

SITE OBSERVATION REPORT

PROJECT NO. 170384501 PROJECT: 805-825 Atlantic Avenue LOCATION: 805-825 Atlantic Avenue, Brooklyn, NY	CLIENT: 550 Clinton Partners LLC/539 Vanderbilt Partners LLC	DATE: Monday, Oct. 21, 2019 WEATHER: Sunny, 60s Wind: SE 5 mph TIME: 7:00am to 2:15 pm
CONTRACTOR: AARCO Environmental Services, Inc. (AARCO)		LANGAN REP. : Tyler Goodnough
CONTRACTOR'S EQUIPMENT: Geoprobe 8140 LC Sonic rig	PRESENT AT SITE: Day 15 Tyler Goodnough - Langan Tom Seickel - AARCO	
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.: <p>Langan was present to implement the August 20, 2019 Remedial Design – In-Situ Groundwater Remediation Technical Memorandum (Tech Memo) for the for BCP site C224228 at 805-825 Atlantic Avenue (Block 2010, Lots 1 and 59). Observed activities were as follows:</p> <p>Site Activities</p> <ul style="list-style-type: none"> • Drilling Activity: <ul style="list-style-type: none"> ○ AARCO used a Geoprobe 8140 LC sonic rig to advance boring IP-10 from 25 to 80 feet below grade surface (bgs). Groundwater was observed at about 65 feet bgs. Petroleum-like odors, staining, and photoionization detector (PID) readings up to 17.8 parts per million (ppm) were observed from 67 to 70 feet bgs (max. PID reading at about 69 feet bgs). ○ AARCO used a Geoprobe 8140 LC sonic rig to advance boring IP-13 from 0 to 35 feet bgs. Groundwater was not observed. Evidence of contamination was not observed. • Injection well IP-10 was constructed with about 65 feet of 2-inch diameter schedule-40 polyvinyl chloride (PVC) riser piping connected to 15 feet of 2-inch diameter No. 2 slotted PVC well screen. The screen interval was set from 65 to 80 feet bgs. The annulus was backfilled with No. 1 sand from 64 to 80 feet bgs, bentonite from 63 to 64 feet bgs, and the remainder of the boring was backfilled via tremie pipe with a bentonite-grout slurry to grade. <p>Sampling:</p> <ul style="list-style-type: none"> • None. 		
Cc: K. Del Col, S. Knoop, M. Burke (Langan)	By: Tyler Goodnough LANGAN	

SITE OBSERVATION REPORT

CAMP Activities

- Langan performed community air monitoring at one upwind and one downwind station. No volatile organic compound (VOC) or particulate concentrations exceeded the action levels established in the site Community Air Monitoring Plan (CAMP).

Particulate Monitoring (mg/m ³)			Organic Vapor Monitoring (ppm)		
Averaging Period	Upwind	Downwind	Averaging Period	Upwind	Downwind
High Intervals "exceedances" (15min >1.5 + Upwind level)	NA	0	High Intervals "exceedances" (15min >5+Upwind level)	NA	0
Maximum 15-min Average	0.030	0.030	Maximum 15-min Average	1.0	0.1
Minimum 1-min Instant Reading	0.000	0.012	Minimum 1-min Instant Reading	0.0	0.0
Maximum 1-min Instant Reading	0.030	0.045	Maximum 1-min Instant Reading	1.7	0.2

mg/m³ = micrograms per cubic meter

ppm = parts per million

NA = Not Available

Anticipated Activities

- Complete advancement of boring IP-13 to 80 feet bgs.
- Construct injection well IP-13.
- Complete remaining well boxes, install remaining injection fittings, and develop remaining wells.

Cc: K. Del Col, S. Knoop, M. Burke (Langan)

By: Tyler Goodnough

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SITE OBSERVATION REPORT

FIGURE 1: REMEDIAL DESIGN



Legend:

- Drilling area
- CAMP station locations

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough
			LANGAN

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS



Photo 2: AARCO advancing boring IP-10 (facing west).



Photo 1: AARCO installing well IP-10 (facing southwest).

