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Site LF004 Landfill Remedial Action

BCT Conference Call
16 July 2020

Battle Ready…Built Right!

ED_005025_00021759-00001

LF004 Recent and Upcoming Activities

- Draft 2019 landfill inspection report submitted 25 Jul 2020.
- Conference call with ADEQ and EPA was held on 7 July 2020 to discuss AF response to ADEQ comments regarding SVE and IWAS decommissioning. ADEQ to provide list of SVE wells and VMP locations that require sampling.
- Validation of semi-annual (May 2020) analytical data in progress

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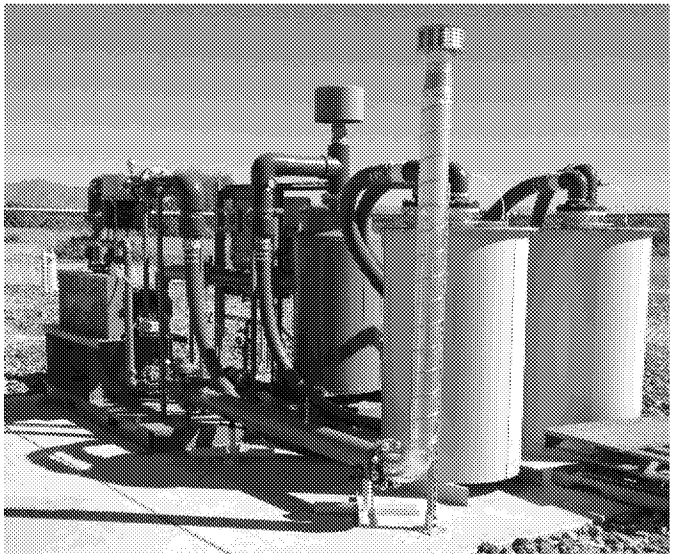
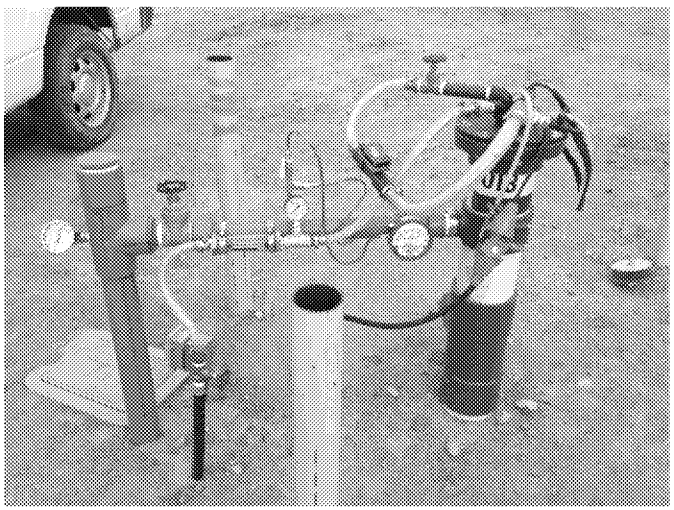
Site LF004
LF01-W17 Area IWAS System Update

- Preliminary May 2020 PDB results indicate all monitoring wells below the TCE MCL with the exception of LF01-W17S (9.3 µg/l), LF01-W17M (5.8 µg/l) and LF01-W30M (10 µg/l)
- Previous Nov 2019 PDB for LF01-W17S (7.9 µg/l), LF01-W17M (3.8 µg/l), and LF01-W30M (10 µg/l)
- Monitoring wells upgradient and downgradient of LF01-W17S, LF01-W17M, and LF01-W30M are below TCE MCL
- Additional oxidant injections performed 16 June 2020. Oxidant measured post-injection (120 mg/l at W17S; 75 mg/l at W17M; 95 mg/l at W30M).





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Site LF004
Southern Area SVE and Oxidant Injection

- Preliminary May 2020 PDB results indicate only four PCE MCL exceedances at two locations: W19S at 8.6 µg/l (dup 9.4 µg/l), W19M 10 µg/l (dup 10 µg/l), W24S at 6.7 µg/l and W24M at 8.8 µg/l
- Previous November 2019 PDB results for W19S at 7.8 µg/l (dup 8.2 µg/l), W19M 4.3 µg/l (dup 4.1 µg/l), W24S at 4 µg/l and W24M at 6.2 µg/l.
- Oxidant injections performed 16 June 2020. Oxidant measured post-injection (155 mg/l at W19S; 152 mg/l at W19M; 145 mg/l at W24S; 152 mg/l at W24M).
- Upgradient wells in the vicinity of W19 and downgradient wells in the vicinity of W24 are below the PCE MCL

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Site FT002
Fire Training Area Remedial Action

BCT Conference Call
16 July 2020

Site FT002 Update

- AF approved keeping the DEUR in place Nov 2018
- Draft Explanation of Significant Differences (ESD) document to add the land use control to the ROD has been revised per legal comments in June 2020
- Revised Final Remedial Action Completion Report submitted 22 Nov 2019
- Received EPA comment letter on 31 Dec 2019. Received ADEQ comments on 12 Feb 2020. Response to comments under internal AF review.

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Site SS017

Old Pesticide/Paint Shop

BCT Conference Call

16 July 2020

Site SS017 Groundwater Monitoring Update

- Draft Q4 (Nov) 2019 annual report submitted for regulatory review 27 Apr 2020
- Draft Q1 (Feb) 2020 data summary report in preparation
- Draft Q2 (May) 2020 report in preparation
- Q3 2020 sampling will occur in August

Parcel K-1-2 Property Transfer

- Final FOST signed by the AF 29 May 2020
- AF preparing assignment package
- AF to request ADEQ to prepare draft DEUR once assignment package is complete

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Site ST012

Former Liquid Fuel Storage Area

BCT Conference Call

16 July 2020

Site ST012 Outline

- Summary of activities since June BCT call
- LNAPL removal summary (no new data)
- Update on benzene and sulfate concentrations
- Pilot study extraction/injection update
- Preliminary SIP results
- Path forward

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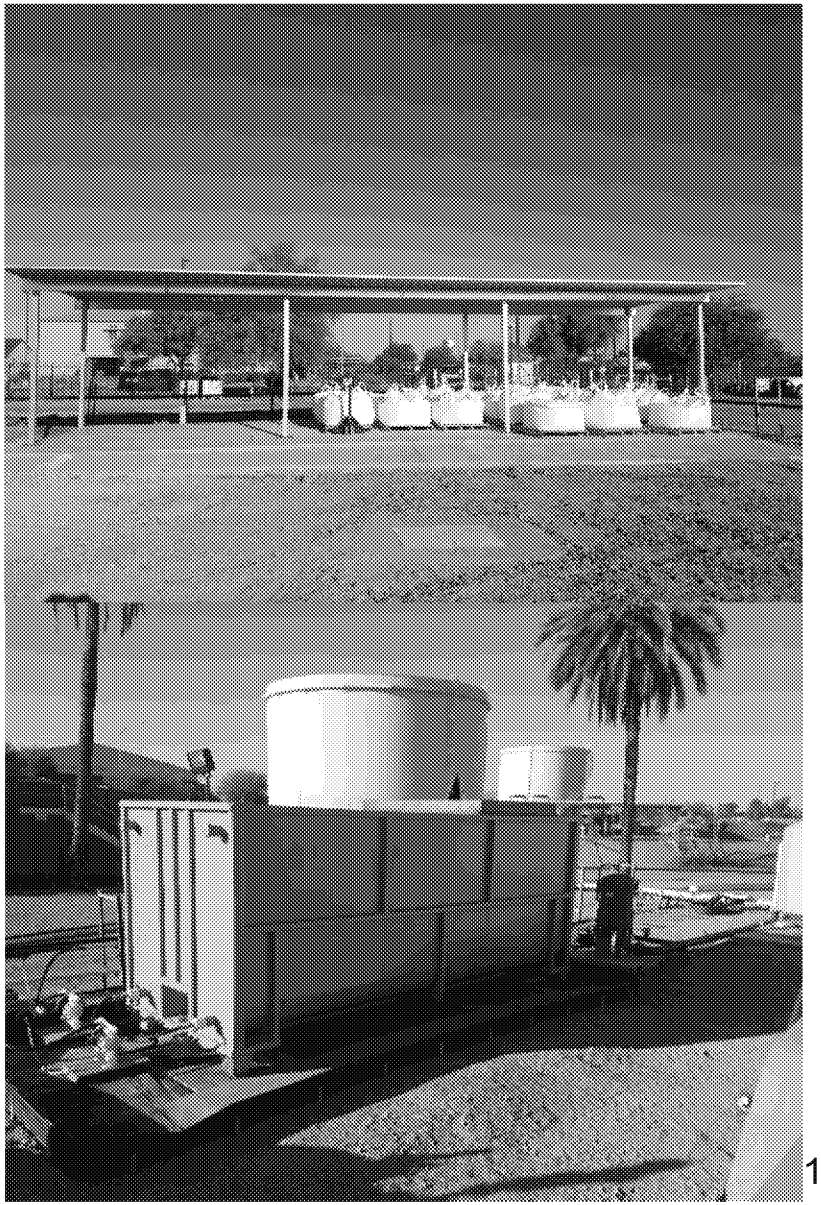
Site ST012 Activities Since June

- **SVE Rotation on 9 Jul 2020, current status:**
  - **Extraction wells: SVE01S, SVE01M, SVE02M, SVE03M, SVE07D, SVE09S, and SVE14(M)**
  - **Venting wells: SVE01D, SVE03S, SVE03D, SVE04M, SVE07S, SVE07M, SVE11(M), and SVE13(M)**
  - **Closed wells: SVE02S, SVE02D, SVE04S, SVE04D, SVE05S, SVE05M, SVE05D, SVE06S, SVE06M, SVE06D, SVE08S, SVE08M, SVE08D, SVE09M, SVE09D, SVE10(M), and SVE12(M)**
- **Pump Repairs**
  - **UWBZ21 continued with limited pumping due to high temperatures**
  - **CZ07 motor replaced**
  - **Pumps removed from UWBZ22 and LSZ28 to facilitate injections**



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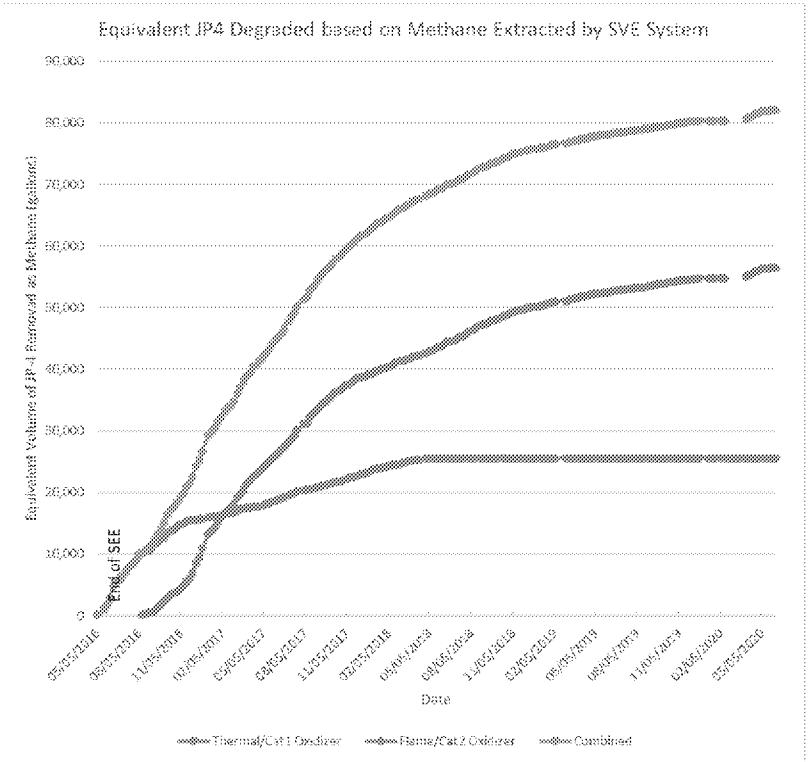
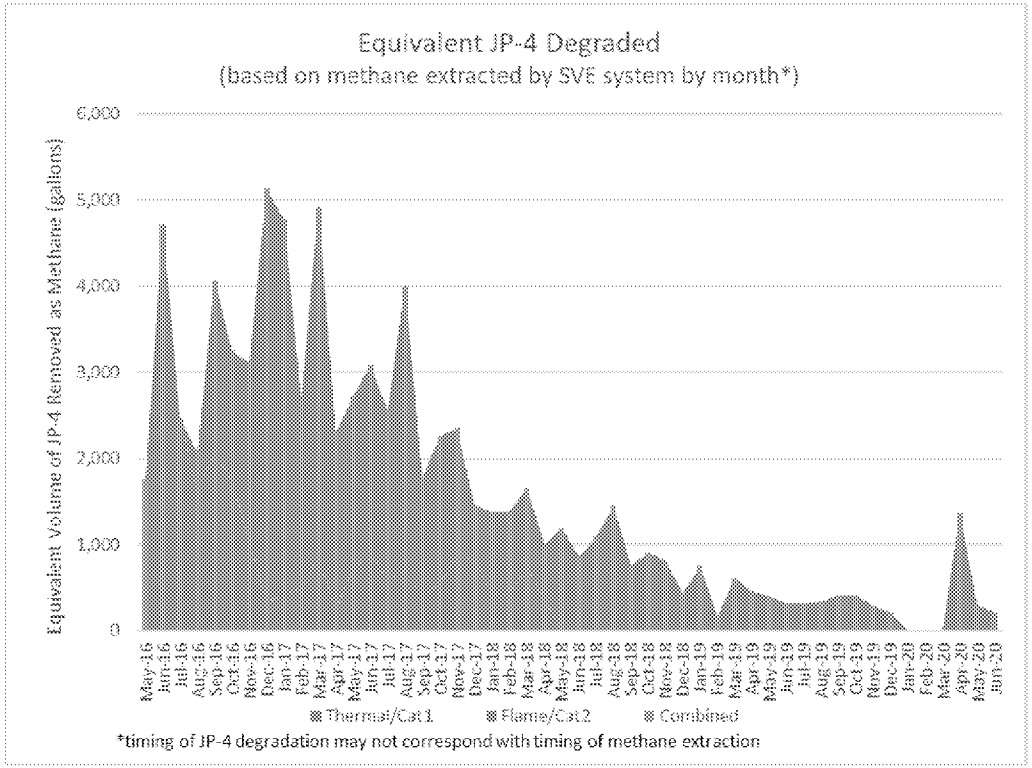
JP-4 Degradation Based on Methane Removed with SVE

