16	14.05	0.24	209
				WORKED AT ROBIA			LUNCH

PID CALIBRATION (PPM) 0.0 1110.

~~TIME~~ U22 HORIBA CALIBRATION

TIME	PH	SC	TURB	DO	TEMP	SAL	ORP
0930	3.95	4.68	0.0	10.50	13.32	0.2	289
			DID	NOT	USE		

0915 - ONSITE AT SWMU 61, TANK FARM B WELL 14-210 TO SAMPLE USING PERISTALTIC PUMP LOW FLOW PID AT WELL HEAD AND BREATHING ZONE 0.0 PPM. [DTW = 3.10' BTOC]

1000 - WELL WENT DRY - ALLOW 3 hr Recharge to Collect water Samples. D.O NOT STABILIZE

9/4/14

TOOS ADAK LTM 2014 9/4/14

PARAMETER WHEN THE WELL WENT DRY: Purged 0.5 gal, pH 6.78 COND 0.368 mS/cm, Turb 1 NTU, DO 0.40 mg/L TEMP 10.59 °C, SAL 0.02 ‰, REDOX -35 mV

1035 - ONSITE AT TFB-MW43 TO SAMPLE USING PERISTALTIC PUMP LOW FLOW. PID IN WELLHEAD AND BREATHING ZONE 0.0 PPM [DTW = 4.54' BTOC]

1052 - BEGAN COLLECTING PARAMETERS

1110 - COLLECT SAMPLES TFB-MW43-2014 Purged 0.75 gal, pH 6.91, COND 0.439 mS/cm TURB 0 NTU, DO 0.00 mg/L, TEMP 8.02 °C, SAL 0.02 ‰, Redox -32 mV

LATE ENTRY
1107 PARAMETERS STABILIZED

Collected Samples —

(4) 40ml Amber w/HCl GRO (AK101)
(4) 40ml Amber w/HCl BTEX (8260C)
(4) 240ml Amb. w/HCl Methane (RSK 175)
(1) 500ml poly Alkalinity (SM2320B) and Sulfate (300.0)

TEST KIT RESULTS (PPM)

DO	Fe^{2+}	CO_2
1.0	10*	42

9/4/14

TO 05 ADAK LTM 2014 9/4/14

Fe^{2+} Dilution Factor = 5

[DTB = 29.61' BTOC]

1227 - BACK AT 14-210 TO COLLECT GRAB WATER SAMPLES [DTW = 2.89' BTOC]

1305 - Collected Parameters NOT STABILIZED pH 7.16 ~~(9.00)~~ BY Hanna COND 0.503 mS/cm TURB 42, DO 0.66 mg/L, TEMP 12.3 °C SAL 0.02%, Redox -81

1310 - COLLECT SAMPLES 14-210-2014

(4) 40ml GRO (AK101) AMBER w/HCL

(12) 40 ml VOC AMBER w/HCL BTEX (8260C) OF THESE 8 VIALS ARE MS/MSD

(1) 500 ml poly Alkalinity (SM 2320B) ; SULFATE (300.0)

(4) 40 ml amber w/HCL METHANE (RSK 175)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
5	40	80

Fe^{2+} Dilution Factor = 5

[DTB = 7.21' BTOC]

1415 - BACK TO OFFICE TO DEMOB/ CALIBRATE/PAPERWORK

NOTE FOR 14-210 MORNING WATER PARAMETERS COLLECTED ONTH WELL WONT PRV AT 1000

9/4/14

TO 05 ADAK LTM 2014 9/4/14

AT 1015 WE STOPPED WORK AT WELL TO LET THE WELL RECHARGE TOOK WATER DOWN TO 1/2 FOOT THEN RETURNED TO WELL 3 HOURS LATER AT 1300 TO COLLECT INITIAL PARAMETERS AND SAMPLE BOTTLES. ABLE TO COLLECT All SAMPLE BOTTLES.

~~1900 - END OF (BJ)~~ 9/4/14

PHOTO LOG

DATE	TIME	DESCRIPTION
9/04/14	1224	SWMU61 OVERVIEW LOOKING NE
9/04/14	1353	SWMU61 14-210 LOOKING E
9/04/14	1400	SWMU61 TFB-MW4B LOOKING NE

1400 - ALEWIS, R. BOYD PACKED UP TEAM 2 COOLERS OF GW SAMPLES TO BE SHIPPED OUT VIA ~~ALASKA (BJ)~~ ALASKA AIRLINES - 3 Full COOLERS.

1900 - END OF DAY

9/4/14

TO 05 ADAK LTM 2014 9/5/14

0700 - SAFETY MEETING HELD FOR A. LEWIS, A. FRANZON, A. VERNICK B. SCHLEIGER, J. HIGHSTONE, W. Kaage, J. SANTINI, R. BOYD SAFETY BRIEF AND LOGGED IN IN SSHO LOG BOOK.

U52 HORIBA CALIBRATIONS

TIME	pH	SC	TURB	COND	TEMP	SAL	ORP
0746	3.98	4.56	0.0	9.96	13.54	0.24	311
1143	3.95	5.05	0.0	10.13	12.93	0.27	310
1500	3.95	4.55	0.0	10.03	12.02	0.24	337

PID CALIBRATION 0.0 / 113 PPM

4 GAS CALIBRATION

H_2S=7, VOC=5.7 CO=24

LEL 0 OXY 19.6

0805 - AT WASTE BUNKER TO DUMP NON CERCLA PURGE WATER FROM SWMU 61. 2.5 GALLONS DUMPED

0924 - ON SITE NL-12-ROBERTS LANDFILL SWMU 25 TO SAMPLE SURFACE WATER USING PERISTALTIC PUMP LOW FLOW. Well inspection performed

0943 - PARAMETERS COLLECTED - INITIAL pH 6.52, COND 0.205 mS/cm, TURB 0.0 NTU, DO 10.42 mg/L, TEMP 11.86°C, Sal 0.01 %

9/5/14

TO 05 ADAK LTM 2014 9/5/14

CONT. Redox 220mV

0945 - Collect Samples NL-12-2014

(1) 500ml HDPE w/ HNO_3 TOTAL PP METALS (6020A/7470A Hg) TOTAL Aluminum (6020A)

(1) 500ml HDPE w/ HNO_3 Dissolved PP METALS (6020A/7470A Hg) Dissolved Aluminum (6020A)

(1) 500ml HDPE Alkalinity (SM2320B) Sulfate (300.0) TDS (SM2540C)

(1) 500ml HDPE COD (SM5220C) TKN (ASTM D1426-93B) Ammonia Nitrogen (SM4500G)

1025 - ON SITE SWMU 25, Roberts Landfill NL-14. Well Inspection NO HAZARDS

1044 - COLLECTED INITIAL PARAMETERS pH 5.31, COND 0.975 mS/cm, TURB 5.9, DO 5.4 mg/L, TEMP 10.63°C, Sal 0.05 % Redox 227mV

1045 - Collect Samples NL-14-2014

(1) 500ml HDPE w/ HNO_3 TOTAL PP METALS (6020A/7470A Hg) TOTAL Aluminum (6020A)

(1) 500 ml HDPE w/ HNO_3 Dissolved PP METALS (6020A/7470A Hg) 9/5/14

(1) 500 ml HDPE (Alkalinity (SM2320B) Sulfate (300.0) TDS (SM 2540C)

(1) 500ml HDPE COD (SM5220C) TKN (ASTM D1426-93B) Ammonia Nitrogen (SM4500G)

9/5/14

TO OS ADAK LTM 2014 9/5/14

~~DATE ENTRY~~ 9/5/14

1109 - ON SITE RLSW01

1115 - VISUAL INSPECTION PERFORMED THE WELL IS DRY AND COULD NOT BE SAMPLED

1300 - ON SITE SWMU 55 PUBLIC WORKS TRANSPORTATION DEPARTMENT WASTE STORAGE AREA 55-145 TO COLLECT GROUND WATER SAMPLES USING PERISTALTIC PUMP LOW FLOW. PID = 0.0 WELLHEAD AND BREATHING ZONE, ~~GAS METER 0% CH4 IN WELL HEAD AND BREATHING ZONE~~ [DTW = 15.85' DTOC]

9/8/14

1333 - BEGAN COLLECTING PARAMETERS ~~1353~~ PARAMETERS STABILIZED PURGED - 2 gal, pH 6.82, Cond 0.342 mS/cm TURBO NTU, DO 7.51 mg/L, TEMP 7.82°C SAL 0.02 ‰, Redox 234 mV

1355 - COLLECT WATER SAMPLES 55-145-2014

(12) 40ml VOCs (PCE + daughter) (8260C)

(4) 40ml Methane (RSK 175)

(1) 500ml poly (SM 2320B) Sulfate (300.0)

1405 - Collect Field DUP 55-155-2014

(4) 40 ml VOCs (PCE + daughter) (8260C)

9/5/14

TO OS ADAK LTM 2014 9/5/14

TEST KIT RESULTS

DO	Fe^{2+}	CO_2
6	0	12

DTB = 25'

1435 ON SITE AT 55-146 TO CONDUCT VISUAL INSPECTION PID 0.0 PPM breathing zone and well head ~~GAS 0% CO2~~ [DTW = 17.76' btoc]

9/8/14

DTB = 27.95' HARD BOTTOM

PHOTOLOG

DATE	TIME	DESCRIPTION
9-5-14	1004	ROBERTS LANDFILL - NL-12 - DOWNSTREAM
9-5-14	1004	ROBERTS LANDFILL - NL-12 - STREAM BOTTOM
9-5-14	1004	ROBERTS LANDFILL - NL-12 - UPSTREAM
9-5-14	1021	ROBERTS LANDFILL - NL-14 - BLUE SEEP
9-5-14	1021	ROBERTS LANDFILL - NL-14 - DOWNSTREAM
9-5-14	1022	ROBERTS LANDFILL - NL-14 - WHITE SEEP
9-5-14	1023	ROBERTS LANDFILL - NL-14 - UPSTREAM
9-5-14	1026	ROBERTS LANDFILL - NL-14 - UPPER REACH
9-5-14	1026	ROBERTS LANDFILL - NL-14 - MIDDLE REACH #1
9-5-14	1026	ROBERTS LANDFILL - NL-14 - MIDDLE REACH #2
9-5-14	1026	ROBERTS LANDFILL - NL-14 - MIDDLE REACH #3
9-5-14	1026	ROBERTS LANDFILL - NL-14 - LOWER REACH
9-5-14	1026	ROBERTS LANDFILL - NL-14 - STREAM BOTTOM
9-5-14	1124	ROBERTS LANDFILL - RLSW01 - LOOKING NE
9-5-14	1124	ROBERTS LANDFILL - RLSW01 - UPSTREAM

9/5/14

TO 05 ADAK LTM 2014 9/5/14

PHOTOLOG (CONTINUED)

DATE	TIME	DESCRIPTION
9-5-14	1124	ROBERTS LANDFILL - RLSW01 - DOWNSTREAM
9-5-14	1434	SWMU55-145 - LOOKING SE
9-5-14	1434	SWMU55-146 - LOOKING NE

1530 - BACK TO OFFICE FOR CALIBRATIONS DEMOB AND OFFICE WORK.

1900 END OF DAY

9/5/14

TO 05 ADAK LTM 2014 9/6/14

0830 - MORNING MEETING HELD SAFETY BRIEF LOGGED IN SSHO LOG BOOK

USE HORIBA

TIME	pH	SC	TURB	DO	TEMP	SAL	ORP
0954	3.99	4.53	0.0	9.36	13.67	0.24	336
1237	3.98	4.55	0.0	9.94	13.71	0.24	181
			DONE W/ AT		LUNCH		

PID CALIBRATION 0.0/110 ppm

1015 - ARRIVED WASTE BUNKER TO DUMP 5 gal OF CERCLA WATER FROM SWMU 55-145. PID 0.0 TO 0.4ppm PRIOR TO ENTRY INTO WASTE BUNKER.

1030 - ON SITE SWMU 62, Sandy Cove Housing 102, 107 AND 146 Area TO COLLECT GROUND WATER SAMPLES AT ~~MW146~~ MW-146-1 (BJ) 9/6/14

PID AT WELLHEAD 20.1 ppm, BREATING ZONE 0.2 ppm. [DTW 17.20 BGS]

1100 - BEGIN COLLECTING PARAMETERS

1116 - COLLECTED 3X THE CASING VOLUME AND PARAMETERS STABILIZED

1125 - COLLECT SAMPLES MW-146-1-2014

PH 6.56, COND 0.371 MS/CM, TURB 6 NTU DO 0.00 MG/L TEMP 8.176 °C, SAL 0.02 %

TO OS ADAK CTM 2014 9/6/14

CONT. Redox 18 mV.

