June 6, 2016

Rita and Tony Sullins
Don Sul Inc.
187 North L Street
Livermore, CA 94550

Re: Transmittal Letter
Site Location: Arrow Rentals
187 North L Street, Livermore, CA 94550

Dear Ms Roe:

On behalf of Rita and Tony Sullins, Don Sul Inc., Ground Zero Analysis, Inc. (GZA) prepared the June 6, 2016 First 2016 Semi-Annual Groundwater Monitoring & Remediation Effectiveness Report and Low Threat Closure Request that was sent to your office via electronic delivery per Alameda County's guidelines and uploaded into the CA State Water Resources Control Board's Geotracker database.

I declare under penalty of law that the information and/or recommendations contained in the above referenced document or report is true and correct to the best of my knowledge.

Respectfully submitted,

Rita / Tony Sullins
Property Owner
Don Sul Inc.
187 North L Street
Livermore, CA 94550

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REPORT

First Semi-Annual 2016 Groundwater Monitoring & Remediation Effectiveness Report and Low Threat Closure Request

Arrow Rentals Service
187 North L St.
Livermore, CA 94550

Project No. 1262.2
June 6, 2016

Prepared for:
Tony & Rita Sullins
Arrow Rentals Service
187 North L St.
Livermore, CA 94550

Prepared by:
Ground Zero Analysis, Inc.
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June 6, 2016

Project No.: 1262.2
Project Name: Sullins (L St.)

Tony & Rita Sullins
Arrow Rentals Service
187 North L Street
Livermore, CA 94550

RE: Report: First Semi-Annual 2016 Groundwater Monitoring & Remediation Effectiveness Report and Low Threat Closure Request
Location: 187 North L Street, Livermore, CA 94550.
(ACEH Fuel Leak Case No. RO0000394)

Dear Mr. & Ms. Sullins:

Ground Zero Analysis, Inc. (Ground Zero) has prepared the following report for the 1st Semi Annual groundwater monitoring events conducted in the first half of 2016. Including additional analytical results from a groundwater sampling of select wells were performed on March 10, 2016 as requested by Jerry Wickham of Alameda County Environmental Health in a letter dated January 22, 2016. Concentrations of benzene above 3,000 micrograms per liter are limited to one area, monitoring well cluster MW-7. All other data indicates that the site is acceptable for low threat closure.

If you have any questions, please do not hesitate to call me at (209) 522-4119.

Respectfully submitted,

Eric L. Price, PG

cc: Dilan Roe – ACEH (Via FTP site)

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REPORT

First Semi-Annual 2016 Groundwater Monitoring & Remediation Effectiveness Report and Low Threat Closure Request

Arrow Rentals Services
187 North L St.
Livermore, CA

Project No. 1262.2
June 6, 2016

1.0 EXECUTIVE SUMMARY

Details of the groundwater monitoring and sampling events that took place during the first half of 2016 as well as remediation activities performed during the first half of 2016 are included in this report.

The routine semi-annual groundwater monitoring event was performed during the second quarter of 2016 between May 3, 2016 and May 5, 2016 in which depth-to-water measurements were collected from 25 groundwater wells of which 22 wells were purged and sampled. Two wells were dry or had insufficient volume of water and were not purged or sampled. An additional well (MW-404) could not be monitored due to an obstruction within the well casing.

As requested by Jerry Wickham of Alameda County Environmental Health (ACEH) in a letter dated January 22, 2016, an additional groundwater monitoring event was performed on March 10, 2016 and included shallow wells W-1s and W-Bs and intermediate wells W-1, MW-205 and MW-207. Groundwater level increased approximately 22 feet from November 2015 groundwater monitoring event (55.42' bgs) to the March 2016 groundwater monitoring event (33.70') allowing shallow and intermediate wells to be sampled.

Ground Zero is currently implementing the Corrective Action Plan (CAP) which includes the operation of dual phase extraction (DPE) and air sparging (AS) systems to treat the residual contamination at the site.

The site history and geologic setting are summarized in Ground Zero's *1st Semi-Annual Groundwater Monitoring and Remedial Effectiveness Report* dated July 24, 2014. A vicinity map is included as Figure 1 and a site map is included as Figure 2.

2.0 GROUNDWATER MONITORING

2.1 Groundwater Elevation and Flow

March 2016

Shallow monitoring wells W-1s and W-Bs and intermediate monitoring wells MW-205, MW-207 and W-1 were purged and sampled on March 10, 2016. Groundwater elevation had increased 22.33 feet since the November 2015 event, allowing the sampling of shallow wells that had not been monitored in multiple years. The average groundwater elevation recorded during the event was 447.24 feet above mean sea level (amsl) and the average depth to water (DTW) was 33.70 feet below ground surface (bgs). The intermediate groundwater flow was calculated to be to the south southwest with a horizontal gradient of 0.069 ft/ft.

May 2016

Groundwater monitoring wells from the shallow, intermediate and deep aquifers were purged and sampled during the May 2016 groundwater monitoring event. The average groundwater elevation increased 18.18 feet since the November 2015 event, allowing the sampling of shallow groundwater monitoring wells that had not been sampled between April 2011 and June 2014. The average groundwater elevation recorded in the intermediate monitoring wells was 443.09 feet amsl and the average DTW was 37.62 feet bgs.

Between 1989 and present, DTW has ranged from approximately 20 to 56 feet bgs. The November 2015 event represented the lowest groundwater elevation recorded at the Site. Groundwater elevation had decreased by over 34 feet between April 1996 and November 2015, however groundwater elevation increased to the highest recorded level since the start of the dual phase extraction system in November 2011. Well locations on- and off-site are shown on Figure 2 and on-site well locations are shown on Figure 3.

The wells are categorized according to the aquifer interval which the screened section intercepted. Well construction details are summarized in Table 1 and shown in vertical view on Figure 4. Hydrographs depicting the change in groundwater elevation for the shallow, intermediate and deep wells are included in Attachment A. Well categories are discussed below:

Shallow Wells (screened 20 – 45 feet bgs):

W-1s, W-Bs, W-3s, W-Es, and either {MW-4, MW-5, MW-6, MW-7 and MW-8} or {MW-105, MW-106, MW-107 and MW-108} depending on groundwater elevation.

Intermediate Wells (screened 40 – 60 feet bgs):

W-1, W-3, W-A, MW-104, MW-205, MW-206, MW-207, MW-208, MW-9, MW-10 and EW-2

- Well W-1 is considered intermediate and is monitored; however the well is not utilized for groundwater gradient measurements due to modifications to the well top for remediation purposes.
- Well W-A is considered intermediate and is monitored; however the well is not utilized for groundwater gradient measurements due to modifications to the well top for remediation purposes.
- Monitoring wells W-2 and W-3 could not be monitored since an access agreement could not be obtained from Signature Properties.

Deep Wells (screened ~ 65 feet bgs):

MW-204, MW-305, MW-306, MW-307, MW-308

Deepest Wells (screened > 70 feet bgs):

MW-304, MW-404

Horizontal Groundwater Gradients

March 2016

During the March 2016 groundwater monitoring event, depth-to-water measurements were only collected from two shallow wells, therefore a groundwater flow direction and gradient could not be calculated for the shallow aquifer. The groundwater flow in the intermediate aquifer was calculated to be to the south southwest with a gradient of approximately 0.069 ft/ft. Elevation data from MW-205, MW-207 and W-1 was used to calculate the intermediate groundwater flow. Figure 5 illustrates the intermediate aquifer groundwater gradient map for the March 2016 monitoring event.

The historical shallow and intermediate groundwater elevation data are summarized in Table 2 and Table 3, respectively. The deep groundwater elevation data is summarized in Table 4.

May 2016

During the May 2016 groundwater monitoring event, depth-to-water measurements were collected from 25 groundwater monitoring wells and the groundwater flow direction and gradient were calculated for the shallow, intermediate and deep aquifers.

- The groundwater flow in the shallow aquifer was calculated to be to the southwest with a gradient of approximately 0.053 ft/ft. Elevation data from W-Es, W-3s and W-Bs was used to calculate the shallow groundwater flow. Figure 6 illustrates the shallow aquifer groundwater gradient map for the May 2016 monitoring event.
- The groundwater flow in the intermediate aquifer was calculated to be to the west-southwest with a gradient of approximately 0.014 ft/ft. Elevation data from EW-2, MW-9 and MW-10 was used to calculate the intermediate groundwater flow. Figure 7

illustrates the intermediate aquifer groundwater gradient map for the May 2016 monitoring event.

- The groundwater flow in the deep aquifer was calculated to be to the west-northwest with a gradient of approximately 0.012 ft/ft. Elevation data from MW-305, MW-306, MW-307 and MW-308 was used to calculate the deep groundwater flow. Figure 8 illustrates the deep aquifer groundwater gradient map for the May 2016 monitoring event.

Vertical Groundwater Gradients

March 2016

A vertical groundwater gradient was not calculated for any of the Site's wells during the March 2016 monitoring event.

May 2016

Ground Zero calculated vertical gradients for numerous intermediate and deep groundwater monitoring well pairs using data collected during the May 2016 monitoring event. The results are as follows:

- Well pair MW-204 and MW-304 was calculated to have a negative (downward) vertical gradient of -0.01 ft/ft. This well pair has historically reported negative vertical gradients.
- Well pair MW-205 and MW-305 was calculated to have a positive (upward) vertical gradient of 0.013 ft/ft. Historically this well pair has been calculated to have both negative and positive vertical gradients.
- Well pair MW-206 and MW-306 was calculated to have a slightly negative (downward) vertical gradient of -0.001 ft/ft. Historically this well pair has been calculated to have both negative and positive vertical gradients.
- Well pair MW-207 and MW-307 was calculated to have a positive (upward) vertical gradient of 0.03 ft/ft. Historically this well pair has been calculated to have both negative and positive vertical gradients.

Figure 3 shows the location of the well pairs used for calculating vertical groundwater gradient in this report. Vertical gradients are summarized in Table 5.

2.2 Groundwater Sampling Procedure

During the first quarter 2016 groundwater monitoring event (March 9, 2016 and March 10, 2016) and the second quarter groundwater monitoring event (May 3, 2016 through May 5, 2016) Ground Zero staff recorded DTW measurements as well as purged and sampled the selected groundwater monitoring wells. The wells were purged of at least three well volumes of stagnant water prior to sample collection unless the well was dewatered during purging.

During the March 2016 and May 2016 events, monitoring well W-1s was purged dry after removing 29 gallons and 36 gallons of groundwater prior to sampling, respectively. During the March 2016 event, W-1s was sampled with a disposable bailer. During the May 2016 event, wells W-Bs and W-1s were purged with a Waterra pump and dedicated tubing and

were sampled using a disposable bailer. During the May 2016 event, wells EW-2 and W-A were purged and sampled using a disposable bailer. The Continuous Multichannel Tubing (CMT®) wells were purged and sampled using a peristaltic pump and dedicated tubing.

When pH, temperature, and electrical conductivity (EC) measurements had stabilized to within 10%, the groundwater monitoring wells are sampled. Care is taken to minimize sample agitation.

Following purging and prior to sampling, a depth-to-water measurement is collected to ensure that the groundwater level in each well has recharged to at least 80% of its initial level recorded prior to purging.

All wells sampled were allowed to recharge to at least 80% during the March 2016 monitoring event with the following exceptions:

- MW-205 recharged 30% and was sampled immediately after the completion of the purging process.
- W-1s recharged 24% of its initial groundwater column after allowing the well to recharge for 87 minutes between the completion of purging and the time of sampling.
- W-Bs recharged 51% of its initial groundwater column after allowing the well to recharge for 140 minutes between the completion of purging and the time of sampling.

All wells sampled were allowed to recharge to at least 80% during the May 2016 monitoring event with the following exceptions:

- W-1s recharged 58% of its initial groundwater column after allowing the well to recharge for 22 minutes between the completion of purging and the time of sampling.
- W-Bs recharged 49% of its initial groundwater column after allowing the well to recharge for 55 minutes between the completion of purging and the time of sampling.

All groundwater samples were carefully transferred to the appropriate containers, checked for headspace, uniquely labeled, temporarily stored in an ice chest refrigerated to a temperature of less than 6°C, and delivered under chain-of-custody protocol to BC Labs of Bakersfield, California (ELAP #1186) for analysis.

All well purge water was placed in a 55 gallon Department of Transportation (DOT) approved container. Upon completing the groundwater monitoring event, all purge water was pumped from drums and into the DPE system for remediation prior to being discharged to the sanitary sewer system.

Groundwater monitoring field logs are included in Attachment B.

2.3 Laboratory Analyses

The groundwater samples were analyzed for:

- Benzene, Toluene, Ethyl Benzene and Xylene (BTEX) by EPA method 8260B
- Total Petroleum Hydrocarbons as gasoline (TPHg) by EPA method 8260B
- Methyl *tert*-butyl ether (MTBE) by EPA method 8260B

Current analytical results from the March 2016 and May 2016 groundwater monitoring events are summarized in Table 6. Historical laboratory analytical results are summarized in Table 7. Laboratory analytical results and chain of custody documentation are included in Attachment C.

3.0 FINDINGS AND DISCUSSION

3.1 Field Parameters

March 2016

- Dissolved Oxygen (DO) readings ranged from 0.50 mg/L (W-1s) to 1.7 mg/L (W-Bs).
- EC readings ranged from 505 µmhos/cm (W-Bs) to 978 µmhos/cm (W-1).
- Oxygen Reduction Potential (ORP) readings ranged from -14.8 mV (W-1s) to -95.9 mV (W-1)
- pH readings ranged from 6.81 (W-1) and 6.94 (W-Bs).
- Temperature readings were 20.3 °C (W-1) and 21.2 °C (W-1s).

May 2016

- DO readings ranged from 0.42 mg/L (EW-2) to 3.55 mg/L (MW-9).
- EC ranged from 620 µmhos/cm (W-Bs) to 1,452 µmhos/cm (W-A)
- ORP ranged from -169.3 mV (W-1) to 102.1 mV (W-Es)
- pH ranged from 6.91 (W-3s) to 7.69 (MW-9 and MW-10)
- Temperature ranged from 19.8 ˚C (MW-9) to 21.3 ˚C (W-1s and W-Es)

The field parameter results are summarized in Table 8. Field notes are included in Attachment B.

3.2 Laboratory Analytical Data

Despite an increase in the groundwater elevation beneath the Site, the shallow CMT® wells were not able to be sampled during 2016 and have not been sampled since the DPE system was started in November 2011. It is anticipated that as groundwater levels rise in the shallow wells, decreased concentrations will likely be reported due to extensive vadose zone remediation between 25 and 55 feet bgs.

Increased groundwater elevation beneath the Site allowed for shallow monitoring wells W-1s and W-Bs to be sampled for the first time since the June 2014 groundwater monitoring event.

March 2016

Shallow Aquifer

- Shallow groundwater monitoring wells W-1s and W-Bs were sampled during the March 2016 event.
- TPHg concentrations ranged from 150 micrograms per liter (µg/L) in W-1s to 160 µg/L (W-Bs)
- Benzene concentrations ranged from 0.38 µg/L (W-Bs) to 0.55 µg/L (W-1s).
- MtBE was not reported above laboratory detection limits.
- A shallow aquifer TPHg groundwater plume map for the March 2016 event is included as Figure 9.
- A shallow aquifer benzene groundwater plume map for the March 2016 event is included as Figure 10.

Intermediate Aquifer

- Intermediate groundwater monitoring wells W-1, MW-205 and MW-207 were sampled during the March 2016 event.
- TPHg concentrations ranged from 150 µg/L (W-1s) to 7,100 µg/L (W-1)
- Benzene concentrations ranged from 130 µg/L (W-1) to 1,900 µg/L (MW-207).
- MtBE concentrations ranged from 3.1 µg/L (MW-205) to 38 µg/L (MW-207).
- An intermediate aquifer TPHg groundwater plume map for the March 2016 event is included as Figure 11.
- An intermediate aquifer benzene groundwater plume map for the March 2016 event is included as Figure 12.
- An intermediate aquifer MtBE groundwater plume map for the March 2016 event is included as Figure 13.

May 2016

Shallow Aquifer

- CMT® wells MW-4 through MW-8, MW-105 and MW-106 were dry during the May 2016 groundwater monitoring event and were not sampled.
- TPHg concentrations ranged from 28 µg/L (W-1s) to 5,600 µg/L (MW-107). W-Es and W-3s were reported to be non-detect below the laboratory reporting limit of 50 µg/L.
- Benzene concentrations ranged from non-detect below the laboratory reporting limit of 0.5 µg/L (W-Es and W-3s) to 9,400 µg/L (MW-107).
- MtBE concentrations ranged from below the laboratory reporting limit of 0.5 µg/L (W-Es, W-Bs, W-1s and W-3s) to 37 µg/L (MW-108).
- A shallow aquifer TPHg groundwater plume map for the May 2016 event is included as Figure 14.

- A shallow aquifer benzene groundwater plume map for the May 2016 event is included as Figure 15.
- A shallow aquifer MtBE groundwater plume map for the May 2016 event is included as Figure 16.

Intermediate Aquifer

- TPHg concentrations ranged from 18 µg/L (MW-206) to 14,000 µg/L (W-1).
- Benzene concentrations ranged from 0.18 µg/L (MW-206) to 3,500 µg/L (MW-207). Well MW-10 was not found above laboratory detection limits.
- MtBE concentrations ranged from below the laboratory reporting limit of 0.5 µg/L (MW-9 and MW-10) to 49 µg/L (MW-207).
- An intermediate aquifer TPHg groundwater plume map for the May 2016 event is included as Figure 17.
- An intermediate aquifer benzene groundwater plume map for the May 2016 event is included as Figure 18.
- An intermediate aquifer MtBE groundwater plume map for the May 2016 event is included as Figure 19.

Deep Aquifer

- TPHg ranged from 12 µg/L (MW-306) to 2,200 µg/L (MW-204)
- Benzene ranged from non-detect below the laboratory reporting limit of 0.5 µg/L (MW-306) to 430 µg/L (MW-204).
- MtBE was not reported above laboratory detection limits.
- A deep aquifer TPHg groundwater plume map for the May 2016 event is included as Figure 20.
- A deep aquifer benzene groundwater plume map for the May 2016 event is included as Figure 21.

Deepest Aquifer

- MW-304 reported TPHg, benzene and MtBE concentrations of 570 µg/L, 70 µg/L and below laboratory detection limits, respectively.
- MW-404 was not sampled during the May 2016 event due to an obstruction in the well casing.

4.0 REMEDIATION SYSTEM STATUS & EFFECTIVENESS

A DPE and an AS remediation system were installed at the site and operations commenced in November 2011 and March 2012, respectively. The well configuration is discussed as follows:

- Vadose zone well EW-1 is a vapor extraction well
- Shallow depth well W-1s is a vapor extraction well
- Intermediate depth well W-1 serves as either a DPE well or an AS well
- Intermediate depth well W-A serves as either a DPE well or an AS well.
- Intermediate depth well EW-2 serves as a DPE well.

Remediation wells W-1s and EW-1 are screened within the Upper Unit (screened across 10 to 45 feet bgs). Remediation wells W-1, W-A and EW-2 are screened within the Lower Unit (screened across 42 to 60 feet bgs).

Trends from the shallow, intermediate and deep groundwater monitoring wells located in the core of the plume (W-1s, MW-104, MW-204, MW-304 and MW-404) show decreasing chemicals of concern. Charts 1 through 3 show the decreasing trend of benzene over time in the shallow and intermediate wells. The deepest zone in the plumes core represented by MW-304 and MW-404 indicate a stable plume. Chart 4 shows stable and slightly decreasing benzene conditions in MW-304. Chart 5 shows a slightly increasing trend in benzene concentrations detected in MW-404. However, the removal of one outlier indicates a stable trend as shown in Chart 6. Monitoring well MW-404 has not been sampled since December 2014 due to an obstruction in the well casing.

4.1 System Operation

The extracted vapors are treated with a thermal oxidizer and then discharged to ambient air under permit from the Bay Area Air Quality Management District (BAAQMD). The treated water is discharged to the municipal sewer system under permit from the City of Livermore.

The groundwater extracted by DPE is initially separated from the vapor phase via a knockout tank, with groundwater residing in the tank and the vapor phase continues on to the thermal oxidizer for treatment. The water is then pumped from the tank to an air stripper column to remove volatile organic petroleum hydrocarbons. The vapors generated by the air stripper are plumbed back to the thermal oxidizer joining the DPE extracted vapors. The treated groundwater is plumbed to two 2,000 lbs. granulated activated carbon vessels in series after leaving the air stripper. The water is then monitored with an LEL sensor for contaminant levels while being discharged to the sewer system under associated permit requirements.

System operation commenced on November 15, 2011 (soil vapor extraction only), in compliance with the ACEH directive extension. Various system repairs and modifications were completed following the initial start-up and full operation of the DPE system (soil vapor extraction only) began on November 29, 2011. Upon issuance of the groundwater discharge permit, the DPE system began full operation and extraction and treatment of both groundwater and soil vapor on January 18, 2012.

Numerous repairs were made to the DPE system by Ground Zero and Mako Industries (Mako) throughout the first half of 2016 and therefore the system did not operate frequently. The DPE system operated for a total of approximately 163 hours or approximately 7 days from January 12, 2016 and May 10, 2016. The following repairs and adjustments were made:

- Resealed the air stripper;
- Propane tank installation and associated system modifications;
- Replaced fittings to various groundwater pumps and transfer lines;
- Restored the level switches that operate the transfer of groundwater;
- Repaired the entrapment tank transfer pump;
- Modified the groundwater extraction lines due to an increase in groundwater of over 20 feet since the start of 2016, and
- Modified the dilution inlet controller.

Following the repairs to the system, Ground Zero and Mako personnel were on-site on May 10, 2016 to operate the system and perform balancing to the water transfer pumps and the propane inlet system. The DPE system was restarted on May 10, 2016 and has continued to operate.

4.2 Treatment System Data

As of the May 10, 2016 operation and maintenance event, the DPE system operated for approximately 726 hours since the September 15, 2015 sampling event. It is estimated that since the September 15, 2015 sampling event, the DPE system removed a total of approximately 3,508 pounds or approximately 539 gallons of gasoline hydrocarbons as TPHg in vapor and aqueous phases.

Historically, the DPE system has removed a total of approximately 15,522 pounds, or approximately 2,386 gallons of TPHg in both vapor and groundwater phases.

Soil Vapor Extraction Mass Removal

Since the September 15, 2015 sampling event, the DPE system removed approximately 3,506 pounds, or approximately 539 gallons of soil vapor gasoline hydrocarbons as TPHg. As of the May 10, 2016 operation and maintenance event, the DPE system has removed approximately 15,376 pounds, or approximately 2,365 gallons of vapor phase TPHg.

The mass of TPHg removed by the thermal oxidizer is summarized in Table 9. The soil vapor extraction monitoring and laboratory data are summarized in Table 10.

Groundwater Extraction Mass Removal

The influent groundwater stream is sampled periodically and the analytical results are used to calculate the mass removed. Since the September 15, 2015 sampling event, the DPE system removed approximately 2 pounds of gasoline hydrocarbons as TPHg. As of the May 10, 2016 operation and maintence event, the DPE system had removed approximately 146 pounds, or approximately 22 gallons of TPHg from groundwater extraction.

The mass of TPHg removed by groundwater extraction and treated by air stripping and running through granular activated carbon is summarized in Table 11. The groundwater extraction monitoring and laboratory data are summarized in Table 12.

Assumptions

- The concentration of TPHg removed by the system is assumed to be constant for the time period prior to the sample collection and following the previous sample collection.
- The volume of airflow is assumed to be constant for the time period prior to the sampling event and following the previous sampling event.
- Concentration of aqueous phase removal is based on actual analytical results taken from the line following the knockout drum and prior to the first groundwater storage tank. It is likely the concentrations, thus the mass removed from the extraction wells, is higher at the well than is measured at the sampling point for the following reasons:
  - The groundwater extraction is achieved by high vacuum and soil vapor extraction from the wells, which result in withdraws of both soil vapor and groundwater.
  - This air/water mixture is transported through 90 feet of piping to the DPE unit where the two phases are separated in the knockout drum. So in essence, the piping system acts as a linear air stripper causing the VOCs in the water to transfer into the vapor phase.

5.0 CONCLUSIONS

1. The shallow groundwater plume appears to attenuate to the northeast at W-1s, to the north at W-Bs, to the west at W-3s.

2. Concentrations reported in shallow wells W-Bs and W-1s appear to be decreasing and Ground Zero believes this is a result of the extensive remediation to the shallow aquifer.

3. Concentrations reported in shallow down-gradient wells MW-107 and MW-108 appear to be stable.

4. The intermediate groundwater plume appears to attenuate to the northeast at CMT® Cluster 6, to the west at MW-9 and to the southwest at MW-10.

5. Concentrations reported in intermediate well EW-2 appear to be decreasing and Ground Zero believes this is a result of a concentrated effort to remediate the core of the contamination.

6. Down-gradient intermediate depth groundwater monitoring wells MW-9 and MW-10 represent the down gradient edge of the intermediate groundwater plume.

7. Concentrations in deep groundwater monitoring wells MW-204, MW-307 and MW-308 appear to be fluctuating, but on an overall decreasing trend. Concentrations in deep monitoring well MW-305 are on an overall decreasing trend which has accelerated since the installation of extraction well EW-2. Concentrations in deep well MW-306 appear to be stable. Concentrations reported in the deep wells suggest that remediation is occurring in the core of the plume based on decreasing concentrations in core wells MW-204 and MW-305 and down-gradient wells MW-307 and MW-308.

8. Remediation by DPE and air sparging in wells W-1s, W-A, W-1 and EW-2 appears to have decreased the contaminant mass in the core of the plume based on the decreasing contaminant trend in these wells and core well MW-104.

6.0 GENERAL CRITERIA

A. The unauthorized release is located within the service area of a public water system operated by the Zone 7 Water Agency (Zone 7). Zone 7 has been addressing the drought conditions and met and exceeded the 2014 goals in water conservation (Zone 7, 2014). The total demand for Zone 7 water supplies was reduced by 63% between 2013 and 2014 (Zone 7, 2014). The fiscal year 15/16 suggests that demand will not surpass supply.

B. The unauthorized release consists only of petroleum as described in the State Water Resources Control Board's Low-Threat Underground Storage Tank Case Closure Policy.

C. The unauthorized release has been stopped. The removal of the UST's and the associated infrastructure as well as the limited soil excavation was conducted between 1972 and 1986.

D. Free product has been removed to the maximum extent practicable.

E. GTI submitted the *Site Conceptual Model and Semi-Annual Groundwater Monitoring Report* dated December 18, 2006 (GTI, 2006).

F. Minimal soil excavation was conducted during the removal of the USTs, advancement of soil borings, and the construction of monitoring wells. Groundwater and soil vapor have been extracted from the Site since November 29, 2011. An air sparging system was added to the treatment system in March 2012.

Since the installation of vapor and groundwater extraction well EW-2 in January 2015, TPHg and benzene have reached a maximum concentration removal level of 20,000 mg/m^3 and 66 mg/m^3, respectively with a flow rate of approximately 90 cfm (see Table 9). The concentrations have dramatically decreased since January 2015 and as of the May 2016 event, the concentration removal level was 170 mg/m^3 and 0.18 mg/m^3.

G. Groundwater has been tested for MTBE and the results are reported in the Semi-Annual Groundwater Monitoring and Remediation Effectiveness Reports.

Table 7 shows historical laboratory analytical results. Monitoring well locations are shown on Figure 2. Below is a summary of the most recent MTBE results:

- W-1 at 18 µg/L
- W-A at 5.3 µg/L
- MW-104 at 14 µg/L
- MW-107 at 24 µg/L
- MW-108 at 37 µg/L
- MW-205 at 5.7 µg/L
- MW-207 at 49 µg/L
- MW-208 at 30 µg/L
- The following wells have been dry for the past five years: MW-4, MW-5, MW-6, MW-7, MW-8 and MW-105.
- MTBE was not reported above laboratory detection limits in monitoring wells: EW-2, W-1s, W-3s, W-Bs, W-Es, MW-9, MW-10, MW-106, MW-204, MW-206, MW-304, MW-305, MW-306, MW-307, and MW-308.

H. Nuisance as defined by Water Code section 13050 does not exist at the site.

7.0 MEDIA-SPECIFIC CRITERIA

Groundwater

A. The groundwater plume that exceeds water quality objectives is less than 250 feet in length.

B. There is no free product.

C. There are no municipal or domestic water supply wells within 2,200 feet of the Site. There are no irrigation water supply wells within 1,800 feet of the Site. The area is supplied water by the Zone 7 Water Agency (GTI, 2006).

D. Benzene concentrations was less than 3,000 µg/L in all sampled monitoring wells except MW-107 and MW-207 having concentrations of 9,400 µg/L and 3,500 µg/L, respectively. Benzene isoconcentration maps showing the area below 1,000 µg/L are included in Attachment E. These figures show that concentrations above Low Threat Closure Policy criteria are confined below and central of the property and will not likely move off-site before attenuation.

   The MtBE concentrations are less than 50 µg/L and have never exceeded 400 µg/L.

Petroleum Vapor Intrusion to Indoor Air

The maximum concentration of TPHg detected in soil samples collected between 5 and 10 feet bgs was 570 mg/Kg. MTBE was not reported above laboratory detection limits.

The highest recorded level of MTBE in groundwater was 380 µg/L. Published groundwater screening levels for evaluation of potential vapor intrusion concerns for residential land use indicate that MTBE is not a vapor intrusion risk if groundwater concentrations are below 24,000 µg/L [SFB-RWQCB, 2008 (Table E-1)].

The SWRCB's Low Threat Closure Policy (LTCP) Checklist of June 15, 2015 indicates the Site meets the petroleum vapor intrusion to indoor air criteria (GeoTracker). Ground Zero concurs with the SWRCB and does not believe that the release characteristics can be reasonably believed to pose an unacceptable health risk and therefore, satisfaction of the media-specific criteria for petroleum vapor intrusion to indoor air is not required for this active commercial petroleum fueling facility.

Direct Contact and Outdoor Air Exposure

The SWRCB's LTCP Checklist of June 15, 2015 indicates the Site meets the direct contact and outdoor air exposure criteria (GeoTracker). TPHg was only detected in two soil borings above 10 feet deep. Soil borings B-2 and B-G contained concentrations of TPHg at 8.2 mg/Kg and 570 mg/Kg, respectively.

8.0 REFERENCES

Geological Technics Inc. (GTI, 2006). *Site Conceptual Model and Semiannual Groundwater Monitoring Report October 2006* dated December 18, 2006.

Ground Zero Analysis, Inc. (GZA, 2011); *Semi-Annual Groundwater Monitoring Report – 1st Half 2011 and Low-Risk Closure Assessment* dated March 11, 2011.

Ground Zero Analysis, Inc. (GZA, 2015); *Semi-Annual Groundwater Monitoring and Remediation Effectiveness Report – 1st Half 2015* dated August 18, 2015.

San Francisco Bay Regional Water Quality Control Board (SFB-RWQCB, 2008), *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater:* Interim Final November 2007, revised May 2008.

State Water Resources Control Board (SWRCB, 2012). Resolution No. 2012-0016: *Water Quality Control Policy for Low-Threat Underground Storage Tank Cases and Associated Checklist*: May 1, 2012.

State Water Resources Control Board Database. (GeoTracker). State Water Resources Control Board GeoTrack Database. Website: Geotracker.waterboards.ca.gov/.

Zone 7 Water Agency (Zone 7, 2014); 2014 Annual Report. Website: zone7water.com.

9.0 LIMITATIONS

This report was prepared in accordance with the generally accepted standard of care and practice in effect at the time Services were rendered. It should be recognized that definition and evaluation of environmental conditions is an inexact science and that the state or practice of environmental geology/hydrology is changing and evolving and that standards existing at the present time may change as knowledge increases and the state of the practice continues to improve. Further, that differing subsurface soil characteristics can be experienced within a small distance and therefore cannot be known in an absolute sense. All conclusions and recommendations are based on the available data and information.

The tasks proposed and completed during this project were reviewed and approved by the local regulatory agency for compliance with the law. No warranty, expressed or implied, is made.

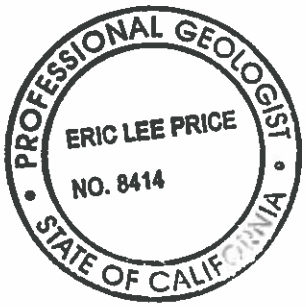
10.0 SIGNATURES & CERTIFICATION

This report was prepared by:

Andrew Dorn, B.Sc. Geology
Staff Geologist
California GIT (#411)

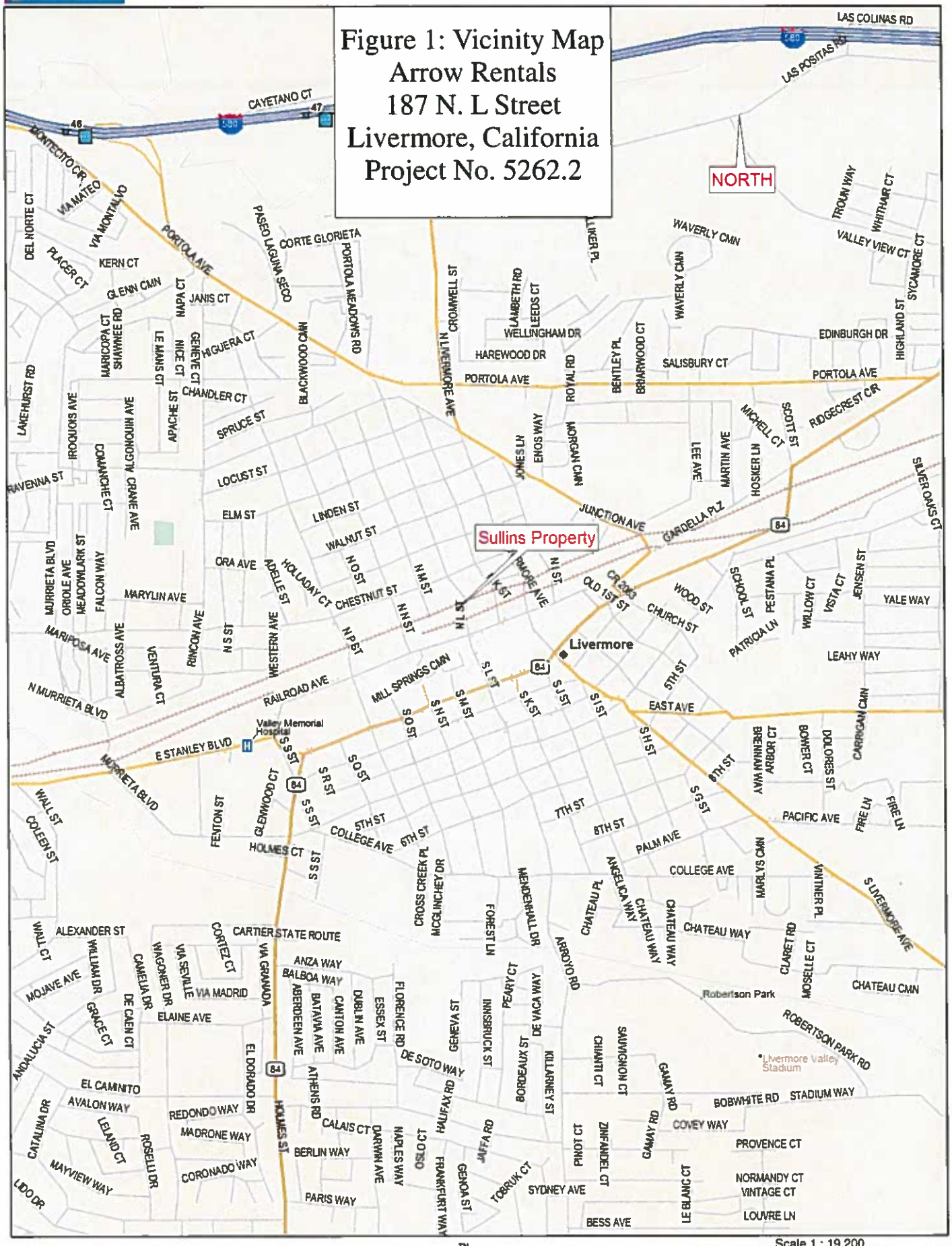
This report was prepared under the direction of:

Eric L. Price, PG #8414



FIGURES

Figure 1: Vicinity Map
Arrow Rentals
187 N. L Street
Livermore, California
Project No. 5262.2



Data use subject to license.
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www.delorme.com

Scale 1 : 19,200
1" = 1,600.0 ft
Data Zoom 13-4

NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY.

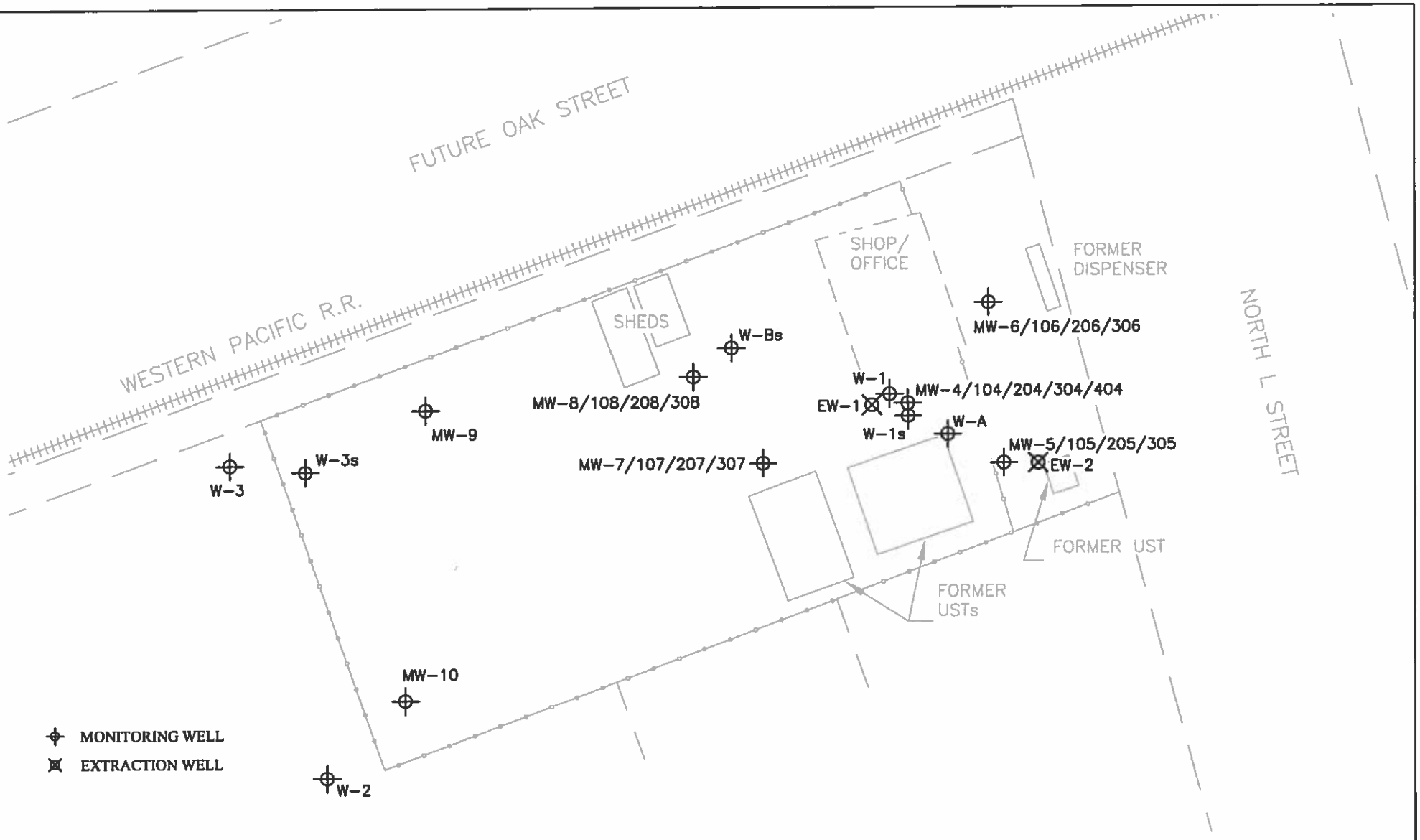
STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

FIGURE 2

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

SITE MAP



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STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD–CLYDE CONSULTANTS

GROUND ZERO ANALYSIS, INC.

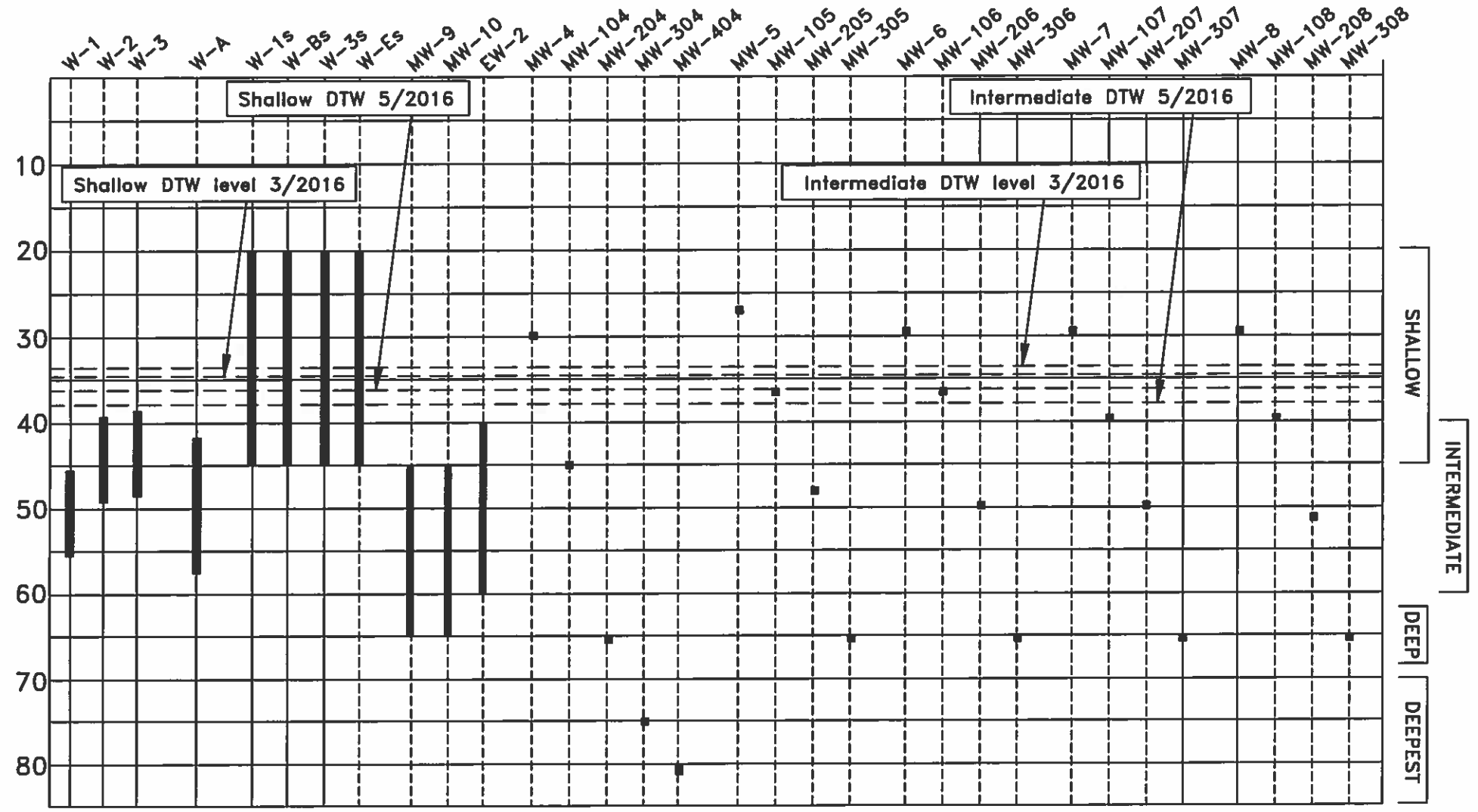
SITE DETAIL MAP

ARROW RENTALS
187 NORTH L STREET
LIVERMORE, CA

FIGURE
3

Figure 4:

Well Screened Interval Diagram
Shallow & Intermediate Aquifers
March 2016 & May 2016



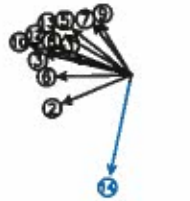
Sullins
187 North L Street
Livermore, CA

Ground Zero Analysis, Inc.

5/25/2016

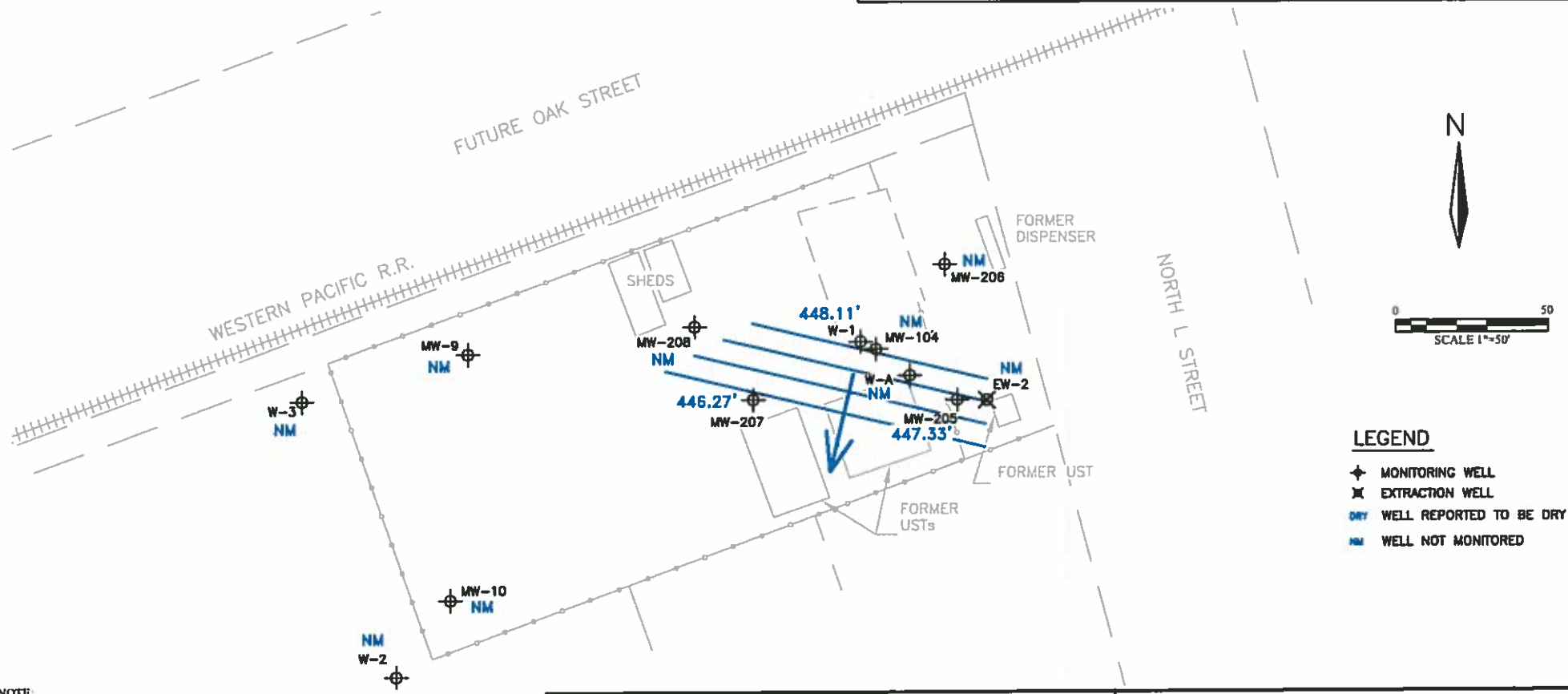
	DATE	BEARING	GRADIENT
1	10/18/06	N63°W	0.012
2	04/17/07	S68°W	0.022
3	12/19/07	N76°W	0.04
4	04/07/08	NORTHWEST	VARIABLE
5	10/25/11	N53°W	0.025
6	05/30/12	S89°W	0.020
7	11/19/12	N36°W	0.015
8	06/24/13	N73°W	0.014
9	12/03/13	N32°W	0.013
10	06/17/14	N74°W	0.076
11	12/02/14	DRY	
12	03/09/15	N69°W	0.032
13	11/16/15	N58°W	0.025
14	03/10/16	S13°W	0.089

ROSE DIAGRAM



0.001 0.01 0.1 1

GROUNDWATER GRADIENT FT/FT



LEGEND

- MONITORING WELL
- EXTRACTION WELL
- DRY WELL REPORTED TO BE DRY
- NM WELL NOT MONITORED

NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY.

STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

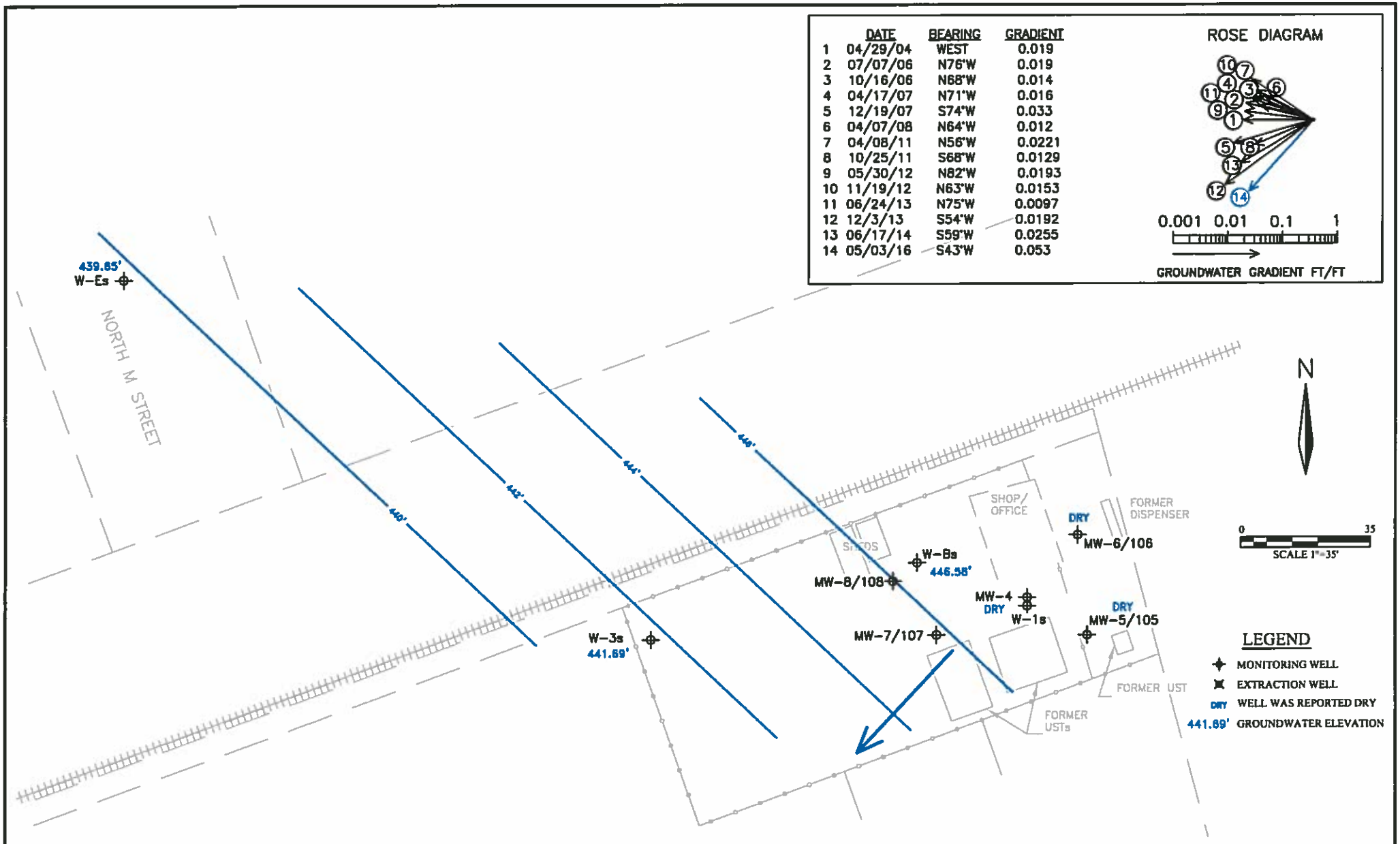
FIGURE 5

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

INTERMEDIATE AQUIFER GROUNDWATER GRADIENT MAP

MARCH 10, 2016



NOTE:
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STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

FIGURE 6

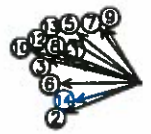
Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

SHALLOW AQUIFER
GROUNDWATER GRADIENT MAP
MAY 3, 2016

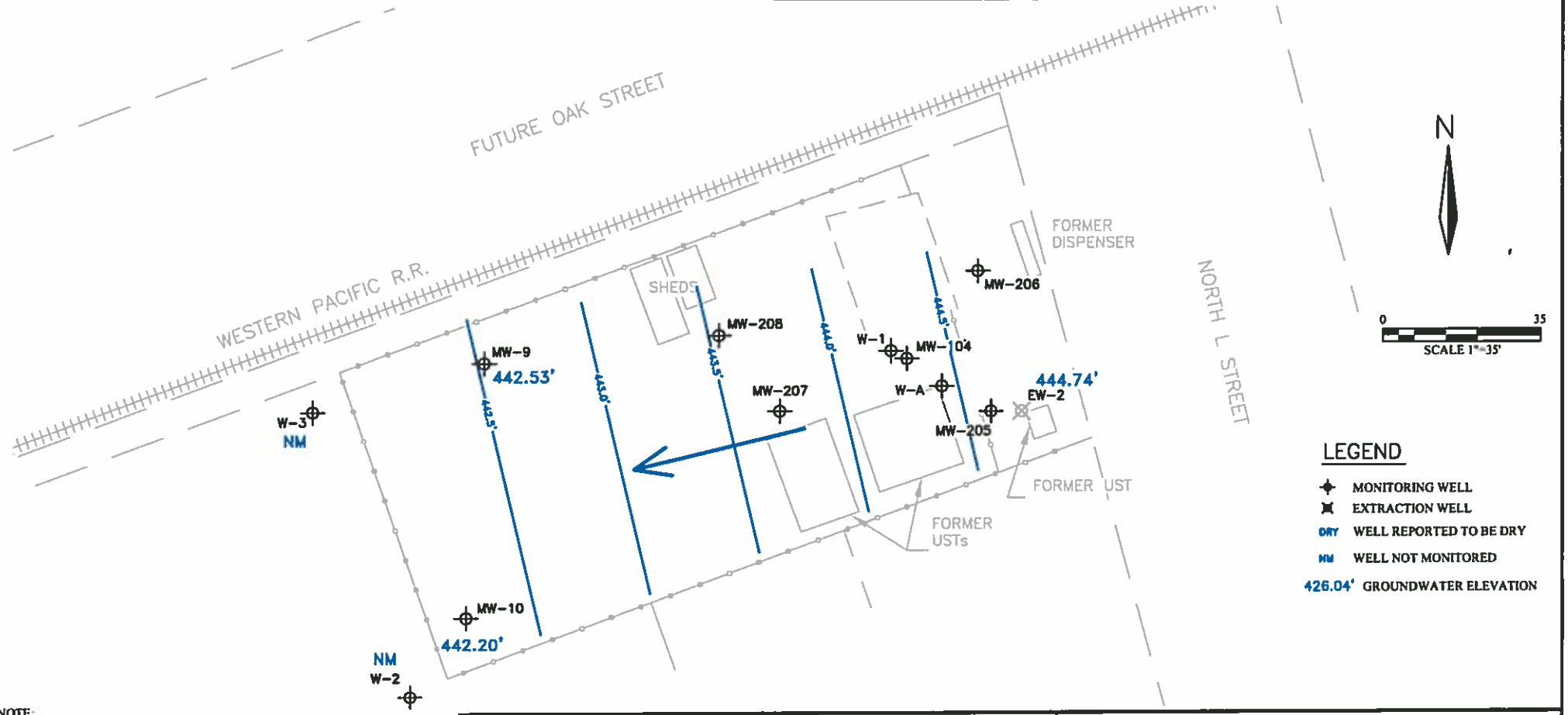
	DATE	BEARING	GRADIENT
1	10/16/06	N63°W	0.012
2	04/17/07	S68°W	0.022
3	12/19/07	N76°W	0.04
4	04/07/08	NORTHWEST	VARIABLE
5	10/25/11	N53°W	0.025
6	05/30/12	S89°W	0.020
7	11/19/12	N36°W	0.015
8	06/24/13	N73°W	0.014
9	12/03/13	N32°W	0.013
10	06/17/14	N74°W	0.076
11	12/02/14	DRY	
12	03/09/15	N69°W	0.032
13	11/18/15	N58°W	0.025
14	05/03/16	S77°W	0.014

ROSE DIAGRAM



0.001 0.01 0.1 1

GROUNDWATER GRADIENT FT/FT



LEGEND

- MONITORING WELL
- EXTRACTION WELL
- DRY WELL REPORTED TO BE DRY
- NM WELL NOT MONITORED
- 426.04' GROUNDWATER ELEVATION

NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY.

STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

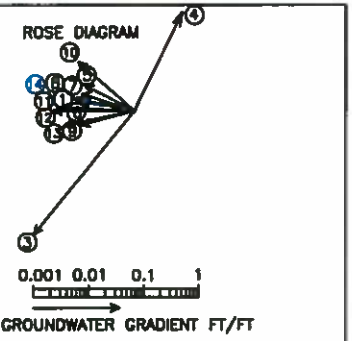
FIGURE 7

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

INTERMEDIATE AQUIFER
GROUNDWATER GRADIENT MAP
MAY 3, 2016

	DATE	BEARING	GRADIENT
1	10/18/06	N78°W	0.0140
2	04/17/07	UNDETERMINED	
3	12/19/07	S39°W	0.1800
4	04/07/08	N26°E	0.1000
5	10/25/11	N84°W	0.0114
6	05/30/12	N79°W	0.0100
7	11/19/12	N72°W	0.0089
8	06/24/13	N78°W	0.0091
9	12/03/13	S75°W	0.010
10	06/17/14	N49°W	0.012
11	12/02/14	N87°W	0.012
12	06/25/15	WEST	0.030
13	11/16/15	WEST	0.020
14	05/03/16	N79°W	0.012



LEGEND

- MONITORING WELL
- EXTRACTION WELL
- 443.63' GROUNDWATER ELEVATION

GROUNDWATER FLOW DETERMINED USING CMT WELLS MW-305, MW-306, MW-307 and MW-308.

CONTOUR INTERVAL = 0.5 FEET

NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY.

STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

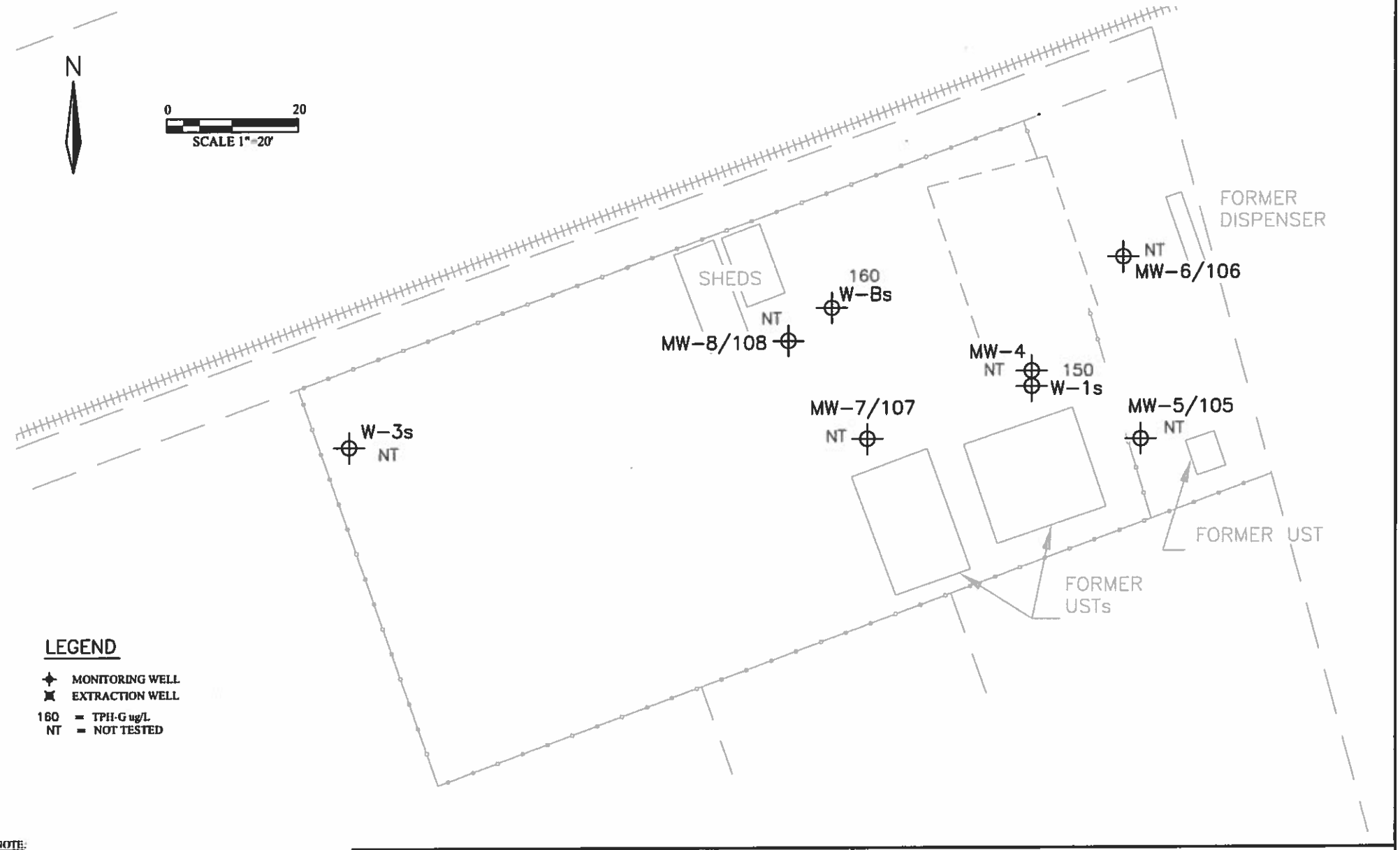
FIGURE 8

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC

DEEP AQUIFER GROUNDWATER GRADIENT MAP

MAY 3, 2016



NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY.

STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

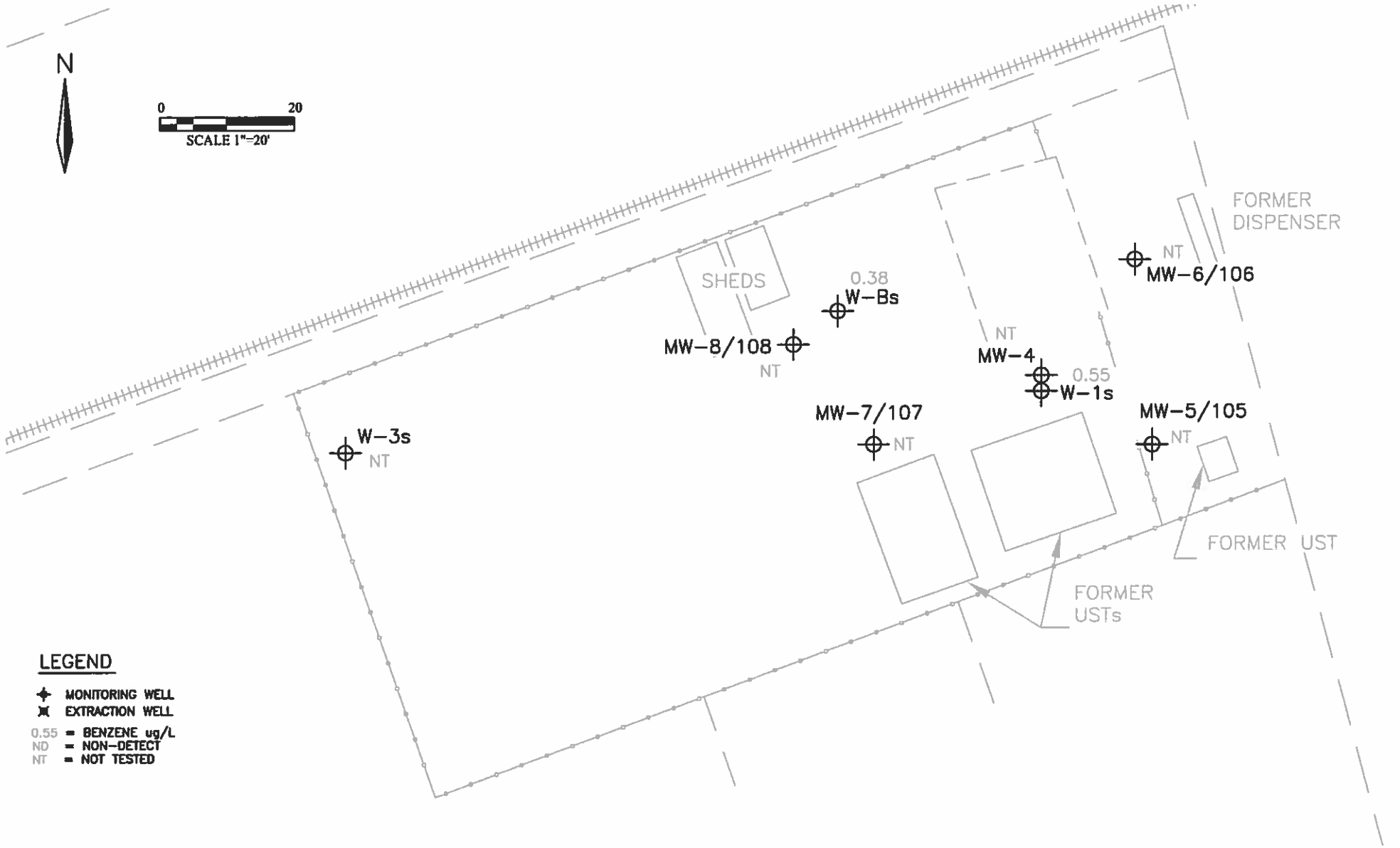
FIGURE 9

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

SHALLOW AQUIFER TPH-G GROUNDWATER PLUME MAP

MARCH 2016



NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY.

STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

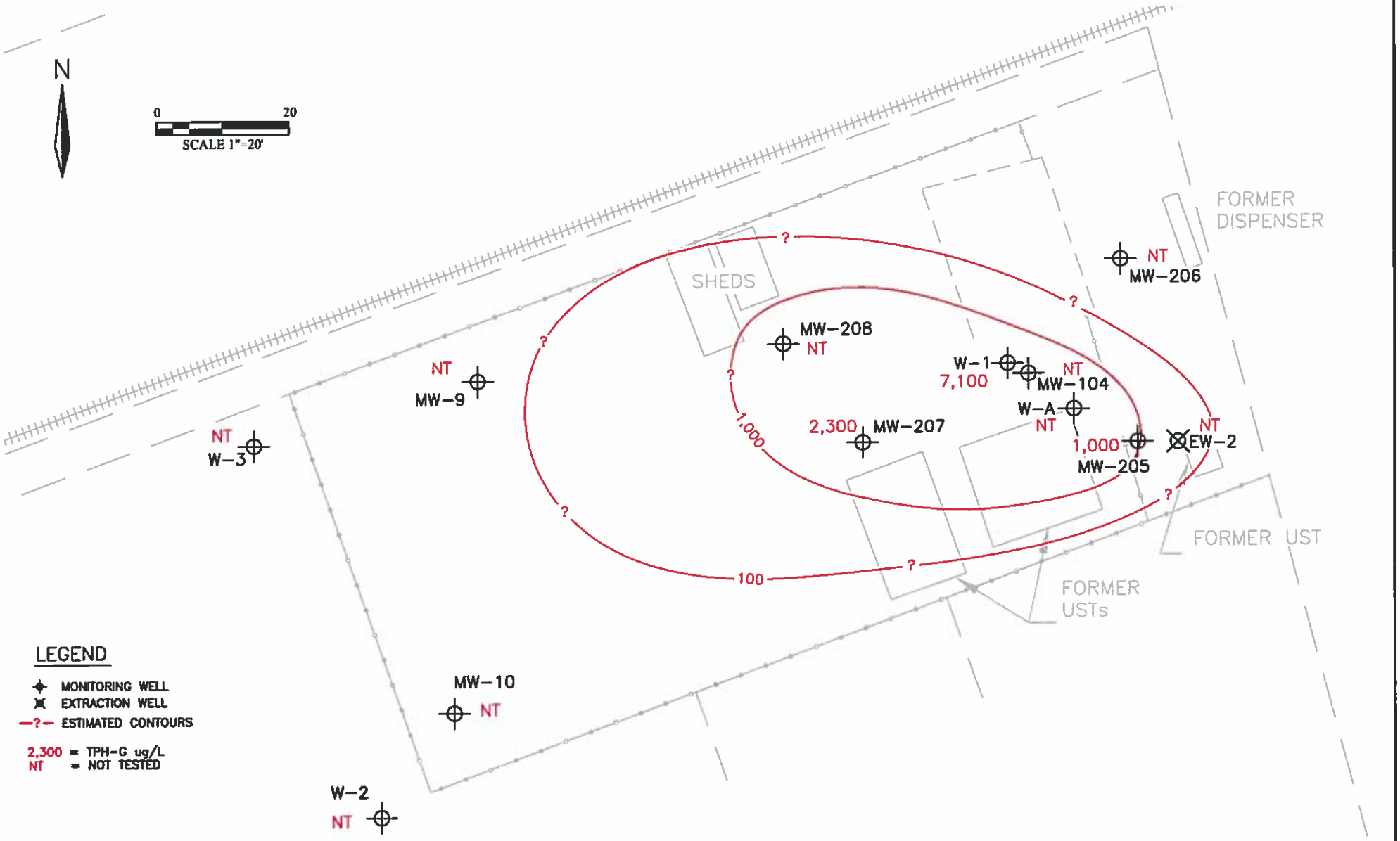
FIGURE 10

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

SHALLOW AQUIFER BENZENE GROUNDWATER PLUME MAP

MARCH 2016



NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY.

STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

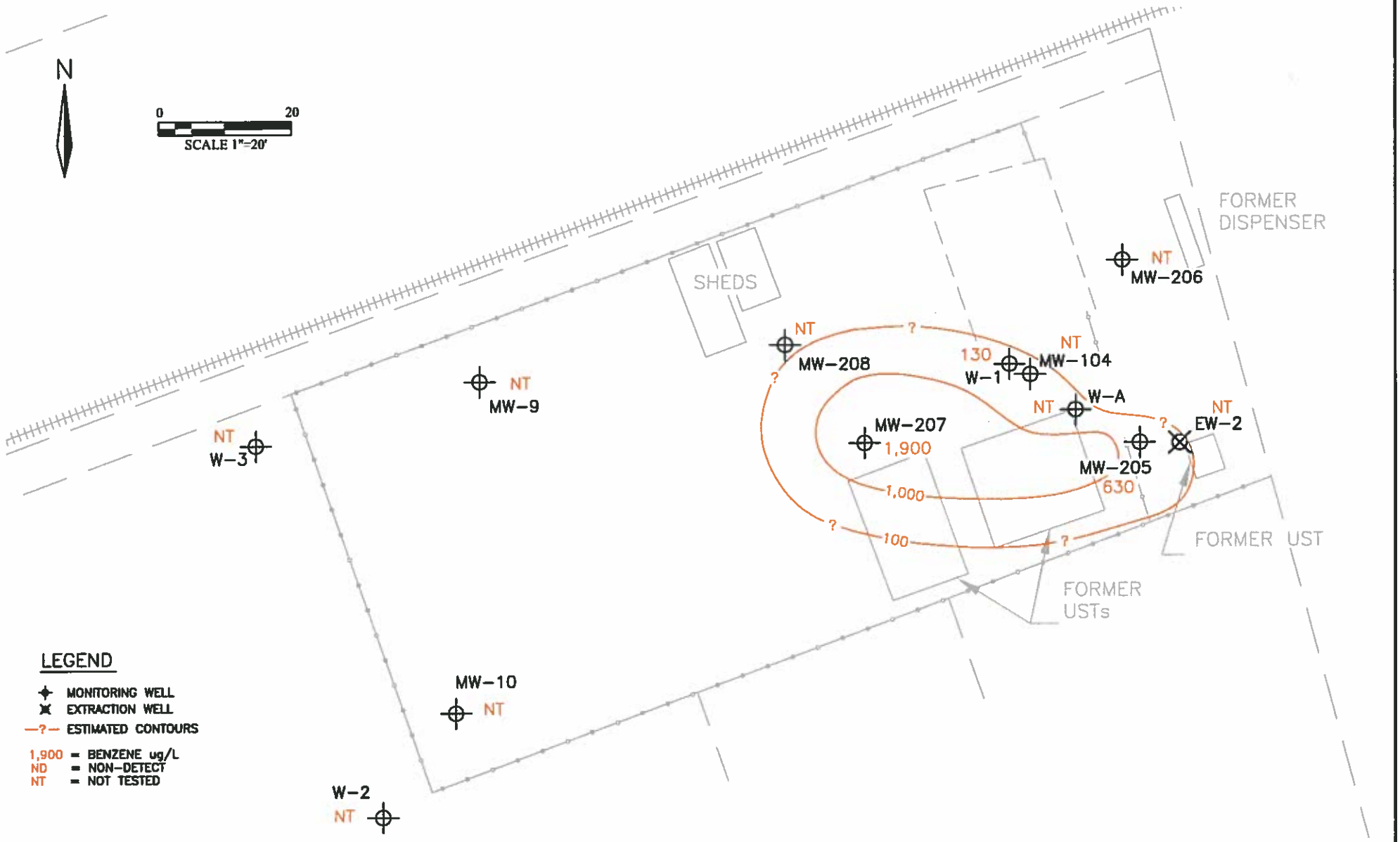
FIGURE 11

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

INTERMEDIATE AQUIFER TPH-G GROUNDWATER PLUME MAP

MARCH 2016



NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY.

STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

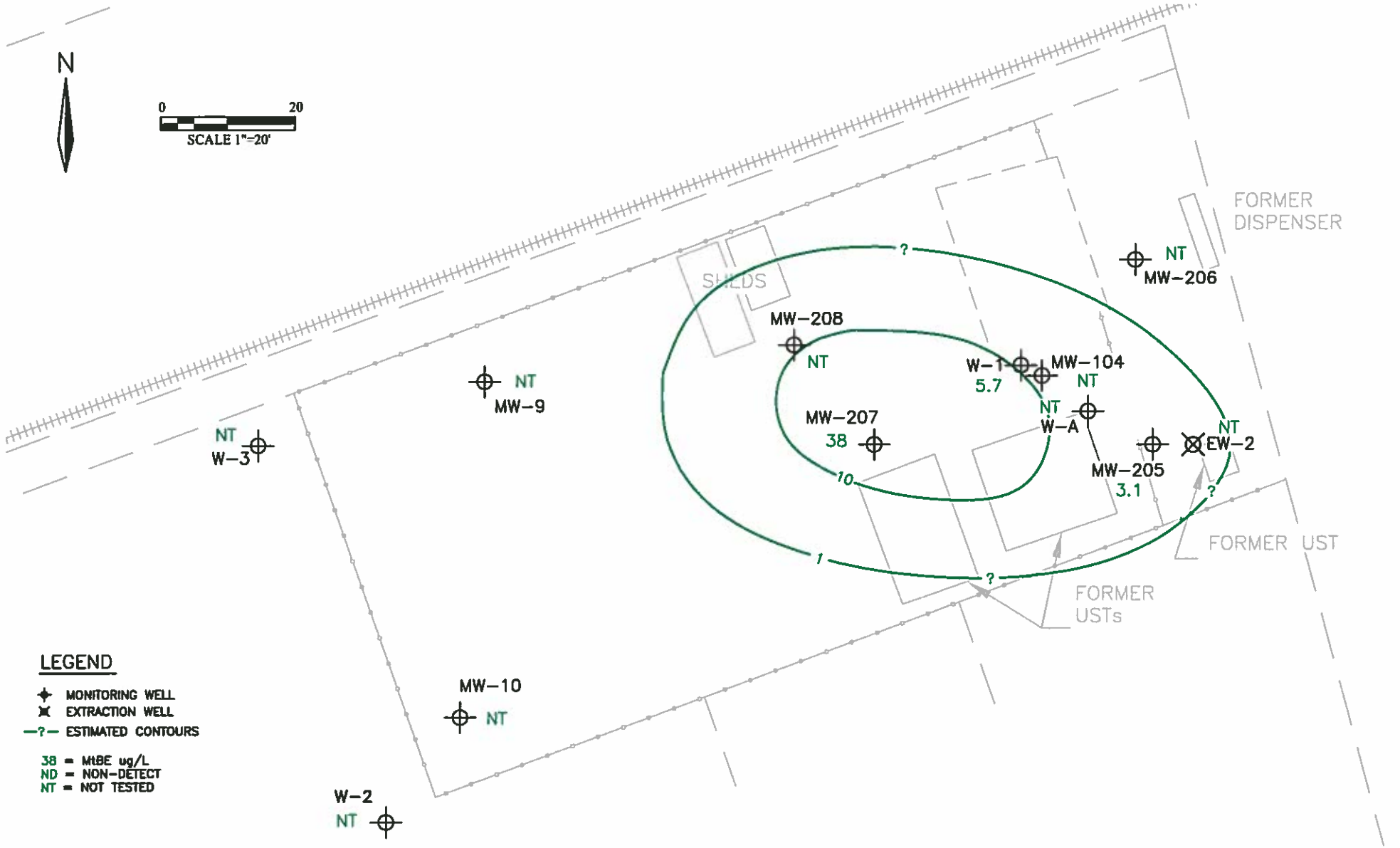
FIGURE 12

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

INTERMEDIATE AQUIFER BENZENE GROUNDWATER PLUME

MARCH 2016



NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY.

STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

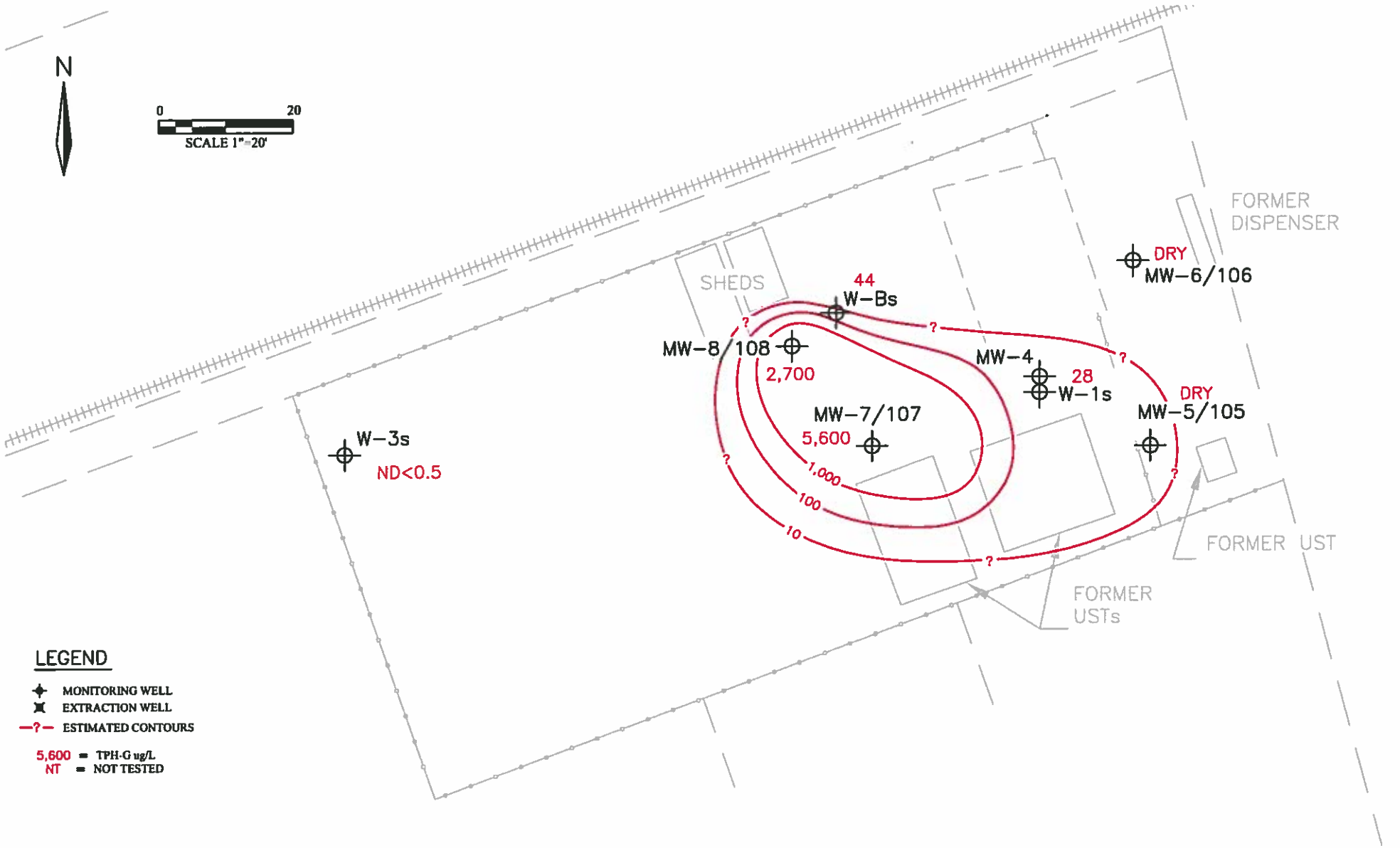
FIGURE 13

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

INTERMEDIATE AQUIFER MTBE GROUNDWATER PLUME

MARCH 2016



NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY.

STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

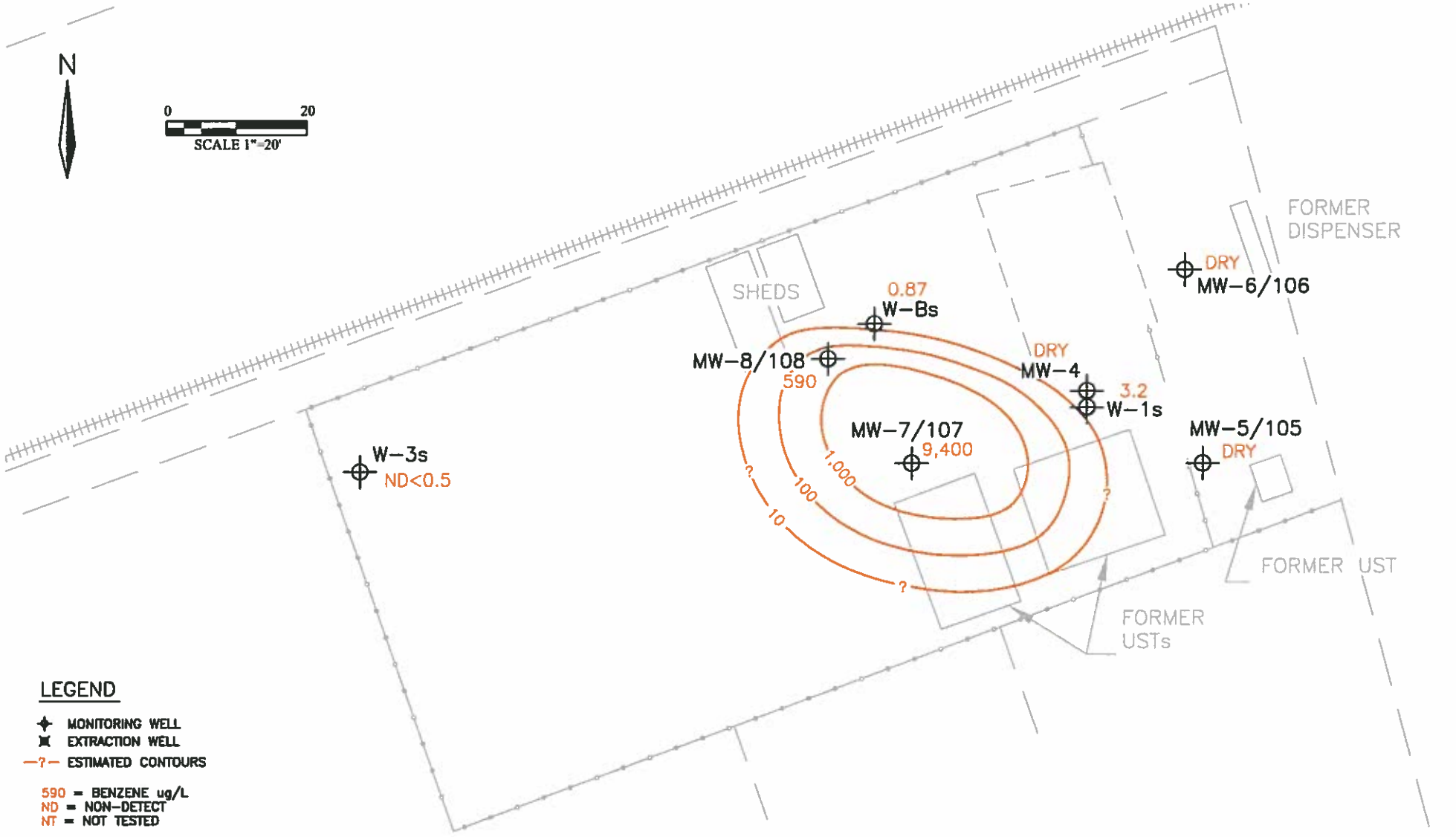
FIGURE 14

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

SHALLOW AQUIFER TPH-G GROUNDWATER PLUME MAP

MAY 2016



NOTE:
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STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

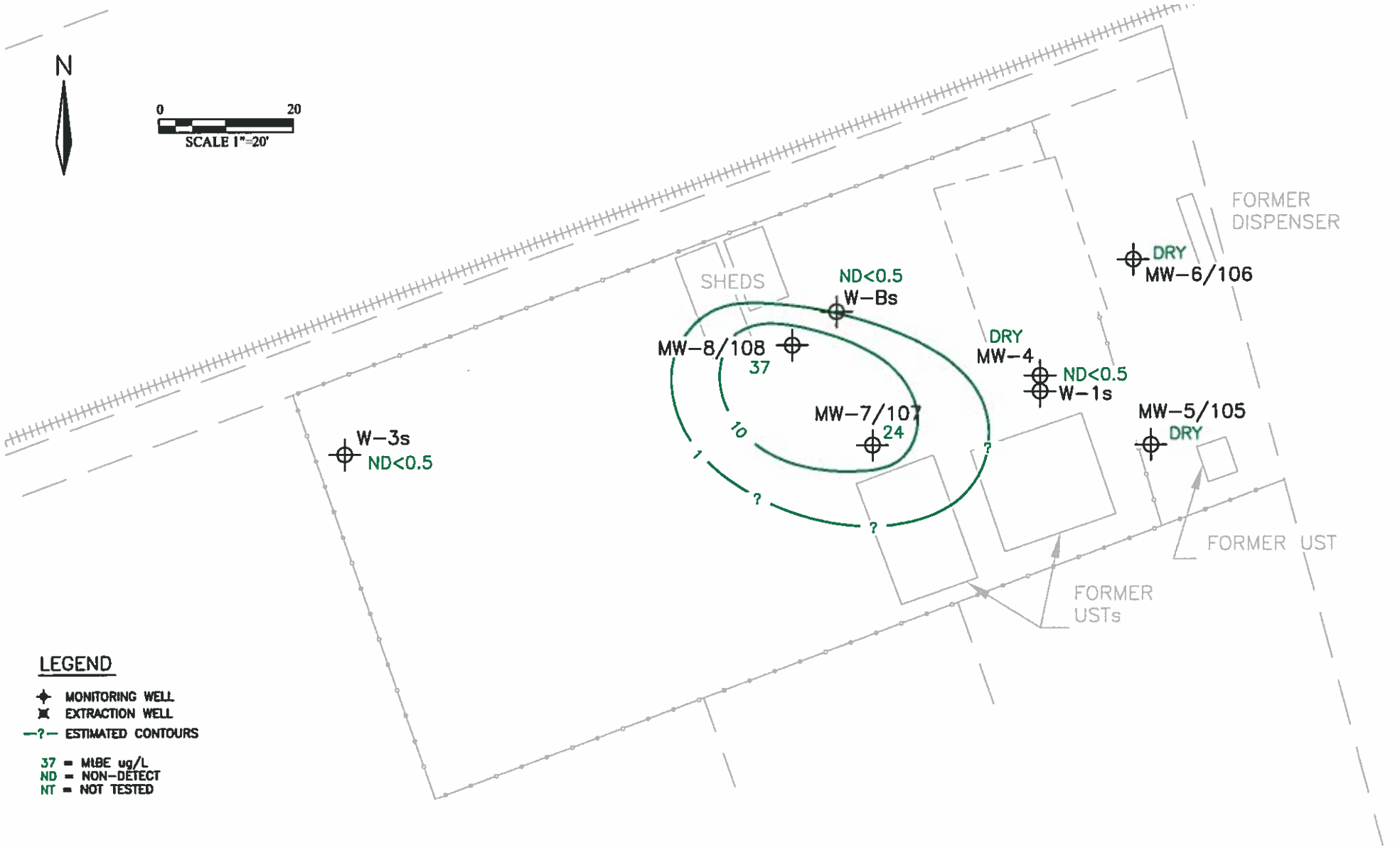
FIGURE 15

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

SHALLOW AQUIFER BENZENE GROUNDWATER PLUME MAP

MAY 2016



LEGEND

- MONITORING WELL
- EXTRACTION WELL
- —?— ESTIMATED CONTOURS

37 = MtBE ug/L
ND = NON-DETECT
NT = NOT TESTED

NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY.

STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

FIGURE 16

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

SHALLOW AQUIFER MTBE GROUNDWATER PLUME MAP

MAY 2016

NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY.

STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

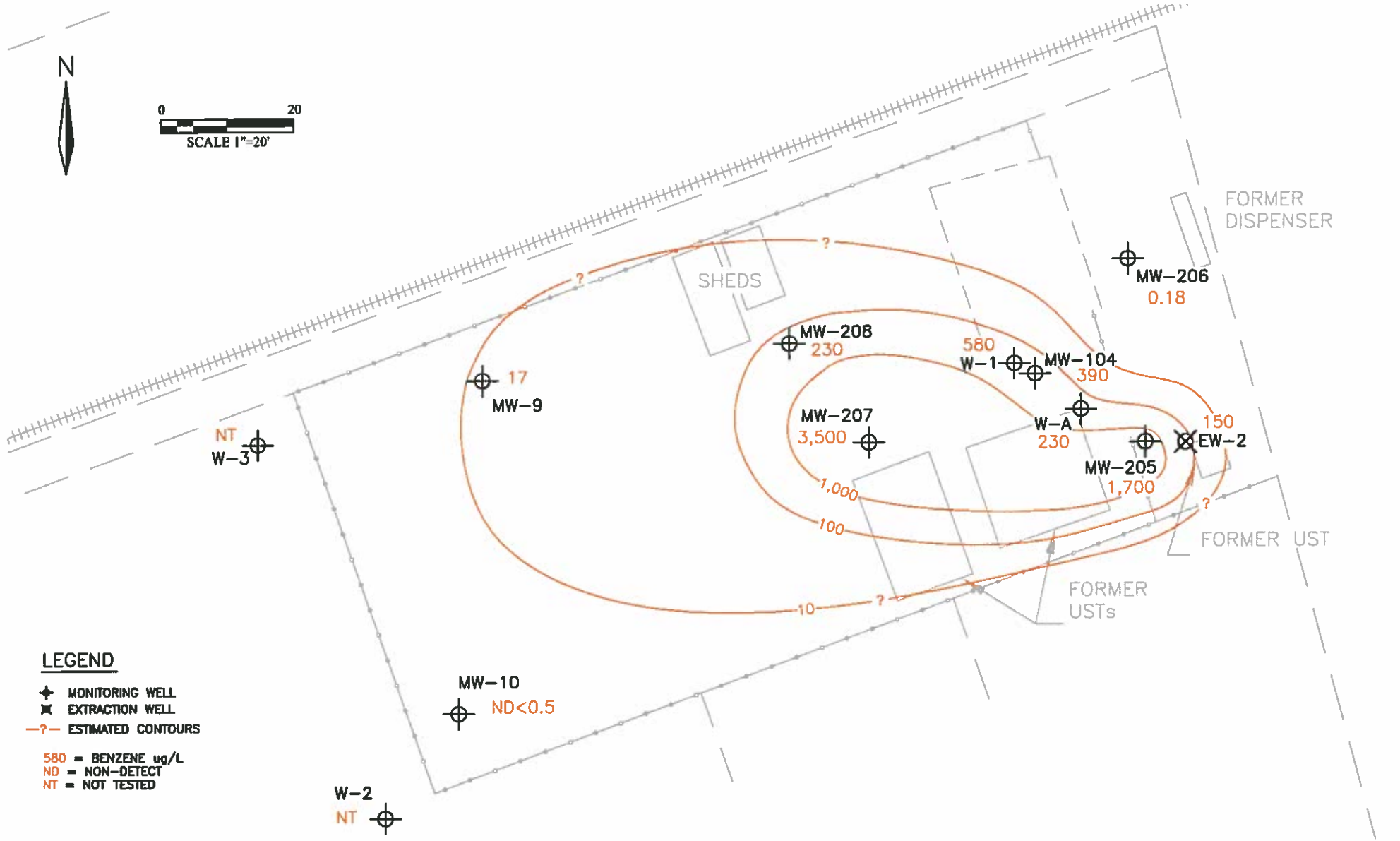
FIGURE 17

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

INTERMEDIATE AQUIFER TPH-G GROUNDWATER PLUME MAP

MAY 2016



NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY.

STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

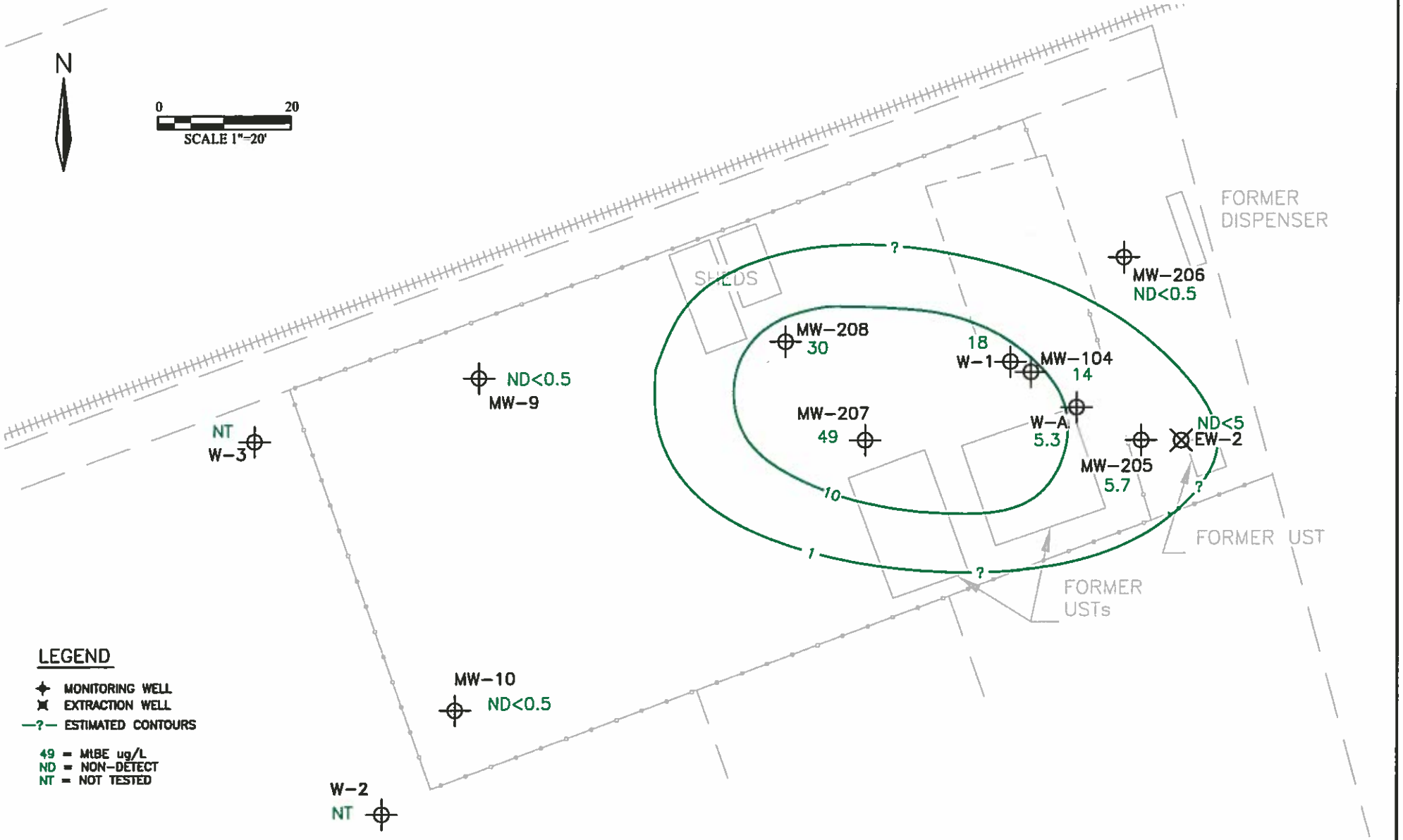
FIGURE 18

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

INTERMEDIATE AQUIFER BENZENE GROUNDWATER PLUME

MAY 2016



NOTE:
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STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

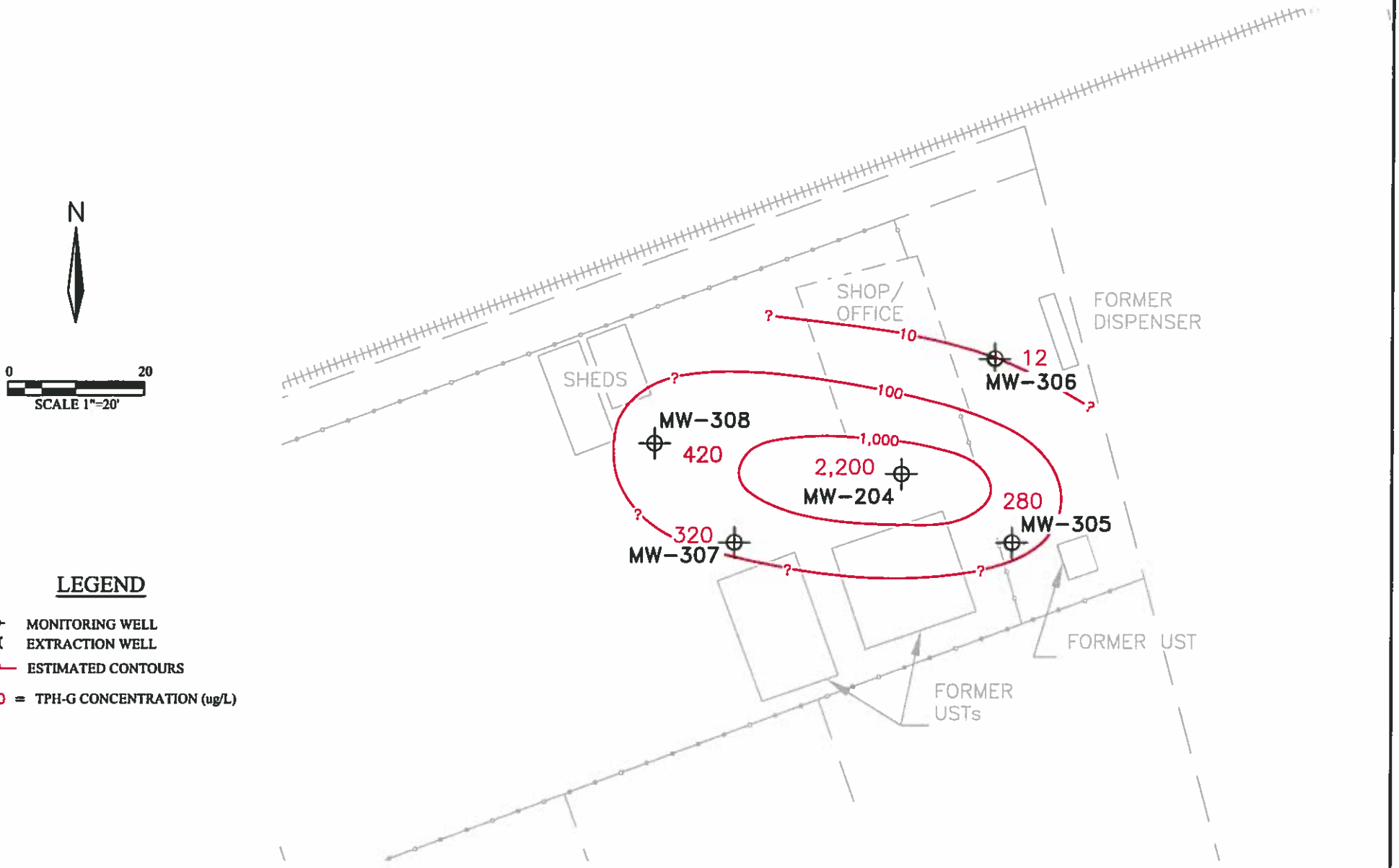
FIGURE 19

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

INTERMEDIATE AQUIFER MTBE GROUNDWATER PLUME

MAY 2016



LEGEND

- MONITORING WELL
- EXTRACTION WELL
- ? ESTIMATED CONTOURS
- 320 = TPH-G CONCENTRATION (ug/L)

NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY.

STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

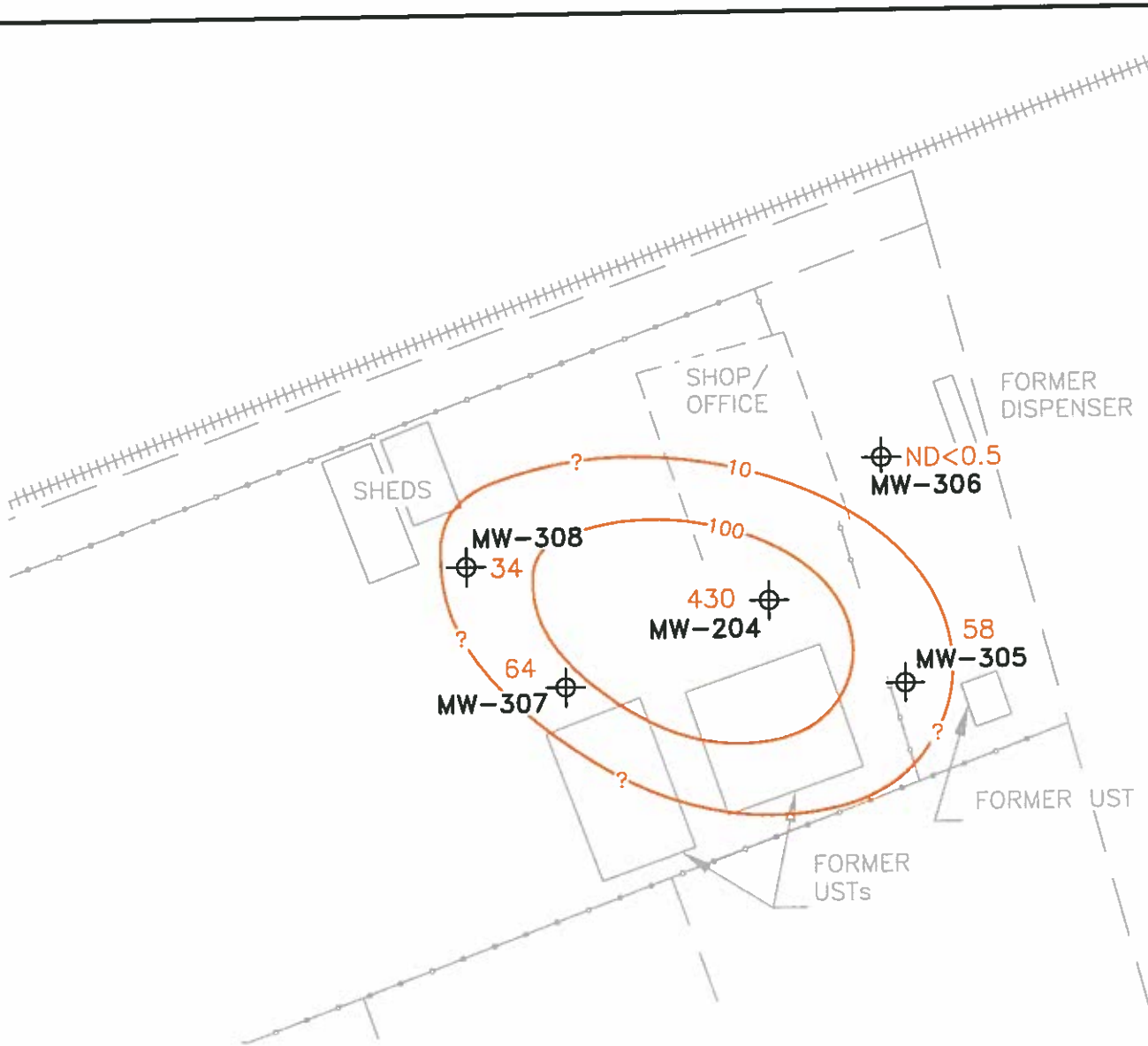
FIGURE 20

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

DEEP AQUIFER TPH-G GROUNDWATER PLUME MAP

MAY 2016



LEGEND

- MONITORING WELL
- EXTRACTION WELL
- —?— ESTIMATED CONTOURS
- 64 = BENZENE CONCENTRATION (ug/L)

NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY

STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

FIGURE 21

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC

DEEP AQUIFER BENZENE GROUNDWATER PLUME MAP

MAY 2016

TABLES & CHARTS

TABLE 1
Summary of Well Construction

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Aquifer	Well/Boring Type	Well/Boring Number	Status	Date Drilled	Total Depth (ft)	Boring Diameter (in)	Well Casing Diameter (in)	Casing Type	Slot Size (in)	Sand Type	Well Screen		Filter Pack		Annular Seal		Grout Seal	
											From	To	From	To	From	To	From	To
Shallow	Vapor Extraction	W-1s	Active	03/11/96	45	?	6	PVC	0.010	#2/12	45	20	45	17	17	15	15	S
	Monitoring	W-Bs	Active	03/12/96	45	?	6	PVC	0.010	#2/12	45	20	45	18	18	16	16	S
	Monitoring	W-3s	Active	03/12/96	45	?	4	PVC	0.010	#2/12	45	20	45	18	18	16	16	S
	Monitoring	W-Es	Active	03/13/96	45	?	2	PVC	0.010	#2/12	45	20	45	18	18	16	16	S
	Monitoring	MW-4	Active	10/02/06	82	8	-	MCT	-	#2/12	30	29	30	20	16	14	14	S
	Monitoring	MW-5	Active	10/09/06	68	8	-	MCT	-	#2/12	27	26	29	24	24	21.5	21.5	S
	Monitoring	MW-6	Active	10/10/06	68	8	-	MCT	-	#2/12	30	29	31	27	27	24	24	S
	Monitoring	MW-7	Active	10/04/06	69.5	8	-	MCT	-	#2/12	30	29	30	20	-	-	6	S
	Monitoring	MW-8	Active	10/05/06	66.5	8	-	MCT	-	#2/12	30	29	30	30	20	18	18	S
	Monitoring	MW-105	Active	10/09/06	37	8	-	MCT	-	#2/12	37	36	39	34	35	29	-	-
	Monitoring	MW-106	Active	10/10/06	37	8	-	MCT	-	#2/12	37	36	39	35	35	31	-	-
	Monitoring	MW-107	Active	10/04/06	40	8	-	MCT	-	#2/12	40	39	42	37	37	30	-	-
	Monitoring	MW-108	Active	10/05/06	40	8	-	MCT	-	#2/12	40	39	42	37	37	30	-	-
	Vapor Extraction	EW-1	Active	10/03/06	25	10	4	PVC	0.010	#2/12	25	10	25	9.5	9.5	7.5	7.5	S
Intermediate	Vapor Extraction	W-1	Active	05/25/89	56.5	8	2	PVC	0.010	#2/12	55.5	45.5	55.5	41.5	41.5	39	39	S
	Monitoring	W-2	Missing	05/26/89	51.5	8	2	PVC	0.010	#2/12	49	39	49	36	36	22.5	22.5	S
	Monitoring	W-3	No Access	05/26/89	51.5	8	2	PVC	0.010	#2/12	48	38	48	34.5	34.5	32.5	32.5	S
	Vapor Extraction	W-A	Active	07/12/90	63	12	4	PVC	0.010	#2/12	57.5	42	63	40	40	36.5	36.5	S
	Monitoring	W-B *	Destroyed	07/13/90	55	12	4	PVC	0.010	#2/12	55	40	55	32	32	30	30	S
	Monitoring	W-C *	Destroyed	07/11/90	55	8	2	PVC	0.010	#2	55	45	55	37.5	37.5	35	35	S
	Monitoring	W-D *	Destroyed	07/12/90	57.5	8	2	PVC	0.010	#2/12	57.5	42	57.5	39.5	34	32	32	S
	Monitoring	W-E *	Destroyed	07/10/90	61	8	2	PVC	0.010	#2/12	60.5	40.5	61	37	30	29	29	S
	Monitoring	MW-104	Active	10/02/06	51	8	-	MCT	-	#2/12	50.5	49.5	52	48	45	30	-	-
	Monitoring	MW-205	Active	10/09/06	48	8	-	MCT	-	#2/12	48	47	50	45	45	39	-	-
	Monitoring	MW-206	Active	10/10/06	50	8	-	MCT	-	#2/12	50	49	52	47	47	39	-	-
	Monitoring	MW-207	Active	10/04/06	50	8	-	MCT	-	#2/12	50	49	52	47	47	42	-	-
	Monitoring	MW-208	Active	10/05/06	52	8	-	MCT	-	#2/12	52	51	54	49	49	42	-	-
	Monitoring	MW-9	Active	01/27/15	65	8	2	PVC	0.010	#2/12	65	45	65	43	43	40	40	S
	Monitoring	MW-10	Active	01/27/15	65	8	2	PVC	0.010	#2/12	65	45	65	43	43	40	40	S
	Vapor Extraction	EW-2	Active	01/26/15	60	8	2	PVC	0.010	#2/12	60	40	60	38	38	35	35	S
Deep	Monitoring	MW-204	Active	10/02/06	66.5	8	-	MCT	-	#2/12	66.5	65.5	68	64	64	52	-	-
	Monitoring	MW-305	Active	10/09/06	68	8	-	MCT	-	#2/12	66	65	68	63	63	50	-	-
	Monitoring	MW-306	Active	10/10/06	68	8	-	MCT	-	#2/12	66	65	68	63	63	52	-	-
	Monitoring	MW-307	Active	10/04/06	69.5	8	-	MCT	-	#2/12	66	65	68	63	63	52	-	-
	Monitoring	MW-308	Active	10/05/06	66.5	8	-	MCT	-	#2/12	66	65	66	63	63	54	-	-
Deepest	Monitoring	MW-304	Active	10/02/06	75.5	8	-	MCT	-	#2/12	75.5	74.5	76	73	73	68	-	-
	Monitoring	MW-404	Active	10/02/06	82	8	-	MCT	-	#2/12	81.5	80	81.5	79.5	80	76	-	-

* = well was destroyed in 2008

TABLE 2
Summary of Groundwater Elevation and Gradient - Water Table Wells

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Date		Elevation of Groundwater*																										Avg. Elv.	Avg. DTW	Gradient	Bearing
		W-1s	DTW	W-3s	DTW	W-Bs	DTW	W-Es	DTW																			(feet)	(feet)	(ft/ft)	
	top of casing	479.09		476.98		478.82		474.66																							
	top of screen	459.09	20	456.98	20	458.82	20	454.66	20																						
	bottom of screen	434.09	45	431.98	45	433.82	45	429.66	45																						
6/2/1989		435.93		432.48		-		-																				434.21	43.83		
7/25/1990		-		-		434.20		431.58																				432.89	43.85		
1/1/1992																												-	41.00		
4/24/1996		461.14		459.28		460.77		456.21																				459.35	18.04		
11/22/1996		454.09		451.53		453.12		446.66																				451.35	26.04		
7/15/1997		448.68		447.81		449.20		443.20																				447.22	30.17		
10/29/1997		442.64	36.45	441.53		442.19		437.98																				441.09	36.30		
4/27/1998		460.48	18.61	457.25		459.96		455.39																				458.27	19.12		
10/23/1998		445.11	33.98	444.01		445.60		440.16																				443.72	33.67		
4/9/1999		453.14	25.95	451.02		452.78		447.25																				451.05	26.34		
10/5/1999		446.66	32.43	445.20		446.72		441.47																				445.01	32.38		
4/5/2000		453.12	25.97	451.96		453.77		448.04																				451.72	25.67		
10/26/2000		447.91	31.18	446.50		448.14		442.43																				446.25	31.14		
4/18/2001		447.80	31.29	446.51		446.89		442.63																				445.96	31.43		
11/13/2001		435.69	43.40	433.32		443.59		431.05																				435.91	41.48		
2/15/2002		442.46		-	-	-	-	-																				442.46	34.93		
3/15/2002		441.32		-	-	-	-	-																				441.32	36.07		
4/16/2002		441.79		-	-	-	-	-																				441.79	35.60		
4/30/2002		441.80	37.29	439.19		441.50		437.09																				439.90	37.49		
9/30/2002		439.17	39.92	437.01		439.39		434.50																				437.52	39.87		
3/19/2003		446.83	32.26	445.03		446.74		441.80																				445.10	32.29		
9/16/2003		440.88		438.50		441.40		436.14																				439.23	38.16		
4/29/2004		448.99	30.10	447.39	29.59	448.83	29.99	443.43	31.23																			447.16	30.23	0.019	West
7/7/2006		450.40	28.69	448.61	28.37	450.25	28.57	444.21	30.45																			448.37	29.02	0.019	N76°W

*Data prior to July 7, 2006 from *Environmental Sampling Services* 5/27/04 Groundwater Monitoring Report

Date		Elevation of Groundwater - Wells Surveyed October 16, 2006 in accordance with SWRCB Geotracker Requirements																													
		W-1s **	DTW	W-3s	DTW	W-Bs	DTW	W-Es	DTW	MW-4	DTW	MW-5	DTW	MW-6	DTW	MW-7	DTW	MW-8	DTW	MW-105	DTW	MW-106	DTW	MW-107	DTW	MW-108	DTW	Avg. Elv.	Avg. DTW	Gradient	Bearing
																												(feet)	(feet)	(ft/ft)	
	top of casing	481.19		479.12		480.92		476.78		480.84		481.12		480.79		480.91		480.64		481.12		480.79		480.91		480.64					
	top of screen	461.19	20	459.12	20	460.92	20	456.78	20	451.84	29	455.12	26	451.79	29	451.91	29	451.64	29	445.12	36	444.79	36	441.91	39	441.64	39				
	bottom of screen	436.19	45	434.12	45	435.92	45	431.78	45	450.84	30	454.12	27	450.79	30	450.91	30	450.64	30	444.12	37	443.79	37	440.91	40	440.64	40				
10/16/06		447.81	33.38	446.17	32.95	447.93	32.99	442.75	34.03	-	-	-	-	-	-	-	-	-	-	447.97	33.15	447.11	33.68	446.77	34.14	446.34	34.30	446.61	33.58	0.014	N68°W
04/17/07		449.64	31.55	448.35	30.77	449.51	31.41	444.58	32.20	454.09	26.75	-	-	-	-	-	-	-	-	-	-	-	-	448.92	31.99	-	-	448.20	31.58	0.016	N71°W
12/19/07		438.88	42.31	437.46	41.66	444.51	36.41	433.10	43.68	-	-	-	-	-	-	-	-	-	-	-	-	443.07	37.72	442.26	38.65	442.60	38.04	440.27	39.78	0.033	S74°W
04/07/08		446.97	34.22	-	-	446.76	34.16	442.34	34.44	453.30	27.54	-	-	445.99	34.80	-	-	452.15	28.49	447.38	33.74	445.18	35.61	445.86	35.05	446.36	34.28	447.23	33.23	0.012	N64°W
10/09/08		435.40	43.69	-	-	-	-	431.01	43.65	-	-	-	-	-	-	-	-	-	-	431.68	49.44	431.31	49.48	-	-	430.56	50.08	431.99	47.27	0.010	N57°W
04/08/11		452.00	27.09	452.20	26.92	453.81	27.11	446.59	28.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	451.15	27.30	0.0221	N56°W
10/26/11		445.90	35.29	443.72	35.40	445.92	35.00	441.13	35.65	-	-	-	-	-	-	-	-	-	-	445.57	35.55	446.15	34.64	444.99	35.92	444.59	36.05	445.26	35.41	0.0129	S68°W
05/30/12		442.92	38.27	439.98	39.14	441.85	39.07	437.10	39.68	-	-	-	-	-	-	-	-	-	-	445.63	35.49	443.61	37.18	442.15	38.76	-	-	441.89	38.23	0.0129	N82°W
11/19/12		440.42	40.77	440.12	39.00	441.63	39.29	434.44	42.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	439.15	40.35	0.0153	N63°W
06/24/13		443.59	37.60	442.17	36.95	443.60	37.32	439.46	37.32	-	-	-	-	-	-	-	-	-	-	445.69	35.43	444.72	36.07	443.81	37.10	443.35	37.29	443.30	36.89	0.0097	N75°W
12/03/13		446.72	34.47	443.22	35.90	446.29	34.63	440.70	36.08	-	-	-	-	-	-	-	-	-	-	446.29	34.83	446.08	34.71	444.86	36.05	444.47	36.17	444.83	35.36	0.0192	S54°W
06/16/14		440.52	40.67	435.89	43.23	438.53	42.39	433.33	43.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	437.07	42.44	0.0255	S59°W
12/02/14		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06/25/15		-	-	-	-	-	-	433.32	43.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/16/15		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03/10/16		446.28	34.91	-	-	446.42	34.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	446.35	34.71	-	-
05/03/16		446.79	34.40	441.69	37.43	446.58	34.34	439.65	37.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	444.27	36.64	445.38	35.26	444.02	35.87	**0.0530**	**S43°W**

"-" = well dry or depth to water measurement could not be obtained

Starting 10/26/11 - Gradient calculated using a 3-point problem with monitoring wells W-Bs, W-Es and W-3s. - The well top of W-1s was modified for the DPE system.

** = The well top of W-1s was modified in November 2011 for the DPE system, therefore the depth-to-water data is irrevelant and was not used for groundwater contour or avg. groundwater elevation calculations

TABLE 3
Summary of Groundwater Elevation and Gradient - Intermediate Wells

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Date	Elevation of Groundwater - Wells Surveyed Octpber 16, 2006 in accordance with SWRCB Geotracker Requirements																							
		W-1**	DTW	**W-A****	DTW	**MW-9**	DTW	**MW-10**	DTW	**EW-2**	DTW	**MW-104**	DTW	**MW-205**	DTW	**MW-206**	DTW	**MW-207**	DTW	**MW-208**	DTW	**Avg. Elv.**	**Avg. DTW**	**Gradient**	**Bearing**
	top of casing	480.77		481.04		479.87		479.86		481.27		480.84		481.12		480.79		480.91		480.64		**(feet)**	**(feet)**	**(ft/ft)**	
	top of screen	435.27	45.5	439.04	42	434.87	45	434.86	45	441.27	40	431.34	49.5	434.12	47	431.79	49	431.91	49	429.64	51				
	bottom of screen	425.27	55.5	423.54	57.5	414.87	65	414.86	65	421.27	60	430.34	50.5	433.12	48	430.79	50	430.91	50	428.64	52				
10/16/2006		-	-	-	-	-	-	-	-	-	-	444.85	35.99	446.75	34.37	447.03	33.76	446.27	34.64	445.12	35.52	446.00	35.76	0.012	N63°W
4/17/2007		-	-	-	-	-	-	-	-	-	-	-	-	-	-	448.57	32.22	447.13	33.78	447.05	33.59	447.58	33.20	0.022	S68°W
12/19/2007		-	-	438.36	42.68	-	-	-	-	-	-	435.98	44.86	-	-	436.10	44.69	434.33	46.58	433.92	46.72	435.74	45.11	0.04	N76°W
4/7/2008		-	-	446.72	34.32	-	-	-	-	-	-	443.10	37.74	444.84	36.28	446.38	34.41	444.84	36.07	443.66	36.98	444.92	35.97	northwest	variable
10/8-9/2008		-	-	-	-	-	-	-	-	-	-	431.08	49.76	434.51	46.61	431.32	49.47	-	-	430.68	49.96	431.90	48.95	0.12	N20°W
4/8/2011		-	-	453.38	27.66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	453.38	27.66	N/A	N/A
10/26/2011		445.28	35.49	445.60	35.44	-	-	-	-	-	-	444.83	36.01	444.00	37.12	443.25	37.54	442.79	38.12	442.05	38.59	443.75	37.14	0.025	N52°W
** 5/30/2012		441.21	39.56	441.50	39.54	-	-	-	-	-	-	441.78	39.06	442.43	38.69	441.39	39.40	440.37	40.54	440.05	40.59	441.25	39.63	0.020	S89°W
** 11/19/2012		439.12	41.65	438.12	42.92	-	-	-	-	-	-	439.29	41.55	439.08	42.04	438.11	42.68	437.70	43.21	437.35	43.29	438.40	42.48	0.015	N36°W
** 6/24/2013		443.53	37.24	444.19	36.85	-	-	-	-	-	-	443.76	37.08	444.33	36.79	443.74	37.05	442.74	38.17	442.47	38.17	443.54	37.34	0.014	N73°W
** 12/3/2013		444.43	36.34	445.11	35.93	-	-	-	-	-	-	444.54	36.30	445.13	35.99	444.74	36.05	444.77	36.14	444.37	36.27	444.73	36.15	0.013	N32°W
** 6/16/14		436.71	44.06	436.97	44.07	-	-	-	-	-	-	437.15	43.69	437.70	43.42	436.64	44.15	435.92	44.99	431.78	48.86	436.12	44.75	0.076	N74°W
12/2/2014		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/9/2015		-	-	-	-	436.90	42.97	437.21	42.65	439.07	42.20	-	-	-	-	-	-	-	-	-	-	437.73	42.61	0.032	N69°W
6/25/2015		432.84	47.93	433.83	47.21	431.54	48.33	431.87	47.99	434.00	47.27	433.61	47.23	434.21	46.91	433.18	47.61	432.23	48.68	430.80	49.84	432.81	47.90	0.036	N70°W
9/15/2015		-	-	-	-	426.47	53.40	426.78	53.08	-	-	-	-	-	-	-	-	-	-	-	-	426.63	53.24	-	-
11/16/2015		-	-	-	-	423.98	55.89	424.53	55.33	426.22	55.05	-	-	-	-	-	-	-	-	-	-	424.91	55.42	0.025	N58°W
3/10/2016		448.11	32.66	-	-	-	-	-	-	-	-	-	-	447.33	33.79	-	-	446.27	34.64	-	-	447.24	33.70	**0.069**	**S13°W**
5/3/2016		443.57	37.20	443.69	37.35	442.53	37.34	442.20	37.66	444.74	36.53	443.80	37.04	443.39	37.73	443.32	37.47	442.26	38.65	441.40	39.24	443.09	37.62	**0.014**	**S77°W**

"-" = well dry or depth to water measurement could not be obtainec
Starting 10/26/11 - Gradient calculated using a 3-point problem with CMT wells 205, 206 & 208
** = The well tops of W-A and W-1 were modified for the DPE system, therefore the depth-to-water data is irrevelant and was not used for groundwater contour or avg. groundwater elevation calculations

TABLE 4
Summary of Groundwater Elevation and Gradient - Deep Deepest Wells

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Date	Elevation of Groundwater - Wells Surveyed October 16, 2006 in accordance with SWRCB Geotracker Requirements																		
		DEEP WELLS										GROUNDWATER				DEEPEST WELLS			
		MW-204	DTW	MW-305	DTW	MW-306	DTW	MW-307	DTW	MW-308	DTW	Avg. Elv.	Avg. DTW	Gradient	Bearing	MW-304	DTW	MW-404	DTW
	top of casing	480.84		481.12		480.79		480.91		480.64		(feet)	(feet)	(ft/ft)		480.84		480.84	
	top of screen	415.34	65.5	416.12	65	415.79	65	415.91	65	415.64	65					406.34	74.5	400.84	80.0
	bottom of screen	414.34	66.5	415.12	66	414.79	66	414.91	66	414.64	66					405.34	75.5	399.34	81.5
10/16/2006		447.09	33.75	447.44	33.68	447.29	33.50	446.63	34.28	446.37	34.27	446.96	33.90	0.014	N78°W	442.76	38.08	444.37	36.47
4/17/2007		-	-	448.49	32.63	449.08	31.71	-	-	-	-	448.79	32.17	-	-	-	-	448.82	32.02
12/19/2007		435.73	45.11	-	-	443.19	37.60	435.20	45.71	434.93	45.71	437.26	43.53	0.18	S39°W	435.45	45.39	435.51	45.33
4/7/2008		446.42	34.42	446.56	34.56	442.68	38.11	446.86	34.05	445.59	35.05	445.62	35.24	0.1	N26°E	441.42	39.42	446.18	34.66
10/8-9/2008		429.90	50.94	444.51	36.61	432.28	48.51	-	-	442.09	38.55	437.20	43.65	-	-	-	-	432.20	48.64
4/8/2011		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/26/2011		445.22	35.62	445.74	35.38	445.34	35.45	-	-	445.55	35.09	445.46	35.39	0.0114	N64°W	445.14	35.70	445.07	35.77
5/30/2012		441.06	39.78	441.37	39.75	440.96	39.83	440.56	40.35	440.24	40.40	440.84	40.02	0.0100	N79°W	440.95	39.89	440.85	39.99
11/19/2012		438.53	42.31	438.84	42.28	438.46	42.33	438.04	42.87	437.72	42.92	438.32	42.54	0.0089	N72°W	438.40	42.44	438.33	42.51
6/24/2013		443.75	37.09	444.05	37.07	443.69	37.10	443.16	37.75	442.87	37.77	443.50	37.36	0.0091	N78°W	443.66	37.18	443.50	37.34
12/3/2013		444.78	36.06	445.01	36.11	444.67	36.12	444.14	36.77	443.97	36.67	444.51	36.35	0.0100	S75°W	444.66	36.18	444.54	36.30
6/16/2014		436.62	44.22	436.89	44.23	436.57	44.22	436.11	44.80	436.10	44.54	436.46	44.40	0.012	N49°W	436.51	44.33	436.40	44.44
12/2/2014		425.26	55.58	426.04	55.08	425.69	55.10	425.33	55.58	425.11	55.53	425.49	55.37	0.012	N87°W	425.72	55.12	425.62	55.22
6/25/2015		432.49	48.35	432.78	48.34	432.45	48.34	431.95	48.96	431.71	48.93	432.28	48.58	0.030	West	432.38	48.46	432.24	48.60
11/16/2015		424.78	56.06	425.03	56.09	424.75	56.04	424.27	56.64	424.11	56.53	424.59	56.27	0.020	West	424.73	56.11	-	-
5/3/2016		443.35	37.49	443.63	37.49	443.31	37.48	442.74	38.17	442.51	38.13	443.11	37.75	**0.012**	**N79°W**	443.26	37.58	-	-

"-" = well dry or depth to water measurement could not be obtained
Starting 10/26/11 - Gradient calculated using a 3-point problem with CMT wells 305, 307 & 308

TABLE 5
Summary of Vertical Groundwater Gradients

Sullins (Arrow Rentals)
187 North L Street
Livermore, CA

Date	Well Pair	Mid Points (TS-BS & TS-BS)	gwl/ts	bs/bs	GW Elevation (Head)	Vertical Head diff.	Vertical Dist diff.	Vertical Gradient
16-Oct-06	MW-104	430.84	431.34	430.34	444.85	2.240	16.00	0.140
	MW-204	414.84	415.34	414.34	447.09			
16-Oct-06	MW-205	433.62	434.12	433.12	446.75	0.690	18.00	0.038
	MW-305	415.62	416.12	415.12	447.44			
19-Apr-07	MW-107	441.41	441.91	440.91	448.92	-1.790	10.00	-0.179
	MW-207	431.41	431.91	430.91	447.13			
19-Apr-07	MW-206	431.29	431.79	430.79	446.75	0.510	16.00	0.032
	MW-306	415.29	415.79	414.79	447.44			
19-Dec-07	MW-204	414.84	415.34	414.34	435.73	-0.280	9.00	-0.031
	MW-304	405.84	406.34	405.34	435.45			
19-Dec-07	MW-304	405.84	406.34	405.34	435.45	0.060	5.75	0.010
	MW-404	400.09	400.84	399.34	435.51			
19-Dec-07	MW-207	431.41	431.91	430.91	434.33	0.870	16.00	0.054
	MW-307	415.41	415.91	414.91	435.20			
7-Apr-08	MW-204	414.84	415.34	414.34	446.42	-5.000	9.00	-0.556
	MW-304	405.84	406.34	405.34	441.42			
7-Apr-08	MW-205	433.62	434.12	433.12	446.75	1.720	18.00	0.096
	MW-305	415.62	416.12	415.12	447.44			
7-Apr-08	MW-206	431.29	431.79	430.79	446.75	-3.700	16.00	-0.231
	MW-306	415.29	415.79	414.79	447.44			
7-Apr-08	MW-207	431.41	431.91	430.91	444.84	2.020	16.00	0.126
	MW-307	415.41	415.91	414.91	446.86			
8-Oct-08	MW-204	414.84	415.34	414.34	429.90		9.00	N/A
	MW-304	405.84	406.34	405.34	-			
8-Oct-08	MW-205	433.62	434.12	433.12	434.51	10.000	18.00	0.556
	MW-305	415.62	416.12	415.12	444.51			
8-Oct-08	MW-206	431.29	431.79	430.79	431.32	0.960	16.00	0.060
	MW-306	415.29	415.79	414.79	432.28			
8-Oct-08	MW-207	431.41	431.91	430.91	-		16.00	N/A
	MW-307	415.41	415.91	414.91	-			
25-Oct-11	MW-204	414.84	415.34	414.34	445.22	-0.080	9.00	-0.009
	MW-304	405.84	406.34	405.34	445.14			
25-Oct-11	MW-205	433.62	434.12	433.12	444.00	1.740	18.00	0.097
	MW-305	415.62	416.12	415.12	445.74			
25-Oct-11	MW-206	431.29	431.79	430.79	443.25	2.090	16.00	0.131
	MW-306	415.29	415.79	414.79	445.34			
25-Oct-11	MW-207	431.41	431.91	430.91	442.79		16.00	N/A
	MW-307	415.41	415.91	414.91	-			
30-May-12	MW-204	414.84	415.34	414.34	441.06	-0.110	9.00	-0.012
	MW-304	405.84	406.34	405.34	440.95			
30-May-12	MW-205	433.62	434.12	433.12	442.43	-1.060	18.00	-0.059
	MW-305	415.62	416.12	415.12	441.37			
30-May-12	MW-206	431.29	431.79	430.79	441.39	-0.430	16.00	-0.027
	MW-306	415.29	415.79	414.79	440.96			
30-May-12	MW-207	431.41	431.91	430.91	440.37	0.190	16.00	0.012
	MW-307	415.41	415.91	414.91	-			
19-Nov-12	MW-204	414.84	415.34	414.34	438.53	-0.130	9.00	-0.014
	MW-304	405.84	406.34	405.34	438.40			
19-Nov-12	MW-205	433.62	434.12	433.12	439.08	-0.240	18.00	-0.013
	MW-305	415.62	416.12	415.12	438.84			
19-Nov-12	MW-206	431.29	431.79	430.79	438.11	0.350	16.00	0.022
	MW-306	415.29	415.79	414.79	438.46			
19-Nov-12	MW-207	431.41	431.91	430.91	437.70	0.340	16.00	0.021
	MW-307	415.41	415.91	414.91	438.04			
24-Jun-13	MW-204	414.84	415.34	414.34	443.75	-0.090	9.00	-0.010
	MW-304	405.84	406.34	405.34	443.66			
24-Jun-13	MW-205	433.62	434.12	433.12	444.33	-0.280	18.00	-0.016
	MW-305	415.62	416.12	415.12	444.05			
24-Jun-13	MW-206	431.29	431.79	430.79	443.74	-0.050	16.00	-0.003
	MW-306	415.29	415.79	414.79	443.69			
24-Jun-13	MW-207	431.41	431.91	430.91	442.74	0.420	16.00	0.026
	MW-307	415.41	415.91	414.91	443.16			
3-Dec-13	MW-204	414.84	415.34	414.34	444.78	-0.120	9.00	-0.013
	MW-304	405.84	406.34	405.34	444.66			
3-Dec-13	MW-205	433.62	434.12	433.12	445.13	-0.120	18.00	-0.007
	MW-305	415.62	416.12	415.12	445.01			
3-Dec-13	MW-206	431.29	431.79	430.79	444.74	-0.070	16.00	-0.004
	MW-306	415.29	415.79	414.79	444.67			
3-Dec-13	MW-207	431.41	431.91	430.91	444.77	-0.630	16.00	-0.039
	MW-307	415.41	415.91	414.91	444.14			
16-Jun-14	MW-204	414.84	415.34	414.34	436.62	-0.110	9.00	-0.012
	MW-304	405.84	406.34	405.34	436.51			
16-Jun-14	MW-205	433.62	434.12	433.12	437.70	-0.810	18.00	-0.045
	MW-305	415.62	416.12	415.12	436.89			
16-Jun-14	MW-206	431.29	431.79	430.79	436.64	-0.070	16.00	-0.004
	MW-306	415.29	415.79	414.79	436.57			
16-Jun-14	MW-207	431.41	431.91	430.91	435.92	0.190	16.00	0.012
	MW-307	415.41	415.91	414.91	436.11			
25-Jun-15	MW-204	414.84	415.34	414.34	432.49	-0.110	9.00	-0.012
	MW-304	405.84	406.34	405.34	432.38			
25-Jun-15	MW-205	433.62	434.12	433.12	434.21	-1.430	18.00	-0.079
	MW-305	415.62	416.12	415.12	432.78			
25-Jun-15	MW-206	431.29	431.79	430.79	433.18	-0.730	16.00	-0.046
	MW-306	415.29	415.79	414.79	432.45			
25-Jun-15	MW-207	431.41	431.91	430.91	432.23	-0.280	16.00	-0.018
	MW-307	415.41	415.91	414.91	431.95			
16-Nov-15	MW-204	414.84	415.34	414.34	424.78	-0.050	9.00	-0.006
	MW-304	405.84	406.34	405.34	424.73			
3-May-16	MW-204	414.84	415.34	414.34	443.35	-0.090	9.00	-0.010
	MW-304	405.84	406.34	405.34	443.26			
3-May-16	MW-205	433.62	434.12	433.12	443.39	0.240	18.00	0.013
	MW-305	415.62	416.12	415.12	443.63			
3-May-16	MW-206	431.29	431.79	430.79	443.32	-0.010	16.00	-0.001
	MW-306	415.29	415.79	414.79	443.31			
3-May-16	MW-207	431.41	431.91	430.91	442.26	0.480	16.00	0.030
	MW-307	415.41	415.91	414.91	442.74			

TABLE 6
Summary of Groundwater Analytical Data - First Half of 2016

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Wells	Date	TPHg	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
W-1	3/10/2016	**7,100** A01	**130** A01	**21** A01	**93** A01	**490** A01	**5.7** A01
	5/4/2016	**14,000** A01	**580** A01	**45** A01	**220** A01	**1,000** A01	**18** A01
EW-2	5/5/2016	**9,000** A01	**150** A01	**4.3** A01,J	**88** A01	**320** A01	<5 A01
W-A	5/5/2016	**2,000** A01	**230**	**2.9**	**34**	**73**	**5.3**
W-1s	3/10/2016	**150**	**0.55**	<0.5	<0.5	<1	<0.5
	5/5/2016	**28** J	**3.2**	<0.5	<0.5	<1	<0.5
W-3s	5/5/2016	<50	<0.5	<0.5	<0.5	<1	<0.5
W-Bs	3/10/2016	**160**	**0.38** J	<0.5	<0.5	<1	<0.5
	5/4/2016	**44** J	**0.87**	<0.5	<0.5	<1	<0.5
W-Es	5/4/2016	<50	<0.5	<0.5	<0.5	<1	<0.5
MW-4	5/3/2016	DRY	DRY	DRY	DRY	DRY	DRY
MW-5	5/3/2016	DRY	DRY	DRY	DRY	DRY	DRY
MW-6	5/3/2016	DRY	DRY	DRY	DRY	DRY	DRY
MW-7	5/3/2016	DRY	DRY	DRY	DRY	DRY	DRY
MW-8	5/3/2016	DRY	DRY	DRY	DRY	DRY	DRY
MW-9	5/4/2016	**150**	**17**	**0.12** J	**3.1**	**0.36** J	<0.5
MW-10	5/4/2016	**23** J	<0.5	<0.5	<0.5	<1	<0.5
MW-104	5/5/2016	**3,200** A01	**390** A01	**14** A01	**130** A01	**320** A01	**14** A01
MW-105	5/3/2016	DRY	DRY	DRY	DRY	DRY	DRY
MW-106	5/3/2016	DRY	DRY	DRY	DRY	DRY	DRY
MW-107	5/4/2016	**5,600** A01	**9,400** A01	**12** A01	**82** A01	**24** A01	**24** A01
MW-108	5/4/2016	**2,700** A01	**590** A01	**16** A01	**45** A01	**34** A01	**37** A01
MW-204	5/5/2016	**2,200** A01	**430** A01	**13** A01	**41** A01	**58** A01	<5 A01
MW-205	3/10/2016	**1,000** A01	**630** A01	**2.4** A01	**35** A01	**51** A01	**3.1** A01
	5/3/2016	**2,000** A01	**1,700** A01	**1.9** A01,J	**84** A01	**29** A01	**5.7** A01
MW-206	5/3/2016	**18** J	**0.18** J	<0.5	<0.5	<1	<0.5
MW-207	3/10/2016	**2,300** A01	**1,900** A01	**9.8** A01	**93** A01	**110** A01	**38** A01
	5/4/2016	**4,300** A01	**3,500** A01	**13** A01	**160** A01	**64** A01	**49** A01
MW-208	5/4/2016	**4,700** A01	**230** A01	**16** A01	**260** A01	**64** A01	**30** A01
MW-304	5/5/2016	**570**	**70**	**2.5**	**31**	**53**	<0.5
MW-305	5/3/2016	**280**	**58**	**0.91**	**18**	**15**	<0.5
MW-306	5/3/2016	**12** J	<0.5	<0.5	<0.5	<1	<0.5
MW-307	5/4/2016	**320**	**64**	**0.8**	**17**	**16**	<0.5
MW-308	5/4/2016	**420**	**34**	**1.8**	**12**	**8.6**	<0.5
MW-404	3/10/2016	NS	NS	NS	NS	NS	NS

NS - not sampled

A01 - Detection and quantitation limits are raised due to sample dilution

J - Estimated value (CLP Flag)

TABLE 7
Summary of Historical Groundwater Analytical Data

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
W-1	11/1988 (?)	**210,000**	**300,000**	**29,000**	**30,000**	**5,400**	**24,000**	-
	9/13/1995	**666,000**	-	**65,000**	**78,000**	**6,400**	**36,000**	<12500
	10/19/2006	**77,000**	-	**9,700**	**11,000**	**2,000**	**10,000**	-
	10/20/2006	**110,000**	-	**4,600**	**7,200**	**3,900**	**11,000**	-
	12/20/2007	**140,000**	-	**20,000**	**17,000**	**3,000**	**16,000**	<2000
	4/8/2011	**68,900**	-	**13,800**	**8,150**	**1,520**	**11,600**	<200
	10/26/2011	**76,000**	-	**15,000**	**6,100**	**910**	**11,000**	-
	5/30/2012	**25,000**	-	**4,500**	**840**	**600**	**1,900**	-
	11/19/2012	**36,000**	-	**6,300**	**1,700**	**1,900**	**6,200**	-
	6/26/2013	**43,000**	-	**6,200**	**1,700**	**1,900**	**5,500**	**190**
	12/5/2013	**15,000**	-	**2,100**	**580**	**440**	**1,900**	**13**
	6/17/2014	**25,000**	-	**2,200**	**210**	**1,500**	**2,900**	**23**
	12/3/2014	DRY						
	6/26/2015	**19,000**	-	**470**	**91**	**350**	**1,100**	**-**
	11/16/2015	DRY						
	3/10/2016	**7,100** A01	-	**130** A01	**21** A01	**93** A01	**490** A01	**5.7** A01
	5/4/2016	**14,000** A01	-	**580** A01	**45** A01	**220** A01	**1,000** A01	**18** A01
W-2	11/1988 (?)	**360**	<50	**6.7**	**2.1**	**0.5**	**1.3**	-
	9/13/1995	**90**	-	<0.5	<0.5	<0.5	<0.5	<5
	4/8/2011	well location unknown						
W-3	11/1988 (?)	**11,000**	**2,200**	**290**	**120**	**150**	**140**	-
	9/13/1995	**27,000**	-	**5,600**	**290**	**460**	**280**	<2500
	4/7/2011	**193**	-	**7.8**	<0.5	**0.5**	<1	<0.5
	10/26/2011	no access agreement						
EW-2	3/10/2015	**60,000**	-	**7,000**	**4,000**	**1,600**	**10,000**	<0.5
	6/26/2015	**14,000**	-	**740**	**31**	**1,300**	**1,100**	**8.1**
	9/15/2015	not sampled						
	11/17/2015	**3,700** A01	-	**270** A01	**83** A01	**150** A01	**510** A01	**91** A01
	3/10/2016	-	-	-	-	-	-	-
	5/5/2016	**9,000** A01	-	**150** A01	**4.3** J,A01	**88** A01	**320** A01	<5.0 A01

TABLE 7
Summary of Historical Groundwater Analytical Data

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
W-A	1990	**10,000**	**2,400**	**6,800**	**5,500**	**620**	**3,400**	-
(dup)	1990	-	-	**6,900**	**5,600**	**620**	**6,800**	-
	10/20/2006	**450**	-	**40**	**19**	**21**	**33**	-
	10/29/2007	**40,000**	-	**4,000**	**330**	**1,600**	**3,000**	<100
	4/8/2011	**13,200**	-	**2,370**	**128**	**439**	**523**	<20
	10/26/2011	**18,000**	-	**3,500**	**410**	**970**	**870**	-
	6/7/2012	**37,000**	-	**3,500**	**700**	**660**	**1700**	-
	11/21/2012	**7,500**	-	**1,900**	**110**	**300**	**440**	-
	6/25/2013	**10,000**	-	**2,800**	**370**	**520**	**1,100**	**56**
	12/5/2013	**2,800**	-	**930**	**54**	**59**	**220**	**7.2**
	6/17/2014	**6,100**	-	**2,200**	**84**	**170**	**250**	**21**
	12/3/2014	DRY						
	6/26/2015	**12,000**	-	**2,100**	**64**	**160**	**1,000**	-
	11/16/2015	DRY						
	3/10/2016	-	-	-	-	-	-	-
	5/5/2016	**2,000** [A01]	-	**230**	**2.9**	**34**	**73**	**5.3**
W-B	1990	**13,000**	**1,700**	**22,000**	**7,900**	**2,000**	**4,000**	-
(dup)	1990	**21,000**	**1,600**	**21,000**	**7,300**	**1,800**	**3,700**	-
		Abondened April 14, 2008						
W-C	1990	<10	<100	<1.0	<1.0	<1.0	<1.0	-
		Abondened April 14, 2008						
W-D	1990	**100**	<100	**1.0**	**2.0**	**2.0**	**1.0**	-
		Abondened April 14, 2008						
W-E	1990	<10	<100	<1.0	<1.0	<1.0	<1.0	-
	9/13/1995	**95**	-	**4.0**	<0.5	<0.5	<0.5	**18**
		Abondened April 14, 2008						

TABLE 7
Summary of Historical Groundwater Analytical Data

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
W-1s	3/22/1996	**6,400**	-	**580**	**470**	**85**	**1,100**	<500
	11/22/1996	**170,000**	-	**13,000**	**18,000**	**3,500**	**18,000**	<10000
	7/15/1997	**140,000**	**38,000**	**12,000**	**12,000**	**2,600**	**16,000**	<800
	10/29/1997	**650,000**	**180,000**	**14,000**	**19,000**	**7,800**	**35,000**	<3000
	4/27/1998	**6,700**	**2,200**	**410**	**250**	**77**	**870**	<30
	10/23/1998	**99,000**	**18,000**	**9,800**	**9,400**	**1,800**	**11,000**	<600
	4/9/1999	**70,000**	**24,000**	**6,500**	**7,000**	**1,800**	**8,900**	**360**
	10/5/1999	**82,000**	**60,000**	**5,500**	**4,500**	**2,500**	**14,000**	<300
	4/5/2000	**47,000**	**15,000**	**4,300**	**2,300**	**1,500**	**6,100**	**170**
	10/26/2000	**50,000**	**1,200**	**3,800**	**1,800**	**1,700**	**7,600**	<50
	4/18/2001	**54,000**	**6,800**	**5,200**	**1,800**	**1,500**	**7,000**	<330
	11/13/2001	**750,000**	-	**9,500**	**7,800**	**7,200**	**33,000**	<2000
	4/30/2002	**66,000**	**8,200**	**6,000**	**2,700**	**2,300**	**11,000**	<1200
	9/30/2002	**51,000**	**1,200**	**5,600**	**1,500**	**2,000**	**9,400**	<1000
	3/19/2003	**49,000**	**9,800**	**3,400**	**880**	**1,300**	**7,300**	<500
	9/16/2003	**53,000**	**24,000**	**4,100**	**1,200**	**1,400**	**6,600**	<1000
	4/29/2004	**39,000**	**5,900**	**3,700**	**1,200**	**810**	**4,700**	<2500
	7/7/2006	**23,000**	<500	**4,000**	**710**	**1,200**	**2,900**	<100
	10/17/2006	**35,000**	<470	**5,000**	**1,300**	**1,500**	**3,500**	-
	10/19/2006	**40,000**	-	**6,000**	**3,800**	**1,300**	**4,400**	-
	10/20/2006	**32,000**	-	**2,100**	**2,700**	**1,200**	**3,600**	-
	4/19/2007	**21,000**	-	**2,200**	**460**	**1,200**	**1,800**	<200
	10/29/2007	**68,000**	-	**19,000**	**830**	**2,700**	**4,000**	<400
	4/8/2008	**30,000**	-	**2,600**	**340**	**1,800**	**1,700**	<120
	10/9/2008	**39,000**	-	**3,900**	**340**	**1,400**	**2,000**	<250
	4/8/2011	**13,400**	-	**2,040**	**239**	**1,180**	**877**	<20
	10/26/2011	**12,000**	-	**2,900**	**280**	**520**	**530**	-
	5/30/2012	**11,000**	-	**490**	**83**	**140**	**740**	-
	11/21/2012	**3,600**	-	**320**	**47**	**33**	**180**	-
	6/26/2013	**1,700**	-	**530**	**11**	**8.1**	**18**	<10
	12/4/2013	**1,100**	-	**140**	**16**	**7.8**	**120**	**7.4**
	6/17/2014	**320**	-	**9.3**	<1.0	<1.0	<2.0	<1.0
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	**150**	-	**0.55**	<0.5	<0.5	<1.0	<0.5
	5/5/2016	**28** [J]	-	**3.2**	<0.5	<0.5	<1	<0.5

TABLE 7
Summary of Historical Groundwater Analytical Data

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
W-3s	3/22/1996	**100**	-	**13**	**6.9**	**5.3**	**14**	<5.0
	11/22/1996	**3,200**	-	**270**	**29**	**63**	**100**	<100
	7/15/1997	**2,100**	**340**	**230**	**7.0**	**33**	**51**	<20
	10/29/1997	**2,800**	**750**	**630**	**31**	**71**	**69**	<30
	4/27/1998	<50	<50	<0.5	<0.5	<0.5	<0.5	<3.0
	10/23/1998	**3,800**	**1,000**	**500**	**28**	**90**	**37**	**35**
	4/9/1999	**980**	**430**	**240**	**4.0**	**37**	**3.0**	<12
	10/5/1999	**1,500**	**1,000**	**290**	**9.5**	**53**	**9.8**	<6.0
	4/5/2000	**810**	**320**	**150**	**3.0**	**9.0**	**5.7**	<5.0
	10/26/2000	**310**	**120**	**83**	**3.5**	**6.4**	**1.2**	<5.0
	4/18/2001	**2,300**	**1,600**	**320**	**8.0**	**16**	**7.0**	<20
	11/13/2001	-	-	-	-	-	-	-
	4/30/2002	**1,400**	**490**	**320**	**5.5**	**24**	**5.0**	<25
	3/19/2003	**5,300**	**1,500**	**920**	**24**	**140**	**27**	<25
	3/19/2003	**5,300**	**1,500**	**920**	**24**	**140**	**27**	<25
	9/16/2003	**1,600**	**1,400**	**270**	**1.7**	**5.2**	<0.5	<5.0
	4/29/2004	**1,300**	**400**	**210**	**5.1**	**23**	**4.5**	<25
	7/7/2006	**110**	<500	**44**	**0.77**	<0.5	<0.5	<1.0
	10/17/2006	**1,300**	<50	**95**	<2.0	**2.0**	<2.0	-
	4/19/2007	**320**	-	**83**	<2.5	<2.5	<2.5	<5.0
	12/19/2007	**69**	-	**1.3**	<0.5	<0.5	<1.0	<2.0
	4/8/2011	**937**	-	**422**	<5.0	**6.5**	<10	<5.0
	10/25/2011	**190**	-	**5.2**	**0.76**	**1.3**	**2.1**	-
	5/30/2012	**110**	-	**33**	**0.51**	**1.1**	**0.5**	-
	11/19/2012	**71**	-	<0.3	<0.3	<0.3	<0.6	-
	6/25/2013	**85**	-	**6.0**	**0.82**	**0.36**	**0.75**	<1.0
	12/3/2013	**16**	-	**6.2**	<0.5	<0.5	<1.0	<0.5
	6/17/2014	-	-	-	-	-	-	-
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	-	-	-	-	-	-	-
	5/5/2016	<50	-	<0.5	<0.5	<0.5	<1.0	<0.5

TABLE 7
Summary of Historical Groundwater Analytical Data

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
W-Bs	3/22/1996	**61,000**	-	**9,800**	**8,000**	**2,200**	**11,000**	<5000
	11/22/1996	**47,000**	-	**5,100**	**3,100**	**1,400**	**7,800**	<2500
	7/15/1997	**66,000**	**17,000**	**7,800**	**4,900**	**1,900**	**10,000**	<600
	10/29/1997	**44,000**	**27,000**	**6,000**	**500**	**1,500**	**6,400**	**380**
	4/27/1998	**63,000**	**17,000**	**6,100**	**5,400**	**1,900**	**9,100**	<600
	10/23/1998	**48,000**	**9,600**	**6,700**	**1,200**	**1,500**	**6,200**	<300
	4/9/1999	**39,000**	**12,000**	**4,100**	**1,900**	**1,400**	**5,600**	<300
	10/5/1999	**38,000**	**7,300**	**3,800**	**390**	**1,600**	**5,900**	<60
	4/5/2000	**34,000**	**9,600**	**3,500**	**1,200**	**1,400**	**4,700**	<150
	10/26/2000	**23,000**	**650**	**2,500**	**210**	**1,100**	**2,600**	**150**
	4/18/2001	**20,000**	**2,500**	**2,400**	**180**	**880**	**1,800**	<20
	11/13/2001	**17,000**	**3,600**	**2,000**	**130**	**1,100**	**1,700**	<150
	4/30/2002	**13,000**	**2,300**	**1,000**	**38**	**660**	**360**	<170
	9/30/2002	**7,100**	**1,500**	**940**	**28**	**260**	**93**	<250
	3/19/2003	**14,000**	**3,900**	**1,200**	**77**	**820**	**900**	<120
	9/16/2003	**9,400**	**1,900**	**1,300**	**36**	**580**	**160**	<150
	4/29/2004	**15,000**	**3,300**	**2,400**	**170**	**1,300**	**950**	<200
	7/7/2006	**11,000**	<50	**1,900**	**160**	**820**	**440**	<40
	10/17/2006	**6,500**	<47	**1,000**	**37**	**410**	**83**	-
	10/20/2006	**630**	<47	**39**	**8.5**	**1.7**	**20**	-
	4/19/2007	**12,000**	-	**1,500**	**100**	**900**	**620**	<100
	12/19/2007	**8,200**	-	**360**	<50	**380**	<100	<200
	4/8/2008	**4,400**	-	**410**	**15**	**460**	**71**	<50
	4/8/2011	**6,960**	-	**1,280**	**56.2**	**632**	**432**	<10
	10/25/2011	**4,900**	-	**250**	**23**	**230**	**38**	-
	5/30/2012	**310**	-	**7.6**	**0.46**	**18**	**3.0**	-
	11/19/2012	**1,100**	-	**31**	**3.9**	**23**	**17**	-
	6/25/2013	**580**	-	**34**	**2.4**	**3.9**	**1.8**	**6.1**
	12/12/2013	**1,600**	-	**62**	**3.8**	**31**	**5.1**	<0.5
	6/17/2014	**190**	-	**26**	**1.3**	**0.67**	**2.5**	<0.5
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	**160**	**-**	**0.38** [J]	<0.5	<0.5	<1.0	<0.5
	5/4/2016	**44** [J]	**-**	**0.87**	<0.5	<0.5	<1.0	<0.5

TABLE 7
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Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
W-Es	3/22/1996	<50	-	<0.5	<0.5	<0.5	<0.5	<5.0
	11/22/1996	**280**	-	**24**	**0.6**	**1.8**	**2.2**	<5.0
	7/15/1997	-	-	-	-	-	-	-
	10/29/1997	-	-	-	-	-	-	-
	4/27/1998	-	-	-	-	-	-	-
	10/23/1998	**82**	**69**	<0.5	**0.8**	<0.5	**0.8**	**4.0**
	4/9/1999	-	-	-	-	-	-	-
	10/5/1999	**68**	**88**	<0.5	<0.5	<0.5	<1.0	**4.0**
	4/5/2000	-	-	-	-	-	-	-
	10/26/2000	**110**	<50	**0.7**	<0.5	<0.5	<1.0	<5.0
	4/18/2001	-	-	-	-	-	-	-
	11/13/2001	-	-	-	-	-	-	-
	4/30/2002	-	-	-	-	-	-	-
	9/30/2002	-	-	-	-	-	-	-
	3/19/2003	**86**	**61**	<0.5	<0.5	<0.5	<0.5	<5.0
	4/17/2007	-	-	-	-	-	-	-
	4/29/2004	**55**	**87**	**0.62**	<0.5	<0.5	<0.5	<5.0
	7/7/2006	<25	<50	<0.5	<0.5	<0.5	<0.5	**2.4**
	10/17/2006	<50	<50	<0.5	<0.5	<0.5	<0.5	-
	4/17/2007	<50	-	<0.5	<0.5	<0.5	<0.5	<1.0
	12/19/2007	<50	-	<0.5	<0.5	<0.5	<1.0	<2.0
	4/7/2008	<50	-	<0.5	<0.5	<0.5	<1.0	<5.0
	10/8/2008	<50	-	<0.5	<0.5	<0.5	<1.0	<5.0
	4/8/2011	<50	-	<0.5	<0.5	<0.5	<1.0	**0.5**
	10/26/2011	-	-	-	-	-	-	-
	5/29/2012	<50	-	<0.5	<0.5	<0.5	<1.0	**0.84**
	11/19/2012	-	-	-	-	-	-	-
	6/25/2013	<50	-	<0.3	<0.3	<0.3	<0.6	**1.0**
	12/3/2013	-	-	-	-	-	-	-
	6/17/2014	-	-	-	-	-	-	-
	12/3/2014	DRY						
	6/25/2015	-	-	-	-	-	-	-
	11/16/2015	DRY						
	3/10/2016	-	-	-	-	-	-	-
	5/4/2016	<50	-	<0.5	<0.5	<0.5	<1.0	<0.5

TABLE 7
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Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-4	10/16/2006	DRY						
	4/17/2007	DRY						
	10/29/2007	**460,000**	-	**24,000**	**21,000**	**3,800**	**19,000**	<500
	12/19/2007	DRY						
	4/8/2011	DRY						
	10/26/2011	-	-	-	-	-	-	-
	5/30/2012	-	-	-	-	-	-	-
	11/19/2012	DRY						
	6/25/2013	DRY						
	12/3/2013	DRY						
	6/17/2014	DRY						
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	DRY						
	5/3/2016	DRY						
MW-5	10/16/2006	DRY						
	4/19/2007	DRY						
	12/19/2007	DRY						
	4/8/2011	DRY						
	10/26/2011	DRY						
	5/30/2012	DRY						
	11/19/2012	DRY						
	6/25/2013	DRY						
	12/3/2013	DRY						
	6/17/2014	DRY						
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	DRY						
	5/3/2016	DRY						

TABLE 7
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Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-6	10/16/2006	DRY						
	4/17/2007	DRY						
	12/19/2007	DRY						
	4/8/2011	**220**	-	**3.2**	<0.5	<0.5	<1.0	<0.5
	10/26/2011	DRY						
	5/30/2012	DRY						
	11/19/2012	DRY						
	6/25/2013	DRY						
	12/3/2013	DRY						
	6/17/2014	DRY						
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	DRY						
	5/3/2016	DRY						
MW-7	10/16/2006	DRY						
	4/17/2007	DRY						
	12/19/2007	DRY						
	4/8/2011	DRY						
	10/26/2011	DRY						
	5/30/2012	DRY						
	11/19/2012	DRY						
	6/25/2013	DRY						
	12/3/2013	DRY						
	6/17/2014	DRY						
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	DRY						
	5/3/2016	DRY						

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Sullins (Arrow Rentals)
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Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-8	10/16/2006	DRY						
	4/17/2007	DRY						
	12/19/2007	DRY						
	4/8/2011	**765**	-	**119**	<2.0	**3.0**	**6.0**	<2.0
	10/26/2011	DRY						
	5/30/2012	DRY						
	11/19/2012	DRY						
	6/25/2013	DRY						
	12/3/2013	DRY						
	6/17/2014	DRY						
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	DRY						
	5/3/2016	DRY						
MW-9	3/9/2015	**31** J	-	**6.5**	<0.5	**0.62**	<1.0	<0.5
	6/26/2015	**28** J	-	**1.6**	<0.3	<0.3	<0.6	<1.0
	9/15/2015	**96**	-	**2.2**	<0.5	<0.5	<1.0	<0.5
	11/17/2015	**260**	-	**2.6**	**2.7**	<0.3	**9.2**	<1.0
	3/10/2016	-	-	-	-	-	-	-
	5/4/2016	**150**	-	**17**	**0.12** J	**3.1**	**0.36** J	<0.5
MW-10	3/9/2015	**25** J	-	<0.5	<0.5	<0.5	<1.0	<0.5
	6/26/2015	**34** J	-	<0.3	<0.3	<0.3	<0.6	<1.0
	9/15/2015	**12** J	-	<0.5	<0.5	<0.5	<1.0	<0.5
	11/17/2015	**71**	-	<0.3	**0.99**	<0.3	<0.6	<1.0
	3/10/2016	-	-	-	-	-	-	-
	5/4/2016	**23** J	-	<0.5	<0.5	<0.5	<1.0	<0.5

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Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-104	10/19/2006	**960**	-	**250**	**170**	**20**	**83**	-
	4/18/2007	DRY						
	10/29/2007	**1,300**	-	**210**	**82**	**110**	**380**	<5.0
	12/19/2007	DRY						
	4/8/2008	**32,000**	-	**7,100**	**1,400**	**680**	**1,800**	<250
	4/8/2011	**18,500**	-	**13,700**	**212**	**266**	**384**	**250**
	10/26/2011	**25,000**	-	**8,400**	**120**	**490**	**740**	-
	5/30/2012	**18,000**	-	**4,200**	**280**	**490**	**1,300**	<10
	11/19/2012	**12,000**	-	**6,100**	**280**	**310**	**530**	**32**
	6/25/2013	**15,000**	-	**6,600**	**160**	**490**	**490**	**120**
	12/5/2013	**6,000**	-	**840**	**100**	**150**	**350**	**20**
	6/17/2014	**7,200**	-	**2,400**	**76**	**320**	**510**	**30**
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	-	-	-	-	-	-	-
	5/5/2016	**3,200** [A01]	-	**390** [A01]	**14** [A01]	**130** [A01]	**320** [A01]	**14** [A01]
MW-105	10/16/2006	-	-	-	-	-	-	-
	4/19/2007	**13,000**	-	**4,300**	**980**	**490**	**1,500**	<250
	12/19/2007	DRY						
	4/8/2008	DRY						
	10/9/2008	**11,000**	-	**3,800**	**70**	**40**	**110**	<50
	4/8/2011	**11,300**	-	**5,870**	**135**	**518**	**1,110**	<40
	10/26/2011	-	-	-	-	-	-	-
	5/30/2012	DRY						
	11/19/2012	590						
	6/25/2013	DRY						
	12/3/2013	DRY						
	6/17/2014	DRY						
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	DRY						
	5/3/2016	DRY						