Site ST012 SVE System Equivalent JP-4 Degradation Based on Methane Removed





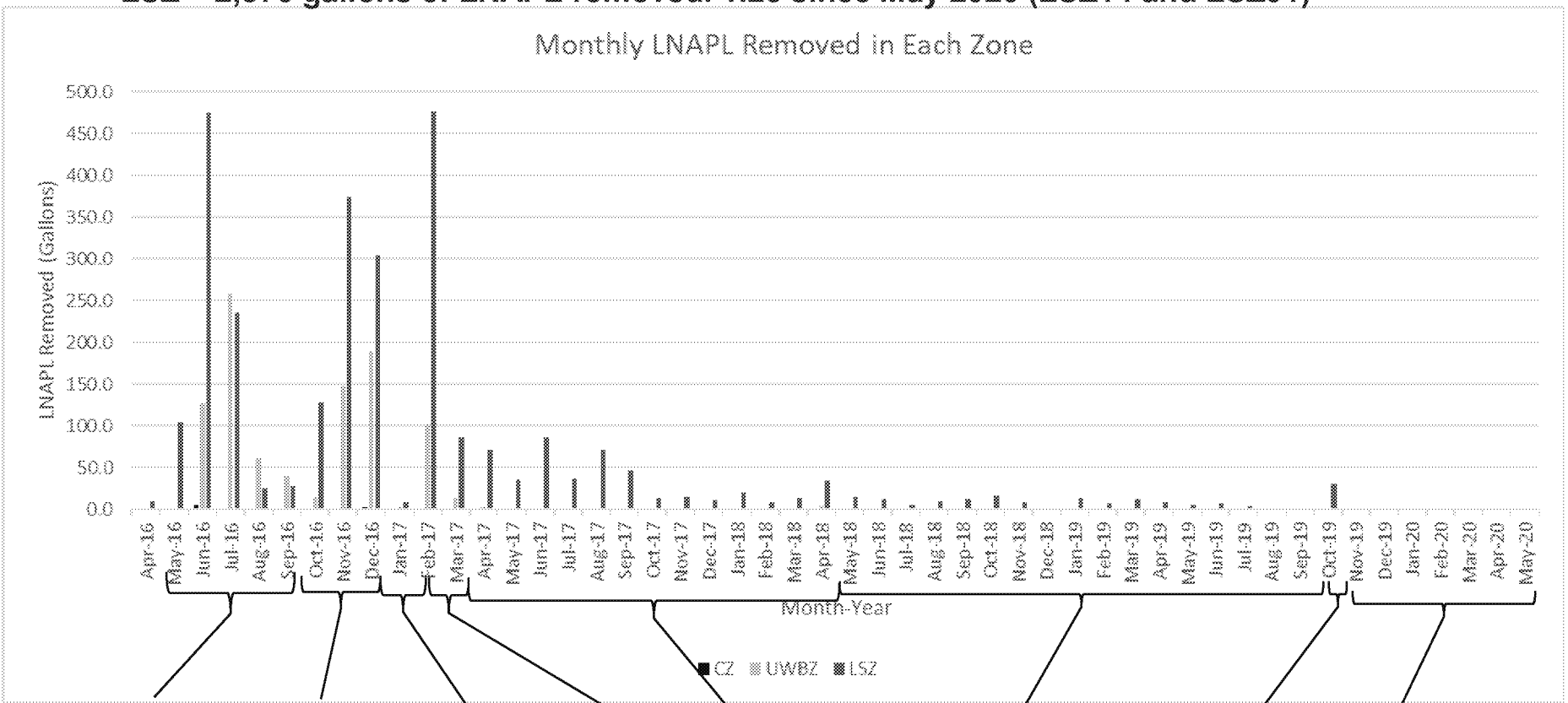
- Estimates through 25 June 2020
- Estimated JP-4 degradation as methane is in addition to JP-4 removal reported for SVE
- Thermal/Cat1 oxidizer changed from SVE to groundwater treatment end of Apr 2018 (low methane concentrations recently observed but attributed to vapor bleed through closed valve from SVE)
- Flame oxidizer treating combined SVE and air stripper intermittently in Nov 2018 – Jan 2019
- Flame oxidizer replaced by catalytic oxidizer (Cat2) 7 Feb to 26 Feb 2019

LNAPL Removal Summary

ED_005025_00021759-00015

ST012 LNAPL Removal Summary

- CZ – 7.75 gallons of LNAPL removed. None since Feb 2020
- UWBZ – 963 gallons of LNAPL removed. None since Apr 2019
- LSZ – 2,876 gallons of LNAPL removed. 1.25 since May 2020 (LSZ14 and LSZ31)



Removal following initial eductor removals

Removal following remaining eductor removals

Diminished removal due to pump failure

Recovery following pump replacement

<100 gal/mo

<20 gal/mo

30 gal from LSZ43 during pump maintenance

<1 gal/mo

Preliminary Second Quarter Groundwater Sampling Results

ED_005025_00021759-00017

Sampling Summary

- **Sampling includes:**
  - Extraction Wells
  - Injection Wells (where injections took place)
  - Monitoring Wells (in areas where injections took place)
  - Perimeter Wells

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Site ST012 Benzene (µg/L) in CZ for Q2 2020

- CZ23 increased above MCL in April sample (was <1 µg/L in January)
- April sample followed time frame of pump motor failure and replacement in late March-early April
- June sample slightly decreased
- Resampled in early July

ST012-CZ23
15 ↑
6/1/20

ST012-CZ07
240 ↑
4/20/20

ST012-CZ08
380 D↑
4/28/20

ST012-CZ09
460
1/29/20

ST012-CZ01

ST012-C02
0.64 J/ 0.71 J
5/26/20

ST012-SVE04 DEEP
12 ↓
5/28/20

ST012-CZ02
1.8 ↓
5/6/20

ST012-CZ10

ST012-CZ11
220
Apr-18

ST012-CZ12
590
Apr-18

ST012-CZ13

ST012-CZ14
2.5 ↓
4/29/20

ST012-CZ18
180 D ↑
4/23/20

ST012-CZ15
770 D↑
4/28/20

ST012-CZ04

ST012-CZ03

ST012-CZ21
10 ↓
5/22/20

ST012-CZ24
0.4 U
4/16/20

ST012-CZ06
2.5 ↓
4/9/20

ST012-CZ16
190
Apr-18

ST012-CZ05

ST012-CZ22
1.0 U
Oct-18

ST012-CZ20
0.29 J
5/27/20

ST012-CZ19
4.4 ↓
5/12/20

ST012-CZ17

ST012-CZ25
0.4 U
5/18/20

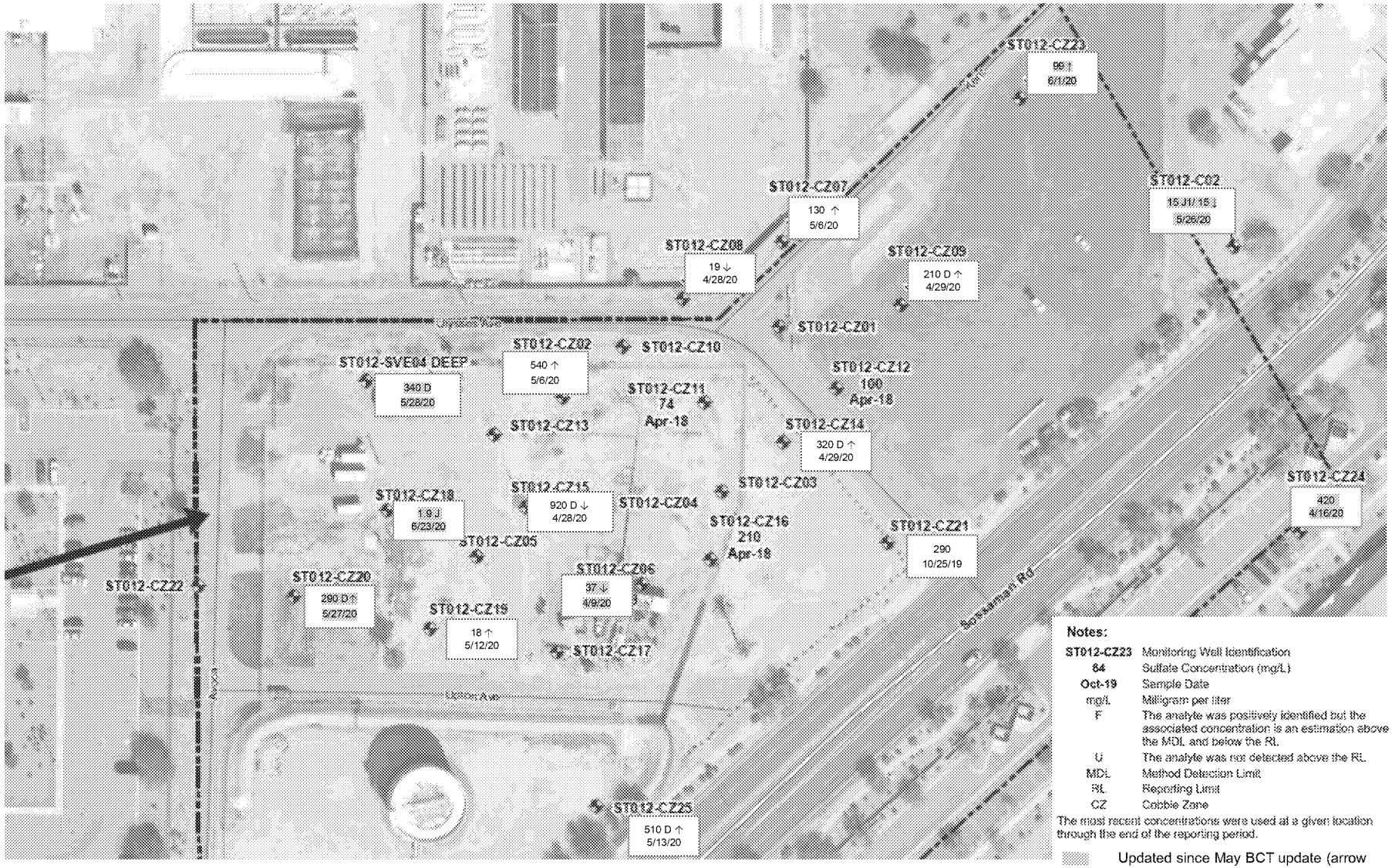
Notes:

ST012-CZ23	Monitoring Well Identification
4.3	Benzene Concentration (µg/L)
<1.0	Not detected at or above the RL
Jul-19	Sample Date
µg/L	Microgram per liter
F	The analyte was positively identified but the associated concentration is an estimation above the MDL and below the RL
U	The analyte was not detected above the RL
MDL	Method Detection Limit
RL	Reporting Limit
CZ	Cobble Zone

The most recent concentrations were used at a given location through the end of the reporting period.

