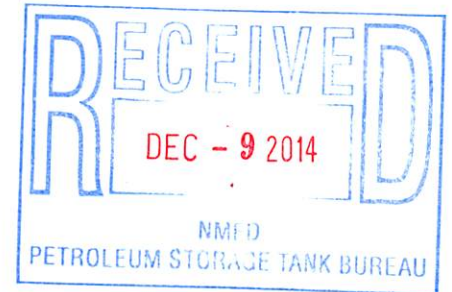


Groundwater-Monitoring Report
Fourth Quarter 2014

(2nd Semiannual Groundwater
Monitoring and Report)

Former Ethridge Texaco Service Station
623 South First Street,
Clayton, New Mexico



Prepared for Submittal To Ms. Carla Ethridge North, and
the Petroleum Storage Tank Bureau of the
New Mexico Environment Department

November 15, 2014

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Prepared by Beartooth Exploration, Inc.
November 15, 2014

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I certify that this report was prepared under my supervision, and I affirm that the information contained in this report is correct to the best of my knowledge.



Project Manager

11/15/14

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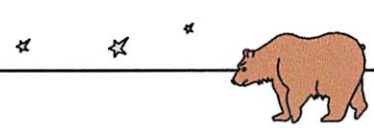


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1.0 Introduction

1.1 The Ethridge Texaco Site

In the late 1990s, the property located at 623 South 1st Street in Clayton, NM was a service station, known as Ethridge Texaco. This service station was comprised of one building with an attached canopy; it also had four underground storage tanks (USTs) which held gasoline and diesel fuel. Refer to the inset site map at the right for locations of buildings. The station closed in the late 1990s. In 1998, the USTs were removed from Ethridge Texaco, and according to Ms. Ethridge no gasoline contamination was observed. In 2002, Souder-Miller and Associates (SMA) performed a Minimum Site Assessment (MSA) at the property immediately north of Ethridge Texaco, known as Kears Exxon, and found gasoline contamination resulting from activities at that station.

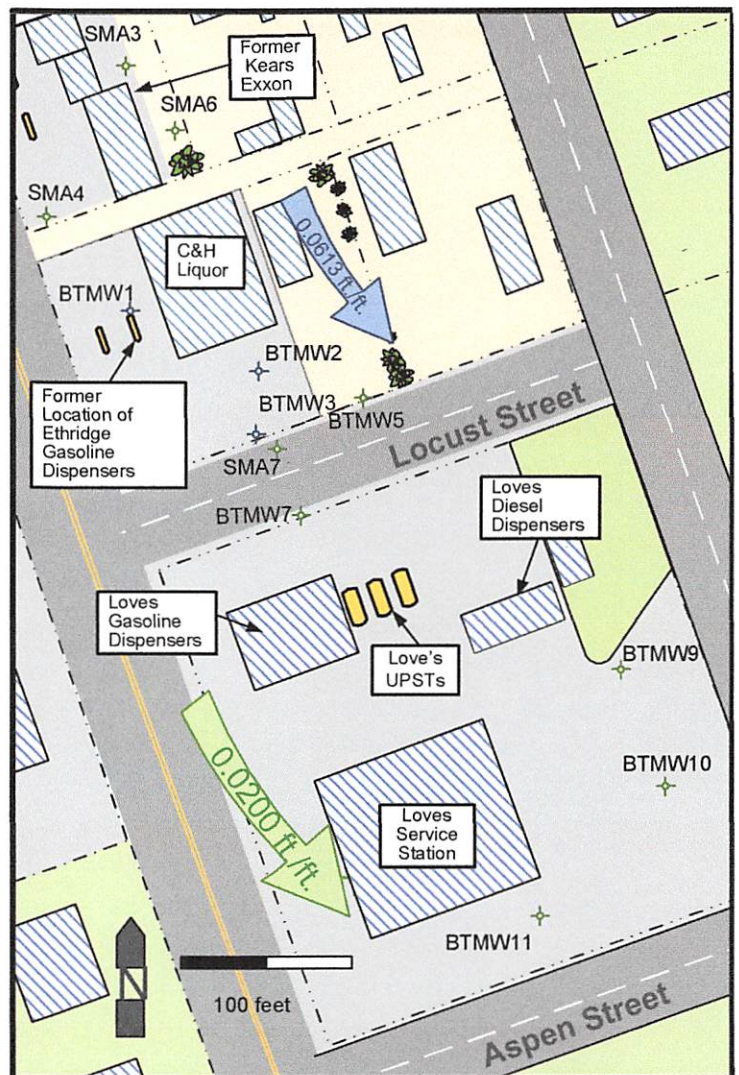
1.2 The Souder-Miller Investigation at Kears Exxon

As part of their 2002 MSA investigation, SMA installed nine groundwater-monitoring wells, including one well (SMA7) immediately south of Ethridge Texaco. All of the SMA wells have a total depth of about 100 feet, with groundwater moving south-southeast at about 90 feet below grade. Through 2007, the Kears Exxon groundwater-monitoring wells were sampled semi-annually. The results of the SMA sampling conducted in 2007, indicated that groundwater in all of the Kears Exxon wells contained gasoline constituents, some of which exceeded a NMED allowable concentration (Souder Miller 2007).

Of the wells sampled by Souder Miller and Associates in 2007, well SMA7 had the highest concentration of gasoline constituents. Because SMA7 is directly and immediately downgradient of Ethridge Texaco, and because SMA7 had a higher concentration of gasoline contamination than the wells installed at the source of the Kears Exxon gasoline contamination, the NMED required that Ethridge Texaco conduct a MSA at their property. Refer to section 1.4 of this report for a description of MSA activities.

1.3 Local Water Use

Based on discussions with the City of Clayton (Ms. Carla Taylor), the closest water-production well to Ethridge Texaco is more than one mile to the east-northeast. No surface water courses are within 1,000 feet of the site.



1.4 Field Work Conducted by Beartooth at Ethridge Texaco, Late 2009 through 2011

Between November 2, and November 6, 2009, Beartooth conducted the field work portion of a MSA at Ethridge Texaco. The scope of field work included: 1) installing two borings and three wells; 2) collecting soil/sediment samples from the borings for laboratory and field analysis; and 3) collecting groundwater samples for laboratory analysis.

Between May 24, and May 28, 2010, Beartooth conducted the field work portion of a Preliminary Investigation at Ethridge Texaco. The scope of field work included: 1) installing two off-site nested wells; 2) collecting soil/sediment samples from the borings for laboratory and field analysis; and 3) collecting groundwater samples for laboratory analysis. The drilling was done using a Sonic drill rig, which produces a core of the strata being drilled. By June of 2010, Beartooth had installed seven wells in or around the site; including wells BTMW1, BTMW2, BTMW3, BTMW4/5 and BTMW6/7. Wells BTMW1 through BTMW4 and BTMW6 are screened in the upper water bearing zone (at 30 feet) and wells BTMW5 and BTMW7 are screened in the lower water-bearing zone (at 90 feet). Wells BTMW4/5 and BTMW6/7 were nested wells. In addition, Beartooth was monitoring three wells installed by Souder-Miller, including wells SMA4, SMA6 and SMA7. All of the SMA wells are screened in the lower water-bearing zone at 90 feet below grade. During the August 2010 sampling event, Beartooth found that wells BTMW4 and BTMW6 (the upper wells of the well nests installed in May 2010) were dry. Because the upper nests of these two wells were dry, in December of 2010 Beartooth and Boart Longyear installed two separate wells into the upper water bearing zone, one (BTMW4b) near well BTMW4/5 and the other (BTMW6b) near BTMW6/7. The upper strings of the original well nests (wells BTMW4 and BTMW6) were plugged with bentonite slurry. Wells BTMW4b and BTMW6b were installed at no cost to the State.

On March 7, 2011, Beartooth conducted the monitoring/sampling field work at Ethridge Texaco, which included collection of groundwater samples from wells BTMW1 through BTMW7 and SMA wells SMA4, SMA6 and SMA7 for later analysis using EPA Method 8260. In addition, Beartooth resurveyed the wells affected by the recent re-grading of the site, and the newly re-installed wells BTMW4b and BTMW6b.

1.5 Renovation of the Former Ethridge Site

In late 2010, the former Ethridge service station building was demolished and the site cleared and re-graded. In early 2011 a new building (C&H Liquor) was constructed on the site and the parking lot was re-paved with concrete. The surface completions of the three existing on-site wells (BTMW1 through BTMW3) were redone, and the elevations of wells BTMW1 through BTMW3 resurveyed by Shields Survey.

1.6 Installation of Additional Wells, April, 2012

Between April 11th and 13th, 2012, Beartooth conducted the field work portion of a Preliminary Investigation at Ethridge Texaco. The scope of field work included installing four off-site wells (BTMW8-BTMW11) and collecting groundwater samples from the entire well field for laboratory analysis. The drilling was done by Harrison Cooper Inc., using an Ingersoll air rotary drill rig. Wells BTMW8, BTMW9, BTMW10 and BTMW11 have screened intervals only in the lower water-bearing zone at 90 feet in depth. All four wells were drilled to a total depth of approximately 102 feet below grade; and all four wells have standard completions, including 20 feet of 2-inch diameter PVC screen, flush-thread PVC casing, filter packs which extend two feet above the PVC screen a bentonite seal above the filter pack and flush mount surface completions. Refer to Figure 1 for a map of the Ethridge Texaco area which includes the location of all groundwater-monitoring wells.

Because the source of the release was hundreds of feet away from the area where BTMW8 through BTMW11 were installed, no core or sediment samples were collected during the drilling. Therefore, no Headspace samples or laboratory samples were collected. However, continuous grab samples of the sediment blown out of the borehole during the drilling were logged.



1.7 Renovation of the Loves Truck Stop Site

In late 2013, the Love's Truck Stop was renovated. The renovations included the demolition and reconstruction of the UPSTs and the main building. As a result of the reconstruction, Beartooth's groundwater-monitoring well BTMW8 was destroyed. The remainder of the Ethridge well field was not impacted by the Love's reconstruction.

1.8 Stratigraphy and Hydrogeology

The substrata below Ethridge Texaco is comprised of soils, unconsolidated sediments and volcanic rock. Beartooth has divided these strata into several lithologic units based on depositional and pedogenic characteristics. The stratigraphic description presented below is based on the borings drilled to date.

From 0 to 10 feet in depth, the strata includes layers of gravelly sand, pebbly loam, gravelly clay, and sandy loam. Calcium carbonate is present in many of the horizons. Most of the horizons are poorly consolidated, but as calcium carbonate and clay increase, induration also increases. From 10 to approximately 50 feet in depth is basaltic rock, deposited as multiple flows, the basalt varies in thickness from 46 to 52 feet. The exact age of the volcanic deposit is unknown, however, it is probably Quaternary, given that the sediments below the basalt are only partially lithified. The basalt has some secondary calcite and calcium carbonate, suggesting that some fractures are present in the basalt. Interbedded between the basalt flows are lenses of sand and/or basaltic pebbles, indicating that the flows were not deposited in one single event, but were deposited separately over some period of time. A sandy/pebbly horizon between two of the basalt flows is water bearing at about 30 feet below grade. From 50 to at least 100 feet below grade are unconsolidated alluvial sediments, including gravels, sands and silts. These sediments are very consolidated but not lithified.

Based on the exploratory drilling conducted at Ethridge Texaco, Beartooth has determined that there are multiple water-bearing zones below this section of Clayton. The upper water-bearing zone occurs at the contact between two basalt flows at about thirty feet below the surface. The upper water-bearing zone at thirty feet is separated from the lower water-bearing zone at ninety feet by a basalt flow which extends from thirty to fifty feet.

1.9 Scope of Current Field Work

On November 4th and 5th, 2014, Beartooth conducted the field work portion of the current scope of work at the former Ethridge Texaco. The NMED approved scope of work included the following groundwater sampling and monitoring activities.

- ✘ Collecting groundwater samples from the well field (BTMW1, BTMW2, BTMW3, BTMW5, BTMW7, BTMW9 through BTMW11, SMA4, SMA6 and SMA7) for laboratory analysis.
- ✘ Collecting physical measurements of the water-bearing zones.
- ✘ Preparing and submitting a Monitoring Report, presenting the findings of the monitoring event.

2.0 Groundwater Measurements and Sampling

Field work associated with the sampling/monitoring event was conducted on November 4th and 5th, 2014. The static water levels in wells BTMW1 through BTMW11, SMA4, SMA6 and SMA7 were measured to within 0.01 feet. The elevation of the groundwater was calculated using the survey information and wellhead elevations generated by Shields Survey, a professional land surveyor. The November-2014 groundwater-elevation measurements are presented in Table 1, and a potentiometric map is presented as Figure 2. Of interest was the finding of no groundwater in wells BTMW4b and BTMW6b. These two wells are the wells which were reinstalled into the upper water-bearing zone in December of 2010.



Groundwater monitoring activities were conducted in wells BTMW1 through BTMW3, BTMW5 and BTMW7, BTMW9 through BTMW11, plus SMA4, SMA6 and SMA7, using procedures described in the USTB Guidelines for Corrective Action. Two of the wells (BTMW1 and BTMW2) contained NAPL, and were not sampled. Prior to sampling, each deep well was purged of five to ten gallons of groundwater, using a disposable bailer dedicated to that well. Three casing volumes of water were not removed from wells BTMW1 through BTMW3 due to the low transmissivity of the upper water-bearing zone. Following purging, each well was allowed to stand and recover for half an hour. Water bailed from the wells prior to sampling was discharged to the ground surface. Following purging of the monitor wells, groundwater samples were collected using dedicated, sterile, disposable, polyethylene bailers. The samples were analyzed in the field for physical parameters of specific conductivity, temperature and pH. In addition, the groundwater of each well was sampled for later analysis in a contract laboratory, using EPA Method 8260. Refer to Table 1 for field measurements and groundwater elevations, and sections 3.0 through 5.0 of this report for a discussion of the laboratory analyses.

3.0 Results of Groundwater Analyses

Groundwater samples were collected from each of the eleven wells listed above, and analyzed using EPA Method 8260. Presented below are the MTBE, benzene and naphthalene concentrations detected in the wells which were sampled. The maximum concentration allowed by the NMED/WQCC is also presented. Refer to Attachment 1 for laboratory certificates of analysis.

Well SMA4 – 1200 ppb MTBE, 1800 ppb benzene and no detectable naphthalene
Well SMA6 – 1200 ppb MTBE, 2100 ppb benzene and no detectable naphthalene
Well SMA7 – 8100 ppb MTBE, 10000 ppb benzene and no detectable naphthalene
Well BTMW1 – Not sampled, 0.4 inch thick NAPL layer in Well
Well BTMW2 – Not sampled, 0.2 inch thick NAPL layer in Well
Well BTMW3 – 1100 ppb MTBE, 220 ppb benzene and 440 ppb naphthalene
Well BTMW5 – 3100 ppb MTBE, 3200 ppb benzene and no detectable naphthalene
Well BTMW7 – 8800 ppb MTBE, 11000 ppb benzene no detectable ppb naphthalene
Well BTMW8 – Well destroyed, not sampled
Well BTMW9 - 250 ppb MTBE, 1.2 ppb benzene and no detectable naphthalene
Well BTMW10 – 9.4 ppb MTBE, no detectable benzene or naphthalene
Well BTMW11 – 4.9 ppb MTBE, and no detectable benzene or naphthalene
NMED/WQCC - MTBE 100 ppb, Benzene 10 ppb, Naphthalene 30 ppb

As seen in the summary presented above, all of the wells sampled are contaminated with gasoline constituents, many of which exceed an NMED allowable level. Refer to Table 2 and Figure 3 for distribution of gasoline constituents in groundwater. See Figure 4 for an iso-concentration map of the benzene contamination, and Figure 5 for the extent/distribution of several common gasoline constituents.

4.0 Discussion of Findings

4.1 Groundwater Elevation, Gradient and Direction of Flow

As in past monitoring events, wells BTMW4b and BTMW6b, in the upper water-bearing zone, were dry. Beartooth believes that there are three possible explanations for the lack of water at thirty-five feet near BTMW4b and BTMW6b: 1) the basaltic rock, which separates the upper and lower water-bearing zones is fractured, and allows water to move vertically through it instead of flowing horizontally; 2) the movement of groundwater is by fracture flow through the volcanic strata, rather than laminar flow through granular alluvium, leading to discontinuous water-bearing zones that do not necessarily follow a downgradient path; or 3) there is groundwater in the area of these wells, but the drilling method (sonic) has precluded groundwater from entering the wells.

