# SITE OBSERVATION REPORT – RAWP Implementation – Day 75

LANGAN

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|---|---|---|---|---|---|
| **PROJECT No.:** | 170390001 | **CLIENT:** | | **DATE:** | Wednesday, July 16, 2025 |
| **PROJECT:** | 141 3rd Street | | | **WEATHER:** | Sunny, 75-89 $^{0}$F<br>Wind: S @ 0-13 mph |
| **LOCATION:** | Brooklyn, New York | | Third Street Owner LLC and 155 Third St., LLC | **TIME:** | 7:00 a.m. – 1:00 p.m, |
| **BCP SITE ID:** | C224336 | | | **MONITOR:** | Savannah Walters |

**EQUIPMENT:**
LB36-410 Drill Rig
LB36 Drill Rig
MiniRae 3000 Photoionization detector (PID)
AIRMAN PDS1855 Air Compressor

**PRESENT AT SITE:**
**Langan**: Savannah Walters, Gabriella DeGennaro, Gerald Nicholls
**Monodnack:** John Henry, Gisselle Barrera
**Innovative Environmental Technologies (IET) (ISGS Contractor):** Michael Scalzi + 4-person crew
**Miller's Launch & Tug:** 2-person crew
**New York State Department of Environmental Conservation (NYSDEC):** Aaron Fischer
**WSP:** Monica Pula

**OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was onsite to document implementation of the New York State Department of Environmental Conservation (NYSDEC)-approved Remedial Action Work Plan (RAWP) dated 12 December 2024 and Revised In-Situ Geochemical Stabilization (ISGS) Pilot Test Work Plan dated 11 June 2025.

**Remedial Action Work Summary:**

- Miller's Launch & Tug installed a turbidity curtain as a contingency measure in the Gowanus Canal.
- IET mobilized equipment and materials for the ISGS pilot test, and installed a header line as a contingency measure in the Gowanus Canal.
- IET tested the contingency measures for leakage and functionality.
- Langan held an ISGS pilot test kickoff meeting with NYSDEC, IET, and Monodnack.

**Sampling**

- No samples were collected.

**Community Air Monitoring Plan (CAMP) Activities**

- Community air monitoring was not implemented due to a lack of ground-intrusive work performed throughout the workday. Fugitive dust or odors were not observed migrating from the site.

**Material Tracking**

- No material was exported from the site.
- No material was imported to site.

| Material Import Summary | | | | |
|---|---|---|---|---|
| **Facility** | **NYSDEC Approved Quantity** | **Imported** | **Today** | **Total** |
| **Tilcon - Haverstraw<br>Haverstraw, NY<br>ASTM #3 Virgin Stone (1.5-Inch)** | 400 CY (560 tons) | **No. Loads** | 0 | **4** |
| | | **Quantity (tons)** | 0 | **89.95** |
| **Impact Materials Jersey City (IMJC)<br>Jersey City, NJ<br>0.75-inch Stone** | 2,000 CY (2,800 tons) | **No. Loads** | 0 | **0** |
| | | **Quantity (tons)** | 0 | **0** |
| **IMJC<br>Jersey City, NJ<br>1.5-inch Stone** | 400 CY (560 tons) | **No. Loads** | 0 | **2** |
| | | **Quantity (tons)** | 0 | **49.65** |

| Material Export Summary | | | | |
|---|---|---|---|---|
| **Facility** | **Approved Quantity** | **Imported** | **Today** | **Total** |
| **Clean Earth of Carteret (CEC)<br>Carteret, NJ<br>Elevated Soil/Fill** | 9,857 CY (13,800 tons) | **No. Loads** | 0 | **62** |
| | | **Quantity (CY)** | 0 | **1,240** |
| **Clean Earth of New Castle (CENC)<br>New Castle, DE<br>Non-Hazardous Contaminated Soil/Urban Fill** | 3,571 CY (5,000 tons) | **No. Loads** | 0 | **0** |
| | | **Quantity (CY)** | 0 | **0** |
| **Atlantic County Utilities Authority (ACUA)<br>Egg Harbor Township, NJ<br>Non-Hazardous Contaminated Soil/Urban Fill** | 714 CY (1,000 tons) | **No. Loads** | 0 | **0** |
| | | **Quantity (CY)** | 0 | **0** |
| **Clean Earth of North Jersey (CENJ)<br>Kearny, NJ<br>Hazardous Lead** | 107 CY (150 tons) | **No. Loads** | 0 | **2** |
| | | **Quantity (CY)** | 0 | **40** |

Drums

- One 55-gallon drum containing purged groundwater and dense non-aqueous phase liquid (DNAPL) is staged in the southern part of the site.
- One 55-gallon drum containing truck wash water is staged in the central part of the site.
- One 55-gallon drum containing purged groundwater is staged in the southern part of the site.
- One 55-gallon drum containing drill cuttings is staged in the eastern part of the site.
- One 55-gallon drum containing spent PPE is staged in the southeastern part of the site.