Cc: K. Del Col, S. Knoop, M. Burke (Langan)

By: Tyler Goodnough

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SITE OBSERVATION REPORT

PROJECT NO. 170384501 PROJECT: 805-825 Atlantic Avenue LOCATION: 805-825 Atlantic Avenue, Brooklyn, NY	CLIENT: 550 Clinton Partners LLC/539 Vanderbilt Partners LLC	DATE: Tuesday, Oct. 22, 2019 WEATHER: Overcast/light rain, 50s Wind: SE 5 mph TIME: 7:00am to 3:30 pm
CONTRACTOR: AARCO Environmental Services, Inc. (AARCO)		LANGAN REP. : Colin Anderson Tomas Monti
CONTRACTOR'S EQUIPMENT: Geoprobe 8140 LC Sonic rig	PRESENT AT SITE: Day 16 Colin Anderson - Langan Tom Seickel – AARCO Josh Grasser - Regenisis	
OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.: <p>Langan was present to implement the August 20, 2019 Remedial Design – In-Situ Groundwater Remediation Technical Memorandum (Tech Memo) for the for BCP site C224228 at 805-825 Atlantic Avenue (Block 2010, Lots 1 and 59). Observed activities were as follows:</p> <p>Site Activities</p> <ul style="list-style-type: none"> Drilling Activity: <ul style="list-style-type: none"> AARCO used a Geoprobe 8140 LC sonic rig to advance boring IP-13 from 35 to 80 feet below grade surface (bgs). Groundwater was observed at about 65 feet bgs. Petroleum-like odors, staining, and photoionization detector (PID) readings up to 15,000 parts per million (ppm) were observed from 67 to 69 feet bgs (max. PID reading at about 69 feet bgs). Injection well IP-13 was constructed with about 65 feet of 2-inch diameter schedule-40 polyvinyl chloride (PVC) riser piping connected to 15 feet of 2-inch diameter No. 2 slotted PVC well screen. The screen interval was set from 65 to 80 feet bgs. The annulus was backfilled with No. 1 sand from 64 to 80 feet bgs, bentonite from 63 to 64 feet bgs, and the remainder of the boring was backfilled via tremie pipe with a bentonite-grout slurry to grade. AARCO developed injection wells IP-09 and IP-13. Approximately 20 gallons of purge water was collected from each well into DOT-approved 55-gallon drums. AARCO constructed concrete well boxes around 8" steel drive-over covers on injection wells IP-09, and IP-13. AARCO installed 2" schedule 80 PVC injection fittings on well IP-13. Regenisis delivered 33 totes of PlumeStop. The totes and injection trailer were staged along the northern part of the site. <p>Sampling:</p> <ul style="list-style-type: none"> Langan collected groundwater samples from IP-09, IP-01, MW118, and MW202. The samples were transported to Alpha Analytical and analyzed for Sulfate via USEPA Method 375.4 and Sulfide via USEPA Method SM5400. 		
Cc: K. Del Col, S. Knoop, M. Burke (Langan)	By: Colin Anderson LANGAN	

SITE OBSERVATION REPORT

CAMP Activities

- Langan performed community air monitoring at one upwind and one downwind station. No volatile organic compound (VOC) or particulate concentrations exceeded the action levels established in the site Community Air Monitoring Plan (CAMP). The upwind station did not record VOC concentrations because of an equipment malfunction.

Particulate Monitoring (mg/m ³)			Organic Vapor Monitoring (ppm)		
Averaging Period	Upwind	Downwind	Averaging Period	Upwind	Downwind
High Intervals "exceedances" (15min >1.5 + Upwind level)	NA	0	High Intervals "exceedances" (15min >5+Upwind level)	NA	0
Maximum 15-min Average	0.022	0.032	Maximum 15-min Average	NA	0.0
Minimum 1-min Instant Reading	0.008	0.005	Minimum 1-min Instant Reading	NA	0.0
Maximum 1-min Instant Reading	0.032	0.107	Maximum 1-min Instant Reading	NA	0.1

mg/m³ = micrograms per cubic meter

ppm = parts per million

NA = Not Available

Anticipated Activities

- Regenisis will begin injection of PlumeStop per the Tech Memo

Cc: K. Del Col, S. Knoop, M. Burke (Langan)

By: Colin Anderson

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SITE OBSERVATION REPORT

FIGURE 1: REMEDIAL DESIGN



Legend:

- Drilling area
- CAMP station locations
- PlumeStop totes

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Colin Anderson
			LANGAN

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS



Photo 1: AARCO backfilling the annulus of IP-13 with a grout slurry (facing west).



Photo 2: PlumeStop tote staging area and upwind CAMP station (facing east).