	Updated since May BCT update (arrow indicates direction of change from previous
D	Sample was diluted

Site ST012 Sulfate (mg/L) in CZ for Q2 2020



Notes:

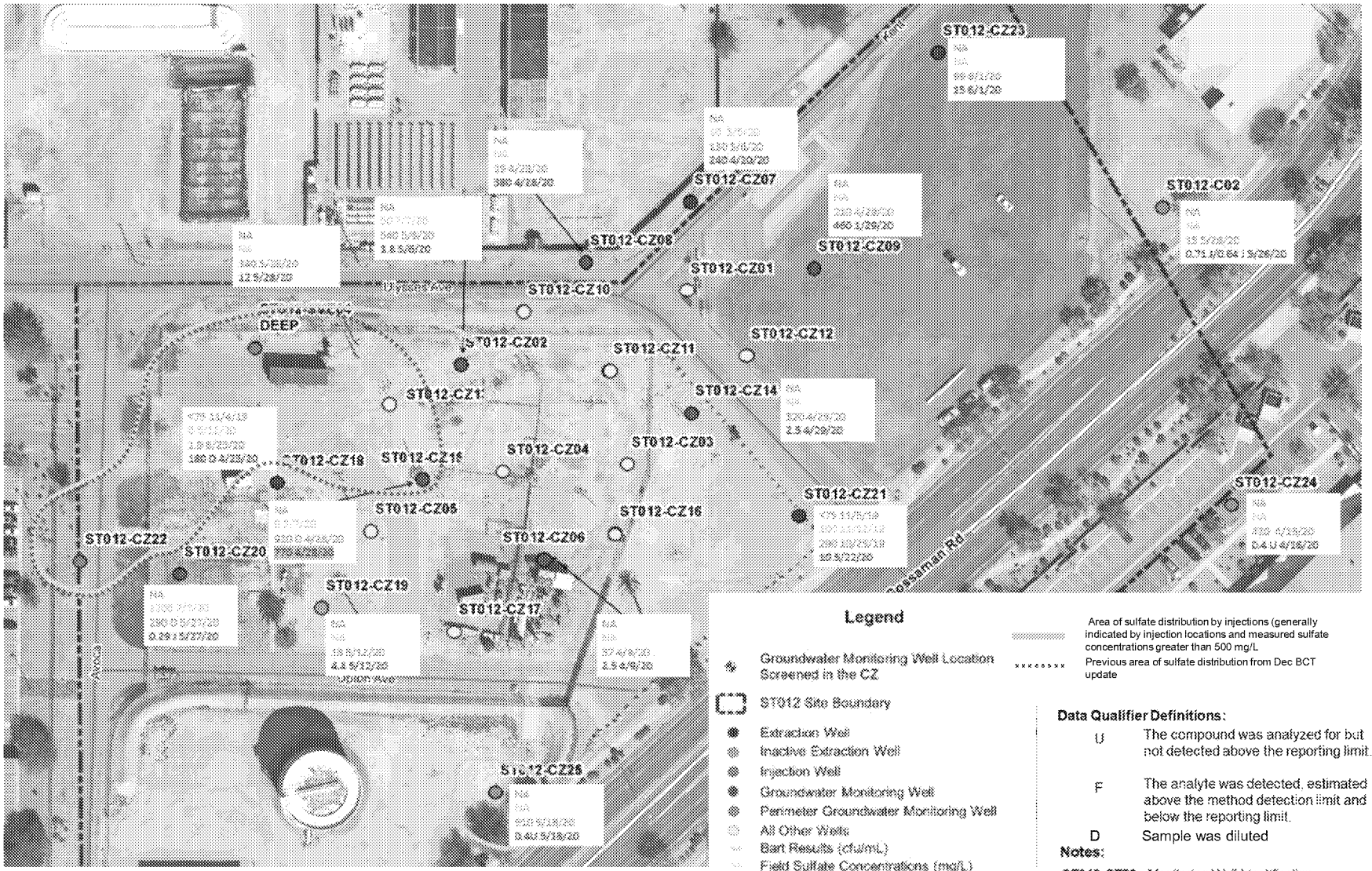
ST012-CZ23	Monitoring Well Identification
84	Sulfate Concentration (mg/L)
Oct-19	Sample Date
mg/L	Milligram per liter
F	The analyte was positively identified but the associated concentration is an estimation above the MDL and below the RL
U	The analyte was not detected above the RL
MDL	Method Detection Limit
RL	Reporting Limit
CZ	Cobble Zone

The most recent concentrations were used at a given location through the end of the reporting period.

Updated since May BCT update (arrow indicates direction of change from previous result)

D Sample was diluted

EBR Treatment Area in CZ for Q2 2020



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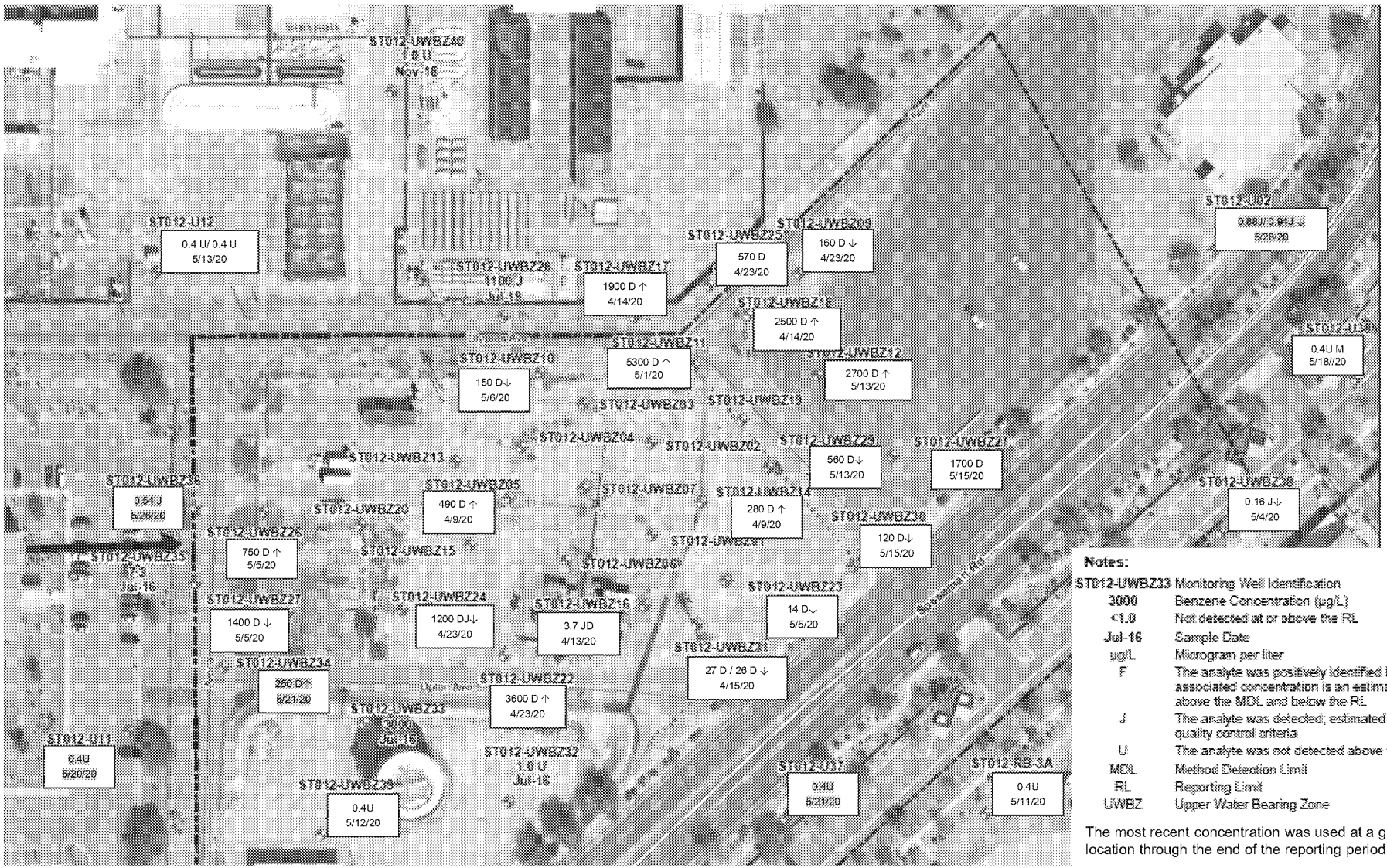
Site ST012 Benzene (µg/L) in UWBZ for Q2 2020



Notes:

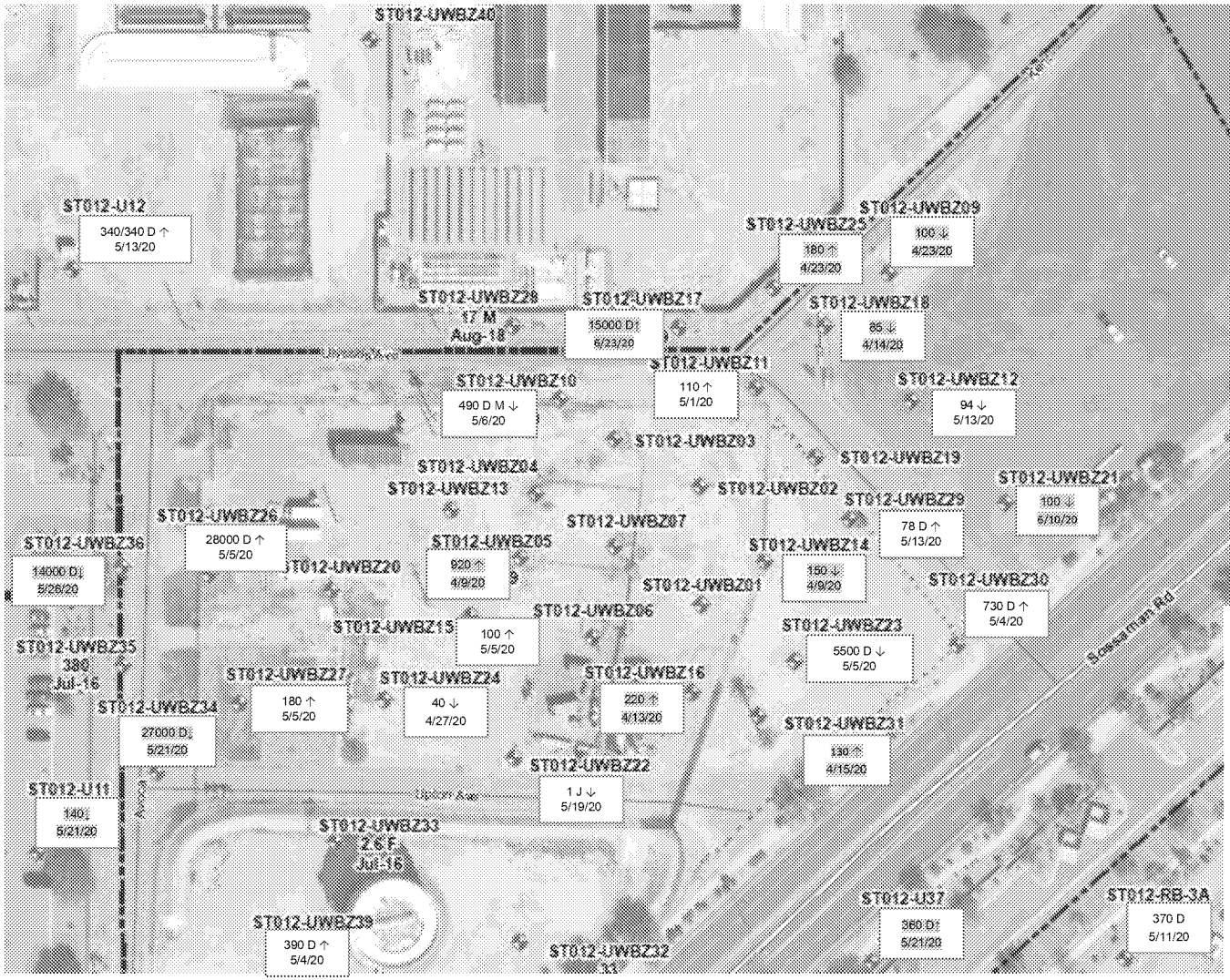
ST012-UWBZ33	Monitoring Well Identification
3000	Benzene Concentration (µg/L)
<1.0	Not detected at or above the RL
Jul-16	Sample Date
µg/L	Microgram per liter
F	The analyte was positively identified but the associated concentration is an estimation above the MDL and below the RL
J	The analyte was detected; estimated due to quality control criteria
U	The analyte was not detected above the RL
MDL	Method Detection Limit
RL	Reporting Limit
UWBZ	Upper Water Bearing Zone

The most recent concentration was used at a given location through the end of the reporting period.