**Anticipated Activities**

- IET will begin ISGS pilot test implementation.

**SITE PHOTOGRAPHS:**

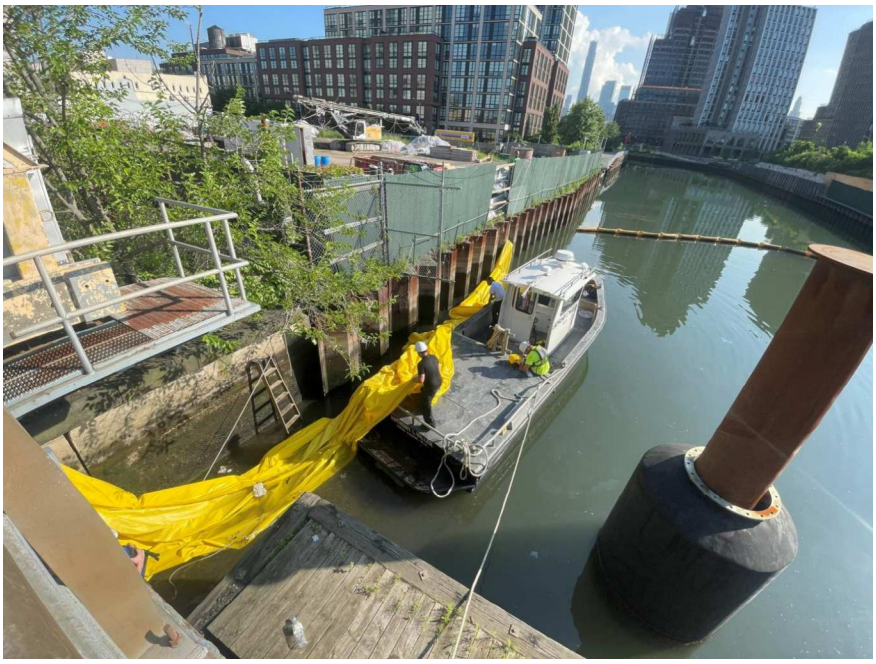


**Photo 1:** IET and Millers