DAILY OBSERVATION REPORT

Report No.: 82 EA Project File: 1447429 Date: April 30, 2012

EA Engineering, P.C.
6712 Brooklawn Parkway, Suite 104
Syracuse, NY 13211-2158

NYSDEC Division of Environmental Remediation
Site Location: Albany St., Babylon, NY (Site No. 1-52-140)

Site No. 1-52-140
Contractor PM: AECOM – Walter Howard
NYSDEC PM: Jeffrey Dyber
Construction Manager: AECOM - Kent Wagoner
Air Monitoring: AECOM
Health & Safety: AECOM

Weather Conditions

General Description	**Sunny**	***am***	**Sunny**	***Pm***
Temperature	**46**	***Am***	**55**	***Pm***
Wind Direction	**6-13 mph SSE**	***Am***	**6-13 mph SSE**	***Pm***

HEALTH & SAFETY:

(*If any box(s) below are checked "Yes", list the deviation under the "Items for Concern" section of this report).

Were there any changes to the Health & Safety Plan?		***Yes ( )**	**No (X)**	**NA ( )**
Were there any exceedances at the perimeter action level reported on this date?	**Air:**	***Yes ( )**	**No ( )**	**NA (X)**
Were there any dust/odor issues reported or observed on this date?		***Yes ( )**	**No (X)**	**NA ( )**

WASTE HAULING:

(*If any box(s) below are checked "Yes", list the deviation under the "Items for Concern" section of this report).

Were there any vehicles that did not display proper D.O.T. numbers and placards?	***Yes ( )**	**No ( )**	**NA (X)**
Were there any vehicles which were not tarped?	***Yes ( )**	**No ( )**	**NA (X)**

Materials Removed From Site:

Disposal Facility: 110 Sand Company
Total Loads (on this date): 0
Total Loads (to date): 7
Total Estimated Daily Weight (tons): NA
Total Approximate* Weight (tons): 140

***Actual (total weight) adjusted periodically based on weight tickets submitted by the disposal facilities.**

Report No.: 82 EA Project File: 1447429 Date: April 30, 2012

Summary of Events:

- **Onsite at 11:00, spoke with Kent Wagoner and Sam Rowe (AECOM) regarding planned work for the day. Layne Drilling (Layne) onsite.**
- **Prior to the start of work, AECOM conducted health and safety meeting and discussed overall goals for day.**
- **Layne mobilized well development rig and equipment to DDC-10 (see AECOMs Remedial Action Work Plan (RAWP) Figure 1). Traffic controls (cones, caution tape, and signage) were placed around the exclusion zone and poly was placed over the work zone surface. Adler Tank Rentals delivered one 21,000 gal fractionation tank for well development water. The frac tank was placed in the exclusion zone near the intersection of Benjoe Dr. and Beta Dr.**
- **Layne began developing the DDC-10 recirculation well using a surge block and pump. The lower well screen was individually surged and pumped until the turbidity stabilized. The well was packed off using an inflatable packer to isolate the two screened intervals during development. Layne developed the lower screen for 4 hours. Over that duration (240 minutes), the surge block was run continually and the pump was run 20% of the time, over equally distributed intervals. Well development water was pumped to a fractionation tank for settling. AECOM sampled the development water throughout the 4-hour period to determine when the screen was completely developed (less than 50 nephelometric turbidity units [NTUs]). DDC-10 lower screen was developed in accordance with the Contract Document Section – 02686 Re-Circulation Wells and AECOMs RAWP Section 2.3.1 – Installation of DDC Wells.**
- **Prior to development, Layne bailed 5-ft of sediment from the bottom of DDC-10 well. Sediment was placed in a Super Sack and staged on Suffolk County Water Authority property. Sediment will be disposed of off-site once well development is complete.**
- **AECOM finished discharging DDC-06 development water to DDC-06 recirculation well. Water was pumped through two 10-gal filter vessels mounted on a secondary poly-lined containment pad. Pressure gauges were installed at the inlet and outlet of both vessels to monitor filter efficiency and a sampling port was installed on the outlet for sample collection and periodic turbidity measurements. The filtration system operated at 100-110 gal per minute and achieved less than 50 NTUs between successive well volumes. Well development water was discharged in accordance with the Contract Documents Section 02686 – Re-Circulation Wells and AECOMs RAWP Section 2.3.1 - Installation of DDC Wells.**
- **Tomorrow (1 May 2012), Layne will develop DDC-10 upper screen.**
- **No concerns/complaints from residences were documented.**
- **Offsite at 17:00.**

VISITORS TO SITE:

NAME	Representing	Entered Exclusion/CRZ Zone	
None		Yes ( )	No ( )

PROJECT SCHEDULE:

- **Develop DDC wells (19 April – 11 May 2012).**
- **Process development water (24 April – 11 May 2012)**
- **DDC eductor piping and well head assembly (25 April – 11 May 2012).**

ISSUES PENDING:

- **None**

Report No.: 82 EA Project File: 1447429 Date: April 30, 2012

ITEMS OF CONCERN:

- **None**

Site Representative: Robert Peterson

Date: 30 April 2012

Report No.: 82 EA Project File: 1447429 Date: April 30, 2012

Photographs

Layne surging and pumping DDC-10, looking west.

View of Layne pumping DDC-10, looking northwest.

Report No.: 82 EA Project File: 1447429 Date: April 30, 2012

View of DDC-10 lower screen development water.

Panoramic view of traffic controls and exclusion zone. Standing at Benjoe & Beta Dr. intersection.

DAILY OBSERVATION REPORT

Report No.: 83 EA Project File: 1447429 Date: May 01, 2012

EA Engineering, P.C.
6712 Brooklawn Parkway, Suite 104
Syracuse, NY 13211-2158

NYSDEC Division of Environmental Remediation
Site Location: Albany St., Babylon, NY (Site No. 1-52-140)

Site No. 1-52-140
Contractor PM: AECOM – Walter Howard
NYSDEC PM: Jeffrey Dyber
Construction Manager: AECOM - Kent Wagoner
Air Monitoring: AECOM
Health & Safety: AECOM

Weather Conditions

General Description	**Cloudy/Rain**	***Am***	**Mostly Cloudy**	***Pm***
Temperature	**50**	***Am***	**64**	***Pm***
Wind Direction	**10-16 mph SE**	***Am***	**10-16 mph SE**	***Pm***

HEALTH & SAFETY:

(*If any box(s) below are checked "Yes", list the deviation under the "Items for Concern" section of this report).

Were there any changes to the Health & Safety Plan?		***Yes ( )**	**No (X)**	**NA ( )**
Were there any exceedances at the perimeter action level reported on this date?	**Air:**	***Yes ( )**	**No ( )**	**NA (X)**
Were there any dust/odor issues reported or observed on this date?		***Yes ( )**	**No (X)**	**NA ( )**

WASTE HAULING:

(*If any box(s) below are checked "Yes", list the deviation under the "Items for Concern" section of this report).

Were there any vehicles that did not display proper D.O.T. numbers and placards?	***Yes ( )**	**No ( )**	**NA (X)**
Were there any vehicles which were not tarped?	***Yes ( )**	**No ( )**	**NA (X)**

Materials Removed From Site:

Disposal Facility: 110 Sand Company
Total Loads (on this date): 0
Total Loads (to date): 7
Total Estimated Daily Weight (tons): NA
Total Approximate* Weight (tons): 140

***Actual (total weight) adjusted periodically based on weight tickets submitted by the disposal facilities.**

Report No.: 83 EA Project File: 1447429 Date: May 01, 2012

Summary of Events:

- **Onsite at 07:00, spoke with Kent Wagoner and Sam Rowe (AECOM) regarding planned work for the day. Layne Drilling (Layne) onsite.**
- **Prior to the start of work, AECOM conducted health and safety meeting and discussed overall goals for day.**
- **Traffic controls (cones, caution tape, and signage) were maintained around DDC-10 well development exclusion zone. Poly was also maintained on ground surface around DDC-10.**
- **Layne continued developing the DDC-10 recirculation well using a surge block and pump. The upper well screen was individually surged and pumped until the turbidity stabilized. The well was packed off using an inflatable packer to isolate the two screened intervals during development. Layne developed the upper screen for 4 hours. Over that duration (240 minutes), the surge block was run continually and the pump was run 20% of the time, over equally distributed intervals. Well development water was pumped to a fractionation tank for settling. AECOM sampled the development water throughout the 4-hour period to determine when the screen was completely developed (less than 50 nephelometric turbidity units [NTUs]). DDC-10 upper screen was developed in accordance with the Contract Document Section – 02686 Re-Circulation Wells and AECOMs Remedial Action Work Plan (RAWP) Section 2.3.1 – Installation of DDC Wells.**
- **Tomorrow (2 May 2012), Layne will remove any sediment that has settled in DDC-10 and install the eductor piping.**
- **No concerns/complaints from residences were documented.**
- **Offsite at 16:00.**

VISITORS TO SITE:

NAME	Representing	Entered Exclusion/CRZ Zone	
None		Yes ( )	No ( )

PROJECT SCHEDULE:

- **Develop DDC wells (19 April – 11 May 2012).**
- **Process development water (24 April – 11 May 2012)**
- **DDC eductor piping and well head assembly (25 April – 11 May 2012).**

ISSUES PENDING:

- **None**

ITEMS OF CONCERN:

- **None**

Site Representative: Robert Peterson

Date: 01 May 2012

Report No.: 83 EA Project File: 1447429 Date: May 01, 2012

Photographs

Layne surging and pumping DDC-10, looking west.

View of DDC-10 upper screen development water.

DAILY OBSERVATION REPORT

Report No.: 84 EA Project File: 1447429 Date: May 02, 2012

EA Engineering, P.C.
6712 Brooklawn Parkway, Suite 104
Syracuse, NY 13211-2158

NYSDEC Division of Environmental Remediation
Site Location: Albany St., Babylon, NY (Site No. 1-52-140)

Site No. 1-52-140
Contractor PM: AECOM – Walter Howard
NYSDEC PM: Jeffrey Dyber
Construction Manager: AECOM - Kent Wagoner
Air Monitoring: AECOM
Health & Safety: AECOM

Weather Conditions

General Description	**Cloudy**	***Am***	**Cloudy**	***Pm***
Temperature	**48**	***Am***	**53**	***Pm***
Wind Direction	**7-12 mph E**	***Am***	**7-12 mph E**	***Pm***

HEALTH & SAFETY:

(*If any box(s) below are checked "Yes", list the deviation under the "Items for Concern" section of this report).

Were there any changes to the Health & Safety Plan?		***Yes ( )**	**No (X)**	**NA ( )**
Were there any exceedances at the perimeter action level reported on this date?	**Air:**	***Yes ( )**	**No ( )**	**NA (X)**
Were there any dust/odor issues reported or observed on this date?		***Yes ( )**	**No (X)**	**NA ( )**

WASTE HAULING:

(*If any box(s) below are checked "Yes", list the deviation under the "Items for Concern" section of this report).

Were there any vehicles that did not display proper D.O.T. numbers and placards?	***Yes ( )**	**No ( )**	**NA (X)**
Were there any vehicles which were not tarped?	***Yes ( )**	**No ( )**	**NA (X)**

Materials Removed From Site:

Disposal Facility: 110 Sand Company
Total Loads (on this date): 0
Total Loads (to date): 7
Total Estimated Daily Weight (tons): NA
Total Approximate* Weight (tons): 140

***Actual (total weight) adjusted periodically based on weight tickets submitted by the disposal facilities.**

Report No.: 84 EA Project File: 1447429 Date: May 02, 2012

Summary of Events:

- **Onsite at 07:00, spoke with Kent Wagoner and Sam Rowe (AECOM) regarding planned work for the day. Layne Drilling (Layne) on-site.**
- **Prior to the start of work, AECOM conducted health and safety meeting and discussed overall goals for day.**
- **Traffic controls (cones, caution tape, and signage) were maintained around DDC-10 well development exclusion zone. Poly was also maintained on ground surface around DDC-10.**
- **Layne removed fine-grained material that settled in the bottom of DDC-10 after development. A centrifugal pump was lowered to the bottom of the well and the material was pumped to the frac tank.**
- **Layne installed DDC-10 eductor piping. The components of the eductor pipe include a 6-in. and 8-in. diameter pipe (connected by a reducer coupling), with two 6-in. × 10-in. packers, a 125-slot screened section at the top, and three rows of eleven 1.5-in. diameter holes in the bottom portion of the eductor pipe (see AECOMs Remedial Action Work Plan (RAWP) Figure 2 – DDC Well Construction). The eductor was set at the bottom of the well (82 ft below ground surface [bgs]) and extended to the surface with the top of the eductor screen 8-ft above the water table. The two packers were installed below the upper DDC well screen in between the well casing and the 6-in. section of the eductor. The well head, airline connections, and a 4-in. air supply pipe (blower tube) will be installed at a later date. The eductor pipe and components were installed in accordance with AECOMs RAWP Section 2.3.1 – Installation of DDC Wells and Figure 2 – DDC Well Construction.**
- **AECOM began discharging DDC-10 development water to DDC-10 recirculation well. Water was pumped through two 10-gal filter vessels mounted on a secondary poly-lined containment pad. Pressure gauges were installed at the inlet and outlet of both vessels to monitor filter efficiency and a sampling port was installed on the outlet for sample collection and periodic measurements of turbidity. The filtration system operated at 100-110 gallons per minute and achieved less than 50 nephelometric turbidity units (NTUs) between successive well volumes. Well development water was discharged in accordance with the Contract Documents Section 02686 – Re-Circulation Wells and AECOMs RAWP Section 2.3.1 - Installation of DDC Wells.**
- **Layne mobilized development rig, equipment, and traffic controls to DDC-07. Layne bailed 10-ft of sediment from DDC-07 via 4-in. diameter steel bailer. Material placed in super sacks and staged on Suffolk County Water Authority property. Sediment will be disposed of offsite once well development is complete.**
- **Tomorrow (3 May 2012), Layne will continue developing DDC-07 recirculation well.**
- **No concerns/complaints from residences were documented.**
- **Offsite at 16:00.**

VISITORS TO SITE:

NAME	Representing	Entered Exclusion/CRZ Zone	
None		Yes ( )	No ( )

PROJECT SCHEDULE:

- **Develop DDC wells (19 April – 11 May 2012).**
- **Process development water (24 April – 11 May 2012)**
- **DDC eductor piping and well head assembly (25 April – 11 May 2012).**

ISSUES PENDING:

Report No.: 84 EA Project File: 1447429 Date: May 02, 2012

- **None**

ITEMS OF CONCERN:

- **None**

Site Representative: Robert Peterson

Date: 02 May 2012

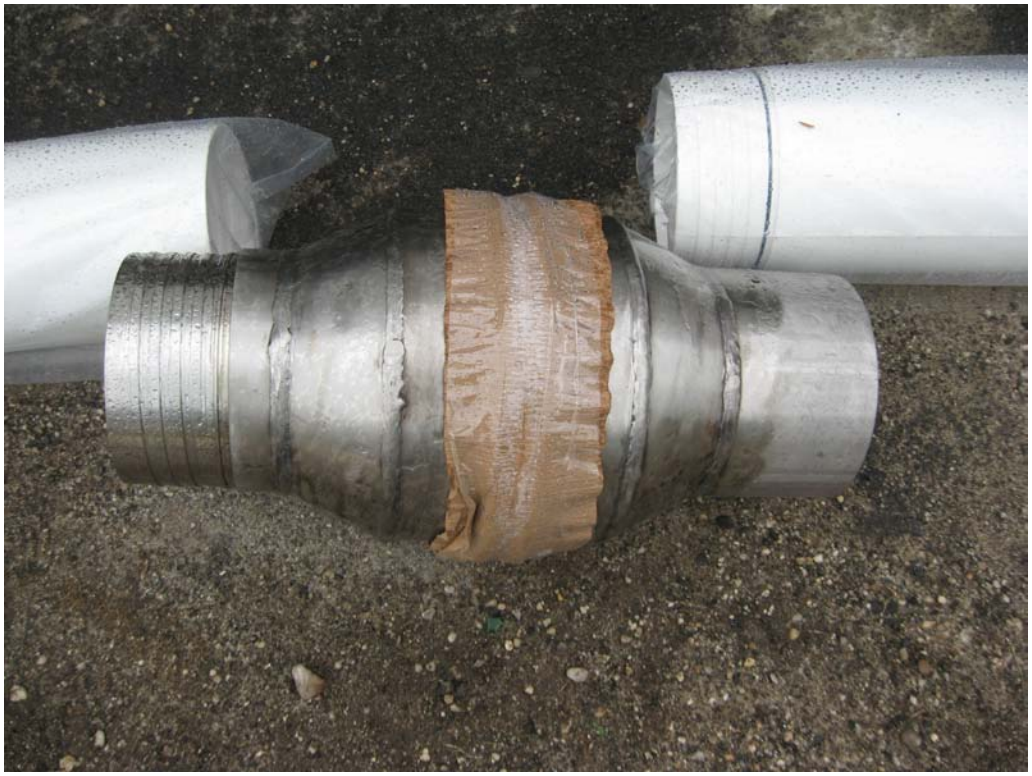
Report No.: 84 EA Project File: 1447429 Date: May 02, 2012

Photographs

View of DDC-10 vault with centrifugal pump lowered into recirculation well.

Layne installing DDC-10 eductor piping, looking west.

Report No.: 84 EA Project File: 1447429 Date: May 02, 2012



View of 6 in. x 10 in. packer.

Two vessel filtration system mounted on secondary containment.

Report No.: 84 EA Project File: 1447429 Date: May 02, 2012

Layne bailing sediment from DDC-07 recirculation well.

DAILY OBSERVATION REPORT

Report No.: 85 EA Project File: 1447429 Date: May 03, 2012

EA Engineering, P.C.
6712 Brooklawn Parkway, Suite 104
Syracuse, NY 13211-2158

NYSDEC Division of Environmental Remediation
Site Location: Albany St., Babylon, NY (Site No. 1-52-140)

Site No. 1-52-140
Contractor PM: AECOM – Walter Howard
NYSDEC PM: Jeffrey Dyber
Construction Manager: AECOM - Kent Wagoner
Air Monitoring: AECOM
Health & Safety: AECOM

Weather Conditions

General Description	**Cloudy/Rain**	***Am***	**Cloudy/Rain**	***Pm***
Temperature	**50**	***Am***	**54**	***Pm***
Wind Direction	**7-13 mph W**	***Am***	**7-13 mph W**	***Pm***

HEALTH & SAFETY:

(*If any box(s) below are checked "Yes", list the deviation under the "Items for Concern" section of this report).

Were there any changes to the Health & Safety Plan?		***Yes ( )**	**No (X)**	**NA ( )**
Were there any exceedances at the perimeter action level reported on this date?	**Air:**	***Yes ( )**	**No ( )**	**NA (X)**
Were there any dust/odor issues reported or observed on this date?		***Yes ( )**	**No (X)**	**NA ( )**

WASTE HAULING:

(*If any box(s) below are checked "Yes", list the deviation under the "Items for Concern" section of this report).

Were there any vehicles that did not display proper D.O.T. numbers and placards?	***Yes ( )**	**No ( )**	**NA (X)**
Were there any vehicles which were not tarped?	***Yes ( )**	**No ( )**	**NA (X)**

Materials Removed From Site:

Disposal Facility: 110 Sand Company
Total Loads (on this date): 0
Total Loads (to date): 7
Total Estimated Daily Weight (tons): NA
Total Approximate* Weight (tons): 140

***Actual (total weight) adjusted periodically based on weight tickets submitted by the disposal facilities.**

Report No.: 85 EA Project File: 1447429 Date: May 03, 2012

Summary of Events:

- **Onsite at 07:00, spoke with Kent Wagoner and Sam Rowe (AECOM) regarding planned work for the day. Layne Drilling (Layne) on-site.**
- **Prior to the start of work, AECOM conducted health and safety meeting and discussed overall goals for day.**
- **Traffic controls (cones, caution tape, and signage) were maintained around DDC-07 well development exclusion zone. Poly was also maintained on ground surface around DDC-07.**
- **Layne developed the DDC-07 recirculation well using a surge block and pump. The upper and lower well screens were individually surged and pumped until the turbidity stabilized. The well was packed off using an inflatable packer to isolate the two screened intervals during development. Both screens were developed for 4 hours each. Over that duration (240 minutes), the surge block was run continually and the pump was run 20% of the time, over equally distributed intervals. Well development water was pumped to a fractionation tank for settling. AECOM sampled the development water throughout the 4-hour period to determine when the screen was completely developed (less than 50 nephelometric turbidity units [NTUs]). DDC-07 upper and lower screens were developed in accordance with the Contract Document Section – 02686 Re-Circulation Wells and AECOMs Remedial Action Work Plan (RAWP) Section 2.3.1 – Installation of DDC Wells.**
- **Preferred Environmental developed monitoring well couplets (MW-1S/1D, MW-2S/2D, and MW-3S/3D) and DDC-06 piezometers (DDC-06-PS/PD) using a Waterra inertial pump. Periodic water quality measurements were collected to verify proper development. Each well obtained less than 50 NTUs and less than 10% variance on the other parameters between each successive well volume. Monitoring well couplets and DDC-06 piezometers were developed in accordance with the Contract Documents Section – 02686 Re-Circulation Wells.**
- **Tomorrow, Layne will install DDC-07 eductor piping and AECOM will discharge DDC-07 development water to DDC-07 recirculation well.**
- **No concerns/complaints from residences were documented.**
- **Off-site at 18:00.**

VISITORS TO SITE:

NAME	Representing	Entered Exclusion/CRZ Zone	
None		Yes ( )	No ( )

PROJECT SCHEDULE:

- **Develop DDC wells (19 April – 11 May 2012).**
- **Process development water (24 April – 11 May 2012)**
- **DDC eductor piping and well head assembly (25 April – 11 May 2012).**

ISSUES PENDING:

- **None**

ITEMS OF CONCERN:

- **None**

Site Representative: Robert Peterson

Date: 03 May 2012

Report No.: 85 EA Project File: 1447429 Date: May 03, 2012

Photographs

Layne developing DDC-07.

Traffic controls installed around DDC-07 development exclusion zone.

Report No.: 85 EA Project File: 1447429 Date: May 03, 2012

View of DDC-07 development water, less than 50 NTUs.

DAILY OBSERVATION REPORT

Report No.: 86 EA Project File: 1447429 Date: May 04, 2012

EA Engineering, P.C.
6712 Brooklawn Parkway, Suite 104
Syracuse, NY 13211-2158

NYSDEC Division of Environmental Remediation
Site Location: Albany St., Babylon, NY (Site No. 1-52-140)

Site No. 1-52-140
Contractor PM: AECOM – Walter Howard
NYSDEC PM: Jeffrey Dyber
Construction Manager: AECOM - Kent Wagoner
Air Monitoring: AECOM
Health & Safety: AECOM

Weather Conditions

General Description	**Cloudy/Rain**	***Am***	**NA**	***Pm***
Temperature	**56**	***Am***	**NA**	***Pm***
Wind Direction	**5 mph W**	***Am***	**NA**	***Pm***

HEALTH & SAFETY:

(*If any box(s) below are checked "Yes", list the deviation under the "Items for Concern" section of this report).

Were there any changes to the Health & Safety Plan?		***Yes ( )**	**No (X)**	**NA ( )**
Were there any exceedances at the perimeter action level reported on this date?	**Air:**	***Yes ( )**	**No ( )**	**NA (X)**
Were there any dust/odor issues reported or observed on this date?		***Yes ( )**	**No (X)**	**NA ( )**

WASTE HAULING:

(*If any box(s) below are checked "Yes", list the deviation under the "Items for Concern" section of this report).

Were there any vehicles that did not display proper D.O.T. numbers and placards?	***Yes ( )**	**No ( )**	**NA (X)**
Were there any vehicles which were not tarped?	***Yes ( )**	**No ( )**	**NA (X)**

Materials Removed From Site:

Disposal Facility: 110 Sand Company
Total Loads (on this date): 0
Total Loads (to date): 7
Total Estimated Daily Weight (tons): NA
Total Approximate* Weight (tons): 140

***Actual (total weight) adjusted periodically based on weight tickets submitted by the disposal facilities.**

Report No.: 86 EA Project File: 1447429 Date: May 04, 2012

Summary of Events:

- **Onsite at 07:00, spoke with Kent Wagoner and Sam Rowe (AECOM) regarding planned work for the day. Layne Drilling (Layne) onsite.**
- **Prior to the start of work, AECOM conducted health and safety meeting and discussed overall goals for day.**
- **Traffic controls (cones, caution tape, and signage) were maintained around DDC-07 well development exclusion zone. Poly was also maintained on ground surface around DDC-07.**
- **Layne installed DDC-07 eductor piping. The components of the eductor pipe include a 6-inch and 8-inch diameter pipe (connected by a reducer coupling), with two 6-in. × 10-in. packers, a 125-slot screened section at the top, and three rows of eleven 1.5-in. diameter holes in the bottom portion of the eductor pipe (see AECOMs Remedial Action Work Plan [RAWP] Figure 2 – DDC Well Construction). The eductor was set at the bottom of the well (83 ft below ground surface [bgs]) and extended to the surface with the top of the eductor screen 8-ft above the water table. The two packers were installed below the upper DDC well screen in between the well casing and the 6-inch section of the eductor. The well head, airline connections, and a 4-in. air supply pipe (blower tube) will be installed at a later date. The eductor pipe and components were installed in accordance with AECOMs RAWP Section 2.3.1 – Installation of DDC Wells and Figure 2 – DDC Well Construction.**
- **AECOM began discharging DDC-07 development water to the DDC-07 recirculation well. Water was pumped through two 10-gal filter vessels mounted on a secondary poly-lined containment pad. Pressure gauges were installed at the inlet and outlet of both vessels to monitor filter efficiency and a sampling port was installed on the outlet for sample collection and periodic measurements of turbidity. The filtration system operated at 100-110 gallons per minute and achieved less than 50 NTUs between successive well volumes. Well development water was discharged in accordance with the Contract Documents Section 02686 – Re-Circulation Wells and AECOMs RAWP Section 2.3.1 - Installation of DDC Wells.**
- **No concerns/complaints from residences were documented.**
- **Off-site at 11:00.**

VISITORS TO SITE:

NAME	Representing	Entered Exclusion/CRZ Zone	
None		Yes ( )	No ( )

PROJECT SCHEDULE:

- **Develop DDC wells (19 April – 11 May 2012).**
- **Process development water (24 April – 11 May 2012)**
- **DDC eductor piping and well head assembly (25 April – 11 May 2012).**

ISSUES PENDING:

- **None**

ITEMS OF CONCERN:

- **None**

Site Representative: Robert Peterson

Date: 04 May 2012

Report No.: 86 EA Project File: 1447429 Date: May 04, 2012

Photographs

View of eleven 1.5-in. diameter holes in the bottom portion of the eductor pipe.

Layne installing DDC-07 eductor piping.