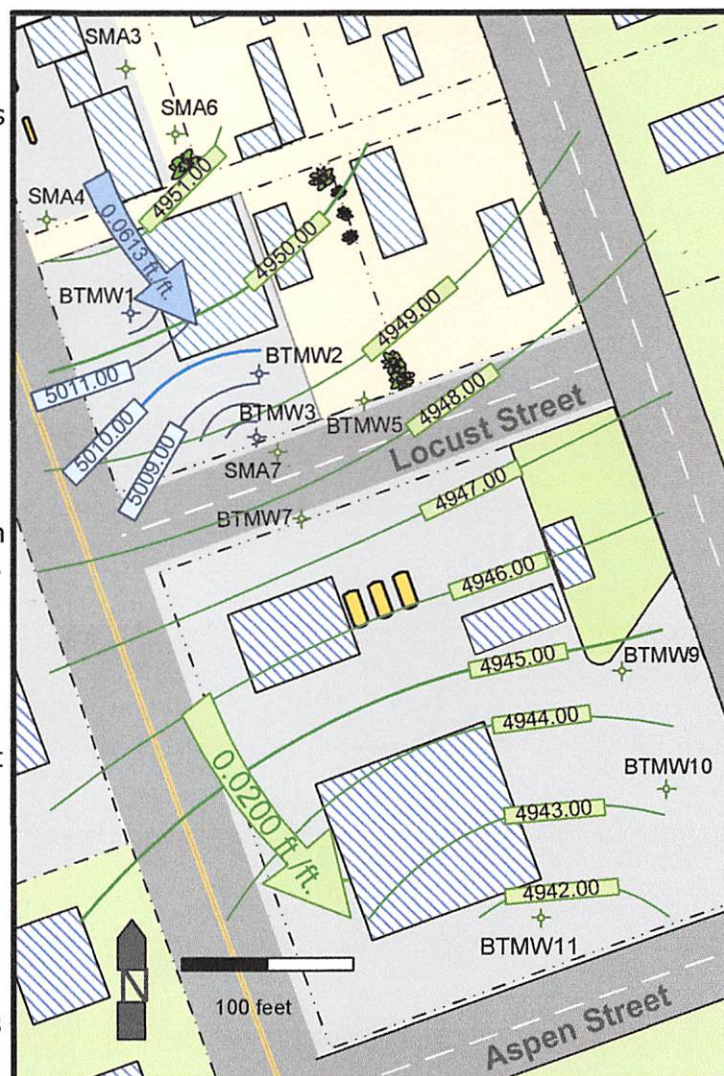


To evaluate groundwater-flow direction in both of the water-bearing zones and determine local groundwater gradients, the groundwater elevations collected in November of 2014, from wells BTMW1 through BTMW3, BTMW5, BTMW7, BTMW9 through BTMW11, SMA4, SMA6 and SMA7 were plotted and contoured. The contouring was performed using software written by Golden Software, Inc. The groundwater elevation data collected on November 4th is presented in Table 1, Figure 2 is a potentiometric map of the Ethridge Texaco area, and Figure 6 is a hydrograph of selected wells. The November-2014 measurements indicated that both the upper and lower potentiometric surfaces were sloped to the southeast. The upper groundwater had a gradient of 0.0613 ft./ft., and the lower water had a gradient of approximately 0.0200 ft./ft. The gradient across the site in both water-bearing zones is relatively constant. Since the last sampling event, in May of 2014, the potentiometric surface of the upper water-bearing zone has increased slightly in elevation, while the potentiometric surface of the lower water-bearing zone has decreased slightly. The inset figure below illustrates the direction of flow; the upper potentiometric surface is shown in blue contour lines, and the lower potentiometric surface is shown in green contour lines and a green arrow.

4.2 Gasoline Contamination of the Local Groundwater

The groundwater in all eleven of the wells sampled/monitored was contaminated with multiple gasoline constituents. In the shallow water-bearing zone (at 35 feet), well BTMW1 contained 0.04 feet of NAPL, BTMW2 contained 0.02 feet of NAPL, and BTMW3 contained numerous gasoline constituents which exceeded NMWQCC allowable levels. In the deeper water-bearing zone (at 90 feet), six of the eight wells sampled contained gasoline constituents which exceeded an NMWQCC allowable level. The concentration of benzene in wells BTMW1, BTMW2, BTMW3, BTMW5, BTMW7, SMA4, SMA6 and SMA7 was greater than 200 parts/billion, with the allowable concentration being 10 parts/billion. Refer to Figures 3, 4 and 5 for concentrations of several common gasoline constituents in both water-bearing zones. As illustrated in Figure 3, the highest concentration of gasoline contamination in the upper water-bearing zone is near wells BTMW1 and BTMW2, while the highest concentration of gasoline in the lower water-bearing zone is near well BTMW7.

While results of the groundwater analyses indicated that most of the wells sampled had gasoline-constituent concentrations which were similar to those seen in previous sampling episodes, in the past two years, some of the wells have had noticeable changes in gasoline concentration, including wells BTMW3, BTMW7, BTMW9 and BTMW11.



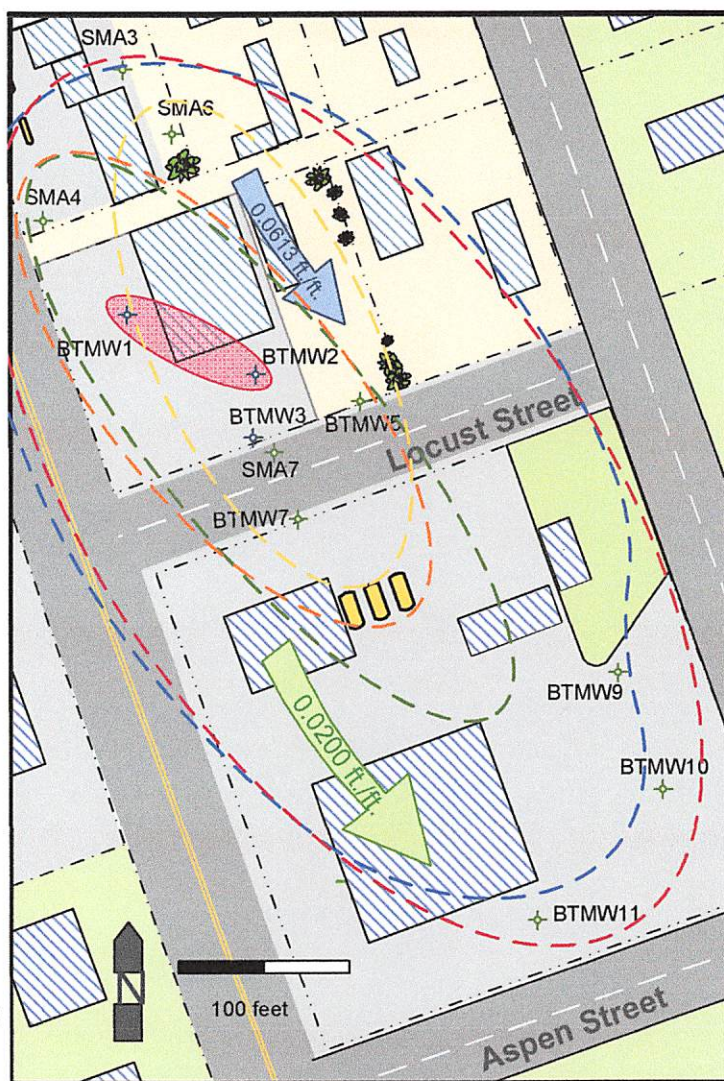
Shown below are concentrations for total BTEX and MTBE in wells BTMW3, BTMW7, BTMW9 and BTMW11.

	April 2012 BTEX/MTBE	November 2012 BTEX/MTBE	May 2014 BTEX/MTBE	November 2014 BTEX/MTBE
BTMW3	11,404/2600 ppb	2,511/1100 ppb	4,884/2000 ppb	5,370/1100 ppb
BTMW7	35,500/11000 ppb	16,810/6500 ppb	19,200/8100 ppb	16,640/8,800 ppb
BTMW9	9.1/13 ppb	nd/19 ppb	1.7/10 ppb	1.2/250 ppb
BTMW11	447/2000 ppb	482/940 ppb	21.4/310 ppb	nd/4.9 ppb

As seen in the table above, BTMW3 and BTMW7 have experienced a steady decrease in BTEX and MTBE, BTMW9 has had a dramatic increase in MTBE and a decrease in BTEX, and BTMW11 has had a significant decrease in both BTEX and MTBE.

Local BTEX/MTBE ratios indicate the leading edge of the gasoline-contaminant plumes. The BTEX/MTBE ratios of wells BTMW5, BTMW7 and SMA7 are all greater than 1.0, while the BTEX/MTBE ratios of wells BTMW9, BTMW10 and BTMW11 are all much less than 1.0. Using these ratios and the illustrations seen in Figures 3, 4 and 5, local gasoline contamination appears to follow the direction of groundwater flow, moving contamination from the northwest toward the southeast. As seen in those figures, the extent of the gasoline contamination in the lower water-bearing zone has not been completely delineated; as indicated by the sample results from the groundwater of wells BTMW9, BTMW10 and BTMW11, which show that the gasoline contamination in the lower water-bearing zone extends underneath the Love's property, and possibly beyond. The extent of gasoline contamination observed in the upper water-bearing zone has also not been completely delineated. However, this is partially due to the discontinuous nature of the upper water-bearing zone.

Figure 5 illustrates the extent of several gasoline constituents. The figure to the right is a smaller version of Figure 5. The inset figure to the right illustrates the probable extent of >10 ppb benzene (in blue), >1 ppb MTBE (in red), >100 ppb toluene (in yellow), >100 ppb ethyl-benzene (in orange), and >100 ppb xylene (in green) contaminated groundwater in the lower water-bearing zone. The figure also shows the approximate lateral extent of NAPL in the upper water-bearing zone (in red).



The finding of an upper and lower water-bearing zone, which are both highly contaminated with gasoline supports the idea that the basalt below the upper water-bearing zone is leaky, and has released gasoline contamination to the lower water-bearing zone. In addition, the highest concentration of gasoline in the lower water-bearing zone is located immediately downgradient of Ethridge Texaco, indicating that gasoline contamination from the upper water-bearing zone at Ethridge Texaco has moved down into the lower water-bearing zone and downgradient of the release at Ethridge Texaco. Also, there is no evidence that the Love's UPSTs and/or dispensers have released fuel to the groundwater.



5.0 Conclusions

Based on the field data collected and the analyses performed during the November-2014 groundwater monitoring event, Beartooth draws the following conclusions about the local hydrogeologic conditions and the release of gasoline from Ethridge Texaco and Kears Exxon.

Geology, the Soils, Sediments and Rock

The shallow unconsolidated soils and sediments are comprised of unconsolidated gravelly sands with minor lenses of sandy loam and clay loam. Below the unconsolidated sediments is a layer of volcanic rock, which is basaltic in composition. Depth to the volcanic rock is approximately 15 feet below grade, and based on work conducted by Beartooth in May of 2010 and April of 2012, the thickness of the basalt is about fifty feet. This layer of volcanic rock is believed to be a basalt flow of Quaternary age. Below the basalt are sediments comprised of unconsolidated gravel, sand and silt.

Distribution of Gasoline-Contaminated Sediments

The shallow soils and sediments near the UPSTs (boring BRG4 and wells BTMW2 and BTMW3) were not contaminated with gasoline vapor or adsorbed gasoline. This suggests that the underground storage tanks did not leak, and that there were no significant surface spills at the storage tanks. However, the soils near the dispenser islands (boring BRG5 and well BTMW1) were contaminated with gasoline vapor. In the area of vapor well BTMW2, the local sediments are contaminated with 80,000 ppm of vapor-phase VOCs; however, near wells BTMW9, BTMW10 and BTMW11, downgradient of both Kears Exxon and Ethridge Texaco, the sediments/soils below the basaltic rock and above the lower water-bearing zone do have significant concentrations of vapor-phase gasoline.

Hydrology and Groundwater Gradient

The basalt is water bearing; present in a thin sand layer separating two basalt flows at about thirty feet in depth. Depth to first groundwater is about 34 feet, and flow direction of the shallow groundwater is southeast, with a gradient of 0.0613 feet/foot. A second deeper water-bearing zone has been characterized by Beartooth during the past four years. This deeper water-bearing zone is present at about ninety feet below grade, below the basalt, in sandy strata. The lower water also moves to the southeast and had a gradient of 0.020 ft./ft. The illustration on page 4 shows the direction of groundwater flow (blue arrow) in the upper water-bearing zone, and the direction of flow in the lower water-bearing zone (green arrow). It is not certain whether the upper water-bearing zone, which is highly contaminated with gasoline, extends southeast of Locust Street, or whether the upper water-bearing zone ends and the groundwater observed in wells BTMW1 through BTMW3 moves downward (and through the basaltic rock from 15 to 50 feet) into the lower water-bearing zone at 90 feet.

Extent of Gasoline-Contaminated Groundwater

The groundwater in wells BTMW1, BTMW2 and BTMW3 (of the upper water-bearing zone) is contaminated with gasoline constituents, many of which exceeded a NMWQCC/NMED allowable level. In the central section of the former Ethridge Texaco, between the former dispenser islands and the former UPSTs (in BTMW1 and BTMW2), there is a thin layer of floating gasoline (NAPL) on the groundwater, and near Locust Street at the downgradient edge of the site, BTMW3 had a benzene concentration that was 22 times the concentration allowed by the NMED. The illustration on the previous page shows the known limits of gasoline-contaminated groundwater in the lower water-bearing zone.

In the deep water-bearing zone, the highest concentration of gasoline is located immediately downgradient of Ethridge Texaco, suggesting that gasoline contamination from the upper water-bearing zone at Ethridge Texaco has moved vertically into the lower water-bearing zone and downgradient of the release at Ethridge Texaco. The concentration of gasoline constituents in most of the wells is significantly above the NMED water-quality standards, with well SMA7 (immediately downgradient of the site) having 10,000 ppb benzene. The NMED allowable concentration for benzene in groundwater is 10 ppb.

While the full extent/distribution of the gasoline contamination has not been delineated, it is certain that the gasoline contamination in the lower water-bearing zone extends from the Kears site to Aspen Street, occurring in two comingled contaminant plumes.



6.0 Recommendation

Based on the findings of the November-2014 sampling and the MSA investigations, Beartooth makes the following recommendation.

- 11.14.01** Continue to monitor the existing wellfield to evaluate water quality, and to determine groundwater gradient and groundwater flow direction. Allow Beartooth to continue to monitor three of the Souder Miller wells (SMA4, SMA6 and SMA7) and include those wells in the next monitoring event.

7.0 References

Souder Miller and Associates, (2007), Groundwater Monitoring Report, First Quarter, 2007, 601 South First Street, Clayton New Mexico; January 17, 2007

Beartooth Exploration, (2009), Minimum Site Assessment Report, Former Ethridge Texaco service Station, 623 South First Street, Clayton, NM, December 4, 2009

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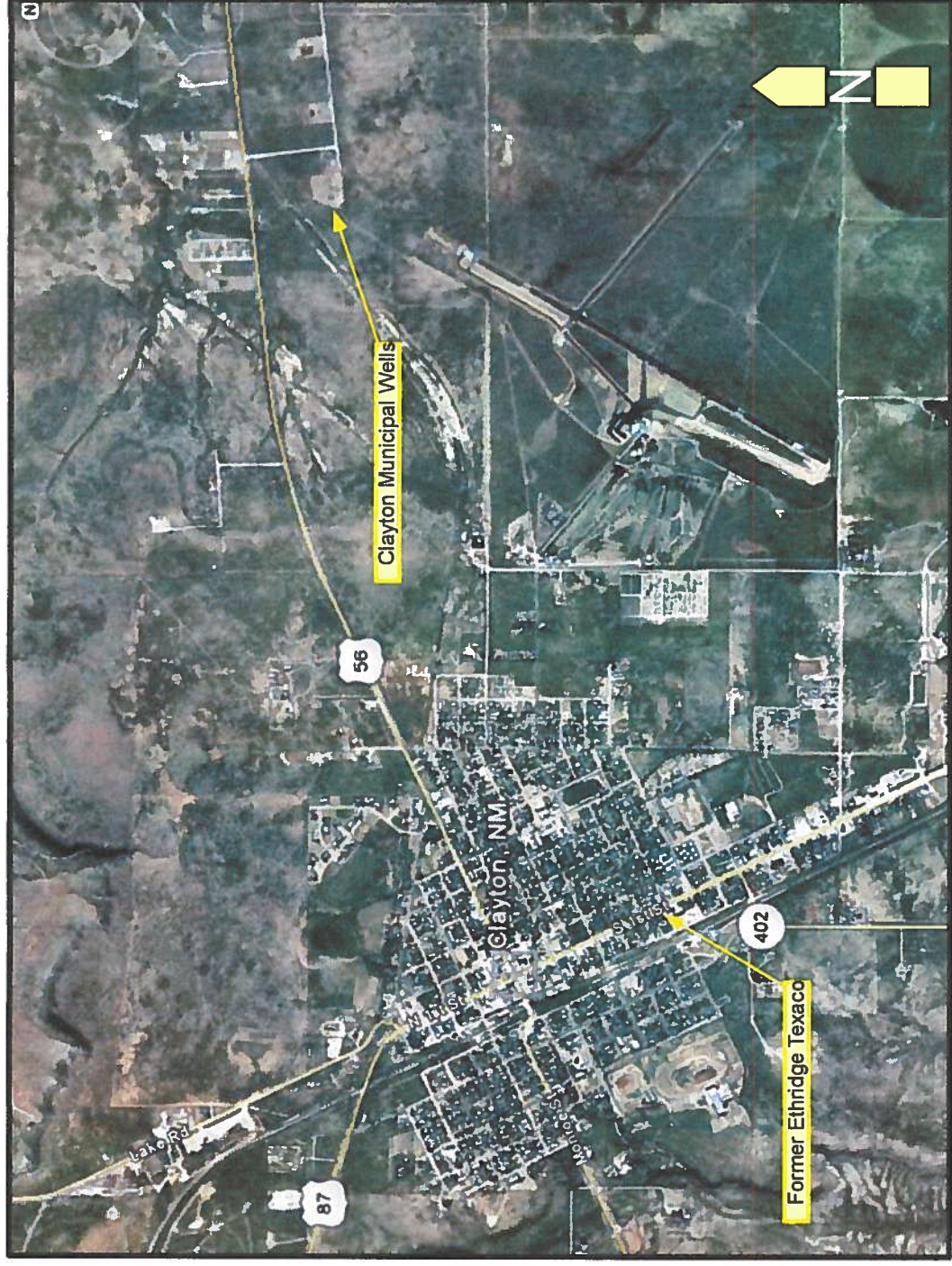
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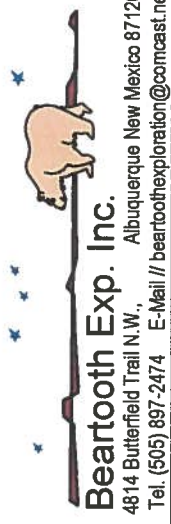




Aerial photograph of Clayton, New Mexico. Shown in the photograph are the former Ethridge Texaco, at 623 South First Street, and the approximate location of the City of Clayton municipal water-production wells. The City production wells are approximately two and a half miles from Ethridge Texaco. The channel of Apache Creek can be seen in the upper right hand corner of the photograph. Apache Creek is the closest surface water to Ethridge Texaco, and is about three miles from the site. Scale of the photograph is, one inch equals about half a mile.