Updated since May BCT update (arrow indicates direction of change from previous result)

D Sample was diluted

Site ST012 Sulfate (mg/L) in UWBZ for Q2 2020



Notes:

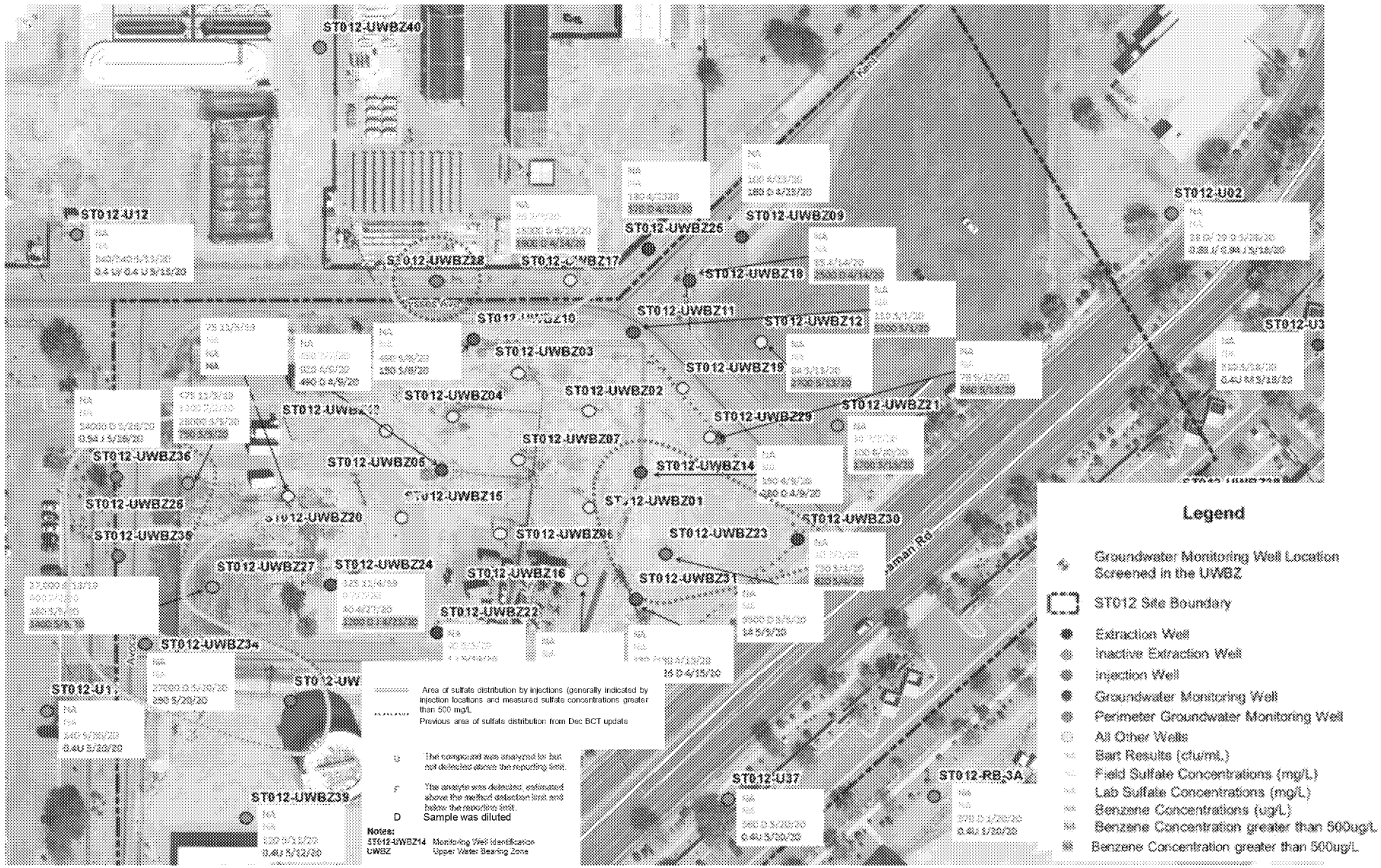
ST012-UWBZ33	Monitoring Well Identification
2.6 F	Sulfate Concentration (mg/L)
Jul-16	Sample Date
mg/L	Milligram per liter
F	The analyte was positively identified but the associated concentration is an estimation above the MDL and below the RL
U	The analyte was not detected above the RL
M	Manual Integrated Compound
MDL	Method Detection Limit
RL	Reporting Limit
UWBZ	Upper Water Bearing Zone

The most recent concentrations were used at a given location through the end of the reporting period.

Updated since May BCT update (arrow indicates direction of change from previous result)

D Sample was diluted

EBR Treatment Areas in UWBZ for Q2 2020



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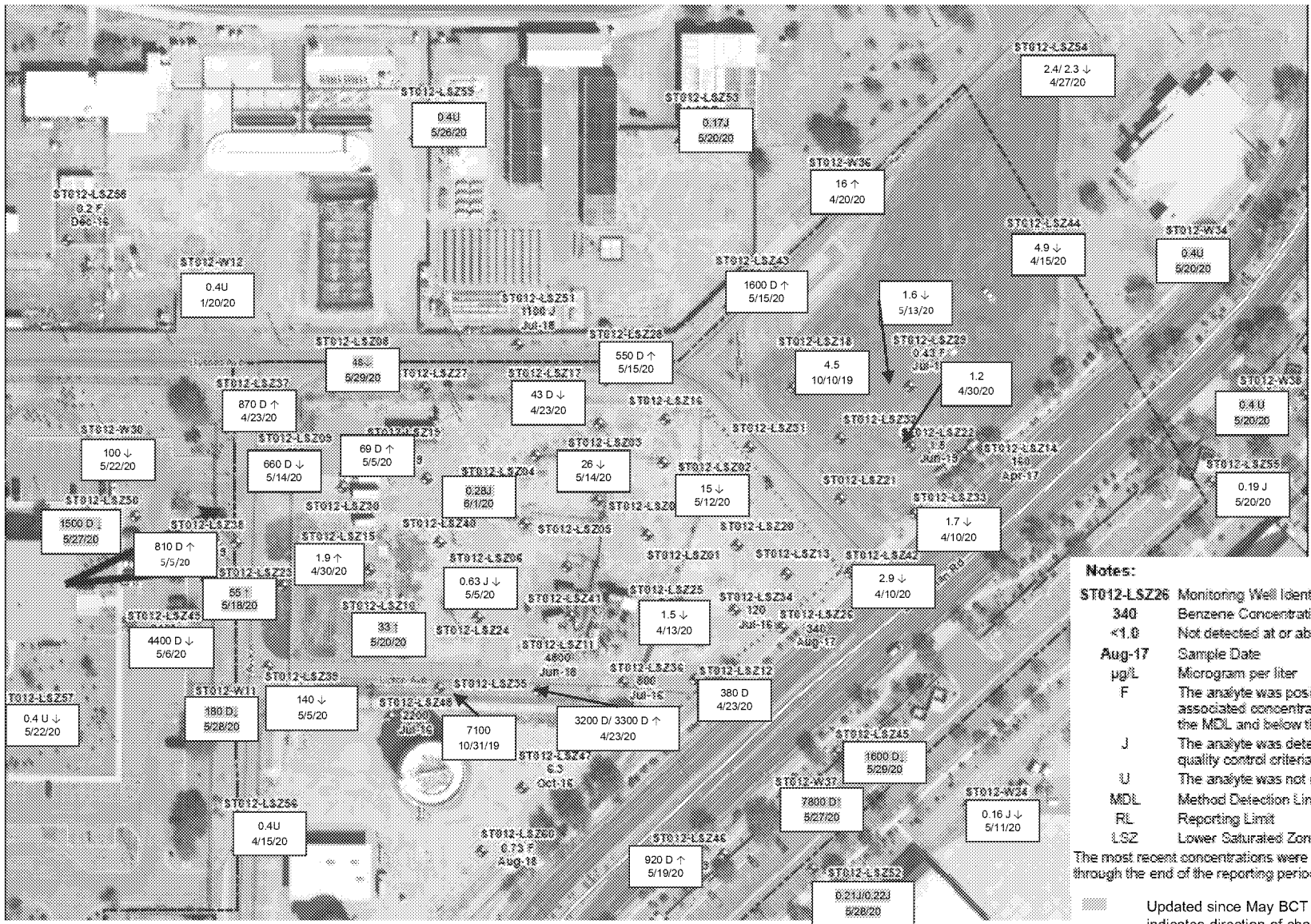
Site ST012 Benzene (µg/L) in LSZ for Q2 2020



Notes:

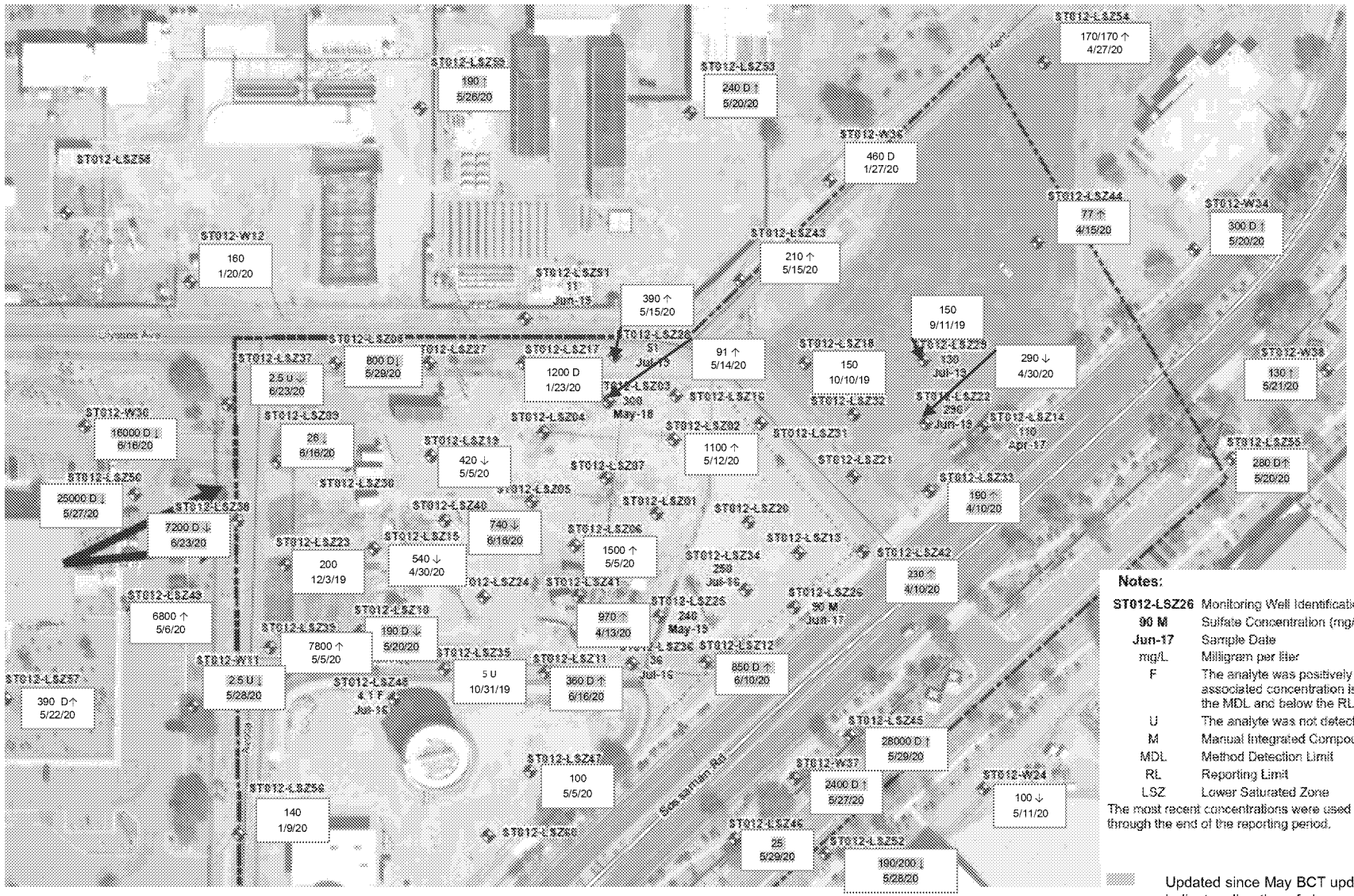
ST012-LSZ26	Monitoring Well Identification
340	Benzene Concentration (µg/L)
<1.0	Not detected at or above the RL
Aug-17	Sample Date
µg/L	Microgram per liter
F	The analyte was positively identified but the associated concentration is an estimation above the MDL and below the RL
J	The analyte was detected; estimated due to quality control criteria
U	The analyte was not detected above the RL
MDL	Method Detection Limit
RL	Reporting Limit
LSZ	Lower Saturated Zone

The most recent concentrations were used at a given location through the end of the reporting period.