(1) 500ml poly Alkalinity (SM2320B), Sulfate (300.0)

(2) 1L amber glass w/HCL DRO (AK102)

(4) 40ml w/HCL MOTHANO (RSK175)

TEST KIT RESULTS		
DO_{ppm}	Fe^{2+}_{ppm}	$CO_{2\,ppm}$
1	30	100

DILUTION FACTOR = 5 FOR Fe^{2+}

NO ODOR NO SHEEN WATER DUMPED

1150 - ON SITE AT MW-107-1 TO SAMPLE GROUND WATER.

PID 37.0 ppm at well head and 0.0 ppm in breathing zone

[DTW 18.30' DTOC] DTP = 18.26' DTOL

Product thickness = 0.04' will NOT SAMPLE. DTB = 25.96' DTOL

Mild petroleum ODOR, WELL NO HAZARDS

1210 - ON SITE FOR WELL INSPECTION AT HMW-146-1 PID 0.7 BREATHING 0.6ppm at well head [DTW 16.71' DTOC]

DTB = 21.81' DTOC PROBE HAD A LOT OF RED/ORANGE FILM ON IT, NO ODOR.

1230 - BACK TO OFFICE FOR DEMOB

9/6/14

TO OS ADAK CTM 2014 9/6/14

CONT. AND OFFICE WORK

PHOTOLOG

DATE	TIME	DESCRIPTION
9-6-14	1214	SWMU62-MW-107-1
9-6-14	1214	SWMU62-MW-107-1-LOOKING NW
9-6-14	1231	SWMU62-HMW-146-1
9-6-14	1231	SWMU62-HMW-146-1-LOOKING SW
9-6-14	1232	SWMU62-MW-146-1
9-6-14	1232	SWMU62-MW-146-1-LOOKING S

1600 - END OF DAY

9/6/14

TO 05 ADAK LTM 2014 9-7-14

1230 - PACKED UP 2 COOLERS FOR SHIPPING SAMPLES TO ALS ENVIRONMENTAL LAB FOR ANALYSES. CARRIER IS ALASKA AIRLINES.

1400 - COOLERS TAKEN TO AIRPORT

1405 - FLIGHT CANCELLED SHIPMENT POSTPONED

1410 - END OF DAY

9/7/14

TO 05 ADAK LTM 2014 9/8/14

0730 - MORNING MEETING HELD A. Lewis, S. Wunderlich, A. Franzen R. Boyd, V. Kaage, J. Sahni, SAFETY BRIEF HELD AND LOGGED IN 5510 LOG BOOK

V52 HORIBA CALIBRATIONS

TIME	pH	SC	Turb	DO	TEMP	SAL	ORP
0819	3.97	454	0.0	9.82	8.20	0.24	333
1206	3.99	9.57	0.0	9.95	16.27	0.24	265
1525	9.97	463	0.0	9.66	16.75	0.24	196

PID CALIBRATIONS 0.0/108ppm VOC's

0850 - ON SITE SWMU 62, SANDY COVE HOUSING 102, 107 and LUG AREA TO SAMPLE Ground water USING Low Flow PERISTALTIC PUMP. VISUAL INSPECTION AND HAZARD ANALYSIS COMPLETED 9/6/14 by TEAM 1 [DTW 18.84' btoc] 03-155 well.

0906 - BEGIN PURGING MODERATE HYDROCARBON ODOR.

0917 - BEGIN COLLECTING PARAMETERS

0932 - PARAMETERS ~~STABILIZED~~ NOT (Pos) 9/8/14 DID NOT STABILIZE 3X CASING VOLUME 2 gal purged, pH 6.56, COND 0.283 mg/cm, Turb 4 NTU

9/8/14

TO OS ADAK LTM 2014 9/8/14

CONT DO 1.90 mg/L, TEMP 7.52 °C
SAL 0.01 Redox 47

0935 - Collect samples 03-155-2014
(2) 1L glass amber DRO (AK102) w/HCL
(1) 500ml poly Alkalinity (SM 2320B) & Sulfate (300.0)
(4) 40ml w/ HCL voc glass amber METHANE (RSK 175)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
2	~~1020~~	27

Dilution FACTOR Fe^{2+} = 5

1000 - BACK TO OFFICE TO DROP OFF SAMPLES FOR SHIPMENT COOLER

1015 - ONSITE SWMU 62, SANDY COVE HOUSING 82, 107 & 146 AREA WELL 03-619 SAMPLE GROUND WATER USING LOW FLOW PERISTALTIC PUMP, Hazard Analyses AND WELL INSPECTION PERFORMED TEAM 1 9/6/14. [DTW = 18.84 btoc]

1020 - BEGIN COLLECTING PARAMETERS

1111 - PARAMETERS NOT STABLE COLLECTED 3X CASING VOLUME PARAMETERS 3 gal purged, pH 6.40 COND - 0.434 mS/cm, Turb - 1 NTU, DO 0.30 mg/L

9/8/14

TO OS ADAK LTM 2014 9/8/14

CONT TEMP 7.15 °C, Sal 0.02 % ORP 101 mV

1115 - BEGIN COLLECTING SAMPLES FOR 03-619-2014 INCLUDE MS/MSD PARAMETERS MS/MSD IS FOR ALL SAMPLES TAKEN.

4 of (6) 1L Amber w/HCL DRO (AK102)
2 of (3) 500ml Poly w/ ALKALINITY (SM2320B) AND Sulfate (300.0)
8 of (12) 40ml voc amber w/ HCL METHANE (RSK175)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
1.5	0	52

1205 - AT OFFICE TO PACK UP AND SHIP SAMPLES. CALIBRATE HORIBA

1350 - ON SITE MW-134-11 TO SAMPLE GROUND WATER USING LOW FLOW PERISTALTIC PUMP. [DTW = 18.07 btoc] HAZARD ANALYSES AND WELL INSPECTION PERFORMED BY TEAM 1 9/6/14.

1413 - BEGIN COLLECTING PARAMETERS

1433 - 3X CASING VOLUME AND STABILIZED purged 2.0 gallons, pH 6.95, Cond 0.799 Turbl NTU, DO - 0.00 mg/L, Temp 7.95 °C, SAL 0.04%, Redox -55.

1435 - Collect Samples MW-134-11-2014

9/8/14

TO OS ADAK LTM 2014 9/8/14

CONT. (2) - 1 L glass Amber w/ HCL DROLAK 102)

9/9/14 (1) - 500ml poly U/P Alkalinity (SM2320) & Sulfate (300.0)

(4) 40ml amber glass w/ HCL Methan (RSK175)

TBSK KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
0.05	70	100

9/9/14 Dilution Factor Fe^{2+} = ~~2.5~~ 10

AND USED BOTH CO_2 Kits to CONFIRM 100 ppm.

1500 - BACK TO OFFICE FOR DEMOB AND PAPERWORK.

1930 - END OF DAY

TO OS ADAK LTM 2014 9/9/14

0700 - MORNING MEETING HELD A. LEWIS, J. HIGHSTONE, A FRANZEN, A. LORNICK, S. SKEEHAN, J. SATINI, W. Kaage.

SAFETY BRIEF HELD AND LOGGED IN SSHO BOOK.

HORIBA CALIBRATION U52

TIME	pH	SC	TURB	DO	TEMP	SAL	ORP
0740	3.97	4.52	0.0	10.00	12.78	0.24	305
1130	3.92	4.52	0.0	10.62	12.21	0.24	241
1605	3.96	4.52	0.0	9.94	13.47	0.24	202

PID CALIBRATIONS 108 ppm 9/9/14 0.0 ppm

NOTE TEAM #2 VAN PASSENGER HEADLAMP OUT.

0815 - ONSITE AT FORMER POWER PLANT BUILDING T-1451 WELL MW-1451-4 FOR GROUND WATER SAMPLES USING PERISTALTIC PUMP LOW FLOW. PID AT WELL HEAD 0.0 ppm AND 0.0 ppm BREATING ZONE.

[DTW = 6.07' BTOC]

0843 - BEGIN COLLECTING PARAMETERS

0903 - PARAMETERS STABILIZED Purged 2.0 GAL. pH 6.51, COND 6.229 mS/cm TURB 0.0 NTU, DO 1.60 mg/L, TEMP 7.34 °F

9/9/14

TO OS ADAK LTM 2014 9/9/14
Cont. SAL 0.01% Redox 210 mV
0905 - Collect Samples MW-1451-4-2014
(4) 40 ml w/ HCL BTEX (8260C)
(2) 1L w/ HCL DRO (AK102)
(2) 1L w/p PAHs (16) (8270D SIM)
(1) 500ml poly Alkalinity (SM2320B) and Sulfate (300.0)
(4) 40 ml w/ HCL METHANE (RSK175)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
3	0	11.5

DTB 14.66' btoc

0940 - ONSITE AT MW-1451-3 TO SAMPLE GROUNDWATER WITH THE USE OF PERISTALTIC PUMP LOW FLOW PID 0.0 ppm AT WELLHEAD AND BREATHING ZONE. [DTW = 5.26' btoc]
1005 - BEGIN COLLECTING PARAMETERS. NO SHEEN, NO ODOR WATER BUCKET.
1040 - PARAMETERS STABILIZED PURGED 3.5 GAL, pH 7.02, Cond 0.379 ms/cm TURB 3, DO 0.00, TEMP 8.95 °C, Sal 0.02% Redox 3.
1045 - Collect Samples MW-1451-3-2014
(4) 40 ml w/ HCL BTEX (8260C)
(4) 40 ml w/ HCL Methane (RSK175)

9/9/14

TO OS ADAK LTM 2014 9/9/14
(2) 1L w/ HCL DRO (AK102)
(2) 1L w/p PAHs (16) (8270D SIM)
(1) 500ml poly Alkalinity (SM2320B) and Sulfate (300.0)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
1	3	20

DTB = 13.66' btoc
1112 - BACK TO OFFICE TO KALIBRATE HORIBA, LUNCH AND CHANGE COOLERS FOR AFTERNOON WELL.
1250 - ON SITE FORMER POWER PLANT T-1451 WELL 01-150 TO SAMPLE GROUNDWATER USING LOW FLOW PERISTALTIC PUMP. PID = 0.0 ppm IN BREATHING ZONE AND AT THE WELLHEAD. [DTW = 19.24' btoc]
1313 - BEGIN COLLECTING PARAMETERS THERE IS NO ODOR OR SHEEN
1348 - PARAMETERS STABILIZED
1350 - SAMPLE COLLECTED 01-150-2014
Purged 1.75 gal, pH 6.76 ~~3.00~~ @ 9/9/14
Cond 0.472 ms/cm, TURB ~~0.00~~ NTU
Temp 10.26 °C, DO 0.00, SAL 0.02%
Redox - 27.

9/9/14

TO 05 ADAK LTM 2014 9/9/14
SAMPLES COLLECTED:
(2) 1L amber glass w/ HCL DRO (AK102)
(1) 1500ml poly (SM2320B) & Sulfate (300.0)
(4) 40ml Amber w/ HCL Methane (RSK175)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
0.3	20	65

[DTB = 27.11 btoc]
Fe^{2+} dilution factor = 5

1430 - ONSITE AT FORMER POWER PLANT BUILDING T-1451 WELL 01-118 TO SAMPLE GROUND water and perform VISUAL INSPECTION AND HAZARD ANALYSES.

LATE ENTRY PERFORMED HAZARD ANALYSES AND WELL INSPECTION AT FORMER POWER PLANT WELLS 01-150 AND MW-1451-3 AND MW1451-4 NO DEBRIS HAZARDS AROUND WELL.

PID IN BREATHING ZONE AND ~~ATHE~~ BS 9/9/14 AT THE WELL HEAD 0.0 ppm
[DTW = 15.94' btoc] Moderate odor.
1500 - BEGIN COLLECTING PARAMETERS
1510 - PARAMETERS stabilized

9/9/14

TO 05 ADAK LTM 2014 9/9/14
cont. Purge 1.5 gallons, ph 7.03, Cond 0.701 mg/cm, Turb 8, DO 0.00 mg/L
Temp 7.97 °C, SAL. 0.03 %
Redox -84

1515 - COLLECT SAMPLES 01-118-2014
(2) 1L Amberglass w/ HCL DRO (AK102)
(1) 500ml poly u/p Alkalinity (SM2320B) and Sulfate (300.0)
(4) 40ml amber glass w/ HCL METHANE (RSK175)

1525 - COLLECT FIELD DUP
(2) 1L Amberglass w/ HCL DRO (AK102)

TEST KIT RESULTS		
DO (ppm)	Fe^{2+} (ppm)	CO_2 (ppm)
0.1	40	99

DTB = 29.53' btoc Dilution factor = 10 Folsomia Candida "woolybears" on probe

PHOTOLOG

DATE	TIME	DESCRIPTION
09-9-14	0942	FORMER POWER PLANT - MW-1451-4 - LOOKING NW
09-9-14	1118	FORMER POWER PLANT - MW-1451-3 - LOOKING NW
09-9-14	1427	FORMER POWER PLANT - 01-150 - LOOKING W
09-9-14	1600	FORMER POWER PLANT - 01-118
09-9-14	1601	FORMER POWER PLANT - 01-118 LOOKING N

1900 - END OF DAY

9/9/14

9/10/14

TO OS APAK LTM 2014 ~~9/10/14~~ 9/10/14

0700 – MORNING MEETING HELD
A. Lewis, S. Wunderlich, R. Boyd
A. Franzen, B. Schleiger, J.
Highstone, W. Kaage, J. Satini,
A. Vernick. S. Skeehan
SAFETY BRIEF HELD AND
LOGGED IN THE SAFETY
MEETING. SSHO Log book

USZ CALIBRATIONS							
TIME	pH	SC	TURB	DO	TEMP	SAL	ORP
0749	3.96	4.54	0.0	10.00	12.98	0.24	299
1220	3.96	4.53	0.0	10.77	13.12	0.24	191
1609	3.98	4.53	0.0	10.53	13.65	0.24	163

PID CALIBRATED AT: 0.0 ppm / 108 ppm

0800 – ONSITE AT MW-1451-2 AT
FORMER POWER PLANT BUILDING T-1451
VEHICLE STUCK IN MUD AND AREA AT
WELL IS SOFT. SET UP TO SAMPLE
WITH PERISTALTIC LOW FLOW PUMP.
SITE HAZARD ANALYSES AND WELL
INSPECTION PERFORMED BY TEAM #3 ON
9/9/14. [DTW = 6.26' btoc]

0910 – BEGIN COLLECTING PARAMETERS

0940 – Parameters Stabilized Purged 3.0 gal
PH – 7.05, Cond 0.540 mg/cm, Turb 4 NTU

9/10/14

TO OS APAK LTM 2014 9/10/14

CONT. DO 0.00 mg/L, TEMP 9.91°C, Sal 0.03%
Redox -88 mV

0945 – Collect Samples MW-1451-2-2014
(1) 500 ml poly Alkalinity (SM2320B) + Sulfate (300.0)
(2) 1L glass amber w/ HCL DRO (AK 102)
(2) 1L glass amber ~~w/ HCL~~ BS 9/10/14 u/p PAHs (16)
~~(8270D SIM)~~ BS 9/10/14 (8270D SIM)
(4) 40 ml w/ HCL VOC BTEX (8260C)
(4) 40 ml w/ HCL VOC METHANE (RSK 175)

0950 – Collect FIELD DUP MW-1451-12-2014
(4) 40 ml VOC amber glass w/ HCL METHANE (RSK 175)
(1) 500 ml poly u/p Alkalinity (SM2320B) & Sulfate (300.0)

TEST KIT RESULTS		
DO (ppm)	Fe^{2+} (ppm)	CO_2 (ppm)
0	40	40

Dilution FACTOR FOR Fe^{2+} = 5
TOOK BOTH RANGER CO_2 TEST
TO VERIFY 40 ppm CO_2 SINCE Higher
~~so~~ BS 9/10/14 RESULTS IN PAST.
THERE WERE Folsomia Candidia "Wooly
worms" IN THE PURGE BUCKET, AND
SHEEN ON TOP OF PURGE WATER

9/10/14

TO OS ADAK LTM 2014 9/9/14

DUMPED 7 gal purge water into waste bucket to take to WASTE BUNKER

D955 - ON SITE AT FORMER POWER PLANT Building T-1451 TO COLLECT GROUND WATER SAMPLES FROM MW-1451-5. SET UP USING PERISTALTIC PUMP LOW FLOW

1045 - BEGIN COLLECTING PARAMETERS [DTW = 6.47' btoc]

PURGE WATER HAS mild ODOR AND will BE COLLECTED FOR DISPOSAL.

1115 - PARAMETERS STABILIZED purged 3gal pH 6.43, Cond 0.191 ms/cm, Turb 8 NTU, DO 0.00 mg/L, Temp 9.29 °C, Sal 0.01 % Redox 36 mV.

1120 - Collected Samples MW-1451-5-2014

(2) 1L amber w/ HCl DRO (AK102)

(1) 500ml poly u/p Alkalinity (SM 2320B) and Sulfate (300.0)

(4) 40ml VOC. Amber bottles w/ HCl Methane (RSK175)

TEST KIT RESULTS		
DO (ppm)	Fe^{2+} (ppm)	CO (ppm)
0.16	15	27

Dilution factor Fe^{2+} = 5

9/9/14

TO OS ADAK LTM 2014 9/10/14

1148 - AT WASTE BUNKER TO WASTE Purge water, PPE AND TEST KIT WASTE AT ACCUMULATION SITE. DUMPED 20+ GALLONS FROM SWMU 62 Sandy Cove AND FORMER POWER PLANT. PID AT TIME OF ENTRY WAS 0.0 - 0.6 ppm

1215 - AT OFFICE TO CALIBRATE HORIBA AND RESTOCK VAN AND LUNCH BREAK

1340 - ONSITE AT FORMER POWER PLANT, Building T-1451 TO SAMPLE GROUND WATER AT WELL MW-1451-9 USING LOW FLOW PERISTALTIC PUMP. [DTW = 7.92' btoc]

1405 - BEGIN COLLECTING PARAMETERS

1430 - PARAMETERS STABILIZED

1435 - COLLECT SAMPLES MW-1451-9-2014

(2) 1L amber glass w/ HCl DRO (AK102)

(1) 500ml poly u/p Alkalinity (SM 2320B) Sulfate (300.0)

(4) 40ml VOC vials w/ HCl Methane (RSK175)

PARAMETERS WERE pH 6.20, COND 0.283 ms/cm, TURB 5 NTU, DO 0.00, TEMP 9.31 °C, Sal 0.01 % Redox 28 mV

THE Purge Water WAS SLIGHTLY SMELLING D.O NOT SEEM TO

9/10/14

TO 05 ADAK ETM 2014 9/10/14

CONT. HAVE A HYDROCARBON ODOR

TEST KIT RESULTS

DO	Fe^{2+}	CO_2 (ppm)
0.2	15	70

DILUTION FACTOR FOR Fe^{2+} = 5

1450 - ON SITE FORMER POWER PLANT BUILDING T-1451 WELL MW-1451-8 TO SAMPLE GROUND WATER USING PERISTALTIC PUMP LOW FLOW

[DTW = 9.75' BTOC] STEVE SKEEHAN DROPPED IN

1510 - BEGIN COLLECTING PARAMETERS

1525 - PARAMETERS STABILIZED Purged 2 gal, pH 6.54, COND 0.277 mS/cm TURB 16 NTU, DO 0.0 mg/L, TEMP 9.56 °C SAL 0.01 %, Redox -14 mV.

1530 - COLLECT SAMPLES MW-1451-8-2014

(2) 1L AMBER GLASS W/ HCL DRO (ARTOC)

(1) 500 ml POLY U/P ALKALINITY (SM2320B)

SULFATE (300.0)

(4) 40 ml VIALS W/HCL METHANE (RSK 175)

TEST KIT RESULTS

DO (ppm)	Fe^{2+} (ppm)	CO_2 (ppm)
0.05	15	55

DILUTION FACTOR Fe^{2+} = 5

1600 - BACK TO OFFICE DEMOB

9/10/14

TO 05 ADAK ETM 2014 9/10/14

0700 - MORNING MEETING HELD SAFETY BRIEF LOGGED AND PLACED IN THE LOGBOOK A. LEWIS, S. WUNDERLICH, J. SATIN, R. BOYD, J. HAHNSTONE, W. KAAGE, B. SCHLEGER, A. FRANTZEN, A. VERNICK, S. SKEEHAN.

U52 HORIBA CALIBRATION

TIME	pH	SC	TURB	DO	TEMP	SAL	ORP
0819	3.96	4.54	0.0	10.44	12.63	0.24	292
1113	3.94	4.55	0.0	10.58	11.68	0.24	154
1723	3.96	4.54	0.0	10.34	12.26	0.24	141

PID = 0.0/108 PPM CALIBRATION

0840 - ON SITE GCI COMPOUND, UST GCI-1 WELL 04-213. TO SAMPLE USING LOW FLOW PERISTALTIC PUMP. VISUAL INSPECTION AND HAZWRD ANALYSIS DONE 9/10/14 BY TEAM #3.

[DTW = 23.53' BTOC]

9005 - BEGIN COLLECTING PARAMETERS NO SHEEN AND ODOR IS LIGHT SULPHUR

0930 - PARAMETERS STABILIZED Purged 2.5 gal, pH 6.92, COND 0.249 mS/cm, Turb 4, DO 0.00 mg/L TEMP 6.14 °C, Sal 0.01 %, ORP -1

0935 - BEGIN COLLECTING SAMPLES 04-213-2014

9/10/14

TO OS ADAK LTM 2014 9/11/14

(4) 40ml w/ HCL VIALS GRO(AK101)
(4) 40ml w/ HCL VIALS METHANE (RSK 175)
(1) 500ml poly U/P Alkalinity (SM2320B) and Sulfate (300.0)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
0.3	15	40

Dilution FACTOR = 5 FOR Fe^{2+}

1000 - ON SITE GCI COMPOUND WELL 04-204 TO SAMPLE GROUND WATER LOW FLOW PERISTALTIC PUMP
[DTW = 25.47' btoc]
1030 ~~1025~~ BEGIN COLLECTING PARAMETERS
BEGIN COLLECTING SAMPLE DATA; NO SHEEN LIGHT SULPHUR ODOR NO PETROLEUM ODOR.
1040 - PARAMETERS STABILIZED PURGED 1.5GAL, pH 6.76, Cond 0.317mS/cm, TURB 200TU, DO 0.00mg/L, TEMP 7.31 °C, ReCox 16.
1045 - BEGIN Collecting Samples 04-204-2014
(1) 500 ml poly U/P Alkalinity (SM2320B) Sulfate (300.0)
(4) 40 ml amber w/ HCL VIAL GRO(AK101)

9/11/14

TO OS ADAK LTM 2014 9/11/14

CONT. (4) 40ml HCL AMBER VIAL METHANE (RSK 175)

TEST KIT RESULTS		
DO ppm	Fe^{2+} ppm	CO_2 ppm
0.8	10	50

Fe^{2+} Dilution FACTOR = 5

1104 - BACK TO OFFICE FOR PREP TO SHIP & COOLERS OUT ALASKA AIRLINES TODAY.
1337 - ON SITE AREA 303 WELL MW-303-32 FOR GROUND WATER SAMPLING USING LOW FLOW PERISTALTIC PUMP. [DTW = 23.90' btoc]
1405 - BEGIN COLLECTING PARAMETERS. Mild ODOR
1425 - PARAMETERS STABILIZED
1430 - BEGIN SAMPLING MW-303-32-2014
PARAMETERS 2.0gal purged, pH 6.79, Cond 0.398 mS/cm, TURB 0, DO mg/L, TEMP 8.09°C, Sal 0.02%, ORP -27
(4) 40ml amber glass vials HCL (TSTEX 8260C)
(1) 500ml poly U/P Alkalinity (2320B) Sulfate (300.0)
(4) 40 ml glass amber w/ HCL Methane (RSK 175)

TEST KIT RESULTS (ppm)					
DO	Fe^{2+}	CO_2	DO	Fe^{2+}	CO_2
90	35	80	0.6	35	75
			DUP	DUP	DUP

9/11/14

TO05ADAK LTM 2014 9/11/14

1515-ONSITE AT AREA 303 MW-303-33
TO SAMPLE GROUND WATER USING 9/11/14
LOW FLOW PERISTALTIC PUMP. [DTW 22.22 ntoc

1545- SET UP TO COLLECT PARAMETERS
THE PURGE WATER IS ORANGE/
RUST COLOR MILD PETROLEUM
SMELL.

1548- BEGIN COLLECTING INITIAL
PARAMETERS.

1616 - 3X CASING PURGED & STABILIZED

1620 - COLLECT SAMPLES purged 2.333 gal
pH 6.73, COND 0.339 mS/cm, Turb 6 NTU
DO 0.00 mg/L, TEMP 7.54°C, Sal 0.02 %
Redox -37 mV

COLLECTED MW-303-33-2014

(4) 40 ml glass amber w/HCL Vial BTEX (8260C)
(4) 40 ml glass amber w/HCL Vial GRO (AK101)
MS/MSD ~~(12)~~ (08) (85) 9/16/14 40 ml glass Amber w/HCL GRO (AK10)
(2) 1L glass amber w/HCL DRO (AK102)
(4) 40 ml glass amber w/HCL Methane (RSK 175)
(1) 500 ml poly u/p Alkalinity (SM 23260B) +
Sulfate (300.0)

TEST KIT RESULTS (ppm)		
DO	Fe^{2+}	CO_2
1.0	25	42

9/11/14

TO 05 ADAK LTM 2014 9/11/14

CONT Dilution Factor = 5

1715- BACK TO OFFICE TO DEMOB AND
PAPERWORK

1900- END OF DAY

9/11/14

TO 05 ADAK CTM 2014 9/12/14

0700 - MORNING MEETING HELD
A. Lewis, S. Wunderlich, J. Hackstone
B. Schleger, R. Boyd, W. Kaage
J. Sahni.
SAFETY BRIEF HELD AND LOGGED IN SSHO LOG BOOK

HORIBA U52 CALIBRATIONS

TIME	pH	SC	~~ORP~~ COND	TURB	TEMP	SAL	COND	DO
0824	3.98	4.53	285	0.1	13.06	0.24		
1234	3.98	4.57	322	0.0	12.14	0.24		
		DONE FOR DAY						

PID CALIBRATION: 0.0/105ppm
0830 - ONSITE AREA 303 TO 03-012 SAMPLE USING PERISTALTIC PUMP LOW FLOW. HAZARD ANALYSES AND WELL INSPECTION DONE 9/9/14 TEAM 3 [DTW = 7.41' btoc] Colorless/odorless
0915 - BEGIN COLLECTING PARAMETERS
NOTE: DTB OF WELL LOG SAYS 9' btoc AND WELL INSPECTIONS SHOW 11' btoc
0930 - PARAMETERS STABILIZED
Purged 1.5 Gal., pH 6.23, Cond 0.134ms/cm TURB 0 DO 6.51mg/L, TEMP 9.66 °C, SAL 0.01% ORP 221.
0940 - Collect Samples 03-012-2014

9/12/14

TO 05 ADAK CTM 2014 9/12/14

COLLECT:
(4) 40ml amber vials w HCL GRO (AK 101)
(8) 40ml Amber vials w/ HCL GRO (AK101) MS/MSD
(4) 40ml AMBER VIALS w/ HCL BTEX (8260C)
(2) 1L amber w/ HCL DRO (AK 102)
(2) 1L amber w/ HCL PAHs (16) (8270D SIM)
(4) 1L amber w/ HCL PAHs (16) (8270D SIM) MS/MSD
(4) ~~500ml~~ 250ml poly u/p Alkalinity (2320B) Sulfide (300.0)
(2) 500ml poly u/p Alk (2320B) Sulfide (300.0) MS/MSD
(4) 40ml amber vial w/ HCL METHANE (RSK 175)
(8) 40ml amber vial w/ HCL METHANE (RSK 175) MS/MSD

TEST KIT RESULTS		
DO_{ppm}	Fe^{2+}_{ppm}	CO_{2ppm}
6	0	18

1050 - ONSITE AREA 303
WELL MW-303-37 ~~-20~~ (BS) 9/12/14 TO SAMPLE GROUNDWATER USING PERISTALTIC PUMP NO ODOR NO SHEEN. [DTW = ~~5.6~~ (BS) 9/12/14 12.81 btoc]
~~11:35~~ (BS) 9/12/14 1110 - BEGIN COLLECTING PARAMETERS
1135 - DID NOT STABILIZE PARAMETERS WENT 3X CASING Purged 3 gal
pH - 6.08, Cond 0.144, Turb 0 DO 6.37 TEMP 7.54 °C, Sal 0.01% ORP - 221
1140 - Collect SAMPLES MW-303-37-2014

9/12/14

TO 05 ADAK LTM 2014 9/12/14

TEST KIT RESULTS (PPM)					
Do	Do	Fe^{2+}	Fe^{2+}	CO_2	CO_2
6.0	6.0	0	0	20	20

SAMPLES COLLECTOR:

(4) 40 ml AMBER VIALS w/ HCL GRO(AK101)

(4) 40 ml AMBER VIAL w/ HCL BTEX (8260 C)

(2) 1L amber glass w/ HCL DRO(AK102)

(2) 1L ~~clear~~ amber glass 9/12/14 U/P PAHs(16) (8270D SIM)

(1) 500 ml poly U/P (SM 2320B) & Sulfate (300.0)

(4) 40 ml amber glass VIAL w/ HCL Methane (RSK 175)

1230 - BACK AT THE OFFICE TO DEMOB/ RESTOCK, PAPERWORK

1700 - END OF DAY

9/12/14

TO 05 ADAK LTM 2014 9/13/14

1000 - MORNING MEETING HELD AND SAFETY BRIEF LOGGED IN SSHP LOG BOOK.

WEATER: CLOUDY WITH HIGH WINDS INDOOR OFFICE WORK COMPLETED

1800 - END OF DAY

9/13/14

TO 05 ADAK CTM 2014 (BS 9/14/15) 9/14/14

1230 - PACK UP 3 # COOLERS FOR SHIPPING VIA ALASKA AIRLINES TO LAB FOR ANALYSES.

1400 - COOLER TAKEN TO AIRPORT

1500 - PAINT ROOMS

1900 - END OF DAY

Rec 9/15/14

TO 05 ADAK CTM 2014 9/15/14

0700 - MORNING MEETING HELD ALEXIS, S. Wunderlich, J. Hightstone, B. Schleger, R. Boyd, J. SATINI, W. Voage

SAFETY BRIEF HELD AND LOGGED IN SSHO LOG BOOK.

U52 HORIBA CALIBRATION

TIME	pH	SC	TURB	DO	TEMP	SAL	ORP
~~0743~~ 0743	3.99	4.53	0.0	9.64	13.91	0.24	274
1170	3.99	4.53	0.0	9.67	12.67	0.24	176
1606	3.98	4.53	0.0	9.92	11.78	0.24	150

PID CALIBRATION: 0.0 / 108 PPM

0825 - ONSITE AT AREA 303 WELL 03-502 TO SAMPLE GROUND WATER USING LOW FLOW PERISTALTIC PUMP [DTW = 24.07' BTOC] WHILE PURGING STRONG PETROLEUM ODOR. HAZARD ANALYSES AND WELL INSPECTION COMPLETED BY TEAM 3. PID WELL HEAD ON 9-15-14 52 PPM AND 0.0 AT BREATHING ZONE CHECKED WHILE PURGING AND BREATHING ZONE 0.0 PPM. NOSIEGO

0859 - BEGIN COLLECTING PARAMETERS

0904 - PURGED 3X CASING VOLUME NOT STABILIZED. Purged 0.250 Gal

9/15/14

TO OS ADAK UTM 2014 9/15/14

0905 - COLLECT SAMPLES 03-502-2014

PARAMETERS: pH 6.74, COND 0.285 ms/cm ~~0.285~~ TURB 0 NTU DO 0.00 mg/L, TEMP 10.75°C, Sal 0.0% REDOX -23 mV COLLECTED @

(4) 40 ml amber vials w/ HCL GRO (AK101)

(4) 40 ml amber vials w/ HCL METHANE (RSK 175)

(1) 500 ml w HDPE HNO_3 TOTAL LEAD (EPA 6020A)

(1) 500 ml w/ HDPE HNO_3 DISSOLVED LEAD FILTERED (EPA 6020B)

(1) 500 ml poly U/P METHANE (RSK 175)

TEST KIT RESULTS (ppm)		
DO	Fe^{2+}	CO_2
0	30	60

Dilution FACTOR Fe^{2+} = 5

0940 - ON SITE AREA 303 WELL MW303-39 TO SAMPLE GROUNDWATER USING LOW FLOW PERISTALTIC PUMP. [DTW = 20.95' btoc]

1005 - BEGIN COLLECTING PARAMETERS

1019 - PARAMETERS STABILIZED: Purged 1.5 gal NOTE: NO SHEEN / NO ODOR, pH - 6.59 COND 0.287 ms/cm, TURB 3 NTU DO 0.00 mg/L TEMP 7.60 °C S-1 0.01 % Redox 24

1025 - BEGIN COLLECTING SAMPLES MW-303-39-2014

(4) 40 ml amber vials w/ HCL GRO (AK101)

9/15/14

TO OS ADAK UTM 2014 9/15/14

CONT. (4) 40 ml amber vials w/ HCL BTEX (8260C)

(2) 1L amber U/P Dibenz(a,h)anthracene (8270D SIM)

(1) 500 ml HDPE HNO_3 TOTAL LEAD (EPA 6020A) 9/15/14

(1) 500 ml HDPE HNO_3 Filtered Diss LEAD (EPA 6020A)

(1) 500 ml poly U/P Alkalinity (SM 2320 B) and Sulfate (300.0)

(4) 40 ml amber vials w/ HCL METHANE (RSK 175)

TEST KIT RESULTS (ppm)		
DO	Fe^{2+}	CO_2
0.2	20	37

Dilution FACTOR = 5 FOR Fe^{2+}

1115 - BACK TO OFFICE TO CALIBRATE HORIBA AND RESTOCK, WARM UP

1230 - ON SITE AT MW-303-30 AREA 303 TO SAMPLE GROUND WATER USING PERISTALTIC PUMP LOW FLOW [DTW = 27.12' btoc]

1301 - BEGIN COLLECTING PARAMETERS THERE IS A CHEMICAL ODOR IN THE PURGE WATER AND IT IS 0.0 PID BREATHING ZONE 7.2 ppm where water drops into the bucket.

1329 - PARAMETERS STABILIZED purged 2.33 gal PH 6.63, COND 0.264, TURB 2, DO 0.00

9/15/14

TO OS ADAK LTM 2014 9/15/14
Cont TEMP 7.47°C, SAL 0.01 %
ORP 28 mV
1330 - COLLECT SAMPLES MW-303-30-2014
(4) 40 ml AMBER Vial w/HCL GRO (AK101)
(4) 40 ml AMBER Vial w/HCL BTEX (8260C)
(2) 1L Glass Amber U/P Dibenz(a,h) (8270D SIM) anthracene
(1) TOTAL LEAD (EPA 6020A) 500ml HDPE w/ HNO_3
(1) Dissolved LEAD (EPA 6020A) 500ml HDPE w/ HNO_3 Filtered
(1) 500ml poly Alkalinity (SM 2320 B) Sulfate (300.0)
(4) 40 ml Amber Vial w/ HCL Methane (RSK175)
1340 - COLLECT FIELD DUP MW-303-130-2014
(4) 40 ml Amber Vial w/ HCL GRO (AK101)

TEST KIT RESULTS (ppm)		
DO	Fe^{2+}	CO_2
0	20	40

DILUTION FACTOR = 5 FOR Fe^{2+}
1435 - ONSITE AREA 303 WELL 03-107 TO SAMPLE GROUND WATER USING LOW FLOW PERISTALTIC PUMP. [OTW = 27.09 ftbtoc]
1455 - Initial Parameter Taken STRONG CHEMICAL ODOR AND NO SHEEN

9/15/14

TO OS ADAK LTM 2014 9/15/14
1500 - Collect parameters
1515 - parameters stabilized
Purged 2.0 gal, pH 6.92, Cond 0.287 ms/cm
TURB 2 NTU, DO 0.00 mg/L, TEMP 6.96 °C,
SAL 0.01 % Redox -26 mV
1520 - BEGIN COLLECTING SAMPLES
03-107-2014 COLLECT:
(4) 40 ml amber vials w/ HCL GRO (AK101)
(4) 40 ml amber vials w/ HCL Benzene (8260C)
(1) 500ml HDPE w/ HNO_3 Total lead (EPA 6020A)
(1) 500ml HDPE w/ HNO_3 Dissolved lead (EPA 6020A)
(1) 500 ml poly Alkalinity (SM 2320 B) & Sulfate (300.0)
(4) 40 ml amber vials w/ HCL Methane (RSK175)

TEST KIT RESULTS (ppm)		
DO	Fe^{2+}	CO_2
0.1	25	55

DILUTION Factor = 5 FOR Fe^{2+}
1600 - BACK TO OFFICE FOR DEMOB CALIBRATION, RESTOCK, PAPERWORK
NOTE: 03-107 AND MW-303-30 THE VOC VIALS TOOK LONGER TO FILL BECAUSE BUBBLES KEPT COLLECTING WHEN THE WATER WAS COLLECTED. THOSE WELLS HAD PID READINGS OF 7.0-5.0 ppm

9/15/14

TO 05 ADAK LTM 2014 9/15/14

WHEN THE PURGE WATER DROPPED INTO THE BUCKET, THESE TWO WELLS NOTED MODERATE TO STRONG CHEMICAL ODOR AND Will Kaage GOT A HEADACHE WHEN POURING THE PURGE WATER INTO THE CONTAINMENT DRUM.

1900 - END OF DAY

9/15/14

TO 05 ADAK LTM 2014 9/16/14

0700 - MORNING MEETING HELD SAFETY BRIEF HELD AND LOGGED IN THE SSHO LOG BOOK

9/16/14

USZ CALIBRATIONS

~~Time~~	pH	SC	TURB	DO	TEMP	SAL	ORP
0821	4.00	4.51	0.0	10.18	13.11	0.24	301
1121	4.00	4.53	0.0	10.42	12.17	0.24	179
			DONE FOR DAY				

PID CALIBRATION: 0.0 ppm 108 ppm

0840 - ON SITE GCI COMPOUND, UST GCI-1

04-100 TO SAMPLE USING LOW FLOW PERISTALTIC PUMP GROUNDWATER.

PID AT WELLHEAD 2.35 ppm BREATHING ZONE 0.0 ppm. LETTING WELL BREATHE AND CAUTION WHILE COLLECTING PURGE AND SAMPLE WATER. [DTW = 27.83 btoc]

0912 - BEGIN COLLECTING PARAMETERS PURGER FLOW 1 1/2 GALLON 5 MIN. Slight PETROLEUM ODOR AND NO SHEEN.

0947 - PARAMETERS STABILIZED PURGED 1.75 gal, ~~pH 6~~ BS 9/16/14 pH = 6.26 Cond 0.278 mS/cm TURB = 2 NTU, DO 0.00 mg/L, TEMP 6.23 °C Sal 0.01 %, ORP 3 MV

0950 - Begin Collecting Samples 04-100 2014 (4) 40 ml acker vials w/HCl GRO (AK101)

9/16/14

TO 05 ADAK LTM 2014 9/16/14

CONT (4) 40ml amber w/ HCL METHANE (RSK175)
(1) 500ml poly u/p Alkalinity (SM 2320B)
Sulfate (300.0)

1000 - COLLECT SAMPLE FIELD DUP
04-110-2014

(4) 40 ml amber w/ HCL METHANE (RSK175)
(1) 500ml poly Alkalinity (SM 2320B)
Sulfate (300.0)

TEST KIT RESULTS (PPM)					
DO	DO	Fe^{2+}	Fe^{2+}	CO_2	CO_2
0.4	0.4	20	20	32	35

Dilution Factor Fe^{2+} = 5

Duplicated on test kits performed for Alkalinity DUP COLLECTION TAKEN TEST KIT.

1035 - AT WASTE BUNKER TO DROP OFF 20 GALLONS OF PURGED WATER AND TEST KIT WASTE, PPE TYVEK AND GLOVES.

1900 END OF DAY

9/16/14

TO 05 ADAK LTM 2014 9/17/14

0900 - MEETING HELD

SAFETY BRIEF HELD

- MATERIAL HANDLING
- DRUM HANDLING
- SPLASHES
- NO HEAVY LIFTING

DEMOB WORK DAY AND PREP FOR SHIPPING

1800 - END OF DAY

9/17/14

TO 05 ADAK LTM 2014 9/18/14

1100 - BEGIN PACKING COOLERS FOR SHIPPING OUT TO THE LAB FOR ANALYSIS. CARRIER IS ALASKA AIRLINES. PRIOR TO SHIPPING ALL VOC VIALS ARE UNPACKED AND VISUALLY INSPECTED FOR BUBBLES AS A TRIPLE QC. TO VERIFY PRIOR TO SHIPPING BUBBLE FREE. TEAM 2 PACKED 2 COOLERS FOR SHIPPINT TO THE LAB.

1800 - WILL KARGE, ROBERT BOYD FLEW HOME.

1900 - END OF DAY NO FURTHER ENTRIES

9/18/14

NO FURTHER ENTRIES

11-6-14

(1) 3WGK3

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TO 005 ADAK LTM JON TEAM 3

Rite in the Rain®
ALL-WEATHER
JOURNAL
No. 390N

TO 005 ADAK LTM JON
TEAM 3 OUA

START: 8/22/14
END: 10/14/14

BOOK #3 - TEAM 3
PROJECT: ADAK LTM 2014

CONTRACT # N44255-14-D-9011

TASK ORDER # 005

NAVY INSTALLATION: FORMER NAVAL COMPLEX ADAK, ALASKA

SITE NAME: OUA

START DATE: 8/22/14

END DATE:

BOOK ASSIGNMENT: TEAM 3
JOHN HIGHSTONE
JEREMIAH SANTINI

COMPANY: SEALASKA ENVIRONMENTAL SERVICES

ADDRESS: 18743 FRONT ST. NE, STE. 201
POULSBO, WA 98370

PHONE # (360) 930-3300

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PAGE	REFERENCE	DATE
	PID - ION PHOTOCHECK ION | PC + 10.0 EV	
	ASSET # 111980	
	# 10 - 01410	
	PUMP - PEGASUS ACCESS PERISTALTIC PUMP	
	MOD # 424-0060	
	SER # 1088835	
	MULTIMETER - HORIBA WATER QUALITY METER	
	MODEL # U-22XD MFG # 9116010	
	AUTOCAL SOLUTION LOT # 10731	
	EXP : 11/19/2014	
	5 - GAS METER	
	~~4 - GAS METER~~ - RAE SYSTEMS MULTI RAE +	
	MOD # PGM 50-5P	
	SERIAL # 095 - 5106061	
	INTERFACE METER - GEOTECH INTERFACE PROBE	
	MODEL # 3486	

8.25.14

Rite in the Rain®
ALL-WEATHER WRITING PAPER

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Numbered Pages

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JOHN HIGHSTONE, JEREMIAH SANTINI

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Project TO 005 ADAK LTM 2014

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8.25.14

TO 005 ADAK LTM 2014 8/25/14

0700 - SEE SSHO LOGBOOK FOR HEALTH & SAFETY. VANS ARRIVED ON 8/23/14 SAP AND EQUIPMENT (HORIBA, PID, PUMP) REVIEW CONDUCTED ON 8/23/14. CONDUCT HEALTH & SAFETY MEETING. TOPICS INCLUDE: PROPER PPE, PARK INTO WIND. PID WELLHEAD & BREATHING ZONE, SLIPS, TRIPS & FALLS.

1030 - MOBILIZE TO ~~SA 79~~ SOUTH RUNWAY 18/36 SA 15, 38, 17 FOR SHORELINE SURVEY. J. HIGHSTONE & J. SANTINI ONSITE.

8/25/14 ~~SA 79~~ PHOTO LOG → SOUTH OF RUNWAY 18/36

DATE	TIME	PHOTO	ORIENTATION
8/25/14	1038	#1 START	WEST
8/25/14	1039		WEST
8/25/14	1040		N. WEST
8/25/14	1041		N. WEST
8/25/14	1043		N. WEST
8/25/14	1044	BOOM #6 S -	WEST
8/25/14	1045		WEST
8/25/14	1046		WEST
8/25/14	1046		WEST
8/25/14	1051		WEST
8/25/14	1052		NORTH
8/25/14	1053	SHEEN	NORTH

John A. Gloth 8/25/14

TO 005 ADAK LTM 2014 8/25/14

TIME	PHOTO	ORIENTATION
1054	SHEEN	EAST
1055	SHEEN	NORTH
1055	SHEEN	NORTH
1056	SHEEN/WATER	NORTH
1056	SHEEN	NORTH
1057	SHEEN	NORTH
1057	SHEEN	NORTH
1058	BIG SHEEN 4'x4'	NORTH EAST
1059	BIG SHEEN 4'x4'	EAST
1101	SHEEN	NORTH
1114	SHEEN/WATER	NORTH
1114	SHEEN/WATER	NORTH
1115		NORTH
1116	SHEEN	NORTH
1117	SHEEN	NORTH
1121		NORTH
1122		NORTH
1122		NORTH
1123	SHEEN	NORTH
1124		NORTH
1126		NORTH
1127	SHEEN	NORTH
1128		NORTH
1129		NORTH

John A. Gloth 8.25.14

TO 005 ADAK LTM 2014 8/25/14

TIME	PHOTO	ORIENTATION
1131		NORTH
1133		NORTH
1134	DIKE PUMPS	NORTH
1135	DIKE PUMPS	NORTH
1136		NORTH
1136 SOUTH RUNWAY 18-36 8-25-14	END	NORTH

DURING ~~SA79~~ SHORELINE INSPECTION SEVERAL LOCATIONS WITH MINIMAL SHEENING ALONG SHORELINE IN BETWEEN BOTH BRIDGE LOCATIONS. BIGGER SHEENED AREA LOCATED NEXT TO MAIN ROAD BRIDGE UNDER SOUTH SIDE ALONG BANK. THIS AREA WAS DOCUMENTED IN 2013 SHORELINE INSPECTION WHICH ENCOMPASSES AN AREA OF ABOUT 4' x 4' SQUARE. NUMEROUS DEBRIS FOUND IN AND AROUND CREEK BUT NOT CONTRIBUTING TO CONTAMINATED AREAS ALONG SHORELINE.

1455 - ONSITE AT SA79 TO CONDUCT SHORELINE INSPERTION.

~~TIME~~	PHOTO	ORIENTATION
1459	START	NORTH
1500		NORTH

John Mighton 8-25-14

TO 005 ADAK LTM 2014 8/25/14

TIME	PHOTO	ORIENTATION
1500 A		NORTH
1500 AB		NORTH
1501		NORTH
1501 A		NORTH
1501 AB	END	NORTH

DURING SA79 SHORELINE INSPECTION, NO EVIDENT SEEPS, STAINING, OR SHEENING WAS OBSERVED.

1502 - ONSITE AT SWMU60 TO CONDUCT SHORELINE INSPECTION.

TIME	PHOTO	ORIENTATION
1502	START	NORTH
1502		WEST
1503		WEST
1503 A		WEST
1503 AB		WEST
1504		WEST
1504 A	Boom #6	WEST
1504 AB		WEST
1505		WEST
1506		WEST
1506 A		WEST
1508		SOUTHWEST
1508 A		SOUTHWEST

John Mighton 8-25-14

TOO5 ADAK LTM 2014 8/25/14

TIME	PHOTO	ORIENTATION
1510		SOUTHWEST
1510A		SOUTHWEST
1510AB	Boom #10	SOUTHWEST
1511		WEST
1512	SHEEN	WEST
1512A	SHEEN	NORTHWEST
1513	SHEEN	NORTHWEST
1513A		NORTH
1514		NORTH
1514A		NORTH
1515		NORTH
1515A		NORTH
1515AB		NORTH
1516	END	NORTH

DURING SWMU 60 SHORELINE INSPECTION, SHEENING WAS FOUND ALONG SHORELINE AT BOOM LOCATION # 10. Boom IS CONTAINING SHEEN ALONG SHORELINE. THERE IS DISTRESSED VEGETATION ALONG SHORELINE AND OILY SEDIMENT AT BOOM LOCATION #10. THESE SEEPS ARE NOT NEW AND HAVE BEEN DOCUMENTED IN PREVIOUS SHORE LINE INSPECTIONS AND ALSO MONTHLY BOOM INSPECTIONS.

8-25-14

TOO5 ADAK LTM 2014 8-25-14

NO NEW SEEPS, STAINS, OR SHEENING WAS OBSERVED DURING INSPECTION OF SHORELINE. LIGHT TO MODERATE PETROLEUM ODOR WAS OBSERVED AROUND BOOM LOCATION NUMBER 10. NUMEROUS WOOD (NORM) DEBRIS ALONG SHORELINE, NONE OF WHICH IS CONTRIBUTING TO CONTAMINATION.

1600 - AT UNIT FOR PAPERWORK, LOG BOOK, PHOTO LOGS AND END OF DAY WORK.

1700 - CONTINUE AND FINISH VAN #2 REPAIRS AND TEST DRIVE TO ENSURE PROPER OPERATION.

1900 - END OF DAY

8-25-14

TO 005 ADAK LTM 2014 8/26/14

0700 - SEE SSHO LOG BOOK FOR HEALTH & SAFETY MEETING. SCHEDULE FOR EARM TEAM DISCUSSED AND TASKS REVIEWED. HEALTH AND SAFETY TOPICS INCLUDE: WEATHER, PARKING VEHICLE INTO WIND, PPE, SLIPS, TRIPS & FALLS, LIFE-JACKETS QC TOPICS INCLUDE: FORMS, LOGBOOKS, FOLLOWING SOPS FOR SHORELINE INSPECTIONS AND QA SAMPLING.

0745 MEET WITH SHERRI W. FOR QC REVIEW OF FORMS FILLED OUT ON 8/25/14.

0847 - PID BUMP TEST: 103 ppm, CLEAN INTERFACE PROBE FOR DAYS USE.

0905 ~~0908~~ - ONSITE AT NMCB FOR WELL INSPECTIONS. HAZARD INSPECTION COMPLETE. HAZARDS INCLUDE WOOD/METAL DEBRIS, UNEVEN TERRAIN. POSSIBLE SLIP, TRIP, AND FALLS.

TIME	WELL	DTW	DTP	PID	NOTES
0908	NMCB-04	11.50'	NA	0.6/0.0	~~TRACE SHEEN~~ JH 9.17.14
0943	E-201	12.91	NA	0.0/0.0	
0949	02-301	12.02	NA	0.0/0.0	TRACE ~~SHEEN~~ < .01 JH 9.17.14
1006	02-479	9.96	NA	0.0/0.0	
1017	02-815	13.44	13.41	0.0/0.0	PT .03'
1024	NMCB-12	13.64	NA	0.0/0.0	

John A. Lighter 8-26-14

TO 05 ADAK LTM 2014 8-26-14

TIME	WELL	DTW	DTP	PID	NOTES
1034	02-816	10.12	NA	0.0/0.0	~~TRACE SHEEN~~ JH 9.17.14 < .01
1039	02-300	9.50	9.38	3.0/0.0	PT .12'
1049	NMCB-11	9.00	8.97	2.2/0.0	PT .03'
1108	02-455	11.42	NA	0.0/0.0	
1117	NMCB-09	9.27	NA	0.0/0.0	TRACE ~~SHEEN~~ < .01 JH 9.17.14
1123	02-463	9.54	NA	0.0/0.0	~~SHEEN~~ TRACE < .01
1130	NMCB-10	10.25	10.22	10.4/0.0	PT .03'

1300 - ONSITE AT NMCB FOR SHORELINE INSPECTION. NO SEEPS, STAINS, OR SHEENING WAS OBSERVED THROUGHOUT INSPECTION. NUMEROUS WOOD/METAL DEBRIS SCATTERED THROUGH OUT ROCKS ALONG SHORELINE. SLIGHT PETROLEUM ODOR WAS NOTED ALONG SHORELINE IN PROXIMITY OF WELL NMCB-07. VEGETATION AND SEAWEED GROWING ON ROCKS THROUGHOUT SHORELINE.

1410 - END NMCB SHORELINE INSPECTION

1420 - CONTINUE NMCB WELL INSPECTIONS

TIME	WELL	DTW	DTP	PID	NOTES
1425	02-478	7.58	NA	0.0/0.0	~~TRACE SHEEN~~ < .01 JH 9.17.14
1438	02-819	7.15	NA	0.0/0.0	
1450	NMCB-08	6.99	5.97	27.0/0.0	PT 1.02'
1510	02-453	8.86	8.84	0.0/0.0	PT .02'
1516	02-497	6.54	NA	0.0/0.0	TRACE ~~SHEEN~~ < .01 JH 9.17.14

John A. Lighter 8-26-14

T005 ADAK LTM 2014 8-26-14

TIME	WELL	DTW	DTP	PID	NOTES
1535	NMCB-07	7.48	7.30	0.0/0.0	PT. 18'
1549	02-451	8.33	NA	0.0/0.0	TRACE ~~SHEEN~~ <.01
1555	02-818	8.70	NA	5.3/0.0	TRACE ~~SHEEN~~ <.01
1600	02-452	9.00	NA	0.0/0.0	TRACE ~~SHEEN~~ <.01
1608	02-461	6.49	NA	0.0/0.0	TRACE ~~SHEEN~~ <.01
1620	02-817	9.74	NA	0.0/0.0	

9.17.14

1645 - AT UNIT FOR DAILY DEMOBE AND PAPERWORK, LOG BOOK, PHOTOS, QC PAPERWORK

PHOTO LOG

TIME	DESCRIPTION	ORIENTATION
0938	NMCB-04	SOUTH
0946	E-201	NORTH
JH 8-26-14 ~~0954~~ 0954	02-301	WEST
1013	02-479	SOUTH
1019	02-815	SOUTH
1028	NMCB-12	SOUTH
1038	02-816	SOUTH
1047	02-300	SOUTH
1055	NMCB-11	EAST
1115	02-455	WEST
1120	NMCB-09	WEST
1128	02-463	NORTH
1137	NMCB-10	WEST
1434	02-478	WEST

John Highstone 8-26-14

T005 ADAK LTM 2014 8-26-14

PHOTO LOG CONT...

TIME	DESCRIPTION	ORIENTATION
1445	02-819	WEST
1506	NMCB-08	SOUTH
1515	02-453	SOUTH
1524	02-497	NORTH WEST
1543	NMCB-07	EAST
1552	02-451	EAST
1557	02-818	SOUTH
1604	02-452	SOUTHWEST
1619	02-461	SOUTH
1627	02-817	EAST

NMCB SHORELINE PHOTOS

TIME	DESCRIPTION	ORIENTATION
1302	START	EAST
1307		EAST
1309		EAST
1311		EAST
1312		EAST
1313		EAST
1314		EAST
1321		EAST
1323		EAST
1327		EAST
1329		EAST

John Highstone 8-26-14

TO05 ADAK LTM 2014 8-26-14

TIME	DESCRIPTION	ORIENTATION
1331		EAST
1332		EAST
1334		EAST
1335		EAST
1338		EAST
1340		EAST
1342		EAST
1344		SOUTHEAST
1346	LOOKING BACK TO POINT	SOUTHWEST
1347		NORTH
1348		NORTH
1351	END	NORTH

1900 - END OF DAY

8.26.14

TO 005 ADAK LTM 2014 8/27/14

0715 - HEALTH AND SAFETY MEETING, SEE SSHO LOG BOOK FOR DETAILS. SCHEDULE FOR EACH TEAM DISCUSSED AND TASKS REVIEWED. TEAM 3 SCOPED FOR WELL INJECTIONS SOUTH OF RUNWAY 18/36. HEALTH AND SAFETY TOPICS INCLUDED: SLIPS, TRIPS & FALLS, WATCH FOR PEDESTRIANS IN TOWN (OBEY SPEED LIMIT). QC TOPICS INCLUDED: FORMS & CORRECT ENTRIES.

0805 PID BUMP TEST: 102 PPM, ISOBUTYLENE CALIBRATION GAS.

0815 CONDUCT CALIBRATION OF HORIBA W-22XD

	VALUE	VALUE	VALUE
pH	4.0		
CONDUCTIVITY	4.50 mS/cm		
TURBIDITY	0.0 NTU		
D.O.	10.43 g/L		
TIME	0815		

0900 J. HIGHSTONE & J. SANTOS SECURE SOLID WASTE AT BUNKER. PID READING AFTER OPENING BUNKER DOOR 0.7 PPM. PID READING DROPPED TO 0.0 PPM AFTER 5 MINS. READING COLLECTED FROM INSIDE (CENTER) OF BUNKER.

8.27.14

8/27/14

TO 005 ADAK LTM 2014 08/27/14

0930 J. HIGHSTONE AND J. SANTINI ON-SITE SOUTH OF RUNWAY 18/36 FOR MONITORING WELL INSPECTIONS. HAZARD INSPECTION COMPLETE. POSSIBLE SLIPS, TRIPS, OR FALLS DUE TO SLIPPERY SURFACES, UNEVEN TERRAIN, CAUTION AROUND ROADWAYS DUE TO TRAFFIC.

TIME	WELL	DTW	DTP	PID	NOTES
0926	23-60	6.51	N/A	0.0/0.0	~~SHEEN~~ TRACE < .01
0945	RW-18/36-05	8.30	N/A	0.0/0.0	THICK MUD BOTTOM
1001	E-213	9.78	N/A	0.0/0.0	~~SHEEN~~ TRACE < .01
1009	Z-42	11.66	N/A	0.0/0.0	~~SHEEN~~ TRACE < .01
1015	E-217	15.10	N/A	0.0/0.0	~~SHEEN~~ TRACE < .01
1029	RW-18/36-04	17.55	13.55	4.6/0.0	PT .03
1048	18/36-02	17.01	N/A	0.0/0.0	~~SHEEN~~ TRACE < .01
1053	E-216	15.78	15.47	0.0/0.0	PT .31
1103	RW-18/36-03	13.25	N/A	0.0/0.0	SHEEN < .01

1115 - ASSIST TEAM #2 WITH VAN PROBLEM.
1130 - AT UNIT TO PREP FOR AFTERNOON WELL SAMPLING AND GATHER SAMPLE MATERIALS.
1300 - PREP FOR WELL SAMPLING, CLEAN INTERFACE PROBE AND EQUIPMENT.
1330 - BACK ON SITE AT NMCB AT WELL # 02-231 FOR SAMPLING.

John A. Highstone 8/27/14

TO 005 ADAK LTM 2014 8/27/14

TIME	DTW	DTP	PID	NOTES
1335	13.85	N/A	8.3/0.0	SHEEN < .01

STARTED COLLECTING PARAMETERS AT 1428. FLOW RATE IS 200 ML/MIN. COLLECTED PARAMETERS FOR 30 MINUTES AND NO READING ON CONDUCTIVITY. CLEANED HORIBA SENSORS, STILL NO CONDUCTIVITY ON THE U22. SWAP HORIBA U22 WITH HORIBA U52
HORIBA U52 CALIBRATION AT 1535
PH 3.98 COND. 4.54 NTU 0.7 DO 9.24
1537 - RECONNECT HORIBA U52 AND START
1541 - START FLOW AND PARAMETERS.
1601 - PARAMETERS STABILIZE; PURGE 1.0 GALLON. PH-6.42, COND; 0,530, TURB 0.0, DO-0.0, TEMP-10.37, SAL-0.03, ORP; -81
1605 - COLLECT SAMPLE 02-231-2014
4 - 40 ML VOA AMBER W/HCL BTEX (8260C)
4 - 40 ML AMBER VOA W/HCL METHANE (RSK175)
1 - 500ML POLY - ALKALINITY (SM 2320B)
- SULFATE (300.0)
2-1L AMBER W/HCL DRO (AK102)
2-1L AMBER UP PAHs (16) (8270D SIM)
1615 - COLLECT SAMPLE 02-241-2014
4-40 ML AMBER VOA W/HCL BTEX (8260C)
2-1L AMBER PAHs (16) (8270D SIM)

John A. Highstone 8/27/14

TOOS ADAK LTM 2014 8-27-14

TEST KIT RESULTS

O_2 ppm	Fe^{2+} ppm	CO_2 ppm
0.3 ppm	65 ppm	325 ppm

MONITORING WELL VISUAL INSPECTION CHECKLIST COMPLETED 8-27-14.

1745 - AT BUNKER TO DEMOBE PURGE WATER, PPE, TUBING. SECURE BUNKER.

1800 - AT UNIT FOR DEMOBE, PACK SAMPLES, PAPERWORK, LOG BOOK, PHOTO LOG.

1815 - HORIBA U52 CALIBRATION

PH	COND	TURB	DO	TEMP	ORP	SAL
4.60	4.51	0.0	9.68	14.38	269	0.24

PHOTO LOG

TIME	DESCRIPTION	ORIENTATION
0931	23-6	SOUTH
~~0945~~ 0959	RW-18/36-05	WEST
1008	E-213	WEST
1013	2-42	EAST
1022	E-217	SOUTHEAST
1045	RW-18/36-04	NORTH
1055	18/36-02	SOUTH
1102	E-216	SOUTH
1113	RW-18/36-03	SOUTH
1736	02-231	WEST

1930 - END OF DAY

JA 8-27-14 8-27-14

TOOS ADAK LTM 2014 8-28-14

0200 - HEALTH + SAFETY MEETING. SEE SSHO LOG FOR DETAILS. TEAM 3 SLOPE FOR DAY, QC 8-27-14 PAPERWORK, WELL INSPECTIONS FOR SA80, PACK/SHIP SAMPLES.

0830 - PID BUMP TEST @ 10.1

0850 - DROP OFF WATER METER TO TEAM #2

0903 - ONSITE AT SA80 FOR WELL INSPECTIONS

TIME	WELL	DTW	DTP	PID	NOTES	DTB
0905	04-158	19.99	N/A	5.4/0.0	REMOVE SOCK	24.75
0922	04-173	14.81	N/A	1.1/0.0	REMOVE SOCK	26.47
0949	04-155	15.62	15.58	0.0/0.0	PT .04	
1002	SP4-3	20.11	N/A	0.0/0.0	TRACE SHEEN <.01	28.03
1010	04-159	23.28	N/A	0.0/0.0	TRACE SHEEN <.01	33.44
1016	04-164	21.92	N/A	14.2/0.0	TRACE ~~SHEEN~~ <.01	
1027	04-157	19.82	N/A	9.6/0.0	REMOVE SOCK TRACE ~~SHEEN~~ <.01	

1045 - AT BUNKER FOR DEMOBE OF PURGE WATER.

1110 - AT UNIT FOR DEMOBE AND PAPERWORK

1130 - PREP/PACK SAMPLE COOLERS FOR SHIPMENT.

PHOTO LOG

TIME	DESCRIPTION	ORIENTATION
0921	04-158	NORTH
0937	04-173	NORTH
0957	04-155	EAST
1009	SP4-3	NORTH

8-28-14

T005 ADAK LTM 2014 8.28.14

PHOTO LOG CONT...

TIME	DESCRIPTION	ORIENTATION
1015	04-159	WEST
1025	04-164	SOUTH
1034	04-157	SOUTH

1315 PREPARE COOLERS FOR SHIPPING. SAMPLE TEAMS REVIEW PROPER PREPARATION OF SAMPLE COOLERS.

1310 COOLERS LOADED INTO VANS AND MOBILIZED TO ADAK AIRPORT FOR PRIORITY OVERNIGHT DELIVERY BY ALASKAN AIRLINES TO ALS LABS IN PORTLAND, OREGON.

1500 MOBILIZE TO HOUSING UNITS FOR ORGANIZATION OF TEAM PAPERWORK.

1700 CONDUCT HOUSEKEEPING OF SAMPLE TEAM COOLERS/EQUIPMENT.

1830 MOBILIZE TO ADAK AIRPORT TO PICK UP REPLACEMENT EQUIPMENT

1900 END OF DAY, EQUIPMENT SECURED.

08/28/14

To 005 ADAK LTM 08/29/14

0700 HEALTH AND SAFETY MEETING CONDUCTED AMONGST PROJECT TEAM. SEE SSHO LOGBOOK FOR DETAILS. H&S TOPICS INCLUDE WEATHER, BUDDY SYSTEM, PPE, SLIPS, TRIPS & FALLS, TSUNAMI WARNINGS (NONE). TEAM TASKS DISCUSSED, FUEL UP VEHICLES AND FILL TIRES WITH AIR.

0750 BEGIN CALIBRATION OF WATER QUALITY METER AND PID.

0755 PID BUMP TEST: 101 PPM (ISOBUTYLENE CALIBRATION GAS) SERIAL # PID 111980.

	pH	mS/cm COND	NTU TURB	mg/L D.O.	°C TEMP	% SAL	mV ORP
0815	3.99	4.51	0.0	10.03	14.56	0.2	274
1338	3.99	4.51	0.0	10.01	15.02	0.2	259
1620	3.98	4.48	0.0	10.21	12.91	0.2	276

0915 - ONSITE AT SABO STEAM PLANT FOR WELL SAMPLING AT SP4-3

0947 - START FLOW

0949 - START PARAMETERS

0955 - NO CONDUCTIVITY PARAMETER READING RETURN TO UNIT TO GET TEAM #2 HORIBA U22. CALIBRATE METER

	PH	COND	TURB	DO	TEMP	SAL	ORP
1010	3.99	4.51	0.3	10.52	13.83	0.2	266

8/29/14

TOOS ADAK LTM 2014 8/29/14

1018 - RECONNECT METER AND START PUMPING
1020 - RESTART PARAMETERS
1105 - WELL STABILIZED

PH	COND	TURB	DO	TEMP	SAL	ORP
6.22	0.897	12.4	0.00	7.49	0.0	-41

1110 - COLLECT SAMPLE SP4-3-2014
4 - 40ML VOA AMBER W/HCL METHANE (RSK175)
2 - 1L AMBER W/HCL DRO (AK102)
1 - 500 ML POLY ALKALINITY (SM2320B)
SULFATE (300.0)

TEST KIT RESULTS

DO PPM	FE2 PPM	CO2 PPM
0.05	67.5	100

FE2 DILUTION FACTOR OF 15
MONITORING WELL VISUAL INSPECTION CHECKLIST COMPLETED 8/28/14.
1330 - BACK ONSITE AT SASO STEAMPLANT WELL NUMBER 04-159
1357 - START PARAMETERS
1432 - WELL STABILIZED

PH	COND	TURB	DO	TEMP	SAL	ORP
6.43	0.942	6.5	0.00	8.36	0.0	-83

1435 - COLLECT SAMPLE 04-159-2014
4 - 40ML AMBER VOA W/HCL METHANE (RSK175)
2 - 1L AMBER W/HCL DRO (AK102)

John Aylsworth 8-29-14

TOOS ADAK LTM 2014 8-29-14

1 - 500 ML POLY ALKALINITY (SM2320B)
SULFATE (300.0

TEST KIT RESULTS

DO PPM	FE2 PPM	CO2 PPM
0.2	50	130

FE2 DILUTION FACTOR X5
MONITORING WELL VISUAL INSPECTION CHECKLIST COMPLETED 8-28-14
1520 - SASO STEAMPLANT - WELL NUMBER 04-173
1538 - START PARAMETERS
1603 - WELL STABILIZED

PH	COND	TURB	DO	TEMP	SAL	ORP
6.25	0.703	9.8	0.00	7.94	0.0	-46

1605 - COLLECT SAMPLE - 04-173-2014
(4) 40 ML AMBER VOA W/HCL METHANE (RSK175)
(2) 1L AMBER W/HCL DRO (AK102)
(1) 500 ML POLY ALKALINITY (SM2320B)
SULFATE (300.0)

TEST KIT RESULTS

DO PPM: 0.8 FE2 PPM: 12.5 CO2 PPM: 42
FE2 DILUTION FACTOR: X5
MONITORING WELL VISUAL INSPECTION
1700 - AT BUNKER DEMOBE PURGE WATER.
1715 - AT UNIT FOR DEMOBE, PAPERWORK, PREP SAMPLES.
1830 - END OF DAY

John Aylsworth 8-29-14

TOOS ADAK LTM 2014 8/30/14

0700 - HEALTH + SAFETY MEETING: SLIPS, TRIPS, FALLS, BUNKER HAZARDS, SITE HAZARDS.

0820 - PID BUMP TEST - .101

TIME	PH	COND	TURB	DO	TEMP	SAL	ORP
0825	3.99	4.50	0.0	10.19	14.49	0.2	286
1334	3.98	4.49	0.0	9.75	15.51	0.2	258
1502	3.98	4.52	0.0	10.62	13.25	0.2	234

0850 - ONSITE AT TANKER SHED FOR WELL SAMPLING AND INSPECTIONS. HAZARD INSPECTION COMPLETED: WIND HAZARDS, TIRE/VEHICLE HAZARDS

0900 - TANKERSHED WELL NUMBER 04-601

0925 - START PARAMETERS

0945 - WELL STABILIZED

PH	COND	TURB	DO	TEMP	SAL	ORP
6.07	0.420	12.2	7.80	8.71	0.0	221

0950 - COLLECT SAMPLE 04-601-2014 MS/MSD

(12) 40 ML AMBER VOA W/HCL METHANE (RSK175)
(6) 1 L AMBER W/HCL DRO (AK102)
(3) 500 ML POLY ALKALINITY (SM2320B)
SULFATE (300.0)

TEST KIT RESULTS

DO PPM: 7.0 FE^2 PPM: 0.0 CO_2 PPM: 17.0

MONITORING WELL VISUAL CHECKLIST COMPLETED ON 8-30-14.

8-30-14

TOOS ADAK LTM 2014 8-30-14

9AM 8-30-14: ~~TANKERSHED WELL NUMBER 04-306~~

1105 - WELL INSPECTIONS FOR TANKERSHED

TIME	WELL	DTW	DTP	DTB	PID	NOTES
0900	04-601	10.12	N/A	17.69	0.0/0.0	
1109	TS-03	6.42	N/A	12.71	0.0/0.0	
1119	04-313	6.46	N/A	13.18	0.0/0.0	
1129	04-312	6.43	6.42	12.95	0.0/0.0	AT :01
1144	04-301	6.55	N/A	13.09	3/0.0	
1153	04-302	6.32	N/A	13.73	0.0/0.0	
1330	04-306	6.79	N/A	13.03	0.0/0.0	

1325 - BACK ONSITE AT TANKERSHED: WELL NUMBER 04-306.

1355 - START COLLECTING PARAMETERS

1415 - WELL STABILIZED

PH	COND	TURB	DO	TEMP	SAL	ORP
5.91	6.792	0.0	0.00	10.47	0.0	-17

1420 - COLLECT SAMPLE 04-306-2014

(4) 40 ML AMBER VOA W/HCL METHANE (RSK175)
(2) 1 L AMBER W/HCL DRO (AK102)
(1) 500 ML POLY ALKALINITY (SM2320B)
SULFATE (300.0)

TEST KIT RESULTS - FE^2 - 5X DILUTION FACTOR

DO PPM: FE^2 PPM: CO_2 PPM:

MONITORING WELL VISUAL CHECKLIST COMPLETED.

8-30-14

TOOS ADAK LTM 2014 8-30-14

1520 - AT BUNKER FOR DEMOBE OF PURGE WATER, 0.0 PPM PID READING AT CENTER OF BUNKER.

1548 - AT UNIT FOR DEMOBE, PAPERWORK, PACK SAMPLES, PHOTOS, CLEAN VAN.

PHOTO LOG

TIME	DESCRIPTION	ORIENTATION
1100	04-601	WEST
1116	TS-03	SOUTH
1128	04-313	NORTH
1139	04-312	WEST
1148	04-301	EAST
1157	04-302	WEST
1458	04-306	EAST
1512	TANKERSHED OVERVIEW	WEST

1730 AT UNIT, COMPLETE COC/PAPERWORK.

1800 END OF DAY.

08/30/14

(38) 9/1/14

TOOS ADAK LTM 2014 ~~08/30/14~~

J. HIGHSTONE, J. SANTINI

0700 - HEALTH & SAFETY MEETING, SEE JSHO LOG BOOK FOR FURTHER DETAILS; TOPICS INCLUDE SLIPS, TRIPS, FALLS, USING PID IN BUNKER, PINCH POINTS, SHARP OBJECTS.

0745 - PID BUMP TEST - 101 PPM

0800 HORIBA U22 CALIBRATION.

TIME	pH	COND	TURB	DO	TEMP	SAL	ORP
0820	3.99	4.50	0.0	10.35	14.50	0.2	270

0840 ARRIVE AT BUNKER TO OPEN DOORS AND PROVIDE FORCED AIR VENTILATION BY FAN AND GENERATOR.

0900 - ONSITE AT SWMU 13 METALS LANDFILL

0910 - AT WELL MW13-3. HAZARD INSPECTION COMPLETE.

1033 - START COLLECTING PARAMETERS

1113 - WELL DID NOT STABILIZE. (3) TIMES CASING VOLUME = 0.7344 GALLONS. PURGED 1.00 GALLONS FROM WELL.

PH	COND	TURB	DO	TEMP	SAL	ORP
7.09	0.750	37.9	9.05	10.73	0.0	95

1115 - COLLECT SAMPLE MW13-3-2014 MS/MSD (3) - 500 ml POLY HDPE w/ H_2SO_4 (COD) (SM5220C)

TKN (ASTM D1426-93B)

AMMONIA NITROGEN (SM4500G)

9-1-14

T005 ADAK LTM 2014 9-1-14

SAMPLE ANALYSIS COUT...

(3) 500 ML POLY HDPE ALKALINITY (SM2320B)
SULFATE (300.0)
TDS (SM2540C)

(3) 500 ML POLY HDPE W/ HNO3 TOTAL ARSENIC (6020A)
TOTAL BARIUM (6020A)

(3) 500 ML POLY HDPE W/ HNO3 DISSOLVED ARSENIC (6020A)
9-1-14 PM ~~DISSOLVED~~
DISSOLVED BARIUM (6020A)

MONITORING WELL VISUAL INSPECTION CHECKLIST COMPLETED.

DTW	DTP	DTB	PID	4GAS	NOTES
21.48	SHEEN <.01		0.0/0.0	0.0/0.0	NO PRODUCT

1242 - WELL # MW13-2 VISUAL INSPECTION CHECK LIST COMPLETED.

DTW	DTP	DTB	PID	4GAS	NOTES
19.84	N/A	28.53	0.0/0.0	0.0/0.0	SHEEN <.01

1335 AT UNIT FOR DEMOBE, WRAP SAMPLES PAPERWORK, PHOTOS, COMPLETE COC

1410 - CALIBRATE HORIBA FOR END OF DAY

PH	COND	TURB	DO	TEMP	SAL	ORP
4.00	4.42	0.0	9.60	18.06	0.2	263

[signature] 9-1-14

T005 ADAK LTM 2014 9-1-14

PHOTO LOG

TIME	DESCRIPTION	ORIENTATION
1244	MW13-2	SOUTH
1312	MW13-3	EAST
1245	METALS SHORELINE	SOUTH
1246	METALS SHORELINE	NORTH

1500 - END OF DAY

[signature] 9-1-14

TO 005 ADAK LTM 9/2/14
J. SANTINI

0700 - HEALTH AND SAFETY MEETING (SEE SSHO LOGBOOK FOR FUCTHER DETAILS). TASKS FOR THE DAY DISCUSSED AMONGST PROJECT TEAMS. ANDY LEWIS TO FILL IN FOR JOHN HIGHSTONE ON TEAM 3. QC TOPICS: SITE OVERVIEW PHOTOS, RELEVANT DEBRIS ASSOCIATED WITH NAVY OWNED PROPERTY THAT WILL REPRESENT CONTAMINANTS AT EACH SITE. NOT NOTING DEBRIS UNASSOCIATED WITH NAVY OWNED PROPERTY OR SITE CONTAMINATION.

0800 J. SANTINI JOINS A. LEWIS FOR TO 077 PRODUCT RECOVERY.

9/2/14

TO 005 ADAK LTM 9/3/14
J. SANTINI

0700 - HEALTH & SAFETY MEETING (SEE SSHO LOGBOOK FOR DETAILS). TOPICS INCLUDE - PROPER PPE, SLIPS, TRIPS & FALLS, BUNKER AIR QUALITY (USING PID AFTER 5 MINUTES OF HAVING DOORS TO BUNKER OPEN. QC TOPIC - SAMPLES ARRIVING INTACT TO ALS LABS. TASKS FOR THE DAY DISCUSSED AMONGST PROJECT TEAMS. ANDY LEWIS TO FILL IN FOR JOHN HIGHSTONE ON TEAM 3.

0800 J. SANTINI JOINS A. LEWIS IN UNIT 111A FOR TO 077 PRODUCT RECOVERY CONTINUATION

0830 A. LEWIS AND J. SANTINI ARRIVE AT NMCB. INSTALL TWO 1.5" SKIMMERS AT WELL LOCATION NMCB-08. PRODUCT WILL BE REMOVED FROM SKIMMER AFTER APPROX. 24 HOURS.

1000 ~~CONDUCT PRODUCT RECOVERY AT NMCB LOCATION NMCB-08.~~ A. LEWIS AND J. SANTINI ON-SITE FOR SUPPLIES AT BUNKER. SECURE LIQUID & SOLID IDW AT BUNKER. DOORS WERE HELD OPEN FOR 5 MINS PRIOR TO ENTRY AS FAN WAS IN OPERATION. PID 0.0PPM IN CENTER OF BUNKER.

1030 MOBILIZE TO WELLS UNDER TO 77 (SEE OTHER LOGBOOK)

1035 END OF DAY. 9/3/14

TO 005 ADAK LTM 9/4/14

0700 - TEAM MEETING CONDUCTED IN UNIT 111A. TASKS FOR EACH TEAM DISCUSSED. QC TOPICS INCLUDE: GOOD ICE/GEL PACKS IN COOLERS PRIOR TO SHIPPING, LOW LEVELS OF WATER AVAILABLE FOR WELLS TO BE SAMPLED TODAY, SHIPPING COOLERS & SAMPLES TO LAB. HEALTH & SAFETY TOPICS INCLUDE; SLIPS, TRIPS & FALLS, PROPER PPE, EARTHQUAKE HAZARDS, BREATHING ZONES PID MONITORING, COLD STRESS, BUDDY SYSTEM, WIND HAZARDS - COASTAL VEHICLE DOORS; Jeremiah & Sherri will comprise Team 3 today.

0815 PID BUMP TEST - 101 PPM (111980 SERIAL)

0820 HORIBA U22 CALIBRATION (110956 SERIAL)

	pH	COND ms/cm	TURB NTU	DO mg/L	TEMP °C	SAL %	ORP mV
	3.99	4.50	0.0	10.43	13.97	0.7	258
1716	3.99	4.50	0.0	10.17	14.67	0.7	284

0918 ARRIVE AT MW 14-113, SWMU 61 TANK FARM B. PID AT WELLHEAD 0.0 PPM, PID IN BREATHING ZONE 0.0 PPM. Visual & hazard inspection conducted, no problems noted.

0923 DTW = 3.44' BTOC

0930 start flow

~~1000 DUE TO QUESTIONABLE CONDUCTIVITY DATA,~~

1030 SWM 9/4/14 ~~SWAPPED WATER QUALITY METER WITH TEAM 2.~~

1011 pH = 6.05, turbidity = 0.0 NTU, DO = 1.70 mg/L, temp = 9.61°C, salinity 0.0%, redox -78 mV

1030 Due to questionable conductivity

9/4/14 & Sherri W.R. 9/4/14

TO 05 ADAK LTM 2014 9/4/14

1030 CONT readings, replaced Team 3 Horiba with Team 2's Horiba. (See Team 2 logbook for calibration checks.) Conductivity = 0.555 ms/cm well did not stabilize, 3 casing volumes removed.

1035 Collect Sample 14-113-2014

4 x 40 ml VOC amber vial w/ HCl (BTEX 8260C)

4 x 40 ml VOC amber vial w/ HCl (GRO, AK101)

4 x 40 ml VOC amber vial w/ HCl (Methane, RSK175)

2 x 1 L amber UP (PAHs 16, 8270D SIM)

1 x 500 ml poly alkalinity (SM2320B) & sulfate (300.0)

Test kit Results

DO = 1.5 ppm, Fe^{+2} = 27.5 ppm (using a 5x dilution; 5.5 ppm x 5 = 27.5 ppm), CO_2 = 45 ppm

1138 DTB = 6.33' BTOC

1200 - S. WUNDERLICH & J. SANTINI MOSE TO UNIT 111A TO WRAP SAMPLES, PACK COOLERS AND FINISH UP PAPERWORK, COCs.

1430 - SAMPLE COOLERS DRIVEN TO AIRPORT FOR DELIVERY TO ALS LABS BY ATL FREIGHT.

1515 - NMCB-08 PRODUCT RECOVERY CONDUCTED BY A. LEWIS AND J. SANTINI TO 77. END OF DAY.

9/4/14

TOOS ADAK LTM 2014 9-5-14

0700 - HEALTH + SAFETY MEETING AT 111B. TOPICS INCLUDED: SLIPS, TRIPS, FALLS, WIND HAZARDS, BUNKER HAZARDS, SHORELINE HAZARDS FOR SHORELINE INSPECTIONS AND SAMPLING. PROPER PPE MODIFIED LEVEL D. COLLECT TEAM ASSIGNMENTS FOR DAY.

0840 - ONSITE AT NMCB-08 FOR PRODUCT RECOVERY. REMOVED CANISTERS FROM WELL. SHEEN ONLY IN WELL, (<.01 FEET) .01 FEET OF PRODUCT WAS COLLECTED.

1320 - AT EAST CANAL TO START SHORELINE INSPECTIONS.

1331 - START AREA 303 SHORELINE INSPECTION. INSPECTED NORTH END OF EAST CANAL FROM AIRFIELD TARMAC TO NORTH STAKE OF BOOM LOCATION #8. SEVERAL POOLS OF WATER IN AREA OF MARSH AND GRASS HAVE A LIGHT PETROLEUM SHEENING DUE TO CANAL BEING FLOODED, DUE TO EXCESSIVE RAIN AND DIKE PUMPS NOT BEING RAN ON A REGULAR BASIS.

1340 - START SWMU62 SHORELINE INSPECTION. INSPECTED EAST CANAL FROM NORTH STAKE OF BOOM LOCATION #8 HEADING SOUTH ALONG CANAL TO NORTH END OF CULVERTS AT BOOM

John A Light 9-5-14

TOOS ADAK LTM 2014 9-5-14

LOCATION ~~LOCATION~~ #9. AT BOOM LOCATION #8 HEAVY SHEENING, IRON STAINING, OILY SEDIMENT, DISTRESSED VEGETATION ARE ALL PRESENT. LIGHT SHEEN PRESENT AT BOOM LOCATION #3 AND BOOM IS CONTAINING THE SHEEN. BLACK OILY SEDIMENT AT BOOM LOCATION #8 IS SURFACE RELATED CONTAMINATION. UPON SCRAPING DOWN 1" TO 2" OF OILY SEDIMENT REDDISH/BROWN NATURAL SEDIMENT WAS EXPOSED.

1357 - START FORMER POWER PLANT BUILDING T-1451 SHORELINE INSPECTIONS. INSPECTED EAST CANAL STARTING AT BOOM LOCATION #9 HEADING SOUTH ALONG CANAL AND ENDING AT CULVERTS AT END OF RUNWAY 18/36. BOOM LOCATION #9, SOME BIOSHEENING WAS PRESENT BUT NO PETROLEUM SHEENING WAS OBSERVED. #11 BOOM LOCATION SHEENING WAS EVIDENT AND WAS CONTAINED. ALSO OBSERVED OILY SEDIMENT, DISTRESSED VEGETATION, IRON STAINING. #12 BOOM LOCATION LIGHT SHEENING WAS PRESENT BUT WAS BEING CONTAINED BY BOOM.

John A Light 9-5-14

TOOS ADAK LTM 2014 9-5-14

1440 - AT UNIT FOR PAPERWORK, LOG BOOK, PHOTO LOGS, QC PAPERWORK.

PHOTO LOG

TIME	DESCRIPTION	ORIENTATION
1145	14-113 9-4-14	NORTHEAST
1331	START AREA 303	EAST
1332		SOUTH
1332A		SOUTH
1333		SOUTH
1334	SHEEN	SOUTH
1335		SOUTH
1335	SHEEN	SOUTH
1336	SHEEN	SOUTH
1336A		SOUTH
1336A	SHEEN	SOUTH
1337		SOUTH
1337A		SOUTH
1339	END	SOUTH
1340	START SUMU 62	SOUTH
1341	BOOM #8	SOUTH
1341A	BOOM #8	SOUTH
1341AB	BOOM #8	SOUTH
1342	BOOM #8	SOUTH
1343		SOUTH
1344		SOUTH

John A Righter 9-5-14

TOOS ADAK LTM 2014 9-5-14

PHOTO LOG CONT...

1344A		SOUTH
1345		SOUTH
1346		SOUTH
1347		SOUTH
1349		SOUTH
1349A		SOUTH
1350		SOUTH
1351		SOUTH
1352		SOUTH
1353		SOUTH
1353A		SOUTH
1354		SOUTH
1355		SOUTH
1355A		SOUTH
1356	END SUMU 62	SOUTH
1402	START T-1451	SOUTH
1402A		SOUTH
1403		SOUTH
1403A		SOUTH
1404		SOUTH
1405	BOOM #11/12	SOUTH
1406	BOOM #11 SHEEN	SOUTH
1407		SOUTH
1408	BOOM #12 CONTAIN SHEEN	WEST

John A Righter 9-5-14