TABLE 7
Summary of Historical Groundwater Analytical Data

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-106	10/16/2006	**56**	-	**2.2**	<0.5	**0.57**	<0.5	-
	4/19/2007	**240**	-	**7.6**	<0.5	<0.5	<0.5	<1.0
	10/29/2007	**86**	-	<0.5	<0.5	<0.5	<0.5	<1.0
	12/20/2007	**54**	-	**1.0**	<0.5	<0.5	<1.0	<2.0
	4/8/2008	DRY						
	10/8/2008	**90**	-	**0.6**	<0.5	<0.5	<1.0	<5.0
	4/14/2009	-	-	-	-	-	-	-
	4/8/2011	**247**	-	**9.3**	<0.5	<0.5	<1.0	<0.5
	10/26/2011	**190**	-	**1.7**	<0.3	<0.3	<0.6	-
	5/30/2012	DRY						
	11/19/2012	DRY						
	6/25/2013	DRY						
	12/3/2013	DRY						
	6/17/2014	DRY						
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	DRY						
	5/3/2016	DRY						
MW-107	10/19/2006	**320**	-	**430**	**290**	**33**	**140**	-
	4/19/2007	**7,400**	-	**3,400**	**150**	**140**	**140**	<200
	12/19/2007	DRY						
	4/8/2008	**18,000**	-	**6,100**	**700**	**380**	**480**	<50
	4/8/2011	**20,400**	-	**15,100**	<200	**360**	<400	<200
	10/26/2011	**16,000**	-	**6,400**	**28**	**140**	**200**	-
	5/30/2012	DRY						
	11/19/2012	DRY						
	6/25/2013	DRY						
	12/3/2013	DRY						
	6/17/2014	DRY						
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	DRY						
	5/4/2016	**5,600** [A01]	-	**9,400** [A01]	**12** [A01]	**82** [A01]	**24** [A01]	**24** [A01]

TABLE 7
Summary of Historical Groundwater Analytical Data

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-108	10/16/2006	**3,400**	-	**790**	**46**	<20	**65**	-
	4/19/2007	<20,000	-	**5,400**	<200	**400**	**220**	<400
	10/29/2007	**310**	-	**55**	**3.2**	**10**	**14**	**1.9**
	12/19/2007	DRY						
	4/8/2008	**2,200**	-	**1,100**	**24**	**26**	**140**	<25
	10/9/2008	**2,100**	-	**490**	**8.4**	**35**	**40**	<12
	4/8/2011	**4,000**	-	**1,640**	**10.8**	**123**	**84.2**	**89.6**
	10/26/2011	-	-	-	-	-	-	-
	5/30/2012	DRY						
	11/19/2012	DRY						
	6/25/2013	DRY						
	12/3/2013	DRY						
	6/17/2014	DRY						
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	DRY						
	5/4/2016	**2,700** [A01]	-	**590** [A01]	**16** [A01]	**45** [A01]	**34** [A01]	**37** [A01]
MW-204	10/19/2006	**5,800**	-	**560**	**420**	**110**	**580**	-
	4/18/2007	<10,000	-	**2,700**	**650**	**210**	**970**	<200
	10/29/2007	**710**	-	**18**	**9.9**	**11**	**34**	<1.0
	12/20/2007	**22,000**	-	**4,700**	**1,100**	**490**	**1,400**	<800
	4/8/2008	**9,800**	-	**1,800**	**340**	**520**	**560**	<50
	10/8/2008	**18,000**	-	**9,200**	**360**	**130**	**370**	<100
	4/8/2011	**2,520**	-	**1,140**	**27.8**	**72.8**	**30.6**	<10
	10/26/2011	**7,400**	-	**1,900**	**38**	**250**	**400**	-
	5/30/2012	**3,800**	-	**770**	**44**	**76**	**170**	**17**
	11/19/2012	**4,800**	-	**1,900**	**88**	**220**	**470**	<20
	6/25/2013	**3,500**	-	**660**	**27**	**230**	**310**	<20
	12/5/2013	**3,100**	-	**390**	**32**	**120**	**190**	**3.9**
	6/17/2014	**2,300**	-	**790**	**37**	**100**	**210**	**0.51**
	12/3/2014	**1,800**	-	**1,600**	**39**	**130**	**270**	<0.5
	6/26/2015	**1,800**	-	**260**	**11**	**41**	**82**	**6.4**
	11/17/2015	**1,800**	-	**380**	**9.6**	**54**	**110**	**6.9**
	3/10/2016	-	-	-	-	-	-	-
	5/5/2016	**2,200** [A01]	-	**430** [A01]	**13** [A01]	**41** [A01]	**58** [A01]	<5.0 [A01]

TABLE 7
Summary of Historical Groundwater Analytical Data

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-205	10/16/2006	<2000	-	**880**	**63**	<20	**54**	**-**
	10/17/2006	**5,100**	-	**2,000**	**190**	**52**	**220**	**-**
	4/18/2007	<40,000	-	**14,000**	**550**	<400	<400	<800
	12/19/2007	DRY						
	4/8/2008	**31,000**	-	**20,000**	**640**	**510**	**1,400**	<250
	4/8/2011	**33,600**	-	**25,000**	**232**	**640**	**448**	<200
	10/26/2011	**26,000**	-	**11,000**	**130**	**240**	**300**	**-**
	5/29/2012	**40,000**	-	**15,000**	**150**	**860**	**1,100**	<10
	11/21/2012	**5,100**	-	**1,700**	**26**	**210**	**360**	<20
	6/25/2013	**37,000**	-	**13,000**	**120**	**900**	**970**	**57**
	12/5/2013	**12,000**	-	**3,400**	**30**	**270**	**370**	**28**
	6/17/2014	**9,900**	-	**4,300**	**63**	**200**	**120**	**41**
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	**1,000** [A01]	-	**630** [A01]	**2.4** [A01]	**35** [A01]	**51** [A01]	**3.1** [A01]
	5/3/2016	**2,000** [A01]	-	**1,700** [A01]	**1.9** [J,A01]	**84** [A01]	**29** [A01]	**5.7** [A01]
MW-206	10/16/2006	<50	-	**0.72**	<0.5	<0.5	<0.5	**-**
	4/18/2007	<50	-	**0.96**	<0.5	<0.5	<0.5	<1.0
	12/19/2007	**84**	-	**0.71**	<0.5	<0.5	<1.0	<2.0
	4/8/2008	**60**	-	**1.8**	<0.5	<0.5	<1.0	<5.0
	4/8/2011	**1,170**	-	**115**	<10	<10	<20	<10
	10/26/2011	**160**	-	**5.7**	**0.40**	**0.25**	<0.6	**-**
	5/29/2012	**1,500**	-	**250**	**100**	**38**	**170**	**-**
	11/21/2012	**73**	-	**1.4**	<0.3	<0.3	<0.6	**-**
	6/24/2013	**78**	-	**2.3**	**0.87**	**0.44**	**0.62**	**1.8**
	12/4/2013	**68**	-	**3.0**	<0.5	<0.5	<1.0	**1.2**
	6/17/2014	**73**	-	**0.87**	<0.5	<0.5	<1.0	**1.3**
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	-	-	-	-	-	-	-
	5/3/2016	**18** [J]	-	**0.18** [J]	<0.5	<0.5	<1.0	<0.5

TABLE 7
Summary of Historical Groundwater Analytical Data

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-207	10/19/2006	**1,000**	-	**170**	**52**	**18**	**67**	-
	4/18/2007	<25,000	-	**9,700**	**480**	<250	**250**	<500
	12/19/2007	DRY						
	4/7/2008	**32,000**	-	**12,000**	**350**	**580**	**790**	<250
	4/8/2011	**19,500**	-	**15,000**	<100	**180**	<200	**108**
	10/26/2011	**18,000**	-	**7,600**	**38**	**160**	**280**	-
	5/29/2012	**24,000**	-	**11,000**	**87**	**310**	**340**	**190**
	11/21/2012	**21,000**	-	**14,000**	**65**	**310**	**190**	**140**
	6/24/2013	**25,000**	-	**12,000**	**77**	**300**	**180**	**120**
	12/4/2013	**13,000**	-	**7,200**	**68**	**330**	**210**	**93**
	6/17/2014	**6,600**	-	**5,900**	**53**	**240**	**110**	**84**
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	**2,300** [A01]	-	**1,900** [A01]	**9.8** [A01]	**93** [A01]	**110** [A01]	**38** [A01]
	5/4/2016	**4,300** [A01]	-	**3,500** [A01]	**13** [A01]	**160** [A01]	**64** [A01]	**49** [A01]
MW-208	10/17/2006	**1,500**	-	**520**	**39**	<10	**100**	-
	4/19/2007	<10,000	-	**2,500**	<100	<100	<100	<200
	12/19/2007	DRY						
	4/8/2008	**19,000**	-	**3,900**	**230**	**550**	**1,200**	<200
	4/8/2011	**12,300**	-	**5,820**	**75**	**432**	**270**	<50
	10/26/2011	**7,400**	-	**1,600**	**97**	**60**	**210**	-
	5/29/2012	**11,000**	-	**2,600**	**42**	**220**	**170**	<10
	11/21/2012	**11,000**	-	**3,500**	**37**	**310**	**130**	**39**
	6/24/2013	**5,000**	-	**1,100**	**18**	**34**	**50**	**45**
	12/4/2013	**5,300**	-	**540**	**15**	**150**	**84**	**17**
	6/17/2014	**3,300**	-	**1,100**	**34**	**77**	**110**	**31**
	12/3/2014	DRY						
	6/25/2015	DRY						
	11/16/2015	DRY						
	3/10/2016	-	-	-	-	-	-	-
	5/4/2016	**4,700** [A01]	-	**230** [A01]	**16** [A01]	**260** [A01]	**64** [A01]	**30** [A01]

TABLE 7
Summary of Historical Groundwater Analytical Data

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-304	10/19/2006	**3,300**	-	**290**	**240**	**56**	**530**	-
	4/19/2007	<10,000	-	**3,100**	**450**	<100	**420**	<200
	12/20/2007	**1,500**	-	**380**	**43**	**32**	**110**	<40
	4/7/2008	**820**	-	**100**	**36**	**36**	**98**	<5.0
	4/8/2011	**2,880**	-	**657**	**32.3**	**93.5**	**262**	<5.0
	10/26/2011	**6,500**	-	**1,600**	**45**	**190**	**350**	-
	5/30/2012	**1,600**	-	**190**	**13**	**39**	**100**	-
	11/19/2012	**5,100**	-	**1,600**	**67**	**250**	**500**	-
	6/25/2013	**6,100**	-	**2,000**	**87**	**220**	**480**	<20
	12/5/2013	**1,600**	-	**270**	**31**	**94**	**230**	<0.5
	6/17/2014	**3,000**	-	**1,300**	**96**	**62**	**390**	**9**
	12/3/2014	**2,000**	-	**1,500**	**53**	**120**	**250**	<0.5
	6/26/2015	**810**	-	**69**	**4.2**	**33**	**60**	-
	11/17/2015	**1,200**	-	**110** [A01]	**5.6**	**51**	**86**	-
	3/10/2016	-	-	-	-	-	-	-
	5/5/2016	**570**	-	**70**	**2.5**	**31**	**53**	<0.5
MW-305	10/16/2006	<50	-	**1.8**	<0.5	<0.5	**0.67**	-
	4/19/2007	<20,000	-	**3,600**	<200	<200	<200	<400
	12/19/2007	DRY						
	4/8/2008	**290**	-	**42**	**14**	**8.1**	**28**	<5.0
	4/8/2011	**862**	-	**193**	**10.4**	**27.6**	**69.1**	<5.0
	10/26/2011	**1,300**	-	**280**	**37**	**20**	**49**	-
	5/29/2012	**920**	-	**260**	**3.6**	**18**	**30**	-
	11/21/2012	**3,700**	-	**1,300**	**17**	**170**	**230**	-
	6/25/2013	**1,800**	-	**560**	**12**	**41**	**75**	<20
	12/4/2013	**2,700**	-	**1,200**	**21**	**88**	**240**	**0.36**
	6/17/2014	**2,300**	-	**940**	**36**	**130**	**150**	**3.8**
	12/3/2014	**640**	-	**140**	**4.2**	**49**	**67**	<0.5
	6/26/2015	**420**	-	**170**	**1.6**	**12**	**21**	-
	11/16/2015	**780**	-	**130** [A01]	**1.7**	**27**	**26**	-
	3/10/2016	-	-	-	-	-	-	-
	5/3/2016	**280**	-	**58**	**0.91**	**18**	**15**	<0.5

TABLE 7
Summary of Historical Groundwater Analytical Data

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-306	10/16/2006	<50	-	<0.5	<0.5	<0.5	<0.5	-
	4/18/2007	<50	-	**3.1**	<0.5	<0.5	<0.5	<1.0
	12/20/2007	<50	-	**0.54**	<0.5	<0.5	<1.0	<2.0
	4/7/2008	<50	-	<0.5	<0.5	<0.5	<1.0	<5.0
	4/8/2011	<50	-	**10.4**	<0.5	<0.5	<1.0	<0.5
	10/26/2011	**75**	-	**0.5**	<0.3	<0.3	<0.6	-
	5/30/2012	-	-	-	-	-	-	-
	11/21/2012	**44**	-	**1.2**	<0.3	<0.3	<0.6	-
	6/24/2013	<50	-	**0.8**	<0.3	<0.3	**0.24**	<1.0
	12/4/2013	**47**	-	<0.5	<0.5	<0.5	<1.0	<0.5
	6/17/2014	-	-	-	-	-	-	-
	12/3/2014	**21**	-	**2.3**	**0.34**	<0.5	**0.52**	<0.5
	6/25/2015	<50	-	<0.3	<0.3	<0.3	<0.6	-
	11/16/2015	<50	-	<0.3	<0.3	<0.3	<0.6	-
	3/10/2016	-	-	-	-	-	-	-
	5/3/2016	**12** [J]	-	<0.5	<0.5	<0.5	<1.0	<0.5
MW-307	10/19/2006	<50	-	**2.3**	**1.5**	<0.5	**4.7**	-
	4/18/2007	<4000	-	**1,300**	**250**	**78**	**310**	<80
	12/19/2007	**1,500**	-	**200**	**50**	**59**	**140**	<40
	4/7/2008	**2,500**	-	**720**	**110**	**69**	**160**	<25
	4/8/2011	**70**	-	**24.3**	**3.8**	**0.6**	**3.3**	<0.5
	10/26/2011	-	-	-	-	-	-	-
	5/29/2012	**2,000**	-	**540**	**4.2**	**57**	**110**	**4.5**
	11/19/2012	-	-	-	-	-	-	-
	6/24/2013	**1,300**	-	**480**	**7.2**	**43**	**54**	<20
	12/3/2013	-	-	-	-	-	-	-
	6/17/2014	**1,100**	-	**520**	**8.3**	**43**	**28**	**1.6**
	12/3/2014	**460**	-	**230**	**8.4**	**49**	**42**	<0.5
	6/26/2015	**290**	-	**76**	**1.2**	**18**	**16**	-
	11/16/2015	**730**	-	**150** [A01]	**2.5**	**26**	**26**	-
	3/10/2016	-	-	-	-	-	-	-
	5/4/2016	**320**	-	**64**	**0.80**	**17**	**16**	<0.5

TABLE 7
Summary of Historical Groundwater Analytical Data

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Wells	Date	TPHg	TPHd	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-308	10/16/2006	<50	-	<0.5	<0.5	<0.5	<0.5	-
	4/19/2007	<10,000	-	**1,600**	<100	<100	<100	<200
	12/19/2007	**190**	-	**25**	**1.5**	**7.2**	**8.4**	<4.0
	4/7/2008	**770**	-	**150**	**10**	**48**	**45**	<5.0
	4/8/2011	**3,240**	-	**1,230**	**18.6**	**187**	**125**	<10
	10/26/2011	**2,900**	-	**610**	**9.2**	**73**	**53**	-
	5/29/2012	**1,200**	-	**89**	**5.1**	**18**	**25**	-
	11/21/2012	**4,800**	-	**930**	**46**	**160**	**210**	-
	6/24/2013	**2,600**	-	**610**	**22**	**110**	**87**	<20
	12/12/2013	**3,200**	-	**520**	**14**	**140**	**75**	**0.6**
	6/17/2014	**3,000**	-	**1,300**	**20**	**110**	**58**	**9.1**
	12/3/2014	**1,000**	-	**92**	**3.0**	**39**	**20**	**0.21**
	6/25/2015	**1,400**	-	**2.5**	**1.2**	**3.1**	**1.2**	-
	11/16/2015	**1,200**	-	**70**	**3.2**	**24**	**23**	-
	3/10/2016	-	-	-	-	-	-	-
	5/4/2016	**420**	-	**34**	**1.8**	**12**	**8.6**	<0.5
MW-404	10/19/2006	**1,700**	-	**120**	**73**	**27**	**280**	-
	4/18/2007	<10,000	-	**1,400**	**440**	**130**	**550**	<200
	12/19/2007	**2,200**	-	**160**	**63**	**92**	**300**	<40
	4/8/2008	not sampled						
	4/8/2011	**119**	-	**90.8**	**1.4**	**1.0**	**2.6**	<0.5
	10/26/2011	**1,500**	-	**400**	**9.1**	**46**	**65**	-
	5/30/2012	**1,200**	-	**260**	**11**	**34**	**80**	-
	11/19/2012	**1,100**	-	**230**	<6.0	**46**	**84**	-
	6/25/2013	**98**	-	**840**	**22**	**60**	**140**	<20
	12/5/2013	**2,500**	-	**540**	**57**	**140**	**290**	**3.2**
	6/17/2014	**6,500**	-	**4,500**	**100**	**130**	**240**	**21**
	12/3/2014	**980**	-	**270**	**11**	**50**	**93**	<0.5
	6/25/2015	-	-	-	-	-	-	-
	11/16/2015	-	-	-	-	-	-	-
	3/10/2016	-	-	-	-	-	-	-
	5/3/2016	-	-	-	-	-	-	-

pre- 2006 data adapted from *Environmental Sampling Services* 5/27/04 Groundwater Monitoring Report
"-" = not analyzed
^{J} = estimated Value (CLP Flag)
^{A01} = detection and quantitation limits are raised due to sample dilution

TABLE 8
Summary of Field Parameters

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Date	W-1s					W-3s					W-Bs					W-Es					W-1				
	pH	E.C.	Temp °C	ORP	DO	pH	E.C.	Temp °C	ORP	DO	pH	E.C.	Temp °C	ORP	DO	pH	E.C.	Temp °C	ORP	DO	pH	E.C.	Temp °C	ORP	DO
7/7/2006	-	-	-	-128.5	0.13	-	-	-	-	0.07	-	-	-	-107.3	0.09	7.05	339	20.9	32.9	0.06	-	-	-	-	-
12/29/2007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/8/2008	6.76	514	24.8	-95.5	-	-	-	-	-	-	-	-	-	-	0.28	7.07	503	25.1	121.4	6.85	-	-	-	-	-
10/8-9/2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/7-8/2011	6.17	967	19.1	-221.5	0.37	6.63	964	18.1	40.7	0.72	6.61	780	18.5	-198.2	0.02	7.03	790	19.5	141.3	1.06	6.30	917	19.0	-164.3	0.40
10/26/2011	6.65	1012	18.1	-121.5	0.16	6.65	914	17.9	-57.6	0.52	6.51	722	17.6	-115.8	0.38	-	-	-	-	-	6.45	1073	17.8	-60.9	0.20
5/30/2012	6.60	1574	21.4	-351.9	0.00	6.89	761	20.3	-66.9	0.11	6.88	676	20.9	-87.3	0.79	-	-	-	-	-	6.71	1062	20.7	-98.7	0.95
11/19/2012	6.16	1301	18.6	-119.7	0.06	6.75	834	17.2	-65.1	0.19	7.04	825	17.2	-39.2	0.18	-	-	-	-	-	7.04	965	17.3	-97.0	0.12
6/24/2013	6.71	1333	21.9	-159.8	0.07	6.43	1243	20.3	-60.2	1.03	6.75	919	21.2	-92.1	0.84	7.09	951	21.8	160.6	0.61	6.73	1156	20.5	-110.6	0.28
12/3-5/2013	6.73	1086	20.4	-50.0	0.35	6.57	1003	18.4	72.8	1.27	6.86	810	19.4	-53.1	1.19	-	-	-	-	-	6.82	1051	20.5	-135.6	0.16
6/16-17/2014	6.47	1309	21.3	-79.0	0.31	-	-	-	-	-	7.05	803	21.0	-50.1	1.64	-	-	-	-	-	6.70	1097	21.1	-101.3	0.18
12/2-3/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/9-10/2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/25/15 - 6/26/15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.80	1376	21.7	-107.2	NC
9/15/2015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/16/15 - 11/17/15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/10/2016	6.89	890	21.2	-14.8	0.50	-	-	-	-	-	6.94	505	20.5	-67.1	1.7	-	-	-	-	-	6.81	978	20.3	-95.9	0.86
5/4/16 - 5/5/16	7.37	933	21.3	-29.7	2.51	6.91	1112	21.2	42.3	1.39	7.16	620	21.0	17.3	2.31	7.31	928	21.3	102.1	1.81	7.16	1342	21.1	-169.3	0.62

Date	W-3					W-A					MW-9					MW-10					EW-2				
	pH	E.C.	Temp °C	ORP	DO	pH	E.C.	Temp °C	ORP	DO	pH	E.C.	Temp °C	ORP	DO	pH	E.C.	Temp °C	ORP	DO	pH	E.C.	Temp °C	ORP	DO
4/7-8/2011	6.94	928	18.3	-185.7	0.10	6.85	907	18.9	-254.5	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/26/2011	-	-	-	-	-	6.70	1019	18.0	-120.2	0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/30/2012	-	-	-	-	-	6.83	1127	20.3	-90.3	0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/19/2012	-	-	-	-	-	6.92	1185	18.0	-139.9	0.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/24/2013	-	-	-	-	-	6.84	1255	20.5	-124.1	1.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/3-5/2013	-	-	-	-	-	7.03	1210	20.2	-118.1	0.70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/16-17/2014	-	-	-	-	-	6.42	1352	20.7	-135.0	0.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/2-3/2014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/9-10/2015	-	-	-	-	-	-	-	-	-	-	6.86	1091	19.9	122.1	3.12	6.70	1070	19.6	121.4	3.68	-	-	-	-	-
6/25-26/2015	-	-	-	-	-	6.77	1466	21.2	-90.4	NC	7.18	972	19.9	122.5	3.94	7.30	964	19.8	105.2	4.44	6.75	1122	21.8	-78.3	NC
9/15/2015	-	-	-	-	-	-	-	-	-	-	6.66	970	20.1	90.3	3.19	7.08	967	19.8	94.8	4.51	-	-	-	-	-
11/16-17/15	-	-	-	-	-	-	-	-	-	-	6.97	1089	20.2	101.4	3.42	6.96	1084	19.6	142.8	4.21	6.64	1053	19.8	-118.2	0.58
3/10/2016	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/4/16 - 5/5/16	-	-	-	-	-	7.02	1452	20.9	-98.8	2.05	7.69	1101	19.8	47.0	3.55	7.69	1098	20.0	44.7	3.20	7.24	1340	21.1	-97.2	0.42

" - " = insufficient data no result reported

TABLE 9
Estimation of Mass Removal Via Soil Vapor Extraction

Sullins (Arrow Rentals)
187 North L Streeet
Livermore, California

Sample Date	Flow	TPH-G	Meter	Days	Operation Duration			Volume Removed		Pounds Removed
	CFM	mg/m3		total days	days in period	hours	min	cubic feet	cubic meters	pounds
11/15/11			10,382	0						
12/08/11	90	2,380	10,437	2	2	55	3,300	297,000	8,410	44
01/05/12	136	3,360	10,961	24	22	524	31,440	4,275,840	121,078	897
03/08/12	152	3,490	11,841	61	37	880	52,800	8,025,600	227,259	1,749
05/16/12	99	251	13,496	130	69	1,655	99,300	9,830,700	278,374	154
04/11/13	56	37	16,119	239	109	2,623	157,380	8,813,280	249,564	20
08/22/13	133	130	17,925	314	75	1,806	108,360	14,411,880	408,098	117
09/03/13	65	710	18,211	326	12	286	17,160	1,115,400	31,585	49
09/20/13	127	330	18,619	343	17	408	24,480	3,108,960	88,036	64
10/11/13	102.5	99	18,957	357	14	338	20,280	2,078,700	58,862	13
10/22/13	95	210	19,221	368	11	264	15,840	1,504,800	42,611	20
11/06/13	80	120	19,584	383	15	363	21,780	1,742,400	49,339	13
01/15/14	155	600	20,281	412	29	697	41,820	6,482,100	183,552	243
01/30/14	87.5	180	20,640	427	15	359	21,540	1,884,750	53,370	21
02/11/14	125	250	20,928	439	12	288	17,280	2,160,000	61,164	34
03/18/14	28	0.9	21,266	454	14	338	20,280	567,840	16,079	0.03
04/01/14	102.5	85	21,601	467	14	335	20,100	2,060,250	58,340	11
04/15/14	28	1,100	21,604	468	0	3.0	180	5,040	143	0.35
04/28/14	125	560	21,914	481	13	310	18,600	2,325,000	65,837	81
05/09/14	95	1,000	21,916	481	0	2.0	120	11,400	323	0.71
06/26/14	60	1,200	21,968	483	2	52	3,120	187,200	5,301	14
07/10/14	72.5	170	21,975	483	0	7.0	420	30,450	862	0.32
07/25/14	87.5	1,100	21,979	483	0	4.0	240	21,000	595	1.44
08/12/14	76	190	22,410	501	18	431	25,860	1,965,360	55,653	23
09/23/14	110	2,000	22,688	513	12	278	16,680	1,834,800	51,956	229
10/02/14	103	12,000	22,735	515	2	47	2,820	290,460	8,225	218
11/06/14	110	10,000	23,041	527	13	306	18,360	2,019,600	57,189	1,261
12/02/14	105	13,000	23,059	528	1	18	1,080	113,400	3,211	92
03/11/15	36	3,800	24,009	568	40	950	57,000	2,052,000	58,106	487
08/18/15	91	20,000	24,776	600	32	767	46,020	4,187,820	118,586	5,229
09/15/15	105	19,000	24,881	604	4	105	6,300	661,500	18,732	785
1/11/2016	151	11,000	25,444	628	23	563	33,804	5,104,404	144,540	3,505
3/16/2016	32	170	25,488	629	2	43	2,586	82,752	2,343	1
5/10/2016	35	-	25,607	634	5	120	7,170	-	-	-
									TOTAL	**15,376**

TABLE 10
Summary of DPE System Soil Vapor Extraction Data

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Well	Date	TPH-Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	PID
		mg/m^3	mg/m^3	mg/m^3	mg/m^3	mg/m^3	ppm
SVE-INF	12/8/2011	**2,380**	**7.1**	**5.6**	**2.9**	**15.5**	200
	1/5/2012	**3,360**	**29.8**	**15.8**	**23.6**	**70.4**	262
	3/8/2012	**3,490**	**30.4**	**28.6**	**12**	**55.2**	282
	5/16/2012	**251**	**7.86**	**4.43**	**2.34**	**9.56**	51.1
	4/11/2013	**37**	**13**	**2.9**	**2.1**	**5.9**	-
	9/23/2014	**2,000**	**12**	**6.4**	**1.9**	**11**	737
	10/2/2014	**12,000**	**36**	**10**	<50	**37**	248
	11/6/2014	**10,000**	**52**	**22**	**20**	**140**	1917
	12/2/2014	**13,000**	**97**	**22**	**16**	**110**	1772
	3/11/2015	**3,800**	**26**	**13**	**8.2**	**26**	390
	8/18/2015	**20,000**	**66**	**22**	**36**	**120**	1001
	9/15/2015	**19,000**	**62**	**14**	**41**	**140**	1208
	1/11/2016	**11,000**	**22**	**8.9**	**1.5**	**12**	1610
	3/16/2016	**170**	**0.18**	**0.48**	**0.31**	**3.5**	-
SVE-INF UPPER	8/22/2013*	**13**	**0.064**	**0.076**	**0.0096**	**0.078**	12.5
(EW-1 & W-1s)	9/3/2013	**130**	**2.2**	**2.2**	**4.3**	**19**	23.8
	9/20/2013*	**330**	**0.85**	**1.5**	<2.5	**1.3**	36.9
	10/11/2013	**91**	**2.4**	**1.6**	**4.0**	**14**	32.9
	10/22/2013*	**210**	**1.5**	**3.7**	<2.5	**2.6**	51.1
	11/6/2013	**44**	**0.77**	**1.2**	**3.7**	**12**	35.9
	1/15/2014*	**600**	**1.3**	**1.2**	**0.09**	**1.3**	72.9
	1/30/2014	**31**	**1.5**	**2.6**	**0.19**	**0.32**	85.2
	2/11/2014*	**250**	**0.72**	**0.79**	**0.093**	**0.52**	45.1
	7/25/2014	**1,100**	**3.4**	**0.58**	**0.57**	**3.2**	150
	8/12/2014	**190**	**0.31**	**0.17**	**0.046**	**0.69**	358
SVE-INF LOWER	8/22/2013	**410**	**59**	**13**	**4.9**	**22**	73.6
(W-1 & W-A)	9/3/2013*	**710**	**38**	**9.5**	**8.3**	**28**	81.4
	9/20/2013	-	-	-	-	-	-
	10/11/2013*	**99**	**12**	**2.7**	**3.1**	**8.6**	69.1
	10/22/2013	**410**	**29**	**7.1**	**0.87**	**4.2**	130
	11/6/2013*	**120**	**15**	**4.5**	**7.7**	**22**	60.9
	1/15/2014	**1,800**	**50**	**12**	**2.2**	**12**	205
	1/30/2014*	**180**	**19**	**42**	**2**	**3.7**	220
	2/11/2014	**200**	<1	**3.2**	**0.44**	**1.5**	149.2
	3/18/2014	**0.89**	<20	**0.01**	**0.011**	**0.041**	-
	4/1/2014	**85**	**16**	**1.8**	**4.6**	**10**	-
	4/15/2014	**1,100**	**46**	**11**	**17**	**49**	99.9
	4/28/2014	**560**	**21**	**4.5**	**4.3**	**12**	-
	5/9/2014	**1,000**	**76**	**12**	**13**	**28**	159
	6/26/2014	**1,200**	**15**	**1.7**	**1.9**	**5.6**	290
	7/10/2014	**170**	**7.5**	**8.5**	**11**	**31**	294
	8/12/2014	**61**	**0.15**	**0.19**	ND<0.5	**0.51**	183
W-1 SVE-INF	5/16/2013	**100**	**16**	**4.8**	**5.2**	**11**	48.1
W-A SVE-INF	5/16/2013	**39**	**2.3**	**0.64**	**0.83**	**1.7**	16.1
EW-1 SVE-INF	5/16/2013	**22**	**0.065**	**0.069**	**0.12**	**0.54**	7.6
W-1s SVE-INF	5/16/2013	**85**	<0.08	**0.16**	**0.35**	**1.4**	32.6

* = sample collected following 2 weeks of extraction from the upper/lower zone

TABLE 11
Estimation of Mass Removal Via Groundwater Extraction

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Date/Time	Hours		GW Removed		Lab	Removal Calculations			
	Meter	in period	Cummulative (gallons)	In Period (gallons)	(ug/L)	(grams/L)	(grams/gal.)	(lbs./gal.)	(lbs./period)
12/7/2011	10428	-	0	-	-	-	-	-	0.00
12/13/2011	10442	13.5	1060	1060	2400	0.00240	0.00063	0.00000140	0.67
1/13/2012	11137	695.1	1378	318	6400	0.00640	0.00169	0.00000373	0.54
1/18/2012	11244	106.9	1445	67	3800	0.00380	0.00100	0.00000221	0.07
1/19/2012	11256	11.7	3180	1735	2800	0.00280	0.00074	0.00000163	1.28
3/8/2012	11841	585.7	7700	4520	190	0.00019	0.00005	0.00000011	0.23
4/3/2012	12466	624.6	19873	12173	810	0.00081	0.00021	0.00000047	2.60
5/3/2012	13186	719.8	38308	18435	1000	0.00100	0.00026	0.00000058	4.87
5/16/2012	13496	310.6	43854	5546	2800	0.00280	0.00074	0.00000163	4.10
6/7/2012	13498	1.8	43993	139	5000	0.00500	0.00132	0.00000291	0.18
7/9/2012	13661	163.2	46169	2176	2600	0.00260	0.00069	0.00000151	1.49
8/16/2012	14369	707.9	55565	9396	2300	0.00230	0.00061	0.00000134	5.71
9/13/2012	15041	671.4	69172	13607	1800	0.00180	0.00048	0.00000105	6.47
10/16/2012	15073	32.3	70660	1488	1800	0.00180	0.00048	0.00000105	0.71
12/13/2012	15532	459.2	83968	13308	1800	0.00180	0.00048	0.00000105	6.33
2/4/2013	16107	574.6	83968	0	1300	0.00130	0.00034	0.00000076	0.00
2/14/2013	16113	6.5	84680	712	1300	0.00130	0.00034	0.00000076	0.24
4/10/2013	16114	0.8	84680	0	2000	0.00200	0.00053	0.00000116	0.00
4/26/2013	16322	208.0	86053	1373	2000	0.00200	0.00053	0.00000116	0.73
5/3/2013	16490	167.6	86810	757	1600	0.00160	0.00042	0.00000093	0.32
5/16/2013	16527	37.0	89138	2328	1600	0.00160	0.00042	0.00000093	0.98
6/6/2013*	16585	58.1	92164	3026	2071	0.00207	0.00055	0.00000121	1.66
6/26/2013*	16729	144.5	96926	4762	2071	0.00207	0.00055	0.00000121	2.61
7/31/2013*	17395	665.7	134007	37081	2071	0.00207	0.00055	0.00000121	20.29
8/22/2013*	17925	530.0	146673	12666	2071	0.00207	0.00055	0.00000121	6.93
9/3/2013	18211	285.8	170214	23541	1200	0.00120	0.00032	0.00000070	7.46
9/27/2013	18623	412.1	170214	0	1300	0.00130	0.00034	0.00000076	0.00
10/11/2013	18957	334.0	202421	32207	870	0.00087	0.00023	0.00000051	7.40
10/22/2013	19221	264.1	202421	0	1700	0.00170	0.00045	0.00000099	0.00
11/6/2013	19584	363.0	236820	34399	1400	0.00140	0.00037	0.00000082	12.72
1/15/2014	20281	697.0	236820	0	2600	0.00260	0.00069	0.00000151	0.00
1/30/2014	20640	359.0	262180	25360	2500	0.00250	0.00066	0.00000146	16.75
2/11/2014	20928	288.0	262180	0	1700	0.00170	0.00045	0.00000099	0.00
2/25/2014	21263	335.5	267519	5339	1700	0.00170	0.00045	0.00000099	2.40
3/18/2014	21266	3.0	267705	186	2600	0.00260	0.00069	0.00000151	0.13
4/1/2014	21601	335.0	289708	22003	340	0.00034	0.00009	0.00000020	1.98
4/15/2014	21604	2.5	290023	315	2000	0.00200	0.00053	0.00000116	0.17
4/28/2014	21914	310.6	307746	17723	1800	0.00180	0.00048	0.00000105	8.43
5/9/2014	21916	1.6	307746	0	2300	0.00230	0.00061	0.00000134	0.00
6/26/2014	21968	52.0	307746	0	610	0.00061	0.00016	0.00000036	0.00
7/10/2014	21975	7.0	311948	4202	2,000	0.00200	0.00053	0.00000116	2.22
8/12/2014	22410	435.0	311956	8	2,500	0.00250	0.00066	0.00000146	0.01
9/23/2014	22688	278.0	312643	687	2,200	0.00220	0.00058	0.00000128	0.40
11/6/2014	23041	353.0	314037	1394	1,700	0.00170	0.00045	0.00000099	0.63
12/2/2014	23059	18.0	314037	0	2,700	0.00270	0.00071	0.00000157	0.00
3/11/2015	24009	950.0	317846	3809	4,100	0.00410	0.00108	0.00000239	4.13
8/18/2015	24,776	767.0	323557	5711	6,700	0.00670	0.00177	0.00000390	10.11
9/15/2015	24,881	105.0	325723	2166	900	0.00090	0.00024	0.00000052	0.51
1/11/2016	25,444	563.0	328360	2637	2,900	0.00290	0.00077	0.00000169	2.02
2/16/2016	25,446	1.5	328370	10	1,800	0.00180	0.00048	0.00000105	0.00
5/10/2016	25,607	161.5	330315	1945	-	-	-	-	-
								Total	**146**

* = TPH-G concentration for this date is an average of the lab data from all previous events

TABLE 12
Summary of DPE System Groundwater Extraction Data

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

Well	Date	Benzene	Toluene	Ethylbenzene	Total Xylenes	TPH-Gasoline	MTBE
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
GW-INF	12/13/2011	**110**	**9.4**	**2.5**	**510**	**2,400**	-
(GW INF KO)	1/13/2012	**110**	**120**	**74**	**510**	**6,400**	-
(W-1 & W-A)	1/18/2012	**44**	**54**	**39**	**360**	**3,800**	-
	1/19/2012	**37**	**43**	**39**	**280**	**2,800**	-
	3/8/2012	**7.3**	**8.3**	**2.3**	**19**	**190**	-
	4/3/2012	**8.6**	**9.7**	**3.4**	**36**	**810**	-
	5/3/2012	**300**	**160**	**26**	**280**	**2,800**	-
	6/7/2012	**72**	**89**	**23**	**260**	**5,000**	-
	7/9/2012	**110**	**51**	**21**	**120**	**2,600**	-
	8/16/2012	**47**	**35**	**19**	**99**	**2,300**	-
	9/13/2012	**74**	**26**	**14**	**70**	**1,800**	-
	10/16/2012	**140**	**44**	**46**	**110**	**1,800**	-
	2/4/2013	**130**	**40**	**32**	**110**	**1,300**	-
	4/10/2013	**200**	**58**	**48**	**160**	**2,000**	
	5/7/2013	<0.3	<0.3	<0.3	<0.6	<50	-
	5/16/2013	**96**	**30**	**32**	**110**	**1,600**	**5.5**
	8/22/2013	<0.3	<0.3	<0.3	<0.6	<50	-
	9/3/2013*	**190**	**35**	**26**	**150**	**1,200**	-
	9/27/2013	**94**	**30**	**12**	**120**	**1,300**	-
	10/11/2013*	**99**	**18**	**24**	**88**	**870**	-
	10/22/2013	**130**	**62**	**30**	**210**	**1,700**	-
	11/6/2013*	**120**	**22**	**35**	**140**	**1,400**	-
	1/15/2014	**43**	**18**	**19**	**150**	**2,600**	-
	1/30/2014	**98**	**30**	**45**	**170**	**2,500**	**2.4**
	2/11/2014	**100**	**35**	**20**	**150**	**1,700**	<12
	2/25/2014	**150**	**45**	**27**	**180**	**1,700**	**4.2**
	3/18/2014	**61**	**14**	**18**	**80**	**2,600**	-
	4/1/2014	**19**	**2.6**	**4.9**	**19**	**340**	-
	4/15/2014	**52**	**10**	**14**	**53**	**2,000**	-
	4/28/2014	**17**	**3**	**7.7**	**22**	**1,800**	-
	5/9/2014	**98**	**22**	**33**	**120**	**2,300**	**3.4**
	6/26/2014	**17**	**1**	**2.5**	**9.1**	**610**	**0.87**
	7/10/2014	**96**	**17**	**34**	**170**	**2,000**	ND<0.5
	8/12/2014	**81**	**41**	**18**	**350**	**2,500**	-
	9/23/2014	**97**	**51**	**38**	**450**	**2,200**	-
	11/6/2014	**130**	**42**	**28**	**460**	**1,700**	**1.3**
	12/2/2014	**190**	**65**	**50**	**550**	**2,700**	**2.0**
	3/11/2015	**200**	**120**	**99**	**510**	**4,100**	ND<5
	8/18/2015	**210**	**72**	**8.3**	**890**	**6,700**	ND<5
	9/15/2015	**430**	**84**	**190**	**2,000**	**9,000**	**3.2**
	1/11/2016	**40**	**25**	**14**	**190**	**2,900**	**1.4**
	2/16/2016	**7.1**	**16**	**5.1**	**69**	**1,800**	ND<0.5
W-1 GW-INF	5/16/2013	**96**	**30**	**32**	**110**	**1,600**	**5.5**
W-A GW-INF	5/16/2013	**67**	**15**	**16**	**54**	**1,000**	**2.6**