Launch & Tug installing the turbidity curtain in the Gowanus Canal (facing north).

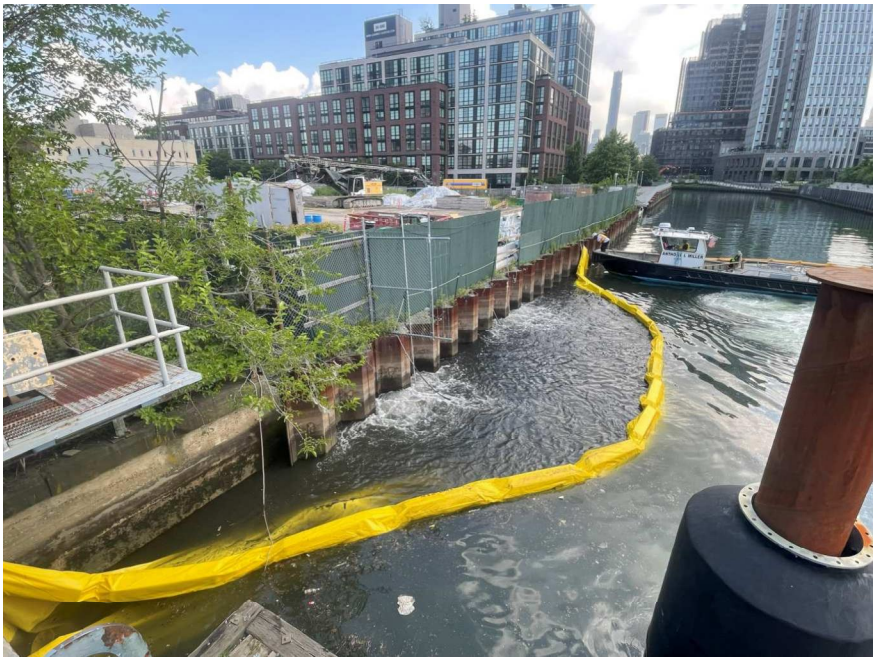
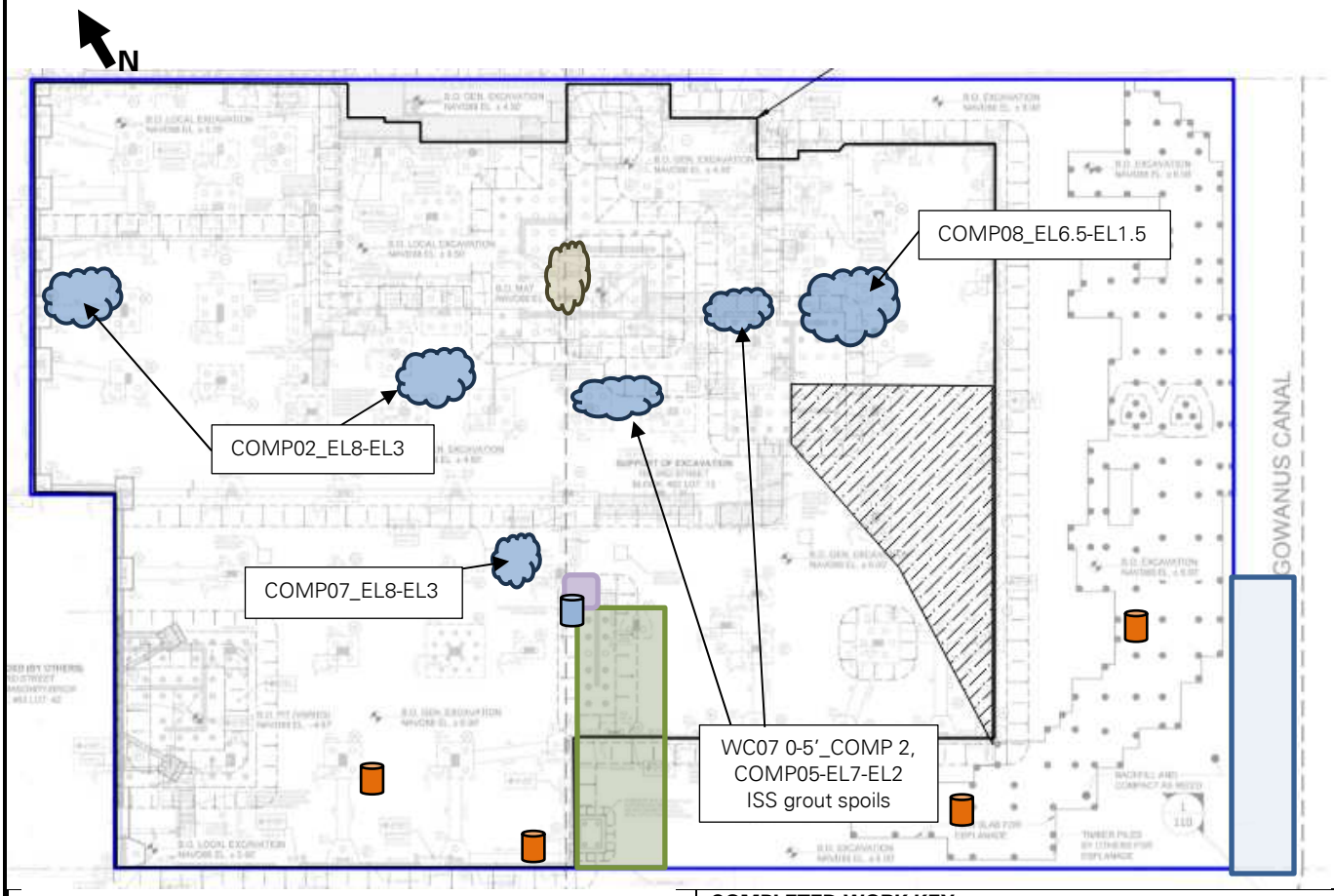