Updated since May BCT update (arrow indicates direction of change from previous result)

D Sample was diluted

Site ST012 Sulfate (mg/L) in LSZ for Q2 2020



Notes:

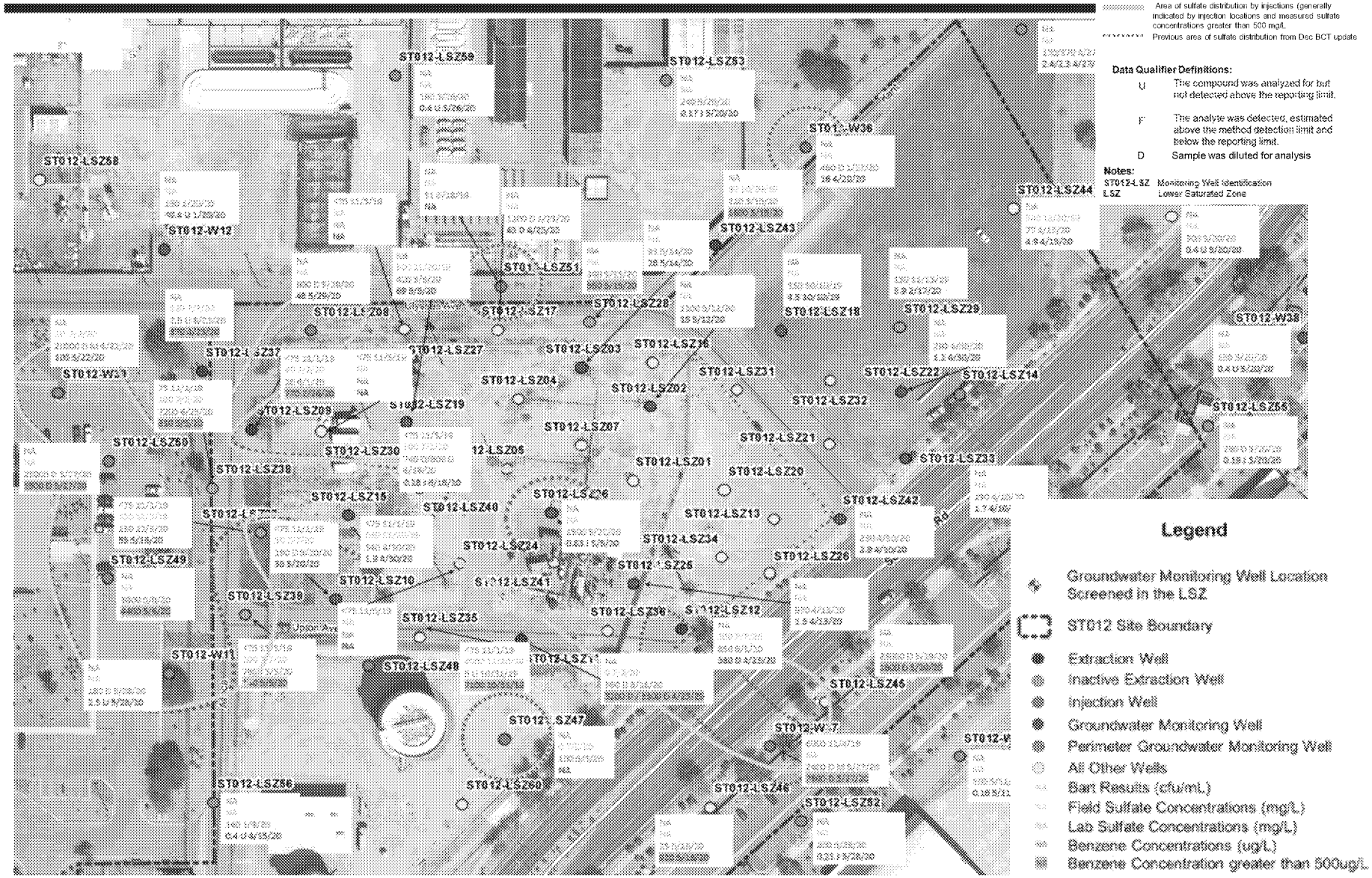
ST012-LSZ26	Monitoring Well Identification
90 M	Sulfate Concentration (mg/L)
Jun-17	Sample Date
mg/L	Milligram per liter
F	The analyte was positively identified but the associated concentration is an estimation above the MDL and below the RL
U	The analyte was not detected above the RL
M	Manual Integrated Compound
MDL	Method Detection Limit
RL	Reporting Limit
LSZ	Lower Saturated Zone

The most recent concentrations were used at a given location through the end of the reporting period.

Updated since May BCT update (arrow indicates direction of change from previous result)

D Sample was diluted

EBR Treatment Areas in LSZ for Q2 2020



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Analysis for Benzene Degraders

Site ST012 Biological Testing

- First set of BioTraps® pulled out from UWBZ26, UWBZ27, LSZ38, and LSZ39 on 30 Mar 2020
- Second set of BioTraps® pulled out from UWBZ26, UWBZ27, LSZ38, and LSZ39 on 20 Apr 2020
- QuantArray®-Petro analysis results received
- C^{13} results received
  - Dissolved inorganic carbon (DIC); 5-week and 8-week results
  - Phospholipid fatty acids (PLFA); 5-week and 8-week results

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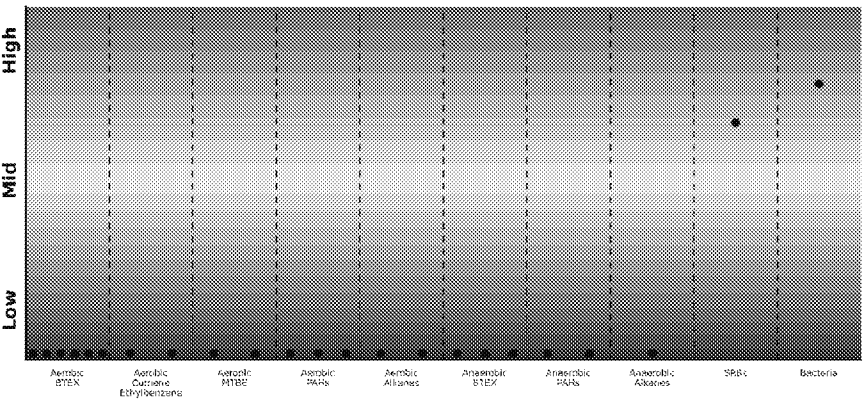
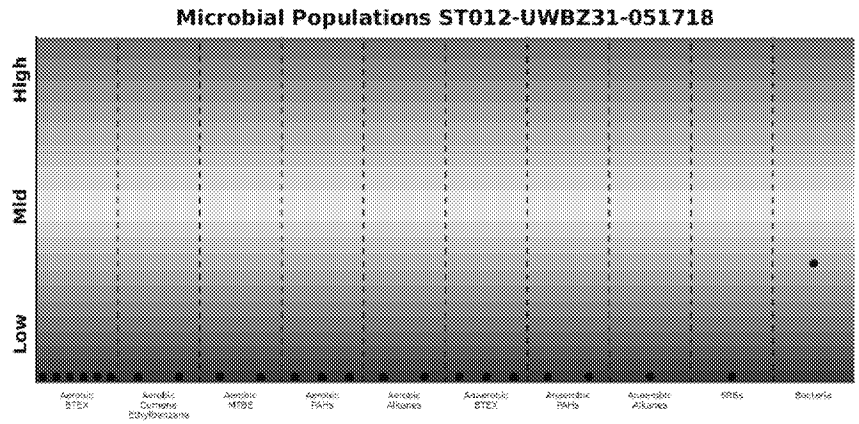
Site ST012 Biological Testing-QuantArray®-Petro - UWBZ

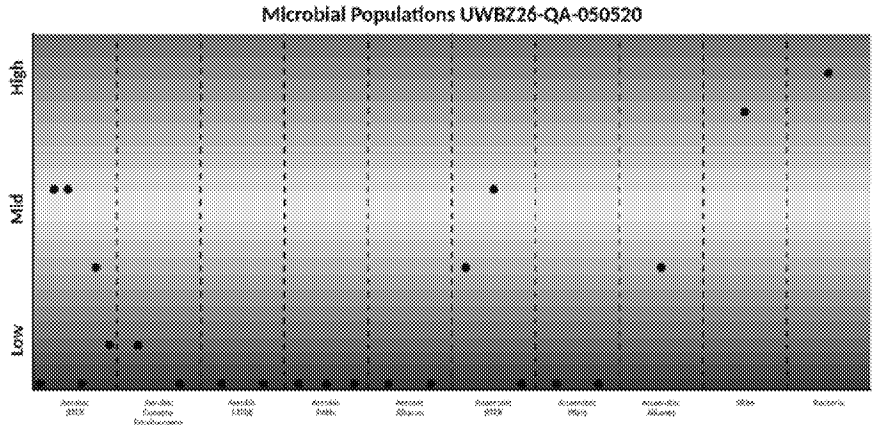
- **Wells evaluated in 2018 and 2020**

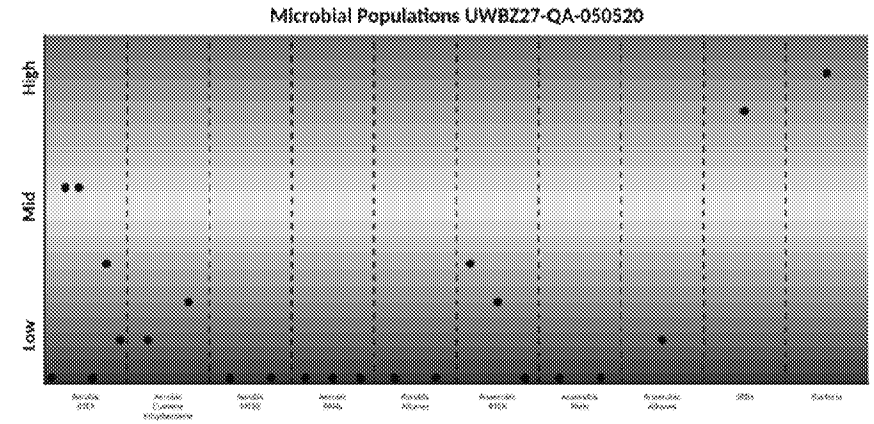
2018





2020





- **Higher and more diverse populations observed in 2020 (mix of aerobic and anaerobic markers for petroleum degraders)**

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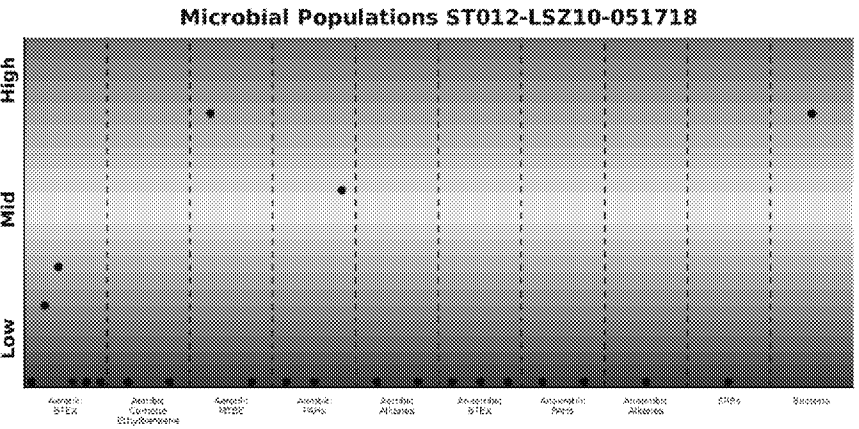
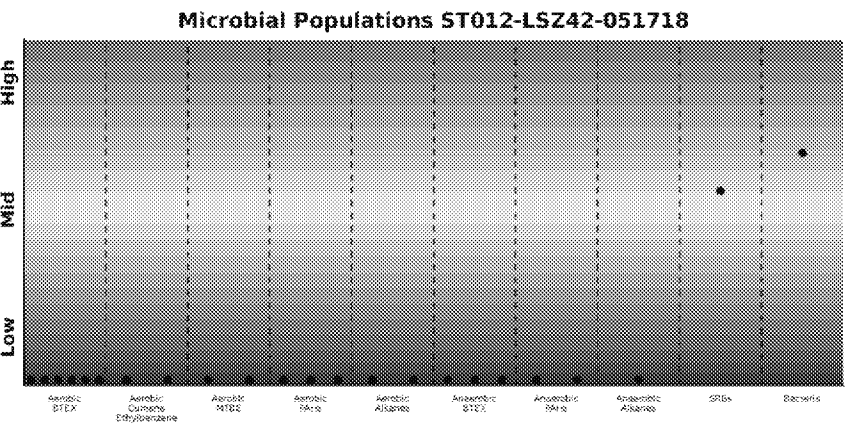
Site ST012 Biological Testing-QuantArray®-Petro - LSZ

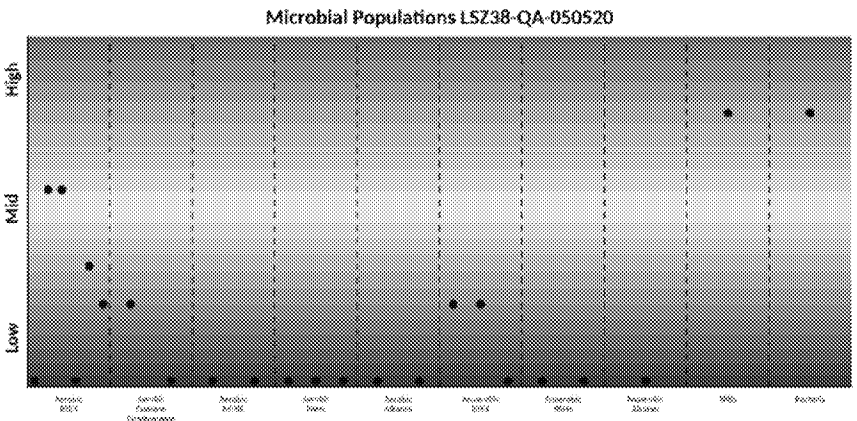
- **Wells evaluated in 2018 and 2020**

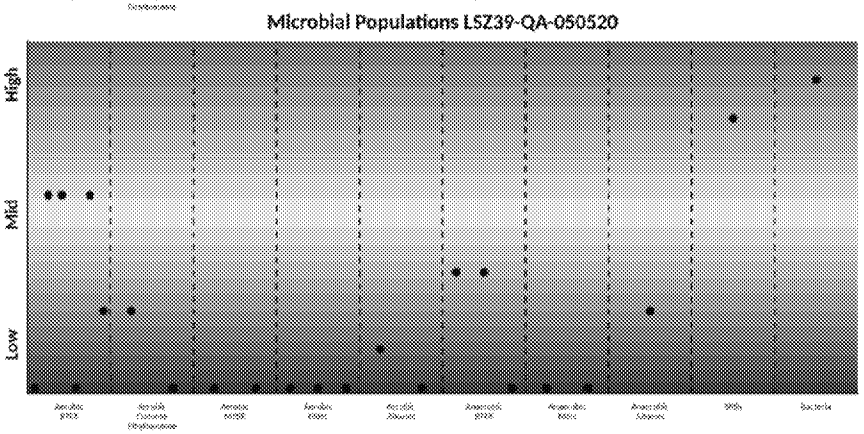
2018





2020





- **Higher and more diverse populations observed in 2020 (mix of aerobic and anaerobic markers for petroleum degraders)**