* = sample collected following 2 weeks of extraction from the upper/lower zone

CHART 1: W-1s - Benzene vs. Time

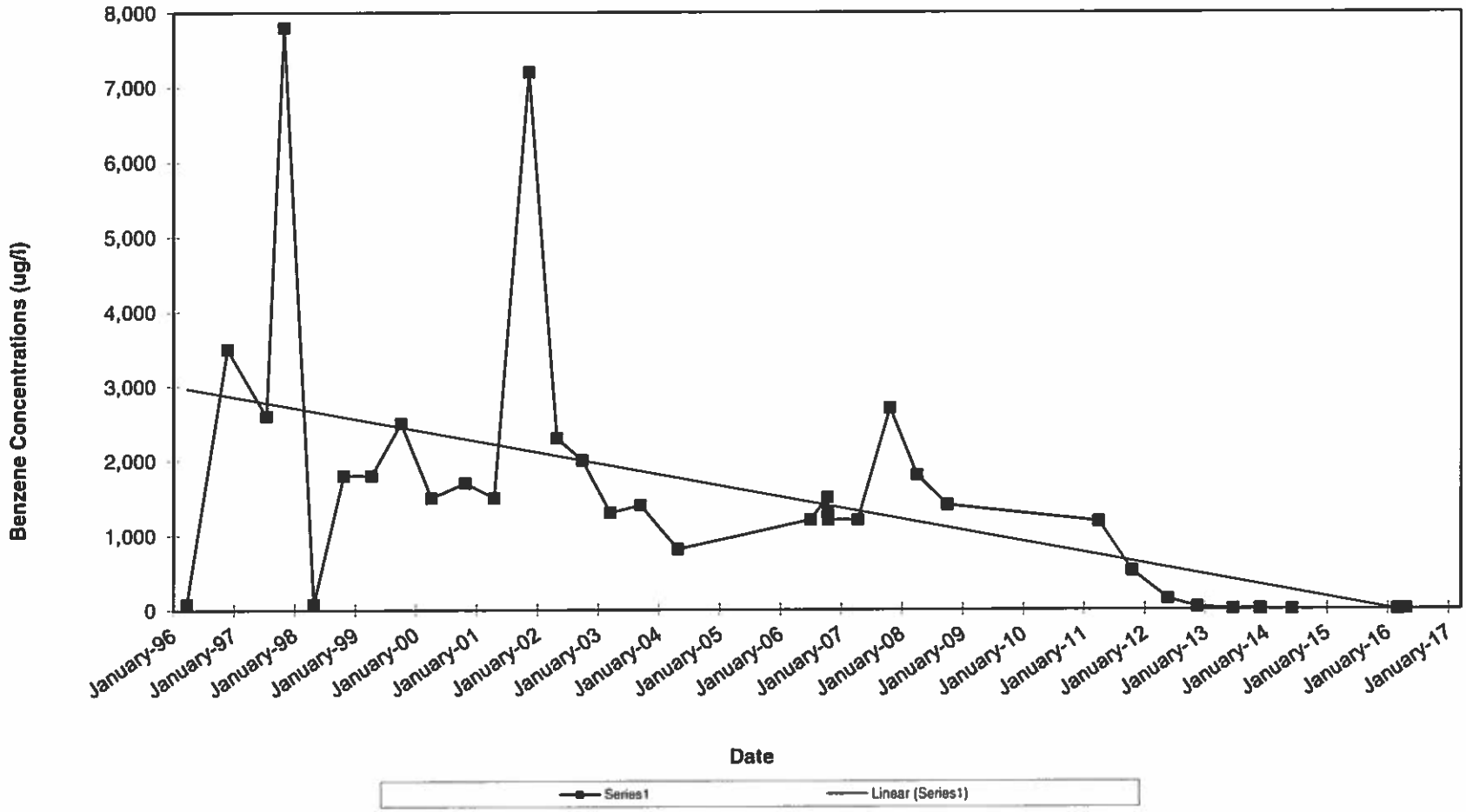


CHART 2: MW-104 - Benzene vs. Time

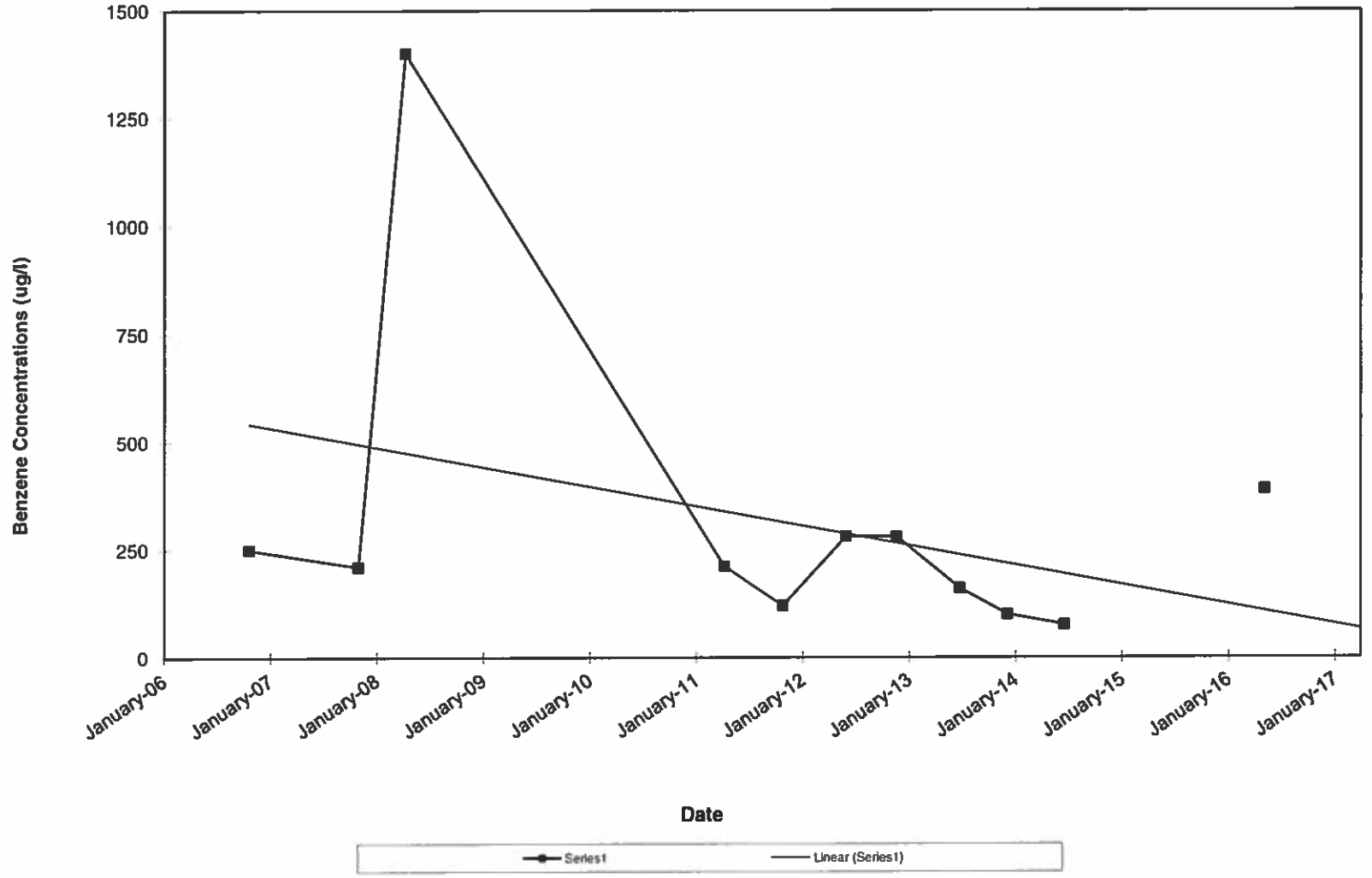


CHART 3: MW-204 - Benzene vs. Time

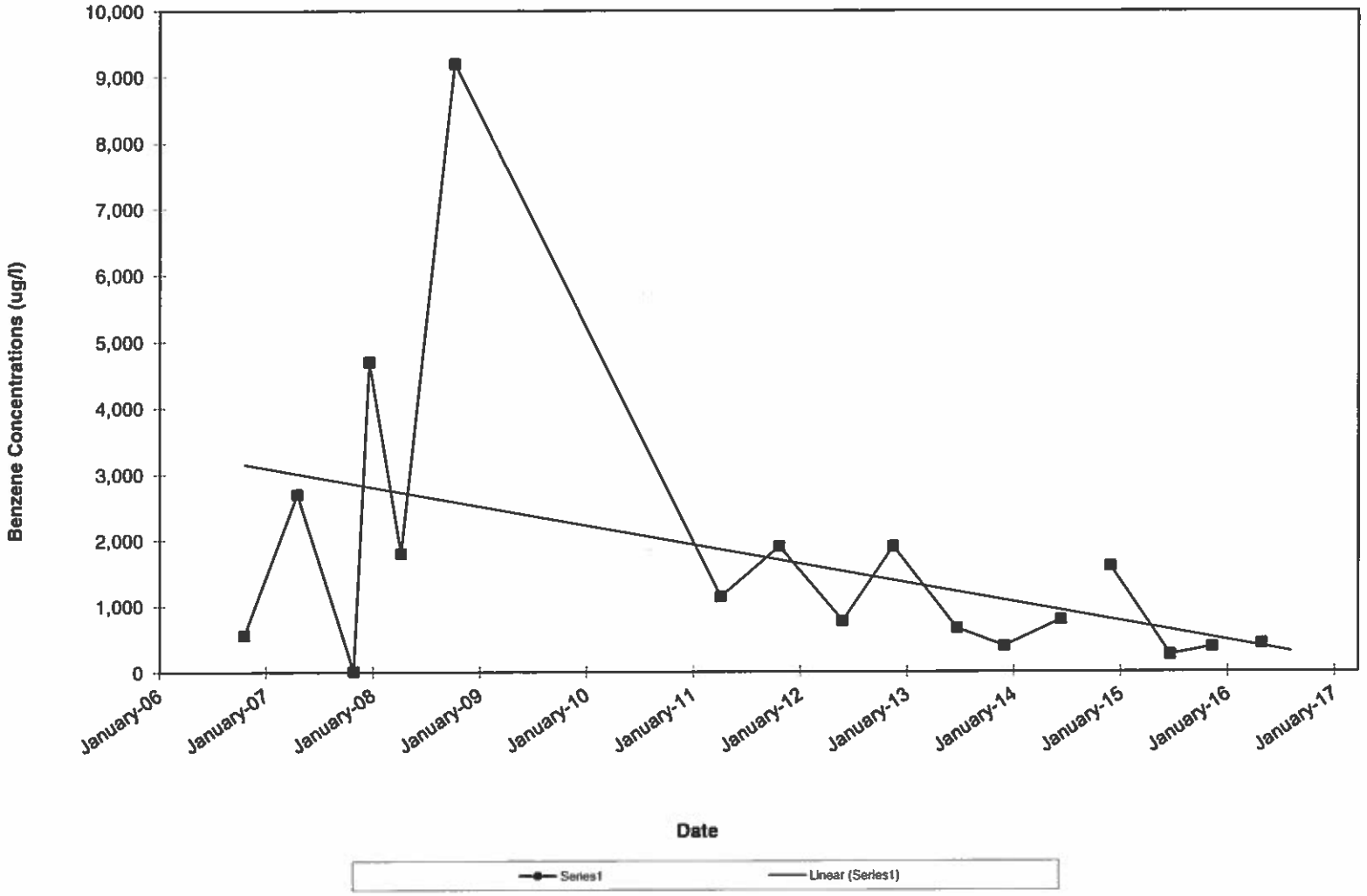


CHART 4: MW-304 - Benzene vs. Time

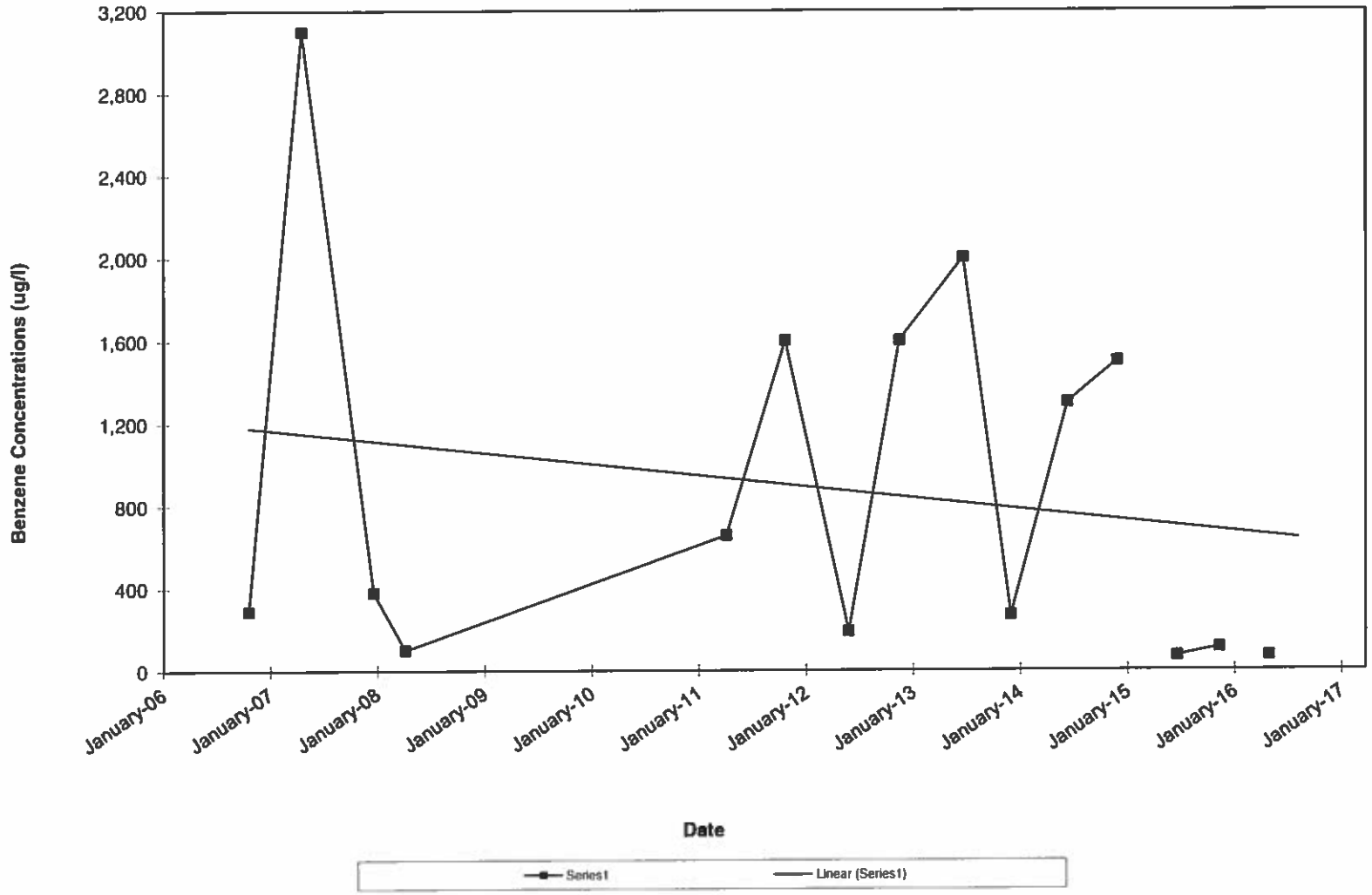


CHART 5: MW-404 - Benzene vs. Time

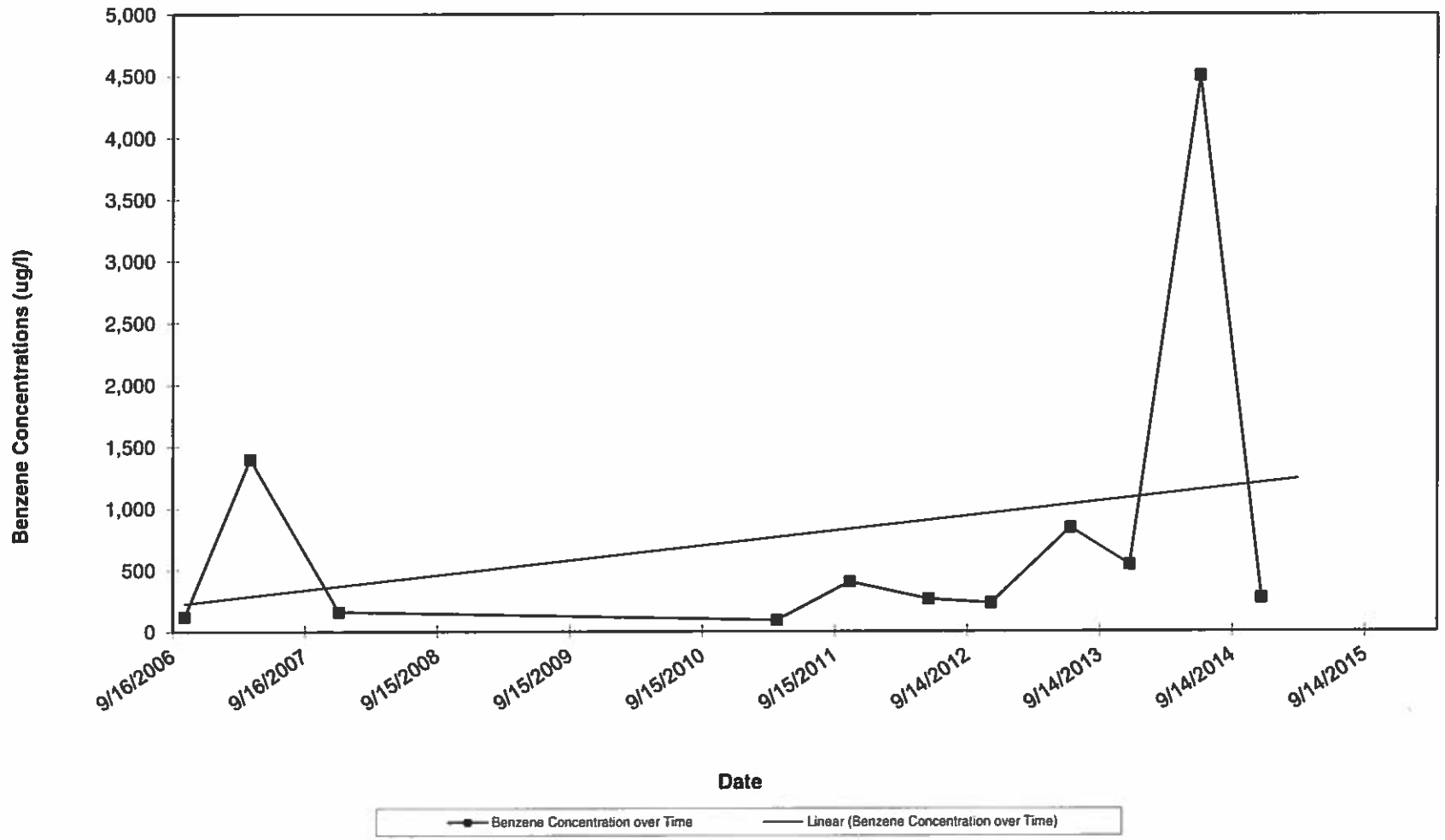
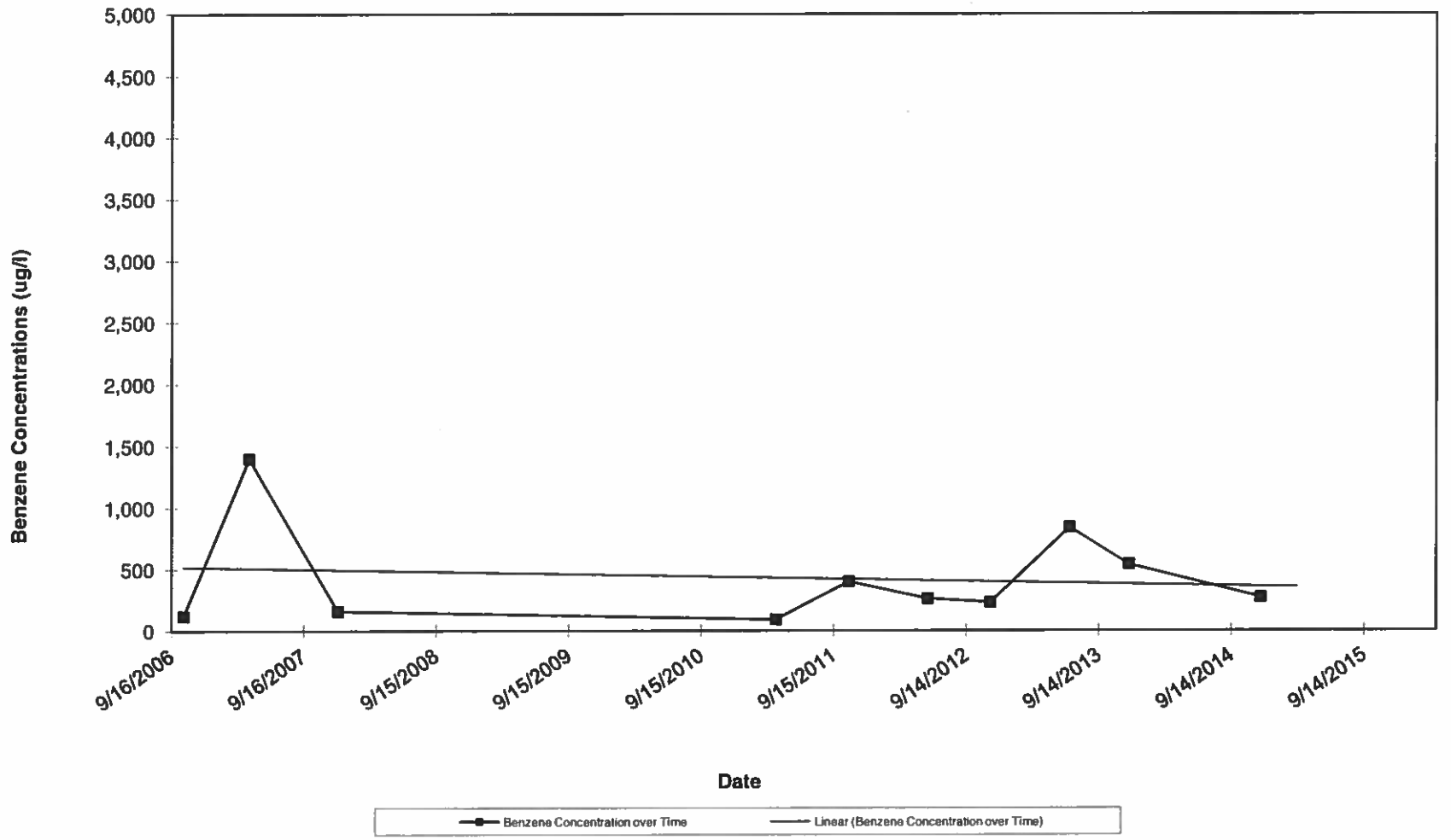


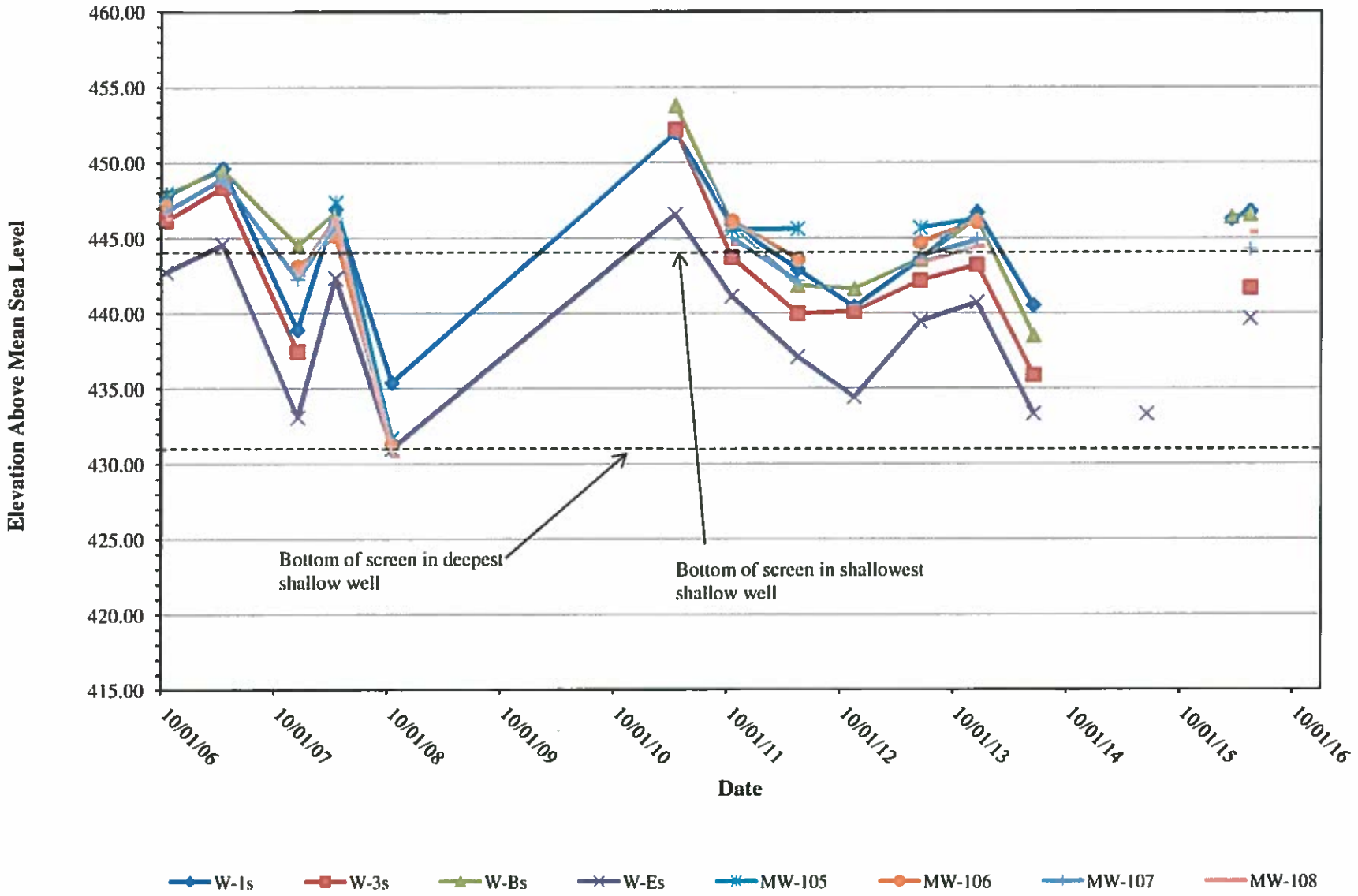
CHART 6: MW-404 - Benzene vs. Time (Less Outlier)



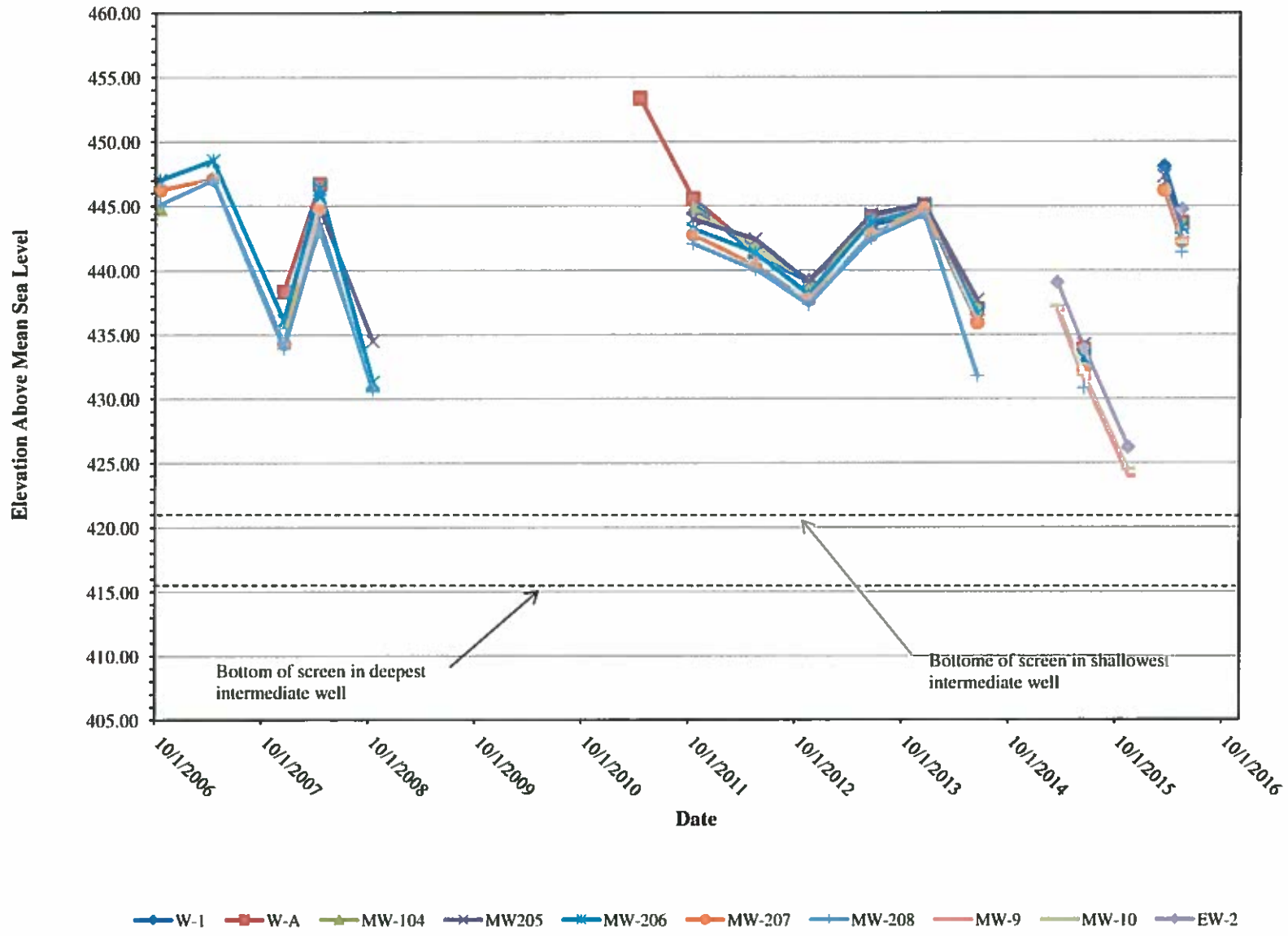
ATTACHMENT A

Hydrographs

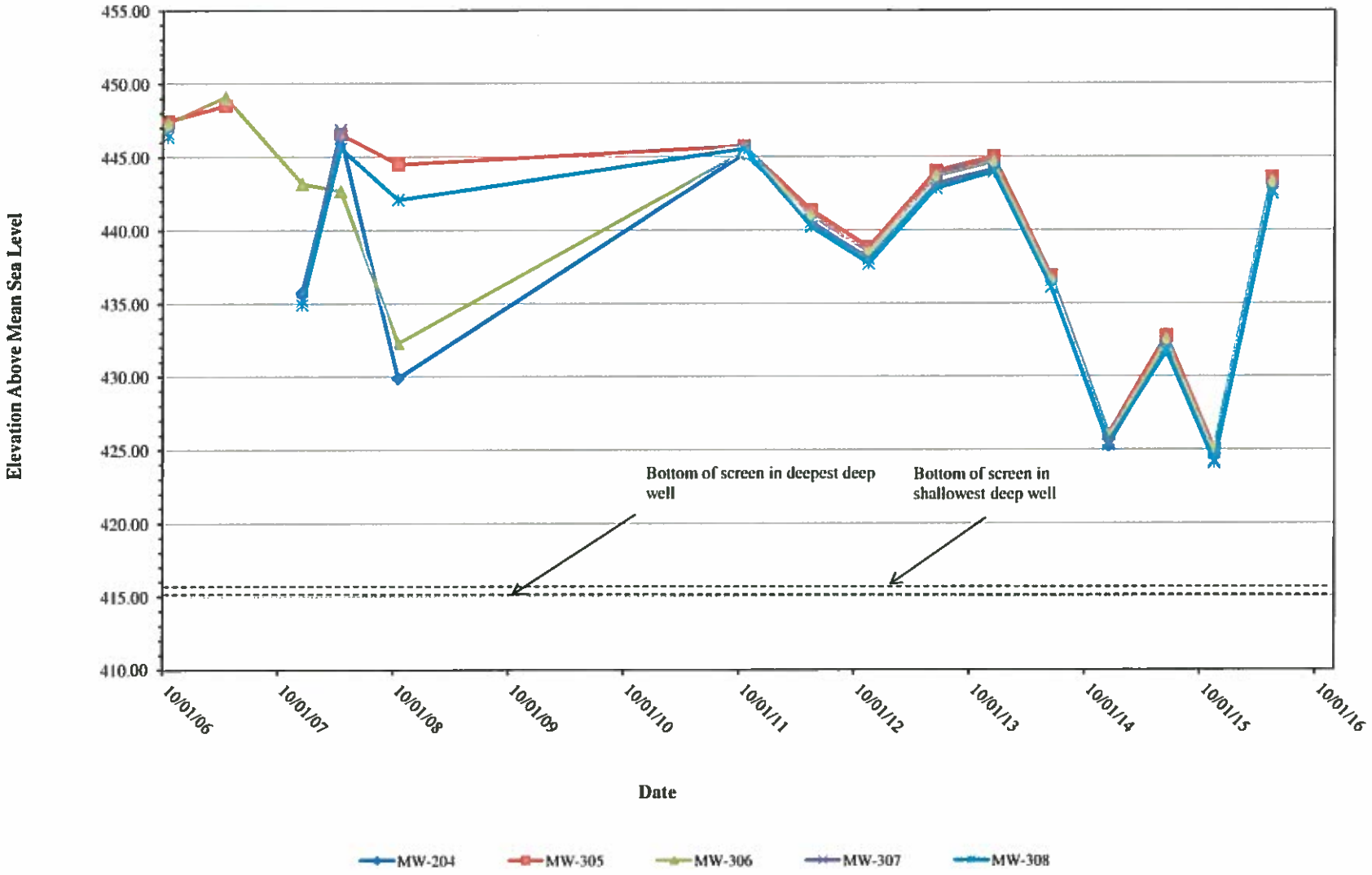
Hydrograph: Shallow Groundwater Monitoring Wells



Hydrograph: Intermediate Groundwater Monitoring Wells



Hydrograph: Deep Groundwater Monitoring Wells



Attachment B

Groundwater Monitoring Field Logs

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins

Project No.: 5262 Task 7

Project Location: 187 N. L Street
Livermore, Ca

Well I.D.: W-B5

Date: 3/10/16

Samples Sent To: BC

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
0806	4	20.58	568	7.10	-129.4	1.89	Water clear
0832	15.0	20.77	507	6.98	-85.1	1.6	no odor
0858	30.0	20.49	504	6.96	-68.7	1.5	↓
0905	32.5	20.51	505	6.94	-67.1	1.7	off DTW: 43.10
1125							Sampled

Pumping Rate: _____ gal / min

Purge Method: Waterra

Sample Containers used: 4 # VOAs HCl preserved ___ non-preserved

_____ # amber liters ___ preserved ___ non-preserved

_____ # polys ___ preserved ___ non-preserved

___ # polys ___ preserved ___ non-preserved

Well Constructed TD (ft):	
Casing Diameter (in):	6
* Well TD (ft):	44.55
Silt Thickness (ft):	
Initial DTW (ft):	34.50
Water Column Height (ft):	10.05
One Casing Volume (gal):	15.0
** Final DTW (ft):	39.42
** % Recharge:	5%

Sample Method: Waterra

Notes: _____

Sampled By: (Print) Anthony Scoma (Sign) Anthony Scoma

* = measured ** = at sampling

Gallons per foot of casing: 2" dia = 0.17, 3" dia = 0.38, 4" dia = 0.65, 5" dia = 1.02, 6" dia = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins

Project No.: 5262 Task 7

Project Location: 187 N. L Street
Livermore, Ca.

Well I.D.: W-15

Date: 3/10/16

Samples Sent To: BC Lab

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
0933	0	21.31	871	7.30	-56.3	1.1	water odor
0956	14.5	21.23	883	7.14	-17.7	.91	Slight Gas odor
1023	29.0	21.19	890	6.89	-14.8	.50	well dry.
1150							Sampled

Pumping Rate: _____ gal / min

Purge Method: Waterra

Sample Containers used: 4 # VOAs HCl preserved ___ non-preserved

___ # amber liters ___ preserved ___ non-preserved

___ # polys ___ preserved ___ non-preserved

___ # polys ___ preserved ___ non-preserved

Well Constructed TD (ft):	
Casing Diameter (in):	6"
* Well TD (ft):	44.80
Silt Thickness (ft):	
Initial DTW (ft):	34.91
Water Column Height (ft):	9.7
One Casing Volume (gal):	14.4
** Final DTW (ft):	42.25
** % Recharge:	24

Sample Method: Disposable Bailer

Notes: not enough water to Sample from Waterra
Disposable Bailer was used.

Sampled By: (Print) Anthony Scoma (Sign) Anthony Scoma

* = measured ** = at sampling

Gallons per foot of casing: 2" dia. = 0.17, 3" dia. = 0.38, 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins

Project No.: 5262 Task 7

Project Location: 187 N L Street
Livermore, Ca

Well I.D.: CMT-7 207

Date: 3/9/16

Samples Sent To: BL

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1240	0						Water clear
1250	.06						Organic /
1300	.12						Sewer odor
1308	.18						↓
1315	.20						
1320							Sampled

Pumping Rate: _____ gal / min

Purge Method: CMT

Sample Containers used: 4 # VOAs HCl preserved ___ non-preserved

_____ # amber liters ___ preserved ___ non-preserved

_____ # polys ___ preserved ___ non-preserved

_____ # polys ___ preserved ___ non-preserved

Well Constructed TD (ft):	50.00
Casing Diameter (in):	CMT
* Well TD (ft):	50.00
Silt Thickness (ft):	
Initial DTW (ft):	44.64
Water Column Height (ft):	5.36
One Casing Volume (gal):	.06
** Final DTW (ft):	
** % Recharge:	

Sample Method: CMT Hose

Notes:

Sampled By: Anthony Sloma (Print) Anthony Sloma (Sign)

* = measured ** = at sampling

Gallons per foot of casing: 2" dia. = 0.17, 3" dia. = 0.38, 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins

Project No.: 5262

Project Location: 187 N L Street
Livermore Ca

Well I.D.: MW-205

Date: 3/9/16

Samples Sent To: BL

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1348	0						Water clear
1355	.05						organic odor
1402	.10						↓
1409	.15						
1420							Sampled

Pumping Rate: _____ gal / min

Purge Method: cnt

Sample Containers used: 4 # VOAs HCl preserved ___ non-preserved

_____ # amber liters ___ preserved ___ non-preserved

_____ # polys ___ preserved ___ non-preserved

_____ # polys ___ preserved ___ non-preserved

Well Constructed TD (ft):	48.00
Casing Diameter (in):	
* Well TD (ft):	48.00
Silt Thickness (ft):	
Initial DTW (ft):	43.79
Water Column Height (ft):	4.21
One Casing Volume (gal):	.05
** Final DTW (ft):	46.75
** % Recharge:	30%

Sample Method: cnt

Notes: _____

Sampled By: (Print) Anthony Scoma (Sign) Anthony Scoma

* = measured ** = at sampling

Gallons per foot of casing: 2" dia. = 0.17, 3" dia. = 0.38, 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins

Project No.: 5262 Task 7

Project Location: 187 N. L Street
Livermore, Ca.

Well I.D.: W-1

Date: 3/10/16

Samples Sent To: BL

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1040	0	20.48	998	6.99	-110.9	4.21	Wtr clear
1050	2.0	20.32	980	6.81	-101.1	1.9	Gas odor
1100	4.0	20.35	978	6.50	-98.9	1.1	Slight sheen
1109	6.0	20.33	979	6.80	-97.4	.90	↓
1114	7.0	20.54	978	6.81	-95.9	.86	odor
1210							Sampled

Pumping Rate: _____ gal / min

Purge Method: Bailer

Well Constructed TD (ft):	
Casing Diameter (in):	2"
* Well TD (ft):	54.45
Silt Thickness (ft):	
Initial DTW (ft):	42.66
Water Column Height (ft):	11.8
One Casing Volume (gal):	2.8
** Final DTW (ft):	42.66
** % Recharge:	100%

Sample Method: Bailer

Sample Containers used: 4 # VOAs HCl preserved ___ non-preserved

___ # amber liters ___ preserved ___ non-preserved

___ # polys ___ preserved ___ non-preserved

___ # polys ___ preserved ___ non-preserved

Notes: _____

Sampled By: (Print) Anthony Scoma (Sign) Anthony Scoma

* = measured ** = at sampling

Gallons per foot of casing: 2" dia. = 0.17, 3" dia. = 0.38, 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

GROUND ZERO ANALYSIS, INC.

Daily Field Record

Project Sullins
Project # 5262.7
Location 187 N. L Street, Livermore, Ca
Weather cloudy

Date 3/9/16
Time on job 0830 to 1648
Record Keeper A. Sloma
Wind 4 MPA
Temp 67 F

PERSONNEL ONSITE		TIME ONSITE	
Name	Company	In	Out
Anthony Sloma	GZA	1018	1454

Time	Field Activities
0830	Prep Special Sampling event
0912	Leave Modesto Office
1018	on site System down
	began removing Lids & plugs & CMT Hose's in Wells
	W-B5, W-15, MW-207, MW-205, W-1
	noted upon removing Hose from W-1 there was no 3/4" PVC
	Stinger connected to hose. Need to modify equip to retrieve
	Stinger
	With a Micro Meter Measured DTW: DTB
	in wells W-B5, W-15, MW-207, 205 W-1
	Placed CMT Hose's back down Wells 207, 205
	removed 4th three casing volumes of water
	Sampled CMT Wells. MW-207, 205 (4 VOA's Ea each)
	Secure Wells, Leave Site. 1454 Modesto Office 1600
1648	Modified fish hook to retrieve Stinger down well W-1

GROUND ZERO ANALYSIS, INC.

Daily Field Record

Project Sullins
Project # 5262
Location 187
Weather Cloudy

Date 3/10/16
Time on job 0542 to 1342
Record Keeper A. Scoma
Wind 4 MPH Temp 69 °F

PERSONNEL ONSITE		TIME ONSITE	
Name	Company	In	Out
Anthony Scoma	GZA	0718	1236

Time	Field Activities
0542	prep
0612	Leave Modesto
0718	on site
0720	with modified fish hook was able to retrieve the 3/4" PVC
	stinger down W-1
	With the Waterra, Pumped Wells W-B5, W-15, W-1
	W-B5 & W-15 pumped dry or close to dry.
	not enough water in W-15 to Sample Waterra, disposal Bailer
	was used.
	Sampled Wells for TPH$_g$, BTEX, MTBE by (8260B) 4 VOA
	Dumped purge water into DPE Storage tank.
	Secured all wells.
1236	Leave Site.
1336	Modesto office unload. 1342 off.

Water Level Monitoring Record

Project Name Sullins
Date 3/9/16

Project No. 5262.7
Technician A. Sams

MP = Measuring Point
I = Inaccessible
GL = Ground Level

Well Condition*:
G = Good F=fair
P = Poor R=Replace

Well No.	Sample Order	Time	Well Casing Dia.	Water Level Below MP (100th/foot)	Total Depth (100th/foot)	Depth to Floating Product (100th/foot)	Floating Product Thickness (100th/foot)	Surficial Seal* (Grout)	Concrete Seal*	Lid Secure*	Gasket*	Lock*	Expanding Cap*	Water in Well Box (Y or N)	Remarks
B5	1	1120	6"	34.50	44.55			G	G	G	G	G	G	N	No Odor
W-15	2	1127	6"	34.91	44.60			↓	↓	↓	↓	↓	↓	↓	Slight Gas odor
MW-207	3	1134	CMT	44.64	50.00			↓	↓	↓	↓			↓	No odor
MW-205	4	1141	CMT	43.79	48.00			↓	↓	↓	N	NA	NA	Y	No odor
W-1	5	1148	2"	42.66	54.45			↓	↓	↓	Y	—	G	N	Gas odor

Notes:

Ground Zero Analysis, Inc.
1172 Kansas Avenue, Modesto, CA 95351

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: MW-306

Date: 5-3-2016

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1357	0						CLEAR, NO ODOR, NO SEDS
1403	0.5						AA
1408	1.0						AA
1413	1.5						AA
1415							COLLECTED SAMPLE

Purge Method: ☐ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☒ Other PERISTALTIC PUMP

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	66.00'
* Well TD (ft):	65.83'
Silt Thickness (ft):	
Initial DTW (ft):	37.48'
Water column height (ft):	28.35'
One casing volume (gal):	0.32 X 0.011
** Final DTW (ft):	37.59'
Casing diameter (in):	CMT

Sample Containers used: 4 # VOAs __x__ preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes: _____

Sampled By: ANDREW DORN

Sample Method: Waterra ☐ Bailer ☐ Other ☒

* = measured ** = @ sampling

Purged Water Drummed: ☒ Yes ☐ No

No. of Drums: DFE

Gallons per foot of casing. CMT = 0.011, 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: MW-206

Date: 5-3-2016

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1417	0.						CLEAR, MILD ODOR, NO SEDS
1422	0.25						AA
1425	0.50						AA
1428	0.75						AA
1430							COLLECTED SAMPLE

Purge Method: ☐ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☒ Other PERISTALTIC PUMP

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	50.00'
* Well TD (ft):	49.93'
Silt Thickness (ft):	
Initial DTW (ft):	37.47'
Water column height (ft):	12.46'
One casing volume (gal):	0.14
** Final DTW (ft):	38.01'
Casing diameter (in):	CMT

Sample Containers used: 4 # VOAs x preserved ____ non-preserved

_____ # amber liters _____ preserved _____ non-preserved

_____ # polys _____ _____ preserved _____ non-preserved

_____ # polys _____ _____ preserved _____ non-preserved

Notes: _____

Sampled By: ANDREW DORN

Sample Method: Waterra ☐ Bailer ☐ Other ☒

* = measured ** = @ sampling

Purged Water Drummed: ☒ Yes ☐ No

No. of Drums:

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: MW-305

Date: 5-3-16

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1433	0						GREENISH GRAY, STRONG ODOR, V. FEW SEDS
1438	0.5						AA
1446	1.0						AA
1451	1.5						AA, NO SEDS
1455							COLLECTED SAMPLE

Purge Method: ☐ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☒ Other PERISTALTIC PUMP

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	66.00'
* Well TD (ft):	65.93'
Silt Thickness (ft):	
Initial DTW (ft):	37.49'
Water column height (ft):	28.44'
One casing volume (gal):	0.52
** Final DTW (ft):	38.01'
Casing diameter (in):	CMT

Sample Containers used: 4 # VOAs x preserved ____ non-preserved

_____ # amber liters _____ preserved _____ non-preserved

_____ # polys _____ _____ preserved _____ non-preserved

_____ # polys _____ _____ preserved _____ non-preserved

Notes: _____

Sampled By: ANDREW DORN

Sample Method: Waterra ☐ Bailer ☐ Other ☒

* = measured ** = @ sampling

Purged Water Drummed: ☒ Yes ☐ No

No. of Drums: DPE

Gallons per foot of casing. CMT = 0.011, 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.46

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Well I.D.: MW-205

Project No.: 1262.2

Date: 5-3-2016

Project Location: 187 N. L Street

Livermore, CA

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1457	0						GREENISH GRAY, STRONG ODOR, V. FEW SEDS
1502	0.25						AA
1507	0.50						AA
1512	0.75						AA
1515							COLLECTED SAMPLES

Purge Method: ☐ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☒ Other PERISTALTIC PUMP

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	48.00'
* Well TD (ft):	48.01'
Silt Thickness (ft):	
Initial DTW (ft):	37.73'
Water column height (ft):	10.28'
One casing volume (gal):	0.11
** Final DTW (ft):	37.89'
Casing diameter (in):	CMT

Sample Containers used: 4 # VOAs x preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes: _____

Sampled By: ANDREW DORN

Sample Method: Waterra ☒ Bailer ☐ Other ☒

* = measured ** = @ sampling

Purged Water Drummed: ☒ Yes ☐ No

No. of Drums: DPE

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: W-Es

Date: 5-4-2016

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1029	0	21.14	976	7.39	159.9	3.16	
1034	1.25	21.23	913	7.25	148.7	2.34	
1038	2.50	21.25	929	7.30	109.6	1.90	
1042	3.75	21.25	928	7.31	102.1	1.81	
1045							COLLECTED SAMPLE

Purge Method: ☒ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☐ Other

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	45.00
* Well TD (ft):	44.20'
Silt Thickness (ft):	
Initial DTW (ft):	37.13'
Water column height (ft):	7.07'
One casing volume (gal):	1.21
** Final DTW (ft):	37.16'
Casing diameter (in):	2"

Sample Containers used: 4 # VOAs x preserved ____ non-preserved

_____ # amber liters _____ preserved _____ non-preserved

_____ # polys _____ _____ preserved _____ non-preserved

_____ # polys _____ _____ preserved _____ non-preserved

Notes:

Sampled By: A.Dorn

Sample Method: Waterra ☒ Bailer ☐ Other ☐

* = measured ** = @ sampling

Purged Water Drummed: ☐ Yes ☐ No

No. of Drums:

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: MW-308

Date: 5/4/16

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1046	0						no odor
1052	0.5						lt brown silt
1056	1.0						↓
1101	1.5						off
1108							COLLECTED SAMPLE

Purge Method: ☐ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☒ Other PERISTALTIC PUMP

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	66.00'
* Well TD (ft):	66.00'
Silt Thickness (ft):	
Initial DTW (ft):	38.13'
Water column height (ft):	27.87'
One casing volume (gal):	0.31
** Final DTW (ft):	38.17'
Casing diameter (in):	CMT

Sample Containers used: 4 # VOAs x preserved ____ non-preserved

_____ # amber liters _____ preserved _____ non-preserved

_____ # polys _____ _____ preserved _____ non-preserved

_____ # polys _____ _____ preserved _____ non-preserved

Notes: _____

Sampled By: ANDREW DORN

Sample Method: Waterra ☐ Bailer ☐ Other ☒

* = measured ** = @ sampling

Purged Water Drummed: ☐ Yes ☐ No

No. of Drums:

Gallons per foot of casing. CMT = 0.011, 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: ~~MW-10~~ MW-9 (AD)

Date: 5-4-2016

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1059	0	19.79	1087	7.92	-43.5	4.20	BROWN, NO ODOR, FEW SEDS
1107	4.75	20.02	1099	7.68	-45.7	3.33	
1116	9.50	20.01	1100	7.70	45.3	3.21	
1126	14.25	20.01	1098	7.69	44.7	3.20	
1130							COLLECTED SAMPLE

Purge Method: ☒ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☐ Other _____

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	65.00'
* Well TD (ft):	64.95'
Silt Thickness (ft):	
Initial DTW (ft):	37.66'
Water column height (ft):	27.29'
One casing volume (gal):	4.64
** Final DTW (ft):	37.69'
Casing diameter (in):	2"

Sample Containers used: 4 # VOAs __x__ preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes: _____

Sampled By: ANDREW DORN

Sample Method: Waterra ☒ Bailer ☐ Other ☐

* = measured ** = @ sampling

Purged Water Drummed: ☒ Yes ☐ No

No. of Drums: DPE

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: MW-208

Date: 5/4/16

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1118	0						Water clear
1123	0.25						
1129	0.50						dry.
1140							COLLECTED SAMPLE

Purge Method: ☐ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☒ Other PERISTALTIC PUMP

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	52.00'
* Well TD (ft):	51.97'
Silt Thickness (ft):	
Initial DTW (ft):	39.24'
Water column height (ft):	12.73'
One casing volume (gal):	0.14
** Final DTW (ft):	
Casing diameter (in):	CMT

Sample Containers used: 4 # VOAs x preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes:

Sampled By: ANDREW DORN

Sample Method: Waterra Bailer ☐ Other ☒

* = measured ** = @ sampling

Purged Water Drummed: ☐ Yes ☐ No

No. of Drums:

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: MW-108

Date: 5/4/16

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
	0						Collected Sample with out Purge.
	0.1						
	0.2						
	0.3						
1205							COLLECTED SAMPLE

Purge Method: ☐ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☒ Other PERISTALTIC PUMP

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	40.00'
* Well TD (ft):	40.00'
Silt Thickness (ft):	
Initial DTW (ft):	35.26'
Water column height (ft):	4.74'
One casing volume (gal):	0.05
** Final DTW (ft):	35.39'
Casing diameter (in):	CMT

Sample Containers used: 4 # VOAs x preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes: _____

Sampled By: A.Dorn

Sample Method: Waterra Bailer ☐ Other ☒

* = measured ** = @ sampling

Purged Water Drummed: ☐ Yes ☐ No

No. of Drums:

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Well I.D.: ~~MW-9~~ MW-10 (A0)

Project No.: 1262.2

Date: 5-4-2016

Project Location: 187 N. L Street

Livermore, CA

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1139	0	19.23	1093	7.69	47.6	2.76	BROWN, NO ODOR, FEW SEDS
1146	4.75	19.77	1104	7.70	46.8	3.49	AA
1153	9.50	19.74	1103	7.70	47.3	3.57	AA
1200	14.25	19.76	1101	7.69	47.0	3.55	AA
1205							COLLECTED SAMPLE

Purge Method: ☒ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☐ Other _____

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	65.00'
* Well TD (ft):	65.17'
Silt Thickness (ft):	
Initial DTW (ft):	37.34'
Water column height (ft):	27.83'
One casing volume (gal):	4.74
** Final DTW (ft):	37.41'
Casing diameter (in):	2"

Sample Containers used: 4 # VOAs __x__ preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes: _____

Sampled By: ANDREW DORN Andrew Dorn

Sample Method: Waterra ☒ Bailer ☐ Other ☐

* = measured ** = @ sampling

Purged Water Drummed: ☐ Yes ☐ No

No. of Drums:

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: MW-307

Date: 5/4/16

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1230	0						Water clear
1237	0.50						" odor
1242	1.0						"
1247	1.5						
1255							COLLECTED SAMPLE

Purge Method: ☐ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☒ Other PERISTALTIC PUMP

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	66.00'
* Well TD (ft):	66.10'
Silt Thickness (ft):	
Initial DTW (ft):	38.17'
Water column height (ft):	27.93'
One casing volume (gal):	0.31
** Final DTW (ft):	
Casing diameter (in):	CMT

Sample Containers used: 4 # VOAs __x__ preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes:

Sampled By: ANDREW DORN

Sample Method: Waterra ☐ Bailer ☐ Other ☒

* = measured ** = @ sampling

Purged Water Drummed: ☐ Yes ☐ No

No. of Drums:

Gallons per foot of casing. CMT = 0.011, 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: MW-207

Date: 5/4/16

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1302	0						water clear
1309	0.25						Allow for recharge (2 casing volume generated)
1320	0.50						Stand up 1325 hrs.
	0.75						
1335							COLLECTED SAMPLE

Purge Method: ☐ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☒ Other PERISTALTIC PUMP

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	50.00'
* Well TD (ft):	50.00'
Silt Thickness (ft):	
Initial DTW (ft):	38.65'
Water column height (ft):	11.35'
One casing volume (gal):	0.13
** Final DTW (ft):	38.65'
Casing diameter (in):	CMT

Sample Containers used: 4 # VOAs __x__ preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes: _____

Sampled By: ANDREW DORN

Sample Method: Waterra Bailer ☐ Other ☒

* = measured ** = @ sampling

Purged Water Drummed: ☐ Yes ☐ No

No. of Drums:

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: MW-107

Date: 5/4/16

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
	0						Collected Sample with out Purge
	0.1						
	0.2						
	0.3						
1350							COLLECTED SAMPLES

Purge Method: ☐ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☐ Other _____

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	40.00'
* Well TD (ft):	39.40'
Silt Thickness (ft):	
Initial DTW (ft):	36.64'
Water column height (ft):	2.76'
One casing volume (gal):	0.03
** Final DTW (ft):	36.67'
Casing diameter (in):	CMT

Sample Containers used: 4 # VOAs __x__ preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes: _____

Sampled By: A.Dorn

Sample Method: Waterra ☒ Bailer ☐ Other ☐

* = measured ** = @ sampling

Purged Water Drummed: ☐ Yes ☐ No

No. of Drums:

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.46

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: W-1

Date: 5-4-2016

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1406	0	21.92	1301	7.52	-127.4	3.02	GREENISH GRAY, STRONG ODOR, LOTS OF CFDS
1417	3	21.11	1346	7.20	-160.0	0.73	AA
1429	6	21.08	1350	7.15	-167.4	0.68	AA
1441	9	21.10	1342	7.16	-169.3	0.62	AA
1445							COLLECTED SAMPLE

Purge Method: ☒ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing Other

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	56.50'
* Well TD (ft):	53.98'
Silt Thickness (ft):	
Initial DTW (ft):	37.20'
Water column height (ft):	16.78'
One casing volume (gal):	2.86
** Final DTW (ft):	37.24'
Casing diameter (in):	2"

Sample Containers used: 4 # VOAs x preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes:

Sampled By: ANDREW DORN Andrew Dorn

Sample Method: Waterra Bailer ☐ Other ☒

* = measured ** = @ sampling

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Purged Water Drummed: ☐ Yes ☐ No

No. of Drums:

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: W-Bs

Date: 5-4-2016

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1209	0	21.00	631	7.44	-183.1	1.84	CLEARISH GRAY, MILD ODOR, V. FEW SEDS
1247	15	20.93	657	7.18	-9.1	1.78	AA
1323	30	21.05	621	7.15	15.2	2.25	AA, CLEAR, NO SEDS
1400	45	21.03	620	7.16	17.3	2.31	AA
1455							COLLECTED SAMPLE

Purge Method: ☒ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☐ Other _____

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	45.00
* Well TD (ft):	44.40'
Silt Thickness (ft):	
Initial DTW (ft):	34.34'
Water column height (ft):	10.06'
One casing volume (gal):	14.89
** Final DTW (ft):	39.45'
Casing diameter (in):	6"

Sample Containers used: 4 # VOAs __x__ preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes: ALLOWED TIME FOR RECHARGE BETWEEN PURGE VOLUMES & PRIOR TO SAMPLING
MAX. DRAWDOWN TO 41.40'. ONLY 49% RECHARGE

Sampled By: A.Dorn

Sample Method: Waterra ☒ Bailer ☒ Other ☐

* = measured ** = @ sampling

Purged Water Drummed: ☐ Yes ☐ No

No. of Drums:

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: MW-3s

Date: 5-5-2016

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
0959	0	20.96	1307	7.23	-14.7	1.89	BROWN, NO ODOR, LOTS OF SEDS
1010	4.75	21.07	1114	7.00	21.6	1.43	AA
1023	9.50	21.14	1116	6.93	40.9	1.40	AA
1038	14.25	21.17	1112	6.91	42.3	1.39	AA
1040							COLLECTED SAMPLE

Purge Method: ☒ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☐ Other _____

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	45.00
* Well TD (ft):	44.45'
Silt Thickness (ft):	
Initial DTW (ft):	37.43'
Water column height (ft):	7.02'
One casing volume (gal):	4.57
** Final DTW (ft):	38.01'
Casing diameter (in):	4"

Sample Containers used: 4 # VOAs __x__ preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes: _____

Sampled By: A.Dorn

Sample Method: Waterra ☒ Bailer ☒ Other ☐

* = measured ** = @ sampling

Purged Water Drummed: ☒ Yes ☐ No

No. of Drums: DPE

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: MW-304

Date: 5/5/16

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1050	0						Slight Gas odor
1103	0.5						Dark Greenish silt
1110	1.0						↓
1118	1.5						↓
1125							COLLECTED SAMPLES

Purge Method: ☐ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☒ Other PERISTALTIC PUMP

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	75.50'
* Well TD (ft):	75.50'
Silt Thickness (ft):	
Initial DTW (ft):	37.58'
Water column height (ft):	37.92'
One casing volume (gal):	0.42
** Final DTW (ft):	37.81'
Casing diameter (in):	CMT

Sample Containers used: 4 # VOAs __x__ preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes:

Sampled By: ANDREW DORN

Sample Method: Waterra Bailer ☐ Other ☒

* = measured ** = @ sampling

Purged Water Drummed: ☐ Yes ☐ No

No. of Drums:

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: MW-204

Date: 5/5/16

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1143	0						Slight odor
1150	0.5						Lt Greenish odor
1157	1.0						
1205	1.5						↓ off
1210							COLLECTED SAMPLE

Purge Method: ☐ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☒ Other PERISTALTIC PUMP

Pumping Rate: ______ gal/min

Well Constructed TD (ft):	66.50'
* Well TD (ft):	66.53'
Silt Thickness (ft):	
Initial DTW (ft):	37.49'
Water column height (ft):	29.04'
One casing volume (gal):	0.40
** Final DTW (ft):	37.56'
Casing diameter (in):	CMT

Sample Containers used:

4	# VOAs	x preserved	___ non-preserved
	# amber liters	___ preserved	___ non-preserved
	# polys ___	___ preserved	___ non-preserved
	# polys ___	___ preserved	___ non-preserved

Notes:

Sampled By: ANDREW DORN [signature]

Sample Method: Waterra Bailer ☐ Other ☒

* = measured ** = @ sampling

Purged Water Drummed: ☐ Yes ☐ No

No. of Drums:

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.46

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Well I.D.: EW-2

Project No.: 1262.2

Date: 5-5-2016

Project Location: 187 N. L Street

Livermore, CA

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1043	0						GREENISH GRAY, MILD ODOR, NO SEDS
1112	4						AA
1138	8	21.01	1339	7.20	-128.5	0.48	AA
1202	12	21.06	1340	7.24	-97.2	0.42	AA
1215							COLLECTED SAMPLE

Purge Method: ☐ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☒ Other BAILER

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	60.00'
* Well TD (ft):	59.53'
Silt Thickness (ft):	
Initial DTW (ft):	36.53'
Water column height (ft):	23.00'
One casing volume (gal):	3.91
** Final DTW (ft):	36.60'
Casing diameter (in):	2"

Sample Containers used: 4 # VOAs __x__ preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes: ALLOWED RECHARGE PRIOR TO SAMPLING

Sampled By: ANDREW DORN

Sample Method: Waterra ☐ Bailer ☒ Other ☐

* = measured ** = @ sampling

Purged Water Drummed: ☐ Yes ☐ No

No. of Drums:

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Project No.: 1262.2

Project Location: 187 N. L Street

Livermore, CA

Well I.D.: MW-104

Date: 5/5/16

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1230	0						water + brush off
1240	0.25						slight gas odor
1250	0.50						↓
1300	0.75						↓
1330							COLLECTED SAMPLE

Purge Method: ☐ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☒ Other PERISTALTIC PUMP

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	50.50'
* Well TD (ft):	50.41'
Silt Thickness (ft):	
Initial DTW (ft):	37.04'
Water column height (ft):	13.37'
One casing volume (gal):	0.15
** Final DTW (ft):	
Casing diameter (in):	CMT

Sample Containers used: 4 # VOAs x preserved ___ non-preserved

_____ # amber liters _____ preserved _____ non-preserved

_____ # polys _____ _____ preserved _____ non-preserved

_____ # polys _____ _____ preserved _____ non-preserved

Notes: _____

Sampled By: A.Dorn Andrew Dorn

Sample Method: Waterra ☒ Bailer ☐ Other ☒

* = measured ** = @ sampling

Purged Water Drummed: ☒ Yes ☐ No

No. of Drums: DPE

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Well I.D.: W-A

Project No.: 1262.2

Date: 5-5-2016

Project Location: 187 N. L Street

Livermore, CA

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1221	0						BLACK, STRONG ODOR, NO SEDS
1252	10.25						AA
1329	20.50	20.83	1469	7.04	-103.2	2.16	AA
1403	30.75	20.86	1452	7.02	-98.8	2.05	AA
1435							COLLECTED SAMPLE

Purge Method: ☐ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☒ Other BAILER

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	63.00
* Well TD (ft):	53.00'
Silt Thickness (ft):	
Initial DTW (ft):	37.35'
Water column height (ft):	15.65'
One casing volume (gal):	10.18
** Final DTW (ft):	37.59
Casing diameter (in):	4"

Sample Containers used: 4 # VOAs __x__ preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes: MAXIMUM DRAWDOWN TO 39.93' BTOC. ALLOWED RECHARGE PRIOR TO SAMPLING.

Sampled By: ANDREW DORN

Sample Method: Waterra ☒ Bailer ☒ Other ☐

* = measured ** = @ sampling

Purged Water Drummed: ☒ Yes ☐ No

No. of Drums: DPE

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Ground Zero Analysis, Inc.

Groundwater Monitoring Field Log

Project Name: Sullins (L St)

Well I.D.: W-1s

Project No.: 1262.2

Date: 5-5-2016

Project Location: 187 N. L Street

Livermore, CA

Samples sent to: BC Labs

Time	Cumulative Volume Purged (gal)	Temp C°	EC (µS/cm)	pH	ORP (millivolts)	DO (mg/L)	Remarks
1335	0	21.19	942	7.67	-140.9	1.36	CLEARISH BLACK, MILD ODOR, NO SEDS
1357	15	21.26	936	7.37	-42.0	2.46	AA
1419	30	21.29	931	7.36	-30.3	2.53	AA
1443	45 (36)	21.30	933	7.37	-29.7	2.51	AA (36 GALLONS)
1505							

Purge Method: ☒ Dedicated Waterra ☐ Centrifugal pump with dedicated tubing ☐ Other _____

Pumping Rate: _____ gal/min

Well Constructed TD (ft):	45.00
* Well TD (ft):	44.50'
Silt Thickness (ft):	
Initial DTW (ft):	34.40'
Water column height (ft):	10.10'
One casing volume (gal):	14.95
** Final DTW (ft):	38.61'
Casing diameter (in):	6"

Sample Containers used: 4 6 # VOAs __x__ preserved ____ non-preserved

_____ # amber liters _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

_____ # polys _____ _____ preserved ____ non-preserved

Notes: WELL WENT DRY AT 43.06' AFTER PURGING 36 GALLONS. ALLOWED RECHARGE PRIOR TO SAMPLING. ONLY 58% RECHARGE

Sampled By: A.Dorn

Sample Method: Waterra ☒ Bailer ☒ Other ☐

* = measured ** = @ sampling

Purged Water Drummed: ☒ Yes ☐ No

No. of Drums: DPE

Gallons per foot of casing. 2" dia. = 0.17, 3" dia. = 0.38 4" dia. = 0.65, 5" dia. = 1.02, 6" dia. = 1.48

Water Level Monitoring Record

Project Name Sullins (L St) **Project No.** 1262.2

Date 5-3-2016 **Technician** A.DORN & A.SCOMA

MP = Measuring Point
I = Inaccessible
GL = Ground Level

Well Condition*:
G = Good F=fair
P = Poor R=Replace

Well No.	Sample Order	Time	Well Casing Dia.	Water Level Below MP (100th/foot)	Total Depth (100th/foot)	Depth to Floating Product (100th/foot)	Floating Product Thickness (100th/foot)	Surficial Seal* (Grout)	Concrete Seal*	Lid Secure*	Gasket*	Lock*	Expanding Cap*	Water in Well Box (Y or N)	Remarks
W-E5	5	1137	2"	37.13'	44.20'	—	—	G	G	G	G	G	G	N	
MW-9	10	1144	2"	37.34'	65.17'	—	—	G	G	G	G	G	G	Y	
W-3S	16	1147	4"	37.43'	44.45'	—	—	G	G	P	P	G	G	N	
MW-10	17	1150	2"	37.66'	64.95'	—	—	G	G	G	G	G	G	N	
MW-306 [1]	1	1154	CMT	37.48'	65.83'	—	—	G	G	P	P	N/A	N/A	Y	
MW-206 [2]	2	1157	CMT	37.47'	49.93'	—	—	↓							
MW-106 [3]	—	1201	CMT	37.60'	37.63	—	—	↓							DRY-RESIDUAL GW
MW-308 [1]	6	1205	CMT	38.13'	66.10'	—	—	G	G	P	P	N/A	N/A	Y	
MW-208 [2]	8	1209	CMT	39.24'	51.97'	—	—	↓							
MW-108 [3]	9	1214	CMT	35.26'	40.00'	—	—	↓							
W-B5	15	1217	6"	34.34'	44.40'	—	—	G	G	P	P	G	G	N	
MW-404 [1]	—	1220	CMT	—	—	—	—	↓							OBSTRUCTION IN CASING @ ~30'
MW-304 [2]	17	1221	CMT	37.58'	75.50'	—	—	↓							

Notes:

Ground Zero Analysis, Inc.
1172 Kansas Avenue, Modesto, CA 95351

Water Level Monitoring Record

Project Name Sullins (L St)
Date 5-3-2016

Project No. 1262.2
Technician A. DORN & A. SCUMA

MP = Measuring Point
I = Inaccessible
GL = Ground Level

Well Condition*:
G = Good F=fair
P = Poor R=Replace

	Well No.	Sample Order	Time	Well Casing Dia.	Water Level Below MP (100th/foot)	Total Depth (100th/foot)	Depth to Floating Product (100th/foot)	Floating Product Thickness (100th/foot)	Surficial Seal* (Grout)	Concrete Seal*	Lid Secure*	Gasket*	Lock*	Expanding Cap*	Water in Well Box (Y or N)	Remarks
	MW-204 [3]	18	1224	CMT	37.49'	66.53'	—	—	↓							
	MW-104 [4]	20	1227	CMT	37.04'	50.41'	—	—								
*	W-1s	22	1231	6"	34.40'	44.50'	—	—	G	G	P	P	G	G	N	
*	W-A	21	1237	4"	37.35'	53.00'	—	—	G	G	G	G	G	G	N	
*	W-1	14	1241	2"	37.20'	53.98'	—	—	G	G	G	G	G	G	N	
	MW-307 [1]	11	1245	CMT	38.17'	66.10'	—	—	G	G	P	P	N/A	N/A	N	
	MW-207 [2]	12	1249	CMT	38.65'	50.00'	—	—	↓							
	MW-107 [3]	13	1252	CMT	36.64'	39.40'	—	—								
	EW-2	19	1257	2"	36.53'	59.53'	—	—	G	G	G	G	G	G	N	
	MW-305 [1]	3	1304	CMT	37.49'	65.93'	—	—	G	G	G	G	N/A	N/A	N	
	MW-205 [2]	4	1309	CMT	37.73'	48.01'	—	—	↓							
	MW-105 [3]	-	1315	CMT	36.42'	36.55'	—	—								DRY - REGIONAL GW

Notes:

Ground Zero Analysis, Inc.
1172 Kansas Avenue, Modesto, CA 95351

* TOP OF CASING ELEV. MODIFIED SINCE LAST WELL SURVEY

GROUND ZERO ANALYSIS, INC.

Daily Field Record

Page 1 of

Project Sullins
Project # 5262
Location 187 North L Street Livermore Ca
Weather Cloudy

Date 05/03/16
Time on job 0730 to 1630
Record Keeper A. Scoma
Wind 3 MPH
Temp 79

PERSONNEL ONSITE		TIME ONSITE	
Name	Company	In	Out
Anthony Scoma	GZA	0948	1530
Andrew Dorn	GZA	0948	1530

Time	Field Activities
0730	Arp
0842	Leave Modesto office
0948	on site
	System down.
	Begin by removing Lids & CMT Tubing from CMT 4 through 8
	along with extraction Lines from W-1, W-A & EW-2
1200 to 1230	Lunch
	micro depth meter used to Monitor Wells.
	Purge & Sampled CMT Wells. MW-306, MW-305, 206, 205
	Secure site
	Leave Site 1530
1630	Off

GROUND ZERO ANALYSIS, INC.

Daily Field Record Continued

Project Name Sullins Project # 5262 Date 5/4/16

Technician A.S

Time	Location of Work / Work Performed / Field Equipment Used / etc.
0812	Prep
0906	Leave Modesto Office
1012	arrived on site / Met up with Andrew
	With Peristaltic Pump
	Purged GMT wells
	MW-308, MW-208, MW-108
	MW-307, MW-207, MW-107
	Sampled each well with (4 HCl VOAs)
	TPHG, BTEX, MTBE (8015/8021)
	Assisted Andrew in Ground Water Sampling
1512	Leave Sob.
1612	Escrow Off

GROUND ZERO ANALYSIS, INC.

Daily Field Record Continued

Project Name Sullivan Project # 5262 Page 3 of ____
Technician A. Scott Date 5/5/16

Time	Location of Work / Work Performed / Field Equipment Used / etc.
0812	Prep
0900	Leave Modesto office
1006	arrived on site, met up with Andrew
	With Peristaltic Pump
	Purge CMT Wells
	MW-304, 204, 104
	Sampled each well with (4 40ml Vials)
	TPHG (Btex) MTBE (8015 / 8021)
	assisted Andrew in ground Water Sampling
	Secure Site, Placed all Purge Water in Baker Tank
	Unable to Start System
1512	Leave Site
1612	Esalen

Daily field record logs

ATTACHMENT C

Laboratory Analytical Data Sheets

Date of Report: 01/14/2016

Project Manager

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Client Project:	1262.2
BCL Project:	Sullins
BCL Work Order:	1600988
Invoice ID:	B224003

Enclosed are the results of analyses for samples received by the laboratory on 1/11/2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon
Client Service Rep

Authorized Signature

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GROUND ZERO ANALYSIS, INC.
1172 Kansas Avenue
Modesto, CA
(209) 522-4119 Fax 522-4227
E-mail: gza@groundzeroanalysis.com

Chain of Custody

Page 1 of 1

16-00988

Billing To: Ground Zero Analysis, Inc.

Project #:	Project Name:
1262.2	SULLINS

Site Address: 187 N. L STREET, LIVERMORE, CA

Global ID No.: | EDF Report: ☐ Yes ☒ No

Client: Ground Zero Analysis, Inc. | Rpt Attn: Ground Zero Anaysis, Inc.

Client Address: 1172 Kansas Avenue | Type of Event: GWM (Sys Monitoring) Drilling Other

City, State, Zip: Modesto, CA 95351 | Client Email: gza@groundzeroanalysis.com

Client Phone: (209) 522-4119 | Client Fax: (209) 522-4227

Sampling Info: Sampled By (initials): AD, GZA

	Date	Time	EDF Field ID	Sample I.D./Description / Location	No. of Containers	Matrix (Soil, Water, Gas, Other)	Preservation Type	Analysis Requested: TPH-G, MTBE, BTEX 8260	Analysis Requested: TPH-G, MTBE, BTEX TO-15
-1	1-16-16	1445		SVE-INF	1	G	—		X
-2	1-11-16	1500		GW-INF	4	W	HCL	X	

CHK BY DISTRIBUTION
SUB-OUT

Laboratory: BC LABS

Purchase Order #

Turnaround Time: (S) = Standard
1 day 2 day 3 day 5 day

Email Lab Report (.pdf): ☒ Yes ☐ No

Email EDF Lab Report (.zip): ☐ Yes ☐ No

Mail Lab Report: ☐ Yes ☐ No

Special Instructions / Remarks

	Signature	Print Name	Company	Date:	Time:
Received / Relinquished by:		ANDREW DORN	GROUND ZERO	1-11-16	1640
Received / Relinquished by:		ROSS DICKEY	BCLAB	1-11-16	1640
Received / Relinquished by:		ROSS DICKEY	BCLABS	1-11-16	1835

Please return cooler / ice chest to Ground Zero Analysis, Inc. REC. (ICE) 0 1/11/16 18:35 REL (ICE) 1/11/16 2150 1-11-16 2150

Rev. 3/2014

Chain of Custody and Cooler Receipt Form for 1600988 Page 2 of 3

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 2

Submission #: 16-00988

SHIPPING INFORMATION	SHIPPING CONTAINER	FREE LIQUID
Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☐	Ice Chest ☐ None ☐ Box ☑	YES ☐ NO ☐
BC Lab Field Service ☒ Other ☐ (Specify)_____	Other ☐ (Specify)_____	

Refrigerant: Ice ☐ Blue Ice ☐ None ☒ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: — Container: Tedlar Thermometer ID: —

Temperature: (A) RUSH °C / (C) Temp °C

Date/Time 1.11.16 1155

Analyst Init JM

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK		DP 1/11								
40ml VOA VIAL 096		ABCD								
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG X688	A									
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:

Sample Numbering Completed By: DDP Date/Time: 1/11/16 2010

A = Actual / C = Corrected

Rev 20 07/24/2015

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Chain of Custody and Cooler Receipt Form for 1600988 Page 3 of 3

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 16-00988

SHIPPING INFORMATION	SHIPPING CONTAINER	FREE LIQUID
Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☐	Ice Chest ☑ None ☐ Box ☐	YES ☐ NO ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____	Other ☐ (Specify)_____	

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☒ No ☐ All samples containers intact? Yes ☒ No ☐ Description(s) match COC? Yes ☒ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.97 Container: PE Thermometer ID: 208 Date/Time 11-16-16 2160

Temperature: (A) 1.3 °C / (C) 0.8 °C Analyst Init JM

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL 8260		ABCD								
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:

Sample Numbering Completed By: DD Date/Time: 11/11/16 2210

A = Actual / C = Corrected

Rev 20 07/24/2015

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Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 01/14/2016 17:18
Project: Sullins
Project Number: 1262.2
Project Manager: Project Manager

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1600988-01	**COC Number:**	---	**Receive Date:**	01/11/2016 18:35
	Project Number:	Sullins	**Sampling Date:**	01/11/2016 14:45
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SVE-INF	**Lab Matrix:**	Air
	Sampled By:	GTIM	**Sample Type:**	Gas Chromatography
	Delivery Work Order:			
	Global ID: T0600100116			
	Location ID (FieldPoint): SVE-INF			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			
1600988-02	**COC Number:**	---	**Receive Date:**	01/11/2016 18:35
	Project Number:	Sullins	**Sampling Date:**	01/11/2016 15:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	GW-INF	**Lab Matrix:**	Water
	Sampled By:	GTIM	**Sample Type:**	Water
	Delivery Work Order:			
	Global ID: T0600100116			
	Location ID (FieldPoint): GW-INF			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 01/14/2016 17:18
Project: Sullins
Project Number: 1262.2
Project Manager: Project Manager

Volatile Organic Compounds by GC/MS (EPA Method TO-15 at STP)

BCL Sample ID: 1600988-01 | **Client Sample Name:** Sullins, SVE-INF, 1/11/2016 2:45:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**22000**	**ug/m3**	**4000**	**840**	**EPA-TO-15**	ND	**A01**	1
Ethylbenzene	**1500**	**ug/m3**	**500**	**28**	**EPA-TO-15**	ND	**A01**	2
Methyl t-butyl ether	ND	ug/m3	200	26	EPA-TO-15	ND	A01	2
Toluene	**8900**	**ug/m3**	**200**	**32**	**EPA-TO-15**	ND	**A01**	2
p- & m-Xylenes	**8300**	**ug/m3**	**500**	**61**	**EPA-TO-15**	ND	**A01**	2
o-Xylene	**3200**	**ug/m3**	**500**	**25**	**EPA-TO-15**	ND	**A01**	2
Total Xylenes	**12000**	**ug/m3**	**1000**	**86**	**EPA-TO-15**	ND	**A01**	2
Total Petroleum Hydrocarbons	**11000000**	**ug/m3**	**400000**	**78000**	**EPA-TO-15**	ND	**A01**	1
4-Bromofluorobenzene (Surrogate)	95.5	%	70 - 130 (LCL - UCL)		EPA-TO-15			1
4-Bromofluorobenzene (Surrogate)	12.8	%	70 - 130 (LCL - UCL)		EPA-TO-15			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	01/12/16	01/12/16 18:48	MJB	MS-A1	2000	BZA0714
2	EPA-TO-15	01/12/16	01/12/16 14:08	MJB	MS-A1	100	BZA0714

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 01/14/2016 17:18
Project: Sullins
Project Number: 1262.2
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1600988-02 | **Client Sample Name:** Sullins, GW-INF, 1/11/2016 3:00:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**40**	**ug/L**	**0.50**	**0.083**	**EPA-8260B**	ND		1
Ethylbenzene	**14**	**ug/L**	**0.50**	**0.098**	**EPA-8260B**	ND		1
Methyl t-butyl ether	**1.4**	**ug/L**	**0.50**	**0.11**	**EPA-8260B**	ND		1
Toluene	**25**	**ug/L**	**0.50**	**0.093**	**EPA-8260B**	ND		1
Total Xylenes	**190**	**ug/L**	**1.0**	**0.36**	**EPA-8260B**	ND		1
p- & m-Xylenes	**120**	**ug/L**	**0.50**	**0.28**	**EPA-8260B**	ND		1
o-Xylene	**64**	**ug/L**	**0.50**	**0.082**	**EPA-8260B**	ND		1
Total Purgeable Petroleum Hydrocarbons	**2900**	**ug/L**	**250**	**36**	**Luft-GC/MS**	ND	**A01**	2
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	108	%	75 - 125 (LCL - UCL)		EPA-8260B			2
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	90.6	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	91.6	%	80 - 120 (LCL - UCL)		EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	01/12/16	01/12/16 14:49	JMS	MS-V12	1	BZA0357
2	EPA-8260B	01/12/16	01/13/16 12:59	JMS	MS-V12	5	BZA0357

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 01/14/2016 17:18
Project: Sullins
Project Number: 1262.2
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BZA0357						
Benzene	BZA0357-BLK1	ND	ug/L	0.50	0.083	
Ethylbenzene	BZA0357-BLK1	ND	ug/L	0.50	0.098	
Methyl t-butyl ether	BZA0357-BLK1	ND	ug/L	0.50	0.11	
Toluene	BZA0357-BLK1	ND	ug/L	0.50	0.093	
Total Xylenes	BZA0357-BLK1	ND	ug/L	1.0	0.36	
p- & m-Xylenes	BZA0357-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BZA0357-BLK1	ND	ug/L	0.50	0.082	
Total Purgeable Petroleum Hydrocarbons	BZA0357-BLK1	ND	ug/L	50	7.2	
1,2-Dichloroethane-d4 (Surrogate)	**BZA0357-BLK1**	**104**	%	**75 - 125 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**BZA0357-BLK1**	**101**	%	**80 - 120 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**BZA0357-BLK1**	**85.0**	%	**80 - 120 (LCL - UCL)**		

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 01/14/2016 17:18
Project: Sullins
Project Number: 1262.2
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BZA0357										
Benzene	BZA0357-BS1	LCS	27.840	25.000	ug/L	111		70 - 130		
Toluene	BZA0357-BS1	LCS	27.700	25.000	ug/L	111		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BZA0357-BS1	LCS	10.320	10.000	ug/L	103		75 - 125		
Toluene-d8 (Surrogate)	BZA0357-BS1	LCS	10.110	10.000	ug/L	101		80 - 120		
4-Bromofluorobenzene (Surrogate)	BZA0357-BS1	LCS	9.3500	10.000	ug/L	93.5		80 - 120		

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 01/14/2016 17:18
Project: Sullins
Project Number: 1262.2
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BZA0357	Used client sample: N										
Benzene	MS	1532390-34	ND	27.860	25.000	ug/L		111		70 - 130	
	MSD	1532390-34	ND	26.730	25.000	ug/L	4.1	107	20	70 - 130	
Toluene	MS	1532390-34	ND	28.110	25.000	ug/L		112		70 - 130	
	MSD	1532390-34	ND	26.600	25.000	ug/L	5.5	106	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1532390-34	ND	10.270	10.000	ug/L		103		75 - 125	
	MSD	1532390-34	ND	10.290	10.000	ug/L	0.2	103		75 - 125	
Toluene-d8 (Surrogate)	MS	1532390-34	ND	10.200	10.000	ug/L		102		80 - 120	
	MSD	1532390-34	ND	10.310	10.000	ug/L	1.1	103		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1532390-34	ND	8.9300	10.000	ug/L		89.3		80 - 120	
	MSD	1532390-34	ND	9.1100	10.000	ug/L	2.0	91.1		80 - 120	

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 01/14/2016 17:18
Project: Sullins
Project Number: 1262.2
Project Manager: Project Manager

Volatile Organic Compounds by GC/MS (EPA Method TO-15 at STP)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BZA0714						
Benzene	BZA0714-BLK1	ND	ug/m3	2.0	0.42	
Ethylbenzene	BZA0714-BLK1	ND	ug/m3	5.0	0.28	
Methyl t-butyl ether	BZA0714-BLK1	ND	ug/m3	2.0	0.26	
Toluene	BZA0714-BLK1	ND	ug/m3	2.0	0.32	
p- & m-Xylenes	BZA0714-BLK1	ND	ug/m3	5.0	0.61	
o-Xylene	BZA0714-BLK1	ND	ug/m3	5.0	0.25	
Total Xylenes	BZA0714-BLK1	ND	ug/m3	10	0.86	
Total Petroleum Hydrocarbons	BZA0714-BLK1	ND	ug/m3	200	39	
4-Bromofluorobenzene (Surrogate)	**BZA0714-BLK1**	**85.4**	%	**70 - 130 (LCL - UCL)**		

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 01/14/2016 17:18
Project: Sullins
Project Number: 1262.2
Project Manager: Project Manager

Volatile Organic Compounds by GC/MS (EPA Method TO-15 at STP)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BZA0714										
Benzene	BZA0714-BS1	LCS	17.248	15.974	ug/m3	108		70 - 130		
	BZA0714-BSD1	LCSD	17.597	15.974	ug/m3	110	2.0	70 - 130	30	
Ethylbenzene	BZA0714-BS1	LCS	23.196	21.711	ug/m3	107		70 - 130		
	BZA0714-BSD1	LCSD	23.248	21.711	ug/m3	107	0.2	70 - 130	30	
Toluene	BZA0714-BS1	LCS	20.971	18.842	ug/m3	111		70 - 130		
	BZA0714-BSD1	LCSD	21.005	18.842	ug/m3	111	0.2	70 - 130	30	
p- & m-Xylenes	BZA0714-BS1	LCS	47.290	43.421	ug/m3	109		70 - 130		
	BZA0714-BSD1	LCSD	46.882	43.421	ug/m3	108	0.9	70 - 130	30	
o-Xylene	BZA0714-BS1	LCS	23.738	21.711	ug/m3	109		70 - 130		
	BZA0714-BSD1	LCSD	23.343	21.711	ug/m3	108	1.7	70 - 130	30	
Total Xylenes	BZA0714-BS1	LCS	71.029	65.132	ug/m3	109		70 - 130		
	BZA0714-BSD1	LCSD	70.225	65.132	ug/m3	108	1.1	70 - 130	30	
4-Bromofluorobenzene (Surrogate)	BZA0714-BS1	LCS	77.5	71.6	ug/m3	108		70 - 130		
	BZA0714-BSD1	LCSD	78.7	71.6	ug/m3	110	1.5	70 - 130		

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 01/14/2016 17:18
Project: Sullins
Project Number: 1262.2
Project Manager: Project Manager

Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
A01	Detection and quantitation limits are raised due to sample dilution.

Date of Report: 03/14/2016

Project Manager

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Client Project:	[none]
BCL Project:	Sullins
BCL Work Order:	1607444
Invoice ID:	B229668

Enclosed are the results of analyses for samples received by the laboratory on 3/10/2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon
Client Service Rep

Authorized Signature

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GROUND ZERO ANALYSIS, INC.

1172 Kansas Avenue
Modesto, CA
(209) 522-4119 Fax 522-4227
E-mail: gza@groundzeroanalysis.com

Chain of Custody

Page 1 of 1

Project #: 5262	Project Name: Sullins
Site Address: 187 North L Street, Livermore, Ca	
Global ID No.: T0600100116	EDF Report: ☒ Yes ☐ No
Client: Ground Zero Analysis, Inc.	Rpt Attn: Ground Zero Analysis, Inc.
Client Address: 1172 Kansas Avenue	Type of Event: (GWM) Sys Monitoring Drilling Other
City, State, Zip: Modesto, CA 95351	Client Email: gza@groundzeroanalysis.com
Client Phone: (209) 522-4119	Client Fax: (209) 522-4227
Sampling Info:	Sampled By (initials): AS, GZA

Billing To: Ground Zero Analysis, Inc.

Laboratory: BC 16-07444
Purchase Order #: —
Turnaround Time: (S) = Standard; 1 day 2 day 3 day 5 day
Email Lab Report (.pdf): ☒ Yes ☐ No
Email EDF Lab Report (.zip): ☒ Yes ☐ No
Mail Lab Report: ☐ Yes ☒ No

Date	Time	EDF Field ID	Sample I.D./Description / Location	No. of Containers	Matrix (Soil, Water, Gas, Other)	Preservation Type	Analysis Requested: TPHg / Btex + MtBE by (8260B)
3/10/16	1125	-1	W-BS	4	W	HCl	X
3/10/16	1150	-2	W-1S	4	↓	↓	X
3/9/16	1320	-3	MW-207	4	↓	↓	X
3/9/16	1420	-4	MW-205	4	↓	↓	X
3/10/16	1210	-5	W-1	4	↓	↓	X

Special Instructions / Remarks

CHK BY DISTRIBUTION SUB-OUT ☐

Note: No spaces on Sample Id names

	Signature	Print Name	Company	Date:	Time:
Received / Relinquished by:	[signature]	Anthony Scoma	GZA	3/10/16	1400
Received / Relinquished by:	[signature]	Ross Dickey	BC LAB	3/10/16	1400
Received / Relinquished by:	[signature]	Ross Dickey	BC LAB	3/10/16	1715

REC. [initials] 3/10/16 17:15 [signature] 3/10/16 2140
REL. [initials] 3/10/16 2140

Please return cooler / ice chest to Ground Zero Analysis, Inc.

Rev. 3/2014

Chain of Custody and Cooler Receipt Form for 1607444 Page 2 of 2

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 16-07444

SHIPPING INFORMATION
Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐ Box ☐
Other ☐ (Specify)_____

FREE LIQUID
YES ☐ NO ☐

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.95 Container: PE Thermometer ID: 208 Date/Time 3.10.16 2142

Temperature: (A) 0.3 °C / (C) 0.4 °C Analyst Init JJ

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL 096	A→D	A→D	A→D	A→D	A→D					
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:
Sample Numbering Completed By: JJL Date/Time: 3.11.16 0756
A = Actual / C = Corrected

Rev 20 07/24/2015
[S:\WPDoc\WordPerfect\LAB_DOCS\FORMS\SAMREC rev 20]

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/14/2016 20:29
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1607444-01	**COC Number:**	---	**Receive Date:**	03/10/2016 21:40
	Project Number:	Sullins	**Sampling Date:**	03/10/2016 11:25
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	W-Bs	**Lab Matrix:**	Water
	Sampled By:	Andrew Dorn of GTIM	**Sample Type:**	Groundwater
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): W-Bs	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1607444-02	**COC Number:**	---	**Receive Date:**	03/10/2016 21:40
	Project Number:	Sullins	**Sampling Date:**	03/10/2016 11:50
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	W-1s	**Lab Matrix:**	Water
	Sampled By:	Andrew Dorn of GTIM	**Sample Type:**	Groundwater
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): W-1s	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1607444-03	**COC Number:**	---	**Receive Date:**	03/10/2016 21:40
	Project Number:	Sullins	**Sampling Date:**	03/10/2016 13:20
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	W-207	**Lab Matrix:**	Water
	Sampled By:	Andrew Dorn of GTIM	**Sample Type:**	Groundwater
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): W-207	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/14/2016 20:29
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1607444-04	**COC Number:**	---	**Receive Date:**	03/10/2016 21:40
	Project Number:	Sullins	**Sampling Date:**	03/10/2016 14:20
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	W-205	**Lab Matrix:**	Water
	Sampled By:	Andrew Dorn of GTIM	**Sample Type:**	Groundwater
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): W-205	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1607444-05	**COC Number:**	---	**Receive Date:**	03/10/2016 21:40
	Project Number:	Sullins	**Sampling Date:**	03/10/2016 12:10
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	W-1	**Lab Matrix:**	Water
	Sampled By:	Andrew Dorn of GTIM	**Sample Type:**	Groundwater
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): W-1	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/14/2016 20:29
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1607444-01 | **Client Sample Name:** Sullins, W-Bs, 3/10/2016 11:25:00AM, Andrew Dorn

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**0.38**	**ug/L**	**0.50**	**0.083**	**EPA-8260B**	ND	**J**	1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	**160**	**ug/L**	**50**	**7.2**	**Luft-GC/MS**	ND		1
1,2-Dichloroethane-d4 (Surrogate)	79.8	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	90.7	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.5	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	03/11/16	03/11/16 13:20	IO1	MS-V12	1	BZC0613

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/14/2016 20:29
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1607444-02 | **Client Sample Name:** Sullins, W-1s, 3/10/2016 11:50:00AM, Andrew Dorn

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**0.55**	**ug/L**	**0.50**	**0.083**	**EPA-8260B**	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	**150**	**ug/L**	**50**	**7.2**	**Luft-GC/MS**	ND		1
1,2-Dichloroethane-d4 (Surrogate)	82.5	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	94.0	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	115	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	03/11/16	03/11/16 13:38	IO1	MS-V12	1	BZC0613

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/14/2016 20:29
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1607444-03 | **Client Sample Name:** Sullins, W-207, 3/10/2016 1:20:00PM, Andrew Dorn

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**1900**	**ug/L**	**12**	**2.1**	**EPA-8260B**	ND	**A01**	1
Ethylbenzene	**93**	**ug/L**	**1.0**	**0.20**	**EPA-8260B**	ND	**A01**	2
Methyl t-butyl ether	**38**	**ug/L**	**1.0**	**0.22**	**EPA-8260B**	ND	**A01**	2
Toluene	**9.8**	**ug/L**	**1.0**	**0.19**	**EPA-8260B**	ND	**A01**	2
Total Xylenes	**110**	**ug/L**	**2.0**	**0.72**	**EPA-8260B**	ND	**A01**	2
p- & m-Xylenes	**84**	**ug/L**	**1.0**	**0.56**	**EPA-8260B**	ND	**A01**	2
o-Xylene	**21**	**ug/L**	**1.0**	**0.16**	**EPA-8260B**	ND	**A01**	2
Total Purgeable Petroleum Hydrocarbons	**2300**	**ug/L**	**1200**	**180**	**Luft-GC/MS**	ND	**A01**	1
1,2-Dichloroethane-d4 (Surrogate)	77.9	%	75 - 125 (LCL - UCL)		EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	83.8	%	75 - 125 (LCL - UCL)		EPA-8260B			2
Toluene-d8 (Surrogate)	93.5	%	80 - 120 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	91.0	%	80 - 120 (LCL - UCL)		EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	97.0	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	03/11/16	03/11/16 14:11	IO1	MS-V12	25	BZC0613
2	EPA-8260B	03/11/16	03/14/16 10:10	IO1	MS-V12	2	BZC0613

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/14/2016 20:29
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1607444-04 | **Client Sample Name:** Sullins, W-205, 3/10/2016 2:20:00PM, Andrew Dorn

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**630**	**ug/L**	**10**	**1.7**	**EPA-8260B**	ND	**A01**	1
Ethylbenzene	**35**	**ug/L**	**1.0**	**0.20**	**EPA-8260B**	ND	**A01**	2
Methyl t-butyl ether	**3.1**	**ug/L**	**1.0**	**0.22**	**EPA-8260B**	ND	**A01**	2
Toluene	**2.4**	**ug/L**	**1.0**	**0.19**	**EPA-8260B**	ND	**A01**	2
Total Xylenes	**51**	**ug/L**	**2.0**	**0.72**	**EPA-8260B**	ND	**A01**	2
p- & m-Xylenes	**37**	**ug/L**	**1.0**	**0.56**	**EPA-8260B**	ND	**A01**	2
o-Xylene	**14**	**ug/L**	**1.0**	**0.16**	**EPA-8260B**	ND	**A01**	2
Total Purgeable Petroleum Hydrocarbons	**1000**	**ug/L**	**1000**	**140**	**Luft-GC/MS**	ND	**A01**	1
1,2-Dichloroethane-d4 (Surrogate)	81.9	%	75 - 125 (LCL - UCL)		EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	80.9	%	75 - 125 (LCL - UCL)		EPA-8260B			2
Toluene-d8 (Surrogate)	93.5	%	80 - 120 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	90.3	%	80 - 120 (LCL - UCL)		EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	92.9	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	03/11/16	03/11/16 14:28	IO1	MS-V12	20	BZC0613
2	EPA-8260B	03/11/16	03/14/16 10:28	IO1	MS-V12	2	BZC0613

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/14/2016 20:29
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1607444-05 | **Client Sample Name:** Sullins, W-1, 3/10/2016 12:10:00PM, Andrew Dorn

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**130**	**ug/L**	**5.0**	**0.83**	**EPA-8260B**	ND	**A01**	1
Ethylbenzene	**93**	**ug/L**	**5.0**	**0.98**	**EPA-8260B**	ND	**A01**	1
Methyl t-butyl ether	**5.7**	**ug/L**	**5.0**	**1.1**	**EPA-8260B**	ND	**A01**	1
Toluene	**21**	**ug/L**	**5.0**	**0.93**	**EPA-8260B**	ND	**A01**	1
Total Xylenes	**490**	**ug/L**	**10**	**3.6**	**EPA-8260B**	ND	**A01**	1
p- & m-Xylenes	**380**	**ug/L**	**5.0**	**2.8**	**EPA-8260B**	ND	**A01**	1
o-Xylene	**110**	**ug/L**	**5.0**	**0.82**	**EPA-8260B**	ND	**A01**	1
Total Purgeable Petroleum Hydrocarbons	**7100**	**ug/L**	**500**	**72**	**Luft-GC/MS**	ND	**A01**	1
1,2-Dichloroethane-d4 (Surrogate)	78.5	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	85.9	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	92.6	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	03/11/16	03/11/16 14:46	IO1	MS-V12	10	BZC0613

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/14/2016 20:29
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BZC0613						
Benzene	BZC0613-BLK1	ND	ug/L	0.50	0.083	
Ethylbenzene	BZC0613-BLK1	ND	ug/L	0.50	0.098	
Methyl t-butyl ether	BZC0613-BLK1	ND	ug/L	0.50	0.11	
Toluene	BZC0613-BLK1	ND	ug/L	0.50	0.093	
Total Xylenes	BZC0613-BLK1	ND	ug/L	1.0	0.36	
p- & m-Xylenes	BZC0613-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BZC0613-BLK1	ND	ug/L	0.50	0.082	
Total Purgeable Petroleum Hydrocarbons	BZC0613-BLK1	ND	ug/L	50	7.2	
1,2-Dichloroethane-d4 (Surrogate)	**BZC0613-BLK1**	**85.4**	%	**75 - 125 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**BZC0613-BLK1**	**93.4**	%	**80 - 120 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**BZC0613-BLK1**	**95.1**	%	**80 - 120 (LCL - UCL)**		

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/14/2016 20:29
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BZC0613										
Benzene	BZC0613-BS1	LCS	21.280	25.000	ug/L	85.1		70 - 130		
Toluene	BZC0613-BS1	LCS	24.500	25.000	ug/L	98.0		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BZC0613-BS1	LCS	8.3000	10.000	ug/L	83.0		75 - 125		
Toluene-d8 (Surrogate)	BZC0613-BS1	LCS	9.6100	10.000	ug/L	96.1		80 - 120		
4-Bromofluorobenzene (Surrogate)	BZC0613-BS1	LCS	9.4700	10.000	ug/L	94.7		80 - 120		

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/14/2016 20:29
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BZC0613	Used client sample: N										
Benzene	MS	1603129-87	ND	21.650	25.000	ug/L		86.6		70 - 130	
	MSD	1603129-87	ND	21.190	25.000	ug/L	2.1	84.8	20	70 - 130	
Toluene	MS	1603129-87	ND	24.780	25.000	ug/L		99.1		70 - 130	
	MSD	1603129-87	ND	26.670	25.000	ug/L	7.3	107	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1603129-87	ND	8.4800	10.000	ug/L		84.8		75 - 125	
	MSD	1603129-87	ND	8.0500	10.000	ug/L	5.2	80.5		75 - 125	
Toluene-d8 (Surrogate)	MS	1603129-87	ND	9.3800	10.000	ug/L		93.8		80 - 120	
	MSD	1603129-87	ND	9.9500	10.000	ug/L	5.9	99.5		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1603129-87	ND	10.090	10.000	ug/L		101		80 - 120	
	MSD	1603129-87	ND	9.4300	10.000	ug/L	6.8	94.3		80 - 120	

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/14/2016 20:29
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
A01	Detection and quantitation limits are raised due to sample dilution.

Date of Report: 03/24/2016

Project Manager

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Client Project:	[none]
BCL Project:	Sullins
BCL Work Order:	1608064
Invoice ID:	B230627

Enclosed are the results of analyses for samples received by the laboratory on 3/16/2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon
Client Service Rep

Authorized Signature

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GROUND ZERO ANALYSIS, INC.
1172 Kansas Avenue
Modesto, CA
(209) 522-4119 Fax 522-4227
E-mail: gza@groundzeroanalysis.com

Chain of Custody

Page 1 of 1

Billing To: Ground Zero Analysis, Inc.

Field	Value
Project #:	1262.2
Project Name:	SULLINS
Site Address:	1137 N. L STREET, LIVERMORE, CA
Global ID No.:	
EDF Report:	☒ Yes ☐ No
Client:	Ground Zero Analysis, Inc.
Rpt Attn:	Ground Zero Anaysis, Inc.
Client Address:	1172 Kansas Avenue
Type of Event:	GWM (Sys Monitoring – circled) Drilling Other
City, State, Zip:	Modesto, CA 95351
Client Email:	gza@groundzeroanalysis.com
Client Phone:	(209) 522-4119
Client Fax:	(209) 522-4227
Sampling Info: Sampled By (initials):	AD, GZA

Field	Value
Laboratory:	BC LABS
Purchase Order #	16-08064
Turnaround Time:	(S) = Standard; 1 day, 2 day, 3 day, 5 day
Email Lab Report (.pdf):	☒ Yes ☐ No
Email EDF Lab Report (.zip):	☐ Yes ☐ No
Mail Lab Report:	☐ Yes ☐ No

Date	Time	EDF Field ID	Sample I.D./Description / Location	No. of Containers	Matrix (Soil, Water, Gas, Other)	Preservation Type	8260 *	PH 150.1	EPA 624	EPA 625	EPA 608	TO-15 **
3-16-16	1120	-1	GW-DIS	10	W	/	X	X	X	X	X	
3-16-16	1900	-2	SVE-INF	1	G	/						X

Special Instructions / Remarks

*8260 INCLUDES: TPHg, BTEX, MTBE, DIPE, ETBE, TAME + TBA

** TO-15 INCLUDES TPHg, BTEX + MTBE

CHK BY [initials] DISTRIBUTION [initials] SUB-OUT ☐

Signature	Print Name	Company	Date:	Time:
(Relinquished by:) [signature]	ANDREW DORN	GZA	3-16-16	1631
(Received) [signature]	ROSS DICKEY	BC LAB	3-16-16	1631
(Relinquished by:) [signature]	ROSS DICKEY	BC LAB	3-16-16	1815

Please return cooler / ice chest to Ground Zero Analysis, Inc. REC. [initials] 3/16/16 REL. [initials] 3/16/16 2150 [signature] 3-16-16 2150

Rev. 3/2014

Chain of Custody and Cooler Receipt Form for 1608064 Page 2 of 3

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 16-080064

SHIPPING INFORMATION	SHIPPING CONTAINER	FREE LIQUID
Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☐	Ice Chest ☒ None ☐ Box ☐	YES ☐ NO ☐
BC Lab Field Service ☒ Other ☐ (Specify)_____	Other ☐ (Specify)_____	

Refrigerant: Ice ☒ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☒ Comments:

All samples received? Yes ☒ No ☐ All samples containers intact? Yes ☒ No ☐ Description(s) match COC? Yes ☒ No ☐

COC Received ☒ YES ☐ NO

Emissivity: 0.95 Container: Pe Thermometer ID: T1208 Date/Time: 3/16/16 2210

Temperature: (A) 0.2 °C / (C) 0.3 °C Analyst Init: WM

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES	G									
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	A-F									
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080	H									
QT EPA 515.1/8150										
QT EPA 525	I									
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG		A-Blue								
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:

Sample Numbering Completed By: MA Date/Time: 3/16/16 2300

= Actual / C = Corrected

Rev 20 07/24/2015

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Chain of Custody and Cooler Receipt Form for 1608064 Page 3 of 3

BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 Of 2

Submission #: 16-08064

SHIPPING INFORMATION	SHIPPING CONTAINER	FREE LIQUID
Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☐	Ice Chest ☒ None ☐ Box ☐	YES ☐ NO ☐
BC Lab Field Service ☒ Other ☐ (Specify)_____	Other ☐ (Specify)_____	

Refrigerant: Ice ☐ Blue Ice ☐ None ☒ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☒ Comments:

All samples received? Yes ☒ No ☐ All samples containers intact? Yes ☒ No ☐ Description(s) match COC? Yes ☒ No ☐

COC Received ☒ YES ☐ NO

Emissivity: ____ Container: Tedlar Thermometer ID: ____

Temperature: (A) Room °C / (C) Temp °C

Date/Time 3/16/16 2150

Analyst Init JMA

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG		A								
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:_____

Sample Numbering Completed By:_____ Date/Time: 3/16/16 2301

A = Actual / C = Corrected

Rev 20 07/24/2015

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Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1608064-01	**COC Number:**	---	**Receive Date:**	03/16/2016 21:50
	Project Number:	Sullins	**Sampling Date:**	03/16/2016 11:20
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	GW-DIS	**Lab Matrix:**	Water
	Sampled By:	Andrew Dorn of GTIM	**Sample Type:**	Groundwater
	Delivery Work Order:			
	Global ID: T0600100116			
	Location ID (FieldPoint): GW-DIS			
	Matrix: W			
	Sample QC Type (SACode): CS			
	Cooler ID:			
1608064-02	**COC Number:**	---	**Receive Date:**	03/16/2016 21:50
	Project Number:	Sullins	**Sampling Date:**	03/16/2016 14:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	SVE-INF	**Lab Matrix:**	Air
	Sampled By:	Andrew Dorn of GTIM	**Sample Type:**	Vapor or Air
	Delivery Work Order:			
	Global ID: T0600100116			
	Location ID (FieldPoint): SVE-INF			
	Matrix: GS			
	Sample QC Type (SACode): CS			
	Cooler ID:			

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Organochlorine Pesticides and PCB's (EPA Method 608)

BCL Sample ID: 1608064-01 | **Client Sample Name:** Sullins, GW-DIS, 3/16/2016 11:20:00AM, Andrew Dorn

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Aldrin	ND	ug/L	0.0050	0.00053	EPA-608	ND		1
alpha-BHC	ND	ug/L	0.0050	0.0025	EPA-608	ND		1
beta-BHC	ND	ug/L	0.0050	0.0019	EPA-608	ND		1
delta-BHC	ND	ug/L	0.0050	0.0012	EPA-608	ND		1
gamma-BHC (Lindane)	ND	ug/L	0.0050	0.0011	EPA-608	ND		1
Chlordane (Technical)	ND	ug/L	0.50	0.048	EPA-608	ND		1
4,4'-DDD	ND	ug/L	0.0050	0.0029	EPA-608	ND		1
4,4'-DDE	ND	ug/L	0.0050	0.0014	EPA-608	ND		1
4,4'-DDT	ND	ug/L	0.0050	0.0011	EPA-608	ND		1
Dieldrin	ND	ug/L	0.0050	0.00078	EPA-608	ND		1
Endosulfan I	ND	ug/L	0.0050	0.00086	EPA-608	ND		1
Endosulfan II	ND	ug/L	0.0050	0.0018	EPA-608	ND		1
Endosulfan sulfate	ND	ug/L	0.0050	0.0012	EPA-608	ND		1
Endrin	ND	ug/L	0.0050	0.0025	EPA-608	ND		1
Endrin aldehyde	ND	ug/L	0.010	0.0017	EPA-608	ND		1
Heptachlor	ND	ug/L	0.0050	0.00050	EPA-608	ND		1
Heptachlor epoxide	ND	ug/L	0.0050	0.00080	EPA-608	ND		1
Methoxychlor	ND	ug/L	0.0050	0.0017	EPA-608	ND		1
Toxaphene	ND	ug/L	2.0	0.32	EPA-608	ND		1
PCB-1016	ND	ug/L	0.20	0.061	EPA-608	ND		1
PCB-1221	ND	ug/L	0.20	0.20	EPA-608	ND		1
PCB-1232	ND	ug/L	0.20	0.12	EPA-608	ND		1
PCB-1242	ND	ug/L	0.20	0.15	EPA-608	ND		1
PCB-1248	ND	ug/L	0.20	0.060	EPA-608	ND		1
PCB-1254	ND	ug/L	0.20	0.060	EPA-608	ND		1
PCB-1260	ND	ug/L	0.20	0.051	EPA-608	ND		1
Total PCB's (Summation)	ND	ug/L	0.20	0.10	EPA-608	ND		1
TCMX (Surrogate)	88.8	%	40 - 140 (LCL - UCL)		EPA-608			1
Decachlorobiphenyl (Surrogate)	102	%	40 - 130 (LCL - UCL)		EPA-608			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-608	03/21/16	03/22/16 10:55	KEP	GC-17	1	BZC2213

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 624)

BCL Sample ID: 1608064-01 | **Client Sample Name:** Sullins, GW-DIS, 3/16/2016 11:20:00AM, Andrew Dorn

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.050	EPA-624	ND		1
Bromodichloromethane	ND	ug/L	0.50	0.050	EPA-624	ND		1
Bromoform	ND	ug/L	0.50	0.050	EPA-624	ND		1
Bromomethane	ND	ug/L	1.0	0.17	EPA-624	ND		1
Carbon tetrachloride	ND	ug/L	0.50	0.066	EPA-624	ND		1
Chlorobenzene	ND	ug/L	0.50	0.050	EPA-624	ND		1
Chloroethane	ND	ug/L	0.50	0.055	EPA-624	ND		1
Chloroform	ND	ug/L	0.50	0.063	EPA-624	ND		1
Chloromethane	ND	ug/L	0.50	0.050	EPA-624	ND		1
Dibromochloromethane	ND	ug/L	0.50	0.053	EPA-624	ND		1
1,2-Dichlorobenzene	ND	ug/L	0.50	0.050	EPA-624	ND		1
1,3-Dichlorobenzene	ND	ug/L	0.50	0.050	EPA-624	ND		1
1,4-Dichlorobenzene	ND	ug/L	0.50	0.050	EPA-624	ND		1
1,1-Dichloroethane	ND	ug/L	0.50	0.050	EPA-624	ND		1
1,2-Dichloroethane	ND	ug/L	0.50	0.059	EPA-624	ND		1
1,1-Dichloroethene	ND	ug/L	0.50	0.050	EPA-624	ND		1
trans-1,2-Dichloroethene	ND	ug/L	0.50	0.060	EPA-624	ND		1
1,2-Dichloropropane	ND	ug/L	0.50	0.072	EPA-624	ND		1
cis-1,3-Dichloropropene	ND	ug/L	0.50	0.057	EPA-624	ND		1
trans-1,3-Dichloropropene	ND	ug/L	0.50	0.050	EPA-624	ND		1
Ethylbenzene	ND	ug/L	0.50	0.050	EPA-624	ND		1
Methylene chloride	ND	ug/L	1.0	0.11	EPA-624	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.055	EPA-624	ND		1
1,1,2,2-Tetrachloroethane	ND	ug/L	0.50	0.076	EPA-624	ND		1
Tetrachloroethene	ND	ug/L	0.50	0.053	EPA-624	ND		1
Toluene	ND	ug/L	0.50	0.050	EPA-624	ND		1
1,1,1-Trichloroethane	ND	ug/L	0.50	0.055	EPA-624	ND		1
1,1,2-Trichloroethane	ND	ug/L	0.50	0.085	EPA-624	ND		1
Trichloroethene	ND	ug/L	0.50	0.063	EPA-624	ND		1
Trichlorofluoromethane	ND	ug/L	0.50	0.074	EPA-624	ND		1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/L	0.50	0.063	EPA-624	ND		1
Vinyl chloride	ND	ug/L	0.50	0.069	EPA-624	ND		1
Total Xylenes	ND	ug/L	0.50	0.15	EPA-624	ND		1

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 624)

BCL Sample ID: 1608064-01 | **Client Sample Name:** Sullins, GW-DIS, 3/16/2016 11:20:00AM, Andrew Dorn

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
p- & m-Xylenes	ND	ug/L	0.50	0.10	EPA-624	ND		1
o-Xylene	ND	ug/L	0.50	0.050	EPA-624	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-624			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-624			1
4-Bromofluorobenzene (Surrogate)	98.7	%	80 - 120 (LCL - UCL)		EPA-624			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-624	03/17/16	03/17/16 12:10	MGC	MS-V7	1	BZC1496

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

BCL Sample ID: 1608064-01 | **Client Sample Name:** Sullins, GW-DIS, 3/16/2016 11:20:00AM, Andrew Dorn

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Acenaphthene	ND	ug/L	2.0	0.24	EPA-625	ND		1
Acenaphthylene	ND	ug/L	2.0	0.28	EPA-625	ND		1
Aldrin	ND	ug/L	2.0	0.35	EPA-625	ND		1
Aniline	ND	ug/L	5.0	0.69	EPA-625	ND		1
Anthracene	ND	ug/L	2.0	0.30	EPA-625	ND		1
Benzidine	ND	ug/L	20	7.1	EPA-625	ND		1
Benzo[a]anthracene	ND	ug/L	2.0	0.38	EPA-625	ND		1
Benzo[b]fluoranthene	ND	ug/L	2.0	0.41	EPA-625	ND		1
Benzo[k]fluoranthene	ND	ug/L	2.0	0.31	EPA-625	ND		1
Benzo[a]pyrene	ND	ug/L	2.0	0.20	EPA-625	ND		1
Benzo[g,h,i]perylene	ND	ug/L	2.0	0.22	EPA-625	ND		1
Benzoic acid	ND	ug/L	10	5.8	EPA-625	ND		1
Benzyl alcohol	ND	ug/L	2.0	0.34	EPA-625	ND		1
Benzyl butyl phthalate	ND	ug/L	2.0	0.47	EPA-625	ND		1
alpha-BHC	ND	ug/L	2.0	0.27	EPA-625	ND		1
beta-BHC	ND	ug/L	2.0	0.27	EPA-625	ND		1
delta-BHC	ND	ug/L	2.0	0.30	EPA-625	ND		1
gamma-BHC (Lindane)	ND	ug/L	2.0	0.22	EPA-625	ND		1
bis(2-Chloroethoxy)methane	ND	ug/L	2.0	0.27	EPA-625	ND		1
bis(2-Chloroethyl) ether	ND	ug/L	2.0	0.68	EPA-625	ND		1
bis(2-Chloroisopropyl)ether	ND	ug/L	2.0	0.30	EPA-625	ND		1
bis(2-Ethylhexyl)phthalate	ND	ug/L	5.0	3.0	EPA-625	ND		1
4-Bromophenyl phenyl ether	ND	ug/L	2.0	0.23	EPA-625	ND		1
4-Chloroaniline	ND	ug/L	2.0	0.69	EPA-625	ND		1
2-Chloronaphthalene	ND	ug/L	2.0	0.34	EPA-625	ND		1
4-Chlorophenyl phenyl ether	ND	ug/L	2.0	0.23	EPA-625	ND		1
Chrysene	ND	ug/L	2.0	0.63	EPA-625	ND		1
4,4'-DDD	ND	ug/L	2.0	0.48	EPA-625	ND		1
4,4'-DDE	ND	ug/L	3.0	0.41	EPA-625	ND		1
4,4'-DDT	ND	ug/L	2.0	0.43	EPA-625	ND		1
Dibenzo[a,h]anthracene	ND	ug/L	3.0	0.26	EPA-625	ND		1
Dibenzofuran	ND	ug/L	2.0	0.21	EPA-625	ND		1
1,2-Dichlorobenzene	ND	ug/L	2.0	0.37	EPA-625	ND		1

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

BCL Sample ID: 1608064-01 | **Client Sample Name:** Sullins, GW-DIS, 3/16/2016 11:20:00AM, Andrew Dorn

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
1,3-Dichlorobenzene	ND	ug/L	2.0	0.35	EPA-625	ND		1
1,4-Dichlorobenzene	ND	ug/L	2.0	0.31	EPA-625	ND		1
3,3-Dichlorobenzidine	ND	ug/L	10	8.2	EPA-625	ND		1
Dieldrin	ND	ug/L	3.0	0.41	EPA-625	ND		1
Diethyl phthalate	ND	ug/L	2.0	0.33	EPA-625	ND		1
Dimethyl phthalate	ND	ug/L	2.0	0.39	EPA-625	ND		1
Di-n-butyl phthalate	ND	ug/L	2.0	0.39	EPA-625	ND		1
2,4-Dinitrotoluene	ND	ug/L	2.0	0.26	EPA-625	ND		1
2,6-Dinitrotoluene	ND	ug/L	2.0	0.41	EPA-625	ND		1
Di-n-octyl phthalate	ND	ug/L	2.0	0.46	EPA-625	ND		1
1,2-Diphenylhydrazine	ND	ug/L	2.0	0.34	EPA-625	ND		1
Endosulfan I	ND	ug/L	10	1.7	EPA-625	ND		1
Endosulfan II	ND	ug/L	10	1.2	EPA-625	ND		1
Endosulfan sulfate	ND	ug/L	3.0	0.58	EPA-625	ND		1
Endrin	ND	ug/L	2.0	1.1	EPA-625	ND		1
Endrin aldehyde	ND	ug/L	10	0.52	EPA-625	ND		1
Fluoranthene	ND	ug/L	2.0	0.20	EPA-625	ND		1
Fluorene	ND	ug/L	2.0	0.28	EPA-625	ND		1
Heptachlor	ND	ug/L	2.0	0.32	EPA-625	ND		1
Heptachlor epoxide	ND	ug/L	2.0	0.27	EPA-625	ND		1
Hexachlorobenzene	ND	ug/L	2.0	0.20	EPA-625	ND		1
Hexachlorobutadiene	ND	ug/L	2.0	0.24	EPA-625	ND		1
Hexachlorocyclopentadiene	ND	ug/L	2.0	0.30	EPA-625	ND		1
Hexachloroethane	ND	ug/L	2.0	0.32	EPA-625	ND		1
Indeno[1,2,3-cd]pyrene	ND	ug/L	2.0	0.26	EPA-625	ND		1
Isophorone	ND	ug/L	2.0	0.31	EPA-625	ND		1
2-Methylnaphthalene	ND	ug/L	2.0	0.28	EPA-625	ND		1
Naphthalene	ND	ug/L	2.0	0.21	EPA-625	ND		1
2-Naphthylamine	ND	ug/L	20	4.8	EPA-625	ND		1
2-Nitroaniline	ND	ug/L	2.0	0.33	EPA-625	ND		1
3-Nitroaniline	ND	ug/L	2.0	0.66	EPA-625	ND		1
4-Nitroaniline	ND	ug/L	5.0	0.87	EPA-625	ND		1
Nitrobenzene	ND	ug/L	2.0	0.26	EPA-625	ND		1

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

BCL Sample ID: 1608064-01 | **Client Sample Name:** Sullins, GW-DIS, 3/16/2016 11:20:00AM, Andrew Dorn

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
N-Nitrosodimethylamine	ND	ug/L	2.0	0.61	EPA-625	ND		1
N-Nitrosodi-N-propylamine	ND	ug/L	2.0	1.3	EPA-625	ND		1
N-Nitrosodiphenylamine	ND	ug/L	2.0	0.44	EPA-625	ND		1
Phenanthrene	ND	ug/L	2.0	0.20	EPA-625	ND		1
Pyrene	ND	ug/L	2.0	0.26	EPA-625	ND		1
1,2,4-Trichlorobenzene	ND	ug/L	2.0	0.27	EPA-625	ND		1
4-Chloro-3-methylphenol	ND	ug/L	5.0	0.40	EPA-625	ND		1
2-Chlorophenol	ND	ug/L	2.0	0.37	EPA-625	ND		1
2,4-Dichlorophenol	ND	ug/L	2.0	0.43	EPA-625	ND		1
2,4-Dimethylphenol	ND	ug/L	2.0	0.20	EPA-625	ND		1
4,6-Dinitro-2-methylphenol	ND	ug/L	10	0.34	EPA-625	ND		1
2,4-Dinitrophenol	ND	ug/L	10	0.20	EPA-625	ND		1
2-Methylphenol	ND	ug/L	2.0	1.0	EPA-625	ND		1
3- & 4-Methylphenol	ND	ug/L	2.0	1.6	EPA-625	ND		1
2-Nitrophenol	ND	ug/L	2.0	0.28	EPA-625	ND		1
4-Nitrophenol	ND	ug/L	2.0	0.73	EPA-625	ND		1
Pentachlorophenol	ND	ug/L	10	0.79	EPA-625	ND		1
Phenol	ND	ug/L	2.0	0.20	EPA-625	ND		1
2,4,5-Trichlorophenol	ND	ug/L	5.0	0.31	EPA-625	ND		1
2,4,6-Trichlorophenol	ND	ug/L	5.0	0.60	EPA-625	ND		1
2-Fluorophenol (Surrogate)	59.0	%	30 - 120 (LCL - UCL)		EPA-625			1
Phenol-d5 (Surrogate)	52.6	%	12 - 110 (LCL - UCL)		EPA-625			1
Nitrobenzene-d5 (Surrogate)	84.6	%	50 - 130 (LCL - UCL)		EPA-625			1
2-Fluorobiphenyl (Surrogate)	78.4	%	55 - 125 (LCL - UCL)		EPA-625			1
2,4,6-Tribromophenol (Surrogate)	74.5	%	40 - 150 (LCL - UCL)		EPA-625			1
p-Terphenyl-d14 (Surrogate)	92.0	%	40 - 150 (LCL - UCL)		EPA-625			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-625	03/23/16	03/23/16 17:01	VH1	MS-B2	0.990	BZC2466

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1608064-01 | **Client Sample Name:** Sullins, GW-DIS, 3/16/2016 11:20:00AM, Andrew Dorn

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
t-Amyl Methyl ether	ND	ug/L	0.50	0.25	EPA-8260B	ND		1
t-Butyl alcohol	ND	ug/L	10	9.4	EPA-8260B	ND		1
Diisopropyl ether	ND	ug/L	0.50	0.23	EPA-8260B	ND		1
Ethyl t-butyl ether	ND	ug/L	0.50	0.18	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	7.2	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	98.2	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	03/17/16	03/18/16 02:57	MGC	MS-V5	1	BZC1804

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Water Analysis (General Chemistry)

BCL Sample ID: 1608064-01 | **Client Sample Name:** Sullins, GW-DIS, 3/16/2016 11:20:00AM, Andrew Dorn

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
pH	**7.91**	**pH Units**	**0.05**	**0.05**	**EPA-150.1**		**S05**	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-150.1	03/17/16	03/17/16 19:01	RML	MET-1	1	BZC1864