**Figure 1. Location and Site Maps
Ethridge Texaco, Clayton, NM**

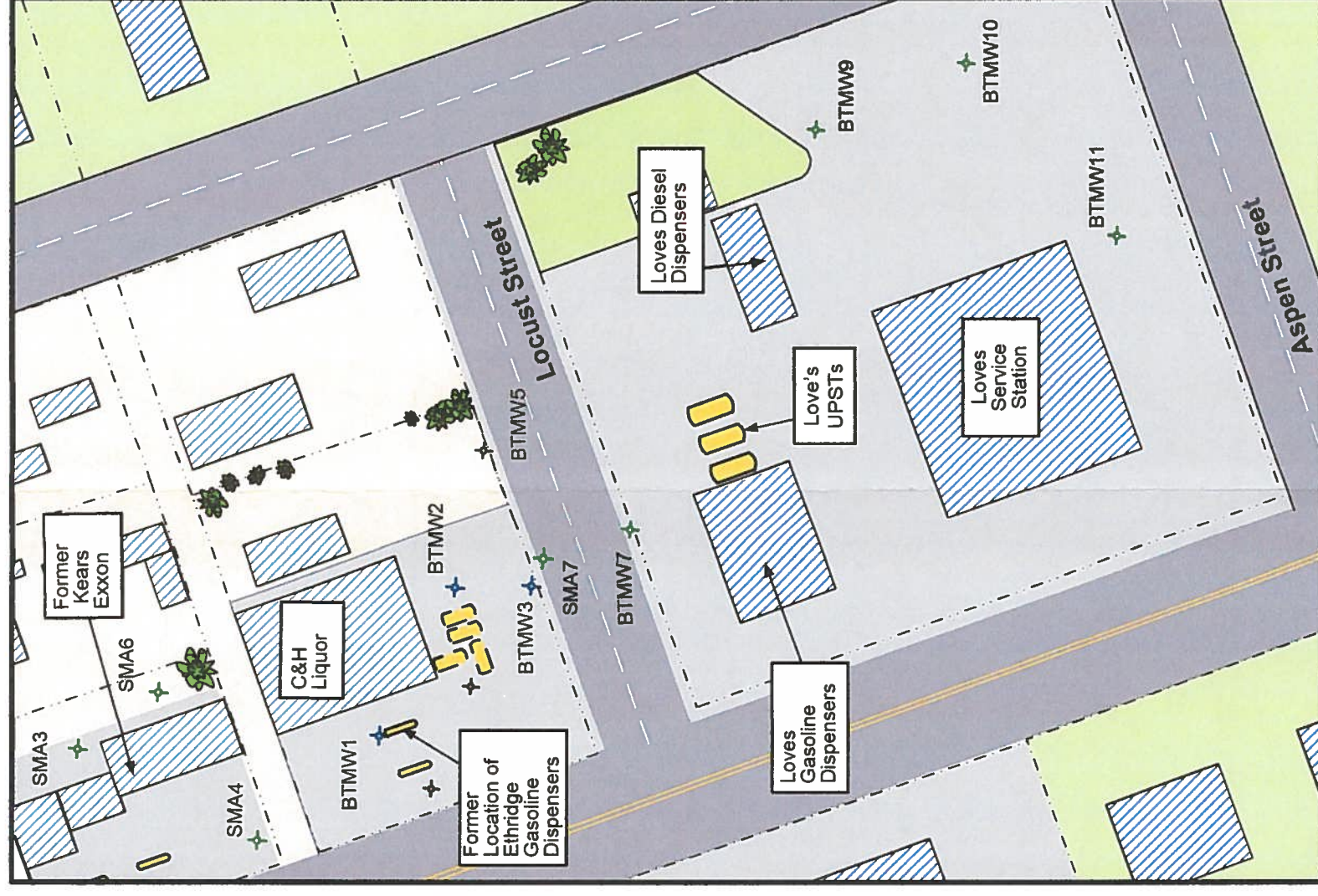
Project : Ethridge Texaco Date: 11/15/2014
Project Number: 964.12 Drafted By: GLW

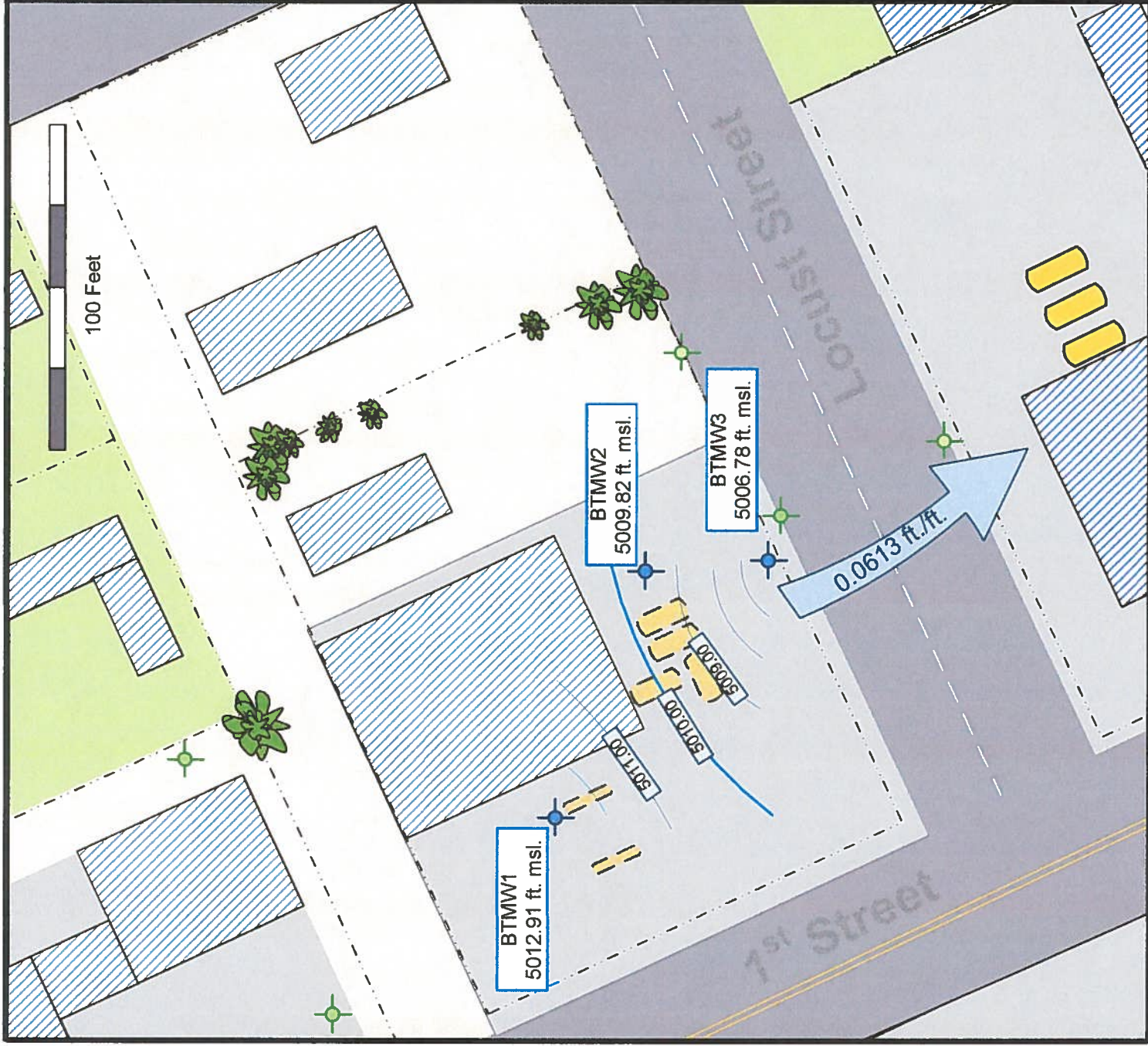


EXPLANATION OF FIGURE

- Borings installed 11/09
- Wells installed at 30 to 40 feet in depth
- Wells installed at 90 to 100 feet in depth
- Underground Storage Tanks (UPSTs)
- Buildings
- Trees
- Pavement in grey, bare ground in tan and grass in green

Site map of the former Ethridge Teaxco service station, located at 623 South First Street, Clayton, New Mexico. The former service station (now C&H Liquor) had four underground petroleum storage tanks (UPSTs), which are shown in yellow. The UPSTs were removed in 1998. Also shown are several wells that Souder Miller and Associates installed in 2002, as part of an environmental investigation at Kears Exxon. Beartooth is monitoring three of the Souder Miller wells including SMA4, SMA6 and SMA7. Blue well symbols indicate that the well is screened in the upper (30 ft.) water-bearing zone, and green wells symbols indicate that the well is screened in the lower (90 ft.) zone.



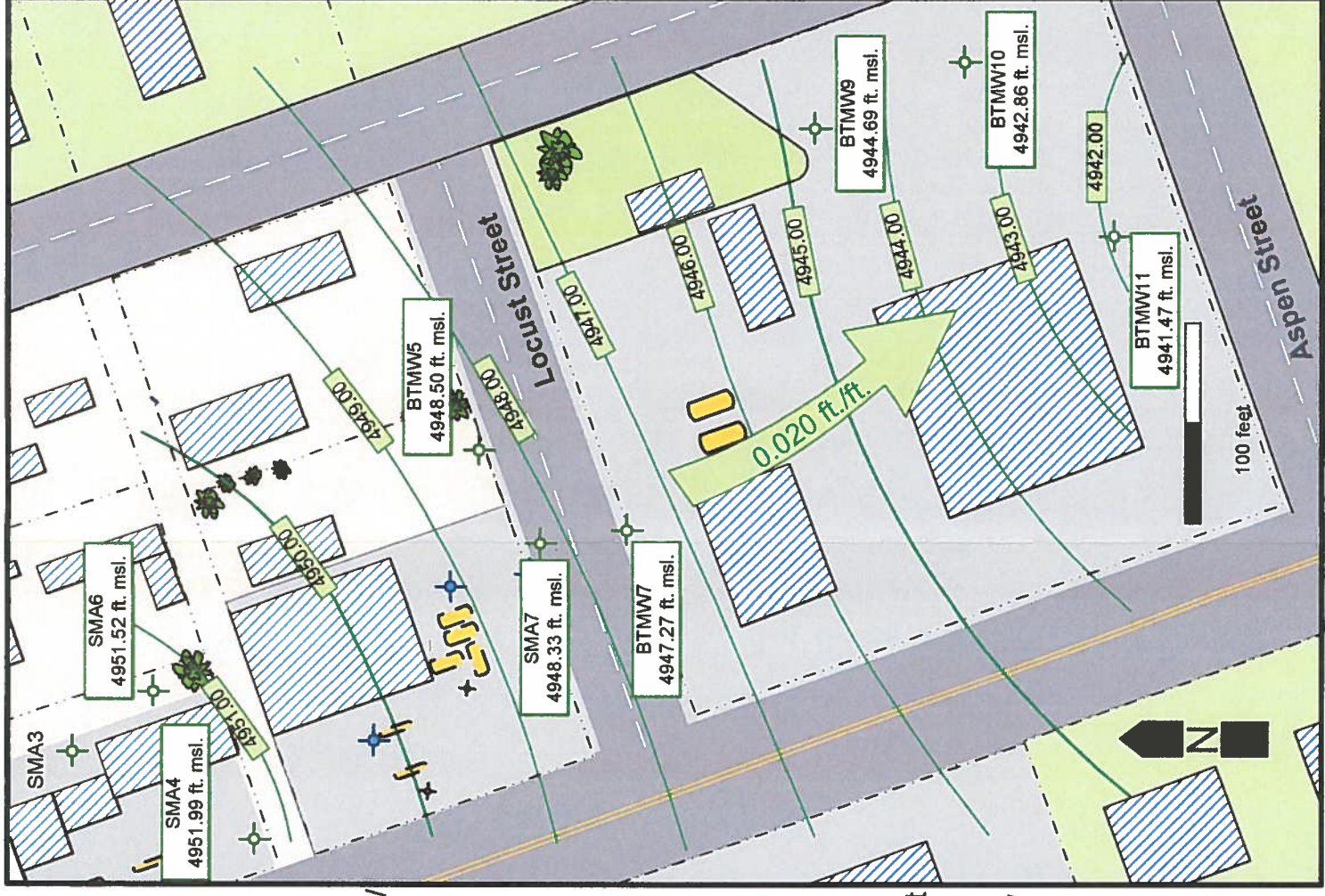


Groundwater at 35 ft.

To the left is a potentiometric map of the upper water-bearing zone at about 35 feet below grade. Gradient of the upper water is approximately 0.0685 feet/foot, and direction of groundwater flow is to the southeast. Scale of the potentiometric map to the right is about 1 inch equals 45 feet.

Groundwater at 90 ft.

To the right is a potentiometric map of the lower water-bearing zone at about 90 feet below grade. Gradient of the lower water is approximately 0.020 feet/foot, and direction of groundwater flow is to the south-southeast. Scale of the potentiometric map to the right is about 1 inch equals 80 feet.



EXPLANATION OF FIGURE

- Wells Installed in the Upper Water-bearing Zone
- Wells Installed in the Lower Water-bearing Zone

- Buildings
- Trees
- Pavement in grey, bare ground in tan and grass in green

Groundwater-Elevation Contour. Value as indicated.

Underground Storage Tanks (USTs) Dashed indicate a former USPT or dispenser island.



Direction of groundwater flow and gradient.
0.020 ft./ft.