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Site ST012 Biological Testing for C^{13} PLFA (Overview)

- PLFA are found in the cell membranes and breakdown rapidly upon cell death so PLFA analysis appropriate for evaluation of live biomass
- Biotraps initially contained benzene with higher C^{13} content than found in natural environments.
- C^{13} content in PLFA of biomass in retrieved biotraps compared to natural environmental (average background)

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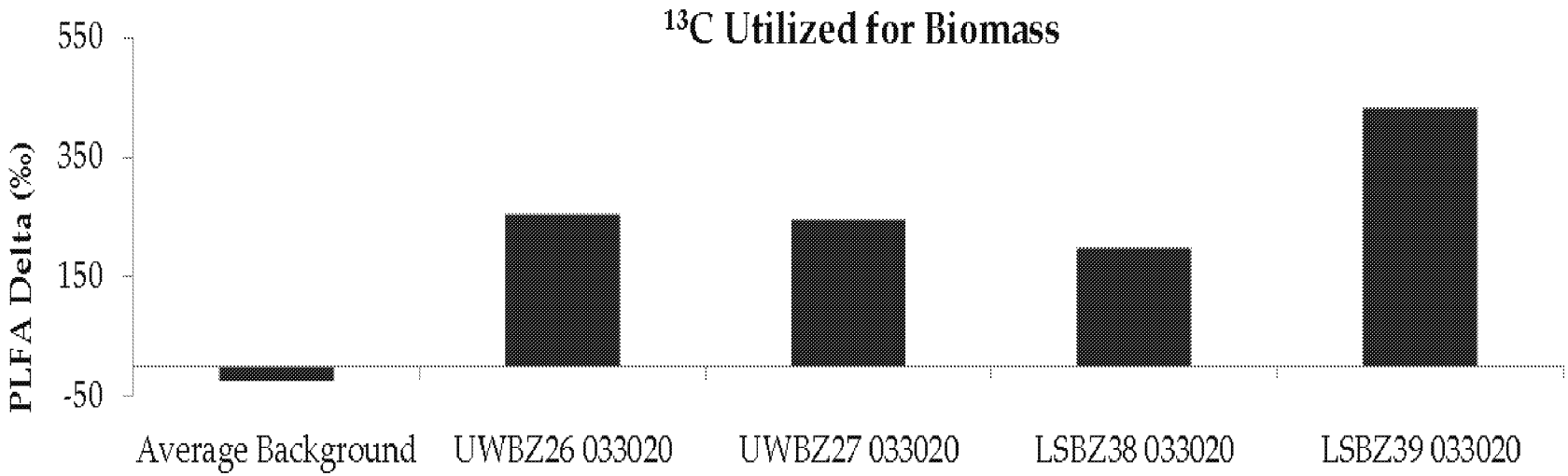
Site ST012 Biological Testing Results for C^{13} PLFA (Week 5)

- **Microbial Insights Finding:**

  "Quantification of ^{13}C-enriched PLFA conclusively demonstrated that benzene was metabolized under existing site conditions. The average PLFA $\delta^{13}C$ value in all four wells fell within the moderate range, indicating ^{13}C-labeled benzene was incorporated into microbial biomass."



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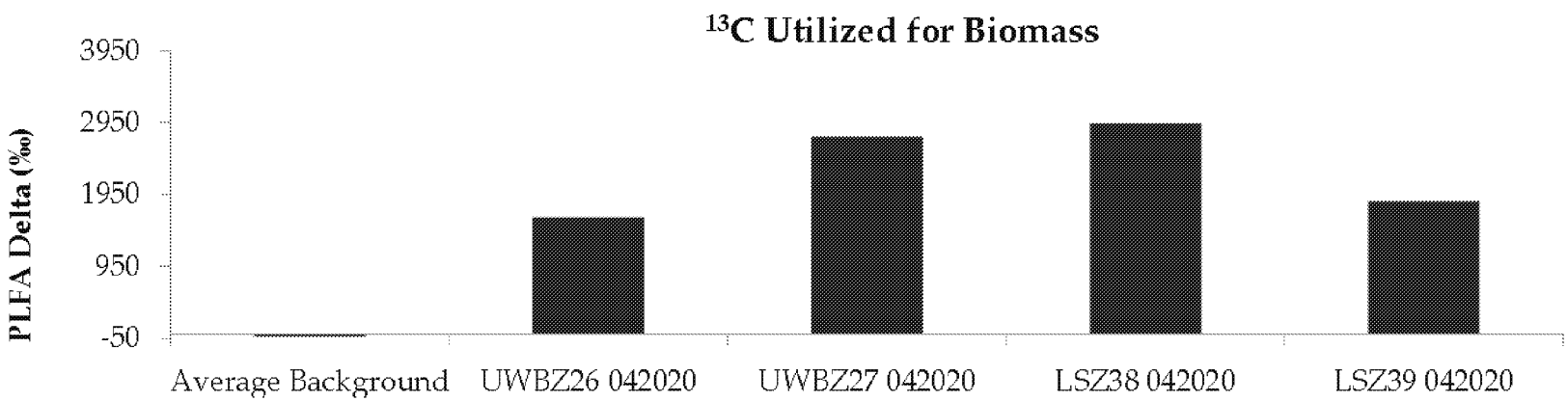
Site ST012 Biological Testing Results for C^{13} PLFA (Week 8)

- **Microbial Insights Finding:**

  "Quantification of ^{13}C-enriched PLFA conclusively demonstrated that benzene was metabolized under existing site conditions. The average PLFA $\delta^{13}C$ value in all wells was between 1,600‰ and 3,000‰, indicating a high level of incorporation of ^{13}C-labeled benzene into microbial biomass."



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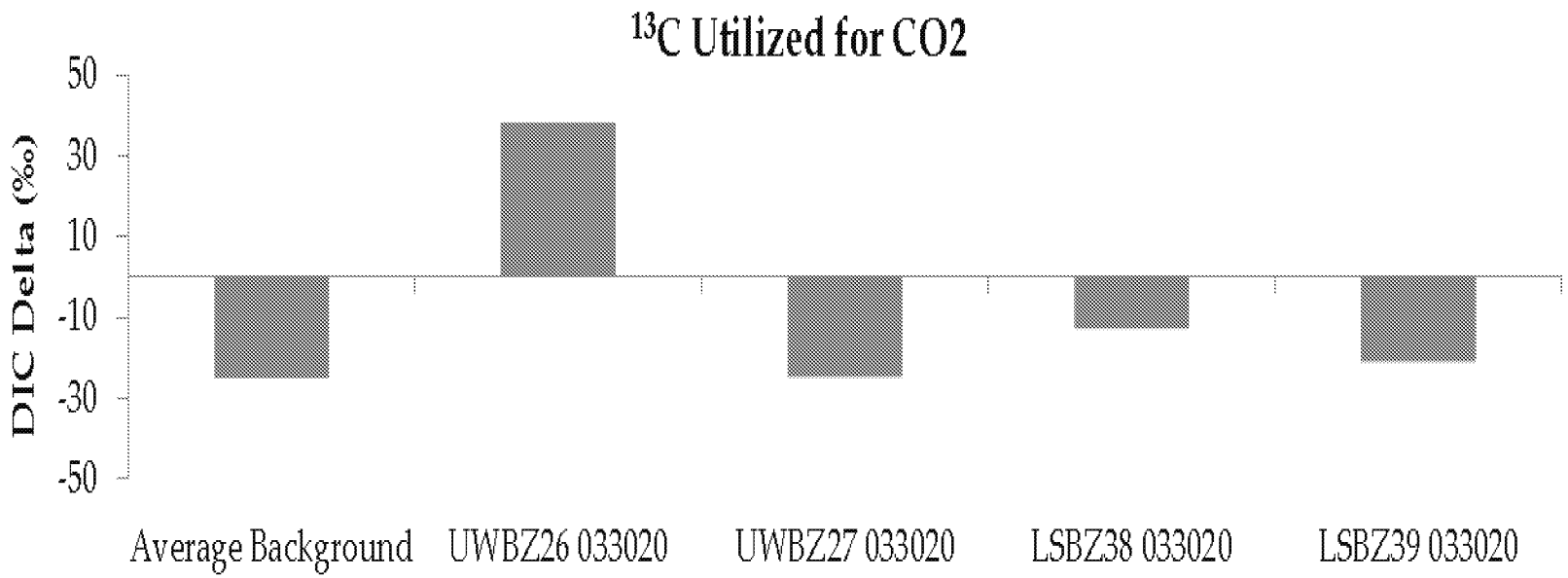
Site ST012 Biological Testing Results C^{13} DIC

- DIC analysis evaluates microbial conversion of C^{13} for energy
- C^{13} content not significantly enriched in DIC at 5 weeks. Per Microbial Insights, even low levels of enriched DIC provides conclusive evidence of contaminant biodegradation



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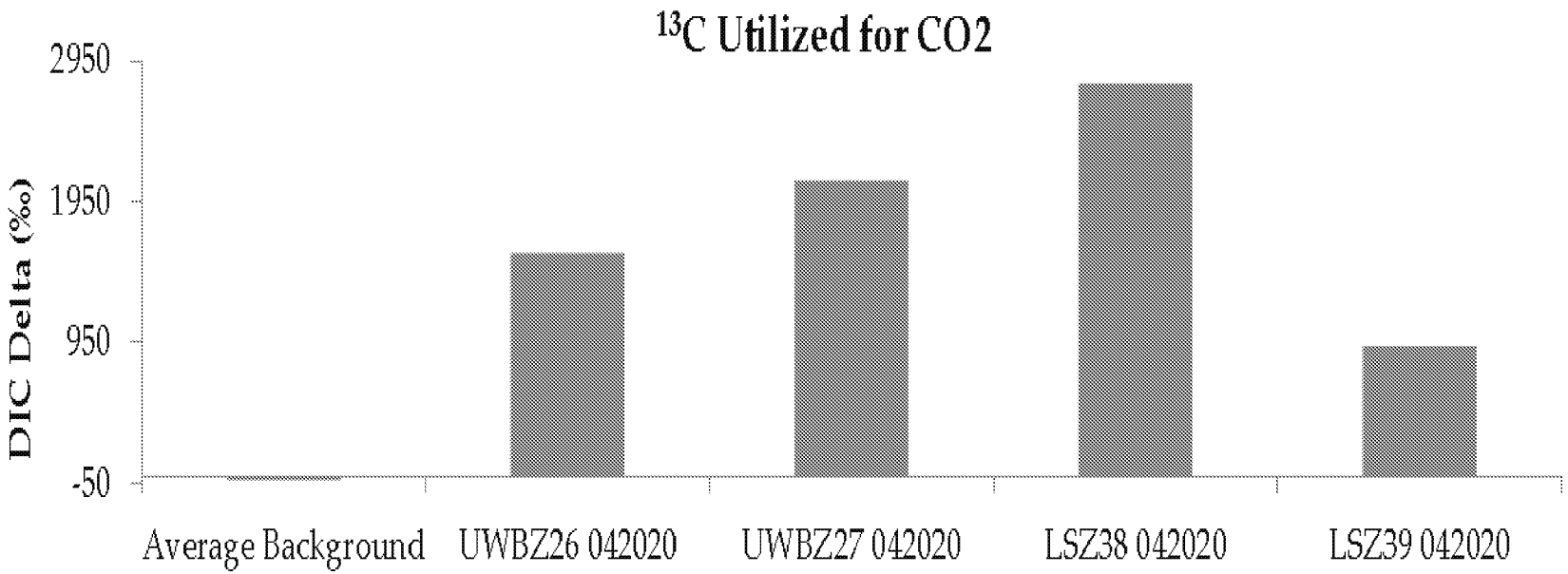
Site ST012 Biological Testing Results C^{13} DIC (contd)

- C^{13} content enriched greater than 1,000 fold in DIC at 8 weeks indicating a high rate of utilization and conclusive evidence of contaminate biodegradation.