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Compounds by GC/MS (EPA Method TO-15 at STP)

BCL Sample ID: 1608064-02 | **Client Sample Name:** Sullins, SVE-INF, 3/16/2016 2:00:00PM, Andrew Dorn

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**180**	**ug/m3**	**200**	**42**	**EPA-TO-15**	ND	**J,A01**	1
Ethylbenzene	**310**	**ug/m3**	**500**	**28**	**EPA-TO-15**	ND	**J,A01**	1
Methyl t-butyl ether	ND	ug/m3	200	26	EPA-TO-15	ND	A01	1
Toluene	**480**	**ug/m3**	**200**	**32**	**EPA-TO-15**	ND	**A01**	1
p- & m-Xylenes	**2500**	**ug/m3**	**500**	**61**	**EPA-TO-15**	ND	**A01**	1
o-Xylene	**990**	**ug/m3**	**500**	**25**	**EPA-TO-15**	ND	**A01**	1
Total Xylenes	**3500**	**ug/m3**	**1000**	**86**	**EPA-TO-15**	ND	**A01**	1
Total Petroleum Hydrocarbons	**170000**	**ug/m3**	**20000**	**3900**	**EPA-TO-15**	ND	**A01**	1
4-Bromofluorobenzene (Surrogate)	95.8	%	70 - 130 (LCL - UCL)		EPA-TO-15			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-TO-15	03/18/16	03/18/16 09:00	MJB	MS-A1	100	BZC1945

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Organochlorine Pesticides and PCB's (EPA Method 608)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BZC2213						
Aldrin	BZC2213-BLK1	ND	ug/L	0.0050	0.00053	
alpha-BHC	BZC2213-BLK1	ND	ug/L	0.0050	0.0025	
beta-BHC	BZC2213-BLK1	ND	ug/L	0.0050	0.0019	
delta-BHC	BZC2213-BLK1	ND	ug/L	0.0050	0.0012	
gamma-BHC (Lindane)	BZC2213-BLK1	ND	ug/L	0.0050	0.0011	
Chlordane (Technical)	BZC2213-BLK1	ND	ug/L	0.50	0.048	
4,4'-DDD	BZC2213-BLK1	ND	ug/L	0.0050	0.0029	
4,4'-DDE	BZC2213-BLK1	ND	ug/L	0.0050	0.0014	
4,4'-DDT	BZC2213-BLK1	ND	ug/L	0.0050	0.0011	
Dieldrin	BZC2213-BLK1	ND	ug/L	0.0050	0.00078	
Endosulfan I	BZC2213-BLK1	ND	ug/L	0.0050	0.00086	
Endosulfan II	BZC2213-BLK1	ND	ug/L	0.0050	0.0018	
Endosulfan sulfate	BZC2213-BLK1	ND	ug/L	0.0050	0.0012	
Endrin	BZC2213-BLK1	ND	ug/L	0.0050	0.0025	
Endrin aldehyde	BZC2213-BLK1	ND	ug/L	0.010	0.0017	
Heptachlor	BZC2213-BLK1	ND	ug/L	0.0050	0.00050	
Heptachlor epoxide	BZC2213-BLK1	ND	ug/L	0.0050	0.00080	
Methoxychlor	BZC2213-BLK1	ND	ug/L	0.0050	0.0017	
Toxaphene	BZC2213-BLK1	ND	ug/L	2.0	0.32	
PCB-1016	BZC2213-BLK1	ND	ug/L	0.20	0.061	
PCB-1221	BZC2213-BLK1	ND	ug/L	0.20	0.20	
PCB-1232	BZC2213-BLK1	ND	ug/L	0.20	0.12	
PCB-1242	BZC2213-BLK1	ND	ug/L	0.20	0.15	
PCB-1248	BZC2213-BLK1	ND	ug/L	0.20	0.060	
PCB-1254	BZC2213-BLK1	ND	ug/L	0.20	0.060	
PCB-1260	BZC2213-BLK1	ND	ug/L	0.20	0.051	
Total PCB's (Summation)	BZC2213-BLK1	ND	ug/L	0.20	0.10	
TCMX (Surrogate)	**BZC2213-BLK1**	**84.7**	%	**40 - 140 (LCL - UCL)**		
Decachlorobiphenyl (Surrogate)	**BZC2213-BLK1**	**94.2**	%	**40 - 130 (LCL - UCL)**		

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Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Organochlorine Pesticides and PCB's (EPA Method 608)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BZC2213										
Aldrin	BZC2213-BS1	LCS	0.13601	0.15000	ug/L	90.7		50 - 130		
gamma-BHC (Lindane)	BZC2213-BS1	LCS	0.15321	0.15000	ug/L	102		60 - 130		
4,4'-DDT	BZC2213-BS1	LCS	0.15779	0.15000	ug/L	105		60 - 130		
Dieldrin	BZC2213-BS1	LCS	0.15975	0.15000	ug/L	106		60 - 130		
Endrin	BZC2213-BS1	LCS	0.16238	0.15000	ug/L	108		60 - 130		
Heptachlor	BZC2213-BS1	LCS	0.13805	0.15000	ug/L	92.0		60 - 130		
TCMX (Surrogate)	BZC2213-BS1	LCS	0.26570	0.30000	ug/L	88.6		40 - 140		
Decachlorobiphenyl (Surrogate)	BZC2213-BS1	LCS	0.61105	0.60000	ug/L	102		40 - 130		

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Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Organochlorine Pesticides and PCB's (EPA Method 608)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BZC2213	Used client sample: N										
Aldrin	MS	1607274-30	ND	0.12828	0.15000	ug/L		85.5		50 - 130	
	MSD	1607274-30	ND	0.12625	0.15000	ug/L	1.6	84.2	30	50 - 130	
gamma-BHC (Lindane)	MS	1607274-30	ND	0.14140	0.15000	ug/L		94.3		60 - 130	
	MSD	1607274-30	ND	0.14146	0.15000	ug/L	0.0	94.3	30	60 - 130	
4,4'-DDT	MS	1607274-30	ND	0.14874	0.15000	ug/L		99.2		60 - 130	
	MSD	1607274-30	ND	0.14476	0.15000	ug/L	2.7	96.5	30	60 - 130	
Dieldrin	MS	1607274-30	ND	0.15133	0.15000	ug/L		101		60 - 130	
	MSD	1607274-30	ND	0.14830	0.15000	ug/L	2.0	98.9	30	60 - 130	
Endrin	MS	1607274-30	ND	0.15137	0.15000	ug/L		101		60 - 130	
	MSD	1607274-30	ND	0.14931	0.15000	ug/L	1.4	99.5	30	60 - 130	
Heptachlor	MS	1607274-30	ND	0.13021	0.15000	ug/L		86.8		50 - 130	
	MSD	1607274-30	ND	0.12932	0.15000	ug/L	0.7	86.2	30	50 - 130	
TCMX (Surrogate)	MS	1607274-30	ND	0.26307	0.30000	ug/L		87.7		40 - 140	
	MSD	1607274-30	ND	0.25996	0.30000	ug/L	1.2	86.7		40 - 140	
Decachlorobiphenyl (Surrogate)	MS	1607274-30	ND	0.61111	0.60000	ug/L		102		40 - 130	
	MSD	1607274-30	ND	0.58197	0.60000	ug/L	4.9	97.0		40 - 130	

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Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 624)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BZC1496						
Benzene	BZC1496-BLK1	ND	ug/L	0.50	0.050	
Bromodichloromethane	BZC1496-BLK1	ND	ug/L	0.50	0.050	
Bromoform	BZC1496-BLK1	ND	ug/L	0.50	0.050	
Bromomethane	BZC1496-BLK1	ND	ug/L	1.0	0.17	
Carbon tetrachloride	BZC1496-BLK1	ND	ug/L	0.50	0.066	
Chlorobenzene	BZC1496-BLK1	ND	ug/L	0.50	0.050	
Chloroethane	BZC1496-BLK1	ND	ug/L	0.50	0.055	
Chloroform	BZC1496-BLK1	ND	ug/L	0.50	0.063	
Chloromethane	BZC1496-BLK1	ND	ug/L	0.50	0.050	
Dibromochloromethane	BZC1496-BLK1	ND	ug/L	0.50	0.053	
1,2-Dichlorobenzene	BZC1496-BLK1	ND	ug/L	0.50	0.050	
1,3-Dichlorobenzene	BZC1496-BLK1	ND	ug/L	0.50	0.050	
1,4-Dichlorobenzene	BZC1496-BLK1	ND	ug/L	0.50	0.050	
1,1-Dichloroethane	BZC1496-BLK1	ND	ug/L	0.50	0.050	
1,2-Dichloroethane	BZC1496-BLK1	ND	ug/L	0.50	0.059	
1,1-Dichloroethene	BZC1496-BLK1	ND	ug/L	0.50	0.050	
trans-1,2-Dichloroethene	BZC1496-BLK1	ND	ug/L	0.50	0.060	
1,2-Dichloropropane	BZC1496-BLK1	ND	ug/L	0.50	0.072	
cis-1,3-Dichloropropene	BZC1496-BLK1	ND	ug/L	0.50	0.057	
trans-1,3-Dichloropropene	BZC1496-BLK1	ND	ug/L	0.50	0.050	
Ethylbenzene	BZC1496-BLK1	ND	ug/L	0.50	0.050	
Methylene chloride	BZC1496-BLK1	ND	ug/L	1.0	0.11	
Methyl t-butyl ether	BZC1496-BLK1	ND	ug/L	0.50	0.055	
1,1,2,2-Tetrachloroethane	BZC1496-BLK1	ND	ug/L	0.50	0.076	
Tetrachloroethene	BZC1496-BLK1	ND	ug/L	0.50	0.053	
Toluene	BZC1496-BLK1	ND	ug/L	0.50	0.050	
1,1,1-Trichloroethane	BZC1496-BLK1	ND	ug/L	0.50	0.055	
1,1,2-Trichloroethane	BZC1496-BLK1	ND	ug/L	0.50	0.085	
Trichloroethene	BZC1496-BLK1	ND	ug/L	0.50	0.063	
Trichlorofluoromethane	BZC1496-BLK1	ND	ug/L	0.50	0.074	
1,1,2-Trichloro-1,2,2-trifluoroethane	BZC1496-BLK1	ND	ug/L	0.50	0.063	
Vinyl chloride	BZC1496-BLK1	ND	ug/L	0.50	0.069	
Total Xylenes	BZC1496-BLK1	ND	ug/L	0.50	0.15	
p- & m-Xylenes	BZC1496-BLK1	ND	ug/L	0.50	0.10	

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Volatile Organic Analysis (EPA Method 624)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BZC1496						
o-Xylene	BZC1496-BLK1	ND	ug/L	0.50	0.050	
1,2-Dichloroethane-d4 (Surrogate)	**BZC1496-BLK1**	**97.4**	%	**75 - 125 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**BZC1496-BLK1**	**102**	%	**80 - 120 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**BZC1496-BLK1**	**97.2**	%	**80 - 120 (LCL - UCL)**		

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Project: Sullins
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Volatile Organic Analysis (EPA Method 624)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BZC1496										
Benzene	BZC1496-BS1	LCS	24.860	25.000	ug/L	99.4		79 - 120		
Bromodichloromethane	BZC1496-BS1	LCS	24.810	25.000	ug/L	99.2		79 - 125		
Bromoform	BZC1496-BS1	LCS	25.190	25.000	ug/L	101		66 - 130		
Bromomethane	BZC1496-BS1	LCS	25.290	25.000	ug/L	101		53 - 141		
Carbon tetrachloride	BZC1496-BS1	LCS	25.370	25.000	ug/L	101		72 - 136		
Chlorobenzene	BZC1496-BS1	LCS	24.440	25.000	ug/L	97.8		82 - 118		
Chloroethane	BZC1496-BS1	LCS	25.830	25.000	ug/L	103		60 - 138		
Chloroform	BZC1496-BS1	LCS	24.780	25.000	ug/L	99.1		79 - 124		
Chloromethane	BZC1496-BS1	LCS	25.410	25.000	ug/L	102		50 - 139		
Dibromochloromethane	BZC1496-BS1	LCS	25.430	25.000	ug/L	102		74 - 126		
1,2-Dichlorobenzene	BZC1496-BS1	LCS	24.270	25.000	ug/L	97.1		80 - 119		
1,3-Dichlorobenzene	BZC1496-BS1	LCS	24.790	25.000	ug/L	99.2		80 - 119		
1,4-Dichlorobenzene	BZC1496-BS1	LCS	24.350	25.000	ug/L	97.4		79 - 118		
1,1-Dichloroethane	BZC1496-BS1	LCS	25.170	25.000	ug/L	101		77 - 125		
1,2-Dichloroethane	BZC1496-BS1	LCS	24.250	25.000	ug/L	97.0		73 - 128		
1,1-Dichloroethene	BZC1496-BS1	LCS	24.460	25.000	ug/L	97.8		71 - 131		
trans-1,2-Dichloroethene	BZC1496-BS1	LCS	24.500	25.000	ug/L	98.0		75 - 124		
1,2-Dichloropropane	BZC1496-BS1	LCS	24.630	25.000	ug/L	98.5		78 - 122		
cis-1,3-Dichloropropene	BZC1496-BS1	LCS	24.910	25.000	ug/L	99.6		75 - 124		
trans-1,3-Dichloropropene	BZC1496-BS1	LCS	25.170	25.000	ug/L	101		73 - 127		
Ethylbenzene	BZC1496-BS1	LCS	24.850	25.000	ug/L	99.4		79 - 121		
Methylene chloride	BZC1496-BS1	LCS	24.160	25.000	ug/L	96.6		74 - 124		
Methyl t-butyl ether	BZC1496-BS1	LCS	23.650	25.000	ug/L	94.6		71 - 124		
1,1,2,2-Tetrachloroethane	BZC1496-BS1	LCS	23.530	25.000	ug/L	94.1		71 - 121		
Tetrachloroethene	BZC1496-BS1	LCS	25.010	25.000	ug/L	100		74 - 129		
Toluene	BZC1496-BS1	LCS	25.140	25.000	ug/L	101		80 - 121		
1,1,1-Trichloroethane	BZC1496-BS1	LCS	25.680	25.000	ug/L	103		74 - 131		
1,1,2-Trichloroethane	BZC1496-BS1	LCS	24.980	25.000	ug/L	99.9		80 - 119		
Trichloroethene	BZC1496-BS1	LCS	25.350	25.000	ug/L	101		79 - 123		
Trichlorofluoromethane	BZC1496-BS1	LCS	26.260	25.000	ug/L	105		65 - 141		
1,1,2-Trichloro-1,2,2-trifluoroethane	BZC1496-BS1	LCS	25.720	25.000	ug/L	103		70 - 136		
Vinyl chloride	BZC1496-BS1	LCS	25.930	25.000	ug/L	104		58 - 137		
Total Xylenes	BZC1496-BS1	LCS	73.720	75.000	ug/L	98.3		79 - 121		

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Project: Sullins
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Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 624)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BZC1496										
p- & m-Xylenes	BZC1496-BS1	LCS	49.480	50.000	ug/L	99.0		80 - 121		
o-Xylene	BZC1496-BS1	LCS	24.240	25.000	ug/L	97.0		78 - 122		
1,2-Dichloroethane-d4 (Surrogate)	BZC1496-BS1	LCS	9.8500	10.000	ug/L	98.5		75 - 125		
Toluene-d8 (Surrogate)	BZC1496-BS1	LCS	10.110	10.000	ug/L	101		80 - 120		
4-Bromofluorobenzene (Surrogate)	BZC1496-BS1	LCS	9.8600	10.000	ug/L	98.6		80 - 120		

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Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 624)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BZC1496	Used client sample: N										
Benzene	MS	1607612-01	ND	26.150	25.000	ug/L		105		79 - 120	
	MSD	1607612-01	ND	24.970	25.000	ug/L	4.6	99.9	30	79 - 120	
Bromodichloromethane	MS	1607612-01	ND	25.880	25.000	ug/L		104		79 - 125	
	MSD	1607612-01	ND	25.580	25.000	ug/L	1.2	102	30	79 - 125	
Bromoform	MS	1607612-01	ND	26.490	25.000	ug/L		106		66 - 130	
	MSD	1607612-01	ND	26.550	25.000	ug/L	0.2	106	30	66 - 130	
Bromomethane	MS	1607612-01	ND	27.940	25.000	ug/L		112		53 - 141	
	MSD	1607612-01	ND	27.020	25.000	ug/L	3.3	108	30	53 - 141	
Carbon tetrachloride	MS	1607612-01	ND	26.640	25.000	ug/L		107		72 - 136	
	MSD	1607612-01	ND	25.370	25.000	ug/L	4.9	101	30	72 - 136	
Chlorobenzene	MS	1607612-01	ND	25.960	25.000	ug/L		104		82 - 118	
	MSD	1607612-01	ND	24.770	25.000	ug/L	4.7	99.1	30	82 - 118	
Chloroethane	MS	1607612-01	ND	27.070	25.000	ug/L		108		60 - 138	
	MSD	1607612-01	ND	25.830	25.000	ug/L	4.7	103	30	60 - 138	
Chloroform	MS	1607612-01	ND	25.980	25.000	ug/L		104		79 - 124	
	MSD	1607612-01	ND	24.710	25.000	ug/L	5.0	98.8	30	79 - 124	
Chloromethane	MS	1607612-01	ND	28.230	25.000	ug/L		113		50 - 139	
	MSD	1607612-01	ND	26.290	25.000	ug/L	7.1	105	30	50 - 139	
Dibromochloromethane	MS	1607612-01	ND	26.240	25.000	ug/L		105		74 - 126	
	MSD	1607612-01	ND	26.200	25.000	ug/L	0.2	105	30	74 - 126	
1,2-Dichlorobenzene	MS	1607612-01	ND	25.550	25.000	ug/L		102		80 - 119	
	MSD	1607612-01	ND	24.650	25.000	ug/L	3.6	98.6	30	80 - 119	
1,3-Dichlorobenzene	MS	1607612-01	ND	25.860	25.000	ug/L		103		80 - 119	
	MSD	1607612-01	ND	25.050	25.000	ug/L	3.2	100	30	80 - 119	
1,4-Dichlorobenzene	MS	1607612-01	ND	25.600	25.000	ug/L		102		79 - 118	
	MSD	1607612-01	ND	24.880	25.000	ug/L	2.9	99.5	30	79 - 118	
1,1-Dichloroethane	MS	1607612-01	ND	26.430	25.000	ug/L		106		77 - 125	
	MSD	1607612-01	ND	25.140	25.000	ug/L	5.0	101	30	77 - 125	
1,2-Dichloroethane	MS	1607612-01	ND	25.090	25.000	ug/L		100		73 - 128	
	MSD	1607612-01	ND	24.480	25.000	ug/L	2.5	97.9	30	73 - 128	
1,1-Dichloroethene	MS	1607612-01	ND	25.970	25.000	ug/L		104		71 - 131	
	MSD	1607612-01	ND	24.500	25.000	ug/L	5.8	98.0	30	71 - 131	
trans-1,2-Dichloroethene	MS	1607612-01	ND	25.830	25.000	ug/L		103		75 - 124	
	MSD	1607612-01	ND	24.470	25.000	ug/L	5.4	97.9	30	75 - 124	
1,2-Dichloropropane	MS	1607612-01	ND	25.570	25.000	ug/L		102		78 - 122	
	MSD	1607612-01	ND	25.290	25.000	ug/L	1.1	101	30	78 - 122	

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Project: Sullins
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Volatile Organic Analysis (EPA Method 624)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BZC1496	Used client sample: N										
cis-1,3-Dichloropropene	MS	1607612-01	ND	26.130	25.000	ug/L		105		75 - 124	
	MSD	1607612-01	ND	25.750	25.000	ug/L	1.5	103	30	75 - 124	
trans-1,3-Dichloropropene	MS	1607612-01	ND	26.490	25.000	ug/L		106		73 - 127	
	MSD	1607612-01	ND	25.980	25.000	ug/L	1.9	104	30	73 - 127	
Ethylbenzene	MS	1607612-01	ND	26.390	25.000	ug/L		106		79 - 121	
	MSD	1607612-01	ND	25.150	25.000	ug/L	4.8	101	30	79 - 121	
Methylene chloride	MS	1607612-01	0.45000	26.000	25.000	ug/L		102		74 - 124	
	MSD	1607612-01	0.45000	25.150	25.000	ug/L	3.3	98.8	30	74 - 124	
Methyl t-butyl ether	MS	1607612-01	ND	24.680	25.000	ug/L		98.7		71 - 124	
	MSD	1607612-01	ND	24.200	25.000	ug/L	2.0	96.8	30	71 - 124	
1,1,2,2-Tetrachloroethane	MS	1607612-01	ND	24.700	25.000	ug/L		98.8		71 - 121	
	MSD	1607612-01	ND	24.630	25.000	ug/L	0.3	98.5	30	71 - 121	
Tetrachloroethene	MS	1607612-01	ND	25.940	25.000	ug/L		104		74 - 129	
	MSD	1607612-01	ND	25.220	25.000	ug/L	2.8	101	30	74 - 129	
Toluene	MS	1607612-01	ND	26.530	25.000	ug/L		106		80 - 121	
	MSD	1607612-01	ND	25.690	25.000	ug/L	3.2	103	30	80 - 121	
1,1,1-Trichloroethane	MS	1607612-01	ND	26.820	25.000	ug/L		107		74 - 131	
	MSD	1607612-01	ND	25.840	25.000	ug/L	3.7	103	30	74 - 131	
1,1,2-Trichloroethane	MS	1607612-01	ND	25.670	25.000	ug/L		103		80 - 119	
	MSD	1607612-01	ND	25.590	25.000	ug/L	0.3	102	30	80 - 119	
Trichloroethene	MS	1607612-01	ND	26.700	25.000	ug/L		107		79 - 123	
	MSD	1607612-01	ND	25.980	25.000	ug/L	2.7	104	30	79 - 123	
Trichlorofluoromethane	MS	1607612-01	ND	27.480	25.000	ug/L		110		65 - 141	
	MSD	1607612-01	ND	26.000	25.000	ug/L	5.5	104	30	65 - 141	
1,1,2-Trichloro-1,2,2-trifluoroethane	MS	1607612-01	ND	27.120	25.000	ug/L		108		70 - 136	
	MSD	1607612-01	ND	25.890	25.000	ug/L	4.6	104	30	70 - 136	
Vinyl chloride	MS	1607612-01	ND	28.090	25.000	ug/L		112		58 - 137	
	MSD	1607612-01	ND	26.470	25.000	ug/L	5.9	106	30	58 - 137	
Total Xylenes	MS	1607612-01	ND	77.600	75.000	ug/L		103		79 - 121	
	MSD	1607612-01	ND	74.430	75.000	ug/L	4.2	99.2	30	79 - 121	
p- & m-Xylenes	MS	1607612-01	ND	52.100	50.000	ug/L		104		80 - 121	
	MSD	1607612-01	ND	49.660	50.000	ug/L	4.8	99.3	30	80 - 121	
o-Xylene	MS	1607612-01	ND	25.500	25.000	ug/L		102		78 - 122	
	MSD	1607612-01	ND	24.770	25.000	ug/L	2.9	99.1	30	78 - 122	
1,2-Dichloroethane-d4 (Surrogate)	MS	1607612-01	ND	9.7800	10.000	ug/L		97.8		75 - 125	
	MSD	1607612-01	ND	9.8100	10.000	ug/L	0.3	98.1		75 - 125	

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Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 624)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BZC1496	Used client sample: N										
Toluene-d8 (Surrogate)	MS	1607612-01	ND	10.000	10.000	ug/L		100		80 - 120	
	MSD	1607612-01	ND	10.250	10.000	ug/L	2.5	102		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1607612-01	ND	9.8900	10.000	ug/L		98.9		80 - 120	
	MSD	1607612-01	ND	9.9900	10.000	ug/L	1.0	99.9		80 - 120	

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Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BZC2466						
Acenaphthene	BZC2466-BLK1	ND	ug/L	2.0	0.24	
Acenaphthylene	BZC2466-BLK1	ND	ug/L	2.0	0.28	
Aldrin	BZC2466-BLK1	ND	ug/L	2.0	0.35	
Aniline	BZC2466-BLK1	ND	ug/L	5.0	0.69	
Anthracene	BZC2466-BLK1	ND	ug/L	2.0	0.30	
Benzidine	BZC2466-BLK1	ND	ug/L	20	7.1	
Benzo[a]anthracene	BZC2466-BLK1	ND	ug/L	2.0	0.38	
Benzo[b]fluoranthene	BZC2466-BLK1	ND	ug/L	2.0	0.41	
Benzo[k]fluoranthene	BZC2466-BLK1	ND	ug/L	2.0	0.31	
Benzo[a]pyrene	BZC2466-BLK1	ND	ug/L	2.0	0.20	
Benzo[g,h,i]perylene	BZC2466-BLK1	ND	ug/L	2.0	0.22	
Benzoic acid	BZC2466-BLK1	ND	ug/L	10	5.8	
Benzyl alcohol	BZC2466-BLK1	ND	ug/L	2.0	0.34	
Benzyl butyl phthalate	BZC2466-BLK1	ND	ug/L	2.0	0.47	
alpha-BHC	BZC2466-BLK1	ND	ug/L	2.0	0.27	
beta-BHC	BZC2466-BLK1	ND	ug/L	2.0	0.27	
delta-BHC	BZC2466-BLK1	ND	ug/L	2.0	0.30	
gamma-BHC (Lindane)	BZC2466-BLK1	ND	ug/L	2.0	0.22	
bis(2-Chloroethoxy)methane	BZC2466-BLK1	ND	ug/L	2.0	0.27	
bis(2-Chloroethyl) ether	BZC2466-BLK1	ND	ug/L	2.0	0.68	
bis(2-Chloroisopropyl)ether	BZC2466-BLK1	ND	ug/L	2.0	0.30	
bis(2-Ethylhexyl)phthalate	BZC2466-BLK1	ND	ug/L	5.0	3.0	
4-Bromophenyl phenyl ether	BZC2466-BLK1	ND	ug/L	2.0	0.23	
4-Chloroaniline	BZC2466-BLK1	ND	ug/L	2.0	0.69	
2-Chloronaphthalene	BZC2466-BLK1	ND	ug/L	2.0	0.34	
4-Chlorophenyl phenyl ether	BZC2466-BLK1	ND	ug/L	2.0	0.23	
Chrysene	BZC2466-BLK1	ND	ug/L	2.0	0.63	
4,4'-DDD	BZC2466-BLK1	ND	ug/L	2.0	0.48	
4,4'-DDE	BZC2466-BLK1	ND	ug/L	3.0	0.41	
4,4'-DDT	BZC2466-BLK1	ND	ug/L	2.0	0.43	
Dibenzo[a,h]anthracene	BZC2466-BLK1	ND	ug/L	3.0	0.26	
Dibenzofuran	BZC2466-BLK1	ND	ug/L	2.0	0.21	
1,2-Dichlorobenzene	BZC2466-BLK1	ND	ug/L	2.0	0.37	
1,3-Dichlorobenzene	BZC2466-BLK1	ND	ug/L	2.0	0.35	

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Project Manager: Project Manager

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BZC2466						
1,4-Dichlorobenzene	BZC2466-BLK1	ND	ug/L	2.0	0.31	
3,3-Dichlorobenzidine	BZC2466-BLK1	ND	ug/L	10	8.2	
Dieldrin	BZC2466-BLK1	ND	ug/L	3.0	0.41	
Diethyl phthalate	BZC2466-BLK1	ND	ug/L	2.0	0.33	
Dimethyl phthalate	BZC2466-BLK1	ND	ug/L	2.0	0.39	
Di-n-butyl phthalate	BZC2466-BLK1	ND	ug/L	2.0	0.39	
2,4-Dinitrotoluene	BZC2466-BLK1	ND	ug/L	2.0	0.26	
2,6-Dinitrotoluene	BZC2466-BLK1	ND	ug/L	2.0	0.41	
Di-n-octyl phthalate	BZC2466-BLK1	ND	ug/L	2.0	0.46	
1,2-Diphenylhydrazine	BZC2466-BLK1	ND	ug/L	2.0	0.34	
Endosulfan I	BZC2466-BLK1	ND	ug/L	10	1.7	
Endosulfan II	BZC2466-BLK1	ND	ug/L	10	1.2	
Endosulfan sulfate	BZC2466-BLK1	ND	ug/L	3.0	0.58	
Endrin	BZC2466-BLK1	ND	ug/L	2.0	1.1	
Endrin aldehyde	BZC2466-BLK1	ND	ug/L	10	0.52	
Fluoranthene	BZC2466-BLK1	ND	ug/L	2.0	0.20	
Fluorene	BZC2466-BLK1	ND	ug/L	2.0	0.28	
Heptachlor	BZC2466-BLK1	ND	ug/L	2.0	0.32	
Heptachlor epoxide	BZC2466-BLK1	ND	ug/L	2.0	0.27	
Hexachlorobenzene	BZC2466-BLK1	ND	ug/L	2.0	0.20	
Hexachlorobutadiene	BZC2466-BLK1	ND	ug/L	2.0	0.24	
Hexachlorocyclopentadiene	BZC2466-BLK1	ND	ug/L	2.0	0.30	
Hexachloroethane	BZC2466-BLK1	ND	ug/L	2.0	0.32	
Indeno[1,2,3-cd]pyrene	BZC2466-BLK1	ND	ug/L	2.0	0.26	
Isophorone	BZC2466-BLK1	ND	ug/L	2.0	0.31	
2-Methylnaphthalene	BZC2466-BLK1	ND	ug/L	2.0	0.28	
Naphthalene	BZC2466-BLK1	ND	ug/L	2.0	0.21	
2-Naphthylamine	BZC2466-BLK1	ND	ug/L	20	4.8	
2-Nitroaniline	BZC2466-BLK1	ND	ug/L	2.0	0.33	
3-Nitroaniline	BZC2466-BLK1	ND	ug/L	2.0	0.66	
4-Nitroaniline	BZC2466-BLK1	ND	ug/L	5.0	0.87	
Nitrobenzene	BZC2466-BLK1	ND	ug/L	2.0	0.26	
N-Nitrosodimethylamine	BZC2466-BLK1	ND	ug/L	2.0	0.61	
N-Nitrosodi-N-propylamine	BZC2466-BLK1	ND	ug/L	2.0	1.3	

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Project Manager: Project Manager

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BZC2466						
N-Nitrosodiphenylamine	BZC2466-BLK1	ND	ug/L	2.0	0.44	
Phenanthrene	BZC2466-BLK1	ND	ug/L	2.0	0.20	
Pyrene	BZC2466-BLK1	ND	ug/L	2.0	0.26	
1,2,4-Trichlorobenzene	BZC2466-BLK1	ND	ug/L	2.0	0.27	
4-Chloro-3-methylphenol	BZC2466-BLK1	ND	ug/L	5.0	0.40	
2-Chlorophenol	BZC2466-BLK1	ND	ug/L	2.0	0.37	
2,4-Dichlorophenol	BZC2466-BLK1	ND	ug/L	2.0	0.43	
2,4-Dimethylphenol	BZC2466-BLK1	ND	ug/L	2.0	0.20	
4,6-Dinitro-2-methylphenol	BZC2466-BLK1	ND	ug/L	10	0.34	
2,4-Dinitrophenol	BZC2466-BLK1	ND	ug/L	10	0.20	
2-Methylphenol	BZC2466-BLK1	ND	ug/L	2.0	1.0	
3- & 4-Methylphenol	BZC2466-BLK1	ND	ug/L	2.0	1.6	
2-Nitrophenol	BZC2466-BLK1	ND	ug/L	2.0	0.28	
4-Nitrophenol	BZC2466-BLK1	ND	ug/L	2.0	0.73	
Pentachlorophenol	BZC2466-BLK1	ND	ug/L	10	0.79	
Phenol	BZC2466-BLK1	ND	ug/L	2.0	0.20	
2,4,5-Trichlorophenol	BZC2466-BLK1	ND	ug/L	5.0	0.31	
2,4,6-Trichlorophenol	BZC2466-BLK1	ND	ug/L	5.0	0.60	
2-Fluorophenol (Surrogate)	**BZC2466-BLK1**	**61.0**	%	**30 - 120 (LCL - UCL)**		
Phenol-d5 (Surrogate)	**BZC2466-BLK1**	**41.6**	%	**12 - 110 (LCL - UCL)**		
Nitrobenzene-d5 (Surrogate)	**BZC2466-BLK1**	**90.6**	%	**50 - 130 (LCL - UCL)**		
2-Fluorobiphenyl (Surrogate)	**BZC2466-BLK1**	**88.2**	%	**55 - 125 (LCL - UCL)**		
2,4,6-Tribromophenol (Surrogate)	**BZC2466-BLK1**	**80.8**	%	**40 - 150 (LCL - UCL)**		
p-Terphenyl-d14 (Surrogate)	**BZC2466-BLK1**	**91.0**	%	**40 - 150 (LCL - UCL)**		

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Project: Sullins
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Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BZC2466										
Acenaphthene	BZC2466-BS1	LCS	42.778	50.000	ug/L	85.6		50 - 120		
1,4-Dichlorobenzene	BZC2466-BS1	LCS	50.103	50.000	ug/L	100		50 - 120		
2,4-Dinitrotoluene	BZC2466-BS1	LCS	45.144	50.000	ug/L	90.3		50 - 120		
Hexachlorobenzene	BZC2466-BS1	LCS	32.927	40.000	ug/L	82.3		60 - 120		
Hexachlorobutadiene	BZC2466-BS1	LCS	40.128	50.000	ug/L	80.3		40 - 110		
Hexachloroethane	BZC2466-BS1	LCS	35.967	50.000	ug/L	71.9		40 - 120		
Nitrobenzene	BZC2466-BS1	LCS	51.366	50.000	ug/L	103		50 - 120		
N-Nitrosodi-N-propylamine	BZC2466-BS1	LCS	50.806	50.000	ug/L	102		50 - 120		
Pyrene	BZC2466-BS1	LCS	45.306	50.000	ug/L	90.6		40 - 140		
1,2,4-Trichlorobenzene	BZC2466-BS1	LCS	43.586	50.000	ug/L	87.2		45 - 120		
4-Chloro-3-methylphenol	BZC2466-BS1	LCS	43.833	50.000	ug/L	87.7		50 - 120		
2-Chlorophenol	BZC2466-BS1	LCS	52.098	50.000	ug/L	104		50 - 120		
2-Methylphenol	BZC2466-BS1	LCS	43.330	50.000	ug/L	86.7		40 - 110		
3- & 4-Methylphenol	BZC2466-BS1	LCS	73.938	100.00	ug/L	73.9		40 - 110		
4-Nitrophenol	BZC2466-BS1	LCS	19.218	50.000	ug/L	38.4		10 - 110		
Pentachlorophenol	BZC2466-BS1	LCS	39.036	40.000	ug/L	97.6		30 - 130		
Phenol	BZC2466-BS1	LCS	20.273	50.000	ug/L	40.5		20 - 110		
2,4,6-Trichlorophenol	BZC2466-BS1	LCS	45.078	50.000	ug/L	90.2		54 - 120		
2-Fluorophenol (Surrogate)	BZC2466-BS1	LCS	28.642	50.000	ug/L	57.3		30 - 120		
Phenol-d5 (Surrogate)	BZC2466-BS1	LCS	19.399	50.000	ug/L	38.8		12 - 110		
Nitrobenzene-d5 (Surrogate)	BZC2466-BS1	LCS	46.084	50.000	ug/L	92.2		50 - 130		
2-Fluorobiphenyl (Surrogate)	BZC2466-BS1	LCS	43.462	50.000	ug/L	86.9		55 - 125		
2,4,6-Tribromophenol (Surrogate)	BZC2466-BS1	LCS	43.377	50.000	ug/L	86.8		40 - 150		
p-Terphenyl-d14 (Surrogate)	BZC2466-BS1	LCS	21.565	25.000	ug/L	86.3		40 - 150		

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Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BZC2466	Used client sample: N										
Acenaphthene	MS	1607274-28	ND	40.905	50.000	ug/L		81.8		50 - 120	
	MSD	1607274-28	ND	40.980	50.000	ug/L	0.2	82.0	30	50 - 120	
1,4-Dichlorobenzene	MS	1607274-28	ND	49.892	50.000	ug/L		99.8		47 - 120	
	MSD	1607274-28	ND	46.020	50.000	ug/L	8.1	92.0	30	47 - 120	
2,4-Dinitrotoluene	MS	1607274-28	ND	44.129	50.000	ug/L		88.3		50 - 130	
	MSD	1607274-28	ND	41.130	50.000	ug/L	7.0	82.3	30	50 - 130	
Hexachlorobenzene	MS	1607274-28	ND	32.556	40.000	ug/L		81.4		50 - 120	
	MSD	1607274-28	ND	31.010	40.000	ug/L	4.9	77.5	30	50 - 120	
Hexachlorobutadiene	MS	1607274-28	ND	38.935	50.000	ug/L		77.9		40 - 110	
	MSD	1607274-28	ND	35.830	50.000	ug/L	8.3	71.7	30	40 - 110	
Hexachloroethane	MS	1607274-28	ND	34.653	50.000	ug/L		69.3		40 - 120	
	MSD	1607274-28	ND	33.140	50.000	ug/L	4.5	66.3	30	40 - 120	
Nitrobenzene	MS	1607274-28	ND	52.557	50.000	ug/L		105		50 - 120	
	MSD	1607274-28	ND	48.900	50.000	ug/L	7.2	97.8	30	50 - 120	
N-Nitrosodi-N-propylamine	MS	1607274-28	ND	48.598	50.000	ug/L		97.2		50 - 120	
	MSD	1607274-28	ND	46.060	50.000	ug/L	5.4	92.1	30	50 - 120	
Pyrene	MS	1607274-28	ND	47.853	50.000	ug/L		95.7		40 - 140	
	MSD	1607274-28	ND	44.710	50.000	ug/L	6.8	89.4	30	40 - 140	
1,2,4-Trichlorobenzene	MS	1607274-28	ND	41.836	50.000	ug/L		83.7		43 - 120	
	MSD	1607274-28	ND	39.850	50.000	ug/L	4.9	79.7	30	43 - 120	
4-Chloro-3-methylphenol	MS	1607274-28	ND	43.982	50.000	ug/L		88.0		50 - 120	
	MSD	1607274-28	ND	40.620	50.000	ug/L	7.9	81.2	30	50 - 120	
2-Chlorophenol	MS	1607274-28	ND	49.931	50.000	ug/L		99.9		50 - 120	
	MSD	1607274-28	ND	50.500	50.000	ug/L	1.1	101	30	50 - 120	
2-Methylphenol	MS	1607274-28	ND	41.797	50.000	ug/L		83.6		40 - 110	
	MSD	1607274-28	ND	41.740	50.000	ug/L	0.1	83.5	30	40 - 110	
3- & 4-Methylphenol	MS	1607274-28	ND	74.647	100.00	ug/L		74.6		40 - 110	
	MSD	1607274-28	ND	70.660	100.00	ug/L	5.5	70.7	30	40 - 110	
4-Nitrophenol	MS	1607274-28	ND	20.404	50.000	ug/L		40.8		10 - 110	
	MSD	1607274-28	ND	18.730	50.000	ug/L	8.6	37.5	30	10 - 110	
Pentachlorophenol	MS	1607274-28	ND	38.406	40.000	ug/L		96.0		30 - 120	
	MSD	1607274-28	ND	38.770	40.000	ug/L	0.9	96.9	30	30 - 120	
Phenol	MS	1607274-28	ND	20.345	50.000	ug/L		40.7		20 - 110	
	MSD	1607274-28	ND	19.720	50.000	ug/L	3.1	39.4	30	20 - 110	
2,4,6-Trichlorophenol	MS	1607274-28	ND	42.375	50.000	ug/L		84.8		50 - 150	
	MSD	1607274-28	ND	43.880	50.000	ug/L	3.5	87.8	30	50 - 150	

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Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Base Neutral and Acid Extractables Organic Analysis (EPA Method 625)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BZC2466	Used client sample: N										
2-Fluorophenol (Surrogate)	MS	1607274-28	ND	29.302	50.000	ug/L		58.6		30 - 120	
	MSD	1607274-28	ND	28.810	50.000	ug/L	1.7	57.6		30 - 120	
Phenol-d5 (Surrogate)	MS	1607274-28	ND	19.933	50.000	ug/L		39.9		12 - 110	
	MSD	1607274-28	ND	19.210	50.000	ug/L	3.7	38.4		12 - 110	
Nitrobenzene-d5 (Surrogate)	MS	1607274-28	ND	43.855	50.000	ug/L		87.7		50 - 130	
	MSD	1607274-28	ND	41.630	50.000	ug/L	5.2	83.3		50 - 130	
2-Fluorobiphenyl (Surrogate)	MS	1607274-28	ND	40.670	50.000	ug/L		81.3		55 - 125	
	MSD	1607274-28	ND	42.150	50.000	ug/L	3.6	84.3		55 - 125	
2,4,6-Tribromophenol (Surrogate)	MS	1607274-28	ND	41.503	50.000	ug/L		83.0		40 - 150	
	MSD	1607274-28	ND	43.420	50.000	ug/L	4.5	86.8		40 - 150	
p-Terphenyl-d14 (Surrogate)	MS	1607274-28	ND	23.226	25.000	ug/L		92.9		40 - 150	
	MSD	1607274-28	ND	21.330	25.000	ug/L	8.5	85.3		40 - 150	

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Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BZC1804						
Benzene	BZC1804-BLK1	ND	ug/L	0.50	0.083	
Ethylbenzene	BZC1804-BLK1	ND	ug/L	0.50	0.098	
Methyl t-butyl ether	BZC1804-BLK1	ND	ug/L	0.50	0.11	
Toluene	BZC1804-BLK1	ND	ug/L	0.50	0.093	
Total Xylenes	BZC1804-BLK1	ND	ug/L	1.0	0.36	
t-Amyl Methyl ether	BZC1804-BLK1	ND	ug/L	0.50	0.25	
t-Butyl alcohol	BZC1804-BLK1	ND	ug/L	10	9.4	
Diisopropyl ether	BZC1804-BLK1	ND	ug/L	0.50	0.23	
Ethyl t-butyl ether	BZC1804-BLK1	ND	ug/L	0.50	0.18	
p- & m-Xylenes	BZC1804-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BZC1804-BLK1	ND	ug/L	0.50	0.082	
Total Purgeable Petroleum Hydrocarbons	BZC1804-BLK1	ND	ug/L	50	7.2	
1,2-Dichloroethane-d4 (Surrogate)	**BZC1804-BLK1**	**101**	%	**75 - 125 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**BZC1804-BLK1**	**97.4**	%	**80 - 120 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**BZC1804-BLK1**	**101**	%	**80 - 120 (LCL - UCL)**		

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Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BZC1804										
Benzene	BZC1804-BS1	LCS	23.430	25.000	ug/L	93.7		70 - 130		
Toluene	BZC1804-BS1	LCS	24.870	25.000	ug/L	99.5		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BZC1804-BS1	LCS	10.210	10.000	ug/L	102		75 - 125		
Toluene-d8 (Surrogate)	BZC1804-BS1	LCS	10.130	10.000	ug/L	101		80 - 120		
4-Bromofluorobenzene (Surrogate)	BZC1804-BS1	LCS	10.000	10.000	ug/L	100		80 - 120		

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BZC1804	Used client sample: N										
Benzene	MS	1607774-02	ND	23.470	25.000	ug/L		93.9		70 - 130	
	MSD	1607774-02	ND	23.280	25.000	ug/L	0.8	93.1	20	70 - 130	
Toluene	MS	1607774-02	ND	24.410	25.000	ug/L		97.6		70 - 130	
	MSD	1607774-02	ND	24.310	25.000	ug/L	0.4	97.2	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1607774-02	ND	9.7100	10.000	ug/L		97.1		75 - 125	
	MSD	1607774-02	ND	9.6800	10.000	ug/L	0.3	96.8		75 - 125	
Toluene-d8 (Surrogate)	MS	1607774-02	ND	9.6900	10.000	ug/L		96.9		80 - 120	
	MSD	1607774-02	ND	9.9200	10.000	ug/L	2.3	99.2		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1607774-02	ND	9.7200	10.000	ug/L		97.2		80 - 120	
	MSD	1607774-02	ND	10.530	10.000	ug/L	8.0	105		80 - 120	

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BZC1864										
pH	BZC1864-BS2	LCS	7.0100	7.0000	pH Units	100		95 - 105		

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BZC1864	Used client sample: N										
pH	DUP	1608063-01	7.8000	7.8500		pH Units	0.6		20		

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Compounds by GC/MS (EPA Method TO-15 at STP)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BZC1945						
Benzene	BZC1945-BLK1	ND	ug/m3	2.0	0.42	
Ethylbenzene	BZC1945-BLK1	ND	ug/m3	5.0	0.28	
Methyl t-butyl ether	BZC1945-BLK1	ND	ug/m3	2.0	0.26	
Toluene	BZC1945-BLK1	ND	ug/m3	2.0	0.32	
p- & m-Xylenes	BZC1945-BLK1	ND	ug/m3	5.0	0.61	
o-Xylene	BZC1945-BLK1	ND	ug/m3	5.0	0.25	
Total Xylenes	BZC1945-BLK1	ND	ug/m3	10	0.86	
Total Petroleum Hydrocarbons	BZC1945-BLK1	ND	ug/m3	200	39	
4-Bromofluorobenzene (Surrogate)	**BZC1945-BLK1**	**56.5**	%	**70 - 130 (LCL - UCL)**		

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Volatile Organic Compounds by GC/MS (EPA Method TO-15 at STP)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BZC1945										
Benzene	BZC1945-BS1	LCS	17.699	15.974	ug/m3	111		70 - 130		
	BZC1945-BSD1	LCSD	17.923	15.974	ug/m3	112	1.3	70 - 130	30	
Ethylbenzene	**BZC1945-BS1**	LCS	**25.432**	**21.711**	**ug/m3**	**117**		**70 - 130**		
	BZC1945-BSD1	LCSD	**30.629**	**21.711**	**ug/m3**	**141**	**18.5**	**70 - 130**	**30**	
Toluene	BZC1945-BS1	LCS	21.435	18.842	ug/m3	114		70 - 130		
	BZC1945-BSD1	LCSD	21.921	18.842	ug/m3	116	2.2	70 - 130	30	
p- & m-Xylenes	**BZC1945-BS1**	LCS	**54.589**	**43.421**	**ug/m3**	**126**		**70 - 130**		
	BZC1945-BSD1	LCSD	**65.753**	**43.421**	**ug/m3**	**151**	**18.6**	**70 - 130**	**30**	
o-Xylene	**BZC1945-BS1**	LCS	**27.247**	**21.711**	**ug/m3**	**126**		**70 - 130**		
	BZC1945-BSD1	LCSD	**32.900**	**21.711**	**ug/m3**	**152**	**18.8**	**70 - 130**	**30**	
Total Xylenes	**BZC1945-BS1**	LCS	**81.836**	**65.132**	**ug/m3**	**126**		**70 - 130**		
	BZC1945-BSD1	LCSD	**98.653**	**65.132**	**ug/m3**	**151**	**18.6**	**70 - 130**	**30**	
4-Bromofluorobenzene (Surrogate)	BZC1945-BS1	LCS	70.7	71.6	ug/m3	98.8		70 - 130		
	BZC1945-BSD1	LCSD	67.8	71.6	ug/m3	94.7	4.2	70 - 130		

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 03/24/2016 13:41
Project: Sullins
Project Number: [none]
Project Manager: Project Manager

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
A01	Detection and quantitation limits are raised due to sample dilution.
S05	The sample holding time was exceeded.

Date of Report: 05/12/2016

Project Manager

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Client Project:	1262
BCL Project:	Sullins
BCL Work Order:	1612895
Invoice ID:	B234930

Enclosed are the results of analyses for samples received by the laboratory on 5/5/2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Christina Herndon
Client Service Rep

Authorized Signature

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GROUND ZERO ANALYSIS, INC.
1172 Kansas Avenue
Modesto, CA
(209) 522-4119 Fax 522-4227
E-mail: gza@groundzeroanalysis.com

Chain of Custody

Page 1 of 2

16-12895

Billing To: Ground Zero Analysis, Inc.

Project #: 1262	Project Name: SULLINS
Site Address: 187 NORTH L STREET, LIVERMORE, CA	
Global ID No.: T0600100116	EDF Report: ☒ Yes ☐ No
Client: Ground Zero Analysis, Inc.	Rpt Attn: Ground Zero Anaysis, Inc.
Client Address: 1172 Kansas Avenue	Type of Event: (GWM) Sys Monitoring Drilling Other
City, State, Zip: Modesto, CA 95351	Client Email: gza@groundzeroanalysis.com
Client Phone: (209) 522-4119	Client Fax: (209) 522-4227
Sampling Info:	Sampled By (initials): _____, GZA

Date	Time	EDF Field ID	Sample I.D./Description / Location	No. of Containers	Matrix (Soil, Water, Gas, Other)	Preservation Type	Analysis Requested: TPHg, BTEX, MTBE 8260B
5-3-16	1415	-1	MW-306	4	W	HCL	X
5-3-16	1430	-2	MW-206				
5-3-16	1455	-3	MW-305				
5-3-16	1515	-4	MW-205				
5-4-16	1108	-5	MW-308				
5-4-16	1140	-6	MW-208				
5-4-16	1205	-7	MW-108				
5-4-16	1255	-8	MW-307				
5-4-16	1335	-9	MW-207				
5-4-16	1350	-10	MW-107				
5-5-16	1125	-11	MW-304				
5-5-16	1210	-12	MW-204				
5-5-16	1330	-13	MW-104				
5-5-16	1215	-14	EW-2				
5-5-16	1040	-15	W-35				

Laboratory: BC LABS

Purchase Order #

Turnaround Time: (S) = Standard
1 day 2 day 3 day 5 day

Email Lab Report (.pdf): ☒ Yes ☐ No
Email EDF Lab Report (.zip): ☐ Yes ☐ No
Mail Lab Report: ☐ Yes ☐ No

Special Instructions / Remarks

CHK BY DISTRIBUTION
SUB-OUT ☐

	Signature	Print Name	Company	Date:	Time:
Received / Relinquished by:	Andrew Dorr	ANDREW DORR	GZA	5-5-16	1555
Received / Relinquished by:	Ross Dickey	ROSS DICKEY	BCLABS	5.5.16	1555
Received / Relinquished by:	Ross Dickey	ROSS DICKEY	BCLABS	5.5.16	1930

Please return cooler / ice chest to Ground Zero Analysis, Inc. REC. 5/5/16 19:30 REL 5/5/16 2359

Rev. 3/2014

GROUND ZERO ANALYSIS, INC.
1172 Kansas Avenue
Modesto, CA
(209) 522-4119 Fax 522-4227
E-mail: gza@groundzeroanalysis.com

Chain of Custody

Page 2 of 2

16-12895

Billing To: Ground Zero Analysis, Inc.