Figure 2. Potentiometric Map of Ethridge Texaco Area

Project : Ethridge Texaco Date: 11/15/2014
Project Number: 964.12 Drafted By: GLW

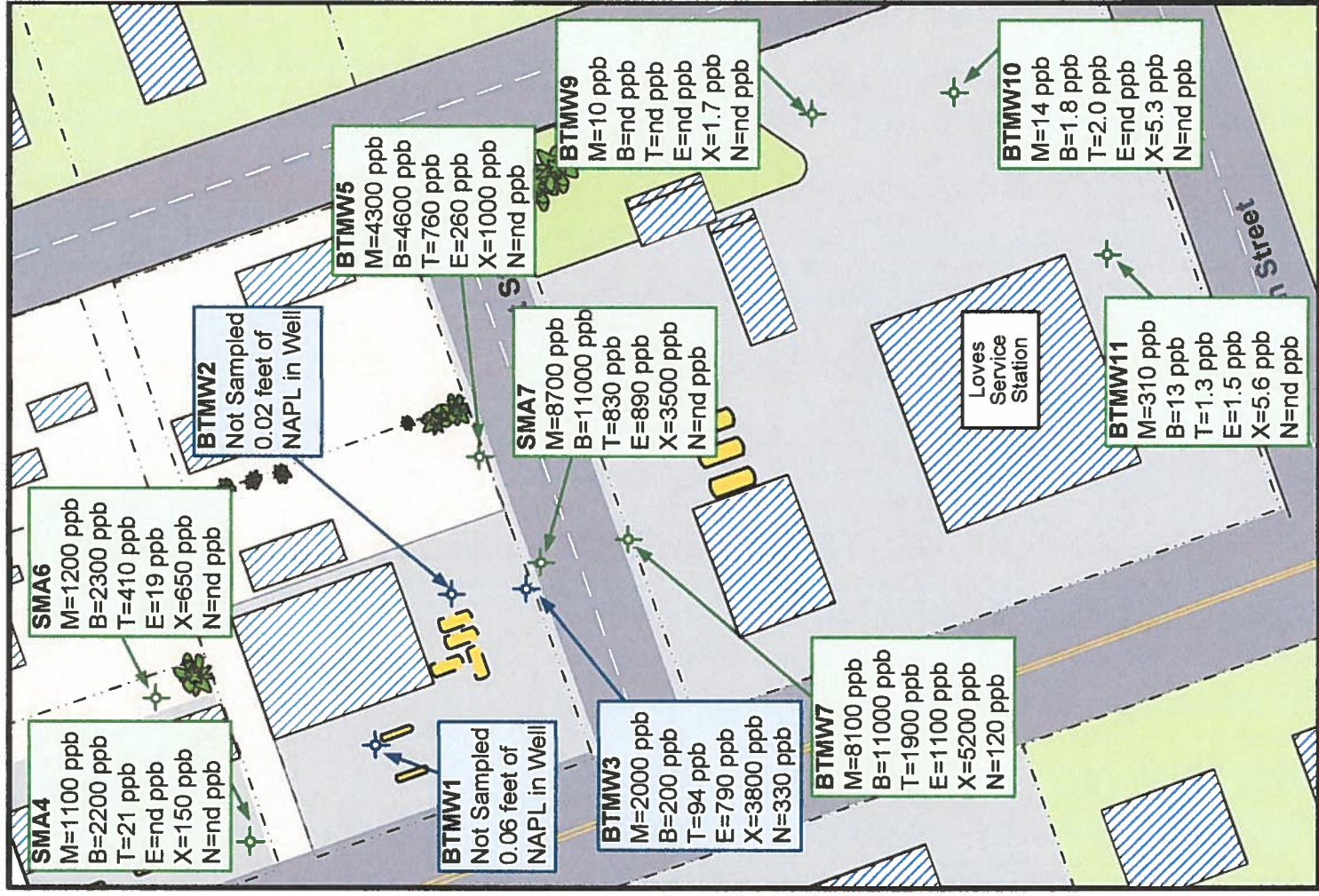


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May 2014

Results of laboratory water-quality analyses.

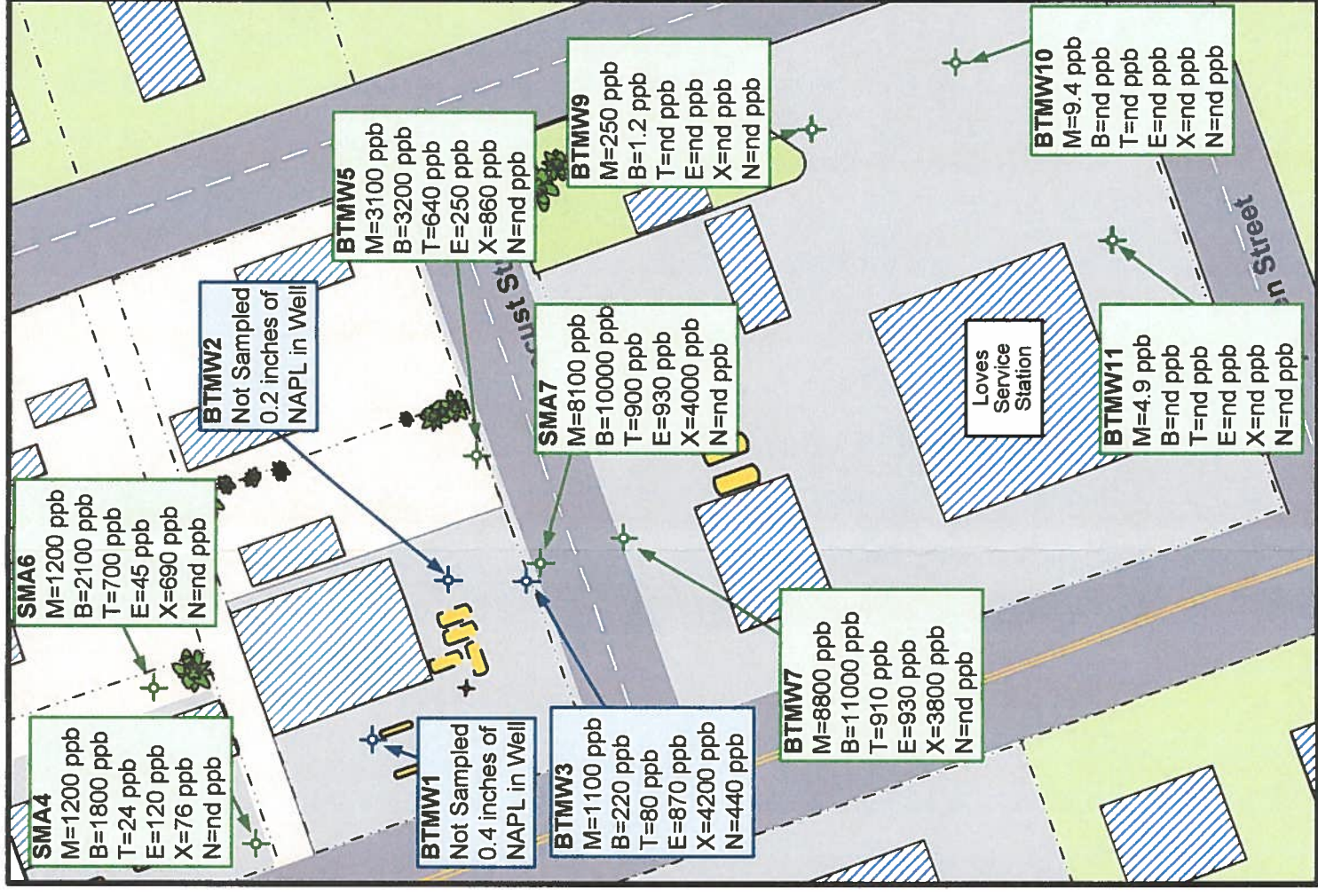
Samples from wells BTMW1, BTMW2 and BTMW3 (in blue boxes) are from the upper water-bearing zone, while the results shown in green boxes are from the lower water-bearing zone.



November 2014

Results of laboratory water-quality analyses.

Samples from wells BTMW1, BTMW2 and BTMW3 (in blue boxes) are from the upper water-bearing zone, while the results shown in green boxes are from the lower water-bearing zone.



EXPLANATION OF FIGURE

- Wells Installed in the Upper Water-bearing Zone
- Wells Installed in the Lower Water-bearing Zone
- Underground Storage Tanks (USTs)
- Buildings
- Trees
- Pavement in grey, bare ground in tan and grass in green

Results of Analyses

Well ID	M is MTBE	B is benzene	T is toluene	E is ethyl benzene	X is total of xylenes	N is naphthalene
BTMW3	2600	650	54	2300	8400	820



Scale, 1 inch = about 80 ft.

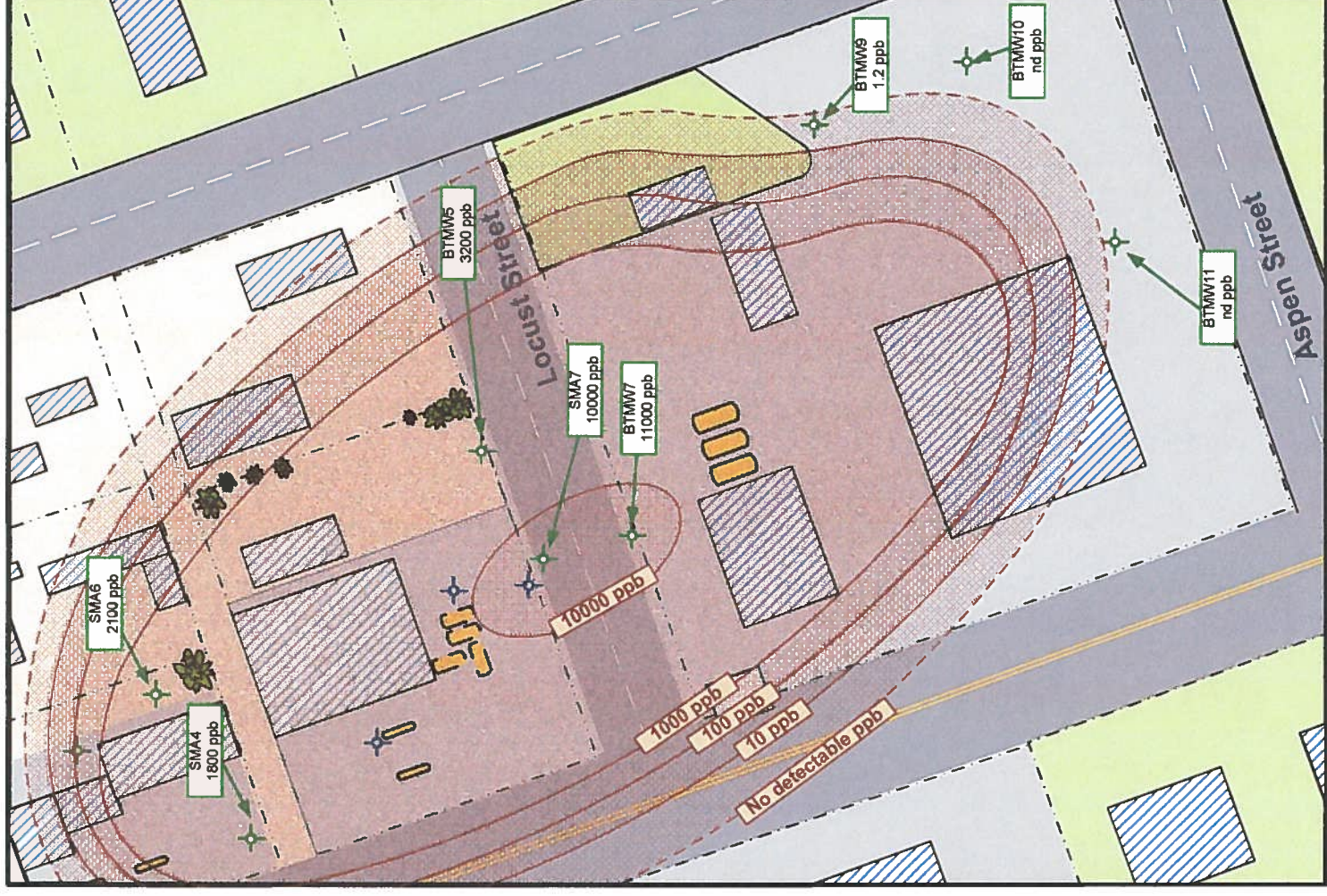
Figure 3. Water Quality map of Ethridge Texaco Area

Project : Ethridge Texaco Date: 11/15/2014
Project Number: 964.12 Drafted By: GLW



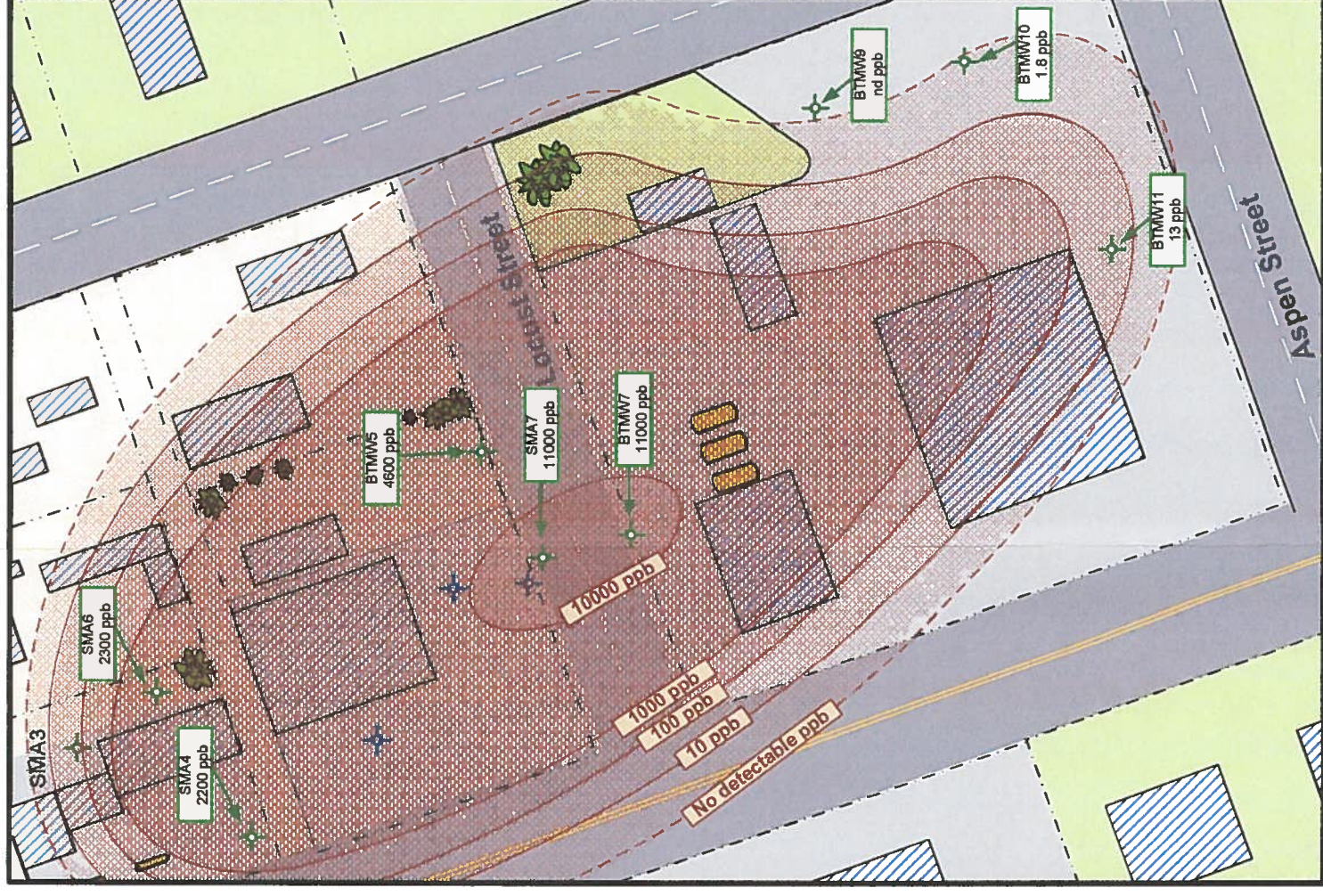
November 2014 Benzene in Lower Water-bearing Zone

Benzene iso-concentration contour map, in lower water-bearing zone. Values of contour lines and benzene concentration of each well, as marked.








May 2014 Benzene in Lower Water-bearing Zone

Benzene iso-concentration contour map, in lower water-bearing zone. Values of contour lines and benzene concentration of each well, as marked.




EXPLANATION OF FIGURE

-  Wells Installed in the Upper Water-bearing Zone
-  Wells Installed in the Lower Water-bearing Zone

-  Buildings
-  Trees
-  Pavement in grey, bare ground in tan and grass in green



-  Underground Storage Tanks (USTs)

Iso-Concentration contour of benzene in groundwater, value as marked. Dashed lines indicates approximate position of no detectable concentration of benzene.



Scale, 1 inch = about 80 ft.