**Photo 2:** IET testing aeration within the header line in the Gowanus Canal (facing northwest).

**FIGURE 1 - SITE MAP:**




**LEGEND:**

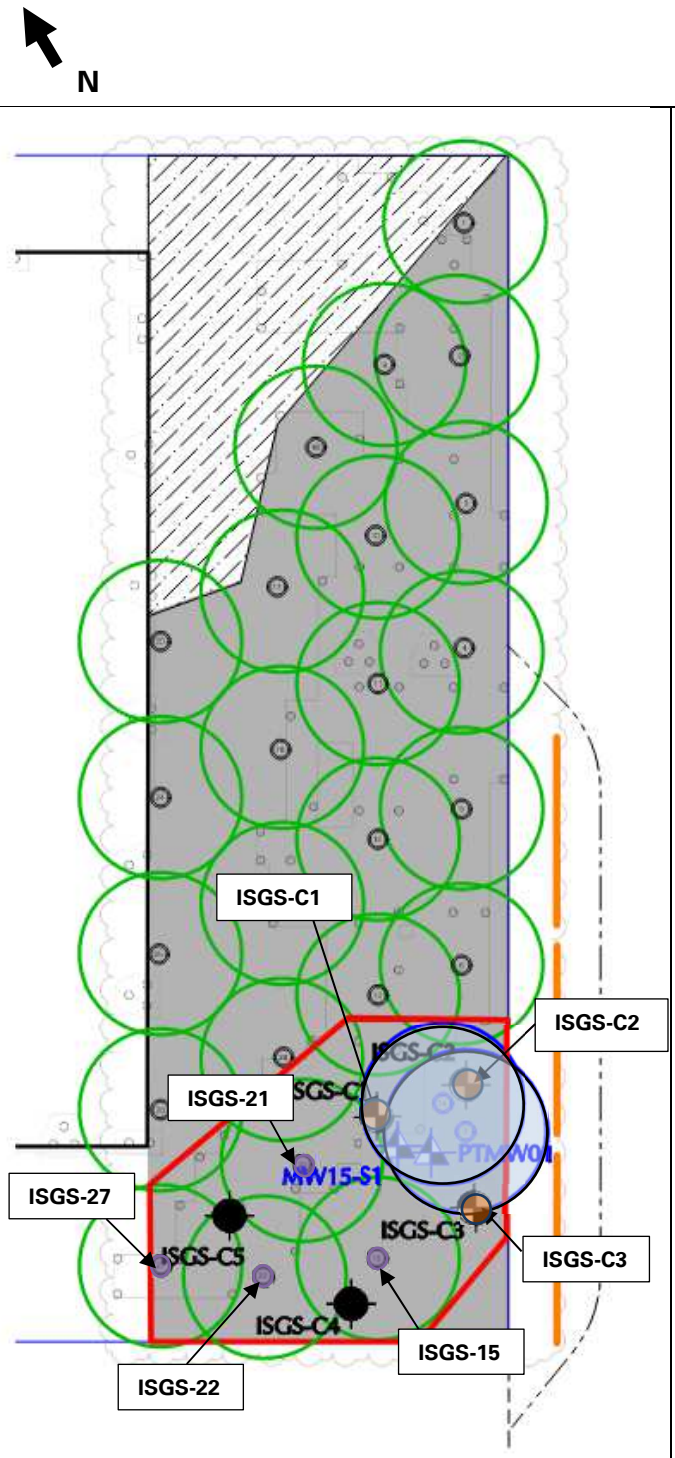
- APPROXIMATE SITE BOUNDARY
- PROPOSED BUILDING FOOTPRINT
- APPROXIMATE PROPOSED EXTENT OF ISS AREA TO BE EXCAVATED TO 4 FEET BGS (EL. 3.5± FEET NAVD88)

**COMPLETED WORK KEY**

- Approximate work area
- Approximate location of upwind CAMP station
- Approximate location of downwind CAMP station
- Approximate location of drum
- Approximate location of truck wash drum
- Approximate wind direction
- Stockpiled soil/fill
- Stockpiled C&D debris
- Stockpiled imported stone
- Temporary stabilized construction entrance
- Truck wash catch basin

Base map includes Figure 5 – Pre-ISS Excavation Plan from the NYSDEC-approved RDD for ISS, prepared by Langan Engineering, dated 4/5/2024