Project #: 1262
Project Name: SULLINS
Site Address: 187 NORTH L STREET, LIVERMORE, CA
Global ID No.: T0600100116
EDF Report: ☒ Yes ☐ No
Client: Ground Zero Analysis, Inc.
Rpt Attn: Ground Zero Anaysis, Inc.
Client Address: 1172 Kansas Avenue
Type of Event: (GWM) Sys Monitoring Drilling Other
City, State, Zip: Modesto, CA 95351
Client Email: gza@groundzeroanalysis.com
Client Phone: (209) 522-4119
Client Fax: (209) 522-4227
Sampling Info: Sampled By (initials): ______, GZA

Laboratory: BC LABS
Purchase Order #
Turnaround Time: (S) = Standard
1 day 2 day 3 day 5 day
Email Lab Report (.pdf): ☒ Yes ☐ No
Email EDF Lab Report (.zip): ☐ Yes ☐ No
Mail Lab Report: ☐ Yes ☐ No

Date	Time	EDF Field ID	Sample I.D./Description / Location	No. of Containers	Matrix (Soil, Water, Gas, Other)	Preservation Type	Analysis Requested: TPHg, BTEX, MTBE 8260B	Special Instructions / Remarks
5-4-16	1045	-16	W-Es	4	W	HCL	X	
5-4-16	1130	-17	MW-10	↓	↓	↓	↓	
5-4-16	1205	-18	MW-9	↓	↓	↓	↓	
5-4-16	1445	-19	W-1	↓	↓	↓	↓	
5-5-16	1435	-20	W-A	↓	↓	↓	↓	
5-5-16	1505	-21	W-1s	↓	↓	↓	↓	
5-4-16	1455	-22	W-Bs	↓	↓	↓	↓	

	Signature	Print Name	Company	Date:	Time:
Received / Relinquished by:	[signature]	ANDREW DORN	GZA	5-5-16	1555
Received / Relinquished by:	[signature]	ROSS DICKEY	BCLAB	5.5.16	1555
Received / Relinquished by:	[signature]	ROSS DICKEY	BCLAB	5.5.16	1930

Please return cooler / ice chest to Ground Zero Analysis, Inc. REC [initials] 5/5/16 19:30 REL [initials] 5/5/16 2359 [signature]

Rev. 3/2014

Chain of Custody and Cooler Receipt Form for 1612895 Page 3 of 5

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 3

Submission #: 16-12895

SHIPPING INFORMATION
Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐ Box ☐
Other ☐ (Specify)_____

FREE LIQUID
YES ☐ NO ☐

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: ~~0.97~~ 0.95 Container: VOA Thermometer ID: 208 Date/Time 5/6 0042

Temperature: (A) 0.1 °C / (C) 0.0 °C Analyst Init ARL

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:
Sample Numbering Completed By: _____ Date/Time 5/6/24 0025
A = Actual / C = Corrected

Rev 20 07/24/2015
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Chain of Custody and Cooler Receipt Form for 1612895 Page 4 of 5

BC LABORATORIES INC. | COOLER RECEIPT FORM | Page 2 Of 3

Submission #: 16-12895

SHIPPING INFORMATION
Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐ Box ☐
Other ☐ (Specify)_____

FREE LIQUID
YES ☐ NO ☐

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ (Intact? Yes ☐ No ☐) Containers ☐ (Intact? Yes ☐ No ☐) None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received
☑ YES ☐ NO

Emissivity: ~~0.97~~ 0.95 Container: VOA Thermometer ID: 208 Date/Time 5/6 0042

Temperature: (A) 0.1 °C / (C) 0.0 °C Analyst Init ARL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	11	12	13	14	15	16	17	18	19	20
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD	ABCD
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:
Sample Numbering Completed By: _____ Date/Time 5/7/16 0025
A = Actual / C = Corrected

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Chain of Custody and Cooler Receipt Form for 1612895 Page 5 of 5

BC LABORATORIES INC. — COOLER RECEIPT FORM — Page 3 Of 3

Submission #: 16-12895

SHIPPING INFORMATION
Fed Ex ☐ UPS ☑ Ontrac ☐ Hand Delivery ☐
BC Lab Field Service ☑ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐ Box ☐
Other ☐ (Specify)_____

FREE LIQUID
YES ☐ NO ☐

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: ~~0.97~~ 0.95 Container: VOA Thermometer ID: 208 Date/Time 5/6 0042

Temperature: (A) 0.1 °C / (C) 0.0 °C Analyst Init ARL

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6}										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	ABCD	ABCD								
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:
Sample Numbering Completed By: _____ Date/Time 5.7.16 0025
A = Actual / C = Corrected

Rev 20 07/24/2015
[S:\WPDoc\WordPerfect\LAB_DOCS\FORMS\SAMREC rev 20]

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1612895-01	**COC Number:**	---	**Receive Date:** 05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:** 05/03/2016 14:15
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	MW-306	**Lab Matrix:** Water
	Sampled By:	GZA of GTIM	**Sample Type:** Groundwater
			Delivery Work Order:
			Global ID: T0600100116
			Location ID (FieldPoint): MW-306
			Matrix: W
			Sample QC Type (SACode): CS
			Cooler ID:
1612895-02	**COC Number:**	---	**Receive Date:** 05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:** 05/03/2016 14:30
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	MW-206	**Lab Matrix:** Water
	Sampled By:	GTIM	**Sample Type:** Water
			Delivery Work Order:
			Global ID: T0600100116
			Location ID (FieldPoint): MW-206
			Matrix: W
			Sample QC Type (SACode): CS
			Cooler ID:
1612895-03	**COC Number:**	---	**Receive Date:** 05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:** 05/03/2016 14:55
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	MW-305	**Lab Matrix:** Water
	Sampled By:	GTIM	**Sample Type:** Water
			Delivery Work Order:
			Global ID: T0600100116
			Location ID (FieldPoint): MW-305
			Matrix: W
			Sample QC Type (SACode): CS
			Cooler ID:

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1612895-04	**COC Number:**	---	**Receive Date:** 05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:** 05/03/2016 15:15
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	MW-205	**Lab Matrix:** Water
	Sampled By:	GTIM	**Sample Type:** Water
			Delivery Work Order:
			Global ID: T0600100116
			Location ID (FieldPoint): MW-205
			Matrix: W
			Sample QC Type (SACode): CS
			Cooler ID:
1612895-05	**COC Number:**	---	**Receive Date:** 05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:** 05/04/2016 11:08
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	MW-308	**Lab Matrix:** Water
	Sampled By:	GTIM	**Sample Type:** Water
			Delivery Work Order:
			Global ID: T0600100116
			Location ID (FieldPoint): MW-308
			Matrix: W
			Sample QC Type (SACode): CS
			Cooler ID:
1612895-06	**COC Number:**	---	**Receive Date:** 05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:** 05/04/2016 11:40
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	MW-208	**Lab Matrix:** Water
	Sampled By:	GTIM	**Sample Type:** Water
			Delivery Work Order:
			Global ID: T0600100116
			Location ID (FieldPoint): MW-208
			Matrix: W
			Sample QC Type (SACode): CS
			Cooler ID:

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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1612895-07	**COC Number:**	---	**Receive Date:**	05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:**	05/04/2016 12:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-108	**Lab Matrix:**	Water
	Sampled By:	GTIM	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): MW-108	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1612895-08	**COC Number:**	---	**Receive Date:**	05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:**	05/04/2016 12:55
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-307	**Lab Matrix:**	Water
	Sampled By:	GTIM	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): MW-307	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1612895-09	**COC Number:**	---	**Receive Date:**	05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:**	05/04/2016 13:35
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-207	**Lab Matrix:**	Water
	Sampled By:	GTIM	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): MW-207	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1612895-10	**COC Number:**	---	**Receive Date:** 05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:** 05/04/2016 13:50
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	MW-107	**Lab Matrix:** Water
	Sampled By:	GTIM	**Sample Type:** Water
			Delivery Work Order:
			Global ID: T0600100116
			Location ID (FieldPoint): MW-107
			Matrix: W
			Sample QC Type (SACode): CS
			Cooler ID:
1612895-11	**COC Number:**	---	**Receive Date:** 05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:** 05/05/2016 11:25
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	MW-304	**Lab Matrix:** Water
	Sampled By:	GTIM	**Sample Type:** Water
			Delivery Work Order:
			Global ID: T0600100116
			Location ID (FieldPoint): MW-304
			Matrix: W
			Sample QC Type (SACode): CS
			Cooler ID:
1612895-12	**COC Number:**	---	**Receive Date:** 05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:** 05/05/2016 12:10
	Sampling Location:	---	**Sample Depth:** ---
	Sampling Point:	MW-204	**Lab Matrix:** Water
	Sampled By:	GTIM	**Sample Type:** Water
			Delivery Work Order:
			Global ID: T0600100116
			Location ID (FieldPoint): MW-204
			Matrix: W
			Sample QC Type (SACode): CS
			Cooler ID:

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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1612895-13	**COC Number:**	---	**Receive Date:**	05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:**	05/05/2016 13:30
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-104	**Lab Matrix:**	Water
	Sampled By:	GTIM	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): MW-104	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1612895-14	**COC Number:**	---	**Receive Date:**	05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:**	05/05/2016 12:15
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	EW-2	**Lab Matrix:**	Water
	Sampled By:	GTIM	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): EW-2	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1612895-15	**COC Number:**	---	**Receive Date:**	05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:**	05/05/2016 10:40
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	W-3S	**Lab Matrix:**	Water
	Sampled By:	GTIM	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): W-3S	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1612895-16	**COC Number:**	---	**Receive Date:**	05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:**	05/04/2016 10:45
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	W-ES	**Lab Matrix:**	Water
	Sampled By:	GTIM	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): W-ES	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1612895-17	**COC Number:**	---	**Receive Date:**	05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:**	05/04/2016 11:30
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-10	**Lab Matrix:**	Water
	Sampled By:	GTIM	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): MW-10	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1612895-18	**COC Number:**	---	**Receive Date:**	05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:**	05/04/2016 12:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	MW-9	**Lab Matrix:**	Water
	Sampled By:	GTIM	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): MW-9	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1612895-19	**COC Number:**	---	**Receive Date:**	05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:**	05/04/2016 14:45
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	W-1	**Lab Matrix:**	Water
	Sampled By:	GTIM	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): W-1	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1612895-20	**COC Number:**	---	**Receive Date:**	05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:**	05/05/2016 14:35
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	W-A	**Lab Matrix:**	Water
	Sampled By:	GTIM	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): W-A	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	
1612895-21	**COC Number:**	---	**Receive Date:**	05/05/2016 23:59
	Project Number:	Sullins	**Sampling Date:**	05/05/2016 15:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	W-1S	**Lab Matrix:**	Water
	Sampled By:	GTIM	**Sample Type:**	Water
			Delivery Work Order:	
			Global ID: T0600100116	
			Location ID (FieldPoint): W-1S	
			Matrix: W	
			Sample QC Type (SACode): CS	
			Cooler ID:	

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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information

1612895-22

COC Number: ---
Project Number: Sullins
Sampling Location: ---
Sampling Point: W-BS
Sampled By: GTIM

Receive Date: 05/05/2016 23:59
Sampling Date: 05/04/2016 14:55
Sample Depth: ---
Lab Matrix: Water
Sample Type: Water
Delivery Work Order:
Global ID: T0600100116
Location ID (FieldPoint): W-BS
Matrix: W
Sample QC Type (SACode): CS
Cooler ID:

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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-01 | **Client Sample Name:** Sullins, MW-306, 5/3/2016 2:15:00PM, GZA

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	**12**	**ug/L**	**50**	**7.2**	**Luft-GC/MS**	ND	**J**	1
1,2-Dichloroethane-d4 (Surrogate)	109	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	98.7	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	97.8	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/09/16 20:37	MGC	MS-V5	1	BZE0765

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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-02 | **Client Sample Name:** Sullins, MW-206, 5/3/2016 2:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**0.18**	**ug/L**	**0.50**	**0.083**	**EPA-8260B**	ND	**J**	1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	**18**	**ug/L**	**50**	**7.2**	**Luft-GC/MS**	ND	**J**	1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	104	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/09/16 22:54	MGC	MS-V5	1	BZE0765

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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-03 | **Client Sample Name:** Sullins, MW-305, 5/3/2016 2:55:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**58**	**ug/L**	**0.50**	**0.083**	**EPA-8260B**	ND		1
Ethylbenzene	**18**	**ug/L**	**0.50**	**0.098**	**EPA-8260B**	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260B	ND		1
Toluene	**0.91**	**ug/L**	**0.50**	**0.093**	**EPA-8260B**	ND		1
Total Xylenes	**15**	**ug/L**	**1.0**	**0.36**	**EPA-8260B**	ND		1
p- & m-Xylenes	**11**	**ug/L**	**0.50**	**0.28**	**EPA-8260B**	ND		1
o-Xylene	**3.7**	**ug/L**	**0.50**	**0.082**	**EPA-8260B**	ND		1
Total Purgeable Petroleum Hydrocarbons	**280**	**ug/L**	**50**	**7.2**	**Luft-GC/MS**	ND		1
1,2-Dichloroethane-d4 (Surrogate)	99.0	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	104	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	97.5	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/09/16 23:17	MGC	MS-V5	1	BZE0765

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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-04 | **Client Sample Name:** Sullins, MW-205, 5/3/2016 3:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**1700**	**ug/L**	**25**	**4.2**	**EPA-8260B**	ND	**A01**	1
Ethylbenzene	**84**	**ug/L**	**5.0**	**0.98**	**EPA-8260B**	ND	**A01**	2
Methyl t-butyl ether	**5.7**	**ug/L**	**5.0**	**1.1**	**EPA-8260B**	ND	**A01**	2
Toluene	**1.9**	**ug/L**	**5.0**	**0.93**	**EPA-8260B**	ND	**J,A01**	2
Total Xylenes	**29**	**ug/L**	**10**	**3.6**	**EPA-8260B**	ND	**A01**	2
p- & m-Xylenes	**20**	**ug/L**	**5.0**	**2.8**	**EPA-8260B**	ND	**A01**	2
o-Xylene	**9.1**	**ug/L**	**5.0**	**0.82**	**EPA-8260B**	ND	**A01**	2
Total Purgeable Petroleum Hydrocarbons	**2000**	**ug/L**	**500**	**72**	**Luft-GC/MS**	ND	**A01**	2
1,2-Dichloroethane-d4 (Surrogate)	92.6	%	75 - 125 (LCL - UCL)		EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	94.5	%	75 - 125 (LCL - UCL)		EPA-8260B			2
Toluene-d8 (Surrogate)	99.5	%	80 - 120 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	104	%	80 - 120 (LCL - UCL)		EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/10/16 05:45	MGC	MS-V5	50	BZE0765
2	EPA-8260B	05/09/16	05/10/16 02:19	MGC	MS-V5	10	BZE0765

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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-05 | **Client Sample Name:** Sullins, MW-308, 5/4/2016 11:08:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**34**	**ug/L**	**0.50**	**0.083**	**EPA-8260B**	ND		1
Ethylbenzene	**12**	**ug/L**	**0.50**	**0.098**	**EPA-8260B**	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260B	ND		1
Toluene	**1.8**	**ug/L**	**0.50**	**0.093**	**EPA-8260B**	ND		1
Total Xylenes	**8.6**	**ug/L**	**1.0**	**0.36**	**EPA-8260B**	ND		1
p- & m-Xylenes	**6.7**	**ug/L**	**0.50**	**0.28**	**EPA-8260B**	ND		1
o-Xylene	**1.9**	**ug/L**	**0.50**	**0.082**	**EPA-8260B**	ND		1
Total Purgeable Petroleum Hydrocarbons	**420**	**ug/L**	**50**	**7.2**	**Luft-GC/MS**	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.8	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/09/16 23:40	MGC	MS-V5	1	BZE0765

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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-06 | **Client Sample Name:** Sullins, MW-208, 5/4/2016 11:40:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**2300**	**ug/L**	**25**	**4.2**	**EPA-8260B**	ND	**A01**	1
Ethylbenzene	**260**	**ug/L**	**5.0**	**0.98**	**EPA-8260B**	ND	**A01**	2
Methyl t-butyl ether	**30**	**ug/L**	**5.0**	**1.1**	**EPA-8260B**	ND	**A01**	2
Toluene	**16**	**ug/L**	**5.0**	**0.93**	**EPA-8260B**	ND	**A01**	2
Total Xylenes	**64**	**ug/L**	**10**	**3.6**	**EPA-8260B**	ND	**A01**	2
p- & m-Xylenes	**47**	**ug/L**	**5.0**	**2.8**	**EPA-8260B**	ND	**A01**	2
o-Xylene	**17**	**ug/L**	**5.0**	**0.82**	**EPA-8260B**	ND	**A01**	2
Total Purgeable Petroleum Hydrocarbons	**4700**	**ug/L**	**500**	**72**	**Luft-GC/MS**	ND	**A01**	2
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	94.3	%	75 - 125 (LCL - UCL)		EPA-8260B			2
Toluene-d8 (Surrogate)	99.7	%	80 - 120 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	98.6	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.7	%	80 - 120 (LCL - UCL)		EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/10/16 06:08	MGC	MS-V5	50	BZE0765
2	EPA-8260B	05/09/16	05/09/16 17:34	MGC	MS-V5	10	BZE0765

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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-07 | **Client Sample Name:** Sullins, MW-108, 5/4/2016 12:05:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**590**	**ug/L**	**5.0**	**0.83**	**EPA-8260B**	ND	**A01**	1
Ethylbenzene	**45**	**ug/L**	**5.0**	**0.98**	**EPA-8260B**	ND	**A01**	1
Methyl t-butyl ether	**37**	**ug/L**	**5.0**	**1.1**	**EPA-8260B**	ND	**A01**	1
Toluene	**16**	**ug/L**	**5.0**	**0.93**	**EPA-8260B**	ND	**A01**	1
Total Xylenes	**34**	**ug/L**	**10**	**3.6**	**EPA-8260B**	ND	**A01**	1
p- & m-Xylenes	**27**	**ug/L**	**5.0**	**2.8**	**EPA-8260B**	ND	**A01**	1
o-Xylene	**6.5**	**ug/L**	**5.0**	**0.82**	**EPA-8260B**	ND	**A01**	1
Total Purgeable Petroleum Hydrocarbons	**2700**	**ug/L**	**500**	**72**	**Luft-GC/MS**	ND	**A01**	1
1,2-Dichloroethane-d4 (Surrogate)	99.9	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.7	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	97.8	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/10/16 02:42	MGC	MS-V5	10	BZE0765

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-08 | **Client Sample Name:** Sullins, MW-307, 5/4/2016 12:55:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**64**	**ug/L**	**0.50**	**0.083**	**EPA-8260B**	ND		1
Ethylbenzene	**17**	**ug/L**	**0.50**	**0.098**	**EPA-8260B**	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260B	ND		1
Toluene	**0.80**	**ug/L**	**0.50**	**0.093**	**EPA-8260B**	ND		1
Total Xylenes	**16**	**ug/L**	**1.0**	**0.36**	**EPA-8260B**	ND		1
p- & m-Xylenes	**13**	**ug/L**	**0.50**	**0.28**	**EPA-8260B**	ND		1
o-Xylene	**2.8**	**ug/L**	**0.50**	**0.082**	**EPA-8260B**	ND		1
Total Purgeable Petroleum Hydrocarbons	**320**	**ug/L**	**50**	**7.2**	**Luft-GC/MS**	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.9	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	96.5	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.0	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/10/16 00:03	MGC	MS-V5	1	BZE0765

Ground Zero Analysis, Inc.
1172 Kansas Avenue
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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-09 | **Client Sample Name:** Sullins, MW-207, 5/4/2016 1:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**3500**	**ug/L**	**25**	**4.2**	**EPA-8260B**	ND	**A01**	1
Ethylbenzene	**160**	**ug/L**	**5.0**	**0.98**	**EPA-8260B**	ND	**A01**	2
Methyl t-butyl ether	**49**	**ug/L**	**5.0**	**1.1**	**EPA-8260B**	ND	**A01**	2
Toluene	**13**	**ug/L**	**5.0**	**0.93**	**EPA-8260B**	ND	**A01**	2
Total Xylenes	**64**	**ug/L**	**10**	**3.6**	**EPA-8260B**	ND	**A01**	2
p- & m-Xylenes	**47**	**ug/L**	**5.0**	**2.8**	**EPA-8260B**	ND	**A01**	2
o-Xylene	**17**	**ug/L**	**5.0**	**0.82**	**EPA-8260B**	ND	**A01**	2
Total Purgeable Petroleum Hydrocarbons	**4300**	**ug/L**	**500**	**72**	**Luft-GC/MS**	ND	**A01**	2
1,2-Dichloroethane-d4 (Surrogate)	96.1	%	75 - 125 (LCL - UCL)		EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	86.0	%	75 - 125 (LCL - UCL)		EPA-8260B			2
Toluene-d8 (Surrogate)	95.4	%	80 - 120 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.2	%	80 - 120 (LCL - UCL)		EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	98.4	%	80 - 120 (LCL - UCL)		EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/10/16 16:19	MGC	MS-V5	50	BZE0765
2	EPA-8260B	05/09/16	05/10/16 03:05	MGC	MS-V5	10	BZE0765

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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-10 | **Client Sample Name:** Sullins, MW-107, 5/4/2016 1:50:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**9400**	**ug/L**	**250**	**42**	**EPA-8260B**	ND	**A01**	1
Ethylbenzene	**82**	**ug/L**	**5.0**	**0.98**	**EPA-8260B**	ND	**A01**	2
Methyl t-butyl ether	**24**	**ug/L**	**5.0**	**1.1**	**EPA-8260B**	ND	**A01**	2
Toluene	**12**	**ug/L**	**5.0**	**0.93**	**EPA-8260B**	ND	**A01**	2
Total Xylenes	**24**	**ug/L**	**10**	**3.6**	**EPA-8260B**	ND	**A01**	2
p- & m-Xylenes	**17**	**ug/L**	**5.0**	**2.8**	**EPA-8260B**	ND	**A01**	2
o-Xylene	**6.2**	**ug/L**	**5.0**	**0.82**	**EPA-8260B**	ND	**A01**	2
Total Purgeable Petroleum Hydrocarbons	**5600**	**ug/L**	**500**	**72**	**Luft-GC/MS**	ND	**A01**	2
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	75.6	%	75 - 125 (LCL - UCL)		EPA-8260B			2
Toluene-d8 (Surrogate)	97.5	%	80 - 120 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	103	%	80 - 120 (LCL - UCL)		EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	97.6	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.5	%	80 - 120 (LCL - UCL)		EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/11/16 19:08	MGC	MS-V5	500	BZE0765
2	EPA-8260B	05/09/16	05/10/16 03:28	MGC	MS-V5	10	BZE0765

Ground Zero Analysis, Inc.
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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-11 | **Client Sample Name:** Sullins, MW-304, 5/5/2016 11:25:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**70**	**ug/L**	**0.50**	**0.083**	**EPA-8260B**	ND		1
Ethylbenzene	**31**	**ug/L**	**0.50**	**0.098**	**EPA-8260B**	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260B	ND		1
Toluene	**2.5**	**ug/L**	**0.50**	**0.093**	**EPA-8260B**	ND		1
Total Xylenes	**53**	**ug/L**	**1.0**	**0.36**	**EPA-8260B**	ND		1
p- & m-Xylenes	**43**	**ug/L**	**0.50**	**0.28**	**EPA-8260B**	ND		1
o-Xylene	**9.8**	**ug/L**	**0.50**	**0.082**	**EPA-8260B**	ND		1
Total Purgeable Petroleum Hydrocarbons	**570**	**ug/L**	**50**	**7.2**	**Luft-GC/MS**	ND		1
1,2-Dichloroethane-d4 (Surrogate)	98.8	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	98.3	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	104	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/10/16 00:25	MGC	MS-V5	1	BZE0765

Ground Zero Analysis, Inc.
1172 Kansas Avenue
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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-12 | **Client Sample Name:** Sullins, MW-204, 5/5/2016 12:10:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**430**	**ug/L**	**5.0**	**0.83**	**EPA-8260B**	ND	**A01**	1
Ethylbenzene	**41**	**ug/L**	**5.0**	**0.98**	**EPA-8260B**	ND	**A01**	1
Methyl t-butyl ether	ND	ug/L	5.0	1.1	EPA-8260B	ND	A01	1
Toluene	**13**	**ug/L**	**5.0**	**0.93**	**EPA-8260B**	ND	**A01**	1
Total Xylenes	**58**	**ug/L**	**10**	**3.6**	**EPA-8260B**	ND	**A01**	1
p- & m-Xylenes	**49**	**ug/L**	**5.0**	**2.8**	**EPA-8260B**	ND	**A01**	1
o-Xylene	**9.6**	**ug/L**	**5.0**	**0.82**	**EPA-8260B**	ND	**A01**	1
Total Purgeable Petroleum Hydrocarbons	**2200**	**ug/L**	**500**	**72**	**Luft-GC/MS**	ND	**A01**	1
1,2-Dichloroethane-d4 (Surrogate)	101	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	96.5	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	92.3	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/10/16 03:51	MGC	MS-V5	10	BZE0765

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-13 | **Client Sample Name:** Sullins, MW-104, 5/5/2016 1:30:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**390**	**ug/L**	**5.0**	**0.83**	**EPA-8260B**	ND	**A01**	1
Ethylbenzene	**130**	**ug/L**	**5.0**	**0.98**	**EPA-8260B**	ND	**A01**	1
Methyl t-butyl ether	**14**	**ug/L**	**5.0**	**1.1**	**EPA-8260B**	ND	**A01**	1
Toluene	**14**	**ug/L**	**5.0**	**0.93**	**EPA-8260B**	ND	**A01**	1
Total Xylenes	**320**	**ug/L**	**10**	**3.6**	**EPA-8260B**	ND	**A01**	1
p- & m-Xylenes	**210**	**ug/L**	**5.0**	**2.8**	**EPA-8260B**	ND	**A01**	1
o-Xylene	**110**	**ug/L**	**5.0**	**0.82**	**EPA-8260B**	ND	**A01**	1
Total Purgeable Petroleum Hydrocarbons	**3200**	**ug/L**	**500**	**72**	**Luft-GC/MS**	ND	**A01**	1
1,2-Dichloroethane-d4 (Surrogate)	100	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	104	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/10/16 04:13	MGC	MS-V5	10	BZE0765

Ground Zero Analysis, Inc.
1172 Kansas Avenue
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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-14 | **Client Sample Name:** Sullins, EW-2, 5/5/2016 12:15:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**150**	**ug/L**	**5.0**	**0.83**	**EPA-8260B**	ND	**A01**	1
Ethylbenzene	**88**	**ug/L**	**5.0**	**0.98**	**EPA-8260B**	ND	**A01**	1
Methyl t-butyl ether	ND	ug/L	5.0	1.1	EPA-8260B	ND	A01	1
Toluene	**4.3**	**ug/L**	**5.0**	**0.93**	**EPA-8260B**	ND	**J,A01**	1
Total Xylenes	**320**	**ug/L**	**10**	**3.6**	**EPA-8260B**	ND	**A01**	1
p- & m-Xylenes	**220**	**ug/L**	**5.0**	**2.8**	**EPA-8260B**	ND	**A01**	1
o-Xylene	**100**	**ug/L**	**5.0**	**0.82**	**EPA-8260B**	ND	**A01**	1
Total Purgeable Petroleum Hydrocarbons	**9000**	**ug/L**	**500**	**72**	**Luft-GC/MS**	ND	**A01**	1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/10/16 04:36	MGC	MS-V5	10	BZE0765

Ground Zero Analysis, Inc.
1172 Kansas Avenue
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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-15 | **Client Sample Name:** Sullins, W-3S, 5/5/2016 10:40:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	7.2	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	108	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	95.8	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/10/16 00:48	MGC	MS-V5	1	BZE0765

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-16 | **Client Sample Name:** Sullins, W-ES, 5/4/2016 10:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	ND	ug/L	50	7.2	Luft-GC/MS	ND		1
1,2-Dichloroethane-d4 (Surrogate)	104	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	98.8	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/10/16 01:11	MGC	MS-V5	1	BZE0765

Ground Zero Analysis, Inc.
1172 Kansas Avenue
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Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-17 | **Client Sample Name:** Sullins, MW-10, 5/4/2016 11:30:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**17**	**ug/L**	**0.50**	**0.083**	**EPA-8260B**	ND		1
Ethylbenzene	**3.1**	**ug/L**	**0.50**	**0.098**	**EPA-8260B**	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260B	ND		1
Toluene	**0.12**	**ug/L**	**0.50**	**0.093**	**EPA-8260B**	ND	**J**	1
Total Xylenes	**0.36**	**ug/L**	**1.0**	**0.36**	**EPA-8260B**	ND	**J**	1
p- & m-Xylenes	**0.36**	**ug/L**	**0.50**	**0.28**	**EPA-8260B**	ND	**J**	1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	**150**	**ug/L**	**50**	**7.2**	**Luft-GC/MS**	ND		1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.8	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/10/16 01:34	MGC	MS-V5	1	BZE0765

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-18 | **Client Sample Name:** Sullins, MW-9, 5/4/2016 12:05:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	**23**	**ug/L**	**50**	**7.2**	**Luft-GC/MS**	ND	**J**	1
1,2-Dichloroethane-d4 (Surrogate)	103	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.1	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.6	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/10/16 01:57	MGC	MS-V5	1	BZE0765

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-19 | **Client Sample Name:** Sullins, W-1, 5/4/2016 2:45:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**580**	**ug/L**	**5.0**	**0.83**	**EPA-8260B**	ND	**A01**	1
Ethylbenzene	**220**	**ug/L**	**5.0**	**0.98**	**EPA-8260B**	ND	**A01**	1
Methyl t-butyl ether	**18**	**ug/L**	**5.0**	**1.1**	**EPA-8260B**	ND	**A01**	1
Toluene	**45**	**ug/L**	**5.0**	**0.93**	**EPA-8260B**	ND	**A01**	1
Total Xylenes	**1000**	**ug/L**	**10**	**3.6**	**EPA-8260B**	ND	**A01**	1
p- & m-Xylenes	**840**	**ug/L**	**5.0**	**2.8**	**EPA-8260B**	ND	**A01**	1
o-Xylene	**190**	**ug/L**	**5.0**	**0.82**	**EPA-8260B**	ND	**A01**	1
Total Purgeable Petroleum Hydrocarbons	**14000**	**ug/L**	**500**	**72**	**Luft-GC/MS**	ND	**A01**	1
1,2-Dichloroethane-d4 (Surrogate)	98.2	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/10/16 04:59	MGC	MS-V5	10	BZE0765

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-20 | **Client Sample Name:** Sullins, W-A, 5/5/2016 2:35:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**230**	**ug/L**	**5.0**	**0.83**	**EPA-8260B**	ND	**A01**	1
Ethylbenzene	**34**	**ug/L**	**0.50**	**0.098**	**EPA-8260B**	ND		2
Methyl t-butyl ether	**5.3**	**ug/L**	**0.50**	**0.11**	**EPA-8260B**	ND		2
Toluene	**2.9**	**ug/L**	**0.50**	**0.093**	**EPA-8260B**	ND		2
Total Xylenes	**73**	**ug/L**	**1.0**	**0.36**	**EPA-8260B**	ND		2
p- & m-Xylenes	**36**	**ug/L**	**0.50**	**0.28**	**EPA-8260B**	ND		2
o-Xylene	**37**	**ug/L**	**0.50**	**0.082**	**EPA-8260B**	ND		2
Total Purgeable Petroleum Hydrocarbons	**2000**	**ug/L**	**500**	**72**	**Luft-GC/MS**	ND	**A01**	1
1,2-Dichloroethane-d4 (Surrogate)	96.0	%	75 - 125 (LCL - UCL)		EPA-8260B			1
1,2-Dichloroethane-d4 (Surrogate)	93.4	%	75 - 125 (LCL - UCL)		EPA-8260B			2
Toluene-d8 (Surrogate)	97.0	%	80 - 120 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-8260B			2
4-Bromofluorobenzene (Surrogate)	97.5	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	111	%	80 - 120 (LCL - UCL)		EPA-8260B			2

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/10/16 05:22	MGC	MS-V5	10	BZE0765
2	EPA-8260B	05/09/16	05/10/16 17:05	MGC	MS-V5	1	BZE0765

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-21 | **Client Sample Name:** Sullins, W-1S, 5/5/2016 3:05:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**3.2**	**ug/L**	**0.50**	**0.083**	**EPA-8260B**	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
Total Purgeable Petroleum Hydrocarbons	**28**	**ug/L**	**50**	**7.2**	**Luft-GC/MS**	ND	**J**	1
1,2-Dichloroethane-d4 (Surrogate)	108	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.8	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/09/16 16:49	MGC	MS-V5	1	BZE0561

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1612895-22 | **Client Sample Name:** Sullins, W-BS, 5/4/2016 2:55:00PM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	**0.87**	**ug/L**	**0.50**	**0.083**	**EPA-8260B**	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Methyl t-butyl ether	ND	ug/L	0.50	0.11	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	**0.15**	**ug/L**	**0.50**	**0.082**	**EPA-8260B**	ND	**J**	1
Total Purgeable Petroleum Hydrocarbons	**44**	**ug/L**	**50**	**7.2**	**Luft-GC/MS**	ND	**J**	1
1,2-Dichloroethane-d4 (Surrogate)	110	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	103	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	05/09/16	05/09/16 17:11	MGC	MS-V5	1	BZE0561

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BZE0561						
Benzene	BZE0561-BLK1	ND	ug/L	0.50	0.083	
Ethylbenzene	BZE0561-BLK1	ND	ug/L	0.50	0.098	
Methyl t-butyl ether	BZE0561-BLK1	ND	ug/L	0.50	0.11	
Toluene	BZE0561-BLK1	ND	ug/L	0.50	0.093	
Total Xylenes	BZE0561-BLK1	ND	ug/L	1.0	0.36	
p- & m-Xylenes	BZE0561-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BZE0561-BLK1	ND	ug/L	0.50	0.082	
Total Purgeable Petroleum Hydrocarbons	BZE0561-BLK1	ND	ug/L	50	7.2	
1,2-Dichloroethane-d4 (Surrogate)	**BZE0561-BLK1**	**104**	%	**75 - 125 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**BZE0561-BLK1**	**102**	%	**80 - 120 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**BZE0561-BLK1**	**98.3**	%	**80 - 120 (LCL - UCL)**		
QC Batch ID: BZE0765						
Benzene	BZE0765-BLK1	ND	ug/L	0.50	0.083	
Ethylbenzene	BZE0765-BLK1	ND	ug/L	0.50	0.098	
Methyl t-butyl ether	BZE0765-BLK1	ND	ug/L	0.50	0.11	
Toluene	BZE0765-BLK1	ND	ug/L	0.50	0.093	
Total Xylenes	BZE0765-BLK1	ND	ug/L	1.0	0.36	
p- & m-Xylenes	BZE0765-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BZE0765-BLK1	ND	ug/L	0.50	0.082	
Total Purgeable Petroleum Hydrocarbons	BZE0765-BLK1	ND	ug/L	50	7.2	
1,2-Dichloroethane-d4 (Surrogate)	**BZE0765-BLK1**	**106**	%	**75 - 125 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**BZE0765-BLK1**	**102**	%	**80 - 120 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**BZE0765-BLK1**	**102**	%	**80 - 120 (LCL - UCL)**		

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BZE0561										
Benzene	BZE0561-BS1	LCS	22.660	25.000	ug/L	90.6		70 - 130		
Toluene	BZE0561-BS1	LCS	22.400	25.000	ug/L	89.6		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BZE0561-BS1	LCS	10.090	10.000	ug/L	101		75 - 125		
Toluene-d8 (Surrogate)	BZE0561-BS1	LCS	9.7600	10.000	ug/L	97.6		80 - 120		
4-Bromofluorobenzene (Surrogate)	BZE0561-BS1	LCS	9.7100	10.000	ug/L	97.1		80 - 120		
QC Batch ID: BZE0765										
Benzene	BZE0765-BS1	LCS	22.290	25.000	ug/L	89.2		70 - 130		
Toluene	BZE0765-BS1	LCS	22.490	25.000	ug/L	90.0		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BZE0765-BS1	LCS	10.370	10.000	ug/L	104		75 - 125		
Toluene-d8 (Surrogate)	BZE0765-BS1	LCS	10.040	10.000	ug/L	100		80 - 120		
4-Bromofluorobenzene (Surrogate)	BZE0765-BS1	LCS	9.9100	10.000	ug/L	99.1		80 - 120		

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BZE0561	Used client sample: N										
Benzene	MS	1612735-01	ND	21.790	25.000	ug/L		87.2		70 - 130	
	MSD	1612735-01	ND	22.510	25.000	ug/L	3.3	90.0	20	70 - 130	
Toluene	MS	1612735-01	ND	22.220	25.000	ug/L		88.9		70 - 130	
	MSD	1612735-01	ND	22.690	25.000	ug/L	2.1	90.8	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1612735-01	ND	10.010	10.000	ug/L		100		75 - 125	
	MSD	1612735-01	ND	10.310	10.000	ug/L	3.0	103		75 - 125	
Toluene-d8 (Surrogate)	MS	1612735-01	ND	9.9000	10.000	ug/L		99.0		80 - 120	
	MSD	1612735-01	ND	9.7800	10.000	ug/L	1.2	97.8		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1612735-01	ND	10.120	10.000	ug/L		101		80 - 120	
	MSD	1612735-01	ND	10.180	10.000	ug/L	0.6	102		80 - 120	
QC Batch ID: BZE0765	Used client sample: Y - Description: MW-306, 05/03/2016 14:15										
Benzene	MS	1612895-01	ND	23.790	25.000	ug/L		95.2		70 - 130	
	MSD	1612895-01	ND	26.040	25.000	ug/L	9.0	104	20	70 - 130	
Toluene	MS	1612895-01	ND	23.210	25.000	ug/L		92.8		70 - 130	
	MSD	1612895-01	ND	25.680	25.000	ug/L	10.1	103	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1612895-01	ND	10.710	10.000	ug/L		107		75 - 125	
	MSD	1612895-01	ND	10.770	10.000	ug/L	0.6	108		75 - 125	
Toluene-d8 (Surrogate)	MS	1612895-01	ND	10.030	10.000	ug/L		100		80 - 120	
	MSD	1612895-01	ND	9.7800	10.000	ug/L	2.5	97.8		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1612895-01	ND	9.9900	10.000	ug/L		99.9		80 - 120	
	MSD	1612895-01	ND	9.8100	10.000	ug/L	1.8	98.1		80 - 120	

Ground Zero Analysis, Inc.
1172 Kansas Avenue
Modesto, CA 95351

Reported: 05/12/2016 12:19
Project: Sullins
Project Number: 1262
Project Manager: Project Manager

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
A01	Detection and quantitation limits are raised due to sample dilution.

ATTACHMENT D

Remedial Operation and Maintenance Field Logs

GROUND ZERO ANALYSIS, INC.

Daily Field Record

Project: SULLINS
Project #: 1262.2
Location: 187 NORTH L STREET, LIVERMORE, CA
Weather: SUNNY

Date: 1-11-2016
Time on job: 1150 to 1710
Record Keeper: ANDREW DORN
Wind: 5-10 MPH
Temp: 50°

PERSONNEL ONSITE		TIME ONSITE	
Name	Company	In	Out
ANDREW DORN	GROUND ZERO	1330	1510

Time	Location of Work / Work Performed / Field Equipment Used / etc.
1330	ARRIVED ON-SITE – SYSTEM HAD SHUT DOWN DUE TO HIGH TEMP ALARM
1335	RESTARTED DPE SYSTEM
1	PLACED 2016 PERMIT IN DPE CABINET
1445	COLLECTED SVE-INF LAB SAMPLE W-1 CLOSED, W-A OPEN,
	FW-1 CLOSED, FW-2 1/2 OPEN
1500	COLLECTED GW-INF SAMPLE
	AIR STRIPPER RAN THRU A CYCLE W/O ALARM
1510	LEFT SITE – DPE SYSTEM OPERATING
	SVE-INF = 1610 PPM
	SVE-EFF = 2.3 PPM

Continued On Next Page

GROUND ZERO ANALYSIS, INC.

Daily Field Record

Project SULLINS
Project # 1262.2
Location 187 NORTH L STREET, LIVERMORE, CA
Weather SUNNY

Date 2-16-2016
Time on job 1030 **to** 1700
Record Keeper A. DORN
Wind 5-10 MPH
Temp ~ 70°

PERSONNEL ONSITE		TIME ONSITE	
Name	Company	In	Out
ANDREW DORN	GROUND ZERO	1225	1500

Time	Location of Work / Work Performed / Field Equipment Used / etc.
1225	ARRIVED ON-SITE - SYSTEM SHUT DOWN DUE TO HIGH OXIDIZER TEMP ALARM
	↳ CONSISTENT ALARM THAT KEEPS SHUTTING SYSTEM DOWN
	W-A OPEN, EW-2 1/2 OPEN
	POSSIBLE "SLUG" FROM EW-2 SHUTTING DOWN
	HOURS ON 1/11 883.2 HRS
1238	W-1s DTW = 40.91' BGS - GW INCREASED ~ 14' SINCE DEC 2015
	GWM EVENT
1242	RESTARTED SYSTEM EW-1 OPEN, W-A OPEN, EW-2 1/4 OPEN
	HOURS - 884.3
	PG&E - 22444
	GW DIS - 741784
	PROPANE - 82 %
1255	SYSTEM RUNNING @ 1480+ °F -TOO HIGH → OPENED DILUTION (105 cfm - 115 cfm)
	TEMP DOWN TO 1470 °F
	CLOSED EW-1, TEMP TO 1485, CFM DOWN TO 45 - REOPENED EW-1
	TEMP DOWN TO 1460 °F

Continued On Next Page

GROUND ZERO ANALYSIS, INC.

Daily Field Record Continued

Project Name SULLINS **Project #** 1262.2 **Date** 2-16-16

Technician A. DORN

Time	Location of Work / Work Performed / Field Equipment Used / etc.
1305	OPENED W-1S, CLOSED DILUTION (W-A OPEN, W-1S OPEN, EW-1 OPEN, EW-2 1/2 OPEN)
	TEMP - 1453°F, FLOW 140 CFM BUT VACCUM @13" Hg (MUST BE >14)
	CLOSED EW-1 TO ↑ VACUUM
1311	TEMP — 1460°F, FLOW 92 CFM, VACCUM UP TO 18" Hg
	OPENED DILUTION TO ↓ TEMP
1330	TEMP - 1445°F, FLOW - 115 CFM, VACUUM @ 16" Hg
1350	EMPTIED KO DRUM IN ORDER TO SAMPLE FRESHLY EXTRACTED GW
1358	W-BS 42.99' BTOC
1405	MW-10 45.74' BTOC
	GW EXTRACTED FROM EW-2 ONLY, W-A NOT EXTRACTING GW (GW ↓)
	VAPOR ONLY EXTRACTED FROM W-1S
1440	COLLECTED GW SAMPLE
1500	LEFT SITE SYSTEM @ 1440°F, 115 CFM, VACUUM @ 16" Hg
	SVE-EFF = 6.4 PPM
	SVE-INF = 1290 PPM

GROUND ZERO ANALYSIS, INC.

Daily Field Record

Project SULLINS
Project # 1262.2
Location 187 N. L STREET, LIVERMORE, CA
Weather SUNNY

Date 3-16-2016
Time on job 0920 to 1640
Record Keeper ANDREW DORN
Wind < 5 MPH
Temp 75°

PERSONNEL ONSITE		TIME ONSITE	
Name	Company	In	Out
ANDREW DORN	GROUND ZERO	1103	1530

Time	Location of Work / Work Performed / Field Equipment Used / etc.
1103	ARRIVED ON-SITE — SYSTEM SHUT DOWN
1120	COLLECTED GW-DIS SAMPLE
1128	BEGAN DPE O&M W-1S DTW = 34.5' BGS
	• REMOVED & CLEANED KO DRUM SIGHT GLASS, STORAGE TANK SIGHT GLASS &
	AIR STRIPPER SITE GLASS — FLOAT MECHANISMS WERE SOAKED & SCRUBBED
	IN DILUTE MURIATIC ACID
	• OIL LEVEL IN LIQUID RING PUMP OK
	• SCRUBBED INSIDE OF STORAGE TANK
	• CLEANED OUT ENTRAINMENT SEPARATOR — R. LARSEN NOTED A NEW FILTER IS
	NEEDED
	• TOOK APART & CLEANED AIR STRIPPER
	• PUT MURIATIC ACID IN STORAGE TANK WATER & RAN THRU SYSTEM
1330	STARTED UP THE DPE SYSTEM OPERATING ON W-A & EW-2
	PULLED OUT STINGER TO ENSURE WELLS ARE PUMPING GW
	EW-2 STINGER SCREENED 45' TO 35' BGS
1400	COLLECTED SVE-INF SAMPLE PID = 2320

Continued On Next Page

GROUND ZERO ANALYSIS, INC.

Daily Field Record Continued

Project Name Sullins Project # 1262.2 Date 3-16-16

Technician

Time	Location of Work / Work Performed / Field Equipment Used / etc.
	WATCHED SYSTEM OPERATE
	• STORAGE TANK LEVEL SWITCH WORKING PROPERLY
	• AIR STRIPPER TANK LEVEL SWITCH WORKING PROPERLY
	• KO DRUM LEVEL SWITCH WORKING PROPERLY
	→ KO PUMP TURNS ON BUT DOES NOT PUMP WATER — NO CLOGS, FAN
	AND IMPELLER MOVING PROPERLY
	COULD NOT COLLECT GW-INF SAMPLE
1530	LEFT SITE
	ADDITIONAL WORK
	• FIX KO DRUM PUMP
	• FIX A FEW SMALL LEAKS
	• TIME KO PUMP, STORAGE PUMP + AIR STRIPPER PUMPS
1631	BC LABS P/U SAMPLES FROM OFFICE

GROUND ZERO ANALYSIS, INC.
1172 Kansas Avenue
Modesto, CA
(209) 522-4119 Fax 522-4227
E-mail: gza@groundzeroanalysis.com

Chain of Custody

Billing To: Ground Zero Analysis, Inc.

Project #: 1262.2
Project Name: SULLINS
Site Address: 187 N. L STREET, LIVERMORE, CA
Global ID No.:
EDF Report: ☒ Yes ☐ No
Client: Ground Zero Analysis, Inc.
Rpt Attn: Ground Zero Anaysis, Inc
Client Address: 1172 Kansas Avenue
Type of Event: GWM (Sys Monitoring) Drilling Other
City, State, Zip: Modesto, CA 95351
Client Email: gza@groundzeroanalysis.com
Client Phone: (209) 522-4119
Client Fax: (209) 522-4227
Sampling Info: Sampled By (initials): AD, GZA

Date	Time	EDF Field ID	Sample I.D./Description / Location	No. of Containers	Matrix (Soil, Water, Gas, Other)	Preservation Type	Analysis Requested: 8260 *	FH 150.1	EPA 624	EPA 625	EPA 608	TO-15 **
3-16-16	1120		GW-DIS	10	W	—	X	X	X	XX		
3-16-16	1900		SVE-INF	1	G	—						X

Analysis Requested

Laboratory: BC LABS
Purchase Order #
Turnaround Time: (S) = Standard
1 day 2 day 3 day 5 day
Email Lab Report (.pdf): ☒ Yes ☐ No
Email EDF Lab Report (.zip): ☐ Yes ☐ No
Mail Lab Report: ☐ Yes ☐ No

Special Instructions / Remarks

*8260 INCLUDES: TPHg, BTEX, MTBE, DIPE, ETBE, TAME + TBA

** TO-15 INCLUDES TPHg, BTEX + MTBE

Signature	Print Name	Company	Date:	Time:
Received / Relinquished by:	ANDREW DORN	GZA	3-16-16	1631
Received / Relinquished by:	Ross Dickey	BCLAB	3.16.16	1631
Received / Relinquished by:				

Please return cooler / ice chest to Ground Zero Analysis, Inc.

GROUND ZERO ANALYSIS, INC.

Daily Field Record

Project SULLINS
Project # 1262.2
Location 187 NORTH L STREET, LIVERMORE, CA
Weather SUNNY

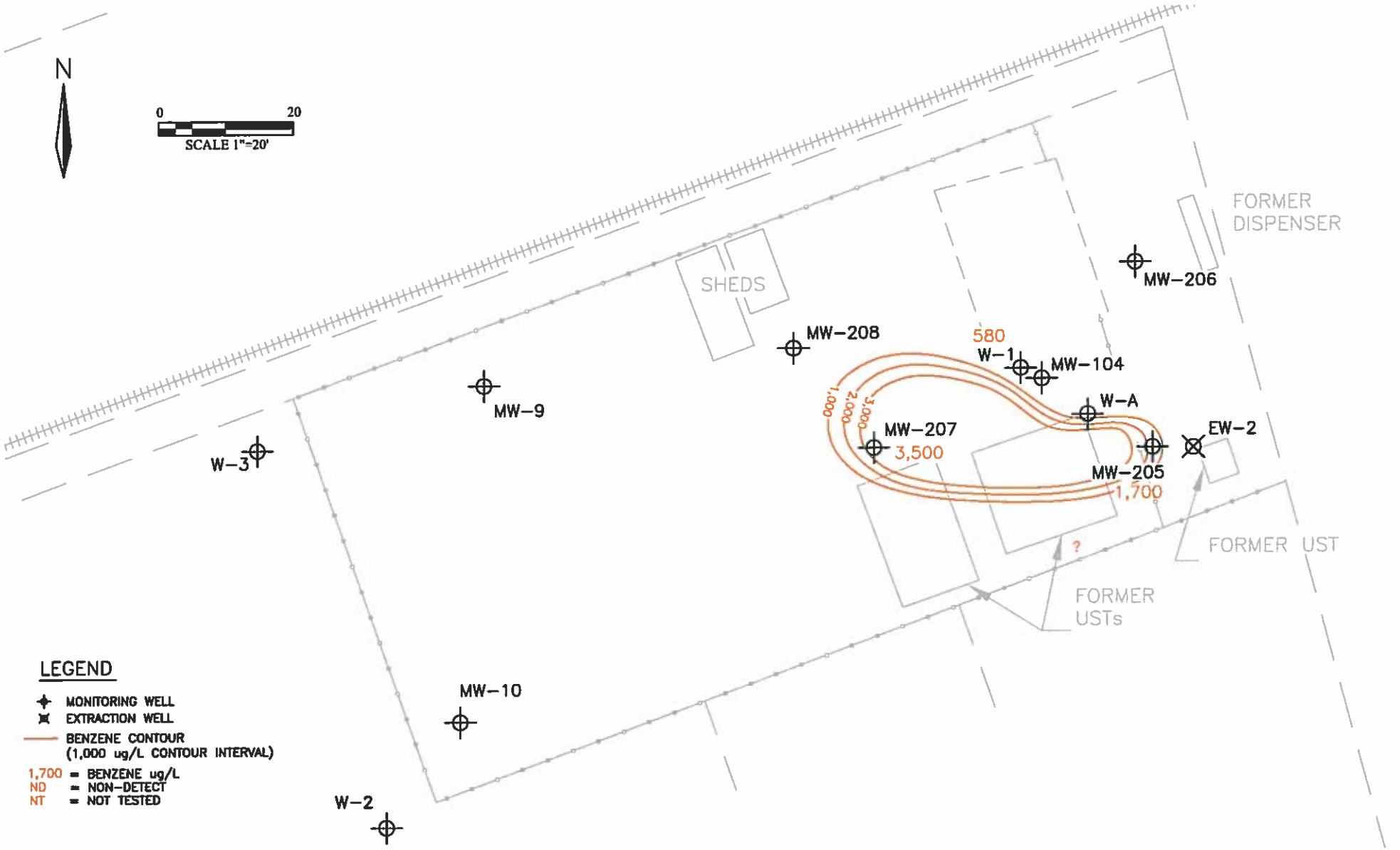
Date 5-10-2016
Time on job 0830 to 1550
Record Keeper ANDREW DORN
Wind < 5 MPH
Temp 80°

PERSONNEL ONSITE		TIME ONSITE	
Name	Company	In	Out
ANDREW DORN	GROUND ZERO	1015	1415
JERRY	MAKO	1045	1245

Time	Field Activities
1015	ARRIVED ON-SITE & BEGAN INSTALLING GW STINGERS TO W-A & EW-2
	MODIFIED EW-2 – SCREENED 50'-40' BTOC
	MODIFIED W-A – SCREENED 52'-42' BTOC
1045	JERRY ARRIVED ON-SITE + BEGAN FILLING WATER TANKS ON AIR STRIPPER
	IN ORDER TO TEST GW TRANSFER BALANCE
1115	FINISHED GW STINGERS & TURNED ON DPE SYSTEM
	BALANCED DPE TEMP
1245	JERRY LEFT SITE AFTER CONFIRMING AIR STRIPPER BALANCED BY WATCHING
	ONE CYCLE
1300	SYSTEM PUMPING FROM EW-2 ONLY
1345	COLLECTED "GW-INF" SAMPLE FROM KNOCKOUT DRUM
1355	SVE-INF 1780 PPM
	SVE-EFF = 2.1 PPM
1415	LEFT SITE

ATTACHMENT E

Benzene LTCP Figures



NOTE:
PROPERTY LINES ARE SHOWN FOR REFERENCE ONLY, NOT INTENDED TO IMPLY DIVISION OF PROPERTY.

STREET RIGHT OF WAY IS APPROXIMATE, BASED ON ASSESSOR'S PARCEL MAPS AND INFORMATION PROVIDED BY WOODWARD-CLYDE CONSULTANTS

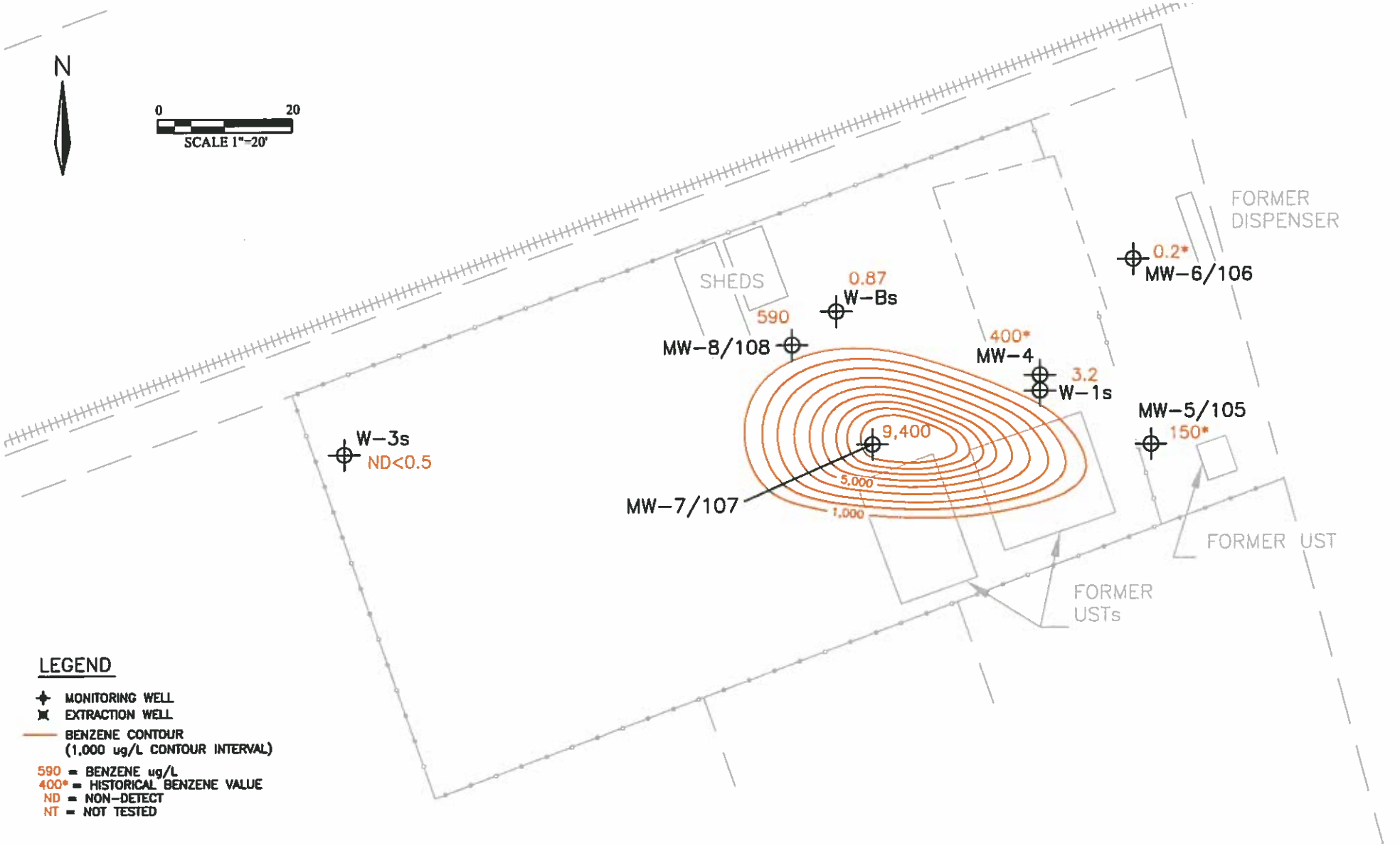
ATTATCMENT E

Sullins (Arrow Rentals)
187 North L Street
Livermore, California

GROUND ZERO ANALYSIS, INC.

LTCP INTERMEDIATE BENZENE ISOCONCENTRATION MAP

MAY 2016



LEGEND

- MONITORING WELL
- EXTRACTION WELL
- BENZENE CONTOUR (1,000 ug/L CONTOUR INTERVAL)

590 = BENZENE ug/L
400* = HISTORICAL BENZENE VALUE
ND = NON-DETECT
NT = NOT TESTED

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