Figure 4. Benzene Concentration in Lower Water-bearing Zone

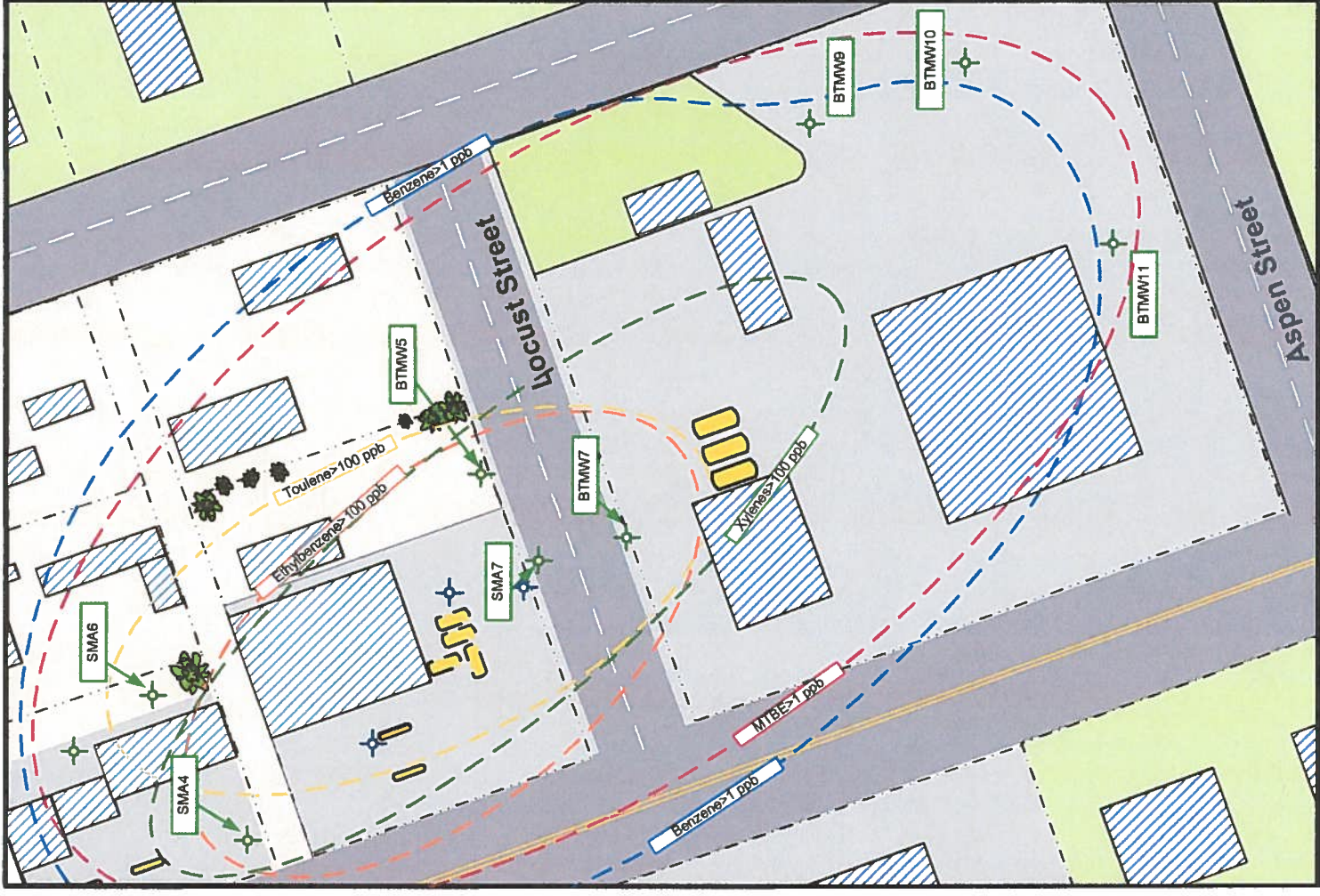
Project : Ethridge, Texaco Date: 11/15/2014
Project Number: 964.12 Drafted By: GLW



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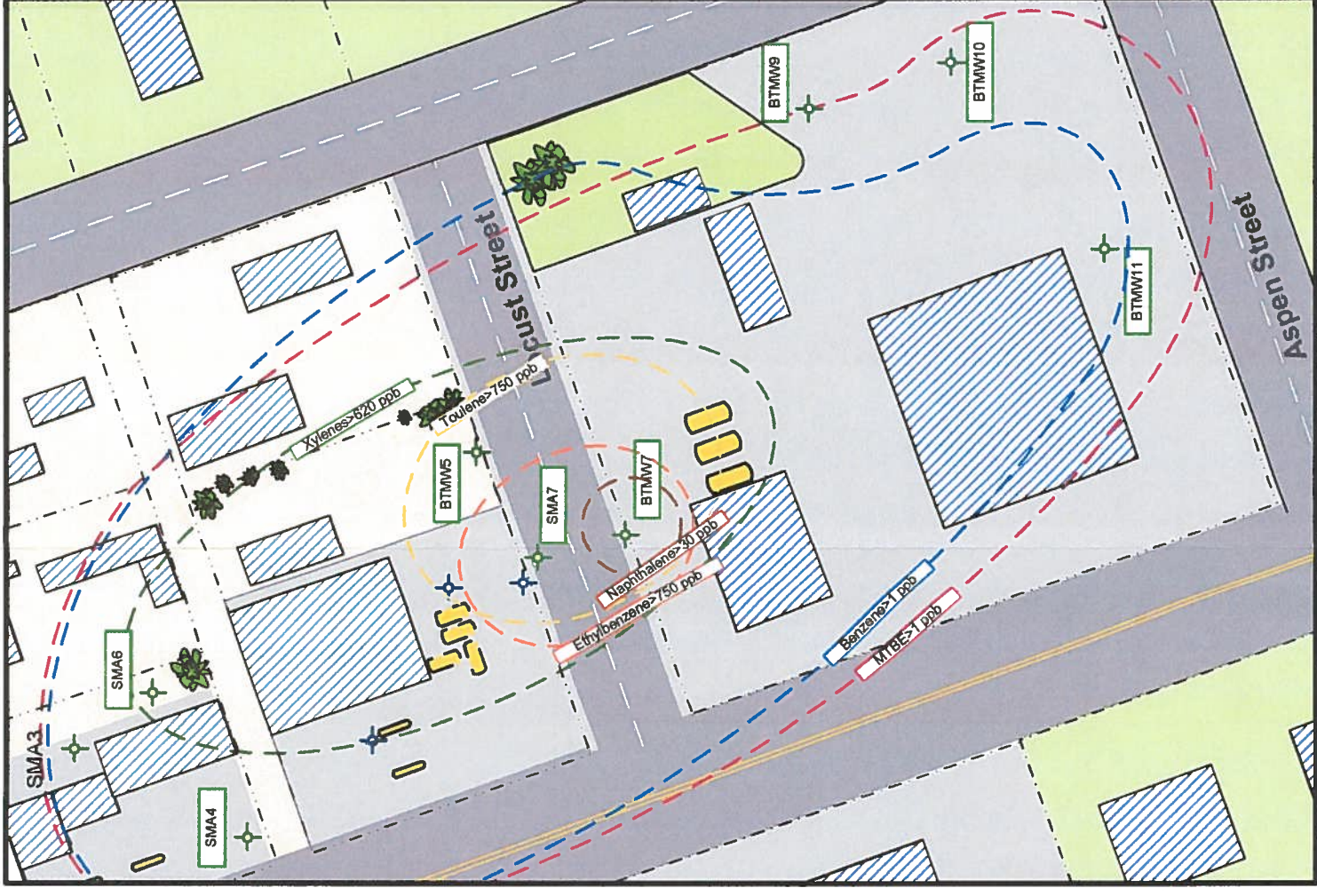
November 2014

Gasoline constituents in lower water-bearing zone which are above the NMED standard. See contour interval for each constituent allowable concentration.



May 2014

Gasoline constituents in lower water-bearing zone which are above the NMED standard. See contour interval for each constituent allowable concentration.



EXPLANATION OF FIGURE

- Wells Installed in the Upper Water-bearing Zone
- Wells Installed in the Lower Water-bearing Zone
- Buildings
- Trees
- Pavement in grey, bare ground in tan and grass in green

Gasoline Constituents

- MTBE > 1 ppb
- Benzene > 1 ppb
- Toluene > 100 ppb
- Xylenes > 100 ppb
- Ethyl benzene > 100 ppb
- EDC > 1 ppb
- Naphthalene > 10 ppb

- Iso-concentration contour line, value as marked



Scale, 1 inch = about 80 ft.

Figure 5. Extent and Distribution of Gasoline Contaminants

Project : Ethridge Texaco Date: 11/15/2014
Project Number: 964.12 Drafted By: GLW

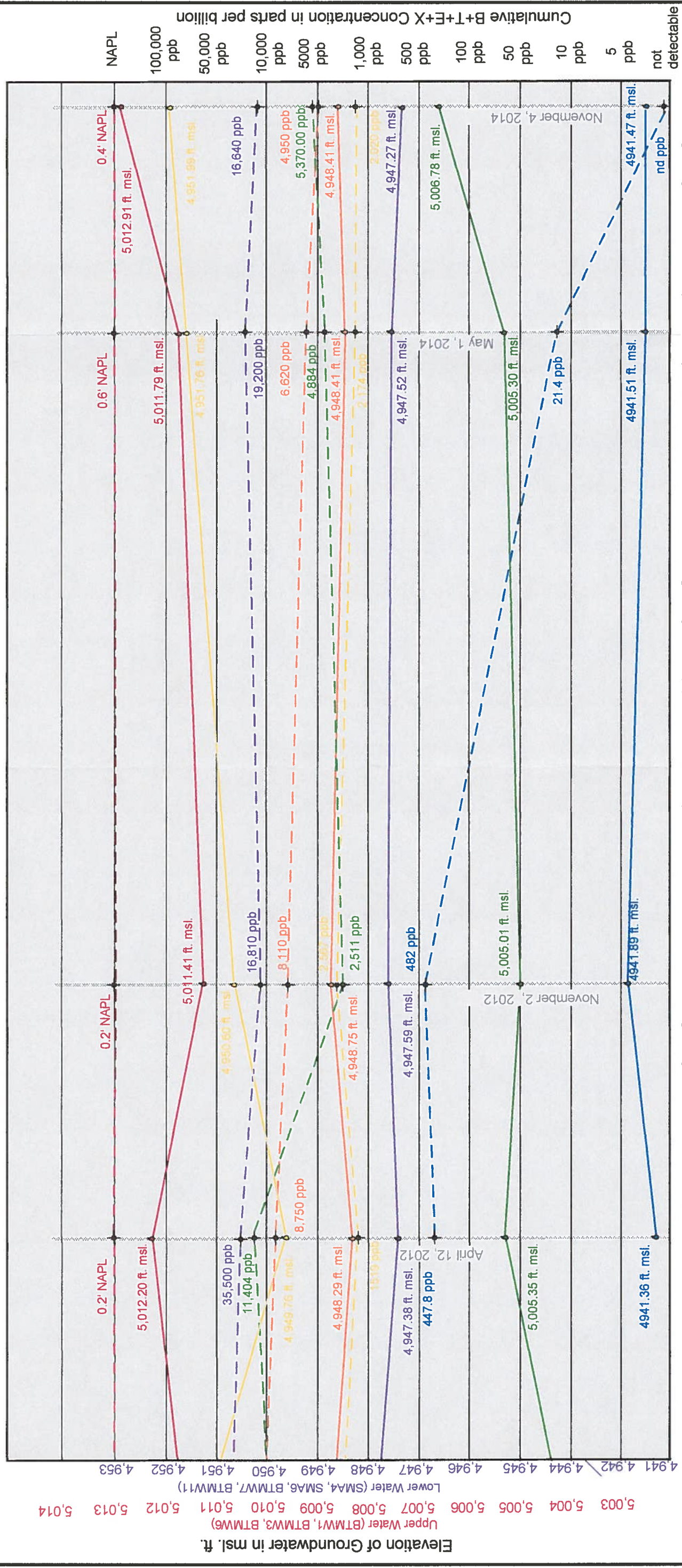
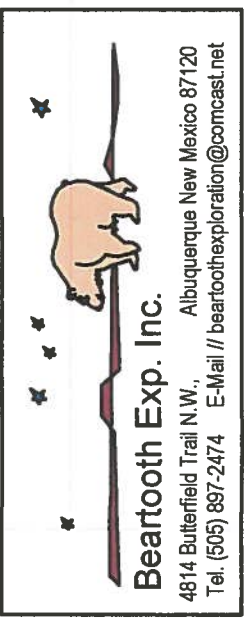


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- Water Elevation BTMW1
- Water Elevation BTMW11
- Water Elevation BTMW3
- Water Elevation SMA4
- Water Elevation BTMW5
- Water Elevation BTMW7
- B+T+E+X Concentration BTMW1
- B+T+E+X Concentration BTMW11
- B+T+E+X Concentration BTMW3
- B+T+E+X Concentration SMA4
- B+T+E+X Concentration BTMW5
- B+T+E+X Concentration BTMW7

Figure 6. Hydrograph and Groundwater Quality

Project : Ethridge Texaco Date: 11/15/2014
 Project Number: 964.12 Drafted By: GLW



Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sep. Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sep. Oct. Nov.

2012 2013 2014

Elevation of Groundwater in msl. ft.

Upper Water (BTMW1, BTMW3, BTMW6)
 5,003 5,004 5,005 5,006 5,007 5,008 5,009 5,010 5,011 5,012 5,013 5,014

Lower Water (SMA4, SMA6, BTMW7, BTMW11)
 4,941 4,942 4,943 4,944 4,945 4,946 4,947 4,948 4,949 4,950 4,951 4,952 4,953

Table 1. Results of Groundwater Measurements, Ethridge Texaco LUST Site

		Physical Measurements							
Well/ Boring ID	Measurement Date	Top of Casing	Depth to Water ft.	Elevation of Water	pH	SC uS	Temp. °C	NAPL Thickness In inches	
BTMW1	11/04/14	5041.58	28.69	5012.91cr	Well Not Sampled			0.4	
	05/02/14		29.83	5011.79cr	Well Not Sampled			0.6	
	11/02/12		29.38	5011.41cr	Well Not Sampled			0.2	
	04/12/12		29.38	5012.20cr	Well Not Sampled			0.2	
	04/07/11		30.23	5011.33cr	Well Not Sampled			0.5	
	08/26/10		27.46	5014.12cr	Well Not Sampled			0.2	
	05/28/10		27.36	5014.22cr	Well Not Sampled			0.8	
	02/11/10		28.43	5013.15cr	Well Not Sampled			1.8	
	11/06/09		▼	29.84	5011.74	6.9	952	10.5	none
BTMW2	11/04/14	5041.37	31.55	5009.82cr	Well Not Sampled			0.2	
	05/02/14		35.08	5006.32cr	Well Not Sampled			0.2	
	11/02/12		34.88	5006.49	7.1	1250	10.4	none	
	04/12/12		34.33	5007.04	7.0	1122	11.0	none	
	04/07/11		▼	37.34	5004.03	7.2	1067	10.2	none
	08/26/10	5040.24	33.61	5006.63	7.0	1160	10.3	none	
	05/28/10		32.74	5007.50	7.1	989	10.2	none	
	02/11/10		33.58	5006.66	7.3	1031	10.0	none	
	11/06/09		▼	31.16	5009.08	7.0	1008	10.6	none
BTMW3	11/04/14	5039.46	32.68	5006.78	6.6	843	10.8	none	
	05/02/14		34.16	5005.30	6.8	945	10.8	none	
	11/02/12		34.45	5005.35	7.1	1144	10.3	none	
	04/12/12		34.11	5005.35	7.2	1179	10.9	none	
	04/07/11		36.04	5003.42	7.1	1005	10.3	none	
	08/26/10		33.47	5005.99	7.1	1083	10.3	none	
	05/28/10		33.15	5006.31	7.0	1065	10.3	none	
	02/11/10		33.67	5005.79	6.9	1005	10.1	none	
	11/06/09		▼	31.56	5007.90	7.0	974	10.5	none
BTMW5	11/05/14	5038.71	90.21	4948.50	7.0	1162	10.9	none	
	05/02/14		90.30	4948.41	6.9	1318	10.4	none	
	11/02/12		89.96	4948.75	7.2	1071	10.6	none	
	04/12/12		90.42	4948.29	7.1	1253	11.0	none	
	04/07/11		89.78	4948.93	7.3	1214	10.1	none	
	08/26/10		90.19	4948.52	7.2	1027	10.4	none	
	05/28/10		▼	87.52	4951.90	7.1	1102	10.2	none
BTMW7	11/05/14	5037.41	90.14	4947.27	6.6	1085	10.8	none	
	05/02/14		89.89	4947.52	6.9	2864	10.6	none	
	11/02/12		89.82	4947.59	7.2	1189	10.5	none	
	04/12/12		90.03	4947.38	7.0	1164	10.8	none	
	04/07/11		89.35	4948.06	7.2	1103	10.2	none	
	08/26/10		89.72	4947.69	7.1	1051	10.2	none	
	05/28/10		▼	89.54	4947.87	7.2	1020	10.4	none
BTMW8	11/05/14		Well Destroyed						
	05/02/14		Well Destroyed						
	11/02/12	5033.87	89.91	4943.96	7.1	1235	10.6	none	
	04/12/12		90.48	4943.39	7.0	1251	10.9	none	

Notes: 1) All top of casing and depth to water measurements are in feet. Elevation measurements are in feet mean sea level.