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Pilot Study Injection/Extraction Update

Site ST012 Extraction System Performance

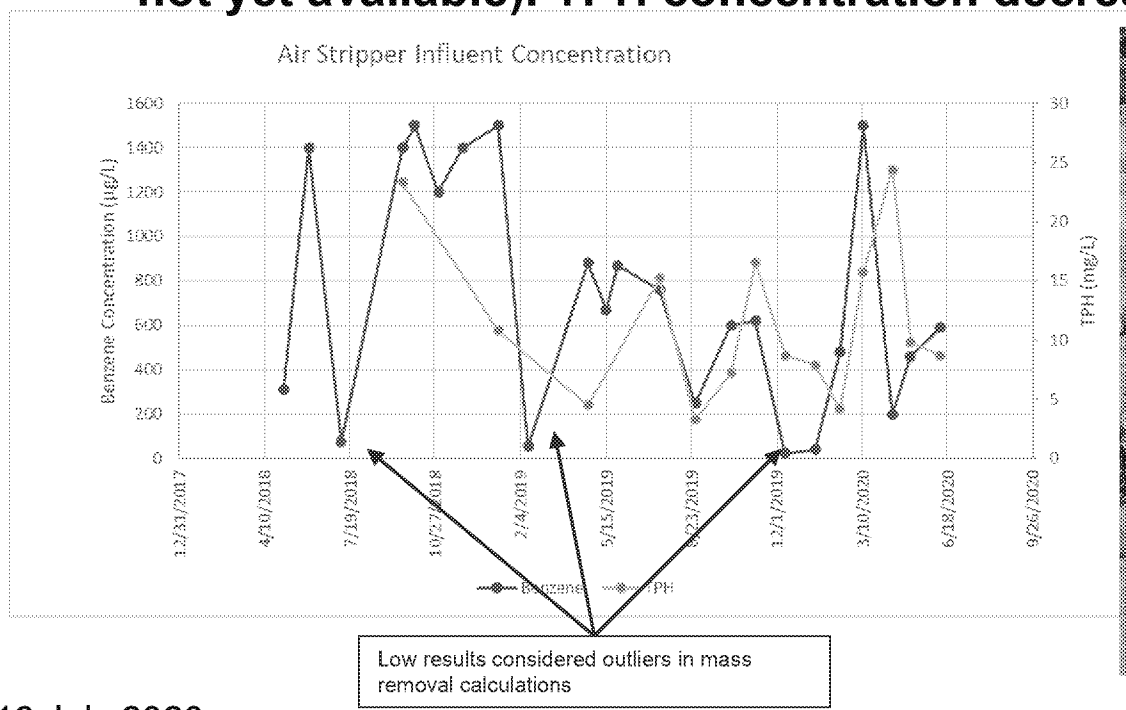
Extraction Well	Calculated Average Extraction Rate in Period gpm	Maximum Temperature Since May 2018 °F	Most Recent Temperature °F	Cumulative Extraction Since May 2018 gallons	Note
ST012-CZ07	0.0	175	132	5,481,175	Motor failed but has since been replaced
ST012-CZ18	Off	136	126	3,019,867	Extraction stopped due to sulfate presence (Oct 2019)
ST012-CZ19	NA		103		Eliminated as an extraction well by FVM#7
ST012-CZ21	0.0	150	115	452,498	Pump shut down due to low concentrations.
ST012-CZ23	4.2	114	102	1,064,416	
CZ Subtotal				10,017,957	
ST012-UWBZ21	19.3	178	175	638,328	Submersible installed but only runs for a few minutes/day (high temp)
ST012-UWBZ22	0.00	146	110	482,384	Shutdown due to slow recharge rate and pump removed (June 2020)
ST012-UWBZ25	4.2	168	161	1,205,906	
ST012-UWBZ26	Off	133	114	2,408,709	Extraction stopped due to sulfate presence (Sep 2019)
ST012-UWBZ27	Off	128	94	130,011	Extraction stopped due to sulfate presence (May 2019)
ST012-UWBZ30	Off	172	128	2,527,610	Shutdown due to sulfate presence (May 2020)
UWBZ Subototal*				8,661,381	
ST012-LSZ09	Off	140	130	2,748,461	Extraction stopped due to sulfate presence (Oct 2019)
ST012-LSZ11	0.0	141	90	6,370,661	
ST012-LSZ12	6.3	130	98	3,510,077	
ST012-LSZ23	Off	113	94	3,638,934	Extraction stopped due to sulfate presence (Aug 2019)
ST012-LSZ28	---	162	165	23,131	Pump removed to faciltate injections
ST012-LSZ29	NA	>170		17	Eliminated as an extraction well by FVM#7
ST012-LSZ37	NA	132	90	6,706,323	Extraction stopped to avoid pulling sulfate from BioTrap locations
ST012-LSZ38	Off	160	90	941,898	Extraction stopped due to sulfate presence (Aug 2019)
ST012-LSZ39	Off	92	78	1,250,933	Extraction stopped due to sulfate presence (May 2019)
ST012-LSZ43	0.0	150	140	1,585,251	
ST012-UWBZ28/LSZ51	NA	146	128	2,536,868	Extraction stopped (Aug 2019), changed to injection end of subphase 2
W36	NA	81	81	386,615	Only used for make up water for sulfate mixing
LSZ Subtotal*				28,044,120	
Total of Wells	34.0			47,110,073	
Treatment System	39.1			38,396,517	

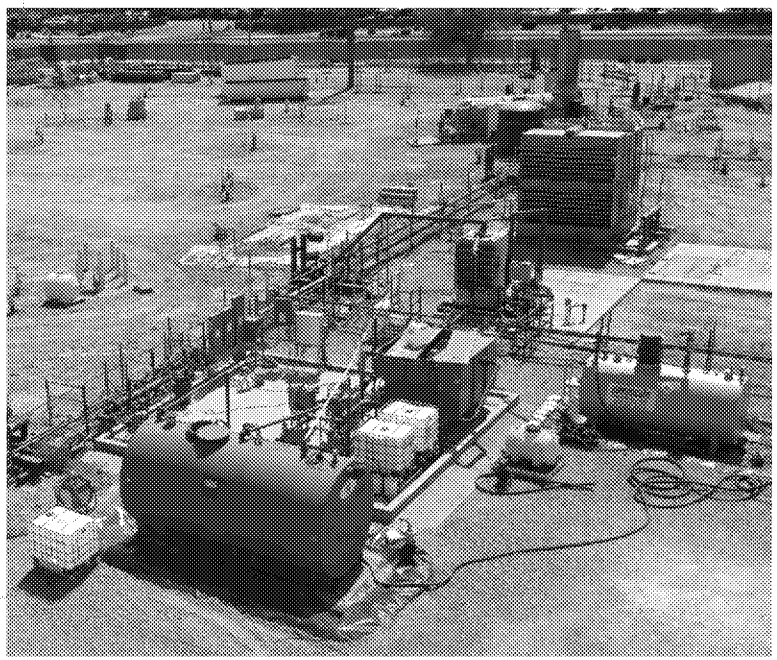
Data is preliminary

* Includes 1/2 of ST012-UWBZ28/LSZ51

Site ST012 Extraction System Performance

- No LNAPL has been recovered since extraction started up
- Extraction pumps UWBZ21 pumping intermittently.
- UWBZ22 removed to facilitate injection.
- CZ18, CZ21, UWBZ26, UWBZ27, UWBZ30, LSZ09, LSZ23, LSZ29, LSZ37, LSZ38, and LSZ39 turned off due to sulfate presence
- Benzene air stripper influent increased to 590 µg/L for June sample (July not yet available). TPH concentration decreased.





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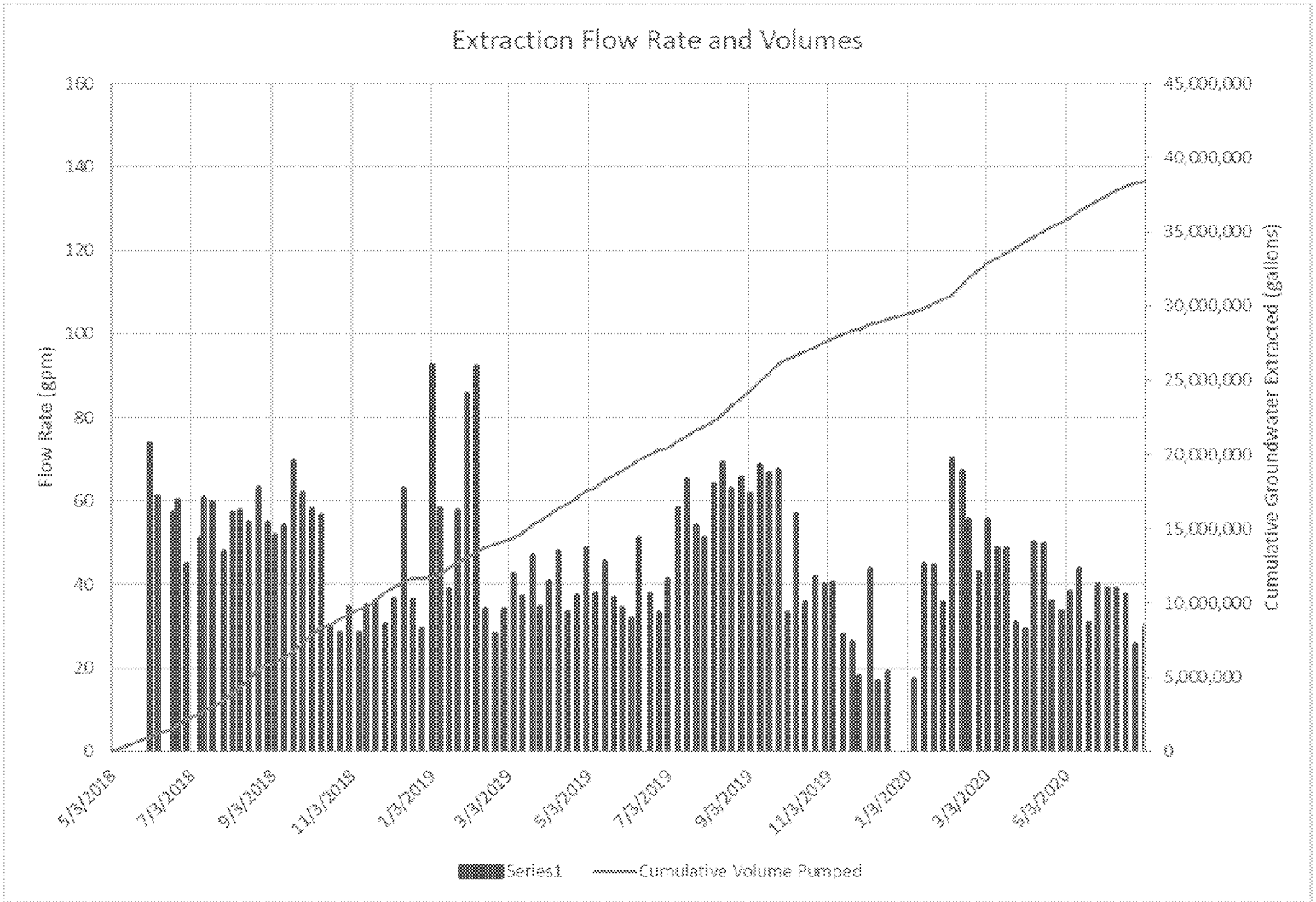
Site ST012 Extraction System Performance

- **Overall Extraction Rates and Cumulative Volume Extracted**



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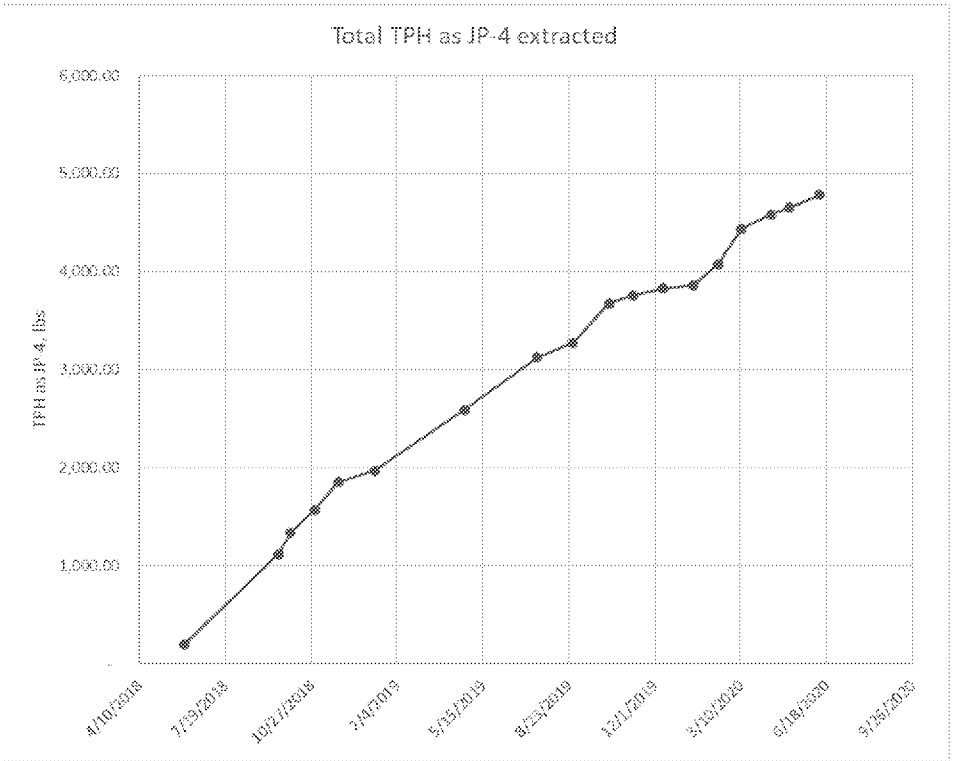
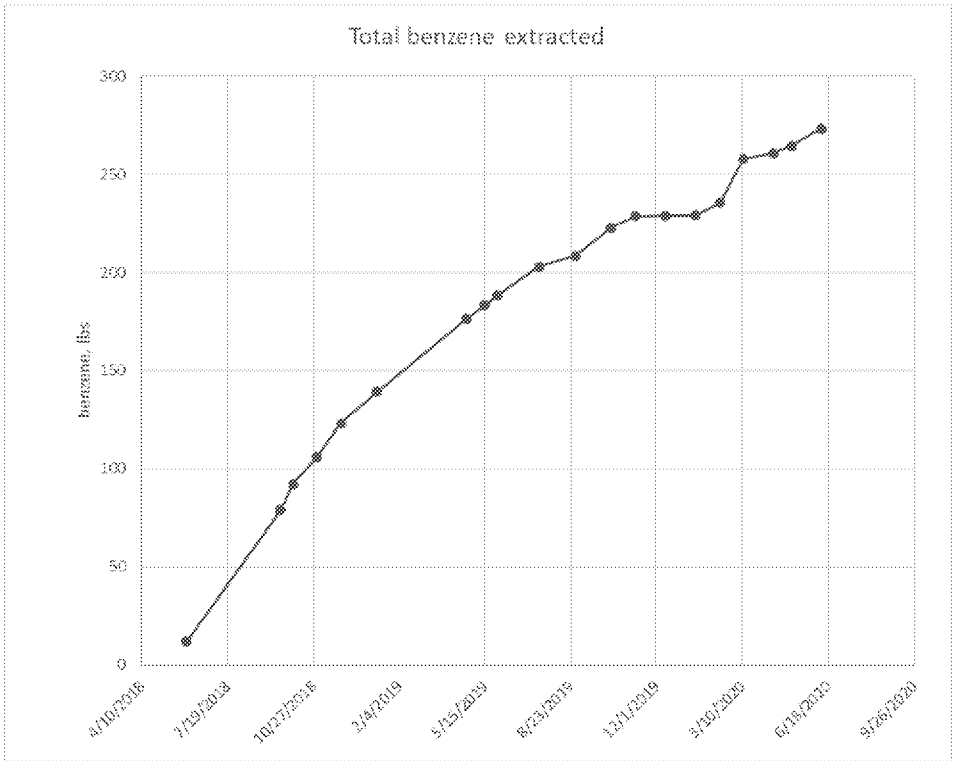
Site ST012 Extraction System Performance

- **Estimated Mass Removal by Extraction**





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Site ST012 Sulfate Field Screening

Date	Sulfate Concentration (mg/L)																
	CZ02	CZ03	CZ05	CZ10	CZ13	CZ16	CZ18	CZ07	CZ20	CZ21	UWBZ15	UWBZ17	UWBZ21	UWBZ22	UWBZ24	UWBZ26	UWBZ27
11/5/2019	90	---	---	---	---	---	100	---	60	70	---	---	100	---	0	110	---
11/12/2019	---	---	---	---	---	---	--	80	---	100	110	---	---	130	---	100	90
11/20/2019	120	140	20	240	0	210	650	3000	380	OFF	100	---	20	0	700	600	480
11/26/2019	140	---	---	---	---	---	30	---	10	Off	---	---	Off	---	450	500	---
12/3/2019	---	---	---	---	---	---	--	100	---	off	130	---	---	10	---	ERROR	350
12/10/2019	120	---	---	---	---	---	140	---	110	off	---	---	40	---	100	off	---
12/17/2019	---	---	---	---	---	---	--	100	140	off	140	---	---	40	---	off	300
1/8/2020	130	---	---	---	---	---	145	---	140	off	---	140	50	---	100	off	---
1/14/2020	---	---	---	---	---	---	--	130	---	off	20	---	---	Error00	---	off	40
1/21/2020	340	---	---	---	---	---	20	---	80	off	---	180	100	---	80	off	---
1/27/2020	---	---	---	---	---	---	--	120	---	off	50	---	---	100	---	off	40
2/4/2020	400	---	---	---	---	---	90	---	120	off	---	210	140	---	80	off	---
2/11/2020	---	---	---	---	---	---	--	100	---	Off	70	---	---	60	---	injecting	50
2/18/2020	300	---	---	---	---	---	80	---	100	off	---	100	100	---	1350	off	---
2/25/2020	---	---	---	---	---	---	--	60	---	off	130	50	---	30	---	BioTrap	100
3/2/2020	300	---	---	---	---	---	70	---	80	off	---	60	80	---	1200	off	---
3/10/2020	---	---	---	---	---	---	--	50	---	off	100	50	---	50	---	BioTrap	biotrap
3/17/2020	250	---	---	---	---	---	60	---	50	off	---	20	40	---	800	off	---
3/24/2020	---	---	---	---	---	---	--	60	---	off	80	30	---	40	---	BIOTrap	BioTrap
4/1/2020	220	---	---	---	---	---	40	---	40	off	---	10	20	---	400	off	---
4/7/2020	---	---	---	---	---	---	--	10	---	off	140	50	---	20	---	BIOTrap	BioTrap
4/14/2020	60	---	---	---	---	---	0	---	40	off	---	70	90	---	40	off	---
4/22/2020	---	---	---	---	---	---	--	10	---	Off	130	80	---	30	---	BIOTrap	BioTrap
4/27/2020	80	---	---	---	---	---	10	---	30	off	---	90	50	---	40	off	---
5/5/2020	---	---	---	---	---	---	--	10	---	Off	100	90	---	40	---	BIOTrap	BioTrap
5/12/2020	70	---	---	---	---	---	0	---	10	off	---	70	20	---	30	off	---
5/19/2020	---	---	---	---	---	---	--	20	---	Off	50	20	---	40	---	BIOTrap	BioTrap
5/26/2020	200	---	---	---	---	---	30	---	60	off	---	0	10	---	0	off	---
6/3/2020	---	---	---	---	---	---	--	0	---	Off	20	20	---	40	---	BIOTrap	BioTrap
6/10/2020	150	---	---	---	---	---	20	---	40	off	---	10	10	---	0	off	---
6/16/2020	---	---	---	---	---	---	--	error00	---	Off	450	Sulfate Injection	---	10	---	BIOTrap	BioTrap
6/23/2020	60	---	---	---	---	---	20	---	1800	off	---	10	60	---	0	1700	---
7/2/2020	---	---	---	---	---	---	--		---	Off	450	0	---	10	---	1200	400
7/7/2020	50	---	---	---	---	---	0	---	1200	off	---	20	30	---	0	off	---

CZ07 — Screening location is an extraction location

CZ20 — Screening location is a monitoring well

CZ18, CZ21, UWBZ22, UWBZ26, and UWBZ27 extraction shut down.
Suspect field screening results in October and November not included

Site ST012 Sulfate Field Screening

Date	Sulfate Concentration (mg/L)																	
	UWBZ28/LSZ51	UWBZ30	LSZ09	LSZ10	LSZ11	LSZ12	LSZ15	LSZ19	LSZ23	LSZ35	LSZ37	LSZ38	LSZ39	LSZ40	LSZ43	LSZ44	LSZ47	W30
11/5/2019	off	70	90	90	---	70	---	---	90	---	230	60	80	60	---	---	---	---
11/12/2019	---	80	90	100		---	---	---	90	---	150	70	---	70	---	---	0	100
11/20/2019	OFF	OFF	790	470	120	2000	630	300	720	4000	400	2800	900	230	OFF	540	0	300
11/26/2019	off	off	650	350	---	600	---	---	off	---	530	460	---	90	---	---	---	100
12/3/2019	---	off	320	370	360	---	---	---	130	---	60	1060	---	200	---	---	0	-
12/10/2019	off	off	700	350	---	470	---	---	off	---	100	800	460	570	---	---	---	
12/17/2019	---	off	310	370	200	---	---	---	off	---	120	750	---	550	---	---	0	130
1/8/2020	off	off	300	410	---	350	---	---	off	---	100	770	450	520	---	---	---	160
1/14/2020	---	off	80	330	370	---	---	---	off	---	20	450	---	124	---	---	0	---
1/21/2020	off	off	30	340	---	460	---	---	z	---	70	320	230	680	---	---	---	---
1/27/2020	---	260	4000	310	3530	---	---	---	off	---	---	210	---	660	---	---	500	200
2/4/2020	off	---	400	300	---	360	---	---	off	---	420	370	200	150	---	---	---	---
2/11/2020	---	400	30	40	420	0	---	---	off	---	---	300	---	680	---	---	0	180
2/18/2020	off	----	50	80	---	220	---	---	off	---	430	240	160	500	---	---	---	---
2/25/2020	---	440	40	240	440	---	---	---	off	---	---	Bio Trap	---	700	---	---	0	80
3/2/2020	off	---	40	250	---	200	---	---	off	---	400	Bio Trap	120	600	---	---	---	---
3/10/2020	---	380	50	---	300	---	---	---	off	---	---	Bio Trap	---	490	---	---	0	70
3/17/2020	off	off	---	200	---	200	---	---	off	---	300	Bio Trap	Biotrap	430	---	---	---	---
3/24/2020	---	360	50	---	200	---	---	---	off	---	---	Bio Trap	---	450	---	---	0	70
4/1/2020	off	off	---	120	---	150	---	---	off	---	200	Bio Trap	Biotrap	350	---	---	---	---
4/7/2020	---	620	140	---	120	---	---	---	off	---	---	Bio Trap	---	200	---	---	0	20
4/14/2020	off	off	---	180	---	680	---	---	off	---	60	Bio Trap	Biotrap	760	---	---	---	---
4/22/2020	---	590	120	210	130	---	---	---	off	---	---	Bio Trap	---	690	---	---	0	20
4/27/2020	off	off	---	200	---	600	---	---	off	---	80	Bio Trap	Biotrap	650	---	---	---	---
5/5/2020	---	600	110	200	100	---	---	---	off	---	---	Bio Trap	---	600	---	---	100	10
5/12/2020	off	off	---	170	---	600	---	---	off	---	100	Bio Trap	Biotrap	580	---	---	---	---
5/19/2020	---	OFF	80	60	40	---	---	---	off	---	---	Bio Trap	---	530	---	---	80	0
5/26/2020	off	off	---	210	---	740	---	---	off	---	90	Bio Trap	Biotrap	900	---	---	---	---
6/3/2020	---	off	100	180	20	---	---	---	off	---	---	Bio Trap	---	700	---	---	50	20
6/10/2020	off	off	---	160	---	750	---	---	off	---	70	Bio Trap	Biotrap	700	---	---	---	---
6/16/2020	---	OFF	50	40	0	---	---	---	off	---	---	Bio Trap	---	400	---	---	20	0
6/23/2020	injection pipe	0	---	140	---	200	---	---	off	---	150	150	200	640	---	---	---	---
7/2/2020	---	10	40	80	0	---	---	---	off	---	---	100	---	500	---	---	0	10
7/7/2020	off	off	---	50	---	300	---	---	off	---	120	---	200	---	---	---	---	---

CZ07 — Screening location is an extraction location

CZ20 — Screening location is a monitoring well

UWBZ30, UWBZ28/LSZ51, LSZ09, LSZ23, LSZ37, LSZ38 and LSZ39 extraction shut down.

Suspect field screening results in October and November not included

LSZ12 sulfate decreased

Site ST012 Path Forward Jul-Aug 2020

- Continue SVE
- Continue pump repairs as necessary
- Pilot Study Implementation
  - Continue extraction and treatment
  - Submit Pilot Study Implementation Report
  - Continue sulfate screening
  - Additional injections to replenish and expand sulfate distribution
    - UWBZ22 and UWBZ24
    - LSZ28 (continue pumping at LSZ43)
    - LSZ35 (continue pumping at LSZ11)
    - UWBZ23 (continue pumping at UWBZ30)
    - W37, LSZ45 (continue pumping at LSZ12)
  - Downgradient perimeter well sampling in late July

Air Force Civil Engineer Center

2020 BCT MEETINGS/CONFERENCE CALLS SCHEDULE DELIVERABLE TRACKING

BCT Conference Call

16 July 2020

BCT GENERAL UPDATE AND ACTION ITEMS

BCT Conference Call

16 July 2020