**FIGURE 2 - ISGS PROGRESS MAP**




**LEGEND:**

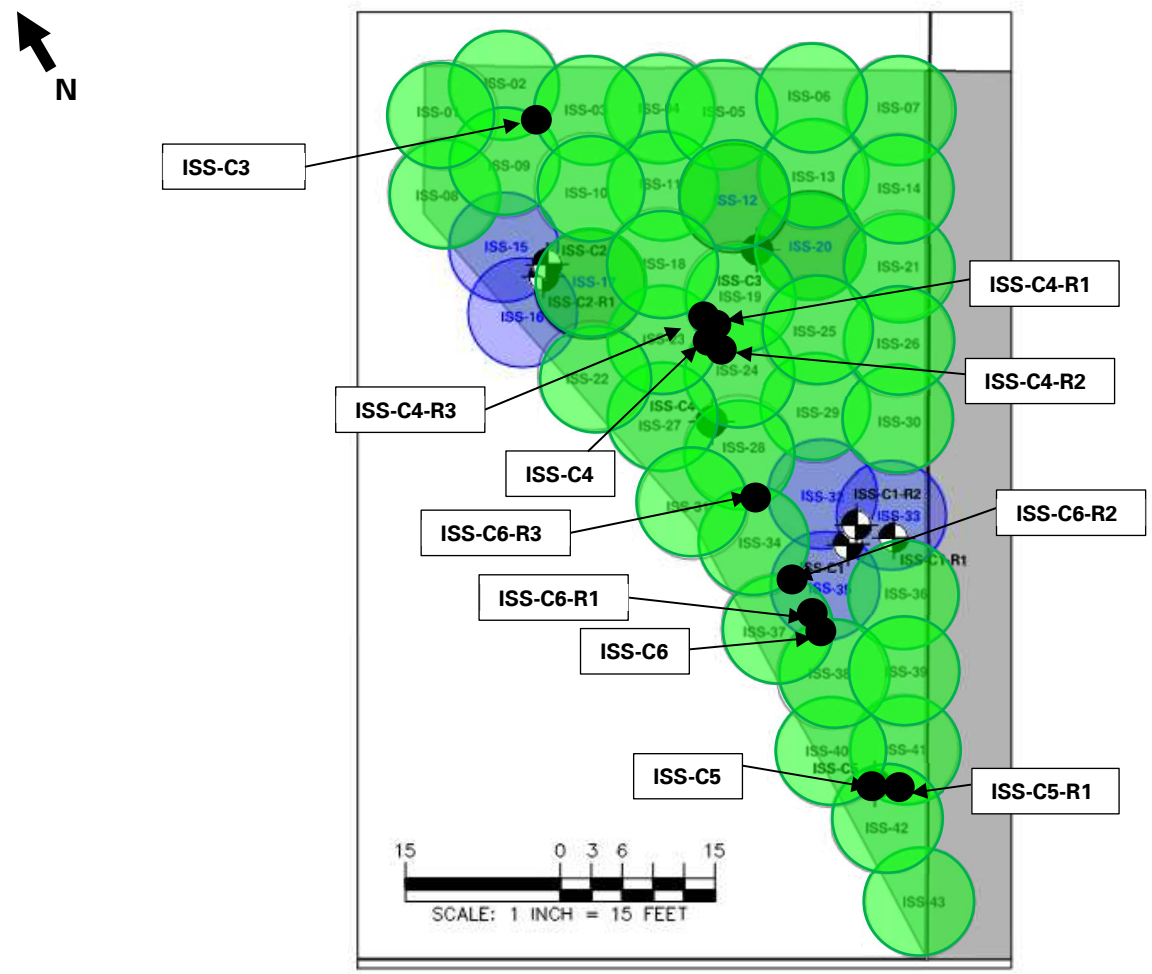
- APPROXIMATE SITE BOUNDARY
- PROPOSED BUILDING FOOTPRINT
- APPROXIMATE PROPOSED EXTENT OF ISGS AREA BETWEEN EL. -19± TO EL. -23±
- APPROXIMATE PROPOSED EXTENT OF ISGS SUPPORT/LAYDOWN AREA
- APPROXIMATE PROPOSED TEMPORARY DIRECT-PUSH INJECTION POINT LOCATION
- APPROXIMATE ROI (13-FOOT RADIUS, 25-FOOT SPACING)
- C1 — APPROXIMATE PROPOSED PILOT TEST QA/QC CORE LOCATION
- APPROXIMATE ISGS PILOT TEST AREA
- MW15-S1 — EXISTING MONITORING WELL LOCATION
- PTWM01 — PROPOSED MONITORING WELL LOCATION

**COMPLETED WORK KEY**

- ISGS injection point completed today
- ISGS injection point previously completed
- Core location completed today
- Core location previously completed
- Pre-probe drilling completed

Base map includes Figure 5 – ISGS Plan, prepared by Langan, dated February 2025

**FIGURE 3 - ISS PROGRESS MAP:**




**LEGEND:**

- APPROXIMATE SITE BOUNDARY
- PROPOSED BUILDING FOOTPRINT
- APPROXIMATE EXTENT OF ISS SUPPORT/LAYDOWN AREA
- APPROXIMATE EXTENT OF ISS IMPLEMENTATION AREA
- ISS-C1 APPROXIMATE COMPLETED CORE LOCATION
- ISS-C3 APPROXIMATE PROPOSED CORE LOCATION

**COMPLETED WORK KEY**

- Completed ISS Pilot Test Columns
- Columns to be re-mixed
- Completed Full-Scale ISS Columns
- ISS Columns mixed today
- Columns to be mixed tomorrow
- Collected core today
- Previously collected sample location

Base map includes Figure 2 – ISS Plan from the ISS Pilot Test Results Letter, prepared by Langan, dated March 5, 2025

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**TABLE 1 - ISS PROGRESS TABLE:**

| ISS Column ID | Coordinates (N, E) | Column Diameter (ft) | No. of Column Passes | Bottom Elevation of Column | Approximate Volume Treated (CY) | Mixing Time Per Interval (min/ft) | Reagent Additional Per Interval (kg) | Injection Pressure (psi) | Injection Rate (gal/min) | Rotational Speed (rpm) | Advance Rate (ft/min) | Sampled |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Pilot Study** | | | | | | | | | | | | |
| ISS-20 | 98.87, 221.23 | 10.6 | N/A | -26.5± | N/A | N/A | N/A | 50 | 6.5 | 30 | 3.75 | Yes |
| ISS-12 | 103.418, 213.788 | 10.6 | N/A | -21.5± | N/A | N/A | N/A | N/A | N/A | 15 | 1.4 | Yes |
| ISS-16 | 92.59, 193.29 | 10.6 | 1 | -26.5± | 93 | 5 | 948.78 | N/A | N/A | 17 | 0.1 | Yes |
| ISS-17 | 95.14, 199.81 | 10.6 | 1 | -26.5± | 105 | 10 | 841.75 | N/A | N/A | 18 | 0.19 | Yes |
| ISS-15 | 98.75, 191.97 | 10.6 | 1 | -26.5± | 105 | 5 | 765.22 | N/A | N/A | 16 | 0.28 | Yes |
| ISS-35 | 65.47, 222.59 | 10.6 | 2 | -26.5± | 101 | 7 | 871.43 | N/A | N/A | 16 | 0.36 | Yes |
| ISS-32 | 74.47, 222.33 | 10.6 | 2 | -26.5± | 105 | 4 | 841.75 | N/A | N/A | 16 | 0.25 | Yes |
| ISS-33 | 74.47, 229.01 | 10.6 | 2 | -26.5± | 105 | 11 | 765.22 | N/A | N/A | 16 | 0.17 | Yes |
| **Full-Scale Implementation** | | | | | | | | | | | | |
| ISS-01 | 110.99, 185.10 | 10.6 | 2 | -26.5± | 100 | 5.3* | 800* | 22* | 21* | 13* | 0.2* | No |
| ISS-02 | 113.11, 190.95 | 10.6 | 2 | -26.5± | 109 | 4.3* | 809* | 24* | 34* | 14* | 0.2* | No |
| ISS-03 | 112.32, 199.07 | 10.6 | 2 | -26.5± | 99 | 7.8* | 886* | 19* | 37* | 14* | 0.1* | Yes |
| ISS-04 | 114.11, 206.99 | 10.6 | 2 | -26.5± | 109 | 9.1* | 956* | 21* | 24* | 13* | 0.1* | No |
| ISS-05 | 111.93, 214.38 | 10.6 | 2 | -26.5± | 101 | 8.6* | 874* | 25* | 21* | 13* | 0.1* | No |
| ISS-06 | 113.45, 221.56 | 10.6 | 2 | -26.5± | 102 | 8.0* | 938* | 22* | 27* | 13* | 0.1* | Yes |
| ISS-07 | 111.72, 229.09 | 10.6 | 2 | -26.5± | 101 | 9.5* | 1,027* | 24* | 22* | 13* | 0.1* | Yes |
| ISS-08 | 103.02, 187.19 | 10.6 | 2 | -26.5± | 100 | 5.6* | 964* | 22* | 41* | 13* | 0.2* | No |
| ISS-09 | 107.17, 192.43 | 10.6 | 2 | -26.5± | 100 | 6.6* | 964* | 21* | 24* | 14* | 0.2* | No |
| ISS-10 | 103.57, 199.17 | 10.6 | 2 | -26.5± | 100 | 5.8* | 803* | 21* | 29* | 14* | 0.2* | No |
| ISS-11 | 107.82, 206.44 | 10.6 | 2 | -26.5± | 101 | 6.8* | 869* | 19* | 27* | 13* | 0.2* | No |
| ISS-12 | 103.42, 213.80 | 10.6 | 2 | -26.5± | 100 | 9.1* | 964* | 21* | 30* | 14* | 0.1* | No |
| ISS-13 | 106.26, 221.37 | 10.6 | 2 | -26.5± | 102 | 6.0* | 861* | 20* | 28* | 14* | 0.2* | No |
| ISS-14 | 104.02, 228.87 | 10.6 | 2 | -26.5± | 100 | 9.8* | 961* | 19* | 40* | 13* | 0.1* | No |
| ISS-17 | 95.14, 199.81 | 10.6 | 2 | -26.5± | 109 | 8.8* | 877* | 19* | 28* | 13* | 0.1* | No |
| ISS-18 | 99.32, 206.56 | 10.6 | 2 | -26.5± | 101 | 5.9* | 790* | 25* | 35* | 13* | 0.2* | No |
| ISS-19 | 94.57, 213.51 | 10.6 | 2 | -26.5± | 104 | 9.2* | 1081* | 20* | 31* | 13* | 0.1* | Yes |
| ISS-20 | 98.37, 221.23 | 10.6 | 2 | -26.5± | 98 | 9.9* | 1,221* | 17* | 28* | 13* | 0.1* | No |
| ISS-21 | 96.47, 229.17 | 10.6 | 2 | -26.5± | 100 | 6.0* | 876* | 18* | 21* | 13* | 0.2* | No |
| ISS-22 | 86.23, 199.71 | 10.6 | 2 | -26.5± | 109 | 6.2* | 804* | 23* | 27* | 13* | 0.2* | No |
| ISS-23 | 90.11, 206.59 | 10.6 | 2 | -26.5± | 100 | 5.7* | 882* | 23* | 35* | 14* | 0.2* | No |
| ISS-24 | 86.32, 213.53 | 10.6 | 2 | -26.5± | 101 | 5.6* | 875* | 19* | 35* | 14* | 0.2* | Yes |
| ISS-25 | 91.32, 221.3 | 10.6 | 2 | -26.5± | 110 | 6.6* | 799* | 17* | 21* | 12* | 0.2* | No |
| ISS-26 | 88.63, 229.16 | 10.6 | 2 | -26.5± | 109 | 7.1* | 807* | 30* | 28* | 13* | 0.1* | No |
| ISS-27 | 81.32, 206.11 | 10.6 | 2 | -26.5± | 109 | 6.6* | 735* | 24* | 32* | 13* | 0.2* | Yes |
| ISS-28 | 78.50, 215.04 | 10.6 | 2 | -26.5± | 100 | 5.4* | 880* | 23* | 37* | 13* | 0.3* | No |
| ISS-29 | 83.08, 221.62 | 10.6 | 2 | -26.5± | 100 | 5.5* | 878* | 21* | 47* | 13* | 0.2* | No |