Table 1. Results of Groundwater Measurements, Ethridge Texaco LUST Site

		Physical Measurements						
Well/ Boring ID	Measurement Date	Top of Casing	Depth to Water ft.	Elevation of Water	pH	SC uS	Temp. °C	NAPL Thickness In inches
BTMW9	11/05/14	5035.91	91.22	4944.69	6.8	1016	10.6	none
	05/02/14		91.18	4944.73	6.8	875	10.5	none
	11/02/12	↓	90.85	4945.06	7.2	1249	10.8	none
	04/12/12	↓	91.30	4944.61	7.2	1308	10.7	none
BTMW10	11/05/14	5033.99	91.13	4942.86	6.9	1276	10.8	none
	05/02/14		91.09	4942.90	7.0	932	10.5	none
	11/02/12	↓	90.77	4943.22	7.0	1180	10.6	none
	04/12/12	↓	91.18	4942.81	7.1	1245	10.9	none
BTMW11	11/05/14	5032.72	91.25	4941.47	7.0	1198	10.7	none
	05/02/14		91.21	4941.51	6.9	1048	10.5	none
	11/02/12	↓	90.83	4941.89	7.2	1221	10.7	none
	04/12/12	↓	91.36	4941.36	7.0	1276	11.0	none
SMA4	11/04/14	5042.94	90.95	4951.99	6.8	1024	10.8	none
	05/01/14		91.16	4951.76	6.8	1155	10.4	none
	11/02/12	↓	92.34	4950.60	7.1	1196	10.5	none
	04/12/12	↓	93.18	4949.76	7.1	1135	10.7	none
	04/07/11	↓	90.80	4952.14	7.2	1248	10.1	none
	08/27/10	↓	90.80	4952.14	7.0	1103	10.2	none
	05/28/10	↓	91.57	4951.37	7.2	1078	10.1	none
	02/11/10	↓		Well Not Sampled				
SMA6	11/05/14	5043.78	92.26	4951.52	6.9	1010	10.7	none
	05/01/14		92.22	4951.56	6.7	1120	10.4	none
	11/02/12	↓	91.76	4952.02	7.2	1124	10.8	none
	04/12/12	↓	92.45	4951.33	7.3	1096	10.8	none
	04/07/11	↓	91.76	4952.02	7.2	1150	10.0	none
	08/27/10	↓	92.93	4951.55	7.1	1042	10.3	none
	05/28/10	↓	93.04	4950.74	7.3	980	10.3	none
SMA7	11/05/14	5038.66	90.32	4948.33	7.1	1166	10.8	none
	05/01/14		90.35	4948.31	6.8	1027	10.5	none
	11/02/12	↓	90.14	4948.52	7.1	1259	10.5	none
	04/12/12	↓	90.53	4948.13	7.2	1178	10.7	none
	04/07/11	↓	89.82	4948.84	7.0	1356	10.2	none
	08/27/10	↓	90.29	4948.37	7.2	1005	10.3	none
	05/28/10	↓	90.46	4948.25	7.2	1052	10.3	none

Notes: 1) All top of casing and depth to water measurements are in feet. Elevation measurements are in feet mean sea level.



*

Table 2. Results of Groundwater Analyses, Ethridge Texaco LUST Site

		Volatile Organic Compounds, Methods 8260 (all results in parts per billion)									
Well/ Boring ID	Sample Date	Sample ID	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	EDC	EDB	124-TMB	Total Naphthalene
BTMW1			Well Not Sampled, 0.4 inches of NAPL in Well								
	05/02/14		Well Not Sampled, 0.6 inches of NAPL in Well								
	11/02/12		Well Not Sampled, 0.2 inches of NAPL in Well								
	04/12/12		Well Not Sampled, 0.2 inches of NAPL in Well								
	04/07/11		Well Not Sampled, 0.5 inches of NAPL in Well								
	08/26/10		Well Not Sampled, 0.2 inches of NAPL in Well								
	05/28/10		Well Not Sampled, 0.8 inches of NAPL in Well								
	02/11/10		Well Not Sampled, 1.8 inches of NAPL in Well								
	11/06/09	BTMW1	4000	10000	3200	20600	4000	130	0.44	4700	720
BTMW2			Well Not Sampled, 0.2 inches of NAPL in Well								
	05/02/14		Well Not Sampled, 0.2 inches of NAPL in Well								
	11/02/12	BTMW2	2000	570	1600	8000	7500	7.9	nd	3100	470
	04/12/12	BTMW2	1300	240	2000	9500	4400	nd	nd	3000	610
	04/07/11	BTMW2	1600	78	600	3100	8100	nd	nd	2100	360
	08/26/10	BTMW2	855	82.2	408	3625	3355	nd	nd	2070	362
	05/28/10	BTMW2	630	180	760	3900	3400	nd	nd	1800	350
	02/11/10	BTMW2	20	110	1000	7000	3600	18	nd	1600	290
	11/06/09	BTMW2	1700	2800	630	13300	2600	81	0.058	3000	380
BTMW3	11/04/14	BTMW3	220	80	870	4200	1100	nd	nd	2600	440
	05/02/14	BTMW3	200	94	790	3800	2000	nd	nd	2800	330
	11/02/12	BTMW3	120	21	170	2200	1100	nd	nd	2400	310
	04/12/12	BTMW3	650	54	2300	8400	2600	nd	nd	8700	820
	04/07/11	BTMW3	1400	240	1700	6100	5800	1.5	nd	3600	480
	08/26/10	BTMW3	989	397	535	3071	3804	nd	nd	1595	305
	05/28/10	BTMW3	860	190	1200	5600	2900	nd	nd	2400	410
	02/11/10	BTMW3	880	660	1000	7600	1400	40	nd	2400	350
	11/06/09	BTMW3	1700	1500	790	3700	3800	80	0.48	650	170
BTMW5	11/05/14	BTMW5	3200	640	250	860	3100	nd	nd	230	nd
	05/02/14	BTMW5	4600	760	260	1000	4300	nd	nd	220	nd
	11/02/12	BTMW5	5200	1500	210	1200	3600	40	nd	170	nd
	04/12/12	BTMW5	5300	2200	250	1000	3600	24	nd	230	26
	04/07/11	BTMW5	10000	5100	240	2600	6100	39	nd	290	44
	08/26/10	BTMW5	2868	1290	114	1069	1900	nd	nd	142	59.6
	05/28/10	BTMW5	33	32	4.7	27	18	nd	nd	5.2	nd
BTMW7	11/05/14	BTMW7	11000	910	930	3800	8800	nd	nd	700	nd
	05/02/14	BTMW7	11000	1900	1100	5200	8100	nd	nd	870	120
	11/02/12	BTMW7	8800	3400	710	3900	6500	27	nd	960	nd
	04/12/12	BTMW7	15000	9500	1100	9900	11000	41	nd	1400	260
	04/07/11	BTMW7	18000	11000	960	8300	13000	50	nd	1100	180
	08/26/10	BTMW7	13034	8791	1670	5781	6391	nd	nd	957	106
	05/28/10	BTMW7	2300	2200	630	3200	320	nd	nd	670	64
BTMW8	11/05/14		Well Not Sampled, Destroyed								
	05/02/14	BTMW8	Well Not Sampled, Destroyed								
	11/02/12	BTMW8	4500	160	930	3400	3500	nd	nd	940	130
	04/12/12	BTMW8	2700	270	700	2800	4200	nd	nd	840	110
Detection Limit for 11/14 Samples			1.0-200	1.0-200	1.0-20	1.5-300	1.0-200	1.0-20	1.0-20	1.0-20	2.0-40
NMED Standard			10	750	750	620	100	10	0.10	None Established	30

Notes: 1) All concentrations are presented in parts per billion (ppb or ug/L).
 2) "nd" indicates that this compound was not detected using the method detection limits. Refer to Attachment 1 for specific detection limits.



Table 2. Continued, Results of Groundwater Analyses, Ethridge Texaco LUST Site

		Volatile Organic Compounds, Methods 8260 (all results in parts per billion)									
Well/ Boring ID	Sample Date	Sample ID	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	EDC	EDB	124-TMB	Total Napthalene
BTMW9	11/05/14	BTMW9	1.2	nd	nd	nd	250	nd	nd	nd	nd
	05/02/14	BTMW9	nd	nd	nd	1.7	10	nd	nd	nd	nd
	11/02/12	BTMW9	nd	nd	nd	nd	19	nd	nd	nd	nd
	04/12/12	BTMW9	5.9	nd	nd	3.2	13	nd	nd	12	nd
BTMW10	11/05/14	BTMW10	nd	nd	nd	nd	9.4	nd	nd	2.4	nd
	05/02/14	BTMW10	1.8	2.0	nd	5.3	14	nd	nd	2.2	nd
	11/02/12	BTMW10	nd	nd	nd	nd	30	nd	nd	nd	nd
	04/12/12	BTMW10	nd	nd	nd	nd	6.5	nd	nd	2.1	nd
BTMW11	11/05/14	BTMW11	nd	nd	nd	nd	4.9	nd	nd	nd	nd
	05/02/14	BTMW11	13	1.3	1.5	5.6	310	nd	nd	3.0	nd
	11/02/12	BTMW11	330	nd	42	110	940	nd	nd	16	nd
	04/12/12	BTMW11	320	4.8	44	79	2000	nd	nd	180	10
SMA4	11/04/14	SMA4	1800	24	120	76	1200	nd	nd	150	nd
	05/01/14	SMA4	2200	21	nd	150	1100	nd	nd	120	nd
	11/02/12	SMA4	2500	22	4.3	41	710	4.3	nd	29	nd
	04/12/12	SMA4	1000	19	20	100	380	1.4	nd	49	nd
	04/07/11	SMA4	2700	48	29	110	680	nd	nd	76	nd
	08/27/10	SMA4	2807	58.3	nd	nd	896	nd	nd	58.6	nd
	05/28/10	SMA4	2600	45	52	67	910	4.8	nd	63	nd
	02/11/10	SMA4	1300	810	1200	7700	3800	52	nd	2800	400
SMA6	11/04/14	SMA6	2100	700	45	690	1200	nd	nd	92	nd
	05/01/14	SMA6	2300	410	19	650	1200	nd	nd	97	nd
	11/02/12	SMA6	2900	380	110	800	1300	10	nd	94	5.3
	04/12/12	SMA6	790	460	63	300	340	2.2	nd	34	nd
	04/07/11	SMA6	3500	1200	150	850	1900	14	nd	110	nd
	08/27/10	SMA6	2365	324	nd	497	1609	nd	nd	70.9	nd
	05/28/10	SMA6	2600	1000	210	980	1700	10	nd	91	9.8
SMA7	11/04/14	SMA7	10000	900	930	4000	8100	nd	nd	700	nd
	05/01/14	SMA7	11000	830	890	3500	8700	nd	nd	620	nd
	11/02/12	SMA7	12000	1100	880	4400	9000	nd	nd	780	73
	04/12/12	SMA7	13000	4100	1000	5100	9500	12	nd	800	62
	04/07/11	SMA7	12000	4900	820	2900	8200	nd	nd	680	86
	08/27/10	SMA7	11907	1902	680	3485	7968	nd	nd	530	75.6
	05/28/10	SMA7	10000	860	830	4100	8700	nd	nd	550	nd
Detection Limit for 11/14 Samples			1.0-200	1.0-200	1.0-20	2.0	1.5-300	1.0-200	1.0-20	1.0-20	2.0-40
NMED Standard			10	750	750	620	100	10	0.10	None Established	30

Notes: 1) All concentrations are presented in parts per billion (ppb or ug/L).

2) "nd" indicates that this compound was not detected using the method detection limits. Refer to Attachment 2 for specific detection limits.



ATTACHMENT 1
Laboratory Certificates of Analysis



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 13, 2014

Gary Weadock

Beartooth Exploration, Inc.
4814 Butterfield Trl. NW
Albuquerque, NM 87120
TEL: (505) 897-2474
FAX (505) 897-2247

RE: Ethridge Texaco

OrderNo.: 1411224

Dear Gary Weadock:

Hall Environmental Analysis Laboratory received 10 sample(s) on 11/6/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: BTMW3

Project: Ethridge Texaco

Collection Date: 11/4/2014 3:10:00 PM

Lab ID: 1411224-001

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	220	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Toluene	80	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Ethylbenzene	870	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Methyl tert-butyl ether (MTBE)	1100	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,2,4-Trimethylbenzene	2600	100		µg/L	100	11/10/2014 1:12:34 PM	R22447
1,3,5-Trimethylbenzene	320	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Naphthalene	440	20		µg/L	10	11/10/2014 1:42:25 PM	R22447
1-Methylnaphthalene	180	40		µg/L	10	11/10/2014 1:42:25 PM	R22447
2-Methylnaphthalene	240	40		µg/L	10	11/10/2014 1:42:25 PM	R22447
Acetone	ND	100		µg/L	10	11/10/2014 1:42:25 PM	R22447
Bromobenzene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Bromodichloromethane	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Bromoform	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Bromomethane	ND	30		µg/L	10	11/10/2014 1:42:25 PM	R22447
2-Butanone	ND	100		µg/L	10	11/10/2014 1:42:25 PM	R22447
Carbon disulfide	ND	100		µg/L	10	11/10/2014 1:42:25 PM	R22447
Carbon Tetrachloride	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Chlorobenzene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Chloroethane	ND	20		µg/L	10	11/10/2014 1:42:25 PM	R22447
Chloroform	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Chloromethane	ND	30		µg/L	10	11/10/2014 1:42:25 PM	R22447
2-Chlorotoluene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
4-Chlorotoluene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
cis-1,2-DCE	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/10/2014 1:42:25 PM	R22447
Dibromochloromethane	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Dibromomethane	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,2-Dichlorobenzene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,3-Dichlorobenzene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,4-Dichlorobenzene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Dichlorodifluoromethane	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,1-Dichloroethane	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,1-Dichloroethene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,2-Dichloropropane	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,3-Dichloropropane	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
2,2-Dichloropropane	ND	20		µg/L	10	11/10/2014 1:42:25 PM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	Page 1 of 24
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: BTMW3

Project: Ethridge Texaco

Collection Date: 11/4/2014 3:10:00 PM

Lab ID: 1411224-001

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,1-Dichloropropene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Hexachlorobutadiene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
2-Hexanone	ND	100		µg/L	10	11/10/2014 1:42:25 PM	R22447
Isopropylbenzene	130	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
4-Isopropyltoluene	49	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
4-Methyl-2-pentanone	ND	100		µg/L	10	11/10/2014 1:42:25 PM	R22447
Methylene Chloride	ND	30		µg/L	10	11/10/2014 1:42:25 PM	R22447
n-Butylbenzene	50	30		µg/L	10	11/10/2014 1:42:25 PM	R22447
n-Propylbenzene	350	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
sec-Butylbenzene	27	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Styrene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
tert-Butylbenzene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/10/2014 1:42:25 PM	R22447
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
trans-1,2-DCE	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,1,1-Trichloroethane	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,1,2-Trichloroethane	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Trichloroethene (TCE)	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Trichlorofluoromethane	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
1,2,3-Trichloropropane	ND	20		µg/L	10	11/10/2014 1:42:25 PM	R22447
Vinyl chloride	ND	10		µg/L	10	11/10/2014 1:42:25 PM	R22447
Xylenes, Total	4200	150		µg/L	100	11/10/2014 1:12:34 PM	R22447
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	10	11/10/2014 1:42:25 PM	R22447
Surr: 4-Bromofluorobenzene	118	70-130		%REC	10	11/10/2014 1:42:25 PM	R22447
Surr: Dibromofluoromethane	102	70-130		%REC	10	11/10/2014 1:42:25 PM	R22447
Surr: Toluene-d8	108	70-130		%REC	10	11/10/2014 1:42:25 PM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: SMA4

Project: Ethridge Texaco

Collection Date: 11/4/2014 3:40:00 PM

Lab ID: 1411224-002

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	1800	100		µg/L	100	11/10/2014 3:41:43 PM	R22447
Toluene	24	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Ethylbenzene	120	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Methyl tert-butyl ether (MTBE)	1200	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,2,4-Trimethylbenzene	150	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Naphthalene	ND	20		µg/L	10	11/10/2014 4:11:34 PM	R22447
1-Methylnaphthalene	ND	40		µg/L	10	11/10/2014 4:11:34 PM	R22447
2-Methylnaphthalene	ND	40		µg/L	10	11/10/2014 4:11:34 PM	R22447
Acetone	ND	100		µg/L	10	11/10/2014 4:11:34 PM	R22447
Bromobenzene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Bromodichloromethane	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Bromoform	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Bromomethane	ND	30		µg/L	10	11/10/2014 4:11:34 PM	R22447
2-Butanone	ND	100		µg/L	10	11/10/2014 4:11:34 PM	R22447
Carbon disulfide	ND	100		µg/L	10	11/10/2014 4:11:34 PM	R22447
Carbon Tetrachloride	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Chlorobenzene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Chloroethane	ND	20		µg/L	10	11/10/2014 4:11:34 PM	R22447
Chloroform	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Chloromethane	ND	30		µg/L	10	11/10/2014 4:11:34 PM	R22447
2-Chlorotoluene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
4-Chlorotoluene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
cis-1,2-DCE	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/10/2014 4:11:34 PM	R22447
Dibromochloromethane	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Dibromomethane	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,2-Dichlorobenzene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,3-Dichlorobenzene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,4-Dichlorobenzene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Dichlorodifluoromethane	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,1-Dichloroethane	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,1-Dichloroethene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,2-Dichloropropane	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,3-Dichloropropane	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
2,2-Dichloropropane	ND	20		µg/L	10	11/10/2014 4:11:34 PM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	Page 3 of 24
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: SMA4

Project: Ethridge Texaco

Collection Date: 11/4/2014 3:40:00 PM

Lab ID: 1411224-002

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,1-Dichloropropene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Hexachlorobutadiene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
2-Hexanone	ND	100		µg/L	10	11/10/2014 4:11:34 PM	R22447
Isopropylbenzene	14	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
4-Isopropyltoluene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
4-Methyl-2-pentanone	ND	100		µg/L	10	11/10/2014 4:11:34 PM	R22447
Methylene Chloride	ND	30		µg/L	10	11/10/2014 4:11:34 PM	R22447
n-Butylbenzene	ND	30		µg/L	10	11/10/2014 4:11:34 PM	R22447
n-Propylbenzene	18	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
sec-Butylbenzene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Styrene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
tert-Butylbenzene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/10/2014 4:11:34 PM	R22447
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
trans-1,2-DCE	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,1,1-Trichloroethane	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,1,2-Trichloroethane	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Trichloroethene (TCE)	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Trichlorofluoromethane	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
1,2,3-Trichloropropane	ND	20		µg/L	10	11/10/2014 4:11:34 PM	R22447
Vinyl chloride	ND	10		µg/L	10	11/10/2014 4:11:34 PM	R22447
Xylenes, Total	76	15		µg/L	10	11/10/2014 4:11:34 PM	R22447
Surr: 1,2-Dichloroethane-d4	98.9	70-130		%REC	10	11/10/2014 4:11:34 PM	R22447
Surr: 4-Bromofluorobenzene	94.9	70-130		%REC	10	11/10/2014 4:11:34 PM	R22447
Surr: Dibromofluoromethane	105	70-130		%REC	10	11/10/2014 4:11:34 PM	R22447
Surr: Toluene-d8	100	70-130		%REC	10	11/10/2014 4:11:34 PM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	Page 4 of 24
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1411224

Date Reported: 11/13/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: SMA6

Project: Ethridge Texaco

Collection Date: 11/4/2014 4:15:00 PM

Lab ID: 1411224-003

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	2100	100		µg/L	100	11/10/2014 5:11:09 PM	R22447
Toluene	700	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Ethylbenzene	45	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Methyl tert-butyl ether (MTBE)	1200	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,2,4-Trimethylbenzene	92	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,3,5-Trimethylbenzene	27	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Naphthalene	ND	20		µg/L	10	11/10/2014 5:40:56 PM	R22447
1-Methylnaphthalene	ND	40		µg/L	10	11/10/2014 5:40:56 PM	R22447
2-Methylnaphthalene	ND	40		µg/L	10	11/10/2014 5:40:56 PM	R22447
Acetone	ND	100		µg/L	10	11/10/2014 5:40:56 PM	R22447
Bromobenzene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Bromodichloromethane	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Bromoform	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Bromomethane	ND	30		µg/L	10	11/10/2014 5:40:56 PM	R22447
2-Butanone	ND	100		µg/L	10	11/10/2014 5:40:56 PM	R22447
Carbon disulfide	ND	100		µg/L	10	11/10/2014 5:40:56 PM	R22447
Carbon Tetrachloride	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Chlorobenzene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Chloroethane	ND	20		µg/L	10	11/10/2014 5:40:56 PM	R22447
Chloroform	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Chloromethane	ND	30		µg/L	10	11/10/2014 5:40:56 PM	R22447
2-Chlorotoluene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
4-Chlorotoluene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
cis-1,2-DCE	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/10/2014 5:40:56 PM	R22447
Dibromochloromethane	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Dibromomethane	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,2-Dichlorobenzene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,3-Dichlorobenzene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,4-Dichlorobenzene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Dichlorodifluoromethane	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,1-Dichloroethane	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,1-Dichloroethene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,2-Dichloropropane	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,3-Dichloropropane	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
2,2-Dichloropropane	ND	20		µg/L	10	11/10/2014 5:40:56 PM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: SMA6

Project: Ethridge Texaco

Collection Date: 11/4/2014 4:15:00 PM

Lab ID: 1411224-003

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,1-Dichloropropene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Hexachlorobutadiene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
2-Hexanone	ND	100		µg/L	10	11/10/2014 5:40:56 PM	R22447
Isopropylbenzene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
4-Isopropyltoluene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
4-Methyl-2-pentanone	ND	100		µg/L	10	11/10/2014 5:40:56 PM	R22447
Methylene Chloride	ND	30		µg/L	10	11/10/2014 5:40:56 PM	R22447
n-Butylbenzene	ND	30		µg/L	10	11/10/2014 5:40:56 PM	R22447
n-Propylbenzene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
sec-Butylbenzene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Styrene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
tert-Butylbenzene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/10/2014 5:40:56 PM	R22447
Tetrachloroethene (PCE)	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
trans-1,2-DCE	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,1,1-Trichloroethane	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,1,2-Trichloroethane	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Trichloroethene (TCE)	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Trichlorofluoromethane	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
1,2,3-Trichloropropane	ND	20		µg/L	10	11/10/2014 5:40:56 PM	R22447
Vinyl chloride	ND	10		µg/L	10	11/10/2014 5:40:56 PM	R22447
Xylenes, Total	690	15		µg/L	10	11/10/2014 5:40:56 PM	R22447
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	10	11/10/2014 5:40:56 PM	R22447
Surr: 4-Bromofluorobenzene	93.0	70-130		%REC	10	11/10/2014 5:40:56 PM	R22447
Surr: Dibromofluoromethane	107	70-130		%REC	10	11/10/2014 5:40:56 PM	R22447
Surr: Toluene-d8	93.1	70-130		%REC	10	11/10/2014 5:40:56 PM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: SMA7

Project: Ethridge Texaco

Collection Date: 11/5/2014 7:50:00 AM

Lab ID: 1411224-004

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	10000	500		µg/L	500	11/10/2014 6:40:34 PM	R22447
Toluene	900	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Ethylbenzene	930	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Methyl tert-butyl ether (MTBE)	8100	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,2,4-Trimethylbenzene	700	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,3,5-Trimethylbenzene	130	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Naphthalene	ND	100		µg/L	50	11/10/2014 7:10:27 PM	R22447
1-Methylnaphthalene	ND	200		µg/L	50	11/10/2014 7:10:27 PM	R22447
2-Methylnaphthalene	ND	200		µg/L	50	11/10/2014 7:10:27 PM	R22447
Acetone	ND	500		µg/L	50	11/10/2014 7:10:27 PM	R22447
Bromobenzene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Bromodichloromethane	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Bromoform	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Bromomethane	ND	150		µg/L	50	11/10/2014 7:10:27 PM	R22447
2-Butanone	ND	500		µg/L	50	11/10/2014 7:10:27 PM	R22447
Carbon disulfide	ND	500		µg/L	50	11/10/2014 7:10:27 PM	R22447
Carbon Tetrachloride	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Chlorobenzene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Chloroethane	ND	100		µg/L	50	11/10/2014 7:10:27 PM	R22447
Chloroform	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Chloromethane	ND	150		µg/L	50	11/10/2014 7:10:27 PM	R22447
2-Chlorotoluene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
4-Chlorotoluene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
cis-1,2-DCE	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
cis-1,3-Dichloropropene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	11/10/2014 7:10:27 PM	R22447
Dibromochloromethane	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Dibromomethane	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,2-Dichlorobenzene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,3-Dichlorobenzene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,4-Dichlorobenzene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Dichlorodifluoromethane	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,1-Dichloroethane	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,1-Dichloroethene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,2-Dichloropropane	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,3-Dichloropropane	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
2,2-Dichloropropane	ND	100		µg/L	50	11/10/2014 7:10:27 PM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: SMA7

Project: Ethridge Texaco

Collection Date: 11/5/2014 7:50:00 AM

Lab ID: 1411224-004

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,1-Dichloropropene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Hexachlorobutadiene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
2-Hexanone	ND	500		µg/L	50	11/10/2014 7:10:27 PM	R22447
Isopropylbenzene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
4-Isopropyltoluene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
4-Methyl-2-pentanone	ND	500		µg/L	50	11/10/2014 7:10:27 PM	R22447
Methylene Chloride	ND	150		µg/L	50	11/10/2014 7:10:27 PM	R22447
n-Butylbenzene	ND	150		µg/L	50	11/10/2014 7:10:27 PM	R22447
n-Propylbenzene	90	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
sec-Butylbenzene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Styrene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
tert-Butylbenzene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	11/10/2014 7:10:27 PM	R22447
Tetrachloroethene (PCE)	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
trans-1,2-DCE	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
trans-1,3-Dichloropropene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,2,3-Trichlorobenzene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,2,4-Trichlorobenzene	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,1,1-Trichloroethane	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,1,2-Trichloroethane	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Trichloroethene (TCE)	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Trichlorofluoromethane	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
1,2,3-Trichloropropane	ND	100		µg/L	50	11/10/2014 7:10:27 PM	R22447
Vinyl chloride	ND	50		µg/L	50	11/10/2014 7:10:27 PM	R22447
Xylenes, Total	4000	75		µg/L	50	11/10/2014 7:10:27 PM	R22447
Surr: 1,2-Dichloroethane-d4	97.6	70-130		%REC	50	11/10/2014 7:10:27 PM	R22447
Surr: 4-Bromofluorobenzene	93.1	70-130		%REC	50	11/10/2014 7:10:27 PM	R22447
Surr: Dibromofluoromethane	102	70-130		%REC	50	11/10/2014 7:10:27 PM	R22447
Surr: Toluene-d8	104	70-130		%REC	50	11/10/2014 7:10:27 PM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: BTMW5

Project: Ethridge Texaco

Collection Date: 11/5/2014 8:25:00 AM

Lab ID: 1411224-005

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	3200	200		µg/L	200	11/10/2014 8:10:07 PM	R22447
Toluene	640	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Ethylbenzene	250	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Methyl tert-butyl ether (MTBE)	3100	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,2,4-Trimethylbenzene	230	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,3,5-Trimethylbenzene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Naphthalene	ND	40		µg/L	20	11/11/2014 12:08:32 AM	R22447
1-Methylnaphthalene	ND	80		µg/L	20	11/11/2014 12:08:32 AM	R22447
2-Methylnaphthalene	ND	80		µg/L	20	11/11/2014 12:08:32 AM	R22447
Acetone	ND	200		µg/L	20	11/11/2014 12:08:32 AM	R22447
Bromobenzene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Bromodichloromethane	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Bromoform	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Bromomethane	ND	60		µg/L	20	11/11/2014 12:08:32 AM	R22447
2-Butanone	ND	200		µg/L	20	11/11/2014 12:08:32 AM	R22447
Carbon disulfide	ND	200		µg/L	20	11/11/2014 12:08:32 AM	R22447
Carbon Tetrachloride	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Chlorobenzene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Chloroethane	ND	40		µg/L	20	11/11/2014 12:08:32 AM	R22447
Chloroform	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Chloromethane	ND	60		µg/L	20	11/11/2014 12:08:32 AM	R22447
2-Chlorotoluene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
4-Chlorotoluene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
cis-1,2-DCE	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
cis-1,3-Dichloropropene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	11/11/2014 12:08:32 AM	R22447
Dibromochloromethane	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Dibromomethane	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,2-Dichlorobenzene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,3-Dichlorobenzene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,4-Dichlorobenzene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Dichlorodifluoromethane	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,1-Dichloroethane	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,1-Dichloroethene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,2-Dichloropropane	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,3-Dichloropropane	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
2,2-Dichloropropane	ND	40		µg/L	20	11/11/2014 12:08:32 AM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	Page 9 of 24
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: BTMW5

Project: Ethridge Texaco

Collection Date: 11/5/2014 8:25:00 AM

Lab ID: 1411224-005

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,1-Dichloropropene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Hexachlorobutadiene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
2-Hexanone	ND	200		µg/L	20	11/11/2014 12:08:32 AM	R22447
Isopropylbenzene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
4-Isopropyltoluene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
4-Methyl-2-pentanone	ND	200		µg/L	20	11/11/2014 12:08:32 AM	R22447
Methylene Chloride	ND	60		µg/L	20	11/11/2014 12:08:32 AM	R22447
n-Butylbenzene	ND	60		µg/L	20	11/11/2014 12:08:32 AM	R22447
n-Propylbenzene	33	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
sec-Butylbenzene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Styrene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
tert-Butylbenzene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	11/11/2014 12:08:32 AM	R22447
Tetrachloroethene (PCE)	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
trans-1,2-DCE	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
trans-1,3-Dichloropropene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,2,3-Trichlorobenzene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,2,4-Trichlorobenzene	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,1,1-Trichloroethane	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,1,2-Trichloroethane	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Trichloroethene (TCE)	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Trichlorofluoromethane	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
1,2,3-Trichloropropane	ND	40		µg/L	20	11/11/2014 12:08:32 AM	R22447
Vinyl chloride	ND	20		µg/L	20	11/11/2014 12:08:32 AM	R22447
Xylenes, Total	860	30		µg/L	20	11/11/2014 12:08:32 AM	R22447
Surr: 1,2-Dichloroethane-d4	95.8	70-130		%REC	20	11/11/2014 12:08:32 AM	R22447
Surr: 4-Bromofluorobenzene	88.9	70-130		%REC	20	11/11/2014 12:08:32 AM	R22447
Surr: Dibromofluoromethane	101	70-130		%REC	20	11/11/2014 12:08:32 AM	R22447
Surr: Toluene-d8	98.5	70-130		%REC	20	11/11/2014 12:08:32 AM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: BTMW7

Project: Ethridge Texaco

Collection Date: 11/5/2014 9:05:00 AM

Lab ID: 1411224-006

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	11000	500		µg/L	500	11/11/2014 1:08:05 AM	R22447
Toluene	910	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Ethylbenzene	930	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Methyl tert-butyl ether (MTBE)	8800	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,2,4-Trimethylbenzene	700	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,3,5-Trimethylbenzene	120	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Naphthalene	ND	100		µg/L	50	11/11/2014 1:37:51 AM	R22447
1-Methylnaphthalene	ND	200		µg/L	50	11/11/2014 1:37:51 AM	R22447
2-Methylnaphthalene	ND	200		µg/L	50	11/11/2014 1:37:51 AM	R22447
Acetone	ND	500		µg/L	50	11/11/2014 1:37:51 AM	R22447
Bromobenzene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Bromodichloromethane	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Bromoform	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Bromomethane	ND	150		µg/L	50	11/11/2014 1:37:51 AM	R22447
2-Butanone	ND	500		µg/L	50	11/11/2014 1:37:51 AM	R22447
Carbon disulfide	ND	500		µg/L	50	11/11/2014 1:37:51 AM	R22447
Carbon Tetrachloride	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Chlorobenzene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Chloroethane	ND	100		µg/L	50	11/11/2014 1:37:51 AM	R22447
Chloroform	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Chloromethane	ND	150		µg/L	50	11/11/2014 1:37:51 AM	R22447
2-Chlorotoluene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
4-Chlorotoluene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
cis-1,2-DCE	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
cis-1,3-Dichloropropene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	11/11/2014 1:37:51 AM	R22447
Dibromochloromethane	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Dibromomethane	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,2-Dichlorobenzene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,3-Dichlorobenzene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,4-Dichlorobenzene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Dichlorodifluoromethane	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,1-Dichloroethane	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,1-Dichloroethene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,2-Dichloropropane	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,3-Dichloropropane	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
2,2-Dichloropropane	ND	100		µg/L	50	11/11/2014 1:37:51 AM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: BTMW7

Project: Ethridge Texaco

Collection Date: 11/5/2014 9:05:00 AM

Lab ID: 1411224-006

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,1-Dichloropropene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Hexachlorobutadiene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
2-Hexanone	ND	500		µg/L	50	11/11/2014 1:37:51 AM	R22447
Isopropylbenzene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
4-Isopropyltoluene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
4-Methyl-2-pentanone	ND	500		µg/L	50	11/11/2014 1:37:51 AM	R22447
Methylene Chloride	ND	150		µg/L	50	11/11/2014 1:37:51 AM	R22447
n-Butylbenzene	ND	150		µg/L	50	11/11/2014 1:37:51 AM	R22447
n-Propylbenzene	90	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
sec-Butylbenzene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Styrene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
tert-Butylbenzene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	11/11/2014 1:37:51 AM	R22447
Tetrachloroethene (PCE)	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
trans-1,2-DCE	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
trans-1,3-Dichloropropene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,2,3-Trichlorobenzene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,2,4-Trichlorobenzene	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,1,1-Trichloroethane	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,1,2-Trichloroethane	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Trichloroethene (TCE)	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Trichlorofluoromethane	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
1,2,3-Trichloropropane	ND	100		µg/L	50	11/11/2014 1:37:51 AM	R22447
Vinyl chloride	ND	50		µg/L	50	11/11/2014 1:37:51 AM	R22447
Xylenes, Total	3800	75		µg/L	50	11/11/2014 1:37:51 AM	R22447
Surr: 1,2-Dichloroethane-d4	106	70-130		%REC	50	11/11/2014 1:37:51 AM	R22447
Surr: 4-Bromofluorobenzene	93.5	70-130		%REC	50	11/11/2014 1:37:51 AM	R22447
Surr: Dibromofluoromethane	107	70-130		%REC	50	11/11/2014 1:37:51 AM	R22447
Surr: Toluene-d8	91.4	70-130		%REC	50	11/11/2014 1:37:51 AM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: BTMW9

Project: Ethridge Texaco

Collection Date: 11/5/2014 10:55:00 AM

Lab ID: 1411224-007

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	1.2	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Toluene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Ethylbenzene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Methyl tert-butyl ether (MTBE)	250	10		µg/L	10	11/11/2014 1:29:45 PM	R22477
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Naphthalene	ND	2.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1-Methylnaphthalene	ND	4.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
2-Methylnaphthalene	ND	4.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Acetone	ND	10		µg/L	1	11/11/2014 2:37:21 AM	R22447
Bromobenzene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Bromodichloromethane	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Bromoform	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Bromomethane	ND	3.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
2-Butanone	ND	10		µg/L	1	11/11/2014 2:37:21 AM	R22447
Carbon disulfide	ND	10		µg/L	1	11/11/2014 2:37:21 AM	R22447
Carbon Tetrachloride	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Chlorobenzene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Chloroethane	ND	2.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Chloroform	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Chloromethane	ND	3.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
2-Chlorotoluene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
4-Chlorotoluene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
cis-1,2-DCE	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Dibromochloromethane	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Dibromomethane	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,1-Dichloroethane	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,1-Dichloroethene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,2-Dichloropropane	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,3-Dichloropropane	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
2,2-Dichloropropane	ND	2.0		µg/L	1	11/11/2014 2:37:21 AM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: BTMW9

Project: Ethridge Texaco

Collection Date: 11/5/2014 10:55:00 AM

Lab ID: 1411224-007

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,1-Dichloropropene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Hexachlorobutadiene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
2-Hexanone	ND	10		µg/L	1	11/11/2014 2:37:21 AM	R22447
Isopropylbenzene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
4-Isopropyltoluene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
4-Methyl-2-pentanone	ND	10		µg/L	1	11/11/2014 2:37:21 AM	R22447
Methylene Chloride	ND	3.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
n-Butylbenzene	ND	3.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
n-Propylbenzene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
sec-Butylbenzene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Styrene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
tert-Butylbenzene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
trans-1,2-DCE	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Trichlorofluoromethane	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Vinyl chloride	ND	1.0		µg/L	1	11/11/2014 2:37:21 AM	R22447
Xylenes, Total	ND	1.5		µg/L	1	11/11/2014 2:37:21 AM	R22447
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	1	11/11/2014 2:37:21 AM	R22447
Surr: 4-Bromofluorobenzene	98.5	70-130		%REC	1	11/11/2014 2:37:21 AM	R22447
Surr: Dibromofluoromethane	101	70-130		%REC	1	11/11/2014 2:37:21 AM	R22447
Surr: Toluene-d8	92.8	70-130		%REC	1	11/11/2014 2:37:21 AM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded	
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	Page 14 of 24
O RSD is greater than RSDlimit	P Sample pH greater than 2.	
R RPD outside accepted recovery limits	RL Reporting Detection Limit	
S Spike Recovery outside accepted recovery limits		

Analytical Report

Lab Order 1411224

Date Reported: 11/13/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: BTMW10

Project: Ethridge Texaco

Collection Date: 11/5/2014 9:45:00 AM

Lab ID: 1411224-008

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Toluene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Ethylbenzene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Methyl tert-butyl ether (MTBE)	9.4	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,2,4-Trimethylbenzene	2.4	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,3,5-Trimethylbenzene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Naphthalene	ND	4.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1-Methylnaphthalene	ND	8.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
2-Methylnaphthalene	ND	8.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Acetone	ND	20		µg/L	2	11/11/2014 3:07:05 AM	R22447
Bromobenzene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Bromodichloromethane	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Bromoform	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Bromomethane	ND	6.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
2-Butanone	ND	20		µg/L	2	11/11/2014 3:07:05 AM	R22447
Carbon disulfide	ND	20		µg/L	2	11/11/2014 3:07:05 AM	R22447
Carbon Tetrachloride	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Chlorobenzene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Chloroethane	ND	4.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Chloroform	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Chloromethane	ND	6.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
2-Chlorotoluene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
4-Chlorotoluene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
cis-1,2-DCE	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Dibromochloromethane	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Dibromomethane	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,2-Dichlorobenzene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,3-Dichlorobenzene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,4-Dichlorobenzene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Dichlorodifluoromethane	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,1-Dichloroethane	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,1-Dichloroethene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,2-Dichloropropane	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,3-Dichloropropane	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
2,2-Dichloropropane	ND	4.0		µg/L	2	11/11/2014 3:07:05 AM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 15 of 24
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: BTMW10

Project: Ethridge Texaco

Collection Date: 11/5/2014 9:45:00 AM

Lab ID: 1411224-008

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,1-Dichloropropene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Hexachlorobutadiene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
2-Hexanone	ND	20		µg/L	2	11/11/2014 3:07:05 AM	R22447
Isopropylbenzene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
4-Isopropyltoluene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
4-Methyl-2-pentanone	ND	20		µg/L	2	11/11/2014 3:07:05 AM	R22447
Methylene Chloride	ND	6.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
n-Butylbenzene	ND	6.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
n-Propylbenzene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
sec-Butylbenzene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Styrene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
tert-Butylbenzene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,1,2,2-Tetrachloroethane	ND	4.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
trans-1,2-DCE	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,1,1-Trichloroethane	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,1,2-Trichloroethane	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Trichloroethene (TCE)	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Trichlorofluoromethane	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
1,2,3-Trichloropropane	ND	4.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Vinyl chloride	ND	2.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Xylenes, Total	ND	3.0		µg/L	2	11/11/2014 3:07:05 AM	R22447
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%REC	2	11/11/2014 3:07:05 AM	R22447
Surr: 4-Bromofluorobenzene	93.9	70-130		%REC	2	11/11/2014 3:07:05 AM	R22447
Surr: Dibromofluoromethane	107	70-130		%REC	2	11/11/2014 3:07:05 AM	R22447
Surr: Toluene-d8	91.5	70-130		%REC	2	11/11/2014 3:07:05 AM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 16 of 24
E Value above quantitation range	H Holding times for preparation or analysis exceeded		
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit		
O RSD is greater than RSDlimit	P Sample pH greater than 2.		
R RPD outside accepted recovery limits	RL Reporting Detection Limit		
S Spike Recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: BTMW11

Project: Ethridge Texaco

Collection Date: 11/5/2014 10:20:00 AM

Lab ID: 1411224-009

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Toluene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Ethylbenzene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Methyl tert-butyl ether (MTBE)	4.9	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Naphthalene	ND	2.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1-Methylnaphthalene	ND	4.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
2-Methylnaphthalene	ND	4.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Acetone	ND	10		µg/L	1	11/11/2014 4:06:41 AM	R22447
Bromobenzene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Bromodichloromethane	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Bromoform	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Bromomethane	ND	3.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
2-Butanone	ND	10		µg/L	1	11/11/2014 4:06:41 AM	R22447
Carbon disulfide	ND	10		µg/L	1	11/11/2014 4:06:41 AM	R22447
Carbon Tetrachloride	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Chlorobenzene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Chloroethane	ND	2.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Chloroform	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Chloromethane	ND	3.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
2-Chlorotoluene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
4-Chlorotoluene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
cis-1,2-DCE	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Dibromochloromethane	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Dibromomethane	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,1-Dichloroethane	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,1-Dichloroethene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,2-Dichloropropane	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,3-Dichloropropane	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
2,2-Dichloropropane	ND	2.0		µg/L	1	11/11/2014 4:06:41 AM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers: * Value exceeds Maximum Contaminant Level.
 E Value above quantitation range
 J Analyte detected below quantitation limits
 O RSD is greater than RSDlimit
 R RPD outside accepted recovery limits
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank
 H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
 P Sample pH greater than 2.
 RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: BTMW11

Project: Ethridge Texaco

Collection Date: 11/5/2014 10:20:00 AM

Lab ID: 1411224-009

Matrix: AQUEOUS

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,1-Dichloropropene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Hexachlorobutadiene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
2-Hexanone	ND	10		µg/L	1	11/11/2014 4:06:41 AM	R22447
Isopropylbenzene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
4-Isopropyltoluene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
4-Methyl-2-pentanone	ND	10		µg/L	1	11/11/2014 4:06:41 AM	R22447
Methylene Chloride	ND	3.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
n-Butylbenzene	ND	3.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
n-Propylbenzene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
sec-Butylbenzene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Styrene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
tert-Butylbenzene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
trans-1,2-DCE	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Trichlorofluoromethane	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Vinyl chloride	ND	1.0		µg/L	1	11/11/2014 4:06:41 AM	R22447
Xylenes, Total	ND	1.5		µg/L	1	11/11/2014 4:06:41 AM	R22447
Surr: 1,2-Dichloroethane-d4	96.9	70-130		%REC	1	11/11/2014 4:06:41 AM	R22447
Surr: 4-Bromofluorobenzene	91.3	70-130		%REC	1	11/11/2014 4:06:41 AM	R22447
Surr: Dibromofluoromethane	102	70-130		%REC	1	11/11/2014 4:06:41 AM	R22447
Surr: Toluene-d8	99.4	70-130		%REC	1	11/11/2014 4:06:41 AM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: TRIP BLANK

Project: Ethridge Texaco

Collection Date:

Lab ID: 1411224-010

Matrix: TRIP BLANK

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
Benzene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Toluene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Ethylbenzene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Naphthalene	ND	2.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1-Methylnaphthalene	ND	4.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
2-Methylnaphthalene	ND	4.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Acetone	ND	10		µg/L	1	11/11/2014 4:36:17 AM	R22447
Bromobenzene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Bromodichloromethane	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Bromoform	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Bromomethane	ND	3.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
2-Butanone	ND	10		µg/L	1	11/11/2014 4:36:17 AM	R22447
Carbon disulfide	ND	10		µg/L	1	11/11/2014 4:36:17 AM	R22447
Carbon Tetrachloride	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Chlorobenzene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Chloroethane	ND	2.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Chloroform	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Chloromethane	ND	3.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
2-Chlorotoluene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
4-Chlorotoluene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
cis-1,2-DCE	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Dibromochloromethane	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Dibromomethane	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,1-Dichloroethane	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,1-Dichloroethene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,2-Dichloropropane	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,3-Dichloropropane	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
2,2-Dichloropropane	ND	2.0		µg/L	1	11/11/2014 4:36:17 AM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	Page 19 of 24
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Beartooth Exploration, Inc.

Client Sample ID: TRIP BLANK

Project: Ethridge Texaco

Collection Date:

Lab ID: 1411224-010

Matrix: TRIP BLANK

Received Date: 11/6/2014 10:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES							Analyst: KJH
1,1-Dichloropropene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Hexachlorobutadiene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
2-Hexanone	ND	10		µg/L	1	11/11/2014 4:36:17 AM	R22447
Isopropylbenzene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
4-Isopropyltoluene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
4-Methyl-2-pentanone	ND	10		µg/L	1	11/11/2014 4:36:17 AM	R22447
Methylene Chloride	ND	3.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
n-Butylbenzene	ND	3.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
n-Propylbenzene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
sec-Butylbenzene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Styrene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
tert-Butylbenzene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
trans-1,2-DCE	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Trichlorofluoromethane	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Vinyl chloride	ND	1.0		µg/L	1	11/11/2014 4:36:17 AM	R22447
Xylenes, Total	ND	1.5		µg/L	1	11/11/2014 4:36:17 AM	R22447
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%REC	1	11/11/2014 4:36:17 AM	R22447
Surr: 4-Bromofluorobenzene	97.7	70-130		%REC	1	11/11/2014 4:36:17 AM	R22447
Surr: Dibromofluoromethane	105	70-130		%REC	1	11/11/2014 4:36:17 AM	R22447
Surr: Toluene-d8	91.8	70-130		%REC	1	11/11/2014 4:36:17 AM	R22447

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411224

13-Nov-14

Client: Beartooth Exploration, Inc.

Project: Ethridge Texaco

Sample ID	5mL-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R22447	RunNo:	22447					
Prep Date:		Analysis Date:	11/10/2014	SeqNo:	661451					
				Units:	µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411224

13-Nov-14

Client: Beartooth Exploration, Inc.

Project: Ethridge Texaco

Sample ID	5mL-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R22447	RunNo:	22447					
Prep Date:		Analysis Date:	11/10/2014	SeqNo:	661451	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.9	70	130			
Surr: 4-Bromofluorobenzene	8.8		10.00		87.9	70	130			
Surr: Dibromofluoromethane	9.9		10.00		98.5	70	130			
Surr: Toluene-d8	9.3		10.00		92.8	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R22447	RunNo:	22447					
Prep Date:		Analysis Date:	11/10/2014	SeqNo:	661453	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	110	70	130			
Toluene	21	1.0	20.00	0	105	80	120			
Chlorobenzene	21	1.0	20.00	0	103	70	130			

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: 1411224

Hall Environmental Analysis Laboratory, Inc.

13-Nov-14

Client: Beartooth Exploration, Inc.

Project: Ethridge Texaco

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R22447	RunNo:	22447					
Prep Date:		Analysis Date:	11/10/2014	SeqNo:	661453	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20	1.0	20.00	0	102	82.6	131			
Trichloroethene (TCE)	21	1.0	20.00	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.8	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		93.6	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID	1411224-001a ms	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BTMW3	Batch ID:	R22447	RunNo:	22447					
Prep Date:		Analysis Date:	11/10/2014	SeqNo:	661460	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	420	10	200.0	222.7	96.9	70	130			
Toluene	290	10	200.0	79.84	106	70	130			
Chlorobenzene	220	10	200.0	0	108	70	130			
1,1-Dichloroethene	220	10	200.0	0	111	70	130			
Trichloroethene (TCE)	170	10	200.0	0	87.2	70	130			
Surr: 1,2-Dichloroethane-d4	100		100.0		99.9	70	130			
Surr: 4-Bromofluorobenzene	110		100.0		114	70	130			
Surr: Dibromofluoromethane	100		100.0		103	70	130			
Surr: Toluene-d8	100		100.0		102	70	130			

Sample ID	1411224-001a msd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BTMW3	Batch ID:	R22447	RunNo:	22447					
Prep Date:		Analysis Date:	11/10/2014	SeqNo:	661461	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	420	10	200.0	222.7	98.1	70	130	0.565	20	
Toluene	300	10	200.0	79.84	108	70	130	1.66	20	
Chlorobenzene	210	10	200.0	0	103	70	130	4.70	20	
1,1-Dichloroethene	220	10	200.0	0	109	70	130	2.30	20	
Trichloroethene (TCE)	160	10	200.0	0	81.5	70	130	6.79	20	
Surr: 1,2-Dichloroethane-d4	97		100.0		96.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	110		100.0		107	70	130	0	0	
Surr: Dibromofluoromethane	100		100.0		102	70	130	0	0	
Surr: Toluene-d8	110		100.0		105	70	130	0	0	

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1411224

13-Nov-14

Client: Beartooth Exploration, Inc.
Project: Ethridge Texaco

Sample ID	5mL-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R22477	RunNo:	22477					
Prep Date:		Analysis Date:	11/11/2014	SeqNo:	662579	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	8.7		10.00		86.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.5	70	130			
Surr: Toluene-d8	9.0		10.00		90.1	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R22477	RunNo:	22477					
Prep Date:		Analysis Date:	11/11/2014	SeqNo:	662599	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.7	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.1	70	130			
Surr: Dibromofluoromethane	9.9		10.00		98.8	70	130			
Surr: Toluene-d8	8.7		10.00		87.5	70	130			

Sample ID	b2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R22477	RunNo:	22477					
Prep Date:		Analysis Date:	11/11/2014	SeqNo:	662631	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	1.0								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.2	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		93.7	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	8.7		10.00		87.1	70	130			

Sample ID	100ng lcs2	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R22477	RunNo:	22477					
Prep Date:		Analysis Date:	11/11/2014	SeqNo:	662636	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.0	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		94.1	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	9.5		10.00		94.5	70	130			

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Beartooth Exp

Work Order Number: 1411224

RcptNo: 1

Received by/date:

Am 11/06/14

Logged By:

Ashley Gallegos

11/6/2014 10:15:00 AM

AG

Completed By:

Ashley Gallegos

11/6/2014 10:16:01 AM

AG

Reviewed By:

CS

11/6/14

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Client

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? Yes No
(Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? Yes No
(If no, notify customer for authorization.)

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)
 Adjusted? _____
 Checked by: _____

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

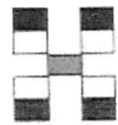
17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.6	Good	Not Present			

Chain-of-Custody Record

Turn-Around Time:
 Standard Rush
 Project Name:
 Ethridge Texaco
 Project #:



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Client: Beartooth Exp.
4814 Butterfield N.W
 Mailing Address: ABQ
 Phone #: 505 263 1036
 email or Fax#:
 QA/QC Package:
 Standard Level 4 (Full Validation)
 Accreditation
 NELAP Other _____
 EDD (Type) _____

Project Manager:
Gary Weadock
 Sampler: GW
 On Ice: Yes No
 Sample Temperature: 3.6

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8250B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)	
4/14	3:10	H ₂ O	BTMW3	3XVOA	HgCl ₂	-001													
4/14	3:40		SMA4			-002													
4/14	4:15		SMA6			-003													
4/5/14	7:20		SMA7			-004													
"	9:25		BTMW5			-005													
"	9:05		BTMW7			-006													
"	10:55		BTMW9			-007													
"	9:45		BTMW10			-008													
4/5/14	10:20		BTMW11			-009													
		X	Trip Blank			-010													

Date: 10/14 Time: 2:15 Relinquished by: [Signature]
 Date: 11/06/14 Time: 10:15 Received by: [Signature]
 Date: _____ Time: _____ Relinquished by: _____
 Date: _____ Time: _____ Received by: _____

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly noted on the analytical report.