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Colin Anderson LANGAN
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SITE OBSERVATION REPORT

PROJECT NO. 170384501	CLIENT: 550 Clinton Partners LLC/539 Vanderbilt Partners LLC	DATE: Wednesday, Oct. 23, 2019
PROJECT: 805-825 Atlantic Avenue		WEATHER: Sunny, 60s Wind: SE 5 mph
LOCATION: 805-825 Atlantic Avenue, Brooklyn, NY		TIME: 7:00am to 4:00 pm
CONTRACTOR: AARCO Environmental Services, Inc. (AARCO)		LANGAN REP. : Tyler Goodnough Kale Novalis

CONTRACTOR'S EQUIPMENT: Regenesis – Trailer containing injection equipment	PRESENT AT SITE: Tyler Goodnough and Kale Novalis - Langan Tom Seickel – AARCO Josh Grasser and Rhys Goddard - Regenesis	Day 17
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OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to implement the August 20, 2019 Remedial Design – In-Situ Groundwater Remediation Technical Memorandum (Tech Memo) for the for BCP site C224228 at 805-825 Atlantic Avenue (Block 2010, Lots 1 and 59). Observed activities were as follows:

Site Activities

- AARCO was present to move drums of soil cuttings and purged groundwater to the eastern and southern corners of the site.
- Regenesis injected a PlumeStop solution into four injection points (IP-05, IP-06, IP-11, and IP-13). The solution was created in 300-gallon batches comprised of 231 gallons of water, and 69 gallons of PlumeStop. A total of 4,200 gallons of PlumeStop solution was injected into the four injection points. Volumes for each well were calculated using periodic flow and pressure readings at each of four manifold locations in the trailer. PlumeStop volumes injected per individual injection point today and to date are provided in the table below:

Injection Point ID	Proposed Total Injection Volume of PlumeStop (gallons)	Total Volume Injected Today (gallons)	Total Volume Injected (gallons)
IP-01	2,651		
IP-02	2,651		
IP-03	2,651		
IP-04	2,651		
IP-05	2,651	574	574
IP-06	2,651	1,222	1,222
IP-07	2,651		
IP-08	2,651		
IP-09	2,651		
IP-10	2,651		
IP-11	2,651	1,226	1,226
IP-12	2,651		
IP-13	2,651	1,178	1,178

Sampling:

- None

Cc: K. Del Col, S. Knoop, M. Burke (Langan)	By: Colin Anderson
	LANGAN

SITE OBSERVATION REPORT

CAMP Activities

- Langan did not perform community air monitoring because there was no soil intrusive activities. Volatile organic compound (VOC) readings were periodically collected along the perimeter of the site with a handheld photoionization detector (PID). Recorded VOC concentrations did not exceed 0.0.

Anticipated Activities

- Regenesis will continue injection of PlumeStop solution per the Tech Memo.

Cc: K. Del Col, S. Knoop, M. Burke (Langan)

By: Tyler Goodnough

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SITE OBSERVATION REPORT

FIGURE 1: REMEDIAL DESIGN



Legend:

- Injection locations
- PlumeStop totes
- Regenesis trailer

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Tyler Goodnough LANGAN
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SITE OBSERVATION REPORT

SITE PHOTOGRAPHS



Photo 1: Regensis trailer and injection hoses connected to injection points IP-05, IP-06, IP-11, and IP-13, facing southwest.



Photo 2: Hoses connected to injection points IP-05, IP-06, IP-11, and IP-13, facing east.

Cc: K. Del Col, S. Knoop, M. Burke (Langan)

By: Tyler Goodnough

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SITE OBSERVATION REPORT

PROJECT NO. 170384501	CLIENT: 550 Clinton Partners LLC/539 Vanderbilt Partners LLC	DATE: Thursday, Oct. 24, 2019
PROJECT: 805-825 Atlantic Avenue		WEATHER: Sunny, 60s Wind: SE 5 mph
LOCATION: 805-825 Atlantic Avenue, Brooklyn, NY		TIME: 7:00am to 4:30 pm
CONTRACTOR: AARCO Environmental Services, Inc. (AARCO)		LANGAN REP. : Tyler Goodnough
CONTRACTOR'S EQUIPMENT: Regenesis – Trailer containing injection equipment	PRESENT AT SITE: Day 18 Tyler Goodnough - Langan Josh Grasser and Rhys Goddard - Regenesis	

OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to implement the August 20, 2019 Remedial Design – In-Situ Groundwater Remediation Technical Memorandum (Tech Memo) for the for BCP site C224228 at 805-825 Atlantic Avenue (Block 2010, Lots 1 and 59). Observed activities were as follows:

Site Activities

- Regenesis injected PlumeStop solution into five injection points (IP-03, IP-05, IP-06, IP-09, and IP-13). The solution was created in 300-gallon batches, which comprised of 231 gallons of water, and 69 gallons of PlumeStop. A total of 5,100 gallons of PlumeStop solution was injected into the five injection points. Volumes for each well were calculated using periodic flow and pressure readings at each of four manifold locations in the trailer. PlumeStop volumes injected per injection point today and to date are provided in the table below:

Injection Point ID	Proposed Total Injection Volume of PlumeStop (gallons)	Total Volume Injected Today (gallons)	Total Volume Injected (gallons)
IP-01	2,651		
IP-02	2,651		
IP-03	2,651	747	747
IP-04	2,651		
IP-05	2,651	1,377	1,951
IP-06	2,651	1,282	2,504
IP-07	2,651		
IP-08	2,651		
IP-09	2,651	626	626
IP-10	2,651		
IP-11	2,651		1,226
IP-12	2,651		
IP-13	2,651	1,086	2,264

- Injections at location IP-09 was suspended due to a blown seal at the injection fitting. The fitting was repaired and injections will continue the following work day.

Sampling:

- None

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Colin Anderson
			LANGAN

SITE OBSERVATION REPORT

CAMP Activities

- Langan did not perform community air monitoring because there was no soil intrusive activities. Volatile organic compound (VOC) readings were periodically collected along the perimeter of the site with a handheld photoionization detector (PID). Recorded VOC concentrations did not exceed 0.0.

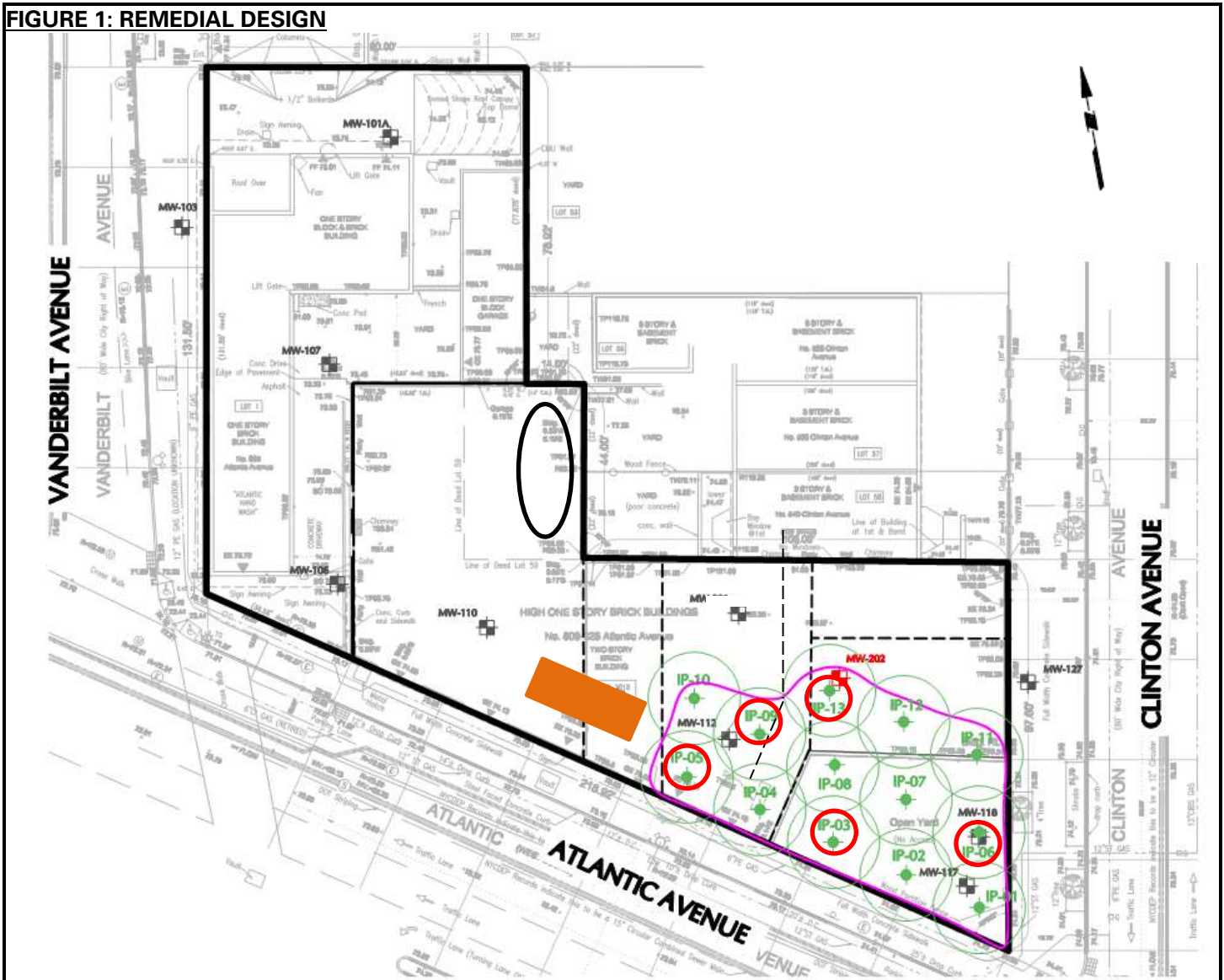
Anticipated Activities

- Regenesis will continue injection of PlumeStop per the Tech Memo

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Colin Anderson
			LANGAN

SITE OBSERVATION REPORT

FIGURE 1: REMEDIAL DESIGN



Legend:

- Injection locations
- PlumeStop totes
- Regenesis trailer

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Colin Anderson
			LANGAN

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS



Photo 1: Regenesis trailer and injection hoses connected to IP-03, IP-05, IP-06, and IP-13, facing west.



Photo 2: Regenesis injection hoses connected to IP-03, IP-05, IP-06, and IP-13, facing east.

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Colin Anderson LANGAN
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SITE OBSERVATION REPORT

PROJECT NO. 170384501	CLIENT: 550 Clinton Partners LLC/539 Vanderbilt Partners LLC	DATE: Friday, Oct. 25, 2019
PROJECT: 805-825 Atlantic Avenue		WEATHER: Cloudy, 60s Wind: SE 5 mph
LOCATION: 805-825 Atlantic Avenue, Brooklyn, NY		TIME: 7:00am to 3:30 pm
CONTRACTOR: AARCO Environmental Services, Inc. (AARCO)		LANGAN REP. : Tyler Goodnough

CONTRACTOR'S EQUIPMENT: Regenesis – Trailer containing injection equipment	PRESENT AT SITE: Tyler Goodnough - Langan Josh Grasser and Rhys Goddard - Regenesis	Day 19
