ATTACHMENT J

Site Progress Meeting Minutes

1) Site Progress Meeting Minutes (48 pages)
2) Kemron-Project Status Reports (21 pages)
3) U.S. Environmental - June 4, 2010 memo (One page)
4) U.S. Environmental – June 8, 2010 memo (Two pages)

Havertown PCP Site – Groundwater Treatment Plant
OU 3 – REMEDIAN ACTION PHASE
Construction of Pre-Treatment Modifications

PRE-CONSTRUCTION MEETING
ITEMS TO DISCUSS

1. Introduction, role and line of communication

2. Treatment plant contact KP, site phone #610-853-1679

3. Contract drawings, technical specs and SOW issued dated 07/17/2009

   - Current status of project

4. Town of Haverford – Permits

5. Existing underground utilities/pipes, construction stake-out and bench marks

6. Equipment staging area and protection from weather

7. Excess excavated soil storage and disposal – access route to ROS area

8. Location of office trailer and temporary utilities (port-a-potty, dumpster)

9. Site security

10. Sediment & erosion and temporary bridge construction at ROS area

11. Construction Schedule, working hours, key milestones

    - Work Plan
    - E&S Plan
    - Health and Safety Plan

12. Services by Tt-

    - Sampling and Analysis of the soil as being excavated in ROS area
    - The ROS Area Aquifer Pump Test and subsequent pump selection.
    - Startup, PLC programming and testing once all equipment is installed.
    - Preparation of an O&M Manual of completed systems under OU3 RA; however, contractor needs to submit equipment data sheets to Tt
    - O&M of completed systems
    - Long Term Monitoring

13. Next project coordination meeting

14. Other issues

Kemron Environmental Services Inc.

List foreman's name (cell number) and other key people working on site and their role on this project:

Provide a list of subcontractor(s) used on this project, address, their foreman's name and cell number, and their people working on site:

Havertown PCP Site – Groundwater Treatment Plant
OU 3 – REMEDIAN ACTION PHASE
Construction of Pre-Treatment Modifications

PRE-CONSTRUCTION MEETING- SIGN IN SHEET

Name and Company representing

112G02188
July 30, 2009

HAVERTOWN PCP SITE (OU3)
Remedial Action Phase
PROJECT PROGRESS
(Activities completed as of 09/17/09)

- Design Activities:
  - Final design documents (drawings, technical specs and design reports) were sent to Kemron Environmental Services
  - Ecological fish sampling of Naylor's Run conducted on 9/1/09.
    - Two locations along Naylor's Run (Stations 5 & 6 below ROS), and one location (Station 4) in tributary of Naylor's below ROS. Station 3 in the tributary below ROS was attempted but there was not enough midges. The reference location near Ridley Creek State Park was not sampled. A more representative reference stream still needs to be resolved.
    - Benthic sampling final report still on schedule for early October.

A construction progress meeting was conducted at the site on 11/18/08. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers of Kemron, and Harish Mital and Steve Leo of Tetra Tech NUS, Inc. (Tetra Tech).

- Tetra Tech prepared and distributed a site-specific health & safety plan (SHSP) for OU3 RA phase to all parties; this includes Kemron's HSP. **All personal must read and sign this document prior to beginning work at this site**.
- Tetra Tech provided to all parties revised contract drawings, which include erosion and sedimentation (E&S) details for entire construction, realignment of force main across Eagle Road and PCG parking lot and some minor corrections.
- Tetra Tech also prepared and submitted the E&S permit application to Delaware County Conservation District for necessary permitting on 10/6/09. A copy of this application was provided to Kemron.
- Either Steve Leo (610-733-1259) or Larry Fenlon (302-420-7555) of Tetra Tech will be at the site to provide technical oversight during RA phase.
- EPA has obtained access/easement to all but one property (Bonds). This property may impede construction progress as Kemron will not be able to cut through the railroad ROW to access the McCandless property and take in any heavy equipment.
- Kemron began mobilizing on 11/17/09. The office trailer is expected the week of 11/23/09 and will be located at the PCG parking lot.
- Tetra Tech will be videotaping the existing site (once cleared) and the houses located in the proximity of proposed construction area prior to any construction activities.
- Tetra Tech will collect four discrete surface soil samples at the McCandless property (for background) where Kemron is planning to store excavated material.
- At this meeting Tetra Tech provided a revised profile of the abandoned sewer located in the ROS area. It seems that this sewer may not be as deep as initially envisioned. Once Kemron has cleared the ROS area, a test pit will be excavated to locate this pipe.
- Kemron requested from Tetra Tech a copy of drawings showing all easements and property description.

Construction progress to date:

- Started mobilization

Construction activities planned for next 2 weeks:

- Continue mobilization
- Clearing at McCandless property and railroad ROW
- Construction of temporary road and bridge
- Kemron will not at site from 11/25/09 thru 11/29/09 (Thanksgiving holidays).

Problems/Issues (past or anticipated):

- Due to limited access to site, construction progress may be slower.

The next site progress meeting will be on December 2, 2009. Please bring any errors or inaccuracies of the above minutes to Tt's attention within 2 days.

Prepared and submitted by:

Harish K. Mital, P. E.

Distribution: Kemron, EPA and PADEP (via e-mail)

K:\112G02188 - Havertown OU3 RA - Harish Mital\Documents\progress meetings\11182009 minutes.doc

A construction progress meeting was conducted at the site trailer on 12/02/09. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers of Kemron, and Harish Mital, Larry Fenlon, and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- Tetra Tech provided to all parties revised (Rev. 2 - Per Conservation District Comments) contract drawings, which include erosion and sedimentation (E&S) details for entire construction, and revised (Rev. 1) mechanical drawing to show force main crossing details at Eagle Road.
- Tetra Tech also revised and resubmitted the E&S permit drawings as per comments to Delaware County Conservation District for necessary permitting.
- EPA has obtained access/easement to all properties. Necessary construction of the berm opening can begin through Bond's easement.
- Tetra Tech will be videotaping the existing site (once cleared) and the houses located in the proximity of proposed construction area prior to any construction activities.
- Kemron provided to all parties a Project Status Report and planned activities for upcoming two weeks.
- Conveyance of dewatering to collection trench sump behind PCG was discussed. Tetra Tech offered use of existing unused 800 gallon FPT tank located in rear storage yard. Kemron will transport to laydown are sump to be located in ROS. Tank will be used as a solids catch. Conveyance line (HDPE) will buried in shallow soil for freeze protection and security. Existing HDPE behind PCG (Tt's) can be used for continuation down hill to collection sump.
- At this meeting Tetra Tech provided a copy of drawings showing all easements and property descriptions.
- It was discussed at this meeting that Kemron's last day on site before holiday break will be Friday, December 18, 2009. Kemron back on-site on Tuesday, January 5, 2010.
- After meeting, Tetra Tech collected four discrete surface soil samples at the McCandless property (for background) where Kemron is planning to store excavated material.

Construction progress to date:

- Kemron remob to site on Tuesday, December 1, 2009.
- Railroad ROW is cleared.
- Orange construction fencing placed for tree protection in backyards for force main.
- Stone fill for access and haul roads constructed in McCandless.
- Laydown area sited and construction begun.
- Fence opened at stream crossing, trees cut at this opening. Culverts delivered.
- Excavation of construction entrance through Bond easement begun 12/4/09. Soil stockpiled on upper elevation of McCandless. Three trees removed over construction entrance. Ballast placement complete.
- Tetra Tech survey crew staked force main centerline and route from ROS to PCG parking lot.
- Tetra Tech video surveyed railroad ROW, 301, 305, and rear of 309 Rittenhouse. Pictures of McCandless, and ROW are also started and updated. 313 and 317 Rittenhouse and Booth property remain to be completed.

Construction activities planned for next 2 weeks:

- Construction of temporary road and bridge.
- Establish sump and water conveyance from ROS.
- ROS clearing
- Kemron will not at site from 12/21/09 thru 1/4/09 (Christmas holidays).

Problems/Issues (past or anticipated):

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The next site progress meeting will be on December 16, 2009. Please bring any errors or inaccuracies of the above minutes to Tt's attention within 2 days.

Prepared and submitted by:

J.B. Moore

Distribution: Kemron, EPA and PADEP (via e-mail)

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A construction progress meeting was conducted at the site trailer on 12/09/09. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers of Kemron, and Larry Fenlon and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- Kemron provided to all parties a Project Status Report and planned activities for upcoming two weeks.
- Kemron solicited a 17th vendor for the forcemain construction (Joao Bradley Co., Bethlehem, PA).
- It was discussed at this meeting that Kemron's last day on site before holiday break will be Friday, December 18, 2009. Kemron back on-site on Tuesday, January 5, 2010.

Construction progress to date:

- Tetra Tech video survey and pictures are completed (McCandless property; railroad ROW; 301, 305, and rear yards of 309, 313, and 317 Rittenhouse; and rear of 520 Washington Ave). Some additional pictures of the ROS streambank line remain and a CD will be copied for Kemron, EPA, and PADEP.
- Stream crossing with culverts was completed on 12/10/09. Stone road extends into ROS.
- Installation of silt fence and tree protection along forcemain is completed.
- Kemron office trailer moved from PCG lot to McCandless on 12/11/09.
- Rear residential fences have been removed near forcemain route. Temporary fence is in place.
- Trees have been removed in residential yards along forcemain route. Includes large oak tree in rear of 313 Rittenhouse outside of proposed forcemain route.
- ROW completely cleared for forcemain. All remaining wood debris has been chipped and removed.
- Silt fence along forcemain easement is completed.
- Graded swales in ROW along forcemain easement are in progress.
- Electrical service to trailer is still in progress. Electrical contractor has to finish before PECO supplies power.
- Tetra Tech received final approved E&S permit from Delaware County. A copy of this permit with all attachments is provided for the site trailer for record purposes.

Construction activities planned for next 2 weeks:

- Kemron will not be at site after 12/18/09 thru 1/4/09 (Christmas and New Year holiday).

Problems/Issues (past or anticipated):

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The next site progress meeting will be on December 18, 2009. Please bring any errors or inaccuracies of the above minutes to Tt's attention within 2 days.

Prepared and submitted by:

J.B. Moore

Distribution: Kemron, EPA and PADEP (via e-mail)

K:\112G02188 - Havertown OU3 RA - Harish Mital\Documents\progress meetings\12092009 minutes.doc

A construction progress meeting was conducted at the site trailer on 12/18/09. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers of Kemron, and Harish Mital, Larry Fenlon and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- Kemron provided to all parties a brief Project Status Report and planned activities for upcoming two weeks.
- Tt will provide CCR review and documentation during RA phase.
- Tt will also collect sub-surface soil sample(s) and run proctor test.
- During backfill, Tt will have a separate technician conducting proctor tests. This needs to be coordinated with Kemron. Backfill of trenches to be 90% procter.
- Kemron needs to address swales along RR ROW as per County permit.
- Tt to finish collecting two soil samples in ROS area on 12/28/09 and ship together with the samples from McCandless laydown area.
- Discussion took place regarding clean fill. PADEP will check the requirements (sampling and analysis).

Construction progress to date:

- Stream crossing completed.
- Installation of silt fencing and tree protection in residential backyards completed.
- Seven large trees removed and stumps grinded out on 12/18/09.
- Power pole at entrance cleaned up and vines and limbs removed for PECO by 12/18/09.
- Office trailer relocated on 12/11/09 and Tt trailer moved in on 12/16/09.
- Installation of silt fence along north side of RR ROW complete.
- RR ROW was seeded with rye grass on 12/18/09.
- Tt supplied an 18" HDPE corrugated pipe and 800 gallon FRP tank from existing plant material. Kemron will use them for dewatering sump.
- Sand bags made up using left over sand in EPA storage yard.
- Kemron is waiting for bids for installation of sheet piling and forcemain. Bids should come in over holiday break.
- Backfill materials selected and samples submitted for physical and chemical characteristics.
- Closed up chain link fence at stream crossing for holiday break.
- Electric wired and PECO tied in by New Years holiday.

Construction activities planned for next 2 weeks:

- Kemron will not be at site after 12/18/09 thru 1/4/09 (Christmas and New Year holiday).
- During first week of January Kemron plans to:
  - Place stockpile liner and trench perimeter;
  - Dig test pit/dewatering sump in ROS area;
  - Grade the swale along forcemain in RR ROW; and
  - Install 2" HDPE dewatering line.
- During second week of January Kemron plans to:
  - Begin pumping water from dewatering sump to EPA collection trench
  - Sheet piling contractor to begin piling installation

Problems/Issues (past or anticipated):

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The next site progress meeting will be on January 8, 2010. Please bring any errors or inaccuracies of the above minutes to Tt's attention within 2 days.