| ISS Column ID | Coordinates (N, E) | Column Diameter (ft) | No. of Column Passes | Bottom Elevation of Column | Approximate Volume Treated (CY) | Mixing Time Per Interval (min/ft) | Reagent Additional Per Interval (kg) | Injection Pressure (psi) | Injection Rate (gal/min) | Rotational Speed (rpm) | Advance Rate (ft/min) | Sampled |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ISS-30 | 80.66, 229.01 | 10.6 | 2 | -26.5± | 101 | 5.5* | 948* | 19* | 35* | 13* | 0.3* | No |
| ISS-31 | 73.77, 209.56 | 10.6 | 2 | -26.5± | 105 | 7.3* | 842* | 23* | 30* | 13* | 0.2* | No |
| ISS-34 | 69.19, 215.20 | 10.6 | 2 | -26.5± | 104 | 5.9* | 850* | 17* | 34* | 14* | 0.3* | No |
| ISS-36 | 64.95, 229.19 | 10.6 | 2 | -26.5± | 102 | 6.8* | 782* | 24* | 27* | 13* | 0.3* | No |
| ISS-37 | 61.04, 216.20 | 10.6 | 2 | -26.5± | 105 | 6.2* | 837* | 25* | 33* | 13* | 0.3* | No |
| ISS-38 | 56.31, 222.47 | 10.6 | 2 | -26.5± | 105 | 6.0* | 759* | 19.3* | 32* | 14* | 0.3* | No |
| ISS-39 | 57.46, 228.81 | 10.6 | 2 | -26.5± | 103 | 5.7* | 853* | 16* | 33* | 13* | 0.3* | No |
| ISS-40 | 49. 31, 222.87 | 10.6 | 2 | -26.5± | 104 | 5.5* | 848* | 28* | 33* | 13* | 0.4* | Yes |
| ISS-41 | 49.74, 229.96 | 10.6 | 2 | -26.5± | 99 | 8.1* | 890* | 19* | 30* | 13* | 0.2* | Yes |
| ISS-42 | 42.22, 228.29 | 10.6 | 2 | -26.5± | 103 | 5.4* | 851* | 16.4* | 31* | 13* | 0.3* | No |
| ISS-43 | 35.19, 230.66 | 10.6 | 2 | -26.5± | 102 | 8.1* | 781.47* | 8* | 45* | 14* | 0.3* | No |

1. Coordinates were measured in northing and eastings from the project datum.
2. * = Estimated parameters based on field observations. Exact parameters will be updated (as needed) once received.

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**TABLE 2 - ISS QC RESULTS TABLE**

| ISS Cell | Sample Depth (elevation) | 7-day | | 14-day | | 21-day | | 28-day | | 56-day | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | UCS (psi) | HC (cm/sec) | UCS (psi) | HC (cm/sec) | UCS (psi) | HC (cm/sec) | UCS (psi) | HC (cm/sec) | UCS (psi) | HC (cm/sec) |
| **Pilot Study** | | | | | | | | | | | |
| ISS-15 | -18.5± to -20.5± | 40 | $1.3 \times 10^{-6}$ | **80** | **$8.6 \times 10^{-7}$** | **90** | **$4.6 \times 10^{-7}$** | **90** | **$4.7 \times 10^{-7}$** | **100** | **$4.2 \times 10^{-7}$** |
| ISS-16 | -18.5± to -20.5± | 30 | $3.6 \times 10^{-6}$ | **50** | $1.1 \times 10^{-6}$ | **60** | **$9.8 \times 10^{-7}$** | **70** | **$7.4 \times 10^{-7}$** | **70** | **$7.2 \times 10^{-7}$** |
| ISS-17 | -18.5± to -20.5± | 20 | $1.6 \times 10^{-6}$ | 30 | $3.0 \times 10^{-6}$ | 40 | $2.8 \times 10^{-6}$ | **50** | $2.7 \times 10^{-6}$ | **60** | $2.6 \times 10^{-6}$ |
| ISS-32 | -18.5± to -20.5± | 30 | **$8.8 \times 10^{-7}$** | **60** | **$7.5 \times 10^{-7}$** | **70** | **$6.0 \times 10^{-7}$** | **90** | **$5.5 \times 10^{-7}$** | **100** | **$5.3 \times 10^{-7}$** |
| ISS-33 | -18.5± to -20.5± | **50** | **$2.3 \times 10^{-7}$** | **80** | **$2.0 \times 10^{-7}$** | **90** | **$2.0 \times 10^{-7}$** | **100** | **$2.2 \times 10^{-7}$** | **100** | **$1.9 \times 10^{-7}$** |
| ISS-35 | -18.5± to -20.5± | 30 | $1.3 \times 10^{-6}$ | **60** | **$8.1 \times 10^{-7}$** | **80** | **$5.9 \times 10^{-7}$** | **90** | **$5.0 \times 10^{-7}$** | **100** | **$4.9 \times 10^{-7}$** |
| **Full-Scale Implementation** | | | | | | | | | | | |
| ISS-03 | -14± to -15± | **150** | **$1.1 \times 10^{-7}$** | **150** | **$9.9 \times 10^{-8}$** | **340** | **$8.7 \times 10^{-8}$** | **240** | **$8.2 \times 10^{-8}$** | **160** | **$8.1 \times 10^{-8}$** |
| ISS-06 | -13± to -14± | **170** | **$3.8 \times 10^{-7}$** | **220** | **$2.0 \times 10^{-7}$** | **110** | **$9.9 \times 10^{-8}$** | **330** | **$9.0 \times 10^{-8}$** | **380** | **$9.3 \times 10^{-8}$** |
| ISS-07 | -17± to -18± | **130** | **$1.2 \times 10^{-7}$** | **210** | **$1.7 \times 10^{-7}$** | **330** | **$9.6 \times 10^{-8}$** | **300** | **$8.8 \times 10^{-8}$** | **410** | **$8.6 \times 10^{-8}$** |
| ISS-19 | -16± to -17± | **110** | **$2.0 \times 10^{-7}$** | **200** | **$1.6 \times 10^{-7}$** | **220** | **$1.9 \times 10^{-7}$** | **230** | **$1.7 \times 10^{-7}$** | **100** | **$9.7 \times 10^{-8}$** |
| ISS-24 | -17± to -18± | **100** | **$1.1 \times 10^{-7}$** | **230** | **$1.8 \times 10^{-7}$** | **190** | **$2.0 \times 10^{-7}$** | **420** | **$1.3 \times 10^{-7}$** | **370** | **$1.5 \times 10^{-7}$** |
| ISS-27 | -16± to -17± | **120** | **$1.2 \times 10^{-7}$** | **230** | **$9.9 \times 10^{-8}$** | **170** | **$1.5 \times 10^{-7}$** | **260** | **$9.1 \times 10^{-8}$** | **270** | **$9.5 \times 10^{-8}$** |
| ISS-40 | -19± to -21± | **210** | **$3.1 \times 10^{-7}$** | **250** | **$3.5 \times 10^{-7}$** | **400** | **$1.0 \times 10^{-7}$** | **420** | **$2.1 \times 10^{-7}$** | **430** | **$1.1 \times 10^{-7}$** |
| ISS-41 | -15.3± to -16.3± | **190** | **$4.7 \times 10^{-7}$** | **150** | **$4.4 \times 10^{-7}$** | **220** | **$3.5 \times 10^{-7}$** | **220** | **$3.9 \times 10^{-7}$** | **210** | **$4.0 \times 10^{-7}$** |

1. Results meeting or exceeding field performance criterion (50 pounds per square inch [psi] for unconfined compressive strength [UCS] and $1 \times 10^{-6}$ centimeters per second [cm/s] for hydraulic conductivity [HC]) are shown in bold.
2. Elevation recorded in North American Vertical Datum of 1988