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OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:

Langan was present to implement the August 20, 2019 Remedial Design – In-Situ Groundwater Remediation Technical Memorandum (Tech Memo) for the for BCP site C224228 at 805-825 Atlantic Avenue (Block 2010, Lots 1 and 59). Observed activities were as follows:

Site Activities

- Regenesis injected PlumeStop solution into six injection points (IP-03, IP-05, IP-06, IP-09, IP-10, and IP-13). The solution was created in 300-gallon batches, which comprised of 231 gallons of water, and 69 gallons of PlumeStop. A total of 4,500 gallons of PlumeStop solution was injected into the six injection points. Volumes for each well were calculated using periodic flow and pressure readings at each of four manifold locations in the trailer. PlumeStop volumes injected per injection point today and to date are provided in the table below:

Injection Point ID	Proposed Total Injection Volume of PlumeStop (gallons)	Total Volume Injected Today (gallons)	Total Volume Injected (gallons)
IP-01	2,651		
IP-02	2,651		
IP-03	2,651	684	1,431
IP-04	2,651		
IP-05	2,651	700	2,651
IP-06	2,651	147	2,651
IP-07	2,651		
IP-08	2,651		
IP-09	4,026	1,139	1,756
IP-10	1,325	707	707
IP-11	1,266		1,226
IP-12	2,651		
IP-13	4,026	1,123	3,387

Sampling:

- None

Cc: K. Del Col, S. Knoop, M. Burke (Langan)	By: Colin Anderson
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SITE OBSERVATION REPORT

CAMP Activities

- Langan did not perform community air monitoring because there was no soil intrusive activities. Volatile organic compound (VOC) readings were periodically collected along the perimeter of the site with a handheld photoionization detector (PID). Recorded VOC concentrations did not exceed 0.0.

Anticipated Activities

- Regenesis will continue injection of PlumeStop per the Tech Memo

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Colin Anderson
			LANGAN

SITE OBSERVATION REPORT

FIGURE 1: REMEDIAL DESIGN



Legend:

- Injection locations
- PlumeStop totes
- Regenesis trailer

Cc:	K. Del Col, S. Knoop, M. Burke (Langan)	By:	Colin Anderson
			LANGAN

SITE OBSERVATION REPORT

SITE PHOTOGRAPHS



Photo 1: Regenesis trailer containing pumping equipment facing west.



Photo 2: Hoses run to injection points IP-09 and IP-13, facing east.

Cc: K. Del Col, S. Knoop, M. Burke (Langan)

By: Colin Anderson

LANGAN