Prepared and submitted by:

J.B. Moore

Distribution: Kemron, EPA and PADEP (via e-mail)

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A construction progress meeting was conducted at the site trailer on 01/08/10. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers and Kris Spikes of Kemron, and Harish Mital, Larry Fenlon and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- Kemron provided to all parties a brief Project Status Report and planned activities for upcoming two weeks.
- Tetra Tech will collect one 5-gallon bucket of subsurface soil from RR ROW and run proctor test. Soil will be collected week of 1/11/10 during installation of dewatering piping.
- Kemron will collect a composite sample/500 CY of fill material and run chemical analysis.
- Kemron asked if boring at Eagle Road can go deeper (Elev. 290' – well below existing utilities). Tetra Tech will check OU2 as-builts concerning Eagle Road existing forcemain crossing utility location accuracy and also will check if boring was a road cut or directional boring. EPA will contact former Army Corp of Engineer foreman.
- Kemron will add a locking lid to the top of the 18" HDPE sump pipe.
- For dewatering 'frac' tank at CTR (collection trench), Kemron will use an existing square poly tank owned by Tetra Tech instead of the 800-gallon FRP tank. The tank will be set at the top of the hill above CTR behind PCG, and drain by gravity into the CTR sump. Heat trace will be required around pipe for pipe that is above ground close to the tank or where water may sit in the line. The tank will need 3" bulkhead fittings installed for outlet and overflow. The CTR sump will need a 3" fitting cut into the hatch for pipe drop so that the hatch can remain closed.
- Tetra Tech will check if sheet piling ASTM standards called out in Spec. Section 02260-2.1.c are available. The sheet piling contractor should have those as well.
- Periodically Tetra Tech will monitor 'product' thickness found in water collection sump with oil-water interface probe. Kemron will use absorbers to remove floating oil. Bail oil if necessary so that it does not end up in the CTR sump.

Construction progress to date:

- Completed clearing of the force main and installation of silt fence on the north side of force main.
- Installed power in both office trailers, and area light power was restored to light parking lot.
- Selected/sampled backfill materials and submitted for physical and chemical characteristics. The results were submitted to Tetra Tech.
- Installed a 30-mil liner at stockpile area.
- Installed silt fencing in ROS area.
- Installed a dewatering sump in the ROS area. Used piece of 18" HDPE corrugated pipe recycled from Tetra Tech lay-down area. Installing fencing around this sump.
- Kemron still waiting to award sheet piling subcontractor and force main subcontractors.

Construction activities planned for next 2 weeks:

- Update Project Schedule
- Trench and install 2" HDPE discharge line from ROS sump to Tetra Tech CTR sump behind PCG factory.
- Install pump system in ROS sump and begin dewatering activities.
- Prepare a site plan showing hot zone, exclusion zone and decon areas.
- Install sheet piling at ROS area.

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on January 15, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

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J.B. Moore

Distribution: Kemron, EPA and PADEP (via e-mail)

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A construction progress meeting was conducted at the site trailer on 01/15/10. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers and Kris Spikes of Kemron, and Harish Mital, Larry Fenlon and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- Kemron provided to all parties a brief Project Status Report and planned activities for upcoming two weeks.
- Tetra Tech collected one 5-gallon bucket of subsurface soil from RR ROW for proctor test. Results during week of 1/18/10.
- Tetra Tech bailed five gallons of water out of the sump to try and skim off as much oil on surface and clear out debris floating in water. There was a thin layer of oil and organic material. The oil also appears to be emulsified in the water.
- Original forcemain across Eagle Road was installed in roadcut trench. Tetra Tech's design was based on the as-builts. If the new forcemain is directional boring it can go below existing utilities. The depth of the force main and jack and bore pits can be field determined.
- For dewatering surge tank at CTR (collection trench), Tetra Tech will provide a spare flowmeter. Flowmeter will need to operate in a full pipeline and can be installed in the horizontal or vertical line ahead of surge tank.
- Kemron will set pump at ROS sump and use generator for power. A temporary light will be placed at sump area that can be switched on and off if operator needs to inspect during overnight. Kemron will provide an operator for overnights. May take the place of security guard also. Tetra Tech will add Kemron operator on the plant autodialer call out. Tt operators will need to coordinate with Kemron operator for any critical shutdowns and how ROS pumping is affecting CTR sump levels. If necessary, Tt will also share pcAnywhere software for monitoring levels in CTR sump.
- Tetra Tech will monitor water levels in remaining piezometers in ROS to monitor effectiveness of dewatering pump.
- Sheet piling contractor (Spark Electric) to submit proposed embedment and piling selection to Kemron. Kemron to forward to Tetra Tech so that structural engineer can review and approve.
- Discussed that Kemron's dump truck is 5yds. Kemron will be using weight tickets for soils from ROS to laydown area.
- Tetra Tech received unvalidated results from the soil background screening on four locations in and below the laydown area in McCandless. No PCP detected. Two extra samples were taken in ROS for semi-volatiles. ROS-1 (near SB-01) and ROS-2 (near SB-02) had PCP 1,200 ug/kg and 6,900 ug/kg, respectively. It was discussed that Tetra Tech would dilute the ROS-1 sample down in order to test against the PCP Assay Kit to see if it is capable of measuring to and below the cleanup minimum of 0.5 ppm. Tetra Tech will contact Mid-Atlantic Laboratories in New castle, DE for availability.
- The excavated soil from ROS area does not need to be separated because it will be sent to the same landfill.

Construction progress to date:

- Completed trenching and installation of the 2" SDR-11 sump discharge line and all silt fence on the north side of the force main.
- Received 3" submersible pump and controls for the ROS sump.
- Identified top soil borrow and sampled for chemical characteristics.
- Secured an engineering evaluation and engineer's recommendation for shoring between the houses in excavation around existing buried manhole 7.

Construction activities planned for next 2 weeks:

- Update Project Schedule
- Complete installation of the pump system at the ROS sump and surge tank at the end of the 2" line and begin pumping.
- Begin importing backfill material.
- Prep ROS for removal operations.
- Dig test pit at the ROS to locate sewer line.
- Begin excavation and backfill operations at the ROS.
- Install sheet piling at the ROS area. Tentatively scheduled to begin 1/28/10 and complete by 2/5/10.

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on January 22, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

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J.B. Moore

Distribution: Kemron, EPA and PADEP (via e-mail)

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A construction progress meeting was conducted at the site trailer on 01/22/10. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers and Kris Spikes of Kemron, and Harish Mital, Larry Fenlon and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- Kemron provided to all parties a brief Project Status Report and planned activities for upcoming two weeks.
- Tetra Tech collected one 5-gallon bucket of subsurface soil from RR ROW for proctor test. The results should be available by 1/25/10.
- Kemron placed the ROS dewatering pump system online 01/20/10 and tested by pumping 700 gallons at 30 gpm. Tetra Tech collected a sample for semi-volatiles analysis to be sent with February plant sampling. Another sample will be collected before the February plant sampling.
- Kemron inspected the joints in the 2" dewatering line to the surge tank during pumping and found no leaks.
- On 01/21/10 1,100 gallons was pumped. The flow dropped off to 5 gpm and the pump was pulled to inspect screen. It was okay so it was determined to check the flowmeter. There was a considerable amount of sediment found clogging the flowmeter. Kemron decided to take flowmeter out of line. An ultrasonic clamp on type flowmeter was suggested by Tetra tech. Kemron will check with pump system vendor for availability. For now Tetra Tech can track on/off operation via trending software for collection trench. The volume of water will be estimated using runtime and 30 gpm flowrate. Kemron set up on/off operation of pump using floats in sump. The pump is set to turn on for 20 minutes every 3 hours.
- The ROS sump is planned to go online 24/7 starting on 01/22/10. Kemron evaluated the need to provide around the clock operators during overnight and weekend hours to monitor pumping. Tetra Tech will coordinate with Kemron on collection trench operation and shutdowns and any problems with continuing dewatering pump. A phone tree and personnel schedule will be printed out for the weekend.
- Kemron is planning to start ROS excavation on Monday, 01/25/10, between the two houses. Tetra Tech will provide a geotech person for half a day to test compaction. 90% compaction is required for residential properties.
- Kemron expects to excavate 10 to 20 lineal feet per day. The excavation at the ROS area is planned to be completed in 26 working days.
- Tetra Tech will be collecting a composite sample of the top 5' of sidewall soils 10' on each side of the pipe. Each composite consists of five grab locations.
- The removal and disposal of the waste soils shall take place after the completion of all the excavation.
- The sheet piling contractor will be onsite Thursday, 01/28/10 to begin installation of piling. Sheet piling is projected to be completed in 10 working days (Friday, 02/05/10).
- A site plan was requested of Kemron showing the 'exclusion zone', 'support zone', and decon. Kemron will be providing air monitoring equipment.
- The ROS soil sample (ROS-1) that Tetra Tech provided to a local lab for split sampling comparison in order to verify capability of assay kit to measure at or below the PCP clean up limit of 0.5 ppm came back non-detect. The CLP lab sample had 1.2 ppm PCP. A second sample will be provided to local lab from ROS-2 (SB-02) location. That soil tested at 6.3 ppm PCP (unvalidated). Results will be requested by Tuesday, 01/19/10.

Construction progress to date:

- Completed installation of the 3" submersible pump system at the ROS.
- Completed installation of the surge tank at the end of the sump discharge line.
- Tested the ROS sump pump system and placed into operation on 01/20/10.

- Imported 1,000 cy of backfill material.
- Finished construction of an access road into the backyards for excavation of the sewer line.

Construction activities planned for next 1 week:

- Update Project Schedule
- Continue ROS sump dewatering operation.
- Start excavation of ROS soils between two houses.
- Start sheet piling construction. Tentatively scheduled to begin 1/28/10 and complete by 2/5/10.

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on January 29, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

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J.B. Moore

Distribution: Kemron, EPA and PADEP (via e-mail)

K:\112G02188 - Havertown OU3 RA - Harish Mital\Documents\construction phase\meetings\01222010 minutes.doc

A construction progress meeting was conducted at the site trailer on 01/29/10. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers of Kemron, and Harish Mital and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- Kemron provided to all parties a brief Project Status Report and planned activities for upcoming two weeks.
- For the waste soil characterization, TCLP VOA/SVOA, Pesticides, PCBs, TCLP Metals, and Dioxins would be requested for landfill disposal instead of F032 waste characterization. Tt requested the landfill provider requirements from Kemron. Five grab samples would be taken and composited from top of waste soils stockpile.
- Upon digging of main sewer a second smaller pipe was found below. The line appears open. A representative of the township public works was contacted to verify if the line was an active sewer. The township rep had no knowledge of a second line or its' purpose. It was speculated to be a stormwater line. Tetra Tech is to document the visit and discussion. Kemron will also excavate the second line along with main pipe.
- Kemron requested a drawing from Tetra tech for purpose of laying out a grid system to track progress of excavation and field sampling. Tt will provide drawing ROS_ColorCodedWells.dwg and clear off some background layers to make it more readable.
- Tetra Tech began field sampling with PCP Assay Kit. Initial excavation samples were analyzed multiple times in order to verify control data and extra practice. Field screening samples will be taken at 0'-5' for shallow (ie, FS-01S) and 5'-10' for seed (ie, FS-01D). These depths will adjust as excavation progresses and sewer pipe depth becomes shallower.
- If field screening determines that soil is above PCP cleanup limit of 0.5 ppm then another sample will be taken 2' laterally from the first. This will continue until a result below 0.5 ppm is attained.
- Tetra tech will also collect confirmatory samples and ship daily to CLP lab for 48-hr TAT Preliminary results. Confirmatory samples will be labeled similar to correspond with field screening samples (ie, CS-01S & CS-01D).

Construction progress to date:

- Continued 24/7 operation of 3" submersible pump system at ROS.
- Located buried sewer manhole between houses. Determined that removal of sewer line between houses will require temporary protection for the foundation of the houses. The excavation between houses has been temporarily suspended pending design of engineered protection of the foundations.
- Excavation was resumed in the backyard starting 10' beyond rear corner of 305 Rittenhouse house. Due to the infiltration of water into the excavation, a temporary sump with gas powered trash pump was installed to collect water in the excavation. The water was pumped to the ROS sump for transfer to the CTR sump.
- Top soil sample analysis results were received.
- Air sampling and air monitoring activities began on 1/25/2010.

Construction activities planned for next 1 week:

- Update Project Schedule
- Continue ROS sump dewatering operation.
- Continue excavation of soils at ROS.
- Start sheet piling construction. Tentatively scheduled for week of 2/8/10.

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on February 12, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

_____
J.B. Moore

Distribution: Kemron, EPA and PADEP (via e-mail)

K:\112G02188 - Havertown OU3 RA - Harish Mital\Documents\construction phase\meetings\01292010 minutes.doc

A construction progress meeting was conducted at the site trailer on 02/05/10. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers and Kris Spikes of Kemron, and Harish Mital, Larry Fenlon, and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- Kemron provided to all parties a brief Project Status Report and planned activities for upcoming week.
- For the waste soil characterization Kemron provided a list of requirements from two different landfills (EQ in Detroit, MI and Envirosafe in Ohio). The requirements are TAL/TCL VOA/SVOA, Pesticides, PCBs, TCLP Metals, Dioxins, and IRC (Ignitability, Reactivity, Corrosivity). Tetra Tech will submit CLP lab requests as soon as possible.
- Kemron prepared a proposed excavation cell grid map along the abandoned sewer line in ROS area to track progress of excavation. Each cell is based on a 20' x 20' area. Tetra Tech will monitor this and record the actual excavation area.
- Kemron provided a drawing showing the layout and details of the sheet piling as proposed by the sheet piling contractor.
- Tetra Tech received/reviewed various submittals from Kemron (topsoil, backfill material and sheet pile).
- As of 2/5/10, Tetra Tech has sampled 30 Field Screening composite locations. Tetra Tech has also collected and shipped 21 confirmatory soil samples for SVOAs. This includes 21 samples for Total Metals and 3 dioxins that have not shipped yet. One sample was a field duplicate for each matrix.
- Correlation between the field screening data and corresponding preliminary data (PR data within 48 hr.) received to date is >92%. Out of 13 data points, only one exceeded (0.79 PR verses 0.43 field data) and this one was the very first sample collected. Therefore field screening data can be used confidently for the extent of excavation.

Construction progress to date:

- Continued 24/7 operation of 3" submersible pump system at ROS.
- Continued excavation at ROS area along the sewer line. Excavation of Cell #11, 14, 17, 20, and 23 have been completed to date. The approach was to start excavation 10' on either side of sewer line and based on the field screening, extend excavation in 2' increment until the PCP is below the cleanup goal (0.5 mg/Kgl). Several cells were over excavated to meet the cleanup goal. Approximately 465 cy were removed from these cells.
- An additional 265 cy was excavated earlier from an area between the houses (north of Cell #11). A total of 730 cy of waste soil is stored onsite for future disposal.
- Due to widening of Cell #23 and potential of widening of Cell #26, a tree needs to be removed. The tree removal service was scheduled to arrive on 2/5/10 in the morning.
- Kemron submitted a waste soil sample to EQ for waste profile characterization and approval (at EQ's expense).
- Kemron received a cross-sectional drawing (prepared by GeoSystems Consultant, Inc.) for the foundation support of 305 Rittenhouse (near existing MH and sewer pipe). Kemron has tasked GeoSystems Consultants, Inc. with further design for slope and foundation protection between houses at 301 and 305 Rittenhouse Circle.

Construction activities planned for next 1 week:

- Update Project Schedule
- Continue ROS sump dewatering operation.
- Continue excavation of soils at ROS.
- Start sheet piling construction. Tentatively scheduled for week of 2/8/10.

- Continue with stockpile management.
- Continue backfilling operations.

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on February 12, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

_____
J.B. Moore

Distribution: Kemron, EPA and PADEP (via e-mail)

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A construction progress meeting was conducted at the site trailer on 02/19/10. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers of Kemron, and Harish Mital, and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- Meeting scheduled for 2/12/10 was cancelled due to snow.
- Kemron provided to all parties a brief Project Status Report and planned activities for upcoming week.
- Tetra Tech received/reviewed various submittals from Kemron.
- On February 15, 2010, Tetra Tech took soils samples for waste soil characterization of the stockpile and shipped as follows: TAL/TCL VOA/SVOA, Pesticides, PCBs to Datachem; TCLP Metals to A4 Scientific; and Dioxins to SGS Environmental. At the present time Ignitability and Corrosivity request have not been assigned.
- As of February 16, 2010, CLP laboratory performing the SVOA soil confirmatory samples was switched to Mitkem. Some preliminary data results received on 2/19/10 were 5 to 10 times higher than the field screening results. A table and request for clarification will be sent out by Monday, 2/22/10.
- On February 18, 2010, Tetra Tech received preliminary TCLP Metals data for the waste soil characterization. The data was forwarded to Kemron.
- As of February 19, 2010, Tetra Tech has sampled 56 Field Screening composite locations. Tetra Tech has also collected and shipped 37 confirmatory soil samples for SVOAs. This includes 21 samples for Total Metals and 4 dioxins. A data table showing PCP field sampling results, preliminary data, and validated data is being compiled and updated as results are received. A detailed log of field screening sampling is also being maintained.
- Kemron prepared a proposed excavation cell grid map along the abandoned sewer line in ROS area to track progress of excavation. Tetra Tech continued to maintain an excavation as-built site plan showing excavation cells and the field sampling locations.

Construction progress to date:

- Several days were lost due to heavy snow.
- Continued 24/7 operation of 3” submersible pump system at ROS. Some silt and solids may be pumped to settling tank discharging into CTR sump.
- Continued excavation at ROS area along the sewer line. Excavation of Cell #11, 14, 17, 20, 23/24, 25/26/27, 29/30, and 31/32/33 have been completed to date. The approach was to start excavation 10’ on either side of sewer line and based on the field screening, extend excavation in 2’ increment until the PCP is below the cleanup goal (0.5 mg/Kgl). Several cells were over excavated to meet the cleanup goal. Approximately 1,500 cy of soil has been removed from these cells and between 1,200 and 1,500 cy of backfill has been placed. The backfill includes the temporary refilling of the area between the houses.
- Sheet piling (12’ long) along stream bank has been installed. Capping remains to be done. Piles hit the refusal along west end of ROS area but it did on south end (near cassions).
- Kemron installed a 3rd dewatering sump in the ROS to dewater excavations.
- Kemron performed snow removal and continued to maintain haul road.
- GeoSystems Consultants, Inc. is developing a design for slope and foundation protection between houses at 301 and 305 Rittenhouse Circle. Their recommendations will include underpinning the foundation of the house at 305 and driving H-beam soldier piles on 5’ centers to support whalers for slope stabilization.
- Kemron has recommended US Environmental to EPA for all mechanical, electrical and forcemain work.

Construction activities planned for next 2 weeks:

- Update Project Schedule
- Import additional backfill material
- Continue ROS sump dewatering operation.
- Continue excavation of soils at ROS.
- Continue with stockpile management.
- Continue backfilling operations.

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on February 26, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

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J.B. Moore

Distribution: Kemron, EPA and PADEP (via e-mail)

K:\112G02188 - Havertown OU3 RA - Harish Mital\Documents\construction phase\meetings\02192010 minutes.doc

A construction progress meeting was conducted at the site trailer on 03/05/10. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers and Kris Spikes of Kemron, and Harish Mital, and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- Meeting scheduled for 2/26/10 was cancelled due to snow.
- Kemron provided to all parties a brief Project Status Report and planned activities for upcoming week.
- Tetra Tech received/reviewed various submittals from Kemron.
- Kemron prepared a proposed excavation cell grid map along the abandoned sewer line in ROS area to track progress of excavation. Tetra Tech continued to maintain an excavation as-built site plan showing excavation cells and the field sampling locations.
- On March 1 and 4, 2010, Tetra Tech received validated TCLP Metals data and validated TCL organics/semi-organic data for the waste soil characterization. The data was forwarded to Kemron. At present validated dioxin data has not been received and Ignitability and Corrosivity requests have not been assigned.
- For the waste characterization sampling Tetra Tech will request that the organics, metals, and dioxin assignments remain open for two additional weeks to March 19, 2010 in case the disposal contractor's require additional sampling results.
- As of March 5, 2010, there has been no response to the request of clarification why CLP laboratory results differed between the two laboratories performing the SVOA soil confirmatory samples (Mitkem vs. KAP). Preliminary results received since February 19 have been 5 to 10 times higher than the field screening results. A table and request for clarification was sent out on February 22, 2010.
- As of March 5, 2010, Tetra Tech has sampled 76 Field Screening composite locations. Tetra Tech has also collected and shipped 54 confirmatory soil samples for SVOAs. This includes 43 samples for Total Metals and 7 dioxins. A data table showing PCP field sampling results, preliminary data, and validated data is being compiled and updated as results are received. A detailed log of field screening sampling is also being maintained.
- Based on preliminary and recent validated data the shallow west walls of excavation cells #29 and 32 will be extended 4 feet laterally and resampled (field screening and confirmatory). The work will be performed after all validated data has been received.
- For the confirmatory sampling Tetra Tech will request that the organics, metals, and dioxin assignments remain open for two additional weeks to March 19, 2010. An additional five samples (making a grand total of 65) were requested in order to cover the lateral extension of cells 29 and 32.
- Tetra Tech was experiencing flow problems in the CTR sump pump. A new pump was purchased and installed on March 1, 2010. Kemron assisted Tetra Tech in installation. Because of silt and sediment the new pump started experiencing flow drops. Kemron set up rental of a weir tank to set in place of the present poly tank. On March 5 the CTR pump had settled down at 24 gpm.
- In order to resolve the need for foundation support of the houses at 301 and 305 Rittenhouse the soils between the houses will be sampled to five feet deep at three locations using an auger. Tetra Tech will provide an auger for sampling after Kemron has the utilities cleared. The soil will be field screened and sent out for confirmatory analysis the week of March 8th.
- The integrity of the stream bank along the outside of the sheet piling needs to be checked against the Delaware County E&S requirements. Tetra Tech will have a civil engineer review this and inspect the stream bank.
- Kemron gave US Environmental a Notice to Proceed with the forcemain construction. US Env may be able to start the week of March 8. It was requested that US Env attend the next progress meeting on March 12.

Construction progress to date:

- Several days were lost due to heavy snow.
- Continued 24/7 operation of 3" submersible pump system at ROS.
- Continued excavation at ROS area along the sewer line. Excavation of Cell #11, 14, 17, 20, 23/24, 25/26/27, 29/30, 31/32/33, 34/35/36, 37/38/39, 40 and 43 has been completed to date. On 3/5/10, un-named grids west of cell #40 and 37 were being excavated. The approach was to start excavation 10' on either side of sewer line and based on the field screening, extend excavation in 2' increment until the PCP is below the cleanup goal (0.5 mg/Kgl). Several cells were over excavated to meet the cleanup goal. Approximately 2,500 cy of soil has been removed from these cells and backfill has been placed. The backfill includes the temporary refilling of the area between the houses.
- Kemron has received recommendations from GeoSystems Consultants, Inc. for foundation protection for the residence at parcel #749.
- Kemron has awarded a contract to US Environmental to EPA for construction of the forcemain.
- Kemron has solicited ITB's for transportation and disposal of the excavated soils. Bids are due by 3/11/10.
- Kemron imported and used an additional 700 cy of backfill material by 3/5/10.
- Kemron has expanded the capacity of the contaminated soil stockpile.
- Kemron has rented and installed a 6,000 gallon weir tank from Rain-for-Rent above the CTR trench to minimize the introduction of sediment to EPA's water treatment system. The tank takes the place of the poly tank.

Construction activities planned for next 2 weeks:

- Update Project Schedule
- Import additional backfill material
- Continue ROS sump dewatering operation.
- Continue excavation of soils at ROS.
- Continue with stockpile management.
- Continue backfilling operations.

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on March 12, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

_____
J.B. Moore

Distribution: Kemron, EPA and PADEP (via e-mail)

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A construction progress meeting was conducted at the site trailer on 03/12/10. In attendance were Jill Lowe of EPA, Gary Rogers and Kris Spikes of Kemron, Geoffrey Goolden of US Environmental, and Harish Mital, Larry Fenlon, and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- Kemron provided to all parties a brief Project Status Report and planned activities for upcoming week.
- Tetra Tech received/reviewed various submittals from Kemron.
- Kemron prepared a proposed excavation cell grid map along the abandoned sewer line in ROS area to track progress of excavation. Tetra Tech continued to maintain an excavation as-built site plan showing excavation cells and the field sampling locations.
- For the waste soil characterization validated dioxin data still has not been received and is delaying the ITB bidding. Ignitability and Corrosivity assignments were received but Kemron has already sampled the soils for I&C for the bidding process.
- For the waste characterization sampling Tetra Tech will request that the organics, metals, dioxin, and I&C assignments remain open for two additional weeks in case the disposal contractor's require additional sampling results.
- On March 9, 2010, the CLP Organic Program Manager responded to the request of clarification why CLP laboratory results differed between the two laboratories performing the SVOA soil confirmatory samples (Mitkem vs. KAP). They responded that all laboratory results confirmed the original finds and that it appears to not be a laboratory issue. They can only contribute the variance to non-representative distribution of target compounds in the soil.
- As of March 12, 2010, Tetra Tech has sampled 83 Field Screening composite locations. Tetra Tech has also collected and shipped 59 confirmatory soil samples for SVOAs. This includes 59 samples for Total Metals and 10 dioxins. A data table showing PCP field sampling results, preliminary data, and validated data is being compiled and updated as results are received. A detailed log of field screening sampling is also being maintained.
- Based on preliminary and recent validated data the shallow west walls of excavation cells #29, 32, and 43 will be extended laterally and resampled (field screening and confirmatory) for SVOAs only. The work will be performed after all validated data has been received.
- For the confirmatory sampling Tetra Tech will request that the organics assignments remain open until the over excavation on cells 29, 32, and 43 has been completed and all validated data has been received.
- Since Kemron has set up the weir tank for the ROS dewatering the flow problems in EPA's OU2 CTR sump have subsided.
- Tetra Tech hand-augered and sampled two locations at the edges of cells #2 and 5 at approximately 5 feet deep in order to resolve the need for foundation support of the houses at 301 and 305 Rittenhouse the soils between the houses. The field screening data for PCP was non-detect. Kemron will proceed with grading of the hill and slope between the houses.
- No further excavation is required at cells 2 and 5. The old manhole and sewer will remain buried between the houses. The soils along the driveway of 301 Rittenhouse were removed along the west side of cell 5 and partial cell 4 as well as cell 8 and 7 with the excavation tapering into cell 11 (excavation cell started on January 28,2010). Part of the driveway was removed in cells 4 and 7.
- The integrity of the stream bank along the outside of the sheet piling needs to be checked against the Delaware County E&S requirements. Tetra Tech will have a civil engineer review this and inspect the stream bank.
- US Environmental (USE) is planning to start work around 3/29/10. It was discussed that the well drilling be started as soon as possible before any finish grading began in the ROS area. US Env requested survey drawings of the forcemain in CAD format. Tetra Tech will provide those drawings.
- Tetra Tech will also send a copy of site HSP to USE.

Construction progress to date:

- Continued 24/7 operation of 3" submersible pump system at ROS. The water continues to be pumped into the 6,000 gallon weir tank which discharges to the EPA OU2 CTR sump behind PCG.
- Continued excavation at ROS area along the sewer line. Excavation of Cell #11, 14, 17, 20, 23/24, 25/26/27, 29/30, 31/32/33, 34/35/36, 37/38/39, 40/41/42, 43/44/45, 46/49, 48/51, and 2/4/5/7/8/11 has been completed to date. As of 3/5/10 cells #47 and 50 remain around the dewatering sump. The approach was to start excavation 10' on either side of sewer line and based on the field screening, extend excavation in 2' increment until the PCP is below the cleanup goal (0.5 mg/Kg). Several cells were over excavated to meet the cleanup goal. Approximately 3,000 cy of soil has been removed from these cells and backfill has been placed. The backfill includes the temporary refilling of the area between the houses.
- Kemron has solicited ITB's for transportation and disposal of the excavated soils. The bid due date has been extended to 3/16/10.

Construction activities planned for next 2 weeks:

- Update Project Schedule including US Env. activities
- Continue ROS sump dewatering operation.
- Complete ROS soil excavation at cells #47 and 50 around dewatering sump. The sump will remain in place temporarily.
- Remove a limited amount of soil from the outside perimeter of the sheet piling to facilitate installation of rip-rap protection to the stream bank.
- Sheet piling cap installed by Spark Electric (week of 3/15/10).
- Perform exploration excavation at an abandoned manhole #1 near CTR sump, looking for the evidence of second pipe below the abandoned 8" pipe leading to ROS area.
- Continue with stockpile management.
- Continue backfilling operations.
- Begin placing top soil and grading at the ROS.

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on March 19, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

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J.B. Moore

Distribution: Kemron, EPA and PADEP

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A construction progress meeting was conducted at the site trailer on 03/19/10. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers and Kris Spikes of Kemron, and Harish Mital and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- Kemron provided to all parties a brief Project Status Report and planned activities for upcoming week.
- As of March 18, 2010, Tetra Tech has sampled 86 Field Screening composite locations. Tetra Tech has also collected and shipped 62 confirmatory soil samples for SVOAs. This includes 59 samples for Total Metals and 10 dioxins. A data table showing PCP field sampling results, preliminary data, and validated data is being compiled and updated as results are received. A detailed log of field screening sampling is also being maintained.
- Based on preliminary and validated data the shallow west walls of excavation cells #29, 32, and 43 were extended laterally and resampled (field screening and confirmatory) for SVOAs only on March 17 and 18, 2010. The field screening samples were non-detect.
- For the waste characterization sampling Tetra Tech requested that the organics, metals, dioxin, and I&C assignments remain open until April 9, 2010, in case the disposal contractor requires additional sampling results.
- For the confirmatory sampling Tetra Tech requested that the organics assignments remain open until April 9, 2010 or until all validated data has been received.
- Since Kemron has set up the weir tank for the ROS dewatering the flow problems in EPA's OU2 CTR sump have subsided.
- The integrity of the stream bank along the outside of the sheet piling needs to be checked against the Delaware County E&S requirements. Kemron will regrade the bank along Naylor's between the end of the concrete channel wall to the new rip-rap swale at end of sheet piling. The bank along the unnamed tributary will be stabilized with rip-rap as well.
- US Environmental (USE) is planning to mobilize on 3/29/10. It was discussed that the well drilling be started as soon as possible before any finish grading began in the ROS area. Tetra Tech provided electronic copies of design survey drawings for locating forcemain. Tetra Tech also sent a copy of site HSP.
- Tetra Tech provided survey crew to shoot finished grade elevations in yard of parcel 748, locate ROS access road, and fix as-built location of sheet piling for assisting well location.
- The exploration of second pipe (6") at old MH-1 (below CTR trench) was discussed. Excavation would occur after April 7, 2010

Construction progress to date:

- Continued 24/7 operation of 3" submersible pump system at ROS. The water continues to be pumped into the 6,000 gallon weir tank which discharges to the EPA OU2 CTR sump behind PCG.
- Continued excavation at ROS area along the sewer line. Excavation of Cell #11, 14, 17, 20, 23/24, 25/26/27, 29/30, 31/32/33, 34/35/36, 37/38/39, 40/41/42, 43/44/45, 46/49, 48/51, 2/4/5/7/8/11, 47/50 around the dewatering sump, and lateral extension of the shallow west walls of cells 29, 32, and 43. Approximately 3,000 cy of soil has been removed from these cells and backfill has been placed. The backfill includes the temporary refilling of the area between the houses.
- Kemron has solicited ITB's for transportation and disposal of the excavated soils. The bid due date has been extended to 3/25/10 pending dioxin results. Subtitle C or D is in discussion.
- Spark Electric is completing the sheet piling cap construction by March 19, 2010.

Construction activities planned for next 2 weeks:

- Update Project Schedule including US Env. activities
- Continue ROS sump dewatering operation.
- Begin forcemain construction week of 3/29/10.
- Place rip-rap on creek banks along sheet piling
- Finish grading parcel 748 and install pavers.

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on March 26, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

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J.B. Moore

Distribution: Kemron, EPA and PADEP

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A construction progress meeting was conducted at the site trailer on 03/26/10. In attendance were Jill Lowe of EPA, Gary Rogers and Kris Spikes of Kemron, and Harish Mital and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- Kemron provided to all parties a brief Project Status Report and planned activities for upcoming week.
- Discussed issue of high results of two dioxin/furan cogeners (2346789-OCDD and 1234678-HpCDD) for the waste soil characterization. This may alter the plan to landfill the soil in US for the ITB's. This will need to be checked if incineration is required in either US/Canada or landfilled in Canada.
- Based on preliminary data, the samples taken at the extension of the shallow west walls of cells #29, 32, and 43 were non-detect for PCP. No further sampling or excavation should be required. Waiting for validated data. After validated data is received and verified, the Field Assay Kit rental unit will be discontinued and shipped back to the vendor.
- The location of the extraction and monitoring wells was discussed. After field review of the sheet pile location and groundwater influx and quality during excavation, the revised location of the extraction wells necessitates some re-orientation of the fenced-in area and the valve vault and the access drive at the well field entrance. The well locations will be measured from the new sheet piling wall. Tetra Tech provided supplemental drawing C-5A for well locations, and is in process of revising Valve Vault orientation on Drawing M-6.
- The well drilling is set to begin on 3/31/10. Kemron to contact PA OneCall by 3/26/10 to locate ROS utilities prior to well drilling. The driller's material submittals were approved.
- Tetra Tech will keep a copy of the submittal log at the site trailer.
- Discussed excavation of MH1 on March 25, 2010, and discovery of 6" clay tile under 8" clay sewer pipe. A water sample was taken by Tetra Tech and submitted to a local laboratory for analysis of PCP. The excavation was filled back in until the next step could be determined after receipt of the results. If the samples are in a safe range, then Kemron will reopen the hole and plug the 6" pipe with grout downstream as far as possible. Also, excavation at MH-5 will not be necessary as any water that may be traveling in the 6" pipe will eventually flow into the collection area of the ROS extraction wells.
- US Environmental (USE) is planning to start mechanical work on 4/12/10. It was requested that Tetra Tech provide a copy of the Proctor report for the soils collected in the RR ROW.
- Electrician to start work on 4/5/10 at the treatment building. Their storage trailer will be staged in the plant front parking lot.
- The topsoil will be arriving by 4/5/10; once it arrives, work will begin with finish grading the backyard of parcel 748.
- The exploration of second pipe (6") at old MH-1 (below CTR trench) was discussed. Excavation would occur after April 7, 2010

Construction progress to date:

- Discontinued 24/7 operation of 3" submersible pump system at ROS. Will be pumped as needed.
- Excavation/backfill operations are complete.
- Kemron is reviewing the responses to the ITB's for transportation and disposal of the excavated soils.
- Spark Electric has completed all sheet-piling construction.
- Kemron completed grading of the backfilled areas. Currently waiting for topsoil to be delivered to the site to complete final grading and seeding.
- Base for the paver road is completed and prepared for placement of the grass pavers.

- Excavated manhole #1 and confirmed presence of the 6" clay tile underneath the 8" tile. The 6" tile is severed and open at the manhole.
- Placed rip-rap on the creek banks.

Construction activities planned for next two weeks:

- Update project schedule including USE activities.
- Begin well installation on 3/31/10. Anticipate 2-3 weeks to complete.
- Electrical construction scheduled to begin 4/5/10.
- Begin forcemain construction 4/12/10.
- USE starting mechanical construction on 4/12/10.

Problems/Issues (past or anticipated):

- None

There will be no site meeting scheduled for April 2, 2010. The next site progress meeting will be on April 9, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

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J.B. Moore

Distribution: Kemron, EPA and PADEP

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A construction progress meeting was conducted at the site trailer on 04/09/10. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Kris Spikes of Kemron, and Harish Mital and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- No meeting was held on April 2, 2010.
- Kemron provided to all parties a brief Project Status Report and planned activities for upcoming week.
- Discussed letter from A.C. Shulties requesting use of weld-on pitless adaptor at RW-7 and same at RW-8, 9, and 10 due to pump size and well size being 4" diameter. Tetra Tech to follow up.
- Discussed relocation of surfactant pump in treatment plant for O&M purposes.
- Discussed exceedance of ROD dioxin limits of 120 pg/g in excavation confirmatory soils at cells 26/25 deep, 32/31 shallow, 38/37 shallow, and cell 49 shallow. It was discussed that the deep soils at cells 26/25 would not be an exposure hazard, the shallow soils at cell 32/31 had been extended another 8' due to the PCP exceedance, the top 8" of soil had been removed in the areas of cell 31 and 37 for the construction of the grass paver path, and cell 49 had been completely removed to the sheet piling. No further excavation would be necessary.
- Discussed that Tetra Tech would sample RW-8, 9, and 10 for VOC, SVOC, Metals, and Dioxin as part of May NPDES plant sampling.

Construction progress to date:

- Discontinued 24/7 operation of 3" submersible pump system at ROS. Will be pumped as needed.
- Completed excavation of 6" clay tile at Manhole #1. Pressure jetted the line and attempted to pressure grout with concrete. Had to plug pipe upstream and downstream with water activated foam. Excavation was backfilled and surface was restored.
- Grass paver path construction is 90% complete. Will wait until the FM construction is completed before finishing pavers.
- Top soil, seed, and final grade are completed at parcel #748. The ROS will be addressed after FM construction is completed.
- Asphalt driveway and retaining wall at parcel #749 have been completed.
- Well construction at ROS is 75% complete.
- Electrical construction just beginning at the water treatment building.
- Kemron field operations personnel and heavy equipment will be demobilizing from site by 4/12/10. The RM, FCA,and H&S/QA/QC personnel will remain during the FM construction.
- Kemron/US Environmental have pending submittals that are awaiting Tetra Tech review and approval.

Construction activities planned for next two weeks:

- Update project schedule including USE activities.
- Finish well installation on 4/12/10.

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on April 16, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

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J.B. Moore

Distribution: Kemron, EPA and PADEP

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A construction progress meeting was conducted at the site trailer on 04/23/10. In attendance were Jill Lowe of EPA, Kris Spikes of Kemron, Geoffrey Goolden of US Environmental, and Harish Mital, Rick Thomas, and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- No meeting was held on April 16, 2010.
- Prior to meeting Tetra tech met with USEnv and Kelly Electrical to discuss changes and updates on eight mechanical drawings and 20 electrical drawings. Half-size copies were distributed to USEnv, Kelly, Kemron, EPA, and Tt oversight.
- USEnv & AC Shulties working on injection wells at treatment plant
- Tetra Tech will have pump size finalized by 4/27/10 for RWs 8-10 once pump test is finalized.
- Discussed pressure testing of forcemain. Pressure test segments to 150 psi air pressure for 3 hours per segment. Once complete system is together the system can be pressure tested for 12 hours with water.
- Magnetic detector tape required for HDPE pipe lines.
- Electrical conduits can be run in same plane as HDPE piping.
- Check with PECO to determine requirements of running overhead lines vs buried from the pole between McCanney/McLaughlin to ROS pumps panel. Buried lines would require a R.O.W. thru McCanney yard.
- Discussed waste soils being shipped to Vermont for transfer to Canada landfill. No timeline yet for removal from site.
- ROS Electrical panel being constructed at electricians facility.
- EPA projecting pumping water from all RWs and injection system by mid to late June 2010.

Construction progress to date:

- Discontinued 24/7 operation of 3" submersible pump system at ROS. Will be pumped as needed.
- Well construction at ROS and pump testing is complete.
- Electrical construction ongoing at the water treatment building.

Construction activities planned for next two weeks:

- Update project schedule including USE activities.
- Concrete vaults to be delivered by 4/26/2010.
- Directional boring projected for week of May 3rd. Utilities exploration (Softdig) needs to be completed during week of April 26th.

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on May 7, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

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J.B. Moore

Distribution: Kemron, EPA and PADEP
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A construction progress meeting was conducted at the site trailer on 05/07/10. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers and Kris Spikes of Kemron, Geoffrey Goolden of US Environmental, and Harish Mital and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- No meeting was held on April 30, 2010.
- ROS forcemain - 4" secondary containment pipe needs a drain valve at the lowest point in VP-4 and all other manholes/valve vaults in order to determine if there is a leak in 2" forcemain. On one end of each secondary pipe length (preferably downstream end), drill and tap a ¾" hole, add a threaded fitting with a ball valve to check any leak in primary pipe. Locations to be field determined.
- MH-7 needs to be set on the RR ROW after the bend radius. It can be shifted toward PCG as needed.
- PECO running overhead power line for ROS electrical panel from pole between McCanney and McLaughlin starting week of May 10th.
- Meeting planned with PennDOT on May 18th to discuss road cut across Eagle Road. Work may be able to start during week of May 24th. Need to work out oversight coverage during day and night shifts.
- Tetra Tech has requested information from Kelly Electrical for electrical drawings for ROS control panel.
- Compaction testing – need to performed once at each representative area of forcemain (one in backyards - 90%; one in RR ROW - 90%; and one in paved area in PCG parking lot – 95%).
- Because of standing water in ROS area due to sheetpile, Kemron will cut several 4" weep holes in this sheetpile about 12" to 24" below the top of cap – exact location to be field determined.
- At all manholes and valve pits, fill the pipe/conduit openings with either foam or epoxy to seal the openings. Also fill the bottom opening at VP-4 with concrete.
- ROS pumping to continue so that work at RWs and VP-4 can continue. Cleaning of the CTR forcemain will be postponed until week of June 7th.
- Tetra tech will be sampling the three monitoring wells at ROS area next week. Second round of eco sampling will also be performed next week.

Construction progress to date:

- Resumed operation of ROS pump on May 3, 2010 to facilitate construction activities at the ROS area.
- Hazardous soil stockpile was sampled (12 locations) by Capital Environmental (Newark, DE) for Canadian analysis on April 22, 2010. The current schedule allows for analysis and permitting to be completed by May 24, 2010 and load out to begin the week of May 24, 2010.
- All three monitoring wells and three recovery wells at ROS installed and developed.
- VP-4 is installed, piping and conduit is being installed between the vault and RWs.
- Construction of forcemain from VP-4 towards residential backyard has begun.
- Electrical construction ongoing at the water treatment building.
- Driller has installed pitless adaptors at all recovery wells. Status of IW-1 thru 3 not known.

Construction activities planned for next two weeks:

- Update project schedule including US Env activities.
- Install weep holes in sheet piles.
- Continue ROS electrical/mechanical work

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on May 14, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

_____
J.B. Moore

Distribution: Kemron, US Environmental, EPA and PADEP

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A construction progress meeting was conducted at the site trailer on 05/14/10. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers and Kris Spikes of Kemron, Geoffrey Goolden of US Environmental, and Harish Mital and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- Meeting planned with PennDOT on May 18th to discuss road cut across Eagle Road. Work may be able to start during week of May 24th. Need to work out oversight coverage during day and night shifts.
- Tetra Tech has requested information from Kelly Electrical for electrical drawings for ROS control panel.
- ROS pumping to continue so that work at RWs and VP-4 can continue. Cleaning of the CTR forcemain will be postponed until week of June 7th.

Construction progress to date:

- Resumed operation of ROS pump on May 3, 2010 to facilitate construction activities at the ROS area.
- Construction of force main continues. Pipe is installed between VP-4 to MH-7. The recovery wells at ROS area are currently being plumbed.
- Power pole at ROS has been installed.
- Weep holes have been cut into the sheet piling at the ROS.
- Meeting for Eagle Road crossing is scheduled for 9 am on May 18th.

Construction activities planned for next two weeks:

- No work will be scheduled for Memorial Day
- Update project schedule including US Env activities.
- Continue ROS electrical/mechanical work
- Waste Soil loading scheduled to start on May 25th.
- Eagle Road crossing cut is be planned for week of May 25th depending on approval Penn-DOT

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on May 21, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

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J.B. Moore

Distribution: Kemron, US Environmental, EPA and PADEP

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A construction progress meeting was conducted at the site trailer on 05/21/10. In attendance were Jill Lowe of EPA, Gary Rogers and Kris Spikes of Kemron, Geoffrey Goolden of US Environmental, and Harish Mital and J.B. Moore of Tetra Tech NUS, Inc. (Tetra Tech).

- Prior to meeting Tetra Tech discussed Change Orders with US Environmental and Kelly Electric.
- Tetra Tech requested information from Kelly Electrical for electrical drawings for ROS control panel. The panel is apparently 36" wide x 12" deep with a single door and light inside panel.
- Kelly Electric found water in conduits in VP-3 and flowing from across Eagle Road. It may be coming from MH-3 since water level is above conduits. Tetra Tech planning to pump all existing manholes and valve vaults during week of May 24th.
- ROS pole-mounted exterior light shall not have a photocell. Kelly Electric to provide an on/off switch in panel.
- ROS pumping to continue so that work at RWs and VP-4 can continue. Cleaning of the CTR forcemain will be postponed until week of June 7th.
- A.C. Shultes is setting pumps during week of May 24th. For RW-7 bottom of motor can be at top of well screen. Because ROS recovery wells are shallow the pump can be set as low as possible in the screened area.
- US Environmental shall keep manholes in RR ROW temporarily covered during "after hours".
- US Environmental is not to encroach on silt fence with trenching soils piles in RR ROW.
- Discussion took place regarding conduits/wires from RW-6 control panel to MH-5 and MH-5, and conduits/wires from RW-7/MH-1 to VP-5 and WWTP. Tetra Tech will clarify these issues by revising applicable drawings.
- There are four manual plug control valves, one on each recovery well (RW-7 thru RW-10). There is no control valve at VP-1 on injection lines.

Construction progress to date:

- Operation of ROS pump will be stopped on May 21, 2010, and continue on May 24, 2010, to facilitate construction activities at the ROS area. ROS pumping system will continue to operate until RW-8 thru RW-10 are online.
- Construction of force main continues. Pipe has been installed from VP-4 past MH-5.
- Power pole at ROS has been installed.
- Meeting for Eagle Road crossing was conducted on May 18th. PennDOT is expecting a traffic plan for review. They indicated that the review should be a short process.

Construction activities planned for next two weeks:

- No work will be scheduled for Memorial Day
- Update project schedule including US Environmental activities.
- Waste soil loading is scheduled to start on May 24th. Kemron is investigating renting a mobile scale. The road route will be videotaped for an existing record of the road conditions.
- Eagle Road crossing open cut is being planned for week of June 8th depending on approval from PennDOT. Most of work will be done at night. EPA will oversee these activities (Tetra Tech will not be in attendance).
- Running injection well lines week of May 24th.

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on June 2, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

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J.B. Moore

Distribution: Kemron, US Environmental, EPA and PADEP

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A construction progress meeting was conducted at the site trailer on 06/02/10. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers and Kris Spikes of Kemron, Geoffrey Goolden of US Environmental, and Harish Mital and Rick Thomas of Tetra Tech NUS, Inc. (Tetra Tech).

- Prior to the meeting Tetra Tech distributed revised drawing pertaining to VP-5 relocation. Now VP-5 is offset from VP-2, thus requiring incoming piping modification while keeping all electrical conduits/wires from RW-7/MH-1 to VP-2 intact, thus reducing a lot of electrical work.
- Tetra Tech also revised clarifying conduits/wires from RW-6 control panel to MH-5.
- Tetra Tech prepared drawings pertaining to Eagle Road crossing for Penn DOT approval and provided to Kemron.
- Kelly Electric needs to finalize integrity report of all conduits/wires.
- AC Shultes pumped out flushing water from RW-1 thru RW-4 and disposed it to GWTP. Kemron to provide documentation for this work.
- Tetra Tech completed pumping of all existing manholes and valve vaults.
- ROS pumping continued so that work at RWs and VP-4 could continue. Cleaning of the CTR forcemain will be postponed until this month.
- USEPA was not notified by PA-1 call when locating utilities around Eagle Road. This needs to be investigated.
- Tetra Tech provided technical details of four manual plug control valves—one on each recovery well (RW-7 thru RW-10).

Construction progress to date:

- Construction of force main continues. Pipe has been installed from VP-4 to PCG parking lot, about 50' short of VP-5.
- Electrical service at ROS area and control panel has been installed.
- Well vaults are being constructed.
- Waste soil loading started on May 24th. Approximately 12-13 loads/day are being removed. Approximately 1,600 tons of waste has been removed to date. Kemron estimates this work to be complete by 6/18/10.
- ROS pump continues to operate during weekdays during normal working hours; no evening and weekend operation of ROS pump.
- PennDOT approved Eagle Road open cut plan. It is scheduled to start the night of 6/8/10. All work will be performed at night. EPA will oversee these activities. (Tetra Tech will not be in attendance.)

Construction activities planned for next two weeks:

- Update project schedule including US Environmental activities.
- Continue force main construction and install VP-5.
- Complete Eagle Road crossing open cut and install steel casings.
- Run injection well lines.

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on June 16, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

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Harish Mital

Distribution: Kemron, US Environmental, EPA and PADEP

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A construction progress meeting was conducted at the site trailer on 06/16/10. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Gary Rogers of Kemron, Geoffrey Goolden of US Environmental, and Harish Mital and Rick Thomas of Tetra Tech NUS, Inc. (Tetra Tech).

- USEPA was not notified by PA-1 call when locating utilities around Eagle Road. Tetra Tech will investigate this issue.
- US Environment will install a bollard on the plant side to mark underground piping from VP-5 to GWTP.
- EPA and Tetra Tech decided to reduce proposed fenced area at ROS area. The new fence will be just around the control panel and VP-4 (about 15' x 12' area). Kemron will install stoned access to all three wells.
- Kemron will grade the area next to treatment plant and move excess rip-rap from ROS area to this area.

Construction progress to date:

- Construction of force main continues from MH-4 to VP-5.
- Electrical service at IW-1 thru IW-3 is in progress.
- Vaults at RW-8 thru RW-10, MW-32 thru MH-34 and MH-2 and MH-3 are complete. Vaults RW-7 and MH-1 need to be done.
- Waste soil loading started on May 24th. Approximately 3,900 tons of waste has been removed to date. Kemron estimates this work to be complete by 6/18/10.
- ROS pump continues to operate during weekdays during normal working hours; no evening and weekend operation of ROS pump.
- Kemron completed Eagle Road open cut and installed 3 steel casings (each ~65' long) by 6/11/10.
- As of today, PECO was unable to locate the gas service feeding the treatment plan along Eagle Road. A lot of hand digging was still going on.

Construction activities planned for next two weeks:

- Update project schedule including US Environmental and Kelly Electric activities.
- Continue force main construction up to treatment plant and install VP-5.
- Complete piping from RW-7 to VP-5.
- Run injection well line from VP-1 to treatment plant.
- Install injection system inside treatment plant.
- PECO to energize ROS area panel on 7/2/10.
- Install conduits and wiring from injection wells to treatment plant.
- Pull wires from ROS area and RW-7 to treatment plant and land them at various locations.
- Complete piping and electrical work inside VP-4 and VP-5.
- Install concrete covers at all vaults.
- Planned pre-final inspection date – 7/7/10

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on June 23, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

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Harish Mital

Distribution: Kemron, US Environmental, EPA and PADEP

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A construction progress meeting was conducted at the site trailer on 06/23/10. In attendance were Jill Lowe of EPA, Tim Sheehan of PADEP, Geoffrey Goolden and Mike Appenzeller of US Environmental, Bill Hartzell of Kelley Electric, and Harish Mital and Rick Thomas of Tetra Tech NUS, Inc. (Tetra Tech).

- US Environmental will mark sidewalk along Eagle Road identifying location of underground piping from VP-5 to GWTP.
- Refer to FCP-E1 drawing: On FCP panel, tags #5 and #10 call for High Level Alarm at IW-1 and IW-2, however these tags are currently used for RUN status of RW-5 and RW-6. Therefore, for IW-1 use a spare tag #6 and for IW-2 use another spare tag #11. Leave IW-3 at tag #15.

Construction progress to date:

- Construction of force main continues from VP-5 to GWTP.
- Electrical wiring at IW-1 and IW-2 is in progress. An existing underground air pipe, to be used as conduit from IW-3 to VP-1, is blocked. Decision made not to run new conduit (would require extensive excavation under operating business). Kelley will just install a new level switch in IW-3.
- All four well pumps were installed today. Tetra Tech will define the depth for each LT.
- Installed VP-5 and completed piping from RW-7 to VP-5. Installing piping through steel casing under Eagle Road.
- Started injection well line from VP-1 to treatment plant.
- Working on conduits from VP-5 to GWTP and from VP-1 to GWTP.
- Waste soil loading was completed on 6/18/10. Approximately 4,420 tons of waste has been removed and disposed off-site.
- ROS pump continues to operate during weekdays during normal working hours; no evening and weekend operation of ROS pump.
- PECO completed gas service feeding the treatment plant along Eagle Road.

Construction activities planned for next two weeks:

- Update project schedule including US Environmental and Kelly Electric activities.
- Complete force main construction up to treatment plant and install VP-5.
- Install injection system inside treatment plant.
- PECO to energize ROS area panel on 7/2/10.
- Install conduits and wiring from injection wells to treatment plant.
- Pull wires from ROS area and RW-7 to treatment plant and land them at various locations.
- Complete piping and electrical work inside VP-4 and VP-5.
- Install concrete covers at all vaults.
- Planned pre-final inspection date – 7/7/10

Problems/Issues (past or anticipated):

- None

The next site progress meeting will be on June 30, 2010. Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

_____
Harish Mital

Distribution: Kemron, US Environmental, EPA and PADEP

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On July 7, 2010, a pre-final inspection was conducted by EPA, PADEP, Tetra Tech, Kemron, US Environmental and Kelly Electric. This inspection identified major items to be completed at various locations. A separate punch list was distributed to all parties.

A construction progress meeting was conducted at the site trailer on 07/21/10. In attendance were Jill Lowe of EPA, Geoffrey Goolden and Mike Appenzeller of US Environmental, Bill Hartzell of Kelley Electric, Harish Mital and Rick Thomas of Tetra Tech NUS, Inc. (Tetra Tech) and Art Bossard of Applied Control Engineering (PLC programmer). The following are the major items to be completed:

- US Environmental needs to install level transmitters at RW-7 and RW-8 thru RW-10. LT-RW-7 is expected in 3 weeks while other three within a week.
- US Environmental needs to install a flow transmitter for RW-7 in MH-1; expected within a week.
- US Environmental needs to install three flow transmitters for IW-1 thru IW-3 in VP-1; expected within a week.
- US Environmental will seal stoned pit at RW-8 thru RW-10 vaults to eliminate the groundwater filling these vaults (extra work).
- All new manholes and valve vaults need to be cleaned, concrete covers to be installed, and cleanout connections to be rotated properly.
- For FT-181, a signal isolation transformer will be needed inside FCP. This will be provided and installed by Tetra Tech.
- Tetra Tech will install a sampling port at combined influent line inside OWS room.

After the meeting, testing and start-up of newly installed systems was performed. Following is a summary of these activities:

- RW- 8 thru RW-10 at ROS area:
  - These well pumps were operated in hand mode and worked. Flow was observed at sample port in VP-4. Since there was no level transmitter at these wells, a hand-held water meter was used. These wells drew down water level too quickly (<1 minute); thus it was difficult to establish any flow rate past VP-4. This could be due to ROS sump pump keep draining the ROS area or clogged well screen.
  - No communication between PLC at ROS control panel and PLC at treatment was established; this needs to be investigated by Kelly and Art Bossard.
  - Piping at VP-4 needs to be supported.
  - Three manual control valves could not be operated; they need to be removed and rotated, and a handle installed.
  - All sample pipes need to be extended and rotated for easy access.
  - MH-4 thru MH-7 and VP-5 were not inspected at this time.
  - These pumps need to be tested again once level transmitters are in place (in 2-3 weeks).
- RW-7:
  - Because of some wiring issues and voltage leak at VP-2, RW-7 was not tested. Kelly is investigating.
  - This system can be tested and operated without level and flow transmitter for time being.

- Injection System:
  - Tank was filled with plant effluent. The injection pump was then operated in AUTO mode. Pump produced about 20 psi. This does not seem adequate based on pump curve. Need to check motor leads.
  - Need to lower fill pipe about 3"; support overflow pipe; and fix leak at bulkhead fitting.
  - Pump was operated to circulate water around the tank and then discharge in IW-2. Flow was observed in IW-2.
  - Need to remove pitless adaptor at IW-1.
  - Complete piping from VP-1 to IW-3.
  - Mixer was not tested.
  - Additional testing needs to done.

Additional testing and startup will take place on July 23, 2010.

Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

_____
Harish Mital

Distribution: Kemron, US Environmental, EPA and PADEP

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Initial Punch List prepared July 7, 2010

Punch List Items	Date Complete
Install mix tank	
Finalize mix tank configuration	
Complete injection lines	
Install three paddlewheel flow meters for IWs in VP-1	
Install pressure gauge on injection line	
Flush injection lines	
RW-7 well - install level transducer	
MH-1 Install pipe, new paddle wheel flow sensor and Tee	
MH-1 install sample tap	
VP-5 complete plumbing	
VP-5 install level sensor and cable	
MH-2 and MH-3 extend lid drains	
MH-4, 5, 6 & 7 install Dwyer level sensors and cable	
VP-4 re-configure plumbing, support pipes, cleanout relocation	
VP-4 cement leaks	
RW-8, 9, and 10 wells - install level transducers	
Hydro seed forcemain area	
Landscape ROS and yard	
MH-4, 5, 6 & 7 – rotate pipe for easy access to cleanouts	
VP-4 and VP-5 – install lever handles on four control valves	
RW-8 thru 10 – Need to test them for proper operation/flow (electrically)	
Add a 2” ball valve on injection pump discharge after recycle line	
Verify proper all flow and level signals to PLC	
Verify communication between ROS area panel and treatment plant panel	

On August 25, 2010, a final inspection meeting was conducted by EPA, PADEP, and Tetra Tech. The following are the major items completed to date since last inspection:

- On August 11, 2010, OU3 pumping systems (RW-7 thru RW-10) and injection system were tested for their intended use. RW-7 was not able to run continuously due to some overload issue as this pump keeps tripping. Kelly Electric (OU3 contractor) is still working on this and expects to fix the problem soon.
- On August 16, 2010, the ROS recovery wells (RW-8, 9, and 10) were placed online. These pumps are PLC controlled based well level. The average flow rate of the three wells together is approximately 7 gpm. OU3 ROS sump dewatering activities have ceased.
- On August 23, 2010, the injection system was placed online and pumping approximately 17 gpm. Effluent water is being pumped in injection wells IW-1 (former RW-1) - ~8 gpm; IW-2 (former RW-2) ~ 1gpm; and IW-3 (former RW-4) ~8 gpm. IW-1 and Iw-2 have high level switches to stop injection pump while IW-3 does not as existing electrical conduit from VP-1 to IW-3 was found to be damaged. These three wells level will be monitored manually on a periodic basis.

Please bring any errors or inaccuracies of the above minutes to Tetra Tech's attention within two days.

Prepared and submitted by:

_____
Harish Mital

Distribution: Kemron, US Environmental, EPA and PADEP

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Punch List Items	Date Complete
Install mix tank	July 13, 2010
Finalize mix tank configuration	July 14, 2010
Complete injection lines	July 21, 2010
Install three paddlewheel flow meters for IWs in VP-1	August 9, 2010
Install pressure gauge on injection line	July 23, 2010
Flush injection lines	July 23, 2010
RW-7 well - install level transducer	July 27, 2010
MH-1 Install pipe, new paddle wheel flow sensor and Tee	July 27, 2010
MH-1 install sample tap	July 29, 2010
VP-5 complete plumbing	August 4, 2010
VP-5 install level sensor and cable	July 23, 2010
MH-2 and MH-3 extend lid drains	July 26, 2010
MH-4, 5, 6 & 7 install Dwyer level sensors and cable	July 14, 2010
VP-4 re-configure plumbing, support pipes, cleanout relocation	July 22, 2010
VP-4 cement leaks	July 22, 2010
RW-8, 9, and 10 wells - install level transducers	August 10, 2010
Hydro seed forcemain area	Finished: October 18, 2010
Landscape ROS and yard	Finished: November 5, 2010
MH-4, 5, 6 & 7 – rotate pipe for easy access to cleanouts	July 30, 2010
VP-4 and VP-5 – install lever handles on four control valves	July 27, 2010
RW-8 thru 10 – Need to test them for proper operation/flow (electrically)	August 16, 2010
Add a 2” ball valve on injection pump discharge after recycle line	July 30, 2010
Verify proper all flow and level signals to PLC	August 11, 2010
Verify communication between ROS area panel and treatment plant panel	August 11, 2010
RW-7 pumping system	Initial: August 11, 2010; Online Complete: October 7, 2010
Injection system operation	Online Complete: August 23, 2010

Initial Punch List Date: July 7, 2010; Updated: August 30, 2010

11/18/09

12-2-09 **Project Status Report – Havertown PCP**

1. Mobilized to the site 11-17-09
2. Established a laydown area at 128 Harvard Street
3. Installed a construction entrance at Columbia Street and the laydown area- complete
4. Solicited bids for site security services (3 local companies)
5. Subcontracted a local security company to provide site security for the site- started 11-20-09
6. Solicited bids for heavy equipment - complete
7. Established a temporary field office at the Gum Factory- complete
8. Established temp electrical service at the Field Office
9. Demobilized the site for Thanksgiving Holiday 11-24-09
10. Re mobilized to the site 11 30-09, - security continued during the holiday.
11. Provided a Conex Box at the laydown area for storage of equipment-complete
12. Bush hogged the laydown area – complete
13. Working with local utility providers to identify and locate utilities on going, limited response from them. Contracted with outside utility locater service to further locate and identify site utilities – on going.
14. Bush hogged the RR right-of-way sufficient to allow access for survey party to locate the force main complete
15. Chipping tree limbs that were left in the FM right-of-way- in process
16. Opened the fence and removed trees at the SW corner of the laydown area complete
17. Building an access road from Columbia Street to the stream crossing at the SW corner of the laydown area. Fabric and stone placement begins 12-2-09.
18. Placed an order for a trash dumpster at the laydown area.
19. Placed orders for electrical service with PECO at the laydown area
20. Placed orders for DSL service at the laydown site-
21. Conducted site walk with two vendors to date to evaluate sheet piling for the SE end of the excavation.
22. Solicited bids (approx 6 companies) for electrical service-only one bid received to date
23. Solicited bids (16 Vendors) for construction of the Forced Main, was due 11-13-09.
24. Continue to generate 1900-55's, current through 11-24-09.

Going forward:

1. Construct the Harvard Street construction entrance
2. Complete construction of the Columbia street construction entrance
3. Construct the stream crossing w/ culverts
4. Installation of silt fence and tree protection
5. Establish access / haul road construction, and tree removal into the excavation area (ROS)
6. Installation of sheet piling at the ROS area
7. Establish a Sump / water collection and conveyance system from the ROS area.

12-2-09 **Project Status Report – Havertown PCP**

12/9/09

1. ~~Mobilized to the site 11-17-09~~
2. Established a laydown ~~area at 128 Harvard Street~~
3. ~~Installed a~~ construction entrance at Columbia Street ~~and~~ the laydown area- complete
4. ~~Solicited bids for site security services (3 local companies)~~
5. Subcontracted ~~a local security company to provide site security for the site~~ – started 11-20-09
6. ~~Solicited bids for heavy equipment – complete~~
7. Established a temporary field office at ~~the Gum~~ Factory – complete
8. Established temp electrical service at the Field Office. Order placed with PECO
9. Demobilized ~~the site for Thanksgiving Holiday 11-24-09~~
10. ~~Re-mobilized to the site 11-30-09, security continued during the holiday.~~
11. Provided a Connex Box at the laydown area for storage of equipment-complete
12. ~~Bush hogged the laydown area – complete~~
13. Working ~~with local utility providers to identify and locate utilities – on going, limited response from them. Contracted with~~ outside utility locater service to further locate and identify site utilities – on going.
14. ~~Bush hogged the RR right-of-way sufficient to allow access for survey party to locate the force main – complete~~
15. ~~Chipping tree limbs that were left in the FM right-of-way- in process~~
16. Opened the fence and ~~removed trees at the SW corner of the laydown area – complete~~
17. ~~Building an access road from Columbia Street to the stream crossing at the SW corner of the laydown area. Fabric and stone placement begins 12-2-09.~~
18. ~~Placed an order for a trash dumpster~~ at the laydown area
19. Placed orders for ~~electrical service with PECO at the laydown area.~~
20. ~~Placed orders for DSL service at the laydown site.~~
21. Conducted site walk with ~~two vendors to date to evaluate sheet piling for the SE end of the excavation.~~
22. Solicited ~~bids (approx 6 companies) for electrical service.~~
23. ~~Solicited bids (16 Vendors) for construction of the Forced Main~~. On going, contacted Joao Bradley Co. 610 867-1500

12-9-09

1. ~~Construct the Harvard Street construction~~ entrance
2. ~~Roll laydown area~~ and compact the stone.
3. Construct the stream crossing w/ culverts begins 12-9-09.
4. Installation of silt fence and tree protection around the BOS. Begins 12-10-09
5. Move Office Trailer to Harvard St. (12-11-09)& bring in T1 trailer. **Notify Police for Friday** of an a.m. move so they restrict parking.
6. Build Electrical Service for trailers, will require a trench to bury utilities

7. Fence and Tree removal along the FM behind yards prior to trenching in the 2" discharge line.
8. Clear and grade for the 2" discharge line.
9. Install silt fence along the FM easement.
10. Trench, install 2" HDPE discharge line.
11. Grade swale along the FM / RR Track Easement.
12. Place stockpile liner and trench perimeter
13. Source backfill material. & backfill analysis, sample the source and analyze.
14. Build the water collection sump the ROS area
15. Installation of sheet piling at the ROS area.

12-18-09 Project Status Report – Havertown PCP

12 5 09

Progress to date:

1. Completed construction of the stream crossing
2. Installation of silt fence and tree protection in process
   a. 7 large trees have been removed, and stumps are being ground out 12-18-09.
   b. The power pole at the site entrance was cleaned up and trees and vines removed for PECO
3. Finished move of the Office Trailer to Harvard St. (12-12-09) & brought in IT trailer 12-16-09
4. Installed silt fence along the FM easement (N side).
5. Source backfill material & backfill analysis, sample of the source and analyze.
6. Seeding the BR easement with rye grass 12-18-09
7. Awaiting bids for installation of the sheet piling – Bids in over holidays?
8. Awaiting bids for installation of the FM
9. Backfill material has been selected, and samples submitted for physical and chemical characteristics

For January:

10. Trench, install 2" HDPE discharge line – Grit will January
11. Grade swale along the FM / BR Track Easement
12. Place stockpile liner and trench perimeter
13. Build the water collection sump the ROS area – Pumping water by Jan 11
14. Installation of sheet piling at the ROS area
15. Begin Excavation

1-8-10 Project Status Report – Havertown PCP

Progress to date:

1. Completed clearing for the force Main, and installation of all silt fence on the north side of the Force Main.
2. Power has been installed in both office trailers and the area light was restored to power to light the parking lot.
3. Backfill material has been analyzed for both chemical and physical characteristics. The results have been submitted to Tetra Tech for review.
4. Stockpile liner (30 mil), and stockpile tarp have arrived on site and the liner has been installed.
5. Installed Silt fencing the ROS area.
6. Installed a water collection sump the ROS area, using a piece of 18" corrugated pipe recycled from the Tetra Tech laydown yard.
7. Fencing the collection sump at the ROS
8. Install pump system at the ROS Sump.
9. Trench, install 2" HDPE discharge line from the ROS sump to the Tetra Tech vault / sump behind the Gum Factory
10. Installation of sheet piling at the ROS area.

Contractors have asked if the boring at Lagle Rd can go deeper than shown on the plans to go under the existing utilities.

1-15-10 Project Status Report – Havertown PCP

Work Completed 1-11-10 through 1-15-10:

1. Completed trenching and installation of the 2" SDR-11 sump discharge line and all silt fence on the north side of the Force Main.
2. Received 3" submersible pump and controls for the ROS Sump
3. Identified top soil borrow and sampled for chemical characteristics.
4. Secured an Engineered evaluation, and Engineers recommendations for shoring between the houses where excavation is to be performed at the ROS.

Going forward:

5. Complete installation of the pump system at the ROS Sump, and Surge Box at the end of the 2" line and begin pumping.
6. Begin importing backfill material.
7. Prep ROS for Removal Operations.
8. Dig test pit at the ROS to located sewer line
9. Begin excavation and backfill operations at the ROS.
10. Installation of sheet piling at the ROS area. To begin on 1-28-10.

[illegible]

1-22-10 Project Status Report – Havertown PCP

Work Completed 1-18-10 through 1-22-10:

1. Completed installation of the 3" submersible pump system at the ROS.
2. Completed installation of the surge tank at the end of the sump discharge line.
3. Tested the ROS sump pump system, and the system has been placed into operation.
4. Imported 1000 cy of backfill material.
5. Finished construction of an access road into the backyards for excavation of the sewer line.

Going forward period of 1-25-10 to 1-29-10:

6. ROS sump operations [illegible]
7. Soil Excavation at the ROS
8. Sheet pile construction

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

1-29-10 Project Status Report – Havertown PCP

Work Completed 1-25-10 through 1-29-10:

1. Continue 24 operation of the 3" submersible pump system at the ROS
2. Located the buried Sewer manhole between the houses. Determined that removal of the sewer line between the houses will require temporary protection for the foundation of the houses. That excavation has been tempurarily suspended pending design of engineered protection of the foundations
3. Excavation was resumed in the backyard. Due to the infiltration of water into the excavation, a temporary sump was installed to collect water in the excavation, and pump the water to the ROS sump for transfer to the TT Trench.
4. Top Soil sample analysis results were received.
5. Air sampling and air monitoring activities began 1-25-10.

Going forward period of 2-1-10 to 2-5-10:

6. ROS sump water operations
7. Soil Excavation at the ROS
8. Sheet pile construction

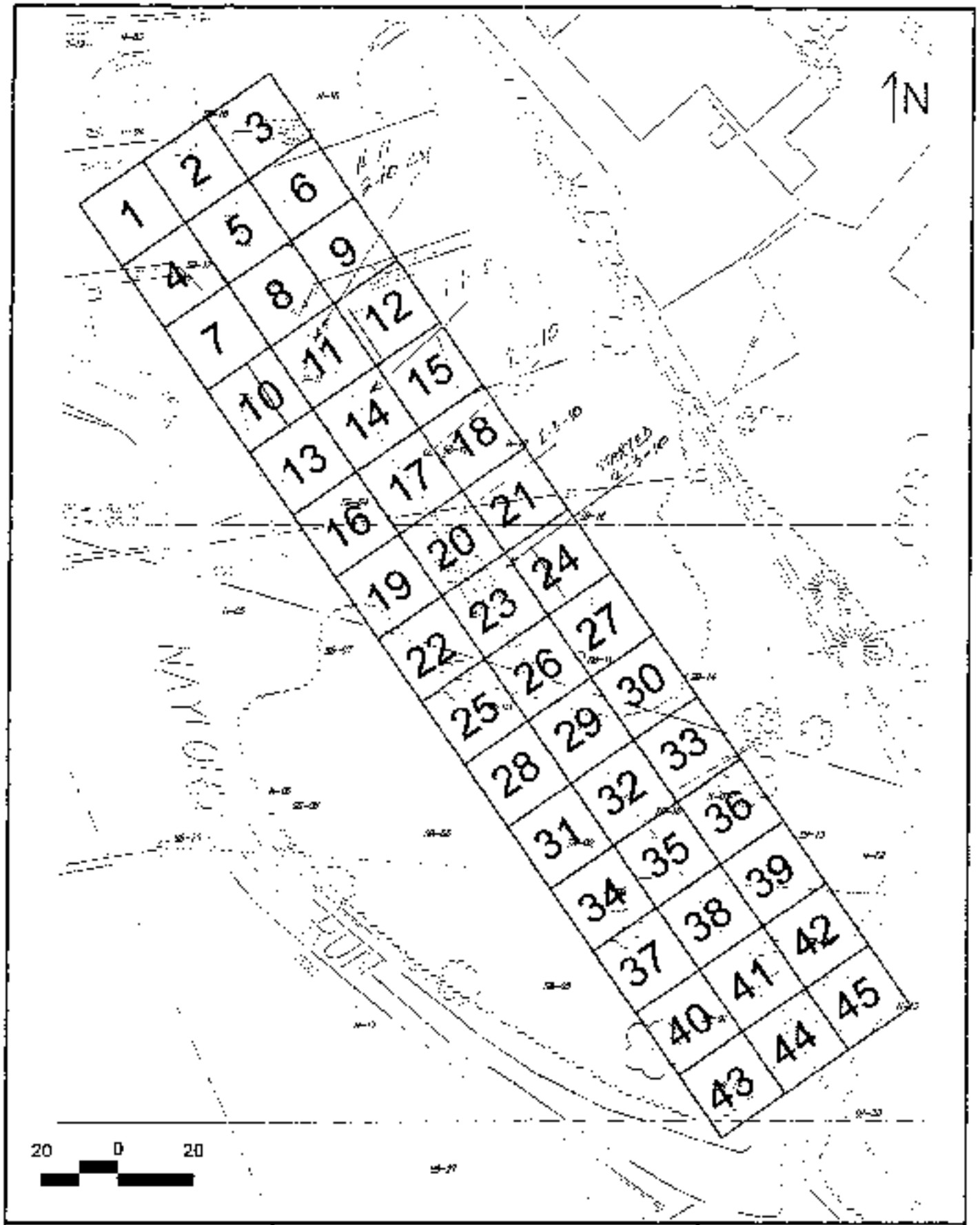
2-5-10 Project Status Report – Havertown PCP

Work Completed 1-29-10 through 2-4-10:

1. Continue 24 operation of the 3" submersible pump system at the ROS.
2. Excavation continued at the ROS. Grids #11, #14, #17, #20, #23 have been completed to date. Approximately 465 cy were excavated this period, and a total of 730 cy have been excavated to date.
3. Top Soil was approved for use this week.
4. KEMRON submitted a soil sample from the stockpile to EQ this week for waste profile characterization and treatability (at EQ's expense.
5. KEMRON has tasked GeoSystems Consultants Inc. with further design for slope and foundation protection between the houses.

Going forward period of 2-5-10 to 2-11-10:

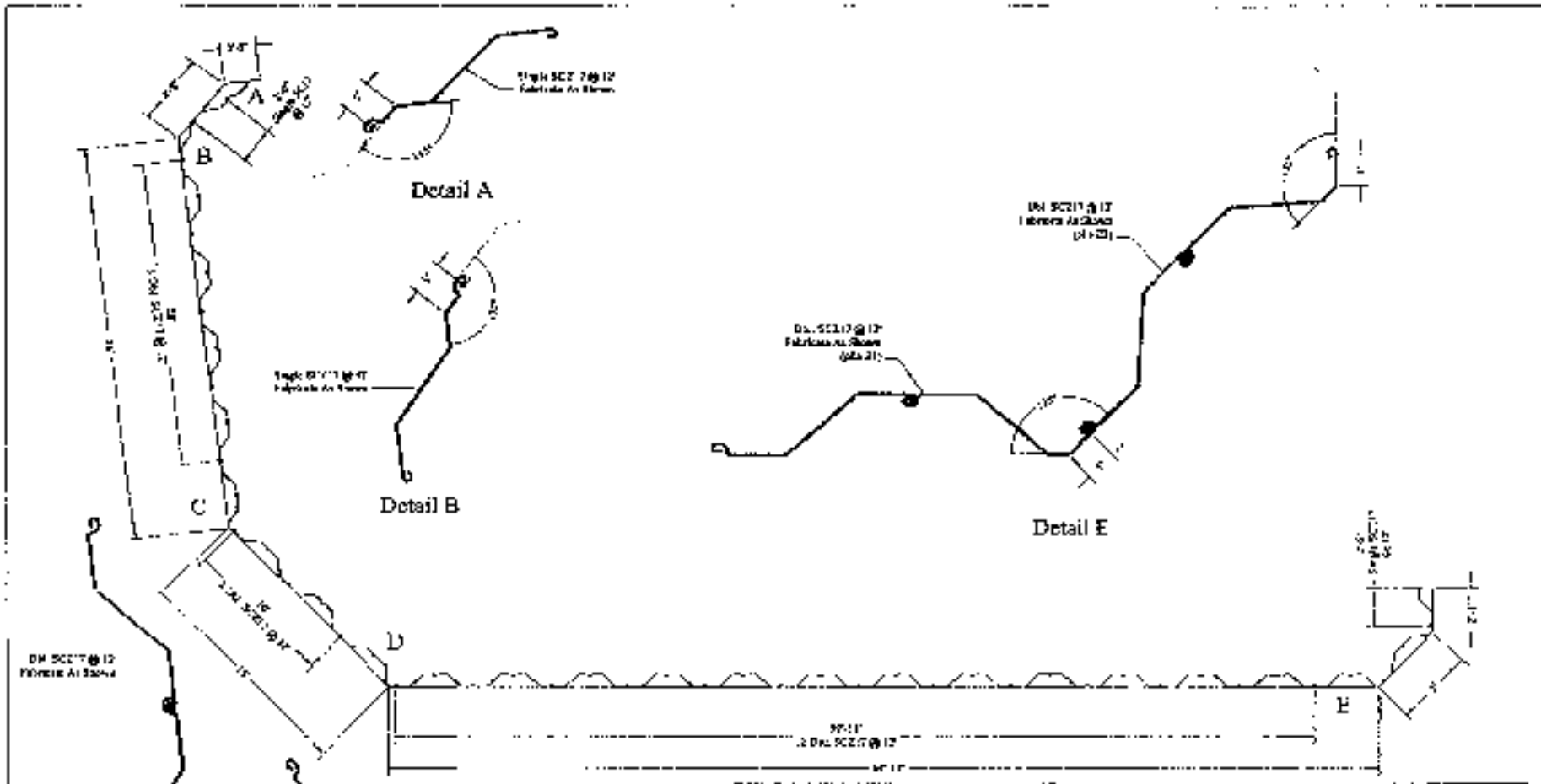
6. Continue with ROS sump water operations
7. Continue with Soil Excavation at the ROS
8. Sheet pile construction
9. Tree Removal at the ROS
10. Continue with Stockpile management
11. Continue backfilling operations



KEMRON
ENVIRONMENTAL SERVICES

Excavation Grid
Havertown PCP Site
Havertown, Delaware County, PA
U.S. EPA Region III

TETRA

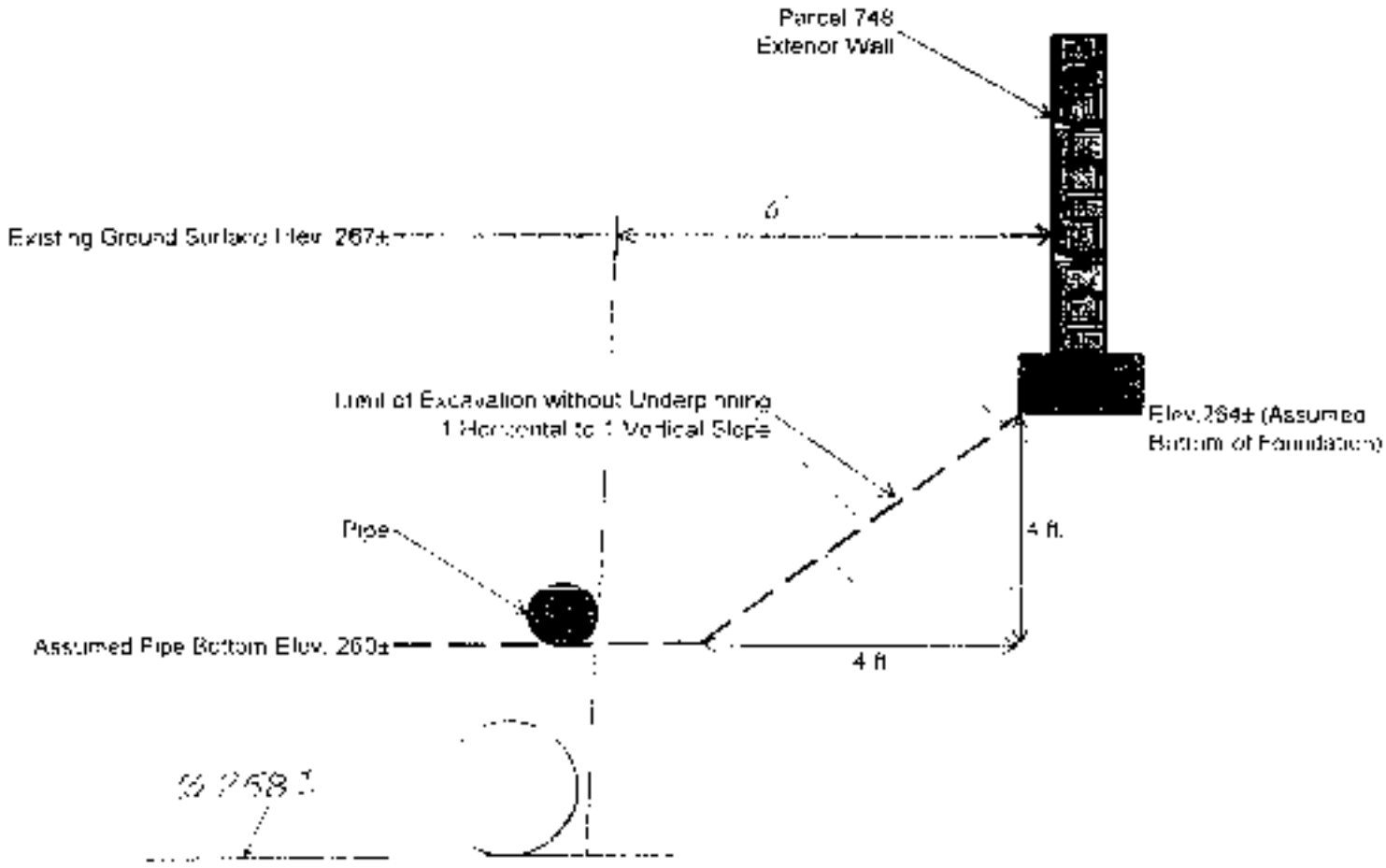


Material List

Item	Pile	Location	Designation	Qty.	Length (Total)	Weight (lb/ft)	Weight (Total)	Length (Total)	Weight (lb/ft)	Weight (Total)
1	SC217		Single Pile	2	12.00	43.00	0.539	3.66	65.3	0.477
2	SC217		Double Pile	10	12.00	87.72	10.000	3.66	130.5	9.072
3	SC217	A & B	Fabricated Single Pile	4	12.00	43.00	0.539	3.66	65.3	2.417
4	SC217	C,D,E,E2	Fabricated Double Pile	4	12.00	87.72	2.100	3.66	130.5	1.919
			Total Weight				13.150			13.885

skyline

L-1



Dwg No:	Figure 1
Project #:	2010GS03
by:	DMH
Chckd:	DMH
Date:	1/19/2010
Scale:	NTS

Limit Of Excavation

KEMRON Environmental Services, Inc.
Havertown PCP Site
Haverford Township
Delaware County, Pennsylvania

GeoSystems Consultants, Inc.

165 Indiana Avenue, Suite 2
Fort Washington, PA 19034

2-19-10 Project Status Report – Havertown PCP

Work Completed 2-5-10 through 2-4-10:

1. Continue 24 operation of the 3" submersible pump system at the ROS.
2. Excavation / backfill operations continued at the ROS. Grids #11, #14, #17, #20, #23/24, #25/26/27, #29/30, #31/32/33 have been completed to date. A total of approximately 1500 cy of soil has been excavated, and backfill has been placed to date. 12 cy · 1500
3. Sheet piles along the stream bank have been installed. 12 Lg
4. Installed a 3" dewatering sump in the ROS to dewater the excavations.
5. Performed snow removal, continue with haul road maintenance.
6. KEMRON has tasked GeoSystems Consultants Inc. with further design for slope and foundation protection between the houses. Their recommendation will include underpinning the foundation of the house and driving H-beam soldier piles on 5' centers to support whalers for slope stabilization.
7. KEMRON has recommended US Environmental to LP4 for construction of the FM

Going forward period of 2-22-10 to 2-26-10:

8. import 500 cy backfill
9. Continue with ROS sump water operations
10. Continue with Soil Excavation at the ROS
11. Continue with Stockpile management
12. Continue backfilling operations

3-5-10 Project Status Report – Havertown PCP

Work Completed 2-29-10 through 3-4-10:

1. Continue 24 operation of the 3" submersible pump system at the ROS.
2. Excavation / backfill operations continued at the ROS. Grids #34 #35, #36, #37, #38, #39, #40, #43 have been excavated and backfilled. Currently excavating new un-named grids west of #40, and #37 now. A total of approximately 2500 cubic yards of soil have been excavated, and backfill has been placed to date.
3. KEMRON has received recommendations from GeoSystems Consultants Inc. foundation protection for the residence at parcel #749.
4. KEMRON has awarded a contract to US Environmental to FPA for construction of the FM
5. KEMRON has solicited ITB's for transportation and disposal of the excavated soils. Bids are due in by 3-11-10.
6. Import and used an additional500 cy of backfill material. + 200 cy as 3/5
7. KEMRON has expanded the capacity of the contaminated soil stockpile.
8. KEMRON has installed a new Sediment Retention Basin above the TetraTech trench to minimize the introduction of sediment to TT's water treatment system. [illegible]

Going forward from 3-5-10:

9. Continue with ROS sump water operations
10. Continue with Soil Excavation at the ROS
11. Continue with Stockpile management
12. Continue backfilling operations

3-12-10 Project Status Report – Havertown PCP

Work Completed 3-5-10 through 3-11-10:

1. Continue 24 operation of the 3" submersible pump system at the ROS
2. Excavation / backfill operations continued at the ROS. Grids #40,42,43,5,8,7,and 11 have been excavated and backfilled. Grid #41 (ROS Sump location) is the last remaining grid to be completed. A total of approximately 3000 cubic yards of soil have been excavated, and backfill has been placed to date.
3. KEMRON has solicited ITB's for transportation and disposal of the excavated soils. The bid due date has been extended to 3-16-10.
4. KEMRON new Sediment Retention Basin for minimizing the introduction of sediment to TT's water treatment system is functioning well.

Going forward from 3-12-10:

5. Begin FM construction. US Bar start w/ 3/29
6. Continue with ROS sump water operations
7. Complete Soil Excavation at the ROS, with Grid #41.
8. Remove a limited amount of soil from the outside perimeter of the sheet piling to facilitate installation of rip rap protection to the stream bank. - wait for survey
9. Perform exploration excavation at manhole #1. looking for evidence of the lower 6" tile below the 8" tile.
10. Continue backfilling operations
11. Begin placing top soil and grading at the ROS wk of 4/15

Finish cell 47 4/30 to edge of sump gravel

3-19-10 Project Status Report – Havertown PCP

Work Completed through 3-18-10:

1. Continue 24 operation of the 3" submersible pump system at the ROS.
2. Excavation / backfill operations are completed. A total of approximately 3000 cubic yards of soil have been excavated.
3. KEMRON has solicited ITB's for transportation and disposal of the excavated soils. The bid due date has been extended to 3-25-10, pending dioxin results.
4. Sparks Electric is completing the cap construction on the sheet piling. Expected to be complete by COB 3-19-10. Is painting required?

Going forward week 3-22-10:

5. Begin TM construction 3-29-10.
6. Continue with ROS sump water operations
7. Place Rip Rap on the creek banks.
8. Finish grade parcel 748 and Install pavers.

3-26-10 Project Status Report – Havertown PCP

Work Completed through 3 25-10:

1. Dis-continued 24 operation of the 3" submersible pump system at the ROS.
2. Excavation / backfill operations are complete.
3. KLMRON is reviewing the responses to the ITB's for transportation and disposal of the excavated soils.
4. Sparks Electric has completed all construction of the sheet piling.
5. KEMRON completed grading of the backfilled areas Currently waiting for top soil to be delivered to the site to complete final grade.
6. Base for the paver road is completed and prepared for placement of the grass pavers.
7. Excavated man-hole #1 and confirmed the presence of the 6" clay tile underneath the 8" tile. The 6" tile is severed and open at the manhole.
8. Place Rip Rap on the creek banks.

Forced Main Construction:

9. Begin well installation 3 31-10. Anticipate 2 3 weeks to complete.
10. Begin FM construction 4-12-10.
11. Elertrical construction is scheduled to begin 4-5-10

[illegible]

4-9-10 Project Status Report – Havertown PCP

Work Completed through 4-9-10:

1. Discontinued operation of the 3" submersible pump system at the ROS.
2. Completed excavation of the clay tiles at Manhole #1. Pressure jetted the lower tile, and initial attempts to pressure grout were not successful. An alternative solution was then initiated using Oakum, and compound 222, (a water activated foam) forced into the tile, both upstream and downstream. Afterward, the excavation was backfilled and surface restored.
3. The Grass Paver Path construction is 90% complete. Will wait until the FM construction in that area is completed before finishing the pavers.
4. Top soil, seed, and final grade are completed at parcel #748. The ROS will be addressed after the FM construction in that area is completed.
5. The asphalt driveway and retaining wall at parcel #749 have been completed.
6. Well construction at the ROS is 75% complete.
7. Electrical construction has just begun at the water treatment building.
8. The KEMRON field operations personnel and heavy equipment will be demobilizing from the site by Saturday 4-12-10. The RM, FCA, and H&S / QA/QC personnel will remain during the FM construction.
9. KEMRON / US Environmental have pending submittals that are awaiting TetraTech review and approval.

5-7-10 Project Status Report – Havertown PCP

Work Completed through 4-9-10:

1. Resumed operation of the ROS pump on 5-3-10 to facilitate construction activities at the ROS.
2. The Hazardous soil stockpile was sampled (12 locations) by Capital Environmental for Canadian Analysis on 4-22-10. The current schedule allows for analysis and permitting to be completed by 5-24-10, and Loadout to begin the week of 5-24-10.
3. Construction of the Force Main has begun. The monitoring wells, and recovery wells at the ROS are installed, VP-4 is installed, and piping and conduit is currently being installed to those structures now.
4. Electrical construction has begun at the water treatment plant.

5-14-10 Project Status Report – Havertown PCP

Work Completed through 5-13-10:

1. Continued operation of the ROS pump to facilitate construction activities at the ROS.
2. Construction of the Force Main continues. Pipe is installed from VP-4 to MH-7. The recovery wells at the ROS are currently being plumbed to VP 4.
3. Power pole at the ROS has been installed.
4. Weep holes have been cut into the sheet piling at the ROS.
5. Meeting for Eagle Road crossing is scheduled for 9:00 on the 18th.

Memorial Day off

Soil boring starting ~ 5/26

5-21-10 Project Status Report – Havertown PCP

Work Completed through 5-21-10:

1. Will discontinue operation of the ROS pump on 5-21-10.
2. Construction of the Force Main continues. Pipe is installed from VP-4 to manhole 5. Power pole at the ROS has been installed.
3. Meeting for Eagle Road crossing was conducted on the 18th. PennDot is expecting a traffic plan for review. They indicated that the review should be a short process.
4. Loadout of contaminated soil is scheduled to begin Monday, 5-24-10.

Memorandum

Date: **June 4, 2010**

To: **Kemron Environmental Services**

From: **Geoffrey Goolden**

Re: **Injections Wells IW-1, IW-2, IW-3**

At the June 2, 2010 Weekly Progress Meting Tetra Tech made an inquiry as to what was the disposition of the fluids that were generated from converting the old extraction wells to the new injection wells, IW-1 through IW-3. The former extraction wells were overpumped with a 2 inch trash pump and the fluids from the overpumping were collected in a 250 gallon tote. The tote was located in the back of a pick up truck from which it was transferred to the Wastewater Treatment Plant as per KP and Rick Thomas of Tetra Tech. Initially the water that was generated was "dirty" with some oily sheen but it quickly cleared up.

To: Geoffrey G. Goolden
ggoolden@usenv.com

IFB No. SE 1616

(Page D-3, section 2.1, item 2)

1. Kelly Electric evaluated functionality of the existing level switch in MH-1 and found it operating normally. It turned on the alarm light on the FPC panel at the Waste Water Treatment Plant when limit was raised and tested.

(Page D-3, section 2.4, item 2.3)

2. Kelly Electric evaluated MH-1 and found that the heat trace wiring is not damaged and functions properly.

(Page D-4, section 2.4, item 3)

3. VP-1, Kelly Electric found water in JB's conduits. The 1 ½" ridgid conduit (A) in valve pit 3 signal conduit is full of water. The insulation on the shielded cable is damaged inside the junction box. Reference conduit (A)-FE-1 sensor is functioning properly. Weren't able to test transmitter at this time, need to power them to test.

(Page D-4, section 3.1, item 3)

4. Kelly Electric inspected and determined float level switch in VP-1 moves free and is operating correctly.

(Page D-4, section 3.3)

5. Kelly Electric evaluated VP-1 and found that heat trace wiring is not damaged and is functioning correctly.

(Page D-4, section 3.4, item 3)

6. VP-1 had water in conduit as noted on #3. Shield cable insulation is damaged. Kelly Electric inspected wiring and sensors and were functioning properly. Weren't able to test transmitter at this time, need to power them to test.