Basin Environmental Consulting, LLC

2800 Plains Highway P. O. Box 381 Lovington, New Mexico 88260 cjbryant@basin-consulting.com Office: (575) 396-2378 Fax: (575) 396-1429

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REMEDIATION SUMMARY

AND

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RISK-BASED SITE CLOSURE REQUEST

GP II Energy, Inc. (8359) Federal Littlefield "BO" Tank Battery Eddy County, New Mexico UNIT "A" (NE/NE), Section 34, Township 26 South, Range 29 East Latitude 32° 00' 12.10" North, Longitude 103° 57' 59.06" West

Prepared For:

GP II Energy, Inc. P.O. Box 50682 Midland, Texas 79710

Prepared By: Basin Environmental Consulting, LLC 2800 Plains Highway Lovington, New Mexico 88260

August 2010

Project Manager

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1.0 INTRODUCTION AND BACKGROUND INFORMATION

Basin Environmental Consulting, LLC (Basin), on behalf of GP II Energy, Inc. (GP II), has prepared this *Remediation Summary and Risk-Based Site Closure Request* for the release site known as Federal Littlefield "BO" Tank Battery. The legal description of the release site is Unit Letter "A" (NE ¼ NE ¼), Section 34, Township 26 South, Range 29 East, in Eddy County, New Mexico. The property affected by the release is owned by the United States Bureau of Land Management (BLM). The release site GPS coordinates are 32° 00' 12.10" North and 103° 57' 59.06" West. Please reference Figure 1 for a Site Location Map and Figure 2 for a Site and Sample Location Map. Photographs are provided as Appendix A. The Release Notification and Corrective Action (Form C-141) is provided as Appendix E.

Prior to December 11, 2009, the BLM notified GP II of a release at the Federal Littlefield "BO" Tank Battery. The BLM indicated the release was reported by a New Mexico Oil Conservation Division (NMOCD) inspector. The release occurred following the "workover" of the Federal "BO" #6 well, which resulted in a production surge at a storage tank and the subsequent overflow of the storage tank at the Littlefield "BO" Federal #2 Tank Battery. The release affected areas within the bermed secondary containment, ultimately compromising the containment wall and flowing along the north and/or south margins of a caliche road known as State Line Road. The road is located on property owned and administered by the BLM. Flowing generally west, the release continued along a "two-track" road in a pipeline right-of-way. On December 11, 2009, GP II submitted a Form C-141 to the NMOCD – Artesia District Office, indicating approximately ninety-two (92) barrels of produced oil was released, with approximately twenty (20) barrels recovered during the initial response activities, resulting in a net loss of approximately seventy-two (72) barrels of produced oil.

The release site was arbitrarily separated into two (2) areas, the area along and adjacent to State Line Road is designated "Road" with regard to soil sampling protocol and the area along the pipeline right-of-way has been designated "ROW".

An area of disturbed soil is located south of soil sample ROW F-1; this disturbed area is characterized by soils of a different color and texture from the native soils surrounding this area. The area is devoid of vegetation and aerial photographs confirm the absence of vegetation prior to January 26, 1996. This area of disturbed soil may be associated with two (2) large diameter gas pipelines which run parallel in an east to west direction, approximately fifty (50) feet south of the State Line Road. This area of disturbed soil does not appear to be associated with assets owned and operated by GP II Energy. The absence of vegetation in this area may indicate an undocumented release. Aerial Photographs are provided as Appendix B.

Naturally occurring chlorides, exceeding the NMOCD guidelines are documented in the general area of the release.

2.0 NMOCD SITE CLASSIFICATION

According to data obtained from the New Mexico Office of the State Engineer (NMOSE), no water wells are recorded in Section 34 of the above referenced township. The NMOSE data indicates the nearest water well was recorded approximately one mile to the northeast of the release. The data indicates water in this well was encountered at approximately eighty-five (85) feet below ground surface (bgs). According to a depth to groundwater reference map utilized by the NMOCD, groundwater should

be encountered at less than one hundred (100) feet bgs. This depth to groundwater results in a score of ten (10) points being assigned to the site based on the NMOCD depth to groundwater criteria.

The water well database, maintained by the NMOSE, indicated there are no water wells less than 1,000 feet from the release, resulting in zero (0) points being assigned to this site as a result of this criteria.

The bank of the Pecos River is located less than one-thousand (1,000) feet from the most western extent of the release. Based on the NMOCD ranking system ten (10) points will be assigned to the site as a result of the criteria.

The Guidelines for Remediation of Leaks, Spills and Releases (NMOCD, 1993) indicates the Federal Littlefield "BO" Tank Battery release site has a ranking score of twenty (20) points. Based on this score, the soil remediation levels for a site with a ranking score of twenty (20) points are as follows:

- Benzene 10 mg/Kg (ppm)
- BTEX 50 mg/Kg (ppm)
- TPH 100 mg/Kg (ppm)

NMOCD chloride cleanup levels are site specific and are generally set at 250 mg/Kg or demonstrated background levels.

3.0 SUMMARY OF FIELD ACTIVITIES

Following the discovery of the release, crude oil saturated soil was removed from the release flow paths, stockpiled on-site and transported off-site.

On January 5, 2010, a backhoe was utilized to begin vertical delineation of the release site. Soil samples were collected at selected intervals and submitted to the laboratory for determination of benzene, toluene, ethylbenzene and xylene (BTEX) using EPA Method 8021b, total petroleum hydrocarbons (TPH) using Method SW846-8015M, and chloride using EPA Method 300.0. Along the western flowpath twelve (12) soil samples (SP-1 through SP-9, SP-5A, SP-6A and SP-8A) were collected from the north and/or south margins of State Line Road. The analytical results indicated benzene concentrations were less than the appropriate laboratory method detection limit (MDL) in all twelve soil samples. BTEX concentrations ranged from less than the appropriate laboratory MDL in soil samples SP-2, SP-4, SP-5A, SP-7, SP-8, SP-8A, and SP-9 to 0.1375 mg/Kg in soil sample SP-5. TPH concentrations ranged from 15.5 mg/Kg in soil sample SP-9 to 2,280 mg/Kg in soil sample SP-5. A summary of Concentrations of BTEX, TPH and Chloride in Soil is provided as Table 1. Laboratory analytical reports are provided as Appendix C.

Following the collection of soil samples along State Line Road, nine (9) soil samples (SP-10 through SP-16, SP-10A, and SP-12A) were collected along the "two-track" flowpath. Soil sample SP-16 was collected approximately forty (40) feet west of the most western extent of impact and will be used as a background sample. The analytical results indicated benzene concentrations were less than the appropriate laboratory MDL in all nine soil samples. BTEX concentrations ranged from less than the appropriate laboratory MDL in soil samples SP-11, SP-15 and SP-16 to 0.0619 mg/Kg in soil sample SP-10. TPH concentrations ranged from less than the laboratory MDL of 16.0 mg/Kg in soil sample SP-

16 to 944 mg/Kg in soil sample SP-12. Chloride concentrations ranged from 79 mg/Kg in soil sample SP-13 to 1,300 mg/Kg in soil sample SP-10.

Following the collection of soil samples along the "two-track" road, two (2) soil samples (SP-17 and SP-18) were collected along a southern release flowpath off of State Line Road. The analytical results indicated benzene concentrations were less than the appropriate laboratory MDL in both soil samples. BTEX concentrations were 0.1603 mg/Kg and 0.0044 mg/Kg for soil samples SP-17 and SP-18, respectively. TPH concentrations were 136.5 mg/Kg and 103.1 mg/Kg for soil samples SP-17 and SP-18, respectively. Chloride concentrations were 70.5 mg/Kg and 607 mg/Kg for soil samples SP-17 and SP-18, respectively.

Soil samples SP-19 and SP-19A were collected outside of the secondary containment berm, north of the storage tanks. The analytical results indicated benzene concentrations were less than the laboratory MDL in soil sample SP-19A and 0.2386 mg/Kg in soil sample SP-19. BTEX concentrations were 7.53 mg/Kg and 0.006 mg/Kg for soil samples SP-19 and SP-19A, respectively. TPH concentrations were 1,474 mg/Kg and 18.3 mg/Kg for soil samples SP-19 and SP-19A, respectively. Chloride concentrations were 131 mg/Kg and less than the laboratory MDL of 17.7 mg/Kg for soil samples SP-19 and SP-19A, respectively.

Soil sample SP-20 was collected from the southeast side of the tank battery pad, in an area utilized for stockpiling impacted soil. The analytical results indicated the benzene, BTEX, TPH and chloride concentrations were less than the appropriate laboratory MDL.

Soil sample SP-21 was collected from a depression located northeast of the tank battery pad in an area utilized for stockpiling impacted soil. The analytical results indicated the benzene and BTEX concentrations were 0.0013 mg/Kg, the TPH concentration was 385 mg/Kg and chloride concentration was 650 mg/Kg.

In February 2010, a *Remediation Summary and Site Closure Proposal* was submitted to and approved by the NMOCD Artesia District Office and the BLM Carlsbad District Office.

On March 15 through March 26, 2010, excavation activities were conducted at the Federal Littlefield BO Tank Battery release site. A trench, approximately two (2) to 10 (ten) feet wide was excavated along the margins of State Line Road. The trench varied from approximately one and one half (1.5) feet in depth to sixteen (16) feet in depth. Soil excavated from the trench along State Line Road was stockpiled on a poly liner to mitigate the leaching of contaminants into the unaffected soil beneath, prior to transporting the impacted soil to Lea Land, LLC (NMOCD Permit # WM-01-035) for disposal. Soil excavated from the Right-of-Way (ROW) area measured approximately eight (8) to ten (10) feet in width and one and one half (1.5) feet in depth to eleven (11) feet in depth. Soil excavated from the "ROW" area was segregated and stockpiled in an alternate location pending final disposition. Excavated areas along State Line Road were backfilled following the collection of soil samples as a safety precaution.

On March 17, 2010, six (6) excavation floor soil samples (Road F-1, Road F-2, Road F-3, Road F-4, Road F-5 and Road F-6) were collected from the "Road" area and submitted to the laboratory. The soil samples analyzed for concentrations of TPH, Chloride and BTEX in select soil samples. The analytical results indicated TPH concentrations were less than the laboratory MDL in all soil samples, with the exception of soil sample Road F-2, which exhibited a TPH concentration of 144.2 mg/Kg. BTEX

analysis was completed in three (3) of the six (6) submitted soil samples. Benzene and BTEX concentrations were less than the appropriate laboratory MDL in each of the three (3) submitted soil samples. Chloride concentrations ranged from 191 mg/Kg in soil sample Road F-2 to 1,630 mg/Kg in Soil Sample Road F-5.

On March 17, 2010, six (6) excavation sidewall soil samples (Road SSW-1, Road NSW-2, Road SSW-3, Road NSW-4, Road SSW-5 and Road NSW-6) were collected from the "Road" area and submitted to the laboratory. Selected soil samples were analyzed for concentrations of TPH, Chloride and BTEX. The analytical results indicated TPH concentrations were less than the laboratory MDL in all soil samples. BTEX analysis was completed in two (2) of the six (6) submitted soil samples. Benzene and BTEX concentrations were less than the appropriate laboratory MDL in each of the two (2) submitted soil samples. Chloride concentrations ranged from 202 mg/Kg in soil sample Road NSW-4 to 2,870 mg/Kg in Soil Sample Road NSW-2. Based on the analytical results, additional excavation was warranted in the area represented by soil samples Road F-2 and Road NSW-2.

On March 17, 2010, twelve (12) excavation floor soil samples (ROW F-1 through ROW F-12) were collected from the "ROW" area and submitted to the laboratory. Selected soil samples were analyzed for concentrations of TPH, Chloride and BTEX. The analytical results indicated TPH concentrations were less than the laboratory MDL in all soil samples, with the exception of soil samples ROW F-6, ROW F-9, ROW F-10 and ROW F-12, which exhibited a TPH concentration of 137 mg/Kg, 95.1 mg/Kg, 45.5 mg/Kg and 242 mg/Kg, respectively. BTEX analysis was completed in five (5) of the twelve (12) submitted soil samples. Benzene and BTEX concentrations were less than the appropriate laboratory MDL in each of the five (5) submitted soil samples. Chloride concentrations ranged from 11.7 mg/Kg in soil sample ROW F-9 to 914 mg/Kg in Soil Sample ROW F-3.

On March 17, 2010, fourteen (14) excavation sidewall soil samples (ROW ESW-1, ROW WSW-1, ROW ESW-2, ROW SSW-2, ROW NSW-3, ROW SSW-4, ROW NSW-5, ROW SSW-6, ROW NSW-7, ROW SSW-8, ROW NSW-9, ROW SSW-10, ROW NSW-11 and ROW SSW-12) were collected from the "ROW" area and submitted to the laboratory. Selected soil samples were analyzed for concentrations of TPH, Chloride and BTEX. The analytical results indicated TPH concentrations were less than the laboratory MDL in all soil samples, with the exception of soil samples ROW SSW-6 and ROW SSW-12, which exhibited TPH concentrations of 207 mg/Kg and 18.4 mg/Kg, respectively. BTEX analysis was completed in eight (8) of the fourteen (14) submitted soil samples. Benzene and BTEX concentrations were less than the appropriate laboratory MDL in each of the eight (8) submitted soil samples. Chloride concentrations ranged from 4.48 mg/Kg in soil sample ROW NSW-11 to 1,870 mg/Kg in Soil Sample ROW SSW-4. Based on the analytical results, additional excavation was warranted in the area represented by soil samples ROW WSW-1, ROW F-2, ROW F-3, ROW F-6 and ROW F-12.

On March 17, 2010, one (1) stockpile soil sample (Stockpile #1) was collected from soil excavated from the ROW area. The analytical results indicated the TPH concentration was 129 mg/Kg and the chloride concentration was 61.2 mg/Kg. Based on the analytical results, the stockpile was blended in place.

On March 18 and March 19, 2010, four (4) excavation floor soil samples (Road F-7 through Road F-10) were collected from the "Road" area and submitted to the laboratory. The soil samples analyzed for concentrations of TPH and Chloride. The analytical results indicated TPH concentrations were less than the laboratory MDL in all soil samples, with the exception of soil sample Road F-9, which exhibited a

TPH concentration of 18.4 mg/Kg. Chloride concentrations ranged from 840 mg/Kg in soil sample Road F-10 to 2,920 mg/Kg in Soil Sample Road F-8.

On March 18 and March 19, 2010, four (4) excavation sidewall soil samples (Road SSW-7, Road NSW-8, Road SSW-9 and Road NSW-10) were collected from the "Road" area and submitted to the laboratory. The soil samples analyzed for concentrations of TPH and Chloride. The analytical results indicated TPH concentrations were less than the laboratory MDL in all soil samples. Chloride concentrations ranged from 1,360 mg/Kg in soil sample Road NSW-10 to 1,940 mg/Kg in soil sample Road NSW-8.

On March 19, 2010, a soil sample was collected from the middle of the State Line Road in the "crown" of the caliche road. The soil sample was analyzed for concentrations of TPH and Chloride. The analytical results indicated the TPH concentration was less than the laboratory MDL and the chloride concentrations was 3,880 mg/Kg.

On March 22, 2010, five (5) excavation floor soil samples (Road F-13, Road F-14 (9'), Road F-14 (14'), Road F-12.5 (10') and Road F-12.5 (16')) were collected from the "Road" area and submitted to the laboratory. The soil samples analyzed for concentrations of TPH (Road F-13, Road F-14 (9') and Road F-14 (14')) and Chloride. The analytical results indicated TPH concentrations for soil samples Road F-13, Road F-14 (9') and Road F-14 (14') were 23.1 mg/Kg, 21.2 mg/Kg and 21.4 mg/Kg, respectively. Chloride concentrations ranged from 356 mg/Kg in soil sample Road F-12.5 (10') to 943 mg/Kg in soil sample Road F-13. Soil sample Road F-12.5 (16') was collected when the excavation encountered a chloride zone at 16 feet below ground surface (bgs).

On March 22, 2010, an additional background sample was collected approximately 150 feet north and upslope of the excavation and approximately eight (8) feet in depth. The analytical results indicated a chloride concentration of 43.5 mg/Kg.

On March 25, 2010, the area utilized for stockpiling impacted soil was excavated. The excavated area measured approximately twenty (20) feet in width by thirty (30) feet in length and approximately ten (10) feet in depth. One (1) excavation floor soil sample (Pit F-1) was collected and submitted to the laboratory. The analytical results indicated the benzene and BTEX concentration were less than the appropriate laboratory MDL, the TPH concentration was 19.21 mg/Kg and the chloride concentration was 210 mg/Kg. Following excavation, four (4) excavation sidewall soil samples (Pit SSW, Pit WSW, Pit NSW and Pit ESW) were collected and submitted to the laboratory. The analytical results indicated benzene and BTEX concentration were less than the appropriate laboratory MDL. The TPH concentration sidewall soil samples (Pit SSW, Pit WSW, Pit NSW and Pit ESW) were collected and submitted to the laboratory. The analytical results indicated benzene and BTEX concentration were less than the appropriate laboratory MDL. The TPH concentrations ranged from less than the laboratory MDL for soil sample Pit ESW to 40.3 mg/Kg for soil sample Pit WSW. The chloride concentrations ranged from 39.1 mg/Kg for soil sample Pit ESW to 623 mg/Kg for soil sample Pit SSW.

On March 25, 2010, areas previously identified during sampling events (ROW WSW-1, ROW F-2, ROW F-3, ROW F-6, ROW SSW-6, ROW F-12, Road F-2 and Road NSW-2) and requiring additional excavation were re-sampled. Soil samples ROW F-6A, ROW SSW-6A, ROW F-12A and Road F-2A were sample for TPH concentrations. The analytical results indicated the TPH concentrations ranged from less than the laboratory MDL for soil samples ROW F-6A, ROW F-12A and Road F-2A and 19.1 mg/Kg for soil sample ROW SSW-6A. Soil samples WSW-1A, ROW F-2A, ROW F-3A and Road NSW-2A were sampled for chloride concentrations. The analytical results indicated the chloride

concentrations for soil samples WSW-1A, ROW F-2A, ROW F-3A and Road NSW-2A were 115 mg/Kg, 1,390 mg/Kg, 1,030 mg/Kg and 667 mg/Kg, respectively.

On March 25, 2010, five (5) excavation floor soil samples (Road F-11, Road F-12, Road F-15, Road F-16 and Road F-17) were collected from the "Road" area and submitted to the laboratory. The soil samples analyzed for concentrations of TPH and chloride. The analytical results indicated TPH concentrations for soil samples ranged from less than the laboratory MDL for soil samples Road F-11, Road F-16 and Road F-17 to 17.7 mg/Kg for soil sample Road F-12. Chloride concentrations ranged from 98 mg/Kg for soil sample Road F-16 to 2,790 mg/Kg for soil sample Road F-12.

On March 25, 2010, six (6) excavation sidewall soil samples (Road NSW-10.5, Road SSW-11, Road NSW-12, Road NSW-15, Road SSW-16 and Road NSW-17) were collected from the "Road" area and submitted to the laboratory. The soil samples were analyzed for concentrations of TPH and chloride, with the exception of soil sample Road NSW-10.5, which was sampled for chloride only. The analytical results indicated TPH concentrations for all five (5) submitted soil samples were less than the appropriate laboratory MDL. Chloride concentrations ranged from 63 mg/Kg for soil sample Road NSW-17 to 1,440 mg/Kg for soil sample Road SSW-11.

On April 7, 2010, one (1) stockpile soil sample (Stockpile #2) was collected from soil excavated from the ROW area. The analytical results indicated the TPH concentration was 168.5 mg/Kg.

On April 7, 2010, GP II, Basin and NMOCD representatives met onsite to discuss a path toward an NMOCD approved site closure. GP II and Basin representatives proposed a risk-based closure, based on the extent of impact, the close proximity of high pressure gas transportation pipelines, the highly traveled State Line Road and the suspected undocumented release. GP II and Basin proposed the advancement of three (3) soil borings to fully vertically delineate the site. The NMOCD was in agreement with the need to fully vertically delineate the site and approved of the events to be conducted.

On April 12, 2010, three (3) soil borings (SB-1 through SB-3) were advanced to investigate the vertical extent of impact at the site. Soil boring logs are provided as Appendix D. Soil samples were collected at five (5) foot drilling intervals and field screened using a chloride field screening kit. Selected soil samples were submitted to the laboratory for determination of concentrations of benzene, toluene, ethylbenzene and total xylene (BTEX), total petroleum hydrocarbons (TPH) and chlorides using EPA Method SW 846-8021B, EPA Method SW 848-8015M and EPA Method 4500 Cl-B, respectively.

Soil Boring SB-1, was located between soil sample Road F-8 and Road F-7 and was advanced to approximately thirty (30) feet bgs. Soil samples collected at fifteen (15) feet bgs, twenty (20) feet bgs, twenty-five (25) feet bgs and thirty (30) feet bgs were submitted to the laboratory for chloride analysis. The laboratory analytical results indicated chloride concentrations ranged from 179.4 mg/Kg in the soil sample collected at thirty (30) feet bgs to 456.1 mg/Kg for the soil sample collected at fifteen (15) feet bgs.

Soil Boring SB-2, was located north of soil sample Road F-12 and was advanced to approximately fifty five (55) feet bgs. Soil samples collected at fifteen (15) feet bgs, twenty0five (25) feet bgs, thirty five (35) feet bgs, forty-five (45), fifty (50) and fifty-five (55) feet bgs were submitted to the laboratory for chloride analysis. The laboratory analytical results indicated chloride concentrations ranged from 229.7 mg/Kg in the soil sample collected at fifty-five (55) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs to 2,894 mg/Kg for the soil sample collected at fifty-five (15) bgs t

Soil Boring SB-3, was located east of soil sample ROW F-2 and was advanced to approximately seventy five (75) feet bgs. Soil samples collected at two (2) feet bgs, five (5) feet bgs, ten (10) feet bgs, twenty (20) feet bgs, thirty (30) feet bgs, forty (40) feet bgs, fifty (50) feet bgs, sixty (60) feet bgs, seventy (70) feet bgs and seventy five (75) feet bgs were submitted to the laboratory for chloride analysis. The laboratory analytical results indicated chloride concentrations ranged from 458.4 mg/Kg in the soil sample collected at two (2) feet bgs was analyzed for BTEX and TPH concentrations. The analytical results indicated the benzene concentration was less than the laboratory MDL, the BTEX concentration was 0.0316 mg/Kg and the TPH concentration was 445 mg/Kg. The soil sample collected at five (5) feet bgs exhibited a TPH concentration of less than the laboratory MDL.

The soil represented by soil sample Stockpile #1 was placed on a caliche pad north of the release area. The soil was disked and treated with nitrogen rich fertilizer.

On May 28, 2010, one (1) stockpile soil sample (Stockpile #1 A) was collected from the treated soil. The soil sample represented approximately 500 cy of excavated soil. The collected soil sample was submitted to the laboratory and analyzed for TPH concentrations. The analytical results indicated the TPH concentration was 26.7 mg/Kg. Based on the analytical results, the soil contained in the stockpile, and represented by soil sample Stockpile #1A, was deemed suitable for use as backfill material.

On June 30, 2010, one (1) soil sample (Stockpile #3) was collected from the soil being utilized as berm material around the ROW excavation. The soil sample represented approximately 500 cy of excavated soil. The soil sample was collected and submitted to the laboratory for analysis of benzene, BTEX, TPH and chloride concentrations. Laboratory analytical results indicated a benzene concentration of less than the laboratory MDL, a BTEX concentration of 0.0051 mg/Kg, a TPH concentration of 61 mg/Kg and a chloride concentration of 218 mg/Kg. Based on the analytical results, the soil contained in the stockpile, and represented by soil sample Stockpile #3, was deemed suitable for use as backfill material.

On June 24, 2010, GP II submitted the *Amended Remediation Summary and Risk-Based Site Closure Proposal* (Plan) to the NMOCD Artesia Office. In a letter dated July 19, 2010, the NMOCD Artesia Office granted approval of the Plan.

On July 22, 2010, GP II commenced soil closure activities at the site. Approximately 2,393 cy of impacted material was transported to Lea Land, LLC (NMOCD Permit # WM-01-035) for disposal. The excavated areas were backfilled with non-impacted locally purchased soil and the stockpiled soil. Following backfill activities, areas disturbed by the remediation activities were contoured to fit the surrounding topography.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil Samples were delivered to Xenco Laboratories, Inc., of Odessa, Texas for BTEX and/or TPH and /or chloride analyses using the methods described below. Soil samples were analyzed for BTEX and/or TPH concentrations within fourteen (14) days following the collection date.

The soil samples were analyzed as follows:

- BTEX concentrations in accordance with EPA Method 8021B, 5030
- TPH concentrations in accordance with modified EPA Method 8015M GRO/DRO
- Chloride concentrations in accordance with EPA Method E300.1

4.2 Decontamination of Equipment

Cleaning of the sampling equipment was the responsibility of the environmental technician. Prior to use and between each sample, the sampling equipment was cleaned with Liqui-Nox® detergent and rinsed with distilled water.

4.3 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody (COC) form. These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

5.0 SITE CLOSURE REQUEST

Based on the analytical results of confirmation soil samples, Basin recommends GP II provide the NMOCD Artesia Office and the BLM Carlsbad Office a copy of this Remediation Summary and Risk-Based Site Closure Request and request the NMOCD grant site closure to the Federal Littlefield "BO" Tank Battery release site.

6.0 **LIMITATIONS**

Basin Environmental Consulting, LLC has prepared this Remediation Summary and Risk-Based Site Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended.

Basin Environmental Consulting, LLC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Consulting, LLC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Basin Environmental Consulting, LLC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Consulting, LLC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of GP II Energy, Inc. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Consulting, LLC and/or GP II Energy, Inc.

7.0 **DISTRIBUTION:**

- Copy 1: Mike Bratcher New Mexico Oil Conservation Division District 2 1301 W. Grand Avenue Artesia, New Mexico 88210
- Copy 2: James Amos United States Department of Interior Bureau of Land Management P.O. Box 1778 620 East Greene Street Carlsbad, New Mexico 88220
- Copy 3: Joe L. Compton GP II Energy, Inc. PO Box 50682 Midland, Texas 79710
- Copy 4: Camille J. Bryant Basin Environmental Consulting, LLC P.O. Box 381 Lovington, New Mexico 88260 cjbryant@basin-consulting.com

Figures



Legend: Sample Location Sample Location T Total Petroleum Hydrocarbons - mg/Kg (ppm) C Chloride - mg/Kg (ppm) C C C C C C C C C C C C C	ROW F-11 T - <17.9 C - 177 ROW NSW-11 T - <15.9 C - 4.48ROW F-7 T - <16.4 C - 56.7 ROW NSW-7 T - <16.4 C - 56.7 ROW NSW-7 T - <16.0 C - 11ROW F-3 T - <16.9 C - 914 ROW NSW-7 T - <16.0 C - 11ROW F-12 T - 242 C - 31.5 ROW SSW-12 T - 18.4 C - 154 ROW F-12A T - <19.1ROW F-7 T - <16.0 C - 11ROW F-3 T - <15.8 C - 289 ROW NSW-7 T - <16.0 C - 110ROW F-12 T - 15.4 ROW F-12A T - <15.4 C - 154 ROW F-12A T - <19.1ROW F-8 T - <16.3 C - 247 ROW NSW-9 T - <15.5 C - 326 ROW SSW-10 T - <16.6 C - 11.7 ROW F-60 T - 95.1 C - 11.7 ROW F-6A T - <15.7 C - 11.7 ROW F-6A T - <15.7 C - 183 ROW SSW-64 T - <16.4 C - 1,870ROW F-4 T - <16.4 C - 1,870	ROW F-1 T - <16.1 C - 70 ROW ESW-1 T - <16.1 C - 76.5 ROW WSW-1 T - <15.9 C - 1,370 ROW WSW-1A C - 115 Road F-17 T - <16.7 C - 911 Road NSW-17 T - <16.8 C - 68 ROW F-2 T - <15.9 C - 783 ROW ESW-2 T - <15.3 C - 1,640 ROW SSW-2 T - <16.0 C - 1,390 Road F-13 T - 23.1 C - 943 Road NSW-13 T - 19.7 C - 2,530 Road F-12 T - 17.7 C - 2,790 Road NSW-1 T - <17.3 C - 1,390 Road F-12 T - <17.3 C - 505	Road F-9 T - 18.4 C - 1,740 Road SSW-9 T - <16.5 C - 1,640 Road F-4 T - <18.9 C - 480 Road NSW-2 T - <16.4 C - 2,870 Road NSW-4 T - <18.8 C - 202 Road F-2 T - <16.4 C - 2,870 Road NSW-2 T - <18.4 C - 2,870 Road NSW-2 C - 2,870 Road NSW-2 C - 2,870 Road NSW-2 C - 2,202 Road F-10 T - <17.0 C - 840 Road NSW-10 T - <17.2 C - 1,360 Road F-6 T - <16.9 C - 1,230 Road NSW-6 T - 42.9 C - 1,720 C Politere C - 1,630 Road SSW-5 T - <16.6 C - 1,630 Road SSW-5 T - <16.6 C - 2,000 Road F-1 T - <20.3 C - 485 Road SSW-1 T - <16.8 C - 2,000 Road F-11 T - <17.3 C - 667 Road SSW-11 T - <16.6 C - $1,600$ Road SSW-7 T - <16.6 C - $1,600$ Road SSW-7 T - <16.6 C - $1,600$ Road SSW-7 T - <16.8 C - $2,920$ Road NSW-8 T - <1.68 C - $2,920$ Road NSW-8 T - <17.5 C - $1,940$ Road F-7 T - <18.9 C - 226
	Legend: Sample Location T Total Petroleum Hydrocarbons - mg/Kg (ppm) C Chioride - mg/Kg (ppm)	Figure 2 Site and Sample Location Map GP II Energy Littlefield BO Fed #2 Eddy County, New Mexico	Basin Environmental Consulting Prep By: CDS Checked By: CJB

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Tables

		_		METHOD: EPA SW 846-8021B, 5030							METHOL): 8015M		METHOD: F300
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M.P XYLENES (mg/Kg)	O- XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	TOTAL TPH C6-C35 (mg/Kg)	CHLORIDE (mg/Kg)
SP-1	1 Foot	01/05/10	In-Situ	< 0.0012	< 0.0025	0.0038	0.0098	0.0055	0.0191	39	278	29	346	548
SP-2	1 Foot	01/05/10	In-Situ	<0 0011	< 0.0022	<0.0011	<0.0022	< 0.0011	< 0.0022	<16.7	137	<16.7	137	568
SP-3	18 Inches	01/05/10	In-Situ	< 0.0012	< 0.0024	< 0.0012	0.003	< 0.0012	0.003	26	137	<17.7	163	2,240
SP-4	18 Inches	01/05/10	In-Situ	< 0.0011	< 0.0023	< 0.0011	< 0.0023	< 0.0011	< 0.0023	116	414	48	578	229
SP-5	18 Inches	01/05/10	In-Situ	< 0.0011	0 0105	0.0293	0 0885	0.0092	0.1375	185	602	<169	787	2,280
SP-5A	3 Feet	01/05/10	In-Situ	< 0.0011	<0 0022	<0.0011	< 0.0022	< 0.0011	< 0.0022	81	149	31	261	1,850
SP-6	18 Inches	01/05/10	In-Situ	< 0.0011	0.0071	0.011	0.0244	0.0202	0.0627	218	910	121	1,249	561
SP-6A	3.5 Feet	01/05/10	In-Situ	< 0.0011	< 0.0023	0.0037	0.0072	0.006	0.0169	240	470	22	732	829
SP-7	18 Inches	01/05/10	In-Situ	< 0.0011	< 0.0022	< 0.0011	< 0.0022	< 0.0011	<0 0022	229	262	29.6	521	1,480
SP-8	3 Feet	01/05/10	In-Situ	<0 0011	< 0.0023	<0 0011	< 0.0023	<0 0011	< 0.0023	238	496	24.2	758	1,060
SP-8A	4 Feet	01/05/10	In-Situ	< 0.0013	<0.0026	< 0.0013	< 0.0026	< 0.0013	< 0.0026	45.1	303	22 1	370	1,320
SP-9	1 Foot	01/05/10	In-Situ	< 0.0013	< 0.0027	< 0.0013	< 0.0027	<0 0013	< 0.0027	44.3	334	<19 9	378	15.5
SP-10	2 Feet	01/05/10	In-Situ	< 0.0011	0 0023	0.0168	0.0523	0.0096	0.081	279	519	29.3	827	1,300
SP-10A	3.5 Feet	01/05/10	In-Situ	<0 0011	< 0.0022	0.0011	0.0035	<0.0011	0.0046	208	324	20	552	935
SP-11	3 Feet	01/05/10	In-Situ	<0 0011	< 0.0021	<0.0011	<0.0021	< 0.0011	< 0.0021	139	238	28.3	405	98.5
SP-12	2 Feet	01/05/10	In-Situ	< 0.0011	< 0.0022	0.0078	0.0281	0.0108	0.0467	269.0	653	22.1	944	473
SP-12A	3 Feet	01/05/10	In-Situ	< 0.0011	< 0.0021	0.0024	0.0083	0.0022	0.0129	40.2	106	<16.1	146	275
SP-13	2.5 Feet	01/05/10	In-Situ	< 0.0011	< 0.0022	< 0.0011	0.0024	< 0.0011	0.0024	38.9	495	24.9	559	79
SP-14	2 Feet	01/05/10	In-Situ	< 0.0011	0.0028	0.0084	0.0281	0.0084	0.0477	134	270	20 6	425	257
SP-15	3 Feet	01/05/10	In-Situ	< 0.0011	< 0.0021	< 0.0011	< 0.0021	< 0.0011	<0 0021	<15.9	35.4	<15.9	35.4	732
SP-16	2.5 Feet	01/05/10	In-Situ	< 0.0011	<0.0021	< 0.0011	< 0.0021	<0 0011	<0 0021	<16.0	<16.0	<16.0	<16.0	164
SP-17	4 Feet	01/05/10	In-Situ	< 0.0013	0.0189	0.0312	0.0794	0.0308	0.1603	45.8	90.7	<19.8	136.5	70.2
SP-18	4 Feet	01/05/10	In-Situ	< 0.0011	<0.0021	< 0.0011	0 0032	0.0012	0.0044	22.6	80.5	<15.9	103.1	607
SP-19	3 Feet	01/05/10	In-Situ	0.2386	1.143	1.478	3.484	1.186	7.53	417	969	87.6	1,474	131
SP-19A	4 Feet	01/05/10	In-Situ	< 0.0011	<0.0021	0.0015	0.0033	0.0012	0.006	<15.8	18.3	<15.8	18.3	<17 7
SP-20	2 Feet	01/05/10	In-Situ	< 0.0010	< 0.0021	0.0012	<0.0021	< 0.0010	0.0012	<15 5	<15.5	<15.5	<15.5	<4 34
SP-21	3 Feet	01/05/10	In-Situ	0.0013	<0.0022	< 0.0011	< 0.0022	<0.0011	0.0013	<16.8	343	42.4	385	650
	C 200		Carl Carl			27.0	- 316 -1-1-5							5. 94 36 66
ROAD F-1	3 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<20.3	<20.3	<20.3	<20.3	485
ROAD SSW-1	2 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<19.2	<19.2	<19.2	<19.2	651
ROAD F-2	3 Feet	03/17/10	Excavated	< 0.0012	< 0.0025	<0.0012	<0.0025	< 0.0012	< 0.0025	26.2	118	<18.4	144.2	191
ROAD NSW-2	2.5 Feet	03/17/10	Excavated	-	-	-	-	-	-	<16.4	<16 4	<16.4	<16.4	2,870
ROAD F-3	2 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<18.8	<18.8	<18.8	<18 8	852
ROAD SSW-3	1.5 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<18.9	<18.9	<18.9	<18.9	246
ROAD F-4	2.5 Feet	03/17/10	In-Situ	-	-	-	-	-		<18.9	<18.9	<18.9	<18.9	480
ROAD NSW-4	2 Feet	03/17/10	In-Situ	-	-	-	-	-	•	<18.8	<18.8	<18 8	<18.8	202
ROAD F-5	7 Feet	03/17/10	In-Situ	< 0.0011	< 0.0022	< 0.0011	< 0.0022	<0 0011	< 0.0022	<16.6	<16.6	<16.6	<16 6	1,630
ROAD SSW-5	6 Feet	03/17/10	In-Situ	< 0.0011	<0.0022	<0.0011	<0.0022	< 0.0011	<0.0022	<16.8	<16.8	<16.8	<16.8	2,000
ROAD F-6	7 Feet	03/17/10	In-Situ	< 0.0011	<0 0022	<0.0011	<0.0022	< 0.0011	<0 0022	<16.9	<16.9	<16.9	<16.9	1,230
ROAD NSW-6	6 Feet	03/17/10	In-Situ	< 0.0012	< 0.0023	< 0.0012	< 0.0023	< 0.0012	< 0.0023	<17.1	43	<17.1	42.9	1,720

					MET	HOD: EPA SW 8	46-8021B, 5030				METHOD: E300			
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHY L- BENZENE (mg/Kg)	M.P XYLENES (mg/Kg)	O- XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	TOTAL TPH C6-C35 (mg/Kg)	CHLORIDE (mg/Kg)
ROW F-1	3 Feet	03/17/10	In-Situ	< 0.0011	< 0.0022	< 0.0011	<0.0022	< 0.0011	< 0.0022	<16.1	<16.1	<16.1	<16.1	70
ROW ESW-1	2.5 Feet	03/17/10	In-Sıtu	< 0.0011	< 0.0021	< 0.0011	<0.0021	< 0.0011	<0 0021	<16.1	<16.1	<16.1	<16.1	76 5
ROW WSW-1	2.5 Feet	03/17/10	Excavated	< 0.0011	<0.0021	< 0.0011	< 0.0021	< 0.0011	<0.0021	<15.9	<15.9	<15.9	<15.9	1,370
ROW F-2	7 Feet	03/17/10	Excavated	-	-	-	-	-	-	<15.9	<159	<15.9	<15.9	783
ROW ESW-2	6 Feet	03/17/10	In-Situ	< 0.0010	< 0.0020	< 0.0010	< 0.0020	<0.0010	< 0.0020	<15.3	<15.3	<15.3	<15.3	1,640
ROW SSW-2	6 Feet	03/17/10	In-Situ	< 0.0011	< 0.0021	< 0.0011	<0 0021	< 0.0011	<0 0021	<16.0	<16.0	<160	<16 0	1,130
ROW F-3	6 Feet	03/17/10	Excavated	-	-	-		-		<16.9	<16.9	<169	<16.9	914
ROW NSW-3	5 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<15.8	<158	<15.8	<15.8	289
ROW F-4	6 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<16.4	<16.4	<16.4	<16.4	542
ROW SSW-4	5 Feet	03/17/10	In-Sıtu	<0.0011	< 0.0022	< 0.0011	<0.0022	< 0.0011	< 0.0022	<16.4	<16.4	<16.4	<16.4	1,870
ROW F-5	3 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<163	<16.3	<16.3	<16.3	247
ROW NSW-5	2.5 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<15 5	<15.5	<15.5	<15.5	83 3
ROW F-6	2.5 Feet	03/17/10	Excavated	< 0.0011	<0 0022	<0.0011	<0 0022	< 0.0011	< 0.0022	<16.8	137	<16.8	137	63.6
ROW SSW-6	1.5 Feet	03/17/10	In-Situ	< 0.0011	< 0.0022	<0 0011	<0 0022	< 0.0011	<0 0022	<16.1	207	<16 1	207	183
ROW F-7	1 Foot	03/17/10	In-Situ	-	-	-	-	-	-	<16.4	<16.4	<164	<16.4	56.7
ROW NSW-7	0.5 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<16.0	<160	<16.0	<16.0	11
ROW F-8	2.5 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<15.6	<156	<15.6	<15.6	71.8
ROW SSW-8	2 Feet	03/17/10	In-Situ	<0 0011	< 0.0022	< 0.0011	< 0.0022	<0 0011	< 0.0022	<16.3	<163	<16.3	<16.3	102
ROW F-9	3 Feet	03/17/10	In-Situ	<0 0012	<0.0024	< 0.0012	< 0.0024	<0 0012	< 0.0024	21.3	73 8	<17.6	95.1	11.7
ROW NSW-9	2.5 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<15.7	<15.7	<15.7	<15.7	90.7
ROW F-10	2.5 Feet	03/17/10	In-Situ	<0.0011	0.0022	< 0.0011	< 0.0022	< 0.0011	< 0.0022	<16.2	45.5	<16.2	45.5	326
ROW SSW-10	2 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<166	<16.6	<16.6	<16.6	248
ROW F-11	2.5 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<17.9	<17.9	<17.9	<17.9	177
ROW NSW-11	2 Feet	03/17/10	In-Situ	-	-	-	-	-	-	<15.9	<15.9	<15.9	<15.9	4.48
ROW F-12	1 Foot	03/17/10	In-Situ	<0.0011	< 0.0021	<0.0011	<0.0021	< 0.0011	<0 0021	<15.9	242.0	<15.9	242	31.5
ROW SSW-12	0.5 Feet	03/17/10	In-Situ	<0.0011	<0.0021	<0.0011	<0.0021	<0 0011	<0 0021	<16.1	184	<16.1	18 4	154

				METHOD: EPA SW 846-8021B, 5030 METHOD: 8015M										METHOD: E300
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL- BENZENE (mg/Kg)	M.P XYLENES (mg/Kg)	O- XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	TOTAL TPH C6-C35 (mg/Kg)	CHLORIDE (mg/Kg)
SECTION ST	1200000000	1.2.7° 20	R SPREAS	1. S.		2000					1.0353 10 0		M SANA	
Stockpile #1	N/A	03/17/10	-	-	-	-	-	-	-	<16.3	129	<16.3	129	61.2
	8 - G. R (2) - J	FM NO.				15. A. C. M. A.		×333.00			《 :小總 \$	Real Section	s par	
Road F-7	7 Feet	03/18/10	In-Situ	-	-	-	-	-	-	<16.6	<16.6	<16.6	<16.6	1,600
Road SSW-7	6.5 Feet	03/18/10	In-Situ	-	-	-	-	-	-	<16.9	<16.9	<16.9	<16.9	1,880
Road F-8	4 Feet	03/19/10	In-Situ	-	-	-	-	-	-	<16.8	<16.8	<16.8	<168	2,920
Road NSW-8	3.5 Feet	03/19/10	In-Situ	-	-	-	-	-	-	<17.5	<17.5	<17.5	<17.5	1,940
Road F-9	7 Feet	03/19/10	In-Situ	-	-	-	-		-	<17.2	18.4	<17.2	18 4	1,740
Road SSW-9	6 Feet	03/19/10	In-Situ	-	-	-	-	-	-	<16 5	<16.5	<16 5	<16.5	1,640
Road F-10	7 Feet	03/19/10	In-Situ	-	-	-	-	-	-	<17.0	<17.0	<17.0	<17.0	840
Road NSW-10	6 Feet	03/19/10	In-Situ	-	-	-	-	-	-	<17.2	<17.2	<17.2	<17.2	1,360
Midway CL of Road	1 5 Feet	03/19/10	In-Situ	-	-	-	-	-	-	<16.3	<16.3	<16.3	<16.3	3,880
		61823							N. S. OF	5 IN 198			Den Be rge	serven and
Road F-13	8 Feet	03/22/10	In-Situ	-	-	-	-	-	-	<18.1	23 1	<18.1	23 1	943
Road NSW-13	7 Feet	03/22/10	_ In-Situ		-	-	-	-	-	<18.2	19 7	<18.2	19.7	2,530
Road F-14 (9')	9 Feet	03/22/10	In-Situ	-	-	-	-	-	-	<17.2	21.2	<17.2	21.2	561
Road F-14 (14')	14 Feet	03/22/10	In-Situ	-	-	-	-	•	-	<17.5	21.4	<17.5	21.4	403
Background 8'	8 Feet	03/22/10	-	-	-	-	-	-	-	-	-	-	-	43 5
Road F-12.5 (10')	10 Feet	03/22/10	In-Situ	-	-	-	-	-	-	-	-	-	-	356
Road F-12.5 (16')	16 Feet	03/23/10	-	-	-	-	-	•	-	-	-	-	-	419
PRESERVE AND	#2. 35 83	1862 - S-28	TO AND		849 - A 2			変に変換				S. 199		
Pit F-1	10 Feet	03/25/10	In-Situ	< 0.0011	< 0.0023	<0.0011	< 0.0023	<0.0011	< 0.0023	19.2	<17.2	<17.2	19 2	210
Pit SSW	5.5 Feet	03/25/10	In-Situ	< 0.0011	< 0.0023	<0.0011	< 0.0023	< 0.0011	< 0.0023	20.8	<17.1	<17.1	20.8	623
Pit WSW	5.5 Feet	03/25/10	In-Situ	< 0.0012	< 0.0023	<0 0012	< 0.0023	< 0.0012	< 0.0023	19.3	21 0	<17.3	40 3	438
Pit NSW	5.5 Feet	03/25/10	In-Situ	< 0.0011	< 0.0022	< 0.0011	< 0.0022	< 0.0011	< 0.0022	20.4	176	<16.9	38	153
Pit ESW	5.5 Feet	03/25/10	In-Situ	<0.0011	<0 0022	< 0.0011	< 0.0022	<0.0011	< 0.0022	<16.5	<16.5	<16.5	<16.5	39.1
ROW WSW-1A	3 Feet	03/25/10	In-Sıtu	-	-	-		-	-	-	-	-	-	115
ROW F-2A	11 Feet	03/25/10	In-Situ	-	-	-	-	<u> </u>	-	-	-	-	-	1,390
ROW F-3A	9 Feet	03/25/10	In-Situ	-	-	-	-	<u> </u>	-	-	-	-	-	1,030
ROW F-6A	6 Feet	03/25/10	In-Situ		-	-	-	-	-	<18.5	<18.5	<18.5	<18.5	-
ROW SSW-6A	5 5 Feet	03/25/10	In-Situ	-	-	-	-	-	-	<16.4	<16.4	19.1	19.1	-
ROWF-12A	4 Feet	03/25/10	In-Situ	-	-	-	-	-	-	<19.1	<19.1	<19.1	<19.1	-
Road F-2A	6 Feet	03/25/10	In-Sıtu	-	-	-		-	-	<18.4	<18.4	<18.4	<18.4	-
Road NSW-2A	5.5 Feet	03/25/10	In-Sıtu	-	-	-	-	<u> </u>	-	-	-	-	-	667
Road NSW-10 5	7 Feet	03/25/10	In-Sıtu	-	-	-	· · ·		-		-	-	-	851
Road F-11	7 Feet	03/25/10	In-Situ	-		-	-	<u> </u>	-	<17.3	<17.3	<17.3	<173	667
Road SSW-11	6.5 Feet	03/25/10	In-Situ		-	-		-		<17.6	<17.6	<176	<17.6	1,440
Road F-12	6 Feet	03/25/10	In-Situ		-	-	-		-	17.7	<16.9	<16.9	17.7	2,790
Road NSW-12	5 5 Feet	03/25/10	In-Situ	-	-	-			-	<17.3	<17.3	<17.3	<17.3	505
Road F-15	6 Feet	03/26/10	In-Sıtu	-	-			<u> </u>	-	<16 2	17	<16.2	17	348

					MET	HOD: EPA SW 8	46-8021B, 5030				METHOD: 8015M			METHOD: E300	
SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHY L- BENZENE (mg/Kg)	M.P XYLENES (mg/Kg)	O- XYLENE (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C6-C12 (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	ORO C ₂₈ -C ₃₅ (mg/Kg)	TOTAL TPH C6-C35 (mg/Kg)	CHLORIDE (mg/Kg)	
Road NSW-15	5.5 Feet	03/26/10	In-Situ	-	-	-	-	-	-	<16.7	<16.7	<16.7	<167	64.3	
Road F-16	3 5 Feet	03/26/10	In-Situ		-	-	-	-	-	<16.8	<16.8	<16.8	<16 8	98.5	
Road SSW-16	3 Feet	03/26/10	In-Situ	-	-	-	-	-	-	<16.8	<16.8	<168	<16.8	1,410	
Road F-17	4 Feet	03/26/10	In-Situ	-	-	-	-	-	-	<16.7	<16.7	<16.7	<16.7	911	
Road NSW-17	3.5 Feet	03/26/10	In-Situ	-	-	-	-	-	-	<16.8	<16 8	<16.8	<16.8	63	
	 /////////////////////////////////	MARK OF M	CONSTRUCT:				::::::::::::::::::::::::::::::::::::::	X N N)) () () () () () () () () () () () () (10.2000		
Stockpile #2	-	04/07/10	-	-	-	-	-	-	-	20.5	148	<15.5	168 5	169	
				his The Const					57 3 20 20	5: (1997)	1999 - 2025 - 4		6.367863		
SB-2 @ 15'	15 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	2,894	
SB-2@25'	25 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	647.3	
SB-2 @ 35'	35 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	274.9	
SB-2 @ 45'	45 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-		-	-	941.2	
SB-2 @ 50'	50 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-		275.5	
SB-2 @ 55'	55 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	229.7	
WEINT CONTRACTOR				in Cru ial				te sta	R. S. C. S.		1 17. 19	BAR			
SB-1 @ 15'	15 Feet	04/12/10	In-Situ	-	-	-	-	-		-	-	-	-	456.1	
SB-1 @ 20'	20 Feet	04/12/10	In-Sıtu	-	-	-	-	-	-	-	-	-	<u> </u>	226.4	
SB-1 @ 25'	25 Feet	04/12/10	In-Sıtu	-	-	-	-	-	-	-	-	-	-	224.9	
SB-1 @ 30'	30 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	179.4	
	E 33	- Secondaria						A CLARKER C		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1					
SB-3 @ 2'	2 Feet	04/12/10	In-Situ	<0.0011	< 0.0021	0.0085	0.017	0.0061	0.0316	70.8	335	38.9	445	3,363	
SB-3 @ 5'	5 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-		-		1,897	
SB-3 @ 10'	10 Feet	04/12/10	In-Situ	-	-	-	-	-	-	<16.9	<16.9	<16.9	<16.9	1,437	
SB-3 @ 20'	20 Feet	04/12/10	In-Situ	-	-	-	-	-	<u> </u>	-	-		-	1,403	
SB-3 @ 30'	30 Feet	04/12/10	In-Situ		-			-	-	-	-	-	-	467.9	
SB-3 @ 40'	40 Feet	04/12/10	In-Situ	-	-	-	-	-	-	-	-	-	-	849.6	
SB-3 @ 50'	50 Feet	04/12/10	In-Situ	-		-	-			-		-	-	896.6	
SB-3 @ 60'	60 Feet	04/12/10	In-Situ	-	-	-	-	-		-	-	-		865	
SB-3 @ 70	70 Feet	04/12/10	In-Situ	-	-	-	-	-		-		-	-	494.7	
SB-3 @ 75'	75'	04/12/10	In-Situ	-	-	-	an internet and the set	-	- 79.586.56.52.55857 - 005	-	-	- Sector datase en ar 1 1. Anna	- 	458.4	
		1.1.1		Sala Andrea Star	 		2 · · · · · · · · · · · · · · · · · · ·	1988-19887	ALTS I - M	COMPANYAL	N. C. B. D.	087382	ZCATI		
Stockpile #1 A	<u>N/A</u>	05/28/10	In-Situ	-	-	-	-	-	- 1999 - 2019 - 2014	<16 0	26.7	<16.0	26.7	-	
8404 201 5 SSHA 228	2525 -200 -200	26(20/16	運行空軍團	·5 图 · · · · · · · · · · · · · · · · · ·		0.001	0.0020	0.0012	0.0051	<15.0	<u>200</u> : 57	-15 O		210	
Stockpile #3	N/A	06/30/10	InSitu	<0.0010	<0.0020	0 001	0.0028	0.0013	0.0051	<13.U	01	<13.U	01	218	
AND ANY ARE LONG		P.C. Stand Stand	COMPLET *		0.5 2.6 0000			<u>CARACTER P.</u>	na in the second	COMPANIANO DE COMPANIA	66847 333699 (*	- TANÈN'I	1985 · 18-20	229422 (Sec. 2 394 2)	
													L	1	

Appendices

Appendix A Photographs



Excavation Activities at the Federal Littlefield "BO" Tank Battery Release Site



Excavation Activies at the Federal Littlefield "BO" Tank Battery Release Site



The Federal Littlefield "BO" Tank Battery Release Site On Completion of Remediation Activities



The Federal Littlefield "BO" Tank Battery Release Site On Completion of Remediation Activities

Appendix B Aerial Photographs







Appendix C Analytical Reports

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Analytical Report 357602

for

GP II Energy

Project Manager: Curt Stanley

Littlefield "BO" Fed # 2

GP II Energy

12-JAN-10





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240), South Carolina(96031001), Louisiana(04154), Georgia(917)



12-JAN-10



Project Manager: **Curt Stanley GP II Energy** P.O. Box 50682 Midland, TX 79710

Reference: XENCO Report No: **357602** Littlefield "BO" Fed # 2 Project Address: Eddy County, New Mexico

Curt Stanley:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 357602. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 357602 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



Sample Cross Reference 357602

GP II Energy, Midland, TX

Littlefield "BO" Fed # 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1	S	Jan-05-10 10:20		357602-001
SP-2	S	Jan-05-10 10:35		357602-002
SP-3	S	Jan-05-10 10:50		357602-003
SP-4	S	Jan-05-10 11:05		357602-004
SP-5	S	Jan-05-10 11:20		357602-005
SP-5 A	S	Jan-05-10 11:30		357602-006
SP-6	S	Jan-05-10 11:45		357602-007
SP-6 A	S	Jan-05-10 11:55		357602-008
SP-7	S	Jan-05-10 12:05		357602-009
SP-8	S	Jan-05-10 12:20		357602-010
SP-8 A	S	Jan-05-10 12:25		357602-011
SP-9	S	Jan-05-10 12:35		357602-012
SP-10	S	Jan-05-10 12:50		357602-013
SP-10 A	S	Jan-05-10 12:55		357602-014
SP-11	S	Jan-05-10 13:05		357602-015
SP-12	S	Jan-05-10 13:20		357602-016
SP-12 A	S	Jan-05-10 13:30		357602-017
SP-13	S	Jan-05-10 13:45		357602-018
SP-14	S	Jan-05-10 14:00		357602-019
SP-15	S	Jan-05-10 14:15		357602-020
SP-16	S	Jan-05-10 14:30		357602-021
SP-17	S	Jan-05-10 14:45		357602-022
SP-18	S	Jan-05-10 15:00		357602-023
SP-19	S	Jan-05-10 15:15		357602-024
SP-19 A	S	Jan-05-10 15:25		357602-025
SP-20	S	Jan-05-10 15:50		357602-026
SP-21	S	Jan-05-10 16:15		357602-027

CASE NARRATIVE



Client Name: GP II Energy Project Name: Littlefield "BO" Fed # 2

Project ID:GP II EnergyWork Order Number:357602

Report Date: 12-JAN-10 Date Received: 01/06/2010

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-788416 Percent Moisture None

Batch: LBA-788419 Percent Moisture None

Batch: LBA-788427 Anions by E300 None

Batch: LBA-788428 Anions by E300 None

Batch: LBA-788467 BTEX by EPA 8021B SW8021BM

Batch 788467, 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis Samples affected are: 357602-013,357602-019,357602-017,357602-014.

Batch: LBA-788765 BTEX by EPA 8021B SW8021BM

Batch 788765, 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis Samples affected are: 357602-022.

CASE NARRATIVE



Client Name: GP II Energy Project Name: Littlefield "BO" Fed # 2

Project ID: GP II Energy Work Order Number: 357602 Report Date: 12-JAN-10 Date Received: 01/06/2010

Batch: LBA-788785 BTEX by EPA 8021B SW8021BM

Batch 788785, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis Samples affected are: 357602-007. 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data confirmed by re-analysis Samples affected are: 357602-005,357602-016,357602-008,357602-007.

SW8021BM

Batch 788785, Ethylbenzene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Benzene, Toluene recovered below QC limits in the Matrix Spike Duplicate. Samples affected are: 357602-005, -007, -008, -016. The Laboratory Control Sample for Toluene, Benzene, Ethylbenzene is within laboratory Control Limits

Batch: LBA-788825 TPH By SW8015 Mod SW8015MOD_NM

Batch 788825, C12-C28 Diesel Range Hydrocarbons recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.

Samples affected are: 357602-017, -005, -009, -011, -014, -001, -003, -020, -002, -004, -006, - 007, -008, -013, -015, -018, -010, -012, -016, -019.

The Laboratory Control Sample for C12-C28 Diesel Range Hydrocarbons is within laboratory Control Limits

CASE NARRATIVE



Client Name: GP II Energy Project Name: Littlefield "BO" Fed # 2

Project ID: GP 11 Energy Work Order Number: 357602 Report Date: 12-JAN-10 Date Received: 01/06/2010

Batch: LBA-788827 BTEX by EPA 8021B SW8021BM

Batch 788827, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis Samples affected are: 357602-024. 4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data confirmed by re-analysis Samples affected are: 357602-024.

SW8021BM

Batch 788827, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Samples affected are: 357602-024. The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

Batch: LBA-788838 TPH By SW8015 Mod None



Certificate of Analysis Summary 357602

GP II Energy, Midland, TX

Project Name: Littlefield "BO" Fed # 2



 Project Id:
 GP II Energy

 Contact:
 Curt Stanley

 Project Location:
 Eddy County, New Mexico

Date Received in Lab: Wed Jan-06-10 09:53 am

Report Date: 12-JAN-10 Project Manager: Brent Barron, II

	Lab Id:	357602-0	001	357602-0	002	357602-0	003	357602-(004	357602-0	005	357602-(006
Analysis Requested	Field Id:	SP-1		SP-2		SP-3		SP-4		SP-5		SP-5 A	4
Anulysis Requested	Depth:												
	Matrix:	SOIL		SOIL	SOIL			SOIL		SOIL		SOIL	
	Sampled:	Jan-05-10	Jan-05-10 10:20		10:35	Jan-05-10 10:50		Jan-05-10 11:05		Jan-05-10 11:20		Jan-05-10	11:30
Anions by E300	Extracted:												
	Analyzed:	Jan-07-10	Jan-07-10 20.25		20:25	Jan-07-102	20.25	Jan-07-10 2	20:25	Jan-07-10 2	20:25	Jan-07-10 20:25	
	Units/RL:	mø/kø	RÍ	mø/kø	RI.	mg/kg	RI.	mg/kg	RI.	mg/kg	RL	mg/kg	RL
Chlonde		548	26.2	568	23.3	2240	49.7	229	9.47	2280	47.0	1850	23.5
BTEX by EPA 8021B	Extracted:	Jan-06-10	15.00	Jan-06-10 1	5.00	Jan-06-10	15:00	Jan-06-10	5:00	Jan-07-10	15.45	Jan-06-10	15:00
	Analyzed:	Jan-06-10	15.48	Jan-06-10 1	6:11	Jan-06-10	16.33	Jan-06-10	6:57	Jan-08-10 (05:55	Jan-06-10 18:07	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene	1	ND	0.0012	ND	0.0011	ND	0.0012	ND	0.0011	ND	0.0011	ND	0 0011
Toluene		ND	0.0025	ND	0 0022	ND	0.0024	ND	0.0023	0.0105	0.0022	ND	0.0022
Ethylbenzene		0.0038	0.0012	ND	0.0011	ND	0.0012	ND	0.0011	0.0293	0.0011	ND	0.0011
m,p-Xylenes		0.0098	0.0025	ND	0.0022	0.0030	0.0024	ND	0.0023	0.0885	0.0022	ND	0.0022
o-Xylene		0.0055	0.0012	ND	0.0011	ND	0.0012	ND	0.0011	0.0092	0.0011	ND	0.0011
Total Xylenes		0.0153	0.0012	ND	0.0011	0.0030	0.0012	ND	0.0011	0.0977	0.0011	ND	0 0011
Total BTEX		0.0191	0.0012	ND	0.0011	0.0030	0.0012	ND	0.0011	0.1375	0.0011	ND	0.0011
Percent Moisture	Extracted:												
	Analyzed:	Jan-06-10	17:00	Jan-06-10	17:00	Jan-06-10	17:00	Jan-06-10	7.00	Jan-06-10	17 00	Jan-06-10	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		19.8	1.00	9.79	1.00	15.5	1.00	11.3	1.00	10.7	1.00	10.6	1.00
TPH By SW8015 Mod	TPH By SW8015 Mod Extracted		12:30	Jan-07-10	12.30	Jan-07-10	2:30	Jan-07-10	2:30	Jan-07-10	12:30	Jan-07-10	12:30
	Analyzed:	Jan-08-10	12.11	Jan-08-10 1	12:38	Jan-08-10	13:04	Jan-08-10	3.30	Jan-08-10	13.56	Jan-08-10	14:23
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		39.0	18.8	ND	16.7	26.0	17.7	116	16.9	185	16.9	81.0	16.8
12-C28 Diesel Range Hydrocarbons		278	18.8	137	16.7	137	17.7	414	16.9	602	16.9	149	16.8
C28-C35 Oil Range Hydrocarbons		29.0	18.8	ND	16.7	ND	17.7	47.9	16.9	ND	16.9	31.1	16.8
Total TPH		346	18.8	137	16.7	163	17.7	578	16.9	787	16.9	261	16.8

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the bost judgment of XENCO Laboratories XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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Brent Barron, II

Odessa Laboratory Manager

Final Ver. 1.000



Certificate of Analysis Summary 357602

GP II Energy, Midland, TX

Project Name: Littlefield "BO" Fed # 2



 Project Id:
 GP II Energy

 Contact:
 Curt Stanley

 Project Location:
 Eddy County, New Mexico

Date Received in Lab: Wed Jan-06-10 09:53 am

Report Date: 12-JAN-10

								Project Ma	nager:	Brent Barron,	II		
	Lab Id:	357602-	007	357602-0	008	357602-0	009	357602-0	010	357602-0	011	357602-	012
A to Decovered	Field Id:	SP-6		SP-6 A	\	SP-7		SP-8		SP-8 A		SP-9	
Analysis Kequestea	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jan-05-10	11:45	Jan-05-10	1:55	Jan-05-10	12:05	Jan-05-10	12:20	Jan-05-10	12:25	Jan-05-10	12:35
Anions by E300	Extracted:												
	Analyzed:	Jan-07-10 20:25		Jan-07-10 2	20:25	Jan-07-10	20:25	Jan-07-10 2	20:25	Jan-07-10	20:25	Jan-07-10	20.25
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chlonde		561	9.24	829	9.49	1480	23.6	1060	48.2	1320	55.4	15.5	5.56
BTEX by EPA 8021B	Extracted:	Jan-07-10	15:45	Jan-07-10	5.45	Jan-06-10	15.00	Jan-06-10	15:00	Jan-06-10	15:00	Jan-06-10 15.00	
	Analyzed:	Jan-08-10	Jan-08-10 06:17)6:39	5:39 Jan-06-10 19		Jan-06-10 1	19:39	Jan-06-10 2	20:47	Jan-06-10 21:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
enzene		ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0013	ND	0.0013
Toluene		0.0071	0.0022	ND	0.0023	ND	0.0022	ND	0.0023	ND	0.0026	ND	0.0027
Ethylbenzene		0.0110	0.0011	0.0037	0.0011	ND	0.0011	ND	0.0011	ND	0 0013	ND	0.0013
m,p-Xylenes		0.0244	0.0022	0.0072	0.0023	ND	0.0022	ND	0.0023	ND	0.0026	ND	0.0027
o-Xylene		0.0202	0.0011	0.0060	0.0011	ND	0.0011	ND	0.0011	ND	0.0013	ND	0.0013
Total Xylenes		0.0446	0.0011	0.0132	0.0011	ND	0.0011	ND	0.0011	ND	0.0013	ND	0.0013
Total BTEX		0.0627	0.0011	0.0169	0.0011	ND	0.0011	ND	0.0011	ND	0.0013	ND	0.0013
Percent Moisture	Extracted:												
	Analyzed:	Jan-06-10	17:00	Jan-06-10	7.00	Jan-06-10	17:00	Jan-06-10 1	17.00	Jan-06-10	17:00	Jan-06-10	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		9.09	1.00	11.5	1.00	11.0	1.00	12.8	1.00	24.2	1.00	24.5	1.00
TPH By SW8015 Mod	Extracted:	Jan-07-10	12:30	Jan-07-10	2:30	Jan-07-10	12:30	Jan-07-10 I	12:30	Jan-07-10	12:30	Jan-07-10	12.30
Analyzed		Jan-08-10	14:49	Jan-08-10	5.15	Jan-08-10	15.42	Jan-08-10	16:08	Jan-08-10	17.00	Jan-08-10	17.27
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		218	16.5	240	16.9	229	16.8	238	17.2	45.1	19.8	44.3	19.9
C12-C28 Diesel Range Hydrocarbons		910	16.5	470	16.9	262	16.8	496	17.2	303	19.8	334	19.9
C28-C35 Oil Range Hydrocarbons		121	16.5	22.1	16.9	29.6	16.8	24.2	17.2	22.1	19.8	ND	19.9
Total TPH		1249	16.5	732	16.9	521	16.8	758	17.2	370	19.8	378	19.9

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Brent Barron, II

Odessa Laboratory Manager


Certificate of Analysis Summary 357602

GP II Energy, Midland, TX

Project Name: Littlefield "BO" Fed # 2



Project Id: GP II Energy Contact: Curt Stanley Project Location: Eddy County, New Mexico

Date Received in Lab: Wed Jan-06-10 09:53 am

Report Date: 12-JAN-10 Project Manager: Brent Barron II

								<u>IIOject Ma</u>	nager.	Dient Dallon,	11		
	Lab Id:	357602-0	013	357602-0	014	357602-0	015	357602-0	016	357602-0	017	357602-	018
Anglusia Baguastad	Field Id:	SP-10	ł	SP-10	A	SP-11		SP-12	:	SP-12	A	SP-13	\$
Analysis Kequestea	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jan-05-10	12:50	Jan-05-10	12:55	Jan-05-10	13.05	Jan-05-10	13:20	Jan-05-10	13:30	Jan-05-10	13:45
Anions by E300	Extracted							··					
	Anaburad	Ion 07-10	20.25	Ian 07-10	20.25	Ian_07_10 '	20.25	Ian-07-10 '	20.25	Ian-07-10	20.25	Inn_07_10	20.25
	Anatycea.	Jan-07-102	20.25	Jan-07-10	20 25 DI	Jan-07-10 2	20.25 DI	Jan-07-10	20.25 DI	Jan-0/-10	20.25 DI	Jan-07-10	20.2J
Chloride	Units/KL:	mg/kg		mg/kg	18-3	mg/kg		mg/kg 473	KL	mg/Kg		mg/kg	RL
			10.5			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.77	475		215	7.02	15.0	4.00
BIEX by EPA 8021B	Extracted:	Jan-06-10	15.00	Jan-06-10	15 00	Jan-06-10	15.00	Jan-07-10	15.45	Jan-06-10	15:00	Jan-06-10	15:00
	Analyzed:	Jan-06-10 2	21:33	Jan-06-10	21:56	Jan-06-10 2	22:19	Jan-08-10	07:01	Jan-06-10 2	23:04	Jan-06-10	23:27
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0 0011
Toluene		0.0023	0.0022	ND	0.0022	ND	0.0021	ND	0.0022	ND	0.0021	ND	0.0022
Ethylbenzene		0.0168	0.0011	0 0011	0.0011	ND	0.0011	0.0078	0.0011	0.0024	0.0011	ND	0.0011
m,p-Xylenes		0.0523	0.0022	0.0035	0.0022	ND	0.0021	0.0281	0.0022	0,0083	0.0021	0.0024	0.0022
o-Xylene		0.0096	0.0011	ND	0.0011	ND	0.0011	0.0108	0.0011	0.0022	0.0011	ND	0.0011
Total Xylenes		0.0619	0.0011	0.0035	0.0011	ND	0.0011	0.0389	0.0011	0.0105	0 0011	0 0024	0.0011
Total BTEX		0.0810	0.0011	0.0046	0.0011	ND	0.0011	0.0467	0.0011	0.0129	0 0011	0.0024	0.0011
Percent Moisture	Extracted:												
	Analyzed:	Jan-06-10	17:00	Jan-06-10	17:00	Jan-06-10	17:00	Jan-06-10	17:00	Jan-06-10	17.00	Jan-06-10	17.00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		8.44	1.00	7.98	1.00	6.31	1.00	9.65	1.00	6 92	1.00	8.77	1.00
TPH By SW8015 Mod	Extracted:	Jan-07-10	12:30	Jan-07-10	12:30	Jan-07-10	12:30	Jan-07-10	12:30	Jan-07-10	12:30	Jan-07-10	12:30
	Analyzed:	Jan-08-10	17:53	Jan-08-10	18.19	Jan-08-10	18:45	Jan-08-10	19:11	Jan-08-10	19:37	Jan <i>-</i> 08-10	20.03
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		279	16.4	208	16.3	139	16.0	269	16.6	40.2	16.1	38.9	16 4
C12-C28 Diesel Range Hydrocarbons		519	16.4	324	16.3	238	16.0	653	16.6	106	16.1	495	16.4
C28-C35 Oil Range Hydrocarbons		29.3	16.4	19.5	16.3	28.3	16.0	22.1	16.6	ND	16.1	24.9	16.4
Total TPH		827	16.4	552	16.3	405	16.0	944	16.6	146	16.1	559	16.4

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Brent Barron, II

Odessa Laboratory Manager



Certificate of Analysis Summary 357602

GP II Energy, Midland, TX

Project Name: Littlefield "BO" Fed # 2



Project Id: GP II Energy Contact: Curt Stanley Project Location: Eddy County, New Mexico

Date Received in Lab: Wed Jan-06-10 09:53 am

Report Date: 12-JAN-10 Project Manager: Brent Barron, II

	Lab Id:	357602-0	019	357602-0)20	357602-0	21	357602-	022	357602-0	023	357602-0	024
Analysis Degrand	Field Id:	SP-14		SP-15		SP-16		SP-17	,	SP-18	3	SP-19)
Analysis Requested	Depth:												
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	,	SOIL	,
	Sampled:	Jan-05-10	14:00	Jan-05-10 I	14:15	Jan-05-10	4:30	Jan-05-10	14:45	Jan-05-10	15:00	Jan-05-10	15:15
Anions by E300	Extracted:												
	Analyzed:	Jan-07-10	20:25	Jan-07-10 2	20.25	Jan-07-10 ()1:42	Jan-07-10	01:42	Jan-07-10	01:42	Jan-07-10	01 42
	Units/RL:	me/kg	RI.	mg/kg	RL.	mg/kg	RL	mg/kg	RL	mg/kg	RI.	mg/kg	RI.
Chloride	0,000,000	257	9.07	732	8.90	164	4.47	70.2	5.55	607	8.93	131	10.6
BTEX by EPA 8021B	Extracted:	Jan-06-10	15:00	Jan-06-10 1	15.00	Jan-06-10	15:30	Jan-06-10	15:30	Jan-06-10	15:30	Jan-07-10	09:55
	Analyzed:	Jan-06-10 2	23:49	Jan-07-10 (00:12	Jan-07-10 ()8.19	Jan-07-10	08:41	Jan-07-10	09:03	Jan-09-10	04:37
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0013	ND	0.0011	0.2386	0.0314
Toluene		0.0028	0.0022	ND	0.0021	ND	0.0021	0.0189	0.0026	ND	0.0021	1.143	0.0628
Ethylbenzene		0 0084	0 0011	ND	0.0011	ND	0.0011	0.0312	0.0013	ND	0.0011	1.478	0.0314
m,p-Xylenes		0.0281	0.0022	ND	0.0021	ND	0.0021	0.0794	0.0026	0.0032	0.0021	3.484	0.0628
o-Xylene		0.0084	0.0011	ND	0.0011	ND	0.0011	0.0308	0.0013	0.0012	0.0011	1.186	0.0314
Total Xylenes		0.0365	0,0011	ND	0.0011	ND	0.0011	0.1102	0.0013	0.0044	0 0011	4.670	0.0314
Total BTEX		0.0477	0.0011	ND	0.0011	ND	0.0011	0.1603	0.0013	0.0044	0.0011	7.530	0.0314
Percent Moisture	Extracted:												
	Analyzed:	Jan-06-10	17:00	Jan-06-10 1	7:00	Jan-06-10	7:00	Jan-06-10	17:00	Jan-06-10	17.00	Jan-06-10	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		7.38	1.00	5.64	1.00	5.99	1.00	24.3	1.00	5.95	1.00	20.7	1.00
TPH By SW8015 Mod	Extracted:	Jan-07-10	12:30	Jan-07-10 I	2:30	Jan-07-10	3:00	Jan-07-10	13:00	Jan-07-10	13:00	Jan-07-10	13.00
	Analyzed:	Jan-08-10 2	20:29	Jan-08-10 2	20.55	Jan-09-10	5.08	Jan-09-10	15:34	Jan-09-10	16:01	Jan-09-10	16:28
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		134	16.2	ND	15.9	ND	16.0	45.8	19.8	22.6	15.9	417	18.9
C12-C28 Diesel Range Hydrocarbons		270	16.2	35.4	15.9	ND	16.0	90.7	19.8	80.5	15.9	969	18.9
C28-C35 Oil Range Hydrocarbons		20.6	16.2	NDND	15.9	ND	160	ND	19.8	ND	15.9	87.6	18.9
Total TPH		425	16.2	35.4	15.9	ND	16.0	136.5	19.8	103.1	15.9	1474	18.9

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Brent Barron, II

Odessa Laboratory Manager

Final Ver. 1.000



Certificate of Analysis Summary 357602

GP II Energy, Midland, TX

Project Name: Littlefield "BO" Fed # 2



Date Received in Lab: Wed Jan-06-10 09:53 am

Project Id: GP II Energy Contact: Curt Stanley Project Location: Eddy County, New Mexico

Report Date: 12-JAN-10

Project Manager: Brent Barron, II

}	Lab Id:	357602-()25	357602-0	26	357602-0	27			
Amphasia Paguastad	Field Id:	SP-19.	A	SP-20		SP-21				
Analysis Requested	Depth:									
	Matrix:	SOIL	.	SOIL		SOIL				
	Sampled:	Jan-05-10	15:25	Jan-05-10 1	5:50	Jan-05-10 1	6:15			
Anions by E300	Extracted:									·
1	Analyzed:	Jan-07-10 (01:42	Jan-07-10 0)1.42	Jan-07-10 0	1 42			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Chloride		ND	17.7	ND	4.34	650	23.6			
BTEX by EPA 8021B	Extracted:	Jan-06-10	15.30	Jan-06-10 1	5.30	Jan-06-10 1	5:30			
	Analyzed:	Jan-07-10 (09:47	Jan-07-10 1	0:10	Jan-07-10 I	0:32			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
Benzene		ND	0.0011	ND	0.0010	0.0013	0.0011			
Toluene		ND	0.0021	ND	0.0021	ND	0.0022			
Ethylbenzene		0.0015	0 0011	0.0012	0.0010	ND	0.0011			
m,p-Xylenes		0.0033	0.0021	ND	0.0021	ND	0.0022		 	
o-Xylene		0.0012	0.0011	ND	0.0010	ND	0.0011	······		·
Total Xylenes		0.0045	0.0011	ND	0.0010	ND	0.0011		 	
Total BTEX		0.0060	0.0011	0.0012	0.0010	0.0013	0.0011		 	
Percent Moisture	Extracted:									
	Analyzed:	Jan-06-10	17:00	Jan-06-10 1	7:00	Jan-06-10 1	7.00			
	Units/RL:	%	RL	%	RL	%	RL			
Percent Moisture		5.06	1.00	3.13	1.00	10.9	1.00			
TPH By SW8015 Mod	Extracted:	Jan-07-10	13:00	Jan-07-10 1	3:00	Jan-07-10 1	3:00			
	Analyzed:	Jan-09-10	16.55	Jan-09-10 1	7:21	Jan-09-10 1	7.48			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			
C6-C12 Gasoline Range Hydrocarbons		ND	15.8	ND	15.5	ND	16.8			
C12-C28 Diesel Range Hydrocarbons		18.3	15.8	ND	15.5	343	16.8			
C28-C35 Oil Range Hydrocarbons		ND	15.8	ND	15.5	42.4	16.8			
Total TPH		18.3	15.8	ND	15.5	385	16.8			

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Brent Barron, II

Odessa Laboratory Manager





- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- **BRL** Below Reporting Limit.
- RL Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation.

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2505 North Falkenburg Rd, Tampa, FL 33619	
5757 NW 158th St, Miami Lakes, FL 33014	
12600 West I-20 East, Odessa, TX 79765	
842 Cantwell Lane, Corpus Christi, TX 78408	

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(210) 509-3335

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(281) 240-4200

(214) 902 0300

(210) 509-3334

(813) 620-2000

(305) 823-8500

(432) 563-1800

(361) 884-0371



Project Name: Littlefield "BO" Fed # 2

Work Orders : 357602	, Sample: 547095-1-BKS / B	KS Batel	Project II	GP II Ener	·gy	
Units: mg/kg	Date Analyzed: 01/06/10 13:49	SU.	RROGATE RE	COVERY	STUDY	. <u></u>
BTE	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
		0.02.12	0.0200			
4. Promofluorobenzene		0 0343	0.0300	114	80-120	
4-Bromonuorobenzene		0 0330	0.0300	110	80-120	
Lab Batch #: 788467	Sample: 547095-1-BSD / B	SD Bate	h: 1 Matrix:	Solid		
Units: mg/kg	Date Analyzed: 01/06/10 14:16	SU	RROGATE RE	COVERY	STUDY	
BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	-0	0.0335	0 0300	112	80-120	
4-Bromofluorobenzene		0.0326	0.0300	109	80-120	
Lab Batch #+ 788467	Sample: 547095-1-BLK / B	I Batel	h• 1 Matriv	Solid	<u> </u>	
Units: mg/kg	Date Analyzed: 01/06/10 15:25	SU	RROGATE RE	COVERY	STUDY	<u></u>
BTE	BTEX by EPA 8021B			Recovery %R	Control Limits %R	Flags
	Analytes					
1,4-Difluorobenzene		0.0268	0.0300	89	80-120	
4-Bromofluorobenzene		0.0304	0.0300	101	80-120	
Lab Batch #: 788467	Sample: 357602-001 / SMP	Bate	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/06/10 15:48	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene	······································	0.0253	0.0300	84	80-120	
4-Bromofluorobenzene		0.0350	0.0300	117	80-120	
Lab Batch #: 788467	Sample: 357602-002 / SMF	Batc	h: ¹ Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/06/10 16:11	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0260	0.0300	87	80-120	
4-Bromofluorobenzene		0.0331	0.0300	110	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B All results are based on MDL and validated for QC purposes.



Project Name: Littlefield "BO" Fed # 2

Work Orders : 357602.	, Sample: 357602-003 / SMP	Poto	Project II	D: GP II Ener	rgy	
Units: mg/kg	Date Analyzed: 01/06/10 16:33	SU	RROGATE RI	ECOVERY	STUDY	
втех	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes					
1,4-Difluorobenzene		0.0260	0.0300	87	80-120	
4-Bromofluorobenzene		0.0340	0.0300	113	80-120	
Lab Batch #: 788467	Sample: 357602-004 / SMP	Batel	h: 1 Matrix	Soil		
Units: mg/kg	Date Analyzed: 01/06/10 16:57	SU	RROGATE RI	ECOVERY	STUDY	
ВТЕХ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0263	0.0300	88	80-120	
4-Bromofluorobenzene		0.0338	0.0300	113	80-120	
Lab Batch #: 788467	Sample: 357602-006 / SMP	Batel	h: 1 Matrix:	Soil	<u></u>	
Units: mg/kg	Date Analyzed: 01/06/10 18:07	SU	RROGATE RE	ECOVERY	STUDY	
ВТЕХ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0258	0.0300	86	80-120	
4-Bromofluorobenzene		0.0319	0.0300	106	80-120	
Lab Batch #: 788467	Sample: 357602-009 / SMP	Batcl	h: 1 Matrix:	: Soil	I	
Units: mg/kg	Date Analyzed: 01/06/10 19:16	SU	RROGATE RE	COVERY	STUDY	
BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4-Difluorobenzene		0.0266	0.0300	80	80.120	
4-Bromofluorobenzene		0.0360	0.0300	120	80-120	
Lah Batch #: 788467	Sample: 357602-010 / SMP	Batcl	h: 1 Matrix:	Soil		L
Units: mg/kg	Date Analyzed: 01/06/10 19:39	SU	RROGATE RE	COVERY	STUDY	
BTEX	C by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0269	0.0300	90	80-120	
4-Bromofluorobenzene		0.0348	0.0300	116	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Littlefield "BO" Fed #2

Vork Orders : 357602	, Samala: 357602-011 / SMP	Pata	Project ID	GP II Ener	gy	
Units: mg/kg	Date Analyzed: 01/06/10 20:47	SU	RROGATE RE	COVERY S	STUDY	
BTEX	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			ַען 		
1,4-Difluorobenzene		0.0270	0.0300	90	80-120	
4-Bromofluorobenzene		0.0326	0.0300	109	80-120	
Lab Batch #: 788467	Sample: 357602-012 / SMP	Batc	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/06/10 21:10	SU	RROGATE RE	COVERY S	STUDY	
BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0267	0 0300	89	80-120	
4-Bromofluorobenzene		0.0307	0.0300	102	80-120	
Lab Batch #: 788467	- Sample: 357602-013 / SMP	Batcl	h: ¹ Matrix:	Soil	L	
Units: mg/kg	Date Analyzed: 01/06/10 21:33	SU	RROGATE RE	COVERY	STUDY	
BTEX	K by EPA 8021B Analytes	Amount Found {A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0242	0.0300	81	80-120	
4-Bromofluorobenzene		0.0497	0.0300	166	80-120	*
Lab Batch #: 788467	Sample: 357602-014 / SMP	Batcl	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/06/10 21:56	SU	RROGATE RE	COVERY	STUDY	
BTEX	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0262	0 0300	87	80-120	
4-Bromofluorobenzene		0.0371	0.0300	124	80-120	*
Lab Batch #: 788467	Sample: 357602-015 / SMP	Bate	h: 1 Matrix:	Soil	J	
Units: mg/kg	Date Analyzed: 01/06/10 22:19	SU	RROGATE RE	COVERY	STUDY	
BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0262	0.0300	87	80-120	
4-Bromofluorobenzene		0.0345	0.0300	115	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Littlefield "BO" Fed # 2

Vork Orders : 357602	,		Project ID	GP II Ener	rgy	
Lab Batch #: 788467	Sample: 357602-017 / SMP	Batel	h: 1 Matrix:	Soil	CITE INV	
Units: mg/kg	Date Analyzed: 01/06/10 23:04	SU	RRUGATE RE	COVERY		
ВТЕУ	K by EPA 8021B	Amount . Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0252	0 0300	84	80-120	
4-Bromofluorobenzene		0.0374	0.0300	125	80-120	*
Lab Batch #: 788467	Sample: 357602-018 / SMP	Batcl	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/06/10 23:27	SU	RROGATE RE	COVERY	STUDY	
BTEX	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0263	0.0300	88	80-120	
4-Bromofluorobenzene		0.0338	0.0300	113	80-120	
Lab Batch #: 788467	Sample: 357602-019 / SMP	Batc	h: 1 Matrix:	Soil	<u></u>	
Units: mg/kg	Date Analyzed: 01/06/10 23:49	SU	RROGATE RE	COVERY	STUDY	<u></u>
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
14-Difluorohonzana	Analytes	0.0255	0.0300	05	80.120	
4-Bromofluorobenzene		0.0233	0.0300	141	80-120	*
L ab D-4-b # 788467	Sec. 257602.020 / SMP	Batal		Soil	00 120	
Lad Batch #: /8840/	Sample: 337002-0207 SMP	SU	RROCATE RE	COVERV	STUDY	
BTE2	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			ועו		
1,4-Difluorobenzene		0.0272	0.0300	91	80-120	
4-Bromofluorobenzene		0.0322	0.0300	107	80-120	
Lab Batch #: 788467	Sample: 357602-015 S / MS	Bate	h: 1 Matrix:	Soil	CORVERSE	
Units: mg/kg	Date Analyzed: 01/07/10 00:34	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	······································	0.0324	0.0300	108	80-120	
4-Bromofluorobenzene		0.0317	0.0300	106	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Littlefield "BO" Fed # 2

Work Orders : 357602 Lab Batch #: 788467	9, Sample: 357602-015 SD / M	SD Batch	Project ID	GP II Ener Soil	·gy	
Units: mg/kg	Date Analyzed: 01/07/10 00:57	SUF	ROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[U]		
1,4-Difluorobenzene		0.0321	0.0300	107	80-120	
4-Bromofluorobenzene		0.0316	0.0300	105	80-120	
Lab Batch #: 788765	Sample: 547268-1-BKS / Bk	KS Batch	: 1 Matrix:	Solid		
Units: mg/kg	Date Analyzed: 01/07/10 06:29	SUF	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorobenzene		0.0316	0.0300	105	80-120	
4-Bromofluorobenzene		0.0292	0.0300	97	80-120	
Lah Batch #. 788765	Sample: 547268-1-BSD / BS	SD Batch	· I Matrix:	Solid		
Units: mg/kg	Date Analyzed: 01/07/10 06:51	SUF	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorobenzene		0.0310	0.0300	103	80-120	
4-Bromofluorobenzene		0.0285	0.0300	95	80-120	
Lah Batch #: 788765	 Sample: 547268-1-BLK / BI	K Batch	• 1 Matrix	Solid		
Unite: mg/kg	Date Analyzed: 01/07/10 07:57	SUI Dates	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes					
1,4-Difluorobenzene		0.0270	0.0300	90	80-120	
4-Bromofluorobenzene		0 0293	0.0300	98	80-120	
Lab Batch #: 788765	Sample: 357602-021 / SMP	Batch	a: 1 Matrix:	Soil		<u></u>
Units: mg/kg	Date Analyzed: 01/07/10 08:19	SUI	RROGATE RI	ECOVERY	STUDY	
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0267	0.0300	89	80-120	
4-Bromofluorobenzene		0.0299	0.0300	100	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Littlefield "BO" Fed # 2

Vork Orders : 357602, Lab Batch #: 788765	Sample: 357602-022 / SMP	Batel	Project IE	GP II Ener Soil	gy	
Units: mg/kg	Date Analyzed: 01/07/10 08:41	SU	RROGATE RE	COVERY	STUDY	
BTEX	by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes		·····	D]		
1,4-Difluorobenzene		0.0256	0.0300	85	80-120	
4-Bromofluorobenzene		0 0459	0.0300	153	80-120	*
Lab Batch #: 788765	Sample: 357602-023 / SMP	Batch	h: l Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/07/10 09:03	SU	RROGATE RE	COVERY S	STUDY	
BTEX	by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0259	0.0300	86	80-120	
4-Bromofluorobenzene		0.0328	0.0300	109	80-120	
Lab Batch #: 788765	Sample: 357602-025 / SMP	Batcl	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/07/10 09:47	SU	RROGATE RE	COVERY	STUDY	
BTEX	L by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorobenzene		0.0253	0.0300	84	80-120	
4-Bromofluorobenzene		0.0295	0.0300	98	80-120	
Lab Batch #: 788765	Sample: 357602-026 / SMP	Batcl	h: ¹ Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/07/10 10:10	SU	RROGATE RE	COVERY	STUDY	
втех	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[U]		
1,4-Difluorobenzene		0.0259	0.0300	86	80-120	
4-Bromofluorobenzene		0.0349	0.0300	116	80-120	
Lab Batch #: 788765	Sample: 357602-027 / SMP	Bate	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/07/10 10:32	SU	RROGATE RI	ECOVERY	STUDY	
BTEX	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0241	0.0300	80	80-120	
4-Bromofluorobenzene		0.0285	0.0300	95	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Littlefield "BO" Fed # 2

Vork Orders : 357602	,		Project ID	GP II Ener	гду	
	Sample: 33/602-021 57 MS	Batel	RROGATE RE	COVERY	STUDY	
BTEX	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0309	0.0300	103	80-120	
4-Bromofluorobenzene		0.0310	0.0300	103	80-120	
Lab Batch #: 788765	Sample: 357602-021 SD / N	ASD Batel	h: ¹ Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/07/10 12:25	SU	RROGATE RE	COVERY	STUDY	
ВТЕХ	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0311	0.0300	104	80-120	
4-Bromofluorobenzene		0.0300	0.0300	100	80-120	· · · · · · · · · · · · · · · · · · ·
Lab Batch #: 788785	Sample: 547277-1-BKS / B	KS Batcl	h: ¹ Matrix:	Solid		
Units: mg/kg	Date Analyzed: 01/08/10 02:16	SU	RROGATE RE	COVERY	STUDY	
BTEX	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0308	0.0300	103	80-120	
4-Bromofluorobenzene		0.0296	0.0300	99	80-120	
Lab Batch #: 788785	Sample: 547277-1-BLK / B	LK Batcl	h: 1 Matrix:	Solid		L
Units: mg/kg	Date Analyzed: 01/08/10 03:00	SU	RROGATE RE	COVERY	STUDY	
BTE	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
14 D.G. seeher	Analytes	0.0277	0.0200	02	80.120	
4-Bromofluorobenzene		0.0277	0.0300	92	80-120	
Lab Batab #4 788785	Secolar 357602-005 / SMP	0.0303	h. 1 Matrix	Soil	00120	<u> </u>
	Sample: 357002-0057 SMF	Batc.	RROGATE RE	COVERY	STUDY	
BTE2	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0253	0.0300	84	80-120	
4-Bromofluorobenzene	· · · · · · · · · · · · · · · · · · ·	0.0683	0.0300	228	80-120	**

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B All results are based on MDL and validated for QC purposes.



Project Name: Littlefield "BO" Fed # 2

Work Orders : 357602	2, Sample: 357602-007 / SMP	Poto	Project ID	GP II Ener	rgy	
Units: mg/kg	Date Analyzed: 01/08/10 06:17	SU.	RROGATE RE	COVERY	STUDY	<u> </u>
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			(D)		
1,4-Difluorobenzene		0.0232	0.0300	77	80-120	**
4-Bromofluorobenzene		0.0396	0.0300	132	80-120	**
Lab Batch #: 788785	Sample: 357602-008 / SMP	Batel	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/08/10 06:39	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0268	0.0300	89	80-120	
4-Bromofluorobenzene		0.0368	0.0300	123	80-120	**
Lab Batch #: 788785	Sample: 357602-016 / SMP	Batc	h: ¹ Matrix:	Soil	1	
Units: mg/kg	Date Analyzed: 01/08/10 07:01	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0270	0.0300	90	80-120	
4-Bromofluorobenzene		0.0441	0.0300	147	80-120	**
Lab Batch #: 788785	Sample: 357700-001 S / MS	Bate	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/08/10 07:23	SU	RROGATE RE	ECOVERY	STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4 Difluorobenzene	Analytes	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene		0.0358	0.0300	102	80-120	
Lab Batch #: 788785	Sample: 357700-001 SD / N	ISD Bate	h: 1 Matrix	Soil		I
Units: mg/kg	Date Analyzed: 01/08/10 07:45	SU	RROGATE RI	ECOVERY	STUDY	
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzenc		0.0305	0.0300	102	80-120	
4-Bromofluorobenzene		0.0322	0.0300	107	80-120	1
	· · · · · · · · · · · · · · · · · · ·					

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Littlefield "BO" Fed # 2

Work Orders : 357602 Lab Batch #: 788827	8. Sample: 547316-1-BKS / B)	KS Bate	Project II): GP II Ener	rgy	
Units: mg/kg	Date Analyzed: 01/08/10 20:33	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			ĮDĮ		
1,4-Difluorobenzene		0.0320	0.0300	107	80-120	
4-Bromofluorobenzene		0 0297	0.0300	99	80-120	
Lab Batch #: 788827	Sample: 547316-1-BSD / B	SD Batc	h: ¹ Matrix:	Solid		
Units: mg/kg	Date Analyzed: 01/08/10 20:56	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021B Analytes	Amount Found [Å]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0316	0.0300	105	80-120	
4-Bromofluorobenzene		0.0303	0.0300	101	80-120	
Lab Batch #: 788827	Sample: 547316-1-BLK / B	LK Batc	h: 1 Matrix:	Solid		
Units: mg/kg	Date Analyzed: 01/08/10 21:41	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0273	0.0300	91	80-120	
4-Bromofluorobenzene		0.0292	0.0300	97	80-120	
Lab Batch #: 788827	Sample: 357602-024 / SMP	Batc	h: ¹ Matrix:	Soil	<u>. </u>	
Units: mg/kg	Date Analyzed: 01/09/10 04:37	SU	RROGATE RI	ECOVERY	STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	Analytes	0.0205	0.0200	(0)		
4-Bromofluorabanzana		0.0205	0.0300	121	80-120	**
		0.0302	0.0300	0.11	80-120	
Lab Batch #: /8882/	Sample: 357767-004 S7 MS	Batc	h: 1 Matrix	Soil	STUDY	
Units: mg/kg	Date Analyzed: 01/09/10 05:43		RROGATE RI			
BTE	X by EPA 8021B Analytes	Amount Found [A]	Trve Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0283	0.0300	94	80-120	
4-Bromofluorobenzene		0.0297	0.0300	99	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Littlefield "BO" Fed # 2

Work Orders : 357602	,	-	Project ID	GP II Ener	gy	
Lab Batch #: 788827	Sample: 357767-004 SD / N	MSD Batcl	h: 1 Matrix:	Soil	TUDV	
Units: mg/kg	Date Analyzed: 01/09/10 06:05	50	KRUGATE RE			
BTEX	K by EPA 8021B	Amount Found {A}	True Amount {B}	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0288	0.0300	96	80-120	
4-Bromofluorobenzene		0 0293	0.0300	98	80-120	_
Lab Batch #: 788825	Sample: 547315-1-BKS / B	SKS Batel	h: 1 Matrix:	Solid	·	
Units: mg/kg	Date Analyzed: 01/08/10 10:53	SU	RROGATE RE	COVERY	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		105	99.8	105	70-135	
o-Terphenyl	······································	47.8	49.9	96	70-135	<u></u>
Lab Batch #: 788825	Sample: 547315-1-BSD / B	SD Batel	h: ¹ Matrix:	Solid	I	
Units: mg/kg	Date Analyzed: 01/08/10 11:19	SU	RROGATE RE	COVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[ען		
1-Chlorooctanc		93 7	100	94	70-135	
o-1 crphenyl		43.8	50.1	87	70-135	
Lab Batch #: 788825	Sample: 547315-1-BLK / E	BLK Bate	h: 1 Matrix:	Solid		
Units: mg/kg	Date Analyzed: 01/08/10 11:45	SU.	RROGATE RE	COVERY	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		86.2	99.7	86	70-135	
o-Terphenyl	<u></u>	49.4	49.9	99	70-135	
Lab Batch #: 788825	Sample: 357602-001 / SMI	P Bate	h: ¹ Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/08/10 12:11	SU	RROGATE RE	COVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane		90.3	101	89	70-135	
o-Terphenyl		51.6	50.3	103	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside lumits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Littlefield "BO" Fed # 2

Units: tng/kg Date Analyzed: 01/08/10 12:38 SURROGATE RECOVERY STUP TPH By SW8015 Mod Amount [A1] Amount [B1] True Amount [B1] Recovery (D1) Control 1.001 Fings 1-Chlorooctane 88.5 100 89 70-135 - e-Tcephenyl 50.5 50.1 101 70-135 - Lab Batch #7. 788825 Sample: 357602-003 / SMP Batch: 1 Matrix: Soil - TPH By SW8015 Mod Analytes Amount [B1] Recovery 5.8 99,6 93 70-135 - 1-Chlorooctane 92.8 99,6 93 70-135 - - 1-Chlorooctane 92.8 99,6 93 70-135 - - Lab Batch #: 788825 Sample: 357602-004 / SMP Batch: 1 Matrix: Soil - - Lab Batch #: 788825 Sample: 357602-005 / SMP Batch: 1 Matrix: Soil - - 1-Chlorooctane 91.9 100 92 70-135 - -	Work Orders : 357602 Lab Batch #: 788825	, Sample: 357602-002 / SMP	Bate	Project II h: 1 Matrix:	Soil	rgy	
TPH By SW8015 Mod Analytes Amount Found [A] True Anoint [B] True Becovery (SR (B) Control (SR (B) Flags (SR (SR (B) 1-Chlorooctane 88.5 100 89 70-135 - Lab Batch #: 788825 Sample: 357602-003 / SMP Batch: 1 Matrix: Soil - Units: trg/kg Date Analyzed: 01/08/10 13:04 SURROGATE RECOVERY STUDY - TPH By SW8015 Mod Analytes Amount [A] Amount Amount [B] Recovery (SR (D)] Control Linkits '9.6R Flags (D) 1-Chlorooctane 92.8 99.6 93 70-135 - 1-Chlorooctane 92.8 99.6 93 70-135 - Units: mg/kg Date Analyzed: 01/08/10 13:30 SURROGATE Control Linkits '9.6R - TPH By SW8015 Mod Analytes Amount [A] Amount [B] Matrix: Soil - 1-Chlorooctane 91.9 100 92 70-135 1-Chlorooctane 91.9 100 92 70-135 1-Chlorooctane 91.9 100 92 7	Units: mg/kg	Date Analyzed: 01/08/10 12:38	SU	RROGATE RE	ECOVERY	STUDY	
Analytes IDI 1-Chlorooctane 88.5 100 89 70-135 c-Terphenyl 50.5 50.1 101 70-135 Lab Batch #: 788825 Sample: 357602-003 / SMP Batch: 1 Matrix; Soil 70-135 Lab Batch #: 788825 Sample: 357602-003 / SMP Batch: 1 Matrix; Soil 70-135 TPH By SW8015 Mod Amount Found Fue Recovery (Inits: mg/kg Control 105 70-135 1-Chlorooctane 92.8 99.6 93 70-135 - - Terphenyl 52.4 49.8 105 70-135 - Lab Batch #: 788825 Sample: 357602-004 / SMP Batch: 1 Matrix; Soil - Units: mg/kg Date Analyzed: 01/08/10 13:30 SURROGATE RECOVERY STUDY - - 1-Chlorooctane 91.9 100 92 70-135 - - Terphenyl 50.6 50.1 101 70-135 - Lab Batch #: 788825 Sample: 357602-005 / SMP Batch: 1 Matrix; Soil -	ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
1-Chlorooctane 88.5 100 89 70-135 e-Terphenyl 50.5 50.1 101 70-135 Lab Batch #: 788825 Sample: 357602-003 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 01/08/10 13:04 SURROGATE RECOVERY STUDY Analytes Amount [A] True Amount [B] Recovery (MR Control Limits %R Flags 1-Chlorooctane 92.8 99.6 93 70-135 e-Terphenyl 52.4 49.8 105 70-135 e-Terphenyl 52.4 49.8 105 70-135 units: mg/kg Date Analyzed: 01/08/10 13:30 SURROGATE RECOVERY STUDY Imits Units: mg/kg Date Analyzed: 01/08/10 13:30 SURROGATE RECOVERY STUDY Imits 1-Chlorooctane 91.9 100 92 70-135 e-Terphenyl 50.6 50.1 101 70-135 1-Chlorooctane 91.9 100 92 70-135 e-Terphenyl 50.6 50.1 101 70-135 <th></th> <th>Analytes</th> <th></th> <th></th> <th>[D]</th> <th></th> <th></th>		Analytes			[D]		
o.*Cerphenyl 50.5 50.1 101 70-135 Lab Batch #: 788825 Sample: 357602-003 / SMP Batch: 1 Matrix: Soil Control Inits: mg/kg Date Analyzed: 01/08/10 13:04 SURROGATE RECOVERY STUDY Control Flags 1-Chlorooctane 92.8 99.6 93 70-135 Flags 0-Terphenyl 52.4 49.8 105 70-135 Flags 1-Chlorooctane 92.8 99.6 93 70-135 Flags 0-Terphenyl 52.4 49.8 105 70-135 Flags Units: mg/kg Date Analyzed: 01/08/10 13:30 SURROGATE RECOVERY STUDY Flags Flags 1-Chlorooctane 91.9 100 92 70-135 Flags 1-Chlorooctane 91.9	1-Chlorooctane		88.5	100	89	70-135	
Lab Batch #: 788825 Sample: 357602-003 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 01/08/10 13:04 SURROGATE RECOVERY STUDY TPH By SW8015 Mod Amount [A] True [B] Recovery %R Control [DI 1-Chlorooctane 92.8 99.6 93 70-135 - - Terphenyl 52.4 49.8 105 70-135 - - Terphenyl 52.4 49.8 105 70-135 - Units: mg/kg Date Analyzed: 01/08/10 13:30 SURROGATE Recovery Recovery (DI Control (Limits %R Flags 1-Chlorooctane 91.9 100 92 70-135 - 1-Chlorooctane 91.9 100 92 70-135 - 1-Chlorooctane 91.9 100 92 70-135 - Lab Batch #: 788825 Sample: 357602-005 / SMP Batch: 1 Matrix:Soil - Lab Batch #: 788825 Sample: 357602-005 / SMP Batch: 1 Matrix:Soil - Lab Batch #: 788825 Sampl	o-Terphenyl		50.5	50.1	101	70-135	
Units: mg/kg Date Analyzed: 01/08/10 13:04 SURROGATE RECOVERY STUDY TPH By SW8015 Mod Amount Found True Amount [A] True Amount [B] Recovery %R Control Limits %R Flags 1-Chlorooctane 92.8 99.6 93 70-135 - o-Terphonyi 52.4 49.8 105 70-135 - Lab Batch #: 788825 Sample: 357602-004 / SMP Batch: 1 Matrix: Soil - Units: mg/kg Date Analyzed: 01/08/10 13:30 SURROGATE Recovery full Control Limits Flags 1-Chlorooctane 91.9 100 92 70-135 - analytes 50.6 50.1 101 70-135 - Lab Batch #: 788825 Sample: 357602-005 / SMP Batch: 1 Matrix: Soil - Units: mg/kg Date Analyzed: 01/08/10 13:56 SURROGATE Recovery full Control Limits %R Flags 1-Chlorooctane 91.9 100 92 70-135 - Lab Batch #: 78825	Lab Batch #: 788825	Sample: 357602-003 / SMP	Bate	h: 1 Matrix:	Soil		
TPH By SW8015 Mod Amount Found [A] True Amount [B] Recovery %R [D] Control Limits %R [D] Flags 1-Chorooctane 92.8 99.6 93 70-135 - o-Terphenyl 52.4 49.8 105 70-135 - Lab Batch #: 788825 Sample: 357602-004 / SMP Batch: 1 Matrix:Soil - Units: mg/kg Date Analyzed: 01/08/10 13:30 SURROGATE RECOVERY STUDY - Control Limits Flags 1-Chorooctane 91.9 100 92 70-135 - 1-Strephenyl 50.6 50.1 101 70-135 - Lab Batch #: 788825 Sample: 357602-006 / SMP Batch: 1 Matrix: Soil -	Units: mg/kg	Date Analyzed: 01/08/10 13:04	SU	RROGATE RE	COVERY	STUDY	
I-Chlorooctane 92.8 99.6 93 70-135 o-Terphenyl 52.4 49.8 105 70-135 Lab Batch #: 788825 Sample: 357602-004 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 01/08/10 13:30 SURROGATE RECOVERY STUDY Analytes Amount [A] True Amount [B] Recovery %R Control Limits %R Flags 1-Chlorooctane 91.9 100 92 70-135 70-135 0-Terphenyl 50.6 50.1 101 70-135 70-135 Lab Batch #: 788825 Sample: 357602-005 / SMP Batch: 1 Matrix: Soil 70-135 Units: mg/kg Date Analyzed: 01/08/10 13:56 SURROGATE RECOVERY STUDY Control Limits Flags 1-Chlorooctane 01/08/10 13:56 SURROGATE RECOVERY STUDY 101 70-135 70-135 1-Schorooctane 6.7 Flags 99 70-135 70-135 1-Chlorooctane 88.2 101 87 70-135 70-135 1-Chlorooctane<	TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl 52.4 49.8 105 70-135 Lab Batch #: 788825 Sample: 357602-004 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 01/08/10 13:30 SURROGATE RECOVERY STUDY TPH By SW8015 Mod Amount [A] True [A] Matrix: Soil Flags I-Chlorooctane 91.9 100 92 70-135 Flags Units: mg/kg Date Analyzed: 01/08/10 13:50 Sample: 357602-005 / SMP Batch: 1 Matrix: Soil Lab Batch #: 788825 Sample: 357602-005 / SMP Batch: 1 Matrix: Soil Control Units: mg/kg Date Analyzed: 01/08/10 13:56 SURROGATE RECOVERY STUDY Control Limits Flags TPH By SW8015 Mod Amount [A] True [A] Matrix: Soil Control Limits Flags I-Chlorooctane 88.2 101 87 70-135 E Lab Batch #: 788825 Sample: 357602-006 / SMP Batch: 1 Matrix: Soil E Units: mg/kg Date Analyzed: 01/08/10 14:23 SURR	I-Chlorooctanc		92.8	99.6	93	70-135	
Lab Batch #: 788825 Sample: 357602-004 / SMP Batch: 1 Matrix:Soil Units: mg/kg Date Analyzed: 01/08/10 13:30 SURROGATE RECOVERY STUDY TPH By SW8015 Mod Amount [A] True [B] Recovery %R Control Limits %R 1-Chlorooctane 91.9 100 92 70-135 0-Terphenyl 50.6 50.1 101 70-135 Lab Batch #: 788825 Sample: 357602-005 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 01/08/10 13:56 SURROGATE RECOVERY STUDY Control TPH By SW8015 Mod Amount [A] True Analytes Control Limits [0] Flags 1-Chlorooctane 0.70erphenyl 49.8 50.3 99 70-135 Lab Batch #: 788825 Sample: 357602-006 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 01/08/10 14:23 SURROGATE RECOVERY STUDY Control Limits 9/R Flags 1-Chlorooctane 88.2 101 87 70-135 E Lab Batch #: 788825 Sample: 357602-006 / SMP	o-Terphenyl		52.4	49.8	105	70-135	
Units: mg/kg Date Analyzed: 01/08/10 13:30 SURROGATE RECOVERY STUDY TPH By SW8015 Mod Amount [A] True Amount [B] Recovery %R Control Limits %R Flags 1-Chlorooctane 91.9 100 92 70-135 - o-Terphenyl 50.6 50.1 101 70-135 - Lab Batch #: 788825 Sample: 357602-005 / SMP Batch: 1 Matrix:Soil - Units: mg/kg Date Analyzed: 01/08/10 13:56 SURROGATE RECOVERY STUDY - - TPH By SW8015 Mod Amount [A] True Recovery [B] Recovery %R Control 101 Flags - Chlorooctane 88.2 101 87 70-135 - - TPH By SW8015 Mod Amount [A] Batch: 1 Matrix: Soil - I-Chlorooctane 88.2 101 87 70-135 - o-Terphenyl 49.8 50.3 99 70-135 - Lab Batch #: 788825 Sample: 357602-006 / SMP Batch: 1 Matrix: Soil	Lab Batch #: 788825	Sample: 357602-004 / SMP	Bate	h: 1 Matrix:	Soil	.	
TPH By SW8015 Mod Amount Found [A] True Amount [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctane 91.9 100 92 70-135 - o-Terphenyl 50.6 50.1 101 70-135 - Lab Batch #: 788825 Sample: 357602-005 / SMP Batch: ! Matrix: Soil - Units: mg/kg Date Analyzed: 01/08/10 13:56 SURROGATE RECOVERY STUDY Control Limits Flags TPH By SW8015 Mod Amount [A] True [A] Recovery [D] Control Limits Flags 1-Chlorooctane 88.2 101 87 70-135 - 0-Terphenyl 49.8 50.3 99 70-135 - Lab Batch #: 788825 Sample: 357602-006 / SMP Batch: 1 Matrix: Soil - Units: mg/kg Date Analyzed: 01/08/10 14:23 SURROGATE RECOVERY STUDY - - Units: mg/kg Date Analyzed: 01/08/10 14:23 SURROGATE RECOVERY STUDY - - TPH By SW8015 Mod Amount [A] Flags	Units: mg/kg	Date Analyzed: 01/08/10 13:30	SU	RROGATE RE	COVERY	STUDY	
I-Chlorooctane 91.9 100 92 70-135 o-Terphenyl 50.6 50.1 101 70-135 Lab Batch #: 788825 Sample: 357602-005 / SMP Batch: I Matrix:Soil Units: mg/kg Date Analyzed: 01/08/10 13:56 SURROGATE RECOVERY STUDY TPH By SW8015 Mod Amount [A] True Found [A] Recovery [B] Optimized (B] Flags 1-Chlorooctane 88.2 101 87 70-135 5 0-Terphenyl 49.8 50.3 99 70-135 5 Lab Batch #: 788825 Sample: 357602-006 / SMP Batch: 1 Matrix: Soil 5 Units: mg/kg Date Analyzed: 01/08/10 14:23 SURROGATE RECOVERY STUDY 5 5 Units: mg/kg Date Analyzed: 01/08/10 14:23 SURROGATE RECOVERY STUDY 5 5 TPH By SW8015 Mod Amount [A] True [B] Recovery %R Control Limits %R Flags 1-Chlorooctane 0.1008 49.8 50.1 99 70-135 I-Chlorooctane <t< td=""><td>TPH</td><td>By SW8015 Mod Analytes</td><td>Amount Found [A]</td><td>True Amount [B]</td><td>Recovery %R [D]</td><td>Control Limits %R</td><td>Flags</td></t<>	TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Terphenyl 50.6 50.1 101 70-135 Lab Batch #: 788825 Sample: 357602-005 / SMP Batch: I Matrix:Soil Units: mg/kg Date Analyzed: 01/08/10 13:56 SURROGATE RECOVERY STUDY TPH By SW8015 Mod Amount Found [A] True [B] Recovery %R Control Limits Flags 1-Chlorooctane 88.2 101 87 70-135 - 0-Terphenyl 49.8 50.3 99 70-135 - Lab Batch #: 788825 Sample: 357602-006 / SMP Batch: 1 Matrix: Soil - Units: mg/kg Date Analyzed: 01/08/10 14:23 SURROGATE RECOVERY STUDY - TPH By SW8015 Mod Amount Found [A] True Amount [A] Matrix: Soil - Units: mg/kg Date Analyzed: 01/08/10 14:23 SURROGATE RECOVERY STUDY - TPH By SW8015 Mod Analytes Amount [A] True Amount [A] Recovery %R Limits %R Flags 1-Chlorooctane 86.6 100 87 70-135 -	1-Chlorooctane	5	91.9	100	92	70-135	·
Lab Batch #: 788825 Sample: 357602-005 / SMP Batch: I Matrix: Soil Units: mg/kg Date Analyzed: 01/08/10 13:56 SURROGATE RECOVERY STUDY TPH By SW8015 Mod Amount [A] True [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctanc 88.2 101 87 70-135 - 0-Terphenyl 49.8 50.3 99 70-135 - Lab Batch #: 788825 Sample: 357602-006 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 01/08/10 14:23 SURROGATE RECOVERY STUDY - Inits: mg/kg Date Analyzed: 01/08/10 14:23 SURROGATE RECOVERY STUDY - TPH By SW8015 Mod Amount Found [A] True [B] Recovery %R Control Limits Flags 1-Chlorooctanc 86.6 100 87 70-135 - 1-Chlorooctanc 86.6 100 87 70-135 - 0-Terphenyl 49.8 50.1 99 70-135 -	o-Terphenyl		50,6	50.1	101	70-135	
Units: mg/kgDate Analyzed: 01/08/10 13:56SURROGATERECOVERY STUDYTPH By SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %RFlags1-Chlorooctanc88.21018770-135o-Terphenyl49.850.39970-135Lab Batch #: 788825Sample: 357602-006 / SMP Date Analyzed: 01/08/10 14:23Batch: 1Matrix: SoilUnits: mg/kgDate Analyzed: 01/08/10 14:23SURROGATERECOVERY STUDYTPH By SW8015 ModAmount Found [A]True Amount [B]Control Limits %R [P]Flags1-Chlorooctanc86.61008770-1350-Terphenyl49.850.19970-135	Lab Batch #: 788825	Sample: 357602-005 / SMP	Bate	h: 1 Matrix:	Soil	I	<u></u>
TPH By SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %R %R [D]Flags1-Chlorooctanc88.21018770-135-o-Terphenyl49.850.39970-135-Lab Batch #: 788825Sample: 357602-006 / SMP Date Analyzed: 01/08/10 14:23Batch: 1Matrix:Soil-Units: mg/kgDate Analyzed: 01/08/10 14:23SURROGATE RECOVERYSUUROUNT %R [D]FlagsTPH By SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %R %RFlags1-Chlorooctanc86.61008770-135-0-Terphenyl49.850.19970-135-	Units: mg/kg	Date Analyzed: 01/08/10 13:56	SU	RROGATE RE	COVERY	STUDY	· · · · · ·
Analytes I<	ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
1-Chlorooctanc 88.2 101 87 70-135 o-Tcrphenyl 49.8 50.3 99 70-135 Lab Batch #: 788825 Sample: 357602-006 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 01/08/10 14:23 SURROGATE RECOVERY STUDY TPH By SW8015 Mod Amount [A] True [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctanc 86.6 100 87 70-135		Analytes			[U]		
o-Tcrphenyl 49.8 50.3 99 70-135 Lab Batch #: 788825 Sample: 357602-006 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 01/08/10 14:23 SURROGATE RECOVERY STUDY TPH By SW8015 Mod Amount [A] True [A] Recovery [B] Control Limits %R Flags 1-Chlorooctanc 86.6 100 87 70-135	1-Chlorooctanc		88.2	101	87	70-135	ļ
Lab Batch #: 788825 Sample: 357602-006 / SMP Batch: 1 Matrix: Soil Units: mg/kg Date Analyzed: 01/08/10 14:23 SURROGATE RECOVERY STUDY TPH By SW8015 Mod Amount [A] True [B] Recovery %R [D] Control Limits %R Flags 1-Chlorooctanc 86.6 100 87 70-135 o-Terphenyl 49.8 50.1 99 70-135	o-Terphenyl		49.8	50.3	99	70-135	<u> </u>
Units: mg/kgDate Analyzed: 01/08/10 14:23SURROGATERECOVERY STUDYTPH By SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %RFlags1-Chlorooctanc86.61008770-135o-Terphenyl49.850.19970-135	Lab Batch #: 788825	Sample: 357602-006 / SMP	Batc	h: 1 Matrix	Soil	6 mm + 10 m + 1	
TPH By SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %RFlags1-Chlorooctanc86.61008770-135o-Terphenyl49.850.19970-135	Units: mg/kg	Date Analyzed: 01/08/10 14:23	SU	RROGATE RI	ECOVERY	STUDY	
1-Chlorooctanc 86.6 100 87 70-135 o-Terphenyl 49.8 50.1 99 70-135	ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
o-Tcrphenyl 49.8 50.1 99 70-135	1-Chlorooctanc	-	86.6	100	87	70-135	
	o-Terphenyl		49.8	50.1	99	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Littlefield "BO" Fed # 2

Vork Orders : 357602 Lab Batch #: 788825	, Sample: 357602-007 / SMP	Batch	Project ID n: 1 Matrix:	GP II Ener Soil	зу	
Units: mg/kg	Date Analyzed: 01/08/10 14:49	SUI	RROGATE RE	COVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
I-Chlorooctane		91 9	100	92	70-135	
o-Terphenyl		50.0	50.0	100	70-135	
Lab Batch #: 788825	Sample: 357602-008 / SMP	Batch	n: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/08/10 15:15	SU	RROGATE RE	COVERY S	STUDY	_
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctanc		92.1	100	92	70-135	
o-Terphenyl		52.4	50.0	105	70-135	
Lab Batch #: 788825	Sample: 357602-009 / SMP	Batcl	n: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/08/10 15:42	SU	RROGATE RE	COVERY	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R {D}	Control Limits %R	Flags
1-Chlorooctane		86,1	99.6	86	70-135	
o-Terphenyl		49.7	49 8	100	70-135	
Lab Batch #: 788825	Sample: 357602-010 / SMP	Batcl	h: 1 Matrix:	Soil	L	
Units: mg/kg	Date Analyzed: 01/08/10 16:08	SU	RROGATE RE	COVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			ן ען		
1-Chlorooctane		85.1	100	85	70-135	
o-Terphenyl		50.4	50.0	101	70-135	
Lab Batch #: 788825	Sample: 357602-011 / SMP	Batcl	h: ¹ Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/08/10 17:00	SU.	RROGATE RE	COVERY :	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		91.3	100	91	70-135	<u> </u>
o-Terphenyl		52.2	50.0	104	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside lumits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Rccovery [D] = 100 * A / BAll results are based on MDL and validated for QC purposes.



Project Name: Littlefield "BO" Fed # 2

Work Orders : 357602 Lab Batch #: 788825	, Sample: 357602-012 / SMP	Batch	Project ID	GP II Ener Soil	зy	
Units: mg/kg	Date Analyzed: 01/08/10 17:27	SU	RROGATE RE	COVERY S	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		88.2	100	88	70-135	
o-Terphenyl		51.3	50.0	103	70-135	
Lab Batch #: 788825	Sample: 357602-013 / SMP	Batch	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/08/10 17:53	SUI	RROGATE RE	COVERYS	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		96.6	100	97	70-135	
o-Terphenyl		52.7	50.0	105	70-135	
Lab Batch #: 788825	Sample: 357602-014 / SMP	Batcl	h: ¹ Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/08/10 18:19	SU	RROGATE RE	COVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	·	90.9	100	91	70-135	
o-Terphenyl		50.0	50.0	100	70-135	
Lab Batch #: 788825	Sample: 357602-015 / SMP	Batcl	h: ¹ Matrix:	Soil		
Units: mg/kg	Date Analyzed: 01/08/10 18:45	SU	RROGATE RE	COVERY	STUDY	
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctanc		85.1	99.7	85	70-135	
o-Terphenyl		48.7	49.9	98	70-135	L
Lab Batch #: 788825	Sample: 357602-016 / SMP	Bate	h: 1 Matrix	Soil	. <u>-</u>	
Units: mg/kg	Date Analyzed: 01/08/10 19:11	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		94.1	100	94	70-135	
o-Terphenyl		54.7	50.0	109	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Littlefield "BO" Fed # 2

Vork Orders : 357602 Lab Batch #: 788825	, Sample: 357602-017 / SMP	Batel	Project IE	GP II Ener Soil	gy				
Units: mg/kg	Date Analyzed: 01/08/10 19:37	SURROGATE RECOVERY STUDY							
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
	Analytes			[D]					
1-Chlorooctane		92.2	100	92	70-135				
o-Terphenyl		51.8	50.0	104	70-135				
Lab Batch #: 788825	Sample: 357602-018 / SMP	Batch	h: 1 Matrix:	Soil					
Units: mg/kg	Date Analyzed: 01/08/10 20:03	SUI	RROGATE RE	COVERY	STUDY				
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctane		88.0	100	88	70-135				
o-Terpheny]		50.3	50.0	101	70-135				
Lab Batch #: 788825	Sample: 357602-019 / SMP	Batch	h: 1 Matrix:	Soil					
Units: mg/kg	Date Analyzed: 01/08/10 20:29	SUI	RROGATE RE	COVERY	STUDY	<u> </u>			
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctane		88.2	100	88	70-135				
o-Terphenyl		50.0	50.0	100	70-135				
Lab Batch #: 788825	Sample: 357602-020 / SMP	Batcl	h: 1 Matrix:	Soil					
Units: mg/kg	Date Analyzed: 01/08/10 20:55	SU	RROGATE RE	COVERY	STUDY				
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags			
	Analytes			[D]					
1-Chlorooctanc		88.7	100	89	70-135				
o-Terphenyl		50.4	50.0	101	70-135	<u></u>			
Lab Batch #: 788825	Sample: 357602-006 S / MS	Batel	h: 1 Matrix:	Soil	15 August 10				
Units: mg/kg	Date Analyzed: 01/08/10 21:21	SU	RROGATE RE	ECOVERY	STUDY				
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags			
1-Chlorooctane	•	98.9	99.5	99	70-135	<u> </u>			
o-Terphenyl		46 1	49.8	93	70-135				

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B All results are based on MDL and validated for QC purposes.



Project Name: Littlefield "BO" Fed # 2

Work Orders : 357602, Lab Batch #: 788825	Sample: 357602-006 SD / N	MSD Batel	Project II h: ¹ Matrix:): GP II Ener Soil	ſġy	
Units: mg/kg	Date Analyzed: 01/08/10 21:47	SU	RROGATE RE	COVERY	STUDY	
ТРН І	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		08.8	99.7	00	70 125	
o-Terphenyl		90.0 45.7	49.9	99	70-135	
L -L D 1 // 799929	547221 1 DKS / D			Calid	10100	
Lab Batch #: /88838	Sample: 34/321-1-BKS/B	SKS Bate	h: 1 Matrix:	Sona	TUDV	
Units: mg/kg	Date Analyzed: 01/09/10 13:47	30	KRUGATE KE			
TPH I	3y SW8015 Mod Analvtes	Amount Found [A]	True Amount [B]	Recovery %R {D]	Control Limits %R	Flags
1-Chlorooctanc		102	99.5	103	70-135	
o-Terpheny]	<u> </u>	46.8	49.8	94	70-135	
Lab Batch #: 788838	Sample: 547321-1-BSD / B	SD Batc	h: ¹ Matrix:	Solid		
Units: mg/kg	Date Analyzed: 01/09/10 14:14	SU	RROGATE RE	COVERY	STUDY	
ТРН І	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		101	99.9	101	70-135	
o-Terphenyl		46 7	50.0	93	70-135	
Lab Batch #: 788838	Sample: 547321-1-BLK / B	BLK Batel	h: 1 Matrix:	Solid	••••••••••••••••••••••••••••••••••••••	
Units: mg/kg	Date Analyzed: 01/09/10 14:41	SU	RROGATE RE	COVERY	STUDY	
ТРН І	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
L-Chlorooctane		90.4	101	90	70.135	
o-Terphenyl		50.7	50.3	101	70-135	
Lab Batch #: 788838	Sample: 357602-021 / SMF	Bate	h: l Matrix	Soil	L	
Units: mg/kg	Date Analyzed: 01/09/10 15:08	SU	RROGATE RI	ECOVERY	STUDY	
ТРН І	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		96.0	100	96	70-135	
o-Terpheny]		53.6	50.0	107	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits, data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Littlefield "BO" Fed # 2

Work Orders : 357602, Lab Batch #: 788838	Sample: 357602-022 / SMP	Batcl	Project II 1: 1 Matrix:	GP II Ener Soil	·gy	
Units: mg/kg	Date Analyzed: 01/09/10 15:34	SU	RROGATE RE	COVERY	STUDY	
ТРН В	y SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		105	100	105	70-135	
o-Terphenyl		62.0	50.0	103	70-135	
Lah Batch #: 788838	Sample: 357602-023 / SMP	Batel	n Matrix	Soil		
Units: mg/kg	Date Analyzed: 01/09/10 16:01	SU	RROGATE RE	COVERY	STUDY	<u> </u>
ТРН В	y SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		94.0	100	94	70-135	
o-Terphenyl	·····	52.6	50.0	105	70-135	
Lab Batch #. 788838		Batel	h. 1 Matrix	Soil		
Units: mg/kg	Date Analyzed: 01/09/10 16:28	SU	RROGATE RE	COVERY	STUDY	
ТРН В	y SW8015 Mod Analytas	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		106	100	106	70-135	
o-Terphenyl		55.1	50.1	110	70-135	
Lah Batch #• 788838		Batel	n· 1 Matrix	Soil	L	
Units: mg/kg	Date Analyzed: 01/09/10 16:55	SU	RROGATE RI	COVERY	STUDY	<u></u>
ТРН В	y SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
I-Chlorooctane		91.1	100	91	70-135	
o-Terphenyl		51.5	50.0	103	70-135	
Lab Batch #: 788838	Sample: 357602-026 / SMP	Bate	h: 1 Matrix	Soil		
Units: mg/kg	Date Analyzed: 01/09/10 17:21	SU	RROGATE RI	ECOVERY	STUDY	
ТРН В	y SW8015 Mod Analytes	Amount Found {A}	True Amount {B}	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		97.0	100	97	70-135	
o-Terphenyl		53.6	50.0	107	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B



Project Name: Littlefield "BO" Fed # 2

Work Orders : 357602	,		Project II	GP II Ener	rgy					
Lab Batch #: 788838	Sample: 357602-027 / SMP	Ar Batch: 1 Matrix: Soll								
Units: mg/kg	Date Analyzed: 01/09/10 17:48	SURROGATE RECOVERY STUDY								
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
[] Chlonestone	Analytes		100	1-1						
I-Chlorooctane		113	100	113	70-135					
o-Terphenyl		62.5	50.0	125	70-135					
Lab Batch #: 788838	Sample: 357602-021 S / MS	Batel	h: l Matrix:	Soil						
Units: mg/kg	Date Analyzed: 01/10/10 00:18	SURROGATE RECOVERY STUDY								
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
	Analytes			וען						
1-Chlorooctane		98.0	99.9	98	70-135					
o-Terphenyl		45.0	50.0	90	70-135					
Lab Batch #: 788838	Sample: 357602-021 SD / N	ISD Batel	h: 1 Matrix:	Soil						
Units: mg/kg	Date Analyzed: 01/10/10 00:44	SU	RROGATE RE	COVERY	STUDY					
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1-Chlorooctane		100	99.9	100	70-135					
o-Terphenyl	<u></u>	46.1	50.0	92	70-135					

* Surrogate outside of Laboratory QC limits

- ** Surrogates outside limits; data and surrogates confirmed by reanalysis
- *** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B





Project Name: Littlefield "BO" Fed # 2

Work Order #: 357602			Pr	oject ID:	GP I	Energy	
Lab Batch #: 788785 Date Analyzed: 01/08/2010	Batch #: 788785 Sample: 547277 alyzed: 01/08/2010 Date Prepared: 01/07/2			Matrix: Analyst:	Solid ASA		
Reporting Units: mg/kg	Ba	tch #: 1	BLANK /I	BLANK SPI	OVERY S	Y STUDY	
BTEX by EPA 8021B Analytes	·	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Benzene		ND	0.1000	0.0892	89	70-130	
Tolucne		ND	0.1000	0.0907	91	70-130	
Ethylbenzenc		ND	0.1000	0.0913	91	71-129	
m,p-Xylenes		ND	0.2000	0.1875	94	70-135	
o-Xylene		ND	0.1000	0.0987	99	71-133	
Lab Batch #: 788427 Date Analyzed: 01/07/2010	Sa Date Prep	mple: 788427- pared: 01/07/20	1-BKS)10	Matrix: Analyst:	Solid LATCOR	1	
Reporting Units: mg/kg	Ba	tch #: 1	BLANK /I	BLANK SPI	KE REC	OVERY S	TUDY
Anions by E300 Analytes		Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride		ND	10.0	10.6	106	75-125	
Lab Batch #: 788428 Date Analyzed: 01/07/2010	Sa Date Prep	mple: 788428- pared: 01/07/20	1-BKS 010	Matrix: Analyst:	Solid LATCOF	ł	
Reporting Units: mg/kg	Ba	tch #: 1	BLANK /I	BLANK SPI	KE REC	OVERY S	STUDY
Anions by E300 Analytes		Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride		ND	10.0	10.7	107	75-125	

Blank Spike Recovery [D] = 100*[C]/[B] All results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit





BS / BSD Recoveries

Project Name: Littlefield "BO" Fed # 2

Work Order #: 357602							Pro	ject ID: (GP II Energ	5y	
Analyst: ASA	Da	ate Prepar	ed: 01/06/201	10			Date A	nalyzed: (01/06/2010		
Lab Batch ID: 788467 Sample: 547095	-1-BKS	Bate	h #: 1					Matrix: S	Solid		
Units: mg/kg		BLAN	K/BLANK S	SPIKE / I	BLANK S	PIKE DUPI	ICATE	RECOVI	ERY STUE	ργ	
BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.1029	103	0,1	0.1010	101	2	70-130	35	
Toluene	ND	0.1000	0.1055	106	0.1	0.1037	104	2	70-130	35	
Ethylbenzene	ND	0.1000	0.1053	105	0.1	0.1035	104	2	71-129	35	
m,p-Xylenes	ND	0.2000	0.2167	108	0.2	0.2126	106	2	70-135	35	
o_Xvlene	ND	0.1000	0 11 27	112	0.1	0.1109	111	2	71 122	25	
	ND	0.1000	0.1127	115	0.1	0.1108		2	/1-133	33	
Analyst: ASA	ND Da	ate Prepar	ed: 01/06/201	<u>113</u> 10	0.1	0.1108	Date A	nalyzed: ()1/07/2010	33	
Analyst: ASA Lab Batch ID: 788765 Sample: 547268	-1-BKS	ate Prepar Batcl	ed: 01/06/201	10	0.1	0.1108	Date A	nalyzed: (Matrix: S)1/07/2010 Solid		
Analyst: ASA Lab Batch ID: 788765 Sample: 547268 Units: mg/kg	-1-BKS	ate Prepar Batcl BLAN	ed: 01/06/201 h #: 1 K /BLANK S	10 3 PIKE / E	BLANK S	PIKE DUPI	Date A	nalyzed: (Matrix: S RECOVI)1/07/2010 Solid E RY STUD	Y	<u> </u>
Analyst: ASA Lab Batch ID: 788765 Sample: 547268 Units: mg/kg BTEX by EPA 8021B Analytes	-1-BKS Blank Sample Result [A]	o.1000 ate Prepar Batc] BLAN Spike Added [B]	ed: 01/06/20] h #: 1 K /BLANK S Blank Spike Result [C]	10 SPIKE / I Blank Spike %R [D]	3LANK S Spike Added [E]	PIKE DUPI Blank Spike Duplicate Result [F]	Date A	2 nalyzed: (Matrix: S RECOVI RPD %	Control Limits %R	Y Control Limits %RPD	Flag
Analyst: ASA Lab Batch ID: 788765 Sample: 547268 Units: mg/kg BTEX by EPA 8021B Analytes Benzene	-1-BKS Blank Sample Result [A] ND	ate Prepar Batcl BLAN Spike Added [B] 0.1000	ed: 01/06/20] h #: 1 K /BLANK \$ Blank Spike Result [C] 0.0941	10 SPIKE / F Blank Spike %R [D] 94	3LANK S Spike Added [E] 0.1	Blank Spike Duplicate Result [F] 0.0932	Date A	2 nalyzed: (Matrix: 5 RECOVI RPD % 1	01/07/2010 Solid ERY STUD Control Limits %R 70-130	Control Limits %RPD 35	Flag
Analyst: ASA Lab Batch ID: 788765 Sample: 547268 Units: mg/kg BTEX by EPA 8021B Analytes Benzene Toluene	-1-BKS Blank Sample Result [A] ND ND ND	ate Prepar Batcl BLAN Spike Added [B] 0.1000 0.1000	ed: 01/06/201 h #: 1 K /BLANK \$ Blank Spike Result [C] 0.0941 0.0893	10 SPIKE / I Blank Spike %R [D] 94 89	0.1 3LANK S Spike Added [E] 0.1 0.1	Blank Spike Duplicate Result [F] 0.0932 0.0912	Date A JCATE Blk. Spk Dup. %R [G] 93 91	2 nalyzed: (Matrix: 5 RECOVH % 1 2	01/07/2010 Solid ERY STUD Control Limits %R 70-130 70-130	Control Limits %RPD 35 35	Flag
Analyst: ASA Lab Batch ID: 788765 Sample: 547268 Units: mg/kg BTEX by EPA 8021B Analytes Benzene Toluene Ethylbenzene	-1-BKS Blank Sample Result [A] ND ND ND ND	0.1000 ate Prepar Batcl BLAN Spike Added [B] 0.1000 0.1000 0.1000	ed: 01/06/20; h #: 1 K /BLANK \$ Blank Spike Result [C] 0.0941 0.0893 0.0869	10 SPIKE / I Blank Spike %R [D] 94 89 87	0.1 3LANK S Spike Added [E] 0.1 0.1 0.1	Blank Spike Duplicate Result [F] 0.0932 0.0912 0.0892	Date A JICATE Blk. Spk Dup. %R [G] 93 91 89	nalyzed: (Matrix: S RECOVI % 1 2 3	01/07/2010 Solid Control Limits %R 70-130 70-130 71-129	Y Control Limits %RPD 35 35 35	Flag
Analyst: ASA Lab Batch ID: 788765 Sample: 547268 Units: mg/kg BTEX by EPA 8021B Analytes Benzene Toluene Ethylbenzene m,p-Xylenes	-1-BKS Blank Sample Result [A] ND ND ND ND ND ND ND	0.1000 ate Prepar Batcl BLAN Spike Added [B] 0.1000 0.1000 0.1000 0.2000	ed: 01/06/20. h #: 1 K /BLANK \$ Blank Spike Result [C] 0.0941 0.0893 0.0869 0.1780	10 SPIKE / I Blank Spike %R [D] 94 89 87 89	0.1 3LANK S Spike Added [E] 0.1 0.1 0.1 0.2	0.1108 SPIKE DUPI Blank Spike Duplicate Result [F] 0.0932 0.0912 0.0892 0.1829	Date A JCATE Blk. Spk Dup. %R [G] 93 91 89 91	2 malyzed: (Matrix: 5 RECOVI % 1 2 3 3	70-130 70-130 70-130 71-129 70-135	SS Control Limits %RPD 35 35 35 35 35	Flag

Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Littlefield "BO" Fed # 2

Work Order #: 357602 Analyst: ASA	D	ate Prepai	red: 01/07/201	10			Pro Date A	ject ID: (nalyzed: (GP II Energ)1/08/2010	y	
Lab Batch ID: 788827 Sample: 547316-1	BKS	Batc	h #: 1					Matrix: S	Solid		
Units: mg/kg		BLAN	K /BLANK S	SPIKE / I	BLANK S	SPIKE DUP	LICATE	RECOVI	ERY STUD	γ	
BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate Bccult (El	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[D]		ען	լեյ	Kesult [F]					
Benzene	ND	0.1000	0.0939	94	0.1	0.0928	93	1	70-130	35	
Toluene	ND	0.1000	0.0951	95	0.1	0.0944	94	1	70-130	35	
Ethylbenzene	ND	0.1000	0.0939	94	0.1	0.0938	94	0	71-129	35	
m,p-Xylenes	ND	0.2000	0.1910	96	0.2	0.1913	96	0	70-135	35	
o-Xylene	ND	0.1000	0.1006	101	0.1	0.1011	101	0	71-133	35	
Analyst: BEV	D;	ate Prepar	ed: 01/07/201	0			Date A	nalyzed: (01/08/2010		
Lab Batch ID: 788825 Sample: 547315-1	BKS	Bate	h #: 1					Matrix: S	Solid		
Units: mg/kg		BLAN	K /BLANK S	SPIKE / E	BLANK S	PIKE DUPI	LICATE	RECOVI	ERY STUD	γY	
TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	998	915	92	1000	849	85	7	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	998	945	95	1000	783	78	19	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes





Project Name: Littlefield "BO" Fed # 2

Work Order #: 357602 Analyst: BEV Lab Batch ID: 788838	Sample: 547321-1-B	Da	ite Preparo Batch	ed: 01/07/20	10			Pro Date A	ject ID: (nalyzed: (Matrix: S	GP II Energ 01/09/2010 Solid	y	
Units: mg/kg			BLAN	K/BLANK	SPIKE / F	BLANK S	PIKE DUPI	LICATE	RECOVI	ERY STUD	ŊΥ	
TPH By SW80	15 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes												
C6-C12 Gasoline Range Hydroca	arbons	ND	995	890	89	999	877	88	1	70-135	35	
C12-C28 Diesel Range Hydrocar	bons	ND	995	846	85	999	844	84	0	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes 1948. ~ 6¹ : 378 : 49807 19***2**8666





2

Project Name: Littlefield "BO" Fed # 2

Work Order #: 357602 Lab Batch #: 788427 Date Analyzed: 01/07/2010 QC- Sample ID: 357602-001 S	Date Prepared: 01 Batch #:	/07/2010 1	Pro A	oject ID Analyst: L Matrix: S	: GP II Ener ATCOR Soil	gy
Reporting Units: mg/kg	MA	FRIX / MA	TRIX SPIKE	RECO	VERY STU	DY
Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	548	748	1300	101	75-125	
Lab Batch #: 788428 Date Analyzed: 01/07/2010	Date Prepared: 01	/07/2010	A	Analyst: L	LATCOR	
QC- Sample ID: 357602-021 S	Batch #:	1	I	Matrix: S	Soil	
Reporting Units: mg/kg	MA	TRIX / MA	TRIX SPIKE	RECO	VERY STU	DY
Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	164	160	323	99	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/BRelative Percent Difference [E] = 200*(C-A)/(C+B)All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Project Name: Littlefield "BO" Fed # 2



Work Order #: 357602						Project II	D: GP II I	Energy			
Lab Batch ID: 788467 (Date Analyzed: 01/07/2010	C- Sample ID: Date Prepared:	357602 01/06/2	-015 S 010	Ba An	tch #: alyst:	1 Matrix ASA	x: Soil				
Reporting Units: mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1067	0.0936	88	0.1067	0.0905	85	3	70-130	35	
Toluenc	ND	0.1067	0.0942	88	0.1067	0.0914	86	3	70-130	35	
Ethylbenzene	ND	0.1067	0.0907	85	0.1067	0.0883	83	3	71-129	35	
m,p-Xylenes	ND	0.2135	0.1857	87	0.2135	0.1813	85	2	70-135	35	
o-Xylene	ND	0.1067	0.0965	90	0.1067	0.0935	88	3	71-133	35	
Lab Batch ID: 788765 () Date Analyzed: 01/07/2010 ()	C- Sample ID: Date Prepared:	357602 01/06/2	-021 S 010	Ba An	tch #: alyst:	1 Matrix ASA	x: Soil				
Reporting Units: mg/kg		M	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY :	STUDY		1
BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1064	0.0928	87	0.1064	0.0889	84	4	70-130	35	
Toluene	ND	0.1064	0.0952	89	0,1064	0.0902	85	5	70-130	35	
Ethylbenzene	ND	0.1064	0.0917	86	0.1064	0.0866	81	6	71-129	35	
m,p-Xylenes	ND	0.2127	0.1889	89	0.2127	0.1781	84	6	70-135	35	
o-Xylene	ND	0.1064	0.0965	91	0.1064	0.0910	86	6	71-133	35	

Matrix Spike Percent Recovery $[D] = 100^{+}(C-A)/B$ Relative Percent Difference RPD = $200^{+}[(C-F)/(C+F)]$ Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit



Form 3 - MS / MSD Recoveries

Project Name: Littlefield "BO" Fed # 2



Work Order #: 357602						Project I	D: GP II I	Energy			
Lab Batch ID: 788785 Q Date Analyzed: 01/08/2010 1	C- Sample ID: Date Prepared:	357700 01/07/2	-001 S 010	Ba An	tch #: alyst:	1 Matri ASA	x: Soil				
Reporting Units: mg/kg		M	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1045	0.0749	72	0.1045	0.0699	67	7	70-130	35	х
Toluene	ND	0.1045	0.0750	72	0.1045	0.0719	69	4	70-130	35	X
Ethylbenzene	ND	0.1045	0,0731	70	0.1045	0.0727	70	1	71-129	35	Х
m,p-Xylenes	ND	0.2090	0.1497	72	0.2090	0.1499	72	0	70-135	35	
o-Xylene	ND	0.1045	0.0775	74	0.1045	0.0767	73	1	71-133	35	
Lab Batch ID: 788827 Q Date Analyzed: 01/09/2010 1	C- Sample ID: Date Prepared:	357767 01/07/2	-004 S 010	Ba An	tch #: alyst:	1 Matri ASA	x: Soil				
Reporting Units: mg/kg		M	ATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY	·····	
BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1237	0.0161	13	0.1232	0.0181	15	12	70-130	35	Х
Toluene	ND	0.1237	0.0104	8	0.1232	0.0131	11	23	70-130	35	Х
Ethylbenzene	ND	0.1237	0.0139	11	0.1232	0.0160	13	14	71-129	35	X
m,p-Xylencs	ND	0.2474	0.0284	11	0.2464	0.0313	13	10	70-135	35	X
o-Xylene	ND	0.1237	0.0162	13	0.1232	0.0183	15	12	71-133	35	Х

Matnx Spike Percent Recovery [D] = 100*(C-A)/BRelative Percent Difference RPD = 200*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit



Project Name: Littlefield "BO" Fed # 2



Work Order #: 357602						Project II	D: GP II E	Energy			
Lab Batch ID: 788825 Date Analyzed: 01/08/2010	QC- Sample ID: Date Prepared:	357602 01/07/2	-006 S 010	Ba An	tch #: alyst:	1 Matri BEV	x: Soil				
Reporting Units: mg/kg		N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
TPH By SW8015 Mod	Parent Sample Besult	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[A]	Added [B]		%R [D]	Addea [E]	Result [F]	%R [G]	%	%K	%RPD	
C6-C12 Gasoline Range Hydrocarbons	81.0	1110	973	80	1120	977	80	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	149	1110	901	68	1120	919	69	2	70-135	35	Х
Lab Batch ID: 788838	QC- Sample ID:	357602	-021 S	Ba	tch #:	1 Matri	k: Soil				
Date Analyzed: 01/10/2010	Date Prepared:	01/07/2	010	An	alyst:	BEV					
Reporting Units: mg/kg		Μ	ATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY S	STUDY]
TPH By SW8015 Mod	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]		[G]				
C6-C12 Gasoline Range Hydrocarbons	ND	1060	931	88	1060	921	87	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1060	872	82	1060	861	81	1	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit





Project Name: Littlefield "BO" Fed # 2

Work Order #: 357602						
Lab Batch #: 788427				Project I	D: GP II End	ergy
Date Analyzed: 01/07/2010	Date Prepare	ed:01/07/2010	Ana	yst:LATC	OR	
QC- Sample ID: 357602-001 D	Batch	#: 1	Mat	rix: Soil		
Reporting Units: mg/kg		SAMPLE	SAMPLE	DUPLIC	ATE RECO	OVERY
Anions by E300 Analyte		Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chlonde		548	547	0	20	
Lab Batch #: 788428 Date Analyzed: 01/07/2010 QC- Sample ID: 357602-021 D	Date Prepare Batch	ed:01/07/2010) Ana Mat	lyst:LATC rix: Soil	OR	
Reporting Units: mg/kg		SAMPLE	SAMPLE	DUPLIC	ATE RECO	OVERY
Anions by E300		Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte			[B]			
Chloride		164	160	2	20	
Lab Batch #: 788416						
Date Analyzed: 01/06/2010	Date Prepare	ed:01/06/2010) Ana	lyst:MOV		
QC- Sample ID: 357602-001 D	Batch	#: 1	Mat	rix: Soil		
Reporting Units: %		SAMPLE	SAMPLE	DUPLIC.	ATE REC	OVERY
Percent Moisture Analyte		Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture		19.8	20.7	5	20	
Lab Batch #: 788419 Date Analyzed: 01/06/2010 QC- Sample ID: 357602-021 D	Date Prepar Batch	ed:01/06/2010) Ana Mat	lyst:MOV rix: Soil		
Reporting Units: %		SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture Analyte		Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture		5.99	5.83	3	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

Env	vironment	al Lat	b of Te	exa	S								СН	Air	10	F Cl	US1	ODY	REC	OR	DA	ND /	ANA	127	sis	RE	QUE	ST				
A Xenco	Laboratories Compa	ny								12 Oc	2600 dess	We: a, T	st I-2 exa:	20 E 5 79	ast 765									Pho Fax	ne: c	432 432	-563 -563	- 1800 -1713	1 6			
	Project Manager:	Curt Stanley	\sim	Page	1 of 3	\geq												P	roje	ct Na	ime:	Litt	iefie	ld "I	<u>BO</u> "	' Fe	<u>d #2</u>					
	Company Name	GP II Energ	у			<u></u>	<u> </u>												F	roje	ct #:	GP	II E	iner	<u>ay</u>					1		
	Company Address:	P.O. Box 50	682																Pro	ject	Loc:	Edd	ly Co	unty	, Ne	w M	exico					
	City/State/Zip:	Midland, Te	xas 79710		-		· · · · · · · · · · · · · · · · · · ·													Ρ	0 # :					-						
	Telephone No:	575-441-224	44				Fax No	;	57	<u>5-3</u> 9	96-14	29				-		Repo	ort Fe	orma	nt:	X] Sta	Indar	rd		Пт	RRP		 [] N	PDE	S
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LAB \$ (lab use only)	FIEI		I	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Fittered	Total #. of Containers	5	Pres.	ervati D	H ₂ 80,	HOW	Souta Souta	euoy	Other (Specify)	We country water SI = Suige W = Groundwater S= Soil/Soild	TPH: 418.1 BOISM) BOISB	TPH- TX 1005 TX 1005	Cations (Ce, Mg, Na, K)	Arrions (Cl. SO4, Alkalinthy)	SAR / ESP / CEC	Metals: As Ag Be Cd Cr Pb Hg Se	Volatites	Sernivolatijas	BTEX(80218/500) or BTEX 8280 arti	N.O.R.M.	Chloridas EPA 300	ЮЮ	RUSH TAT (Pre-Scheduls) 24, 48,	standard TAT
01		SP-1				1/5/2010	1 02 0		1	x							Τ	Soil	X								x		x		П	x
02		SP-2				1/5/2010	1035		1	x								Soil	X								x		X			x
03		SP-3				1/5/2010	1050		1	x				\square				Soil	X								x		x			x
DU		SP-4		 		1/5/2010	1105		1	x			_					Soil	X			-					x		X			x
3	·····	SP-5	· · · · · · · · · · · · · · · · · · ·	<u> </u>		1/5/2010	1120	<u> </u>	1	X			4	_	_			Soil	<u> </u>								<u>x</u>	\square	x		\Box	X
00		SP-5A	······	 		1/5/2010	1130		1	X				4	\downarrow	_	⊥	Soil	X							;	×L		x			x
<u>o</u> l		SP-6				1/5/2010	1145	_	1	X			_	+	_	+	4	Soil	×					_	_	_‡'	×Ļ_	╆╌┥	x	\perp	L	×
20	<u>§</u>	SP-6A				1/5/2010	1155		1	X			+		+	+	+	Soil	<u> x</u>					-	_		×–	╄╌┥	×			×
		<u>SP-7</u>				1/5/2010	1205		1	X		\neg	+	+			╇	Soil	ľ			-		╾┼	+	$-\frac{1}{2}$	<u>×</u> -	╄╋	<u>×</u>	+	┢┤	×
Special II	nstructions:	<u>5P-8</u>		I		1/5/2010	1220		1	X			Ŀ			_1_		Soil	X	4	Lab						<u>×I</u>		X			칙
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Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

A Xenco	Laboratories Company								12 Oc	2600 dess	We ia, 1	st i- exa	20 E s 79	East 9765	t 5									Pho Fax	10: 4 ; 4	132-4 132-4	563-1 563-1	1800 713	ł				
	Project Manager: Curt St	tanley (Page	2 of 3													_	Pro	ojec	t Na	me:	Litt	lefie	ld "B	0"	Fed	#2						
	Company Name GP II E	Energy															_		Pi	ojec	:t#:_	GP	II E	nerg	<u>у</u>	<u></u>							
	Company Address: P.O. B	ox 50682	· · · · · · · · · · · · · · · · · · ·														_	F	утој	ect L	.oc;	Edd	ly Co	unty,	Nev	v Mez	xico						_
	City/State/Zip: Midlan	d, Texas 79710								-							-			PC	D∦t.												
	Telephone No: 575-44	1-2244				Fax No:	:	57	5-38	96-14	129						R	epor	l Fo	rmat	t:	X	Sta	ndare	1	[at [RP			NPD	ES	
	Sampler Signature:	A)	4-			e-mail:	:	<u>cc</u>	ista	anie	ey@	<u>)</u> ba	<u>isin</u>	-00	ons	<u>sult</u>	ing.c	<u>com</u>															
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URDER			T	T	1			<u> </u>	┢╴	Pres	ervat	on a	# of (Conta		<u></u>	Ma	ITIX	015B					8 0 0		8	3				1	<i>:</i> -	٦
AB # (lab use only)	FIELD COD	E	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Teld Filtered	otal #. of Containers	8	HNOS	Ę	H ₂ 804	NaCH	Na ₂ S ₂ O3	Nome	Other (Specify)	DW=Drinking Water & Sudge	ure - Goundwater Geodity Other NP=Non-Potable Specify Other	TPH: 418.1 (8015M) 8	TPH: TX 1006 TX 100	Cations (Ca, Mg. Na, K)	Antorra (Ci, SO4, Aikalinhy)	BAR / ESP / CEC	Metais: As Ag Ba Cd Cr Pb H	Volatiles	BIEX 8021 PUSCON OF BIEX 8	RCI	NORM	Chiboldas EPA 300	V	HOLD DIRUTATION SALAND	kondard TAT	
11	SP-8A				1/5/2010	1225		1	x								S	oil	x				Ē		+	Ť,			x	+		1,	4
17	SP-9				1/5/2010	1235		1	X								S	oil	X						T	X	:		x	T	Т	1	đ
13	SP-10				1/5/2010	1250		1	x								s	oil	X							X	(X			X]
14	SP-10A		ļ		1/5/2010	1255		1	X								S	lio	X							X			X			X	5
15	SP-11	·····	ļ	ļ	1/5/2010	1305		1	X								S	oil	X							X			X			X	
10	SP-12		ļ	L	1/5/2010	1320		1	X					_			S	oil	X							x			X			×	<u>:</u>
17	SP-12A		<u> </u>		1/5/2010	1330		1	X	ļ				_			S	oit	X							X			X	\bot	⊥	⊥×	
(9)	SP-13				1/5/2010	1345		1	X				_	$ \dashv$	_	_	S	oil	X		_				\downarrow	X	<u>.</u>		×		\perp	⊥×	
-19	SP-14				1/5/2010	1400		1	X				-				S	lic	X		-			\perp	-	X			×	\perp	╇	<u> </u>	
NO Samulal II	SP-15		<u> </u>		1/5/2010	1415		1	X								Sc	bil	X							<u> </u>			<u>×</u>			X	
Rolinquist	BILL T		Y The		Received by:											Da	te	<u> </u>	Time		VOC Cust	s Fr	cont cont ee of t cont seal	Hee Hee	dspa Mai	C6?				0 0 0 0	N		
Relinquish	ad by:	11610 Date	UN. Ti	∑ ∰	Received by:					_		<u></u>				Da	te		Time		Sam t	ple I y Sa	land	Delin /Clier	/erec nt Rej	1 p. ?	рия Геля - Они	,6,5 €b 19.3€#		5	N N N	Krj≂. Har	
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Environment	al Lab of Texas	CHAIN OF CUS	STODY RECORD AND ANALYSIS REQU	EST
A Xenco Laboratories Compa	אי	12600 West I-20 East Odessa, Texas 79765	Phone: 432-56 Fax: 432-56	3-1800 3-1713
Project Manager:	Curt Stanley Page 3 of 3		_ Project Name: Littlefield "BO" Fed #	2
Company Name	GP II Energy	AL	Project #: GP II Energy	
Company Address:	P.O. Box 50682		Project Loc: Eddy County, New Mexic	20
City/State/Zip:	Midland, Texas 79710		PO #;	
Telephone No:	575-441-2244	Fax No: 575-396-1429	_ Report Format: 🕅 Standard 🗌	TRRP

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(lab use only)					•														<u> </u>	TOL	P:	+-						
ORDER #:	357606									Prese	rvation	184	of Cont	tainer	rs i	Matrix		TT	Т	Ť	<u>~</u>	. [
LAB # (lab use only)	FIELD CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Fittered	Total #. of Containers	<u>8</u>	HNO3	HC	H ₂ SO ₄	Ne ₂ 8 ₂ 0 ₃	None	Other (Specify)	Dw≐Drinking Water SL=Sludge GW ≏ Groundwater S=SoutSolid	TPH: 418.1 B015M B015	TPH: TX 1005 TX 1006	Caltions (Ca, Mg, Na, K)	Amons (CI, SO4, Alkalinity) BAB (Ecol / CC)	ann / Egr / CEC Metair: As An Re Cr Cr Ph Ho S	Volatilas	Semivolatites	BT X 80218 4030 or BTEX 8260	N.O.R.M.	Chlorido EPA 300)	HOLD
11	SP-16				1/5/2010	1430		1	x							Soil	X							x		x		
11	SP-17				1/5/2010	1445		1	x							Soil	X	Ι	Τ		Τ			x		X		
13	SP-18				1/5/2010	1500		1	x							Soit	X							x		x		
14	SP-19				1/5/2010	1515		1	x							Soil	X							x		X		
15	SP-19A	<u></u>			1/5/2010	1525		1	X							Soil	X							x		X		
19	SP-20				1/5/2010	1550		1	X	$- \downarrow$				ļ		Soil	X		_					x		X		
VI	<u>SP-21</u>				1/5/2010	1615		1	X	_		_				Soil	X				\perp	\bot		x		X	_	
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Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In

Client	GP 11 Energy
Date/ Time:	1.6.10 4:53
Lab ID # :	357402
Initials:	AL

Sample Receipt Checklist

	-		<u>Client</u> I	nitials
1 Temperature of container/ cooler?	(Yes)	No	3.6 °C	
2 Shipping container in good condition?	(Yes	No		
K3 Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
4 Custody Seals intact on sample bottles/ container?	Tes	No	Not Present	
#5 Chain of Custody present?	(Yes)	No		
#6 Sample instructions complete of Chain of Custody?	Yes	No		
#7 Chain of Custody signed when relinquished/ received?	Yes	No		
#8 Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9 Container label(s) legible and intact?	Cyes	No	Not Applicable	
#10 Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11 Containers supplied by ELOT?	Yes	No		
#12 Samples in proper container/ bottle?	Yes	No	See Below	
#13 Samples property preserved?	Yes	No	See Below	
#14 Sample bottles intact?		No		1
#15 Preservations documented on Chain of Custody?	Yes	No	· · ·	
#16 Containers documented on Chain of Custody?	Yes?	No		
#17 Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18 All samples received within sufficient hold time?	Yes	No	See Below	
#19 Subcontract of sample(s)?	Yes	No	Not Applicable	
#20 VOC samples have zero headspace?	Yes	No	Not Applicable	
Variance Docu Contact: Regarding:	mentation		Date/ Time:	
Corrective Action Taken:				

Final Ver. 1.000

Analytical Report 365995

for

GP II Energy

Project Manager: Joe Compton

Littlefield BO Fed #2

GP II Energy

22-MAR-10





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295)



22-MAR-10



Project Manager: Joe Compton GP II Energy P.O. Box 50682 Midland, TX 79710

Reference: XENCO Report No: **365995** Littlefield BO Fed # 2 Project Address: Eddy County, New Mexico

Joe Compton:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 365995. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 365995 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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nelad

Sample Cross Reference 365995

GP II Energy, Midland, TX

Littlefield BO Fed # 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Stockpile # 1	S	Mar-17-10 14:05		365995-001



Client Name: GP II Energy Project Name: Littlefield BO Fed # 2



Project ID: GP II Energy Work Order Number: 365995 Report Date: 22-MAR-10 Date Received: 03/18/2010

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-798946 Percent Moisture None

Batch: LBA-799186 Inorganic Anions by EPA 300 None

Batch: LBA-799197 TPH By SW8015 Mod None



GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2



Date Received in Lab: Thu Mar-18-10 08:37 am

Project Id:GP II EnergyContact:Joe ComptonProject Location:Eddy County, New Mexico

Report Date: 22-MAR-10 Project Manager: Brent Barron, II

	Lab Id:	365995-001			
Analusia Descreted	Field Id:	Stockpile # 1			
Analysis Kequestea	Depth:				
	Matrix:	SOIL			
	Sampled:	Mar-17-10 14:0	5		
Anions by E300	Extracted:				
	Analyzed:	Mar-21-10 18:4	0		
	Units/RL:	mg/kg	RL		
Chlonde		61.2 9	.15		
Percent Moisture	Extracted:				
	Analyzed:	Mar-18-10 17.0	0		
	Units/RL:	%	RL		
Percent Moisture		8.16 1	.00		
TPH By SW8015 Mod	Extracted:	Mar-18-10 14:3	0		
	Analyzed:	Mar-20-10 12:4	2		
	Units/RL:	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		ND I	6.3		
C12-C28 Diesel Range Hydrocarbons		129 1	6.3		
C28-C35 Oil Range Hydrocarbons		ND 1	6.3		
Total TPH		129 1	6.3		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our lability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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Brent Barron, II

Odessa Laboratory Manager





- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- **BRL** Below Reporting Limit.
- **RL** Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation.

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	Phone	Fax
4143 Greenbriar Dr. Stafford, Tx 77477	(281) 240-4200	(281) 240-4280
9701 Harry Hines Blvd, Dallas, TX 75220	(214) 902 0300	(214) 351-9139
5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St. Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East. Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Project Name: Littlefield BO Fed # 2

Work Orders : 365995 Lab Batch #: 799197	, Sample: 558678-1-BKS / B	KS Batcl	Project IE h: 1 Matrix:	GP II Ener Solid	gy					
Units: mg/kg	Date Analyzed: 03/19/10 20:41	SU	RROGATE RE	COVERY	STUDY					
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1-Chlorooctane	U	114	114 100 114 70-1							
o-Terphenyl		45.1 50.0 90 70-135								
Lab Batch #: 799197	Sample: 558678-1-BSD / B	SD Batel	h: 1 Matrix:	Solid						
Units: mg/kg	Date Analyzed: 03/19/10 21:08	SU	RROGATE RE	COVERY	STUDY					
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1-Chlorooctane	Anaryus	113	99.8	113	70-135					
o-Terphenyl		44.5	49.9	89	70-135					
Lah Batch #• 799197	Sample: 558678-1-BLK / B	LK Batel	h• 1 Matrix	Solid	I					
Units: mg/kg	Date Analyzed: 03/19/10 21:35	SU	RROGATE RE	COVERY	STUDY					
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1-Chlorooctanc		97.1	100	97	70-135					
o-Terphenyl		48.9	50.2	97	70-135					
Lab Batch #: 799197	Sample: 365995-001 / SMP	Batcl	h: 1 Matrix:	Soil	•					
Units: mg/kg	Date Analyzed: 03/20/10 12:42	SU	RROGATE RE	COVERY	STUDY					
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
	Analytes			[D]						
1-Chlorooctane		94.0	99.5	94	70-135					
o-Terphenyl		47.7	49.8	96	70-135					
Lab Batch #: 799197	Sample: 365996-038 S / M	S Bate	h: ¹ Matrix	Soil						
Units: mg/kg	Date Analyzed: 03/20/10 13:36	SU	RROGATE RI	ECOVERY	STUDY					
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1-Chlorooctane		113	99.8	113	70-135					
o-Terphenyl		45.0	49.9	90	70-135					

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders : 365995	,		Project I	D: GP II Ener	rgy	
Lab Batch #: 799197	Sample: 365996-038 SD / N	MSD Bate	h: 1 Matrix	c: Soil		
Units: mg/kg	Date Analyzed: 03/20/10 14:02	SU	RROGATE R	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
	Analytes			121		
1-Chlorooctanc		113	100	113	70-135	
o-Terphenyl		45.3	50.0	91	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution





Project Name: Littlefield BO Fed # 2

Work Order #: 365995		Project ID:									
Lab Batch #: 799186	Sample: 799186	Sample: 799186-1-BKS Matrix: Solid									
Date Analyzed: 03/21/2010	Date Prepared: 03/21/2	Date Prepared:03/21/2010Analyst:LATCOR									
Reporting Units: mg/kg	Batch #: 1 BLANK /BLANK SPIKE RECOVER										
Anions by E300	Blank Result	Spike Added	Blank Spike	Blank Spike	Control Limits	Flags					
Analytes	[A]	[B]	Result [C]	%R [D]	%R						
Chloride	ND	11.0	11.7	106	75-125						

Blank Spike Recovery [D] = 100*[C]/[B] All results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit





Project Name: Littlefield BO Fed # 2

Work Order #: 365995 Analyst: BEV Lab Batch ID: 799197 Sample	D: 2558678-1-BKS	Date Prepared: 03/18/2010 Project ID: GP II Energy Batch #: 1 Matrix: Solid										
Units: mg/kg		BLAN	K/BLANK	SPIKE / I	BLANK S	PIKE DUPI	LICATE	RECOVI	ERY STUD	Y		
TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added (B)	Blank Spike Result [C]	Blank Spike %R (D)	Spike Added	Blank Spike Duplicate Result (F)	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag	
Analytes		(10)			[16]	Kesuk [F]						
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1120	112	998	1130	113	1	70-135	35		
C12-C28 Diesel Range Hydrocarbons	ND	1000	828	83	998	901	90	8	70-135	35		

Relative Percent Difference RPD = 200*[(C-F)/(C+F)] Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes

3



Form 3 - MS Recoveries



Project Name: Littlefield BO Fed # 2

Lab Batch #: 799186	D (D) (01/00	Pr	oject ID	GP II Energ	gy			
Date Analyzed: 03/21/2010 QC- Sample ID: 365706-001 S	Date Prepared: 03/21/2010Analyst: LATCORBatch #:1Matrix: Sludge							
Reporting Units: mg/kg	MATRIX / MATRIX SPIKE RECOVERY STUDY							
Inorganic Anions by EPA 300	Parent Sample S Result A	spiked Sample Spike Result dded [C]	%R [D]	Control Limits %R	Flag			
Analytes	[A]	[B]						
Chloride	3540 1	4860	110	75-125				

Matrix Spike Percent Recovery [D] = 100*(C-A)/BRelative Percent Difference [E] = 200*(C-A)/(C+B)All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Project Name: Littlefield BO Fed # 2



Work Order #: 365995						Project II	D: GP II E	inergy			
Lab Batch ID: 799197 (Date Analyzed: 03/20/2010 Reporting Units: mg/kg	QC- Sample ID: 365996-038 S Batch #: 1 Matrix: Soil Date Prepared: 03/18/2010 Analyst: BEV										
		IV.	IATRIA SPIK		KLA SEI	KE DUFLICA	IE KEU	OVERI ;			
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1080	1140	106	1080	1120	104	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	18.4	1080	851	77	1080	1090	99	25	70-135	35	

 $\label{eq:matrix spike Percent Recovery [D] = 100*(C-A)/B} Relative Percent Difference RPD = 200*|(C-F)/(C+F)|$

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrahve, EQL = Estimated Quantitation Limit 1





Project Name: Littlefield BO Fed # 2

Work Order #: 365995

Lab Batch #: 799186			Project I	D: GP II En	ergy				
Date Analyzed: 03/21/2010 Dat	e Prepared: 03/21/2010) Anal	lyst:LATC	COR					
QC- Sample ID: 365706-001 D	Batch #: 1	Mat	rix: Sludg	e					
Reporting Units: mg/kg	SAMPLE / SAMPLE DUPLICATE RECOVER								
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag				
Analyte		[B]							
Chloride	3540	3530	0	20					
Lab Batch #: 798946		<u> </u>							
Date Analyzed: 03/18/2010 Dat	e Prepared: 03/18/2010) Ana	lyst:JLG						
QC- Sample ID: 365984-001 D	Batch #: 1	Mat	rix: Soil						
Reporting Units: %	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY				
Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag				
Percent Moisture	3.45	3.32	4	20					

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

A Xenco	o Laboratories Compar	ny								12 Od	600 less	Wes a, To	st I-2 exas	0 E4 797	ist '65									Pho Fax	ne: (;	432 432	- 56 : -56:	1-180 1-171	10 3				
	Project Manager:	Curt Stanley		Page	1 of 1	$\mathbf{)}$					_			-				Pr	ojec	x Na	ime;	Litt	lefie	ЫB	OF	ed i	#2						
	Company Name	GPII Energy	(Attention)	De Com	pton)	/											_		P	roje	ct #:	GP	II E	nerç	TY .							,	
	Company Address:	PO Box 508	182														_	ł	Proj	ect	Loc:	Edd	y Co	unty	Ne	n M	exica	2					
	City/State/Zip:	Midland, TX	79701														_			P	O#:											_	
	Telephone No:	575-441-224	<u>#</u>	>_			Fax No:		57	5-39	6-14	29					_ 1	Repor	rt Fo	¥ma	rt:	X] Sta	ndar	d		01	IRRF	>		NP	DES	5
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LAB # (lab use only)	FIEL	D CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Held Filtered	Total #. of Containers 402 S	lea	HNO3	Ę	H ₂ SO4	NaOH	None	Other (Specify)	DM≔Drinking Weter SL≄Studge	GW = Groundwatter S=Soil/Sotid NP=Non-Polatible Specify Other	TPH: 418.1 8015M 801	TPH: TX 1005 TX 1008	Cations (Ca, Mg, Na, K)	Artions (Cl. SO4, Alkalinthy)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg S	Volatiles	Serivolettes	BTEX 80218/5030 or BTEX 826	NOR M	Chloridas EPA 300		НОГД	RUSH TAT (Pre-Schedule) 24, 4	standard TAT
01	Stoc	kpile #1				3/17/2010	1405		1	x							5	Soil	x	<u> </u>		<u> </u>	Ť	_			+		x		Ē		S X
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Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client:	GP I Energy
Date/ Time:	03-18-10 C 0837
Lab ID # :	365995
Initials:	JMF

Sample Receipt Checklist

¥1	Temperature of container/ cooler?	(es)	No	3.6 °C	
¥2.	Shipping container in good condition?	(es)	No		
13	Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4	Custody Seals intact on sample bottles/ container? / alad	(Yes)	No	Not Present	
5	Chain of Custody present?	Yes	No		
6	Sample instructions complete of Chain of Custody?	Yes	No		·
ŧ7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
-8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
49	Container label(s) legible and intact?	Yes	No	Not Applicable	
10	Sample matrix/ properties agree with Chain of Custody?	res	No		
‡11	Containers supplied by ELOT?	TES	No		
¥12	Samples in proper container/ bottle?	(Yes)	No	See Below	
ŧ13	Samples properly preserved?	(es)	No	See Below	
ŧ14	Sample bottles intact?	Yes	No		<u> </u>
¥15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
‡17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	·
‡18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
¥20	VOC samples have zero headspace?	(Tes>	No	Not Applicable	
	Variance Docum	entation			
Con	tact Contacted by:			Date/ Time:	
Rea	arding.				
y					

Check all that Apply:

1

See attached e-mail/ fax

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

Analytical Report 365996

for

GP II Energy

Project Manager: Joe Compton

Littlefield BO Fed #2

GP II Energy

29-MAR-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295)



29-MAR-10

Project Manager: Joe Compton GP II Energy P.O. Box 50682 Midland, TX 79710

Reference: XENCO Report No: **365996** Littlefield BO Fed # 2 Project Address: Eddy County, New Mexico

Joe Compton:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 365996. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

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We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

TATA

Brent Barron, II Odessa Laboratory Manager

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Sample Cross Reference 365996

GP II Energy, Midland, TX Littlefield BO Fed # 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Road F-1	S	Mar-17-10 08:00	3 ft	365996-001
Road SSW-1	S	Mar-17-10 08:20	2 ft	365996-002
Road F-2	S	Mar-17-10 08:40	3 ft	365996-003
Road NSW-2	S	Mar-17-10 09:00	2.5 ft	365996-004
Road F-3	S	Mar-17-10 09:20	2 ft	365996-005
Road SSW-3	S	Mar-17-10 09:40	1.5 ft	365996-006
Road F-4	S	Mar-17-10 10:00	2.5 ft	365996-007
Road NSW-4	S	Mar-17-10 10:20	2 ft	365996-008
Road F-5	S	Mar-17-10 10:40	7 ft	365996-009
Road SSW-5	S	Mar-17-10 11:00	6 ft	365996-010
Road F-6	S	Mar-17-10 11:20	7 ft	365996-011
Road NSW-6	S	Mar-17-10 11:40	6 ft	365996-012
ROW F-1	S	Mar-17-10 14:00	3 ft	365996-013
ROW ESW-1	S	Mar-17-10 14:10	2.5 ft	365996-014
ROW WSW-1	S	Mar-17-10 14:20	2.5 ft	365996-015
ROW F-2	S	Mar-17-10 14:40	7 ft	365996-016
ROW ESW-2	S	Mar-17-10 14:50	6 ft	365996-017
ROW SSW-2	S	Mar-17-10 15:00	6 ft	365996-018
ROW F-3	S	Mar-17-10 15:10	6 ft	365996-019
ROW NSW-3	S	Mar-17-10 15:20	5 ft	365996-020
ROW F-4	S	Mar-17-10 15:30	6 ft	365996-021
ROW SSW-4	S	Mar-17-10 15:40	5 ft	365996-022
ROW F-5	S	Mar-17-10 15:50	3 ft	365996-023
ROW NSW-5	S	Mar-17-10 16:00	2.5 ft	365996-024
ROW F-6	S	Mar-17-10 16:10	2.5 ft	365996-025
ROW SSW-6	S	Mar-17-10 16:20	1.5 ft	365996-026
ROW F-7	S	Mar-17-10 16:30	1 ft	365996-027
ROW NSW-7	S	Mar-17-10 16:40	6 In	365996-028
ROW F-8	S	Mar-17-10 16:50	2.5 ft	365996-029
ROW SSW-8	S	Mar-17-10 17:00	2 ft	365996-030
ROW F-9	S	Mar-17-10 17:10	3 ft	365996-031
ROW NSW-9	S	Mar-17-10 17:20	2.5 ft	365996-032
ROW F-10	S	Mar-17-10 17:30	2.5 ft	365996-033
ROW SSW-10	S	Mar-17-10 17:40	2 ft	365996-034
ROW F-11	S	Mar-17-10 17:50	2.5 ft	365996-035
ROW NSW-11	S	Mar-17-10 18:00	2 ft	365996-036
ROW F-12	S	Mar-17-10 18:10	1 ft	365996-037
ROW SSW-12	S	Mar-17-10 18:20	6 In	365996-038

CASE NARRATIVE



Client Name: GP II Energy Project Name: Littlefield BO Fed # 2

Project ID:GP II EnergyWork Order Number:365996

Report Date: 29-MAR-10 Date Received: 03/18/2010

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-798946 Percent Moisture None

Batch: LBA-798948 Percent Moisture None

Batch: LBA-798959 Percent Moisture None

Batch: LBA-799186 Inorganic Anions by EPA 300 None

Batch: LBA-799193 Anions by E300 None

Batch: LBA-799194 TPH By SW8015 Mod None

Batch: LBA-799197 TPH By SW8015 Mod None

Batch: LBA-799944 BTEX by EPA 8021B SW8021BM

Batch 799944, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Samples affected are: 365996-003, -012, -018, -014, -017, -022, -030, -037, -013, -015, -009, -025, -033, -038, -026, -010, -011, -031. The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is

within laboratory Control Limits



GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2

Project Id: GP II Energy Contact: Joe Compton Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Mar-18-10 08:37 am

Report Date: 29-MAR-10

								Project Ma	nager:	Brent Barron,	11		
	Lab Id:	365996-0)01	365996-0	02	365996-0	003	365996-0)04	365996-0	105	365996-0)06
Augusta Descreted	Field Id:	Road F	-1	Road SSV	<i>N</i> -1	Road F	-2	Road NS	W-2	Road F-	-3	Road SSV	₩- 3
Analysis Kequestea	Depth:	3- ft		2- ft		3- ft		2.5- ft	t	2- ft		1.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	,
	Sampled:	Mar-17-10	08:00	Mar-17-10	08:20	Mar-17-10	08.40	Mar-17-10	09:00	Mar-17-10 (09:20	Mar-17-10	09:40
Anions by E300	Extracted:								-,		<u></u>		
	Analyzed:	Mar-21-10	18:40	Mar-21-10	18:40	Mar-21-10	18:40	Mar-21-10	18:40	Mar-21-10	18:40	Mar-21-10	18:40
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chlonde		485	22.7	651	26.9	191	51,3	2870	46.1	852	26.4	246	26.6
BTEX by EPA 8021B	Extracted:					Mar-25-10	08:00				<u></u>		
	Analyzed:					Mar-25-10	15.52						
	Units/RL:					mg/kg	RL						
Benzene						ND	0.0012		· · · ·			-	
oluene						ND	0.0025						
Ethylbenzene						ND	0.0012				-		
m,p-Xylenes						ND	0.0025						
o-Xylene						ND	0.0012						
Total Xylenes						ND	0.0012						
Total BTEX						ND	0.0012						
Percent Moisture	Extracted:												
	Analyzed:	Mar-18-10	17:00	Mar-18-10	17:00	Mar-18-10	17.00	Mar-18-10	17:00	Mar-18-10 1	17:00	Mar-18-10	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		26.1	1.00	21.8	1.00	18.1	1.00	8.98	1.00	20.5	1.00	21.0	1.00
TPH By SW8015 Mod	Extracted:	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10	14.30	Mar-18-10	14:30	Mar-18-10 1	14:30	Mar-18-10	14:30
	Analyzed:	Mar-18-10	18:36	Mar-18-10	19:02	Mar-19-10	08:08	Mar-19-10	08:36	Mar-19-10 (J9.03	Mar-19-10	10.27
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	20.3	ND	19.2	26.2	18.4	ND	16.4	ND	18.8	ND	18.9
C12-C28 Diesel Range Hydrocarbons		ND	20.3	ND	19.2	118	18.4	ND	16.4	ND	18.8	ND	18.9
C28-C35 Oil Range Hydrocarbons		ND	20.3	ND	19.2	ND	18.4	ND	16.4	ND	18.8	ND	18.9
Total TPH		ND	20.3	ND	19.2	144	18.4	ND	16.4	ND	18.8	ND	18.9

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Brent Barron, II

Odessa Laboratory Manager



GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2

Project Id: GP II Energy Contact: Joe Compton Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Mar-18-10 08:37 am

Report Date: 29-MAR-10

								Project Ma	nager:	Brent Barron	, II		
	Lab Id:	365996-0	07	365996-0	008	365996-	009	365996-0	010	365996-	011	365996-	012
Analysis Paguastad	Field Id:	Road F-	4	Road NSV	<i>N</i> -4	Road F	-5	Road SSV	W-5	Road F	-6	Road NS	W-6
Analysis Kequesiea	Depth:	2.5- ft		2- ft		7- ft		6- ft		7- ft		6- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL	_	SOIL	-
	Sampled:	Mar-17-10	10:00	Mar-17-10	10:20	Mar-17-10	10:40	Mar-17-10	11:00	Mar-17-10	11:20	Mar-17-10	11:40
Anions by E300	Extracted:					anny e e							
	Analyzed:	Mar-21-10	18:40	Mar-21-10	18:40	Mar-21-10	18:40	Mar-21-10	18:40	Mar-21-10	18:40	Mar-21-10	18.40
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		480	26.5	202	21.0	1630	23.3	2000	47.1	1230	47.2	1720	48.1
BTEX by EPA 8021B	Extracted:					Mar-25-10	Mar-25-10 08.00		08.00	Mar-25-10	08:00	Mar-25-10 08:	
	Analyzed:					Mar-25-10	16.13	Mar-25-10	16.34	Mar-25-10	16.55	Mar-25-10	17:16
	Units/RL:					mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene						ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0012
Toluene						ND	0.0022	ND	0.0022	ND	0.0022	ND	0.0023
Ethylbenzene						ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0012
m,p-Xylenes						ND	0.0022	ND	0.0022	ND	0.0022	ND	0 0023
o-Xylene						ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0012
Total Xylenes						ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0012
Total BTEX						ND	0.0011	ND	0.0011	ND	0.0011	ND	0 0012
Percent Moisture	Extracted:												
	Analyzed:	Mar-18-10	17:00	Mar-18-10	17.00	Mar-18-10	17:00	Mar-18-10	17.00	Mar-18-10	17.00	Mar-18-10	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		20.8	1.00	19.9	1.00	9.92	1.00	10.9	1.00	11.1	1.00	12.6	1.00
TPH By SW8015 Mod	Extracted:	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10	14.30
	Analyzed:	Mar-19-10	09.59	Mar-19-10	10:54	Mar-19-10	11:21	Mar-19-10	11:48	Mar-19-10	12:42	Mar-19-10	13:09
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	18.9	ND	18.8	ND	16.6	ND	16.8	ND	16.9	ND	17.1
C12-C28 Diesel Range Hydrocarbons		ND	18.9	ND	18.8	ND	16.6	ND	16.8	ND	16.9	42.9	17.1
C28-C35 Oil Range Hydrocarbons		ND	18.9	ND	18.8	ND	16.6	ND	16.8	ND	16.9	ND	17.1
Total TPH		ND	18.9	ND	18.8	ND	16.6	ND	16.8	ND	16.9	42.9	17.1

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Brent Barron, II

Odessa Laboratory Manager



GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2

 Project Id:
 GP II Energy

 Contact:
 Joe Compton

 Project Location:
 Eddy County, New Mexico

Date Received in Lab: Thu Mar-18-10 08:37 am

Report Date: 29-MAR-10

								Project Mar	nager:	Brent Barron	, II	_	
	Lab Id:	365996-0	013	365996-(014	365996-0	015	365996-0	16	365996-	017	365996-1	018
Analysis Degranded	Field Id:	ROW F	-1	ROW EST	W-1	ROW WS	W-1	ROW F-	-2	ROW ES	W-2	ROW SS	W-2
Analysis Requesiea	Depth:	3- ft		2.5- ft		2.5- ft		7- ft		6- ft		6- ft	
	Matrix:	SOIL	,	SOIL		SOIL		SOIL		SOIL		SOIL	-
	Sampled:	Mar-17-10	14:00	Mar-17-10	14:10	Mar-17-10	14:20	Mar-17-10 1	14.40	Mar-17-10	14:50	Mar-17-10	15:00
Anions by E300	Extracted:												
	Analyzed:	Mar-21-10	18:40	Mar-21-10	18:40	Mar-21-10	18.40	Mar-21-10	18:40	Mar-21-10	18:40	Mar-21-10	18:40
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		70.0	4.51	76.5	8.96	1370	17.8	783	17.8	1640	21.5	1130	17.9
BTEX by EPA 8021B	Extracted:	Mar-25-10	08:00	Mar-25-10	08:00	Mar-25-10	08:00			Mar-25-10	08:00	Mar-25-10	08:00
	Analyzed:	Mar-25-10	17:37	Mar-25-10	17.57	Mar-25-10	18:18			Mar-25-10	18:39	Mar-25-10	18:59
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL			mg/kg	RL	mg/kg	RL
Benzene		ND	0.0011	ND	0.0011	ND	0.0011			ND	0.0010	ND	0.0011
Toluene		ND	0.0022	ND	0.0021	ND	0.0021			ND	0.0020	ND	0.0021
Ethylbenzene		ND	0.0011	ND	0.0011	ND	0.0011			ND	0.0010	ND	0.0011
m,p-Xylenes		ND	0.0022	ND	0.0021	ND	0.0021			ND	0.0020	ND	0.0021
o-Xylene		ND	0.0011	ND	0.0011	ND	0.0011			ND	0.0010	ND	0.0011
Total Xylenes		ND	0.0011	ND	0.0011	ND	0.0011			ND	0.0010	ND	0.0011
Total BTEX		ND	0.0011	ND	0.0011	ND	0.0011			ND	0.0010	ND	0.0011
Percent Moisture	Extracted:												
	Analyzed:	Mar-18-10	17.00	Mar-18-10	17:00	Mar-18-10	17:00	Mar-18-10 1	17.00	Mar-18-10	17.00	Mar-18-10	17.00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		6.96	1.00	6.25	1.00	5.81	1.00	5.86	1.00	2.11	1.00	6.37	1.00
TPH By SW8015 Mod	Extracted:	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10 1	4:30	Mar-18-10	14:30	Mar-18-10	14:30
	Analyzed:	Mar-19-10	13:36	Mar-19-10	14.03	Mar-19-10	14:30	Mar-19-10 1	4:58	Mar-19-10	15:25	Mar-19-10	15:53
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	16.1	ND	16.1	ND	15.9	ND	15.9	ND	15.3	ND	16.0
C12-C28 Diesel Range Hydrocarbons		ND	16.1	ND	16.1	ND	15.9	ND	15.9	ND	15.3	ND	16.0
C28-C35 Oil Range Hydrocarbons		ND	16.1	ND	16.1	ND	15.9	ND	15.9	ND	15.3	ND	16.0
Total TPH		ND	16.1	ND	16,1	ND	15.9	ND	15.9	ND	15.3	ND	16.0

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Brent Barron, II

Odessa Laboratory Manager



GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2

Project Id: GP II Energy Contact: Joe Compton Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Mar-18-10 08:37 am

Report Date: 29-MAR-10

ojet Eleann. Eady County, from Meneo								Project Mar	nager:	Brent Barron,	II		
	Lab Id:	365996-0)19	365996-0	20	365996-0	21	365996-0)22	365996-0	123	365996-0)24
Analysis Bagyastad	Field Id:	ROW F	-3	ROW NSV	N-3	ROW F-	.4	ROW SSV	W-4	ROW F	-5	ROW NSV	W-5
Anaiysis Kequesieu	Depth:	6- ft		5- ft		6- ft		5- ft		3- ft		2.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-17-10	15:10	Mar-17-10	15:20	Mar-17-10 1	15:30	Mar-17-10	15:40	Mar-17-10	15:50	Mar-17-10 J	16:00
Anions by E300	Extracted:									-			
	Analyzed:	Mar-21-10	23.59	Mar-21-10 2	23.59	Mar-21-10 2	23:59	Mar-21-10 2	23:59	Mar-21-10	23:59	Mar-21-10 2	23.59
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		914	23.8	289	22.2	542	23.0	1870	46.1	247	9.17	83.3	4.35
BTEX by EPA 8021B	Extracted:							Mar-25-10 (08.00				ļ
	Analyzed:		-	Į				Mar-25-10 2	20:01		I		ł
	Units/RL:							mg/kg	RL				
Benzene								ND	0.0011				
Toluene								ND	0.0022				
Ethylbenzene								ND	0.0011				
m,p-Xylenes								ND	0.0022				
o-Xylene								ND	0.0011			ļ	
Total Xylenes								ND	0.0011				
Total BTEX				ļ				ND	0.0011			F	
Percent Moisture	Extracted:								I		ł	l	
	Analyzed:	Mar-18-10	17:00	Mar-18-10 1	17:00	Mar-18-10 1	17:00	Mar-18-10 1	17:00	Mar-18-10	17:00	Mar-18-10 1	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		11.9	1.00	5.30	1.00	8.52	1.00	8.90	1.00	8.39	1.00	3.39	1.00
TPH By SW8015 Mod	Extracted:	Mar-18-10	14:30	Mar-18-10 1	14:30	Mar-18-10 1	14:30	Mar-18-10 1	14.30	Mar-18-10	14:30	Mar-18-10 1	14:30
	Analyzed:	Mar-19-10	16:21	Mar-19-10 1	16:48	Mar-19-10 2	22.02	Mar-19-10 2	22:29	Mar-19-10 2	22:56	Mar-19-10 2	23:22
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	16.9	ND	15.8	ND	16.4	ND	16.4	ND	16.3	ND	15.5
C12-C28 Diesel Range Hydrocarbons		ND	16.9	ND	15.8	ND	16.4	ND	16.4	ND	16.3	ND	15.5
C28-C35 Oil Range Hydrocarbons		ND	16.9	ND	15.8	ND	16.4	ND	16.4	ND	16.3	ND	15.5
Total TPH		ND	16.9	ND	15.8	ND	16.4	ND	16.4	ND	16.3	ND	15.5

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Brent Barron, II

Odessa Laboratory Manager



GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2

Project Id: GP II Energy Contact: Joe Compton Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Mar-18-10 08:37 am

Report Date: 29-MAR-10

oject Docution. Dady County, New Monde								Project Ma	nager:	Brent Barron,	II		
	Lab Id:	365996-	025	365996-()26	365996-0	27	365996-0	028	365996-0	29	365996-0	030
Analysis Degranted	Field Id:	ROW F	-6	ROW SS	W-6	ROW F-	.7	ROW NS	W-7	ROW F-	-8	ROW SS	W-8
Analysis Requested	Depth:	2.5- f	t	1.5- ft		1- ft		6- In		2.5- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-17-10	16:10	Mar-17-10	16:20	Mar-17-10 1	16:30	Mar-17-10	16:40	Mar-17-10	16.50	Mar-17-10	17:00
Anions by E300	Extracted:												
	Analyzed:	Mar-21-10	23.59	Mar-21-10	23:59	Mar-21-10 2	23.59	Mar-21-10	23:59	Mar-21-10 2	23:59	Mar-21-10	23:59
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		63 6	23.5	183	9.01	56.7	4.58	11.0	4.49	71.8	4.40	102	4.56
BTEX by EPA 8021B	Extracted:	Mar-25-10	08:00	Mar-25-10	08.00							Mar-25-10	08:00
	Analyzed:	Mar-25-10	20:21	Mar-25-10	20:42							Mar-25-10	21:03
	Units/RL:	mg/kg	RL	mg/kg	RL							mg/kg	RL
Benzene		ND	0.0011	ND	0.0011							ND	0.0011
Toluene		ND	0.0022	ND	0.0022							ND	0.0022
Ethylbenzene		ND	0.0011	ND	0.0011							ND	0.0011
m,p-Xylenes		ND	0.0022	ND	0.0022	· .						ND	0.0022
o-Xylene		ND	0.0011	ND	0.0011							ND	0.0011
Total Xylenes		ND	0.0011	ND	0.0011							ND	0.0011
Total BTEX		ND	0.0011	ND	0.0011							ND	0.0011
Percent Moisture	Extracted:												
	Analyzed:	Mar-18-10	17 00	Mar-18-10	17:00	Mar-18-10 1	17:00	Mar-18-10	17:00	Mar-18-10	17:00	Mar-18-10	17.00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		10.5	1.00	6.79	1.00	8.34	1.00	6.46	1.00	4.53	1.00	7.92	1.00
TPH By SW8015 Mod	Extracted:	Mar-18-10	14:30	Mar-18-10	14:30	Mar-18-10 1	14:30	Mar-18-10	14.30	Mar-18-10	14:30	Mar-18-10	14:30
	Analyzed:	Mar-19-10	23.49	Mar-20-10	00.16	Mar-20-10 (00:43	Mar-20-10	01.10	Mar-20-10 (01:36	Mar-20-10	02:03
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	16.8	ND	16.1	ND	16.4	ND	16.0	ND	15.6	ND	16.3
C12-C28 Diesel Range Hydrocarbons		137	16.8	207	16.1	ND	16.4	ND	160	ND	15.6	ND	16.3
C28-C35 Oil Range Hydrocarbons		ND	16.8	ND	16.1	ND	16.4	ND	160	ND	15.6	ND	16.3
Total TPH		137	16.8	207	16.1	ND	16.4	ND	16 0	ND	15.6	ND	16.3

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Brent Barron, II

Odessa Laboratory Manager



GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2

Project Id: GP II Energy Contact: Joe Compton Project Location: Eddy County, New Mexico

Date Received in Lab: Thu Mar-18-10 08:37 am

Report Date: 29-MAR-10

Tojett Boenton. Eddy County, New Mondo								Project Ma	nager:	Brent Barron,	11		
	Lab Id:	365996-	031	365996-0	32	365996-0)33	365996-0	034	365996-0)35	365996-0	036
Analysis Degranded	Field Id:	ROW F	-9	ROW NS	W-9	ROW F-	10	ROW SSV	V-10	ROW F-	11	ROW NSV	V-11
Analysis Kequestea	Depth:	3- ft		2.5- ft		2.5- ft		2- ft		2.5- ft		2- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-17-10	17:10	Mar-17-10	17:20	Mar-17-10	17:30	Mar-17-10	17:40	Mar-17-10	17:50	Mar-17-10	18:00
Anions by E300	Extracted:												
	Analyzed:	Mar-21-10	23:59	Mar-21-10	23:59	Mar-21-10	23.59	Mar-21-10	23.59	Mar-21-10	23:59	Mar-21-10	23:59
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		11.7	4,94	90.7	4.42	326	9.09	248	9.28	177	10.0	4.48	4.47
BTEX by EPA 8021B	Extracted:	Mar-25-10	Mar-25-10 08:00			Mar-25-10 08:00							
	Analyzed:	Mar-25-10	21:23			Mar-25-10	21:43						
	Units/RL:	mg/kg	RL			mg/kg	RL						
Benzene		ND	0,0012			ND	0.0011						
Toluene		ND	0.0024			ND	0.0022						
Ethylbenzene		ND	0.0012			ND	0.0011						
m,p-Xylenes		ND	0.0024			ND	0.0022						
o-Xylene		ND	0.0012			ND	0.0011						
Total Xylenes		ND	0.0012			ND	0.0011						
Total BTEX		ND	0.0012			ND	0.0011						
Percent Moisture	Extracted:												
	Analyzed:	Mar-18-10	17:00	Mar-18-10	17:00	Mar-18-10	17:00	Mar-18-10	17:00	Mar-18-10	17.00	Mar-18-10	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		14.9	1.00	4.92	1.00	7.63	1.00	9.47	1.00	16.4	1.00	6.10	1.00
TPH By SW8015 Mod	Extracted:	Mar-18-10	14:30	Mar-18-10	14.30	Mar-18-10	14:30	Mar-18-10	14.30	Mar-18-10	14:30	Mar-18-10	14:30
	Analyzed:	Mar-20-10	08:59	Mar-20-10	09.25	Mar-20-10	09.52	Mar-20-10	10:18	Mar-20-10	10:54	Mar-20-10	11:21
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		21.3	17.6	ND	15.7	ND	16.2	ND	16.6	ND	17.9	ND	15.9
C12-C28 Diesel Range Hydrocarbons		73.8	17.6	ND	15.7	45.5	16.2	ND	16.6	ND	17.9	ND	15.9
C28-C35 Oil Range Hydrocarbons		ND	17.6	ND	15.7	ND	16.2	ND	16.6	ND	17.9	ND	15.9
Total TPH			17.6	ND	15.7	45.5	16.2	ND	16.6	ND	17.9	ND	15.9

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Brent Barron, II

Odessa Laboratory Manager

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boratoria

GP II Energy, Midland, TX

Project Name: Littlefield BO Fed # 2

 Project Id:
 GP II Energy

 Contact:
 Joe Compton

 Project Location:
 Eddy County, New Mexico

Date Received in Lab: Thu Mar-18-10 08:37 am

Report Date: 29-MAR-10

Project Manager: Brent Barron, II

	Lab Id:	365996-0	037	365996-0	038		
Aughois Desugated	Field Id:	ROW F-	-12	ROW SSV	<i>N</i> -12		
Analysis Kequesiea	Depth:	1- ft		6- In			
	Matrix:	SOIL		SOIL	.		
	Sampled:	Mar-17-10	18:10	Mar-17-10	18:20		
Anions by E300	Extracted:	·····					
	Analyzed:	Mar-21-10	23:59	Mar-21-10	23:59		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Chlonde		31.5	4.46	154	9.05		
BTEX by EPA 8021B	Extracted:	Mar-25-10	08:00	Mar-25-10	08:00		
	Analyzed:	Mar-25-10	22:04	Mar-25-10	22:25		
	Units/RL:	mg/kg	RL	mg/kg	RL		
Benzene		ND	0.0011	ND	0.0011		
Toluene		ND	0.0021	ND	0.0021		
Ethylbenzene		ND	0.0011	ND	0.0011		
m,p-Xylenes		ND	0.0021	ND	0.0021		
o-Xylene		ND	0.0011	ND	0.0011		
Total Xylencs		ND	0.0011	ND	0.0011		
Total BTEX		ND	0.0011	ND	0.0011		
Percent Moisture	Extracted:						
	Analyzed:	Mar-18-10	17.00	Mar-18-10	17:00		
	Units/RL:	%	RL	%	RL		
Percent Moisture		5.88	1.00	7.21	1.00		
TPH By SW8015 Mod	Extracted:	Mar-18-10	14:30	Mar-18-10	14:30		
	Analyzed:	Mar-20-10	11:48	Mar-20-10	12:15		
	Units/RL:	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		ND	15.9	ND	16.1		
C12-C28 Diesel Range Hydrocarbons		242	15.9	18.4	16.1		
C28-C35 Oil Range Hydrocarbons		ND	15.9	ND	161		
Total TPH		242	15.9	18.4	16.1		

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Brent Barron, II

Odessa Laboratory Manager



- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- **BRL** Below Reporting Limit.
- RL Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation.

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842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Project Name: Littlefield BO Fed # 2

Work Orders : 365996 Lab Batch #: 799944	, Sample: 559142-1-BKS/B	Project ID: GP II Energy S / BKS Batch: 1 Matrix: Solid								
Units: mg/kg	Date Analyzed: 03/25/10 09:35	SU	RROGATE RE	COVERY	STUDY					
BTEX	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1.4-Difluorobenzene		0.0278	0.0300	93	80-120					
4-Bromofluorobenzene		0.0251	0.0300	84	80-120					
Lab Batch #: 799944	Sample: 559142-1-BSD / B	SD Batci	h: 1 Matrix:	Solid						
Units: mg/kg	Date Analyzed: 03/25/10 09:56	SU	RROGATE RE	COVERY	STUDY					
BTE	K by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Difluorobenzene		0.0283	0.0300	94	80-120	-				
4-Bromofluorobenzene		0.0255	0.0300	85	80-120					
Lab Batch #: 799944	Sample: 559142-1-BLK / B	LK Bate	h: 1 Matrix:	Solid						
Units: mg/kg	Date Analyzed: 03/25/10 10:58	SU	RROGATE RE	COVERY	STUDY					
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Dıfluorobenzene		0.0278	0.0300	93	80-120					
4-Bromofluorobenzene		0.0260	0.0300	87	80-120					
Lab Batch #: 799944	Sample: 365996-003 / SMF	Bate	h: ¹ Matrix:	Soil						
Units: mg/kg	' Date Analyzed: 03/25/10 15:52	SU	RROGATE RE	COVERY	STUDY					
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags				
1.4 Diffuersharring		0.0270	0.0200		80.120					
4-Bromofluorobenzene		0.0279	0.0300	93	80-120					
	Samala: 365006.000 / SMI	0.0200 P Batal	b. J. Materia	Soil	00-120					
Lau Dalcii #: 799944	Date Analyzed: 03/25/10 16.13	SU	RROGATE RE	COVERY	STUDY					
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags				
1,4-Difluorobenzene		0.0272	0.0300	91	80-120					
4-Bromofluorobenzene	· · · · · · · · · · · · · · · · · · ·	0.0255	0.0300	85	80-120					

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders : 365996,	Samples 365006-010 / SMP	Poto	Project IE	GP II Ener	gy	
Units: mg/kg	Date Analyzed: 03/25/10 16:34	SU	RROGATE RE	COVERY	STUDY	
BTEX	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0281	0.0300	94	80-120	
4-Bromofluorobenzene		0.0271	0.0300	90	80-120	
Lab Batch #: 799944	Sample: 365996-011 / SMP	Batcl	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/25/10 16:55	SU	RROGATE RE	COVERY	STUDY	
BTEX	L by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorobenzene		0.0266	0.0300	89	80-120	
4-Bromofluorobenzene		0.0258	0.0300	86	80-120	
L		Batel	h· 1 Matrix:	Soil	L	_
Units: mg/kg	Date Analyzed: 03/25/10 17:16	SU	RROGATE RE	COVERY	STUDY	
BTEX	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0270	0.0300	90	80-120	
4-Bromofluorobenzene		0.0254	0.0300	85	80-120	
Lab Batch #: 799944	Sample: 365996-013 / SMP	Batcl	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/25/10 17:37	SU.	RROGATE RE	COVERY	STUDY	
BTEX	A polytec	Amount Found [A]	True Amount [B]	Recovery %R (D)	Control Limits %R	Flags
1 4-Difluorobenzene	Analytes	0.0274	0.0300	01	80.120	
4-Bromofluorobenzene		0.0266	0.0300	89	80-120	
Lab Batch #: 799944	Sample: 365996-014 / SMP	Bate	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/25/10 17:57	SU	RROGATE RE	COVERY	STUDY	
BTEX	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0273	0.0300	91	80-120	
4-Bromofluorobenzene		0.0256	0.0300	85	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Project Name: Littlefield BO Fed # 2

Work Orders : 365996, Lab Batch #: 799944	Sample: 365996-015 / SMP	Project ID: GP II Energy AP Batch: 1 Matrix: Soil				
Units: mg/kg	Date Analyzed: 03/25/10 18:18	SURROGATE RECOVERY STUDY				
BTEX	by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	· · · · · · · · · · · · · · · · · · ·	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene		0.0268	0 0300	89	80-120	
Lab Batch #: 799944	Sample: 365996-017 / SMP	Batel	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/25/10 18:39	SU	RROGATE RE	COVERY	STUDY	
BTEX	BTEX by EPA 8021B		True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0269	0.0300	90	80-120	
4-Bromofluorobenzene		0.0263	0.0300	88	80-120	
Lab Batch #: 799944	Sample: 365996-018 / SMP	Batcl	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/25/10 18:59	SU	RROGATE RE	COVERY	STUDY	
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0275	0.0300	92	80-120	
4-Bromofluorobenzene		0.0247	0.0300	82	80-120	
Lab Batch #: 799944	Sample: 365996-022 / SMP	Batc	h: 1 Matrix:	Soil		-
Units: mg/kg	Date Analyzed: 03/25/10 20:01	SU	RROGATE RE	COVERY	STUDY	
BTEX	Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0282	0.0300	94	80-120	
4-Bromofluorobenzene		0.0257	0.0300	86	80-120	
Lab Batch #: 799944	Sample: 365996-025 / SMP	Batcl	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/25/10 20:21	SU	RROGATE RE	COVERY	STUDY	
BTEX	L by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0274	0.0300	91	80-120	
4-Bromofluorobenzene		0.0242	0.0300	81	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Work Orders : 365996, Lab Batch #: ⁷⁹⁹⁹⁴⁴	Sample: 365996-026 / SMP	Project ID: GP II Energy P Batch: 1 Matrix: Soil				
Units: mg/kg	Date Analyzed: 03/25/10 20:42	SU	RROGATE RE	COVERY	STUDY	
BTEX	L by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R {D}	Control Limits %R	Flags
1,4-Difluorobenzene		0.0279	0.0300	93	80-120	
4-Bromofluorobenzene		0.0247	0.0300	82	80-120	
Lab Batch #: 799944	Sample: 365996-030 / SMP	Batel	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/25/10 21:03	SU	RROGATE RE	COVERY	STUDY	
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0282	0.0300	94	80-120	
4-Bromofluorobenzene		0.0301	0.0300	100	80-120	
Lab Batch #: 799944	Sample: 365996-031 / SMP	Batc	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/25/10 21:23	SU	RROGATE RE	COVERY	STUDY	
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0276	0.0300	92	80-120	
4-Bromofluorobenzene		0.0301	0.0300	100	80-120	
Lab Batch #: 799944	Sample: 365996-033 / SMP	Batel	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/25/10 21:43	SU	RROGATE RE	COVERY	STUDY	
BTEX	(by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4-Difluorobenzene		0.0277	0.0300	92	80-120	
4-Bromofluorobenzene		0.0262	0.0300	87	80-120	
Lab Batch #: 799944	Sample: 365996-037 / SMP	Batel	h: ¹ Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/25/10 22:04	SU	RROGATE RE	COVERY	STUDY	
BTEX	by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0277	0.0300	92	80-120	
4-Bromofluorobenzene		0.0252	0.0300	84	80-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Vork Orders : 365996, Project ID: GP II Energy Lab Batch #: 799944 Sample: 365996-038 / SMP Batch: 1 Matrix: Soil						
Units: mg/kg	Date Analyzed: 03/25/10 22:25	SURROGATE RECOVERY STUDY				
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1.4-Difluorobenzene		0.0270	0.0300	90	80-120	
4-Bromofluorobenzene		0.0293	0.0300	98	80-120	
Lab Batch #: 799944	Sample: 365996-038 S / MS	S Batc	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/25/10 23:27	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
L4-Difluorobenzene		0.0282	0.0300	94	80-120	
4-Bromofluorobenzene		0.0280	0.0300	93	80-120	
Lah Batch #• 799944	Sample: 365996-038 SD / N	ASD Batel	h· 1 Matrix	Soil	1	
Units: mg/kg	Date Analyzed: 03/25/10 23:48	SU.	RROGATE RE	COVERY	STUDY	_
BTEX by EPA 8021B		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0274	0.0300	91	80-120	
4-Bromofluorobenzene		0.0245	0.0300	82	80-120	
Lab Batch #: 799194	Sample: 558676-1-BKS / B	KS Batc	h: 1 Matrix:	Solid		
Units: mg/kg	Date Analyzed: 03/18/10 17:16	SU	RROGATE RE	COVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
L Chlaragatana	Analytes	107	100	107	70.125	
o-Ternhenyl		42.5	50.0	85	70-135	
	Samular 558676 1 BSD / D	SD		Solid	70-135	
Lab Batch #: /99194	Sample: 550070-1-55D7 B	Batci	RROGATE RE	Solid	STUDY	_
	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	· · · · · · · · · · · · · · · · · · ·	110	99.8	110	70-135	
o-Terphenyl		42.7	49.9	86	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Vork Orders : 365996, Project ID: GP II Energy Lab Batch #: 799194 Sample: 558676-1-BLK / BLK						
Units: mg/kg	Date Analyzed: 03/18/10 18:09	SUI	RROGATE RI	ECOVERY	STUDY	
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		99.0	100	99	70-135	
o-Terphenyl		49.1	50.2	98	70-135	
Lab Batch #: 799194	Sample: 365996-001 / SMP	Batch	n: 1 Matrix	Soil		
Units: mg/kg	Date Analyzed: 03/18/10 18:36	SUI	RROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		95.9	100	96	70-135	
o-Terphenyl		46.8	50.1	93	70-135	
Lab Batch #: 799194	Sample: 365996-002 / SMP	Batch	h: 1 Matrix	Soil	L	
Units: mg/kg	Date Analyzed: 03/18/10 19:02	SU	RROGATE RI	ECOVERY	STUDY	
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		86.8	100	87	70-135	
o-Tcrphcnyl		42.5	50.0	85	70-135	
Lab Batch #: 799194	Sample: 365996-003 / SMP	Batch	h: 1 Matrix	: Soil		
Units: mg/kg	Date Analyzed: 03/19/10 08:08	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		96,6	100	97	70-135	
o-Terphenyl		45.5	50.2	91	70-135	
Lab Batch #: 799194	Sample: 365996-004 / SMP	Batcl	h: ¹ Matrix	:Soil		
Units: mg/kg	Date Analyzed: 03/19/10 08:36	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		88.8	99.5	89	70-135	
o-Terphenyl		44.4	49.8	89	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Project Name: Littlefield BO Fed # 2

Work Orders : 365996,	Sample: 365996-005 / SMP	Project ID: GP II Energy				
Units: mg/kg	Date Analyzed: 03/19/10 09:03	SUI	RROGATE RE	COVERY S	STUDY	
ТРН В	y SW8015 Mod	AmountTrueControlFoundAmountRecoveryLimits[A][B]%R%R		Control Limits %R	Flags	
	Analytes			[D]		
1-Chlorooctane		78.0	99 6	78	70-135	
o-Terphenyl		39.0	49 8	78	70-135	
Lab Batch #: 799194	Sample: 365996-007 / SMP	Batch	n: l Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/19/10 09:59	SUI	RROGATE RE	COVERY	STUDY	
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		90.4	99.7	91	70-135	
o-Terphenyl		44.3	49.9	89	70-135	
Lah Batch #: 799194	 Sample: 365996-006 / SMP	Batcl	n: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/19/10 10:27	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		88.1	99.8	88	70-135	
o-Tcrphcnyl		43.3	49.9	87	70-135	
Lab Batch #: 799194	Sample: 365996-008 / SMP	Batcl	h: ¹ Matrix:	Soil	<u></u>	
Units: mg/kg	Date Analyzed: 03/19/10 10:54	SU	RROGATE RE	COVERY	STUDY	
ТРН В	sy SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		90.0	100	90	70-135	
o-Terphenyl		44.0	50.1	88	70-135	
Lab Batch #: 799194	Sample: 365996-009 / SMP	Batcl	h: ¹ Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/19/10 11:21	SU	RROGATE RE	ECOVERY	STUDY	
ТРН В	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	-	94.3	99.9	94	70-135	
o-Terphenyl		47.1	50.0	94	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Vork Orders : 365996.	, Sample: 365996-010 / SMP	Project ID: GP II Energy Project 1 Matrix: Soil				
Units: mg/kg	Date Analyzed: 03/19/10 11:48	SU	RROGATE RE	COVERY S	STUDY	
Трн і	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		90.9	99.9	91	70-135	
o-Terphenyl		45.5	50.0	91	70-135	
Lab Batch #: 799194	Sample: 365996-011 / SMP	Batch	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/19/10 12:42	SU	RROGATE RE	COVERY S	STUDY	
ТРН І	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		97 8	99.9	98	70-135	
o-Terphenyl		48.7	50.0	97	70-135	
Lah Batch #: 799194	Sample: 365996-012 / SMP	Batel	h: 1 Matrix:	: Soil	i	
Units: mg/kg	Date Analyzed: 03/19/10 13:09	SU	RROGATE RE	COVERY	STUDY	
ТРН Н	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	I have y etc	94.0	99.8	94	70-135	
o-Terphenyl		47.1	49.9	94	70-135	
Lab Batch #: 799194	Sample: 365996-013 / SMP	Batel	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/19/10 13:36	SU	RROGATE RE	COVERY	STUDY	
ТРН І	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	Anaryus	95.5	09.9	96	70-135	
o-Terphenyl		47.2	50.0	94	70-135	
Lab Batch #: 799194	Sample: 365996-014 / SMP	Batc	h: 1 Matrix:	Soil	<u>}</u>	<u> </u>
Units: mg/kg	Date Analyzed: 03/19/10 14:03	SU	RROGATE RE	COVERY	STUDY	
ТРН І	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	· · · · ·	100	101	99	70-135	
o-Terphenyl		49.4	50.3	98	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Vork Orders : 365996, Project ID: GP II Energy Lab Batch #: 799194 Sample: 365996-015 / SMP Batch: 1 Matrix: Soil						
Units: mg/kg	Date Analyzed: 03/19/10 14:30	SUI	RROGATE RE	COVERY S	STUDY	
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		85.0	99.8	85	70-135	
o-Terphenyl		42.7	49.9	86	70-135	
Lab Batch #: 799194	Sample: 365996-016 / SMP	Batch	1: 1 Matrix:	Soil	11	
Units: mg/kg	Date Analyzed: 03/19/10 14:58	SUI	RROGATE RE	COVERY	STUDY	
ТРН Е	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		92.6	99.5	93	70-135	
o-Terphenyl		45.9	49.8	92	70-135	
Lab Batch #: 799194	Sample: 365996-017 / SMP	Batch	n: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/19/10 15:25	SUI	RROGATE RE	COVERY	STUDY	
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		90.4	99.9	90	70-135	
o-Terphenyl		44.7	50.0	89	70-135	
Lab Batch #: 799194	Sample: 365996-018 / SMP	Batch	h: 1 Matrix	:Soil		
Units: mg/kg	Date Analyzed: 03/19/10 15:53	SU	RROGATE RI	ECOVERY	STUDY	
ТРН Е	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		89.2	99.9	89	70-135	
o-Terphenyl		44.9	50.0	90	70-135	
Lab Batch #: 799194	Sample: 365996-019 / SMP	P Batch: 1 Matrix:Soil				
Units: mg/kg	Date Analyzed: 03/19/10 16:21	SU.	RROGATE RI	ECOVERY	STUDY	r
TPH F	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		90.0	99.5	90	70-135	
	•					

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Project Name: Littlefield BO Fed # 2

ork Orders : 365996	,		Project IE	GP II Ener	зy	
Lab Batch #: 799194	Sample: 365996-020 / SMP	Batch	n: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/19/10 16:48	SUI	RROGATE RE	COVERY	STUDY	
ТРН І	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		84.7	99.5	85	70-135	
o-Terphenyl		42.2	49.8	85	70-135	
Lab Batch #: 799194	Sample: 365996-020 S / MS	B Batch	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/19/10 17:32	SUI	RROGATE RE	COVERY	STUDY	
ТРН І	By SW8015 Mod Analytes	Amount Found [A]	True Amount {B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	.	111	100	111	70-135	
o-Terphenyl		43.2	50.2	86	70-135	
Lab Batch #: 799194	Sample: 365996-020 SD / N	ISD Batch	h: ¹ Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/19/10 17:59	SUI	RROGATE RE	COVERY	STUDY	
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		110	100	110	70-135	
o-Terphenyl		43.2	50.0	86	70-135	
Lab Batch #: 799197	Sample: 558678-1-BKS / B	KS Batcl	h: 1 Matrix:	Solid		
Units: mg/kg	Date Analyzed: 03/19/10 20:41	SU	RROGATE RI	ECOVERY	STUDY	
ТРН І	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			וטו		
1-Chlorooctanc		114	100	114	70-135	
o-Terphenyl		45.1	50.0	90	70-135	
Lab Batch #: 799197	Sample: 558678-1-BSD / B	SD Batel	h: 1 Matrix	Solid	STUDY	
Units: mg/kg	Date Analyzed: 03/19/10 21:08	SU .	KRUGATE KI			
TPH	By SW8015 Mod	Amount	True Amount	Recovery	Control Limits	Flags
	Analytes	Found [A]	[B]	%R [D]	%R	
1-Chlorooctane	Analytes	[A]	[B]	%R [D] 113	%R 70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



Project Name: Littlefield BO Fed # 2

Vork Orders: 365996, Project ID: GP II Energy Lab Batch #: 799197 Sample: 558678-1-BLK / BLK Batch: 1 Matrix: Solid						
Units: mg/kg	Date Analyzed: 03/19/10 21:35	SU	RROGATE RE	COVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		97.1	100	97	70-135	
o-Terphenyl		48.9	50.2	97	70-135	
Lab Batch #: 799197	Sample: 365996-021 / SMP	Batel	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/19/10 22:02	SU	RROGATE RE	COVERY S	STUDY	
TPH	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	·	89.3	99.8	89	70-135	
o-Tcrphenyl		45 1	49.9	90	70-135	
Lab Batch #: 799197	Sample: 365996-022 / SMP	Batcl	h; ¹ Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/19/10 22:29	SURROGATE RECOVERY STUDY				
TPH By SW8015 Mod		Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		92.3	99.8	92	70-135	
o-Tcrphenyl		46.4	49.9	93	70-135	
Lab Batch #: 799197	Sample: 365996-023 / SMP	Batcl	h: 1 Matrix:	Soil	1	
Units: mg/kg	Date Analyzed: 03/19/10 22:56	SU	RROGATE RE	COVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			ועו		
1-Chlorooctane		94.3	99.6	95	70-135	
	0 1 265006 024 / SMR	47.1	49.0	95	70-135	·
Lab Batch #: 799197	Sample: 303990-0247 SMF	r Batch: 1 Matrix: Soll SUPDOCATE DECOVEDV STUDV				
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		95.3	99.8	95	70-135	
o-Terphenyl		47.2	49.9	95	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution


Project Name: Littlefield BO Fed # 2

Work Orders : 365996	, 	Project ID: GP II Energy											
Lab Batch #: 799197	Sample: 303990-0237 SMP	Batcl	n: I Matrix: RROCATE RE	SOIL	STUDY								
Units: mg/kg	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags							
1-Chlorooctane	7 mary tes	92.1	100	07	70-135								
o-Terphenyl		45.9	50.0	92	70-135								
Lab Batch #: 799197	Sample: 365996-026 / SMP	Pata											
Lab Datch #. 199191	Date Analyzed: 03/20/10 00:16	SU	RROGATE RE	COVERY S	STUDY								
TPH 1	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags							
I-Chlorooctanc		95.1	100	95	70-135								
o-Terphenyl		47.4 50.0											
Lab Batch #: 799197	Sample: 365996-027 / SMP	Batcl	h: 1 Matrix:	Soil									
Units: mg/kg	Date Analyzed: 03/20/10 00:43	SURROGATE RECOVERY STUDY											
TPH I	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags							
1-Chlorooctanc		94.7	100	95	70-135								
o-Terphenyl		47.1	50.0	94	70-135								
Lab Batch #: 799197	Sample: 365996-028 / SMP	Batcl	h: 1 Matrix:	Soil	•								
Units: mg/kg	Date Analyzed: 03/20/10 01:10	SU	RROGATE RE	COVERY	STUDY								
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags							
1-Chlorooctane	Analytes	91.7	99.7	07	70-135								
o-Terphenyl		45.7	49.9	92	70-135								
Lab Batch #: 799197	Sample: 365996-029 / SMP	Batel	h: 1 Matrix	Soil									
Units: mg/kg	Date Analyzed: 03/20/10 01:36	SU	RROGATE RI	ECOVERY	STUDY								
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags							
1-Chlorooctane		95.1	99.5	96	70-135								
o-Terphenyl		47.4	49.8	95	70-135								

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / BAll results are based on MDL and validated for QC purposes.



Project Name: Littlefield BO Fed # 2

Vork Orders : 365996 Lab Batch #: 799197	5, Sample: 365996-030 / SMP	Batcl	Project II h: 1 Matrix:): GP II Ener Soil	rgy	
Units: mg/kg	Date Analyzed: 03/20/10 02:03	SU	RROGATE RI	COVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
L-Chlorooctane		104	100	104	70.125	
o-Terphenyl		51.7	50.0	104	70-135	
Lab Batch #: 799197	Sample: 365996-031 / SMP	Potal	h. 1 Matrix	Soil		
Units: mg/kg	Date Analyzed: 03/20/10 08:59	SU	RROGATE RI	COVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	Anaryus	89.2	99.8	80	70-135	
o-Terphenyl		44.4	49.9	89	70-135	
Leb Betch #: 799197	Sample: 365996-032 / SMP	Pata	h. 1 Motrix	Soil		
Lab Batti #. 199197	Date Analyzed: 03/20/10.00:25	SU	RROGATE RI	COVERY	STUDY	
Olinis, ing/kg		Amount	Тяцо		Control	
ТРН	By SW8015 Mod Analytes	Found [A]	Amount [B]	Recovery %R [D]	Limits %R	Flags
I-Chlorooctanc		90.4	99.7	91	70-135	· · · · ·
o-Terphenyl		45.8	49.9	92	70-135	
Lab Batch #: 799197	Sample: 365996-033 / SMP	Bate	h: 1 Matrix	Soil	.	
Units: mg/kg	Date Analyzed: 03/20/10 09:52	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
L-Chlorooctane	Analytes	08.3	99.7	00	70-135	
o-Terphenyl		49.3	49.9	99	70-135	
Lab Batch #: 799197	Sample: 365996-034 / SMP	Bate	h. 1 Matriv	· Soil		
Lab Daten #. 1997.97	Date Analyzed: 03/20/10 10:18	SU	RROGATE R	ECOVERY	STUDY	
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		95.0	100	95	70-135	
o-Terphenyl		48.0	50.1	96	70-135	···

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Project Name: Littlefield BO Fed # 2

Vork Orders : 365996 Lab Batch #: 799197	, Sample: 365996-035 / SMP	Batel	Project ID): GP II Ener Soil	зy									
Units: mg/kg	Date Analyzed: 03/20/10 10:54	SU	RROGATE RE	COVERY	STUDY									
ТРН І	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags								
1-Chlorooctanc		96.0	99.5	96	70-135									
o-Terphenyl		46.9	49.8	94	70-135									
Lab Batch #: 799197	Sample: 365996-036 / SMP	1P Batch: 1 Matrix:Soil												
Units: mg/kg	Date Analyzed: 03/20/10 11:21	SU	RROGATE RE	COVERY S	STUDY									
ТРН І	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags								
1-Chlorooctanc	7 mary tes	92.0	99.7	92	70-135									
o-Terphenyl		45.3	49.9	91	70-135									
Lab Batch #: 799197	Sample: 365996-037 / SMP	Batcl	h: 1 Matrix:	Soil	· · · · ·									
Units: mg/kg	Date Analyzed: 03/20/10 11:48	SU	RROGATE RE	COVERY	STUDY									
ТРН І	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags								
1-Chlorooctane	•	93.9	99.6	94	70-135									
o-Terphenyl		47.8	49.8	96	70-135									
Lab Batch #: 799197	Sample: 365996-038 / SMP	Batel	h: 1 Matrix:	Soil										
Units: mg/kg	Date Analyzed: 03/20/10 12:15	SU	RROGATE RE	COVERY	STUDY									
ТРН І	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags								
	Analytes			[U]	70.125									
a Terphenyl		92.5	99.5	93	70-135									
	265006 028 S / MS	40,1 D-4-1	47.0	Soil	/0-133									
Lad Batch #; 799197	Data Analyzad: 02/20/10 12:26	SU	RROGATE RE	COVERY	STUDY									
TPH 1	TPH By SW8015 Mod Analytes			Recovery %R [D]	Control Limits %R	Flags								
1-Chlorooctanc		113	99.8	113	70-135									
o-Terphenyl		45.0	49.9	90	70-135									

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits, data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



Project Name: Littlefield BO Fed # 2

Work Orders : 365996	,		Project I	D: GP II Ener	rgy	
Lab Batch #: 799197	Sample: 365996-038 SD / 1	MSD Batcl	h: 1 Matrix	:Soil		
Units: mg/kg	Date Analyzed: 03/20/10 14:02	SU.	RROGATE R	ECOVERY	STUDY	
ТРНІ	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane	'hlorooctanc		100	113	70-135	
o-Tcrphcnyl		45.3	50.0	91	70-135	

* Surrogate outside of Laboratory QC limits

- ** Surrogates outside limits; data and surrogates confirmed by reanalysis
- *** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B All results are based on MDL and validated for QC purposes.





Work Order #: 365996			Pr	oject ID:		GP II Energ				
Lab Batch #: 799186	Se	ample: 799186-	I-BKS	Matrix:	Solid					
Date Analyzed: 03/21/2010	Date Prej	pared: 03/21/20	010	Analyst:	LATCOF	Ł				
Reporting Units: mg/kg	Ba	itch #: 1	BLANK /I	BLANK SPI	OVERY S	STUDY				
Anions by E300		Blank Result	Spike Added	Blank Spike	Blank Spike	Control Limits	Flags			
Analytes			[B]	[C]	%к [D]	%K				
Chloride		ND	11.0	11.7	106	75-125				
Lab Batch #: 799193	St	ample: 799193-	1-BKS	Matrix:	Solid					
Date Analyzed: 03/21/2010	Date Pre	pared: 03/21/20	010	Analyst:	LATCOF	ι				
Reporting Units: mg/kg	Ba	atch #: 1	BLANK /	BLANK SPI	KE REC	OVERY S	STUDY			
Anions by E300		Blank Result	Spike Added	Blank Spike	Blank Spike	Control Limits	Flags			
Analytes		[A]	[B]	Result [C]	%R [D]	%R				
Chloride	I	ND	11.0	11.1	101	75-125				

Blank Spike Recovery [D] = 100*[C]/[B] All results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit







Work Order #: 365996 Analyst: ASA	D	ate Prevai	Project ID: GP II EnergyPrepared: 03/25/2010Date Analyzed: 03/25/2010												
Lab Batch ID: 799944 Sample: 559142-1-E	BKS	Bate	h #: 1					Matrix: S	Solid						
Units: mg/kg		BLAN	K/BLANK S	SPIKE / E	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUE	Y					
BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate Posult (F)	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag				
Analytes	ļ	[D]		נען			101								
Benzene	ND	0.1000	0.0861	86	0.1	0.0873	87	1	70-130	35					
Toluene	ND	0.1000	0.0841	84	0.1	0.0860	86	2	70-130	35					
Ethylbenzene	ND	0.1000	0.0859	86	0.1	0.0883	88	3	71-129	35					
m,p-Xylenes	ND	0.2000	0.1717	86	0.2	0.1767	88	3	70-135	35					
o-Xylene	ND	0.1000	0.0827	83	0.1	0.0852	85	3	71-133	35					
Analyst: BEV	D	ate Prepar	ed: 03/18/201	0			Date A	nalyzed: (3/18/2010						
Lab Batch ID: 799194 Sample: 558676-1-E	BKS	Bate	h #: 1					Matrix: S	Solid						
Units: mg/kg		BLAN	K/BLANK S	SPIKE / E	BLANK S	PIKE DUPI	ICATE	RECOVI	ERY STUD	ŶY					
TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag				
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1070	107	998	1110	111	4	70-135	35					
C12-C28 Diesel Range Hydrocarbons	ND 1000 849 85 5				998	879	88	3	70-135	35					

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Littlefield BO Fed # 2

Work Order #: 365996 Analyst: BEV Lab Batch ID: 799197 Sample: 52	D: 58678-1-BKS	ate Prepar Batc	red: 03/18/201 h #: 1	0			Pro Date A	ject ID: (nalyzed: (Matrix: S	GP II Energ)3/19/2010 Solid	у	
Units: mg/kg		BLAN	K/BLANK S	SPIKE / I	BLANK S	PIKE DUPI	LICATE	RECOVI	ERY STUD	Y	
TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result {C}	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1120	112	998	1130	113	1	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	828	83	998	901	90	8	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes

2





		Pro	oject ID:	GP II Energ	gy			
Date Prepared: 03/21/2010 Analyst: LATCOR								
Batch #: 1		Ν	Matrix: S	ludge				
MATE	RIX / MA	TRIX SPIKE	RECOV	VERY STU	DY			
Parent Sample Result	Spike Added	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag			
	[0]							
3540	1200	4860	110	75-125				
e Prepared: 03/2	1/2010	А	nalyst: L	ATCOR				
Batch #: 1		N	Matrix: S	oil				
MATH	RIX / MA	TRIX SPIKE	RECO	VERY STU	DY			
Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag			
014	454	1370	100	75 125				
	e Prepared: 03/2 Batch #: 1 MATH Parent Sample Result [A] 3540 e Prepared: 03/2 Batch #: 1 MATH Parent Sample Result [A] 914	e Prepared: 03/21/2010 Batch #: 1 MATRIX / MA Parent Sample Result [A] [B] 3540 1200 e Prepared: 03/21/2010 Batch #: 1 MATRIX / MA Parent Sample Result Added [A] 914 454	Prepared: 03/21/2010 A Batch #: 1 MATRIX SPIKE MATRIX / MATRIX SPIKE Parent Spike Apple Sample Spike Added [C] [A] [B] (C) 3540 1200 4860 Prepared: 03/21/2010 A Batch #: 1 MATRIX SPIKE MATRIX / MATRIX SPIKE Parent Spike Added [C] Parent Spike Added [C] Paren	Project ID: a Prepared: 03/21/2010 Analyst: L Batch #: 1 Matrix: Si MATRIX / MATRIX SPIKE RECO Analyst: L Sample Spike Result Added [C] [D] 3540 1200 4860 110 c Prepared: 03/21/2010 Analyst: L Batch #: 1 Matrix: Si MATRIX / MATRIX SPIKE RECO MATRIX / MATRIX SPIKE RECO Parent Spike Spike Result Result Added [C] [D] 914 454 1370 100	Project ID: GP II Energy e Prepared: 03/21/2010 Analyst: LATCOR Batch #: 1 Matrix: Sludge MATRIX / MATRIX SPIKE RECOVERY STU Parent Sample Spike Result [C] [D] %R [A] [B] Control Result Added [C] [D] %R 3540 1200 4860 110 75-125 e Prepared: 03/21/2010 Analyst: LATCOR Batch #: 1 Matrix: Soil MATRIX / MATRIX SPIKE RECOVERY STU Parent Sample Spike Spiked Sample Result Added [C] %R Parent Sample Spike Recover STU Parent Sample Spike Spike Spiked Sample %R Result Added [C] %R MATRIX / MATRIX SPIKE RECOVERY STU Parent Sample Spike Added [C] %R Result Added [C] %%R Parent Sample Spike Added [C] %%R Parent Spike Added [C			

Matrix Spike Percent Recovery [D] = 100*(C-A)/BRelative Percent Difference [E] = 200*(C-A)/(C+B)All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit





Work Order #: 365996						Project I	D: GP II I	Energy			
Lab Batch ID: 799944	QC- Sample ID:	365996	-038 S	Ba	tch #:	l Matri	x: Soil				
Date Analyzed: 03/25/2010	Date Prepared:	03/25/2	010	An	alyst:	ASA					
Reporting Units: mg/kg	<u> </u>	N	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1069	0.0718	67	0.1067	0.0671	63	7	70-130	35	x
Toluene	ND	0.1069	0.0676	63	0.1067	0.0616	58	9	70-130	35	$\frac{1}{x}$
Ethylbenzenc	ND	0.1069	0.0644	60	0.1067	0.0587	55	9	71-129	35	x
m,p-Xylenes	ND	0.2138	0.1205	56	0.2134	0.1062	50	13	70-135	35	x
o-Xylene	ND	0.1069	0.0623	58	0.1067	0.0543	51	14	71-133	35	x
Lab Batch ID: 799194 Date Analyzed: 03/19/2010	QC- Sample ID: Date Prepared:	365996 03/18/2	-020 S 010	Ba An	tch #: alyst:	1 Matri BEV	x: Soil				
Reporting Units: mg/kg		M	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
TPH By SW8015 Mod	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]		[G]				
C6-C12 Gasoline Range Hydrocarbons	ND	1060	1110	105	1060	1110	105	0	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1060	919	87	1060	968	91	5	70-135	35	
Lab Batch ID: 799197 Date Analyzed: 03/20/2010	QC- Sample ID: Date Prepared:	365996 03/18/2	-038 S 010	Ba An	tch #: alyst:	1 Matri BEV	k: Soil				
Reporting Units: mg/kg		M	ATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
TPH By SW8015 Mod	Parent Sample Result	Spike Added	Spiked Sample Result [C]	Spiked Sample %R	Spike Added	Duplicate Spiked Sample Result [F]	Spiked Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes	[A]	[B]		[D]	[E]		[G]				
C6-C12 Gasoline Range Hydrocarbons	ND	1080	1140	106	1080	1120	104	2	70-135	35	
C12 C28 Dissal Pange Hudrogerbans	19.4	1090	0.51		1000	1000		25	50.105		

 $\begin{array}{l} Matrix \ Spike \ Percent \ Recovery \ \ [D] = 100*(C-A)/B \\ Relative \ Percent \ Difference \ \ RPD = 200*[(C-F)/(C+F)] \\ \end{array}$

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit



Work Order #: 365996														
Lab Batch #: 799186			Project I	D: GP II End	ergy									
Date Analyzed: 03/21/2010 Date 1	Prepared: 03/21/2010	epared: 03/21/2010 Analyst: LATCOR												
QC- Sample ID: 365706-001 D	Batch #: 1	Mat	trix: Sludge	e										
Reporting Units: mg/kg	SAMPLE	/ SAMPLE	DUPLICATE RECOVE											
Anions by E300 Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag									
Chlonde	3540	3530	0	20										
Lab Batch #: 799193														
Date Analyzed: 03/21/2010 Date 1	Prepared: 03/21/2010) Ana	lyst:LATC	OR										
QC- Sample ID: 365996-019 D	Batch #: 1	Matrix: Soil												
Reporting Units: mg/kg	SAMPLE	SAMPLE / SAMPLE DUPLICATE RECOVER												
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag									
Analyte		[B]												
Chloride	914	902	1	20										
Lab Batch #: ⁷⁹⁸⁹⁴⁶														
Date Analyzed: 03/18/2010 Date	Prepared: 03/18/2010) Ana	lyst:JLG											
QC- Sample ID: 365984-001 D	Batch #: 1	Mat	trix: Soil											
Reporting Units: %	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY									
Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag									
Percent Moisture	3.45	3.32	4	20										
Lab Batch #: 798948														
Date Analyzed: 03/18/2010 Date	Prepared: 03/18/2010) Ana	lyst:JLG											
QC- Sample ID: 365996-013 D	Batch #: 1	Ma	trix: Soil											
Reporting Units: %	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY									
Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag									
ý			+		ļ									

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



Sample Duplicate Recovery

Project Name: Littlefield BO Fed # 2

Work Order #: 365996

Lab Batch #: 798959 Date Analyzed: 03/18/2010 QC- Sample ID: 365996-033 D	Date Prepar Batch	ed:03/18/2010	Ana Mat	Project I lyst:JLG rix: Soil	D: GP II En	ergy
Reporting Units: %		SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture		Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture		7.63	7.28	5	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes BRL - Below Reporting Limit

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	Company Name	GPII Energy (Attention	Joe Com	pton)	-											_		P	roje	ct#:	GP	II E	iner	gy								_	
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DI	Ro	pad F-1	3'		3/17/2010	0800		1	x					T		Ť	Soil	x									-	-	x	Ť	Ŧ	x	1
02	Roa	d SSW-1	2'		3/17/2010	0820		1	X								Soil	X											x		Ι	X	
03	Ro	ad F-2	3'		3/17/2010	0840		1	X							1.	Soil	X											x			X	
04	Road	d NSW-2	2.5'	L	3/17/2010	0900		1	X				\downarrow				Soil	X											x	\perp		X	
05	Ro	ad F-3	2'		3/17/2010	0920		1	X				-	+	_	┢	Soil	X		_		_						\downarrow	×	\bot	⊥	X	
De	Roa	d SSW-3	1.5'	ļ	3/17/2010	0940		1	X				-	_	┿-	╀	Soil	X		_			-					_	×	╇	1	X	
01	Ro	ad F-4	2.5		3/17/2010	1000		1	X			-	╇	+	+	╇	Soil	1×		-+		-	_		_			+	×	╇	╇	⊥×	
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17.	Road NSW-6		6'		3/17/2010	1140		1	x				1	1	┥	1	Soil		x	ϯ	\uparrow				+	+	-+	+	x t	+		Îx
13	ROW F-1		3'		3/17/2010	1400		1	x					1	T	T	Soil		x	T	1				1	1		-	x	\mathbf{T}	T	x
14	ROW ESW-1		2.5'		3/17/2010	1410		1	x					1	Τ	T	Soil		ĸ		1	ſ			T	1		1	x	1	T	x
15	ROW WSW-1		2.5'		3/17/2010	1420		1	X							·	Soil	1	ĸ		Γ				T			T	x	T	T	x
16	ROW F-2		7		3/17/2010	1440		1	X								Soil		ĸ										x			X
11	ROW ESW-2		6'		3/17/2010	1450		1	x				\bot				Soil		<										x			x
19	ROW SSW-2		6'		3/17/2010	1500		1	X				_	\bot	_	1	Soil	2	<u>(</u>					_	\downarrow	\downarrow	_	1	×_	\bot	L	X
19	ROW F-3		6'		3/17/2010	1510		1	X				_	_			Soil	1	4		 			_	4	_	\downarrow	4	×_	\bot	L	X
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	Company Name GPILEn	argy (Attention Jo	e Com	pton)	• 													P	roje	ct #:	GF	HE	nerç	IV I							
	Company Address: PO Box	50682																Pro	loct i	1 00-	500			Nou	Ma	dinco.					
	Children (7)	TV 70704				~~ <u>~~~~</u>										-			-			<u>iy 00</u>	uniy		(leici	0.00					-
	City/State/Zip: <u>Midiano</u> ,	IX /9/01												•		-			P	O #:						_					
	Telephone No: 578-141		7		·····	Fax No		57	5-396	3-14	29	<u> </u>		-			Repo	rt Fo	ma	rt:	X	Sta	ndar	d	Ľ] TR	RP		ПN	PDE	S
	Sampler Signature:	HJX	t		•	e-mail	:	<u>cs</u>	stan	ley	@t	basi	nen	<u>v.c</u>	om			-			_		_				_				-
(lab use d	only)	$- \gamma$		~	,													E			T	CLP:	Ana	alyze	For:	Г	Ţ		- T -	┥.	
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ise only)			Depth	pth	ped	peiq	1.2.V	ntainers 4029							N.	Vater SL+Sludge	ater S=Solt/Bolid B Specify Other	ACTEM) BO15	20 17 1008	Mg, Na, K)	O4, Albalinity)	cec	Ba Cd Cr Pb Hg Se		5030 ar BTEX 8260			38		Pra-Schedule) 24, 4	VT
LAB # (Jab u	FIELD CODE		Beginning	Ending De	Date Sam	Time Sam	Fladd Filtered	Total #. of Cor	ŝ	4NO3	Ŧ	H ₂ SO.	NeOH	Nor	Other (Spec	DW=Drinking V	GW = Groundwr NP~Non-Potebi	TPH: 418.1	TPH: TX 10	Cations (Ca. 1	Antons (Cl. St	8AR / ESP / (Metals: As Ag	Volartiles Community	BTEX 802184	RC	N.O.R.M.	Chlorides EPJ	НОГВ	RUSH TAT (Standard TA
11	ROW F-4		6'		3/17/2010	1530		1	X		_		_	┶	_		Soil	X					_		\bot			x			>
n	ROW SSW-4		5'		3/17/2010	1540		1	X		-			+		L	Soil	X				\square	_		_		$ \downarrow \downarrow$	×	-		
13	ROW F-5		3'		3/17/2010	1550		1	×		\rightarrow	+	+	╇	╉╌	┞	Soil	×		$\left - \right $				+-	┢		\vdash	×		+	Z
74	ROW NSW-5		2.5		3/17/2010	1600	┟╌┼	1	H	-+	+	+	+	╋	╀╌		<u>Soil</u>	<u> x</u>	\vdash				+	+	┢	\vdash	┝─╋	×	╋	╄┤	2
111	RUW F-6		2.5		3/17/2010	1620	┝╌┤	1	Ŷ	\neg	+		+	+	╀		5011 Soil	Ê		\square		\vdash	+	╉	┢	\square	┟─╊	升	+	\mathbf{H}	X
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10	ROW NSW-7		6"		3/17/2010	1640		1	x			╈	1	T	\uparrow		Soil	x					+	╈	╋			x	+	┢┤	x
29	ROW F-8		2.5'		3/17/2010	1650		1	x				Ι	Γ			Soil	x										x		\square	X
20	ROW SSW-8		2'		3/17/2010	1700		1	X								Soil	X										x		\Box	X
Special i	Instructions: BILL TC	GP Energy												- -						Lab VOC	orate S Fr	ee of	omn Hea	dspa	: ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;		lity	Ę	教育 2	N	謝
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Final Ver 1 000

Projec Comp	t Manager: Curt Stanley	Page		. /				Od	1955 8	, Tex	as 7	9765								Fap	:	432·	56 3-	4713	3			
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Comp		on Joe Com	pton)	· · · · · · · · · · · · · · · · · · ·			_								1	Proje	sct #	GF	<u>IIE</u>	nerç	<u>y</u>							
Comp	any Address: PO Box 50682														Pro	ject	Loc	Edo	ty Co	unty	Ne	w Mr	xico					
Citv/S	tate/Zip: Midland, TX 79701															F	20 #											
Telepi	hone No: 575-441-2244				Fax No:	:	57	5-390	8-142	9				Rep	ort F	orm	et:	x	Sta	ndar	d.		ד <u>[</u>	RRP			NPC)E
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5	FIELD CODE	<u>6</u>	<u><u></u></u>	ŏ	F	1 B	49 10 10	<u>\$</u>	Ť	ŶŤ	Ž	ź	Ξt	S D	N N	Ē	8	Ank	₽ S	-	3		<u>; 2</u>		đ		Ī	IRU
3	ROW F-9	3'	 	3/17/2010	1710		1	X	╾╀╴	╇		┝╼╋	╇	Soil	12	-	_			\rightarrow	+	+	+	╞	X		-	
56	ROW NSW-9	2.5'		3/17/2010	1720			X			+	\vdash	+-	Soil	<u> </u>	-			$\left - \right $	-	╉	╀	+	╂	X	+	╋	_
50 21	ROW F-10	2.5	 	3/17/2010	1730	-		X	-	+			╋	Soil	ť		\vdash		┝─╋		╋		+	+	X	-+	╉	
×	ROW 5.11	25		3/17/2010	1750		4	Ŷ	-+		\square			Soil	ť	+	\mathbf{H}			+	╉	+-	╋	+	A Y	-+	┽	_
40	ROW NSW-11	2'		3/17/2010	1800	Π	1	x	+				╈	Soil	Ţ		Π				╈	+	╋	Η	x	-+	╈	
37	ROW F-12	1'		3/17/2010	1810		1	x	Τ					Soil	X							T	T		x		T	-
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Final Ver 1 000

Environmental Lab of Texas

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Variance/ Corrective Action Report- Sample Log-In

Client:	GP ILENergy
Date/ Time:	<u>03-18-10 C0837</u>
Lab ID # :	365994
Lab ID # :	365994

Initials:

 JMF

Sample Receipt Checklist

				Client Initi	als
¢1	Temperature of container/ cooler?	(Yes)	No	3. 6 ° C	
¥2	Shipping container in good condition?	(res>	No		
# 3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?/(che)	(Yeś)	No	Not Present	
#5	Chain of Custody present?	(Tes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Tes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	res	No		
#11	Containers supplied by ELOT?	res	No		
#12	Samples in proper container/ bottle?	Ves	No	See Below	
#13	Samples property preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#1e	Containers documented on Chain of Custody?	(es)	No		
#17	Sufficient sample amount for indicated test(s)?	(Tes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#1\$	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	(Yes)	No	Not Applicable	
Co Re	Variance Docum	nentation		Date/ Time:	
Co	rrective Action Taken:		• • • • • • • • • •		
Ch	eck all that Apply: See attached e-mail/ fax Client understands and woul Cooling process had begun	ld like to pro shortly after	ceed with sampling	, n analysis g event	

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Analytical Report 366698

for

GP II Energy

Project Manager: Curt Stanley

Littlefield BO Fed #2

GP II Energy

29-MAR-10



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295)



29-MAR-10

Project Manager: **Curt Stanley GP II Energy** P.O. Box 50682 Midland, TX 79710

Reference: XENCO Report No: 366698 Littlefield BO Fed #2 Project Address: Eddy County, New Mexico

Curt Stanley:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 366698. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 366698 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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Sample Cross Reference 366698

GP II Energy, Midland, TX

Littlefield BO Fed #2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Road F-13	S	Mar-22-10 11:00	8 ft	366698-001
Road NSW-13	S	Mar-22-10 11:10	7 ft	366698-002
Road F-14 (9')	S	Mar-22-10 15:00	9 ft	366698-003
Road F-14 (14')	S	Mar-22-10 15:10	14 ft	366698-004
Background @ 8'	S	Mar-22-10 17:00	8 ft	366698-005
Road F -12.5 (10')	S	Mar-23-10 10:45	10 ft	366698-006
Road F-12.5 (16')	S	Mar-23-10 10:50	16 ft	366698-007

.

CASE NARRATIVE



Client Name: GP II Energy Project Name: Littlefield BO Fed #2

Project ID:GP II EnergyWork Order Number:366698

Report Date: 29-MAR-10 Date Received: 03/24/2010

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-799826 Percent Moisture None

Batch: LBA-799880 TPH By SW8015 Mod None

Batch: LBA-800153 Inorganic Anions by EPA 300 None



Certificate of Analysis Summary 366698

GP II Energy, Midland, TX

Project Name: Littlefield BO Fed #2

Project Id: GP II Energy Contact: Curt Stanley Project Location: Eddy County, New Mexico

Date Received in Lab: Wed Mar-24-10 08:30 am

Report Date: 29-MAR-10

								Project Ma	nager:	Brent Barron,	II		
	Lab Id:	366698-0	001	366698-0	02	366698-0	003	366698-0	004	366698-0	005	366698-0	06
An alunia Demonstrad	Field Id:	Road F-	13	Road NSW	/-13	Road F-14	(9')	Road F-14	(14')	Background	@ 8'	Road F -12.5	(10')
Analysis Kequestea	Depth:	8- ft		7- ft		9- ft		14- ft		8- ft		10- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-22-10	11:00	Mar-22-10	11:10	Mar-22-10	15:00	Mar-22-10	15:10	Mar-22-10	17:00	Mar-23-10 I	10:45
Anions by E300	Extracted:												-
	Analyzed:	Mar-26-10	12:00	Mar-26-10	12:00	Mar-26-10	12:00	Mar-26-10	12:00	Mar-26-10	12:00	Mar-26-10 1	12.00
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		943	25.4	2530	102	561	24.1	403	49.1	43.5	21.9	356	53.9
Percent Moisture	Extracted:												
	Analyzed:	Mar-25-10	12.00	Mar-25-10	12:00	Mar-25-10	12:00	Mar-25-10	12:00	Mar-25-10	12:00	Mar-25-10 1	2:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		17.3	1.00	17.5	1.00	12.8	1.00	14.4	1.00	4.01	1.00	22.1	1 00
TPH By SW8015 Mod	Extracted:	Mar-25-10	10:00	Mar-25-10	10.00	Mar-25-10	10:00	Mar-25-10	10:00				
	Analyzed:	Mar-25-10	20:50	Mar-25-10 2	21.17	Mar-25-10 2	21:44	Mar-25-10	22.11				
1	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
C6-C12 Gasoline Range Hydrocarbons		ND	18.1	ND	18.2	ND	17.2	ND	17.5				
C12-C28 Diesel Range Hydrocarbons		23.1	18.1	19.7	18.2	21.2	17.2	21.4	17.5				
C28-C35 Oil Range Hydrocarbons		ND	18.1	ND	18.2	ND	17.2	ND	17.5				
Total TPH		23.1	18.1	19.7	18.2	21.2	17.2	21.4	17.5				

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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Brent Barron, II

Odessa Laboratory Manager

XENCO
Laboratories

Certificate of Analysis Summary 366698

GP II Energy, Midland, TX

Project Name: Littlefield BO Fed #2

 Project Id:
 GP II Energy

 Contact:
 Curt Stanley

 Project Location:
 Eddy County, New Mexico

Date Received in Lab: Wed Mar-24-10 08:30 am

Report Date: 29-MAR-10

Project Manager: Brent Barron, II

	Lab Id:	366698-007			
Analysis Degrasted	Field Id:	Road F-12.5 (16')			
Analysis Requested	Depth:	16- ft			
	Matrix:	SOIL			
	Sampled:	Mar-23-10 10:50			
Anions by E300	Extracted:				
	Analyzed:	Mar-26-10 12:00			
	Units/RL:	mg/kg R	L		
Chlonde		419 43	.2		
Percent Moisture	Extracted:				
	Analyzed:	Mar-25-10 12:00			
	Units/RL:	% R	L		
Percent Moisture		2.89 1.0	00		

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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Brent Barron, II

Odessa Laboratory Manager



- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- **BRL** Below Reporting Limit.
- **RL** Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation.

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5332 Blackberry Drive, San Antonio TX 78238	(210) 509-3334	(210) 509-3335
2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St. Miami Lakes, FL 33014	(305) 823-8500	(305) 823-8555
12600 West I-20 East, Odessa, TX 79765	(432) 563-1800	(432) 563-1713
842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116

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Form 2 - Surrogate Recoveries

Project Name: Littlefield BO Fed #2

Vork Orders : 366698 Lab Batch #: 799880	sample: 559106-1-BKS / B	KS Batc	Project IE	GP II Ener Solid	rgy	
Units: mg/kg	Date Analyzed: 03/25/10 13:14	SU	RROGATE RE	COVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc	<u> </u>	111	99.5	112	70-135	
o-Terphenyl		43.0	49.8	86	70-135	
Lab Batch #: 799880	Sample: 559106-1-BSD / B	SD Batcl	h: 1 Matrix:	Solid		
Units: mg/kg	Date Analyzed: 03/25/10 13:41	SU	RROGATE RE	COVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		114	99.6	114	70-135	
o-Terphenyl		43.2	49.8	87	70-135	
Lab Batch #: 799880	Sample: 559106-1-BLK / B	LK Bate	h: 1 Matrix:	Solid	<u> </u>	
Units: mg/kg	Date Analyzed: 03/25/10 14:07	SU	RROGATE RE	COVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane		97.7	100	98	70-135	
o-Tcrphenyl		46.8	50.2	93	70-135	
Lab Batch #: 799880	Sample: 366698-001 / SMP	Batc	h: ¹ Matrix:	Soil	<u>المعمود</u>	
Units: mg/kg	Date Analyzed: 03/25/10 20:50	SU	RROGATE RI	COVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		86.8	100	87	70-135	
o-Terphenyl	<u></u>	43.2	50.0	86	70-135	
Lab Batch #: 799880	Sample: 366698-002 / SMI	Batc	h: 1 Matrix	Soil	1	
Units: mg/kg	Date Analyzed: 03/25/10 21:17	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	· · · · · · · · · · · · · · · · · · ·	95.2	100	95	70-135	
o-Terphenyl	· · · · · · · · · · · · · · · · · · ·	47.5	50.0	95	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / BAll results are based on MDL and validated for QC purposes.



Project Name: Littlefield BO Fed #2

Vork Orders : 366698	·,	_	Project II): GP II Ener	rgy	
Lab Batch #: 799880	Sample: 366698-003 / SMP	Batch	a: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/25/10 21:44	<u> </u>	RROGATE RE	COVERY :	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		94.2	100	94	70-135	[
o-Terphenyl		46.2	50.0	92	70-135	
Lab Batch #: 799880	Sample: 366698-004 / SMP	Bate	h: 1 Matrix	:Soil	h	
Units: mg/kg	Date Analyzed: 03/25/10 22:11	SU	RROGATE RF	ECOVERY	STUDY	
TPH)	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		94.6	100	95	70-135	<u> </u>
o-Terphenyl		47.2	50.0	94	70-135	
Lab Batch #: 799880	Sample: 366752-001 S / MS	S Bate'	h: 1 Matrix	: Soil	L	
Units: mg/kg	Date Analyzed: 03/26/10 00:02	SU	RROGATE RJ	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes		ļ	[n]	ļ!	L
1-Chlorooctane					70-135	 '
o-Terphenyl		45.3	50.2	90	70-135	L
Lab Batch #: 799880	Sample: 366752-001 SD / N	1SD Batel	h: 1 Matrix	:Soil	COLUDAL	
Units: mg/kg	Date Analyzed: 03/26/10 00:29	SU	RROGATE RI	ECOVERY :	STUDY	·
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		116	100	116	70-135	
o-Terphenyl		43.4	50.1	87	70-135	

- * Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
- *** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / BAll results are based on MDL and validated for QC purposes.





Work Order #: 366698		Pro	GP I	I Energy		
Lab Batch #: 800153 Date Analyzed: 03/26/2010	Sample: 800153- Date Prepared: 03/26/20	-1-BKS 010	Matrix: Analyst:	ł		
Reporting Units: mg/kg	Batch #: 1	BLANK /E	OVERY S	VERY STUDY		
Anions by E300	Blank Result	Spike Added	Blank Spike	Blank Spike	Control Limits	Flags
Analytes	[A]	[B]	Result [C]	%R [D]	%R	
Chloride	ND	10.0	10.9	109	75-125	

Blank Spike Recovery [D] = 100*[C]/[B] All results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit



BS / BSD Recoveries



Project Name: Littlefield BO Fed #2

Work Order #: 366698 Analyst: BEV Lab Batch ID: 799880 Sample: 55910	A66698 Project ID: 7 Date Prepared: 03/25/2010 Date Analyzed: 880 Sample: 559106-1-BKS Batch #: 1 Matrix:								GP II Energ 03/25/2010 Solid	у	
Units: mg/kg		BLAN	K/BLANK S	SPIKE / I	BLANK S	PIKE DUPI	LICATE	RECOVI	ERY STUD	Y	
TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added (B)	Blank Spike Result	Blank Spike %R (D)	Spike Added	Blank Spike Duplicate Result (F)	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		נטן		וען	[E]	Kesult [1]	ש				
C6-C12 Gasoline Range Hydrocarbons	ND	995	1040	105	996	1080	108	4	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	995	871	88	996	897	90	3	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Littlefield BO Fed #2

Lab Batch #: 800153		Pro	ject ID:	GP II Energ	зу				
Date Analyzed: 03/26/2010	Date Prepared: 03/26/2010	A	Analyst: LATCOR						
QC- Sample ID: 366697-021 S	Batch #: 1	Ν	Matrix: Soil						
Reporting Units: mg/kg	MATRIX /	1ATRIX SPIKE RECOVERY STUDY							
Inorganic Anions by EPA 300	Parent Sample Spil Result Add	Spiked Sample ke Result ed [C]	%R [D]	Control Limits %R	Flag				
Analytes	[A] [B]		[**]						
Chloride	ND 125	5 133	106	75-125					

Matrix Spike Percent Recovery [D] = 100*(C-A)/BRelative Percent Difference [E] = 200*(C-A)/(C+B)All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Form 3 - MS / MSD Recoveries

Project Name: Littlefield BO Fed #2



Work Order #: 366698	Project ID: GP II Energy										
Lab Batch ID: 799880 Date Analyzed: 03/26/2010	QC- Sample ID: Date Prepared:	366752 03/25/2	-001 S 010	Ba An	tch #: alyst:	1 Matri BEV	k: Soil				
Reporting Units: mg/kg	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
TPH By SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	[A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1050	1090	104	1050	1110	106	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1050	887	84	1050	979	93	10	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/BRelative Percent Difference RPD = 200*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit



Work Order #: 366698

Sample Duplicate Recovery

Project Name: Littlefield BO Fed #2

Project ID: GP II Energy Lab Batch #: 800153 Analyst: LATCOR Date Prepared: 03/26/2010 Date Analyzed; 03/26/2010 Batch #: 1 Matrix: Soil QC- Sample ID: 366697-021 D SAMPLE / SAMPLE DUPLICATE RECOVERY Reporting Units: mg/kg Anions by E300 Parent Sample Sample Control RPD Duplicate Limits Result Flag Result %RPD [A] **[B]** Analyte Chloride ND ND NC 20 Lab Batch #: 799826 Date Prepared: 03/25/2010 Analyst: WRU Date Analyzed: 03/25/2010 Batch #: Matrix: Soil QC- Sample ID: 366697-028 D 1 SAMPLE / SAMPLE DUPLICATE RECOVERY **Reporting Units: %** Control **Percent Moisture** Sample Parent Sample Duplicate RPD Limits Result Flag %RPD Result [A] [B] Analyte 20.0 Percent Moisture 20.3 1 20

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit

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	Project Manager:	Curt Stanley	<u> </u>	Page	<u>1 of 1</u>													F	Proje	ot Na	ame:	Litt	efie	id E	O F	ed #	12			_			
	Company Name	GPII Energy	Attention Jo	e Com	pton)	<u></u>													F	тоје	ct #:	GP	<u> 11 E</u>	nen	gy								
	Company Address:	PO Box 50682	2			<u></u>									<u> </u>				Pro	ject	Loc:	Edd	y Co	unty	/, New	v M	exica	<u> </u>			<u> </u>		
	City/State/Zip:	Midland, TX 7	9701													_				P	0#:								, 				
	Telephone No:	575-441-2244					Fax No:	:	57	5-31	98-14	129	·				_	Rep	ort Fe	orma	at:	X] Ste	nda	rd		•	TRR	P	[] NI	DE	3
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LAB 6 (lab use only)	FIEI	LD CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	ţ	HNO3	Ę	H ₂ SO ₄	NeOH	Na_S_O_		Correct (Spectry)	GW = Grownowater S=SolySo	TPH: 418 1 And 100	TPH: TX 1005 TX 1	Cettors (Ca, Mg, Na, K)	Anions (Cl. 304, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr P2	Volatifies	Semivolatiles	BTEX 80218/5030 or BTE	RCI	N.O.R.M.		ногр	RUSH TAT (Pre-Schedule)	Standard TAT
100-	Ro	ad F-13		8'		3/22/2010	1100		1	X		L						Soil	<u>/</u>								\downarrow	\bot	<u></u> >	4	\perp		X
002	Road	NSW-13		7'	Ļ	3/22/2010	1110		1	X						╇	⊥	Soil	Ľ	4_	-					_	4	4	_ <u>}</u>	4	4	L	X
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Special I	nstructions:	BILL TO GP	ii Energy	<u></u>						-	<u> </u>									- b aaaa		Cs F	ory (Cold	Con Marine f He	adsp	ts: 8ce	 R			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		N	
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Relinquish	ed By:		Date	Tì	me	Received by	·		-							Č)ata		Tin	10	Sar	nple by S by C	Hano smpk ourier	i De #/Cii ?	livere ent R L	d ap. 7 IPS	, T	ᅫᆫ	Fe	NGEX NGEX	; . Lor	N N 19 St	ar
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Environmental Lab of Texas Variance/ Corrective Action Report- Sample Log-In



Sample Receipt Checklist

				Client	Initials
#1	Temperature of container/ cooler?	(Yes)	No	Z.2 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	res	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	iD written on Cont./ Lld	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Cles	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	Kes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	1 Ces	No	Not Applicable	

Variance Documentation

Contact:	Contacted by:	 Date/ Time:
Regarding:		
Corrective Action Taken:		
		······································

Check all that Apply:

See attached e-mail/ fax

Client understands and would like to proceed with analysis Cooling process had begun shortly after sampling event

Analytical Report 367141

for

GP II Energy

Project Manager: Joe Compton

Littlefield BO Fed #2

GP II Energy

07-APR-10





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295)



07-APR-10



Project Manager: Joe Compton GP II Energy P.O. Box 50682(GP II Energy's Clients Address) Midland, TX 79710

Reference: XENCO Report No: 367141 Littlefield BO Fed #2 Project Address: Eddy County, New Mexico

Joe Compton:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 367141. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 367141 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994. Certified and approved by numerous States and Agencies. A Small Business and Minority Status Company that delivers SERVICE and QUALITY Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi - Latin America



Sample Cross Reference 367141

GP II Energy, Midland, TX Littlefield BO Fed #2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Pit F-1	S	Mar-25-10 08:30	10 ft	367141-001
Pit SSW	S	Mar-25-10 08:40	5.5 ft	367141-002
Pit WSW	S	Mar-25-10 08:50	5.5 ft	367141-003
Pit NSW	S	Mar-25-10 09:00	5.5 ft	367141-004
Pit ESW	S	Mar-25-10 09:10	5.5 ft	367141-005
ROW WSW-1A	S	Mar-25-10 11:00	3 ft	367141-006
ROW F-2A	S	Mar-25-10 11:10	11 ft	367141-007
ROW F-3A	S	Mar-25-10 11:15	9 ft	367141-008
ROW F-6A	S	Mar-25-10 11:20	6 ft	367141-009
ROW SSW-6A	S	Mar-25-10 11:30	5.5 ft	367141-010
ROW F-12A	S	Mar-25-10 11:40	4 ft	367141-011
ROAD F-2A	S	Mar-25-10 11:46	6 ft	367141-012
ROAD NSW-2A	S	Mar-25-10 11:50	5.5 ft	367141-013
ROAD NSW-10.5	S	Mar-25-10 12:00	7 ft	367141-014
ROAD F-11	S	Mar-25-10 12:05	7 ft	367141-015
ROAD SSW-11	S	Mar-25-10 12:15	6.5 ft	367141-016
ROAD F-12	S	Mar-25-10 12:30	6 ft	367141-017
ROAD NSW-12	S	Mar-25-10 12:35	5.5 ft	367141-018
ROAD F-15	S	Mar-26-10 10:00	6 ft	367141-019
ROAD NSW-15	S	Mar-26-10 10:05	5.5 ft	367141-020
ROAD WSW-15	S	Mar-26-10 10:10	6.5 ft	367141-021
ROAD F-16	S	Mar-26-10 11:05	3.5 ft	367141-022
ROAD SSW-16	S	Mar-26-10 11:10	3 ft	367141-023
ROAD F-17	S	Mar-26-10 12:05	4 ft	367141-024
ROAD NSW-17	S	Mar-26-10 12:10	3.5 ft	367141-025

* TRRP Ticr I Comm/Indus Soils PCL's



Client Name: GP II Energy Project Name: Littlefield BO Fed #2



Project ID: GP II Energy Work Order Number: 367141 Report Date: 07-APR-10 Date Received: 03/29/2010

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-800382 TPH By SW8015 Mod None

Batch: LBA-800385 TPH By SW8015 Mod None

Batch: LBA-800406 Percent Moisture None

Batch: LBA-800411 Percent Moisture None

Batch: LBA-800464 Inorganic Anions by EPA 300 None

Batch: LBA-800467 Anions by E300 E300MI Batch 800467, Chloride RPD is outside the QC limit. This is most likely due to sample nonhomogeneity. Samples affected are: 367141-023, -020, -022, -025, -024, -019, -021.

Batch: LBA-800469 TPH By SW8015 Mod None

Batch: LBA-800506 BTEX by EPA 8021B SW8021BM

Batch 800506, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Samples affected are: 367141-001, -003, -004, -005, -002. The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits


Certificate of Analysis Summary 367141

GP II Energy, Midland, TX



Project Name: Littlefield BO Fed #2

Date Received in Lab: Mon Mar-29-10 08:50 am Report Date: 07-APR-10

Project Id: GP II Energy Contact: Joe Compton Project Location: Eddy County, New Mexico

								Project Ma	nager:	Brent Barron	, II		
	Lab Id:	367141-	001	367141-	002	367141-0	003	367141-	004	367141-	005	367141-0	006
Anglusis Paguestad	Field Id:	Pit F-	1	Pit SSV	N	Pit WS	w	Pit NS	W	Pit ES	w	ROW WSV	W-1A
Analysis Kequestea	Depth:	10- ft	:	5.5- fi	t	5.5- ft		5.5- f	t	5.5- f	t	3- ft	
	Matrix:	SOIL	,	SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled;	Mar-25-10	08:30	Mar-25-10	08:40	Mar-25-10	08:50	Mar-25-10	09:00	Mar-25-10	09:10	Mar-25-10	11:00
Anions by E300	Extracted:												
	Analyzed:	Mar-31-10	00:09	Mar-31-10	00:09	Mar-31-10	00:09	Mar-31-10	00:09	Mar-31-10	00.09	Mar-31-10	00:09
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chlonde		210	9.61	623	23.9	438	24.2	153	18.9	39.1	18.4	115	21.1
BTEX by EPA 8021B	Extracted:	Mar-30-10	15:30	Mar-30-10	15.30	Mar-30-10	15:30	Mar-30-10	15:30	Mar-30-10	15:30		
	Analyzed:	Mar-31-10	02:59	Mar-31-10	03:22	Mar-31-10	03:45	Mar-31-10	04:07	Mar-31-10	04:30		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		ND	0.0011	ND	0.0011	ND	0.0012	ND	0 0011	ND	0.0011		
Toluene		ND	0.0023	ND	0.0023	ND	0.0023	ND	0.0022	ND	0.0022		
Ethylbenzene		ND	0.0011	ND	0.0011	ND	0.0012	ND	0.0011	ND	0.0011		
m,p-Xylenes		ND	0.0023	ND	0.0023	ND	0.0023	ND	0.0022	ND	0.0022		
o-Xylene		ND	0.0011	ND	0.0011	ND	0.0012	ND	0.0011	ND	0.0011		
Total Xylenes		ND	0.0011	ND	0.0011	ND	0.0012	ND	0.0011	ND	0.0011		-
Total BTEX		ND	0.0011	ND	0.0011	ND	0.0012	ND	0.0011	ND	0.0011		
Percent Moisture	Extracted:												
	A nalyzed:	Mar-30-10	17.00	Mar-30-10	17:00	Mar-30-10	17:00	Mar-30-10	17:00	Mar-30-10	17:00	Mar-30-10	17.00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		12.6	1.00	12.2	1.00	13.4	1.00	11.1	1.00	8.86	1.00	ND	1.00
TPH By SW8015 Mod	Extracted:	Mar-30-10	12:30	Mar-30-10	12:30	Mar-30-10	12:30	Mar-30-10	12:30	Mar-30-10	12:30		
	Analyzed:	Mar-31-10	00:24	Mar-31-10	00.50	Mar-31-10	01:17	Mar-31-10	01.44	Mar-31-10	00:15		
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL		
C6-C12 Gasoline Range Hydrocarbons		19 2	17.2	20.8	17.1	19.3	17.3	20.4	16.9	ND	16.5		
C12-C28 Diesel Range Hydrocarbons		ND	17.2	ND	17.1	21.0	17.3	17.6	16.9	ND	16.5		
C28-C35 Oil Range Hydrocarbons		ND	17.2	ND	17.1	ND	17.3	ND	16.9	ND	16.5		
Total TPH		19.2	17.2	20.8	17.1	40.3	17.3	38.0	16.9	ND	16.5		

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Brent Barron, II

Odessa Laboratory Manager

Final Ver. 1.000



Certificate of Analysis Summary 367141

GP II Energy, Midland, TX





Date Received in Lab: Mon Mar-29-10 08:50 am

Report Date: 07-APR-10

Project Id: GP II Energy Contact: Joe Compton Project Location: Eddy County, New Mexico

								Project Ma	nager:	Brent Barron,	, II		
	Lab Id:	367141-0	007	367141-0)08	367141-0)09	367141-0)10	367141-0	JII	367141-0)12
Analusia Deguastad	Field Id:	ROW F-	-2A	ROW F-	3A	ROW F-	6A	ROW SSW	/-6A	ROW F-I	12A	ROAD F-	-2A
Anaiysis Kequesieu	Depth:	11- ft	, I	9- ft		6- ft		5.5- ft	. 1	4- ft	,	6- ft	
	Matrix:	SOIL	ا _	SOIL	1	SOIL		SOIL	ļ	SOIL	,	SOIL	
1	Sampled:	Mar-25-10	11:10	Mar-25-10	11:15	Mar-25-10	11:20	Mar-25-10	11:30	Mar-25-10	11:40	Mar-25-10	11:46
Anions by E300	Extracted:												
	Analyzed:	Mar-31-10	00 09	Mar-31-10	00:09	1	}	ļ	I		I		
	Units/RL:	mg/kg	RL	mg/kg	RL	L							
Chlonde		1390	23.0	1030	22.8								
Percent Moisture	Extracted:					1	_ ·]						
	Analyzed:	Mar-30-10	17.00	Mar-30-10	17:00	Mar-30-10	17:00	Mar-30-10	17:00	Mar-30-10	17:00	Mar-30-10	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		8.60	1.00	7.78	1.00	19.5	1.00	8.50	1.00	23.7	1.00	18.9	1.00
TPH By SW8015 Mod	Extracted:	,				Mar-30-10	12:30	Mar-30-10	12:30	Mar-30-10	12:30	Mar-30-10	12:30
	Analyzed:		ļ			Mar-31-10 (00:45	Mar-31-10 (J1:15	Mar-31-10 (01:45	Mar-31-10 (02:16
	Units/RL:		1	1		mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons						ND	18.5	ND	16.4	ND	19.6	ND	18.4
C12-C28 Dicsel Range Hydrocarbons						ND	18.5	ND	16.4	ND	19.6	ND	18.4
C28-C35 Oil Range Hydrocarbons						ND	18.5	19.1	16.4	ND	19.6	ND	18.4
Total TPH			ļ	1		ND	18 5	19.1	16.4	ND	19.6	ND	18.4

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Brent Barron, II

Odessa Laboratory Manager

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Certificate of Analysis Summary 367141

GP II Energy, Midland, TX



Project Name: Littlefield BO Fed #2

Date Received in Lab: Mon Mar-29-10 08:50 am Report Date: 07-APR-10

Project Id: GP II Energy Contact: Joe Compton Project Location: Eddy County, New Mexico

								Project Ma	nager:	Brent Barron,	II		
	Lab Id:	367141-()13	367141-0	014	367141-0	015	367141-()16	367141-0	017	367141-0	018
Anglusis Paguastad	Field Id:	ROAD NSV	W-2A	ROAD NSW	7-10.5	ROAD F	-11	ROAD SS	W-11	ROAD F	-12	ROAD NSV	W-12
Analysis Kequesiea	Depth:	5.5- ft		7- ft		7- ft		6.5- ft		6- ft		5.5- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-25-10	11:50	Mar-25-10	12:00	Mar-25-10	12:05	Mar-25-10	12:15	Mar-25-10	12:30	Mar-25-10	12:35
Anions by E300	Extracted:												
	Analyzed:	Mar-31-10	00:09	Mar-31-10	00:09	Mar-31-10	00:09	Mar-31-10	00:09	Mar-31-10	00:09	Mar-31-10	00:09
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chlonde		429	46 2	851	24.7	667	48.4	1440	49.5	2790	47.4	505	19.3
Percent Moisture	Extracted:												
	Analyzed:	Mar-30-10	17:00	Mar-30-10	17:00	Mar-30-10	17:00	Mar-30-10	17:00	Mar-30-10	17:00	Mar-30-10	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		9.02	1.00	14.9	1.00	13.3	1.00	15.2	1.00	11.4	1.00	13.1	1.00
TPH By SW8015 Mod	Extracted:					Mar-30-10	12.30	Mar-30-10	12:30	Mar-30-10	12:30	Mar-30-10	12 30
	Analyzed:					Mar-31-10 (02.49	Mar-31-10	03:22	Mar-31-10	06.43	Mar-31-10 (07:10
	Units/RL:					mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons						ND	17.3	ND	17.6	17.7	16.9	ND	17.3
C12-C28 Diesel Range Hydrocarbons						ND	17.3	ND	17.6	ND	16.9	ND	17.3
C28-C35 Oil Range Hydrocarbons						ND	17.3	ND	17.6	ND	16.9	ND	17.3
Total TPH						ND	17.3	ND	17.6	17.7	16.9	ND	17.3

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Brent Barron, II

Odessa Laboratory Manager



Certificate of Analysis Summary 367141 GP II Energy, Midland, TX

Project Name: Littlefield BO Fed #2



Project Id: GP II Energy Contact: Joe Compton Project Location: Eddy County, New Mexico

Date Received in Lab: Mon Mar-29-10 08:50 am

Report Date: 07-APR-10

								Project Ma	nager:	Brent Barron,	П		
	Lab Id:	367141-()19	367141-0	020	367141-0	21	367141-(022	367141-0	23	367141-0)24
Augusto Degrand	Field Id:	ROAD F	-15	ROAD NS	W-15	ROAD WS	W-15	ROAD F	-16	ROAD SSV	W-16	ROAD F	-17
Analysis Kequestea	Depth:	6- ft		5.5- ft		6.5- ft	ļ	3.5- ft		3- ft		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Mar-26-10	10:00	Mar-26-10	10:05	Mar-26-10	10:10	Mar-26-10	11:05	Mar-26-10 1	11:10	Mar-26-10	12:05
Anions by E300	Extracted:					·							
	Analyzed:	Mar-31-10	05.27	Mar-31-10	05:27	Mar-31-10 (05:27	Mar-31-10	05:27	Mar-31-10 0	05:27	Mar-31-10	05:27
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		348	18.2	64.3	18.7	110	23.6	98 5	47.2	1410	47.2	911	46.9
Percent Moisture	Extracted:												
	Analyzed:	Mar-30-10	17:00	Mar-30-10	17.00	Mar-30-10 1	17.00	Mar-30-10	17:00	Mar-30-10 1	17:00	Mar-30-10	17:00
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		7.47	1.00	10.3	1.00	11 0	1.00	11.0	1.00	11.0	1.00	10.4	1.00
TPH By SW8015 Mod	Extracted:	Mar-30-10	12:30	Mar-30-10	12:30	Mar-30-10 1	12:30	Mar-30-10	12.30	Mar-30-10 1	2.30	Mar-30-10	12:30
	Analyzed:	Mar-31-10	07:37	Mar-31-10	08:04	Mar-31-10 (08:31	Mar-31-10	08:58	Mar-31-10 0)9:25	Mar-31-10 (09.52
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL.	mg/kg	RL
C6-C12 Gasoline Range Hydrocarbons		ND	16.2	ND	16.7	ND	16.8	ND	16.8	ND	16.8	ND	16.7
C12-C28 Diesel Range Hydrocarbons		17.0	16.2	ND	16.7	ND	16.8	ND	16.8	ND	16.8	NĎ	16.7
C28-C35 Oil Range Hydrocarbons		ND	16.2	ND	16.7	ND	16.8	ND	16.8	ND	16.8	ND	16.7
Total TPH		17.0	16.2	ND	16.7	ND	16.8	ND	16.8	ND	16.8	ND	16.7

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Brent Barron, II

Odessa Laboratory Manager

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Project Id: GP II Energy

Contact: Joe Compton

Project Location: Eddy County, New Mexico

Certificate of Analysis Summary 367141

GP II Energy, Midland, TX



Project Name: Littlefield BO Fed #2

Date Received in Lab: Mon Mar-29-10 08:50 am

Report Date: 07-APR-10

Project Manager: Brent Barron, II

	Lab Id:	367141-02	25			
Analysis Paguastad	Field Id:	ROAD NSW	/-17			
Analysis Requested	Depth:	3.5- ft				
	Matrix:	SOIL				
	Sampled:	Mar-26-10 1	2:10			
Anions by E300	Extracted:					
	Analyzed:	Mar-31-10 0	5:27			
	Units/RL:	mg/kg	RL			
Chloride		63.0	9.45			
Percent Moisture	Extracted:					
	Analyzed:	Mar-30-10 1	7.00			
	Units/RL:	%	RL			
Percent Moisture		11.1	1 00			
TPH By SW8015 Mod	Extracted:	Mar-30-10 1	2:30			
	A nalyzed:	Mar-31-10 1	0:19			
	Units/RL:	mg/kg	RL		 	
C6-C12 Gasoline Range Hydrocarbons		ND	16.8			
C12-C28 Diesel Range Hydrocarbons		ND	16.8			
C28-C35 Oil Range Hydrocarbons		ND	16.8			
Total TPH		ND	16.8			

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- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- **BRL** Below Reporting Limit.
- **RL** Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation.

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2505 North Falkenburg Rd, Tampa, FL 33619	(813) 620-2000	(813) 620-2033
5757 NW 158th St. Miami Lakes FL 33014	(305) 823-8500	(305) 823-8555
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842 Cantwell Lane, Corpus Christi, TX 78408	(361) 884-0371	(361) 884-9116



Project Name: Littlefield BO Fed #2

Work Orders : 367141 Lab Batch #: 800506	, Sample: 559503-1-BKS / B	KS Batcl	Project ID n: 1 Matrix:	GP II Ener Solid	ду	
Units: mg/kