NFSS Field Investigation

56
PROJECT Mobilization / Heavy Equipment

Notebook No. 3

Continued From Page —

URS PERSONNEL: [redacted] in GMC rental

USACOE: [redacted]

WEATHER: Cloudy 30-40°, lt SW winds 5-10 mph Tue 11/19/13

0700 Arrive NFSS, other URS personnel arrive [redacted]

- MEET w/personnel @ site for...
- WAIT for Russo (site contractor) to mobilize Excavator to NFSS site

0815 Site walkover to scope out planned work elements

- identified 1-2' water depth in South 31 ditch, plan will emplace sandbags @ upgradient & downgradient drainage points
- Water level in Manhole #6 Approx 6' bgs
- identified & marked electric utility line traversing proposed trench alignment

0945 Met w/ [redacted] to review proposed soil & groundwater sampling requirements

- identified minor disparities between IAD and work plan sampling requirements i.e. GW sample volumes resolved by opting to collect 1 liter volume vs. 250 ml jars, Russo drops off excavator

1125 Assembled soil/GW bottle set

- received peristaltic pump from [redacted]
- pump to be SCANNED prior to use - per [redacted]

1150 TRENCH EXCAVATION(S) to begin w/ identifier TE-9

- CONSENSUS trench sample will be numbered beginning w/ 2000(+)
- QC samples to begin 9200(+)

Continued on Page

Read and Understood By

[redacted]

11/19/13

Signed Date Signed Date

1210 Lunch, discussed RAD SCAN of trenches and Excavator [redacted]
- Anticipate SCAN of excavator will be completed tomorrow prior to mobilizing to vicinity of Manhole MH-6 and investigation of the South 3/ ditch
1450 depart NFSS site

11/19

Continued on Page

Read and Understood By

[redacted]

11/19/13

Date

NFSS BOP Field Investigation

58
PROJECT Water & Excavation prep

Notebook No. 3
Continued From Page 57

URS PERSONNEL: [redacted]

USACOE: [redacted]

Russo: [redacted]

Weather: Clear, cold 25°, calm winds <5 mph

0700 Arrive NFSS site
- wait for sub-contractors (Russo) prior to starting work tasks @ South ditch

0800 Russo contractor (drillers) arrive on w/ hand tool equipment required for excavation tasks
- [redacted] to scan equipment, excavator scrapes yesterday (11/19/13)

0820 per SOW measure depth to water @ manholes MH-06 & MH-07. Depths measured to approx 6.0' BTOC and 2.3' BTOC
Est. elevation calculations based on 1999 Topo contours provided by USACOE

Manhole ID	Grade Elev	Approx Measuring Point	Water Depth	Water Elev.
MH-6	316.23	316.63	6.1'	310.53
MH-7	317.2	317.2	2.3	314.9

Based on estimated elevation data, a significant hydraulic head (+4.4') is identified between MH-6 and MH-7

0900 [redacted] on site
- discussed proposed scope of work @ MH-6 location

0940 [redacted] outline SOW with Russo contractors
- Initial plan was to use 6" pump to drive water from South 31 ditch. Due to size of discharge hose >6", opted to use 3" pump and hose to facilitate running hose across access road and beneath perimeter fence

Continued on Page

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[redacted]

11/20/13

[redacted]

NFSS BUP Field Investigation

PROJECT Sewer Investigation

Notebook No. 3

Continued From Page 58

1045 Wait for Russo Equipment ie. pump, hose, sandbags etc.

1105 Russo bobcat arrives w/ supplies & equipment
- photo document equipment offload, MD scan

11:45 Russo breaks for lunch

12:30 Start sandbag emplacement on upstream side of culvert ditch

1320 Completed barricade on East (upstream) culverts
- prep to barricade downstream culverts

1340 Pulled security grates to access both downstream culverts.

Note:
Culverts measure 4' in diameter, partially obstructed with approx. 2' of sediment

- Began sandbag emplacement

1410 Completed sandbag barricade @ West (downstream) culverts

1420 Started pumping South 31 ditch, 6" pump
- discharge hose to empty purge water into above barricade @ easternmost downstream culvert
- unable to prime pump due to cracks identified in pump suction hose

1515 Russo personnel continue troubleshooting pump problems

Note: NYSDEC personnel [redacted] on site for site visit

1535 Russo personnel unable to prime pump [redacted] called [redacted] (Buffalo) and requested new suction hose.
- New hose to be on site tomorrow morning with intent to pump ditch then excavate south of MH-06

1600 Depart NFSS

Continued on Page

Read and Understood By

[redacted]

11/20/13

Signed

USACE PERSONNEL: [redacted]

RUSSO: [redacted]

USACOE [redacted]

WEATHER: Cloudy, 35-40°, light SW winds 5-10 mph

0700 ARRIVE NSFS, prep to begin purging ops AND SEWER INVESTIGATION (subsequent to ARRIVAL of RUSSO PERSONNEL.

- PENDING replacement of compromised suction hose (10" crack) 6" pump will purge water from the South 3I ditch.
- TRENCH will be advanced between MH-06 and the South 3I ditch to ascertain the presence AND continuity of a NE-SW trending SEWER.

0800 RUSSO PERSONNEL onsite prep to begin purging AND SEWER investigation ops. Waiting for ARRIVAL of 6" suction hose

0930 RUSSO starts pumping w/ 3" trash pump.

10:15 USACOE PERSONNEL [redacted] on site

10:30 [redacted] arrives w/ 6" suction hose

- hose scanned for RAD, prep to purge ditch w/ 6" pump

11:10 Start pump, pumped ditch down to expose sediment

11:20 Started excavation ops

12:05 Identified and exposed capped/plugged southernmost endpoint of SEWER. Top of concrete exposed @ approx 6' bgs. Exposed concrete appears as a formed (poured) concrete slab measuring Approx. 4' wide x 3' thick. NO EVIDENCE of open sewer pipe was observed.

- USACOE requested and collected soil samples (3) from 2 sidewalls and beneath concrete form.
- RAD tech completed RAD scan of soils excavated from trench

1220 Crew breaks for lunch

Continued on Page

Read and Understood By

[redacted]

11/21/13
Date

NFSS 007 INV

PROJECT Sewer Investigation Notebook No. 3

Continued From Page 60

1330 Continued MH-06 removal AND SEWER INVESTIGATION
- Russo pumps water from MH-06 into 1500 gal poly tank
- DRESSES AND ADVANCES EXCAVATION to southernmost edge of MANHOLE
1435 [redacted] (RAD TECH) ARES to SCAN excavation extents – ABORTED when USACOE requests excavation be WIDENED Additional 2' on either side of concrete ENCASED SEWER
1445 Russo ADVANCES EXCAVATION to APPROX 10' North of MH-06. BASE of MANHOLE APPEARS to be grouted w/concrete on bedded gravel
- GRAVEL APPEARS to be SATURATED, leaching GW into 12' deep excavation
1550 Broke through top of SEWER on northernmost SIDE of MANHOLE
- Hydraulic head in SEWER resulted in discharge into EXCAVATION. Plugged breach in SEWER with temporary clay/soil plug
1630 SUSPENDED work activities for TODAY
1645 Russo personnel depart site

Note: USACOE personnel collected water sample from excavation subsequent to release from breached sewer

11/21

Continued on Page

Read and Understood By

[redacted]

11/21/13

Date Signed Date

NFSS ISOP INV.

62
PROJECT MH-06 removal, SEWER INV.

Notebook No. 3
Continued From Page 6D

0700 Arrive NFSS site
URS personnel: [redacted]
Russo personnel: [redacted]
USACOE: [redacted]
Weather: Cloudy, rain showers, 40-45°, calm - light winds

0910 Russo personnel arrive on site
- instructed Russo to pump ditch water that had risen overnight due to rainfall event
- currently water elevation in ditch is equal to and had filled excavation
- Photos taken of existing condition and emailed to Kevin Conmare
- Plan is to purge water from ditch into downstream culverts and then purge water in excavation into 1,500 gal poly tank

0930 Shorter pumping and purging ops in both South ditch and MH-06 excavation

1040 Russo stops pumping in excavation to pump out 1,500 gal poly tank
- prepared cross-section drawing MH-06 trench

1125 Russo returns with empty 1,500 gal poly tank
- continue pumping w/in excavation

1230 Filled additional 1,500 gal poly tank, continue pumping
1335 Filled 1,500 tank (4,500 total)
- Russo breaks for lunch

1440 Purged additional 1500 gal now total of 6,000 gal purged to poly tanks

1500 Instructed Russo to dress excavation south of manhole and emplace soil in existing sump to facilitate RADSCAN in southernmost portion of the trench
- intent is to backfill part of excavation to

Continued on Page

Read and Understood By

[redacted]

11/22/13

Signed Date Signed Date

Ensure that water will not enter or exit trench from the ditch.

1600 Russo completes benching w/in excavation, partial filled sump

- RAD tech (Mike) performs & completes RAD scan of trench sidewalls and bottom in southernmost part of trench adjacent to South 3 ditch.

1630 Russo installs soil berm at southernmost end of trench

- Removed sandbags from both downgradient ditch culverts.

Note: Collected surface soil and duplicate sample @ manhole-6

Sample ID	Time	
IE MH-6 T1 0.0-0.5 2000	1430	
IE MH-6 T1 0.0-0.5 D 9200	1430	Duplicate

Soil samples submitted to Test America for Total Uranium (2 oz glass) Iso U/Iso Th/Ra 226 (gamma) (16 oz plastic)

1700 Trench activities suspended, Russo & JPH depart site

11/22

Continued on Page

Read and Understood By

[redacted]

11/22/13

Date

Signed

Date

64 NFSS BOP
PROJECT Trench Excavation (IE-9) Notebook No. 3
Continued From Page 63

UES Personnel: [redacted]
Russo Personnel
USACOE: [redacted]
Weather: Cloudy, 20-25°, wind WNW 15-25 mph

0700 Arrive NFSS site water in MH-6 trench approx 4½' bgs
- Notified [redacted] of water issue
0820 [redacted] on site, discussed plan to plug sewer in proposed trench IE-9
- evacuate water w/in MH-6 trench
0910 Russo dry decons excavator, mobilizes to trench IE-9, prep to excavate trench, core and plug sewer
1035 Complete IE9 excavation, exposed concrete encased sewer approx 6.5' bgs
- groundwater seep noted on top of exposed sewer in southern wall of trench
1100 Collected groundwater sample @ seep located on top of sewer sample ID as IE9GW 6.5-7.0 F-2001
- collected 3 liters (filtered) for Total U, Iso U/Iso Th, Ra226
- collected 1 liter (unfiltered) for Alk/Anions/TDS
1135 - Prep to core top of sewer w/ 6" dia

MH water levels	WL	TOC Elev	WL Elev
MH-9	4.97	317.96	312.99
MH-8	4.85	318.00	312.25
MH-3	5.27	317.88	312.51
MH-5	4.41	317.60	313.19
mw953	7.21		
mw952	4.40		
MW955	4.48		
OW11A	5.48		
OW11B	2.23		
mw954	5.02		

1145 - 12:45 Collected H2O levels, Russo to lunch

Continued on Page

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[redacted]

11/25/13

Signed Date

NFSS

PROJECT Trench Excavation (IE-9) BOP

Notebook No. 3

Continued From Page 64

1245 Started coring top of SEWER

13:20 Breached sewer, ACCE collects water sample from riser pipe installed in 6" corehole

14:00 Collected surface soil sample(s)
- IE9T10.0-0.5-2002 Total 4

14:15 - IE9T10.0-0.5-2002 Isolv/Isoth, Ra-226 (gamma)

14:45 - Sidewall sample along EASTERN wall IE9T23.5-4.02003

15:00 - Sidewall sample along WESTERN wall IE9T36.0-6.5T2004

15:30 - BTM sample, soil beneath sewer/gravel layer IE9T(10.0-10.5T2005
- currently waiting for cement truck to plug SEWER
- continuing w/paperwork

1615 CEMENT TRUCK ARRIVES, MIXED 1 bag CaCl w/concrete m
- Attempted to pour concrete mix into 6" riser/corehole on top of SEWER
- Unable to pour requisite amount of concrete into SEWER maximum volume poured ~ 55 gal
- Pulled RISER PIPE AND Attempted to open SEWER corehole

1700 Poured balance of concrete load into EXCAVATION
- Attempted to break concrete encased SEWER w/excavator bucket
- Will continue attempt to collapse/break SEWER tomorrow

1730 Suspended work activities for today

1745 All depart NFSS

11/25

Continued on Page

[redacted]

Read and Understood By

11/25/13

URS Personnel [redacted]
Russo "
USAC "
Weather: Cloudy, snow showers, 35-35°, light SW wind <5 mph
0700 Arrive NFSS site
0800 Russo personnel arrive - prep to pump water from 1,500 gal holding tanks to 20,000 gal Frac tank
- subsequent to RAD scan completion
0805 Discuss planned approach to seal/plug sewers w/ [redacted]
- Russo will fill in both manhole excavation MH-06 and IE-9 excavation to facilitate smaller concrete volume pour
0900 Complete RAD scan of Baker Frac tank
- RAD tech [redacted] to scan MH-06 excavation
- Russo purges/empties water from holding tanks to Frac tank
1030-11:30 Purged water from excavation IE-9 and backfilled excavation leaving area to pour concrete over breached sewer
12:00 Prep to mobilize excavator and front-end loader to excavation MH-06
- Russo will remove manhole and backfill excavation similar to IE-9
12:30 RAD tech scans MH-06 excavation sidewalls
13:00-13:30 Removed MH-06 in one unbroken piece front-end loader transferred bricked mortar manhole to rolloff
- N&S sewer lines measured 18" in dia w/ 8" trunkline on west side
13:30-14:30 Backfilled (partial) excavation to facilitate concrete pour
14:00 Collected sidewall soil samples from east & west walls of manhole excavation MH-06
- Sample IE-MH-6-T2-3.0-3.5-2006 collected 3.0-3.5 bgs @ mid point of west sidewall

Continued on Page

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[redacted]

11/26/13

Signed

Date

NFSS BUP

PROJECT TRENCH EXCAVATION

Notebook No. 3

Continued From Page 66

14:30
- Sample designated IE-MH-6T3 2.0-3.0-2007 collected 2.0-3.0' bgs @ NE corner of the east sidewall

14:45 Collected sample IE-MH-6T4 6.5-7.0 2008 from bottom of excavation

1500 Wait for cement trucks

1510-1545 Poured approx 2 yd³ concrete mix (2500 psi mix) into IE-9 excavations

1545-1600 Poured approx 8 yd³ in excavations MH-06
- Russo personnel secure tarp used to cover roll off
- stop work activities for today

Note:
- Subsequent to concrete pour in MH-06, water level w/in the excavation was pumped down to approx 2.9-3.0' bgs
- Water level in excavations IE-9 was approx 3.2' bgs

1645 Depart NFSS site

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Read and Understood By

RPH 11/20/13

NFSS BJP

68
PROJECT Trench Excavation (TE-9) Notebook No. 3
Continued From Page 67

URS personnel [redacted]
Russo "
USAC "
weather: C(ondy), 25-30°, calm

0800 Russo Dev. on site, instructed to purge water from excavations MH-06 and TE-9
0830 - Started purging ops @ MH-06

GPS grid Co-ordinates for trench excavation corners

MH-06	Northings	Eastings (Westing)
NW corner	431248.5356	785905.6426
SW corner	431248.2648	785905.7507
NE corner	431248.4777	785905.4318
SE corner	431248.2774	785905.5442

TE-9		
NW corner	431248.8764	785905.4889
SW corner	431248.7413	785905.5503
NE corner	431248.8164	785905.2345
SE corner	431248.6843	785905.3072
Extension		
NW	431248.7216	785905.4820
NE	431248.7003	785905.3421
SW	NA 431248.7413	785905.5503
SE	NA —	—

0915 Purged water in Excavation → MH-06 down to bottom and exposed gravel/concrete pour remnants.
- hydraulic head w/in new broken sewer continues to seep water through "concrete" aggregate into Excavation.
- Notified [redacted] of seep estimated @

Continued on Page

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[redacted]

11/27/13

NS >> BOP

PROJECT Trench Excavation (IE-9) Notebook No. 3

Continued From Page 68

2-3 gpm.
- Current volume pumped from MH-06 is approx 1500 gal (11/27/1
1030 Spoke w/ [redacted], recommended removal of all loose aggregate w/in the excavation then minimize area to be grouted/and encased w/new concrete pour.
- May consider pouring short load (1-2 yd³) into MH-09 to seal upgradient sewer
- Concrete truck ordered w/ 9½ yd³, on site 11:30-12 PM
1100 Spoke w/ [redacted] USAC gave permission to plug MH-09 w/concrete
- Instructed Russo to backfill excavation IE-9 as no leak was observed subsequent to pumping out the excavation
1120 Measured levels in MH-9
Water level @ 4.8' BTOR
Soft Sediment level @ 9.6' BTOR
Sewer BTM @ 10.4' BTOR
Note petroleum sheen in water when sediment was disturbed
1205 Lafarge truck arrives w/ 9½ yd³ load
1225-1240 Poured 1-2 yd³ into MH-09
- Russo pumps out and cleans MH-06 excavation
1250-1330 Poured approx 8 yd³ of concrete mix (4,000 psi mix) into MH-06 excavation
- shovelled mix into endpoint of sewer
1400 Prep to move excavator south of South 31 ditch to investigate southern extent of sewer
- will ascertain presence or absence of 18" sewer pipe
1415-1500 Advanced excavation Trench Excavation South #1 TES-1 to total depth of approx 8.5-9.0' bgs deepened to
- No evidence of 18" dia sewer observed in the excavation
Discussed apparent results w/ [redacted] (USAC) and confirmed that excavation was advanced within the assumed sewer alignment
- USAC reps agreed that no further excavation was needed, RAID scan was not performed per [redacted] (USAC
1500-15:20 Excavation TES-1 was backfilled and equipment demobilize from south side of ditch

Continued on Page

15:45 Russo personnel and /PH depart site.

Read and Understood By

[redacted]

11/22/13

NFSS BOP

70
PROJECT Trench Excavation (IE-10) Notebook No. 3
Continued From Page 69

URS PERSONNEL: [redacted]
Russo "
USAC "
Weather: Cloudy, 30-40°, calm
0700 Arrive NFSS site prep for day's activities to include
- purge water from MH-06 excavation
- backfill IEMH-06 excavation
- advance IE-10 excavation
07:45 Measured excavation comes @ TES-1
0805 Russo personnel arrive, prep to begin pumping and backfilling activities
0830 Start backfilling & grading activities @ IE-9 / IEMH-06
1020 Started excavating @ IE-10
1120 Completed advancement of IE-10 to maximum depth of 10.5' bgs
- Top of concrete encased sewer identified at 7' bgs
12:00 Started groundwater sample collection
- sample collected from seep area in NW corner of excavation
- split samples w/ USAC
Collected samples as shown below:

Filtered
~~10.0-10.5~~ 8.0
IE10GW ~~10.0-10.5~~ F 2009 Filtered 12:30-13:00
12/2 IE10GW ~~10.0-10.5~~ FD 2009 Duplicate, Filtered

Unfiltered
7.0 8.0
12:30 IE10GW ~~10.0-10.5~~ 2009
12/2 IE10GW ~~10.0~~ 10.5 D 2009
7.0 8.0
13:00 RAD Tech starts RAD scan of trench IE-10
14:45 Collected surface soil sample IE-10-T1-0.0-0.5 2010
- RAD tech completes trench RAD scan
- Start collection of sidewall and Bottom soil samples

15:45 Collected SIDEWALL sample from South Wall, southeast corner
sample ID:
IE-10-T2-3.0-4.0-2011

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Read and Understood By

[redacted]
12/2/13
Date Signed Date

NFSS BOP

PROJECT Trench Excavation (IE-10) Notebook No. 3

Continued From Page 10

15:55 Collected bottom soil sample in NW corner
Sample ID:
IE-10-T4-10.0-10.5 2013

16:10 Collected sidewall soil sample from West wall, NW corner
Sample ID:
IE-10-T3-3.0-4.0-2012

16.15 - 16:30 Partially backfilled IE-10 to top of concrete sewer

- Per request from [redacted] total estimated volume currently in Frac tank is approx ~~16,700~~ gal 11,200

- Russ departs site

1700 - JPH departs NFSS

12/2/13

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Read and Understood By

[redacted]

12/2/13

Signed Date Signed Date

NFSS BOD

72
PROJECT Trench Excavation (IE-11)

Notebook No. 3

Continued From Page 21

URS personnel : [redacted]
USAC " :
Intomes " :
Russo " :
Weather : Clear, sunny, 30-40°, calm

0700 Arrive NFSS site
- complete/process paperwork for IE-10
0800 Russo personnel arrive
- instruct Russo to complete backhilling excavation IE-10
0830-0915 Excavation IE-10 backhilled to grade elevation
0930 Positioned/located proposed trench IE-11 immediately north of NW-SE aligned electric utility. Trench located approx 20' north of IE-10 and < 5' north of utility.
0935 Started excavation activities
10:00 Trench will be skewed to east direction due to proximity to monitoring well MW-954 (4' west of IE-11)
- Top of sewer identified @ 6.5' bgs
10:30 Excavation IE-11 advanced to total depth of 10-10.5' bgs
11:00 Collected groundwater sample IE-11-GW-6.5-7.5 2014
- USAC splits groundwater sample
- groundwater seep emanating along top and east sidewall of concrete sewer (southern perimeter of trench
11:15 RAD tech starts RAD scan @ IE-11
12:00 No S walls scanned, RAD tech & crew to lunch
13:00 Continue RAD scan on E & W, bottom walls
13:15 Collected surface soil sample IE-11-T1-0.0-0.5-2015
14:00 [redacted] RAD [redacted] completes RAD scan of trench IE-11 to assist [redacted] [illegible]
14:10 Collected bottom soil sample IE-11-T4 10.0-10.5-2018
14:20 Collected sidewall sample IE-11-T3-1.0-2.0-2017
- sample collected along East sidewall 1-2 bgs, southernmost extent
14:40 Collected sidewall sample IE-~~T2~~ IE-11-T2-3.0-4.0-2016
- collected at A, C as MS, MSD IE-11-T2-3.0-4.0 MS MSD -9201 9202
- sample collected 3-4' bgs along north wall of excavation eastern extent

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[redacted]

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12/3/13

Signed Date Signed Date

NFSS BOP

PROJECT Trench Excavation (IE-11) Notebook No. 3

Continued From Page 72

15:45-16:10 Russo personnel begins/completes backfilling AND grading IE-11 to ground surface

- Russo personnel police/pickup trash & plastic w/in trench work areas

16:30 Russo/JPH depart NFSS site

12/3

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QA 9203

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Read and Understood By

[redacted]

12/3/17

Date Signed Date

NFSS SOP

74
PROJECT TRENCH EXCAVATION (IE-12) Notebook No. 3
Continued From Page 73

URS PERSONNEL [redacted]
RUSSO "
USAC "
INTOMES "

WEATHER - CLOUDY, 40-50°, LT SW WIND 5-10 MPH

0700 ARRIVE NFSS SITE,
- COMPLETE H&S PROCESS PAPERWORK FOR IE-11
0740 STARTED IE-12 TRENCH EXCAVATION ACTIVITIES
0910 COLLECTED SURFACE SOIL SAMPLE IE-12-TI-00-0.5-2010
0930 COMPLETED EXCAVATION TO APPROX 15' LENGTH, DISCUSSED EXTENDING TRENCH AN ADDITIONAL 10' TO TOTAL LENGTH OF 25'. TOP OF CONCRETE ENCASED SEWER IDENTIFIED AT 7.5' BGS
- USAC AGREES TO EXTENSION OF IE-12 VS. A SECOND SMALL TRENCH
- WILL DOUBLE # OF SOIL SAMPLES TO BE COLLECTED I.E.
  - 2 SURFACE SOIL SMPLS
  - 2 BOTTOM SMPLS
  - 4 SIDEWALL SMPLS
1015 COLLECTED 2ND SURFACE SOIL SMPL: IE-12-TI-00-0.5-2010
1045 EXCAVATION IE-12 COMPLETED, DIMENSIONS 13'W x 25'L x 12'
- USAC STARTS/COMPLETES GROUNDWATER SAMPLING
- SEEPS LOCATED ON TOP AND ALONG WEST SIDE OF SEWER (SW CORNER OF EXCAVATION). EST FLOW <.25 GPM
- EXCAVATION IS GENERALLY "DRY" WHEN COMPARED W/ PREVIOUS TRENCHES
1105 - EAST WALL OF TRENCH COLLAPSES, FOLLOWED BY 2ND COLLAPSE
- COLLAPSE DUE TO COMBINATION OF DRY, SILTY DESICCATION FRACTURES AND DECREASED CLAY CONTENT W/IN SOIL MATRIX
1130 CREW BREAKS FOR LUNCH TO ALLOW TRENCH TO "STABILIZE"
1230 COLLECTED GROUNDWATER SAMPLE FROM SW CORNER SEEP
- SAMPLE ID AS IE-12-GW-7.0-7.5F2027 / IE-12-GW-7.0-7.5-2027
- COLLECTED GROUNDWATER MS/MSD SAMPLE ID AS:
  - IE-12-GW-7.0-7.5FMS-9203
  - IE-12-GW-7.0-7.5FMSD-9204

Continued on Page

Read and Understood By

[redacted]
Signed

12/4
Date

Signed

Date

NFSS BOP

PROJECT Trench Excavation (IE-12) Notebook No. 3

Continued From Page 74

- Excavation continues to slough into trench along both East & West SIDEWalls

13:30 Collected bottom soil sample along west side SW corner IE-12-T8-11.0-11.5 2025

13:45 Collected bottom soil sample along east side NE corner IE-12-T8-11.0-11.5 2026

- Continued RAD scan w/in excavation, unable to scan bottom and sidewalls (East & West) with any reliability due to sloughing and safety concerns

14:45 Collected sidewall soil sample along ~~East~~ North trench wall sample located in NE corner is designated: IE-12-T3-3.0-4.0-2021

15:00 Collected sidewall soil sample along South, trench wall sample collected in SE corner at depth 1' above sewer elevation. Sample designated IE-12-T6-6.0-7.0-2024

1510 Collected sidewall sample along North wall, collected in NE corner sample designated IE-12-T4-6.0-7.0-2022

1530 Collected sidewall sample along west wall, sample designated IE-12-T5-5.5-6.0-2023

1545-16:20 Russo personnel begin backfilling excavation IE-12

- Based on conversation w/ K. Connare and USAC rep [redacted] Russo personnel with regarde stockpile soil materials generated during the excavation of trenches: IE-10, IE-11 and IE-12
  - Note: soil materials stockpiled @ excavations IE-9, and IEMH-06 will be covered w/ plastic sheeting and remain until a determination can be made based on sampling results

16:30 Russo and JPH depart NFSS site.

12/4

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Read and Understood By

[redacted] 12/4

Signed Date Signed Date

NFSS BOP

76 PROJECT Trench Investigation (Re-grading) Notebook No. 3 Continued From Page 75

URS PERSONNEL : [redacted]
USAC " :
Russo " :
Infomars :
WEATHER : Cloudy, 50-60°, NNW 10-15 mph

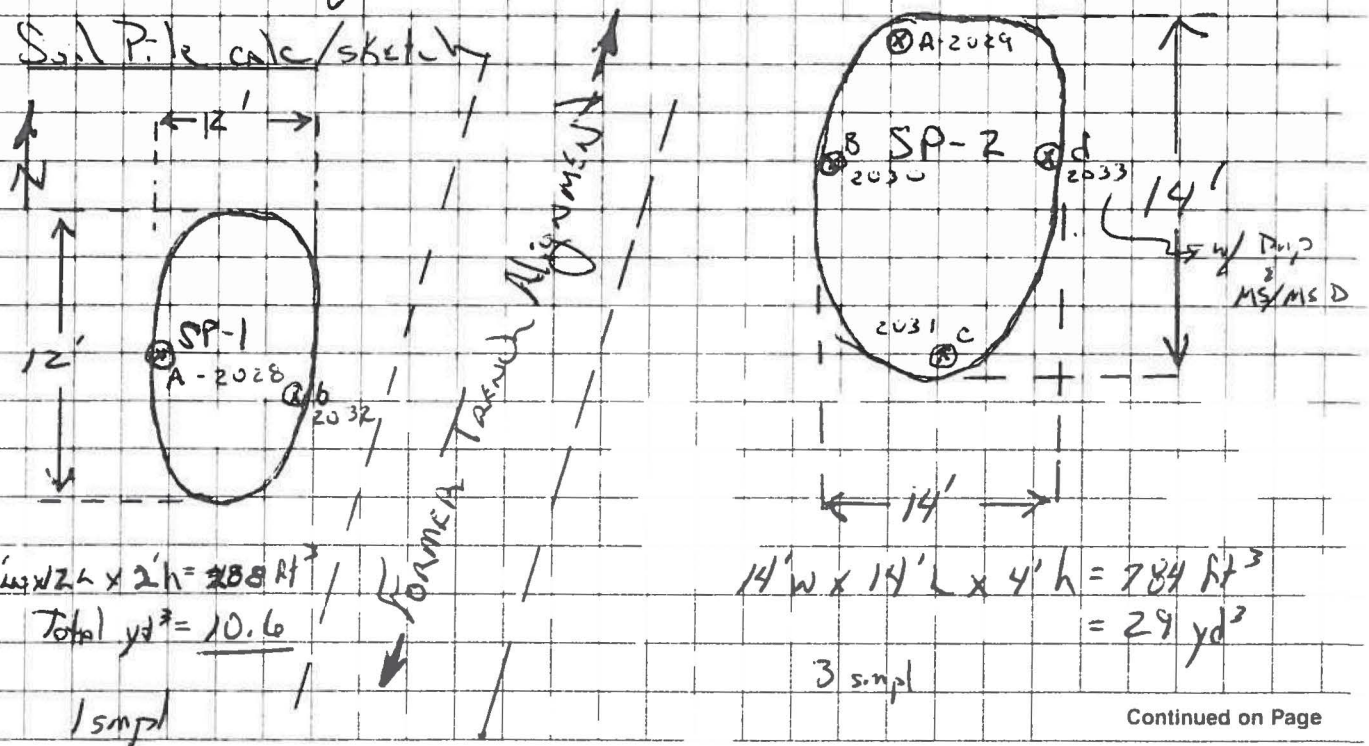
0700 Arrive NFSS site, process & complete paperwork
Rev 12/4/13
- sample preparation

0800 Russo personnel Arrive on site
[redacted] unable to work today due to family emergency
[redacted] will transport Paul back to shop.
- [redacted] to remain on site to complete backfilling, regrading, water disposal and soil protection tasks

11:30 [redacted] called for status report requested collection of soil samples from stockpiles materials generated @ excavations IEWA-06 & IE-9

- soil piles to be SCANNED prior to sampling and subsequent to volume calculation (GPS)

Soil Pile calc/sketch



12'w x 12'L x 2'h = 288 ft³
Total yd³ = 10.6
1 smpl

14'w x 14'L x 4'h = 784 ft³
= 29 yd³
3 smpl

Continued on Page

Read and Understood By

[redacted]

12/5/13

Date

NFSS IS OF

Trench

PROJECT Investigation Activity

Notebook No. 3

Continued From Page 76

12:00 - 13:00 Crew breaks for lunch

13:00 Resume demobe activity (Trench excavation)

14:30 - 14:45 Collected soil samples @ 2 stockpile areas

- collected sample(s) IESP-1A-2028

IESP-2A-2029

IESP 2b-2030

IESP-2c-2031

15:00 Per discussion [redacted] collected 2 additional samples i.e. 1 more sample from each stockpile.

15:25 Collected soil sample IESP-1b-2032

15:30 Collected soil sample IESP-2d-2033 (Dupl, MS/MSD)

- Russo personnel continue demobe activities i.e. removing soil from excavator, covering soil piles, consolidating trash

16:30 All depart NFSS site

12/5

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Read and Understood By

[redacted]

12/5/13

NFSS DOP

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PROJECT Trench Excavation (Demobe Activity) Notebook No. _____
Continued From Page _____

URS personnel [redacted]
USAC "
Russo "
Isotomes "
Weather - Cloudy, 35-40°, lt wind WSW 5-10 mph

0700 Arrive NFSS, process paperwork from 12/5
0800 Russo personnel arrive [redacted] here
to replace [redacted]
0930 Collect MS/MSD soil sample @ soil stockpile
location SP-2d
sample ID as IESP-2d MS-9206
IESP-2d MSD-9207

- Russo personnel to address demobe tasks including:
  - Purge & transport water currently in decon pad to Frac tank (per USAC rep [redacted] Subsequent to purging existing rain water, all decon water will be collected and transported to the Frac tank.
  - Note: Decon pad will be covered w/plastic prior to deconning heavy equipment
  - Russo purges all water from Manhole MH-09. All water transported to the Frac tank. Water purges down to concrete - indicating that the sewer is plugged

11:30 [redacted] departs NFSS

12/6

Continued on Page

Read and Understood By

[redacted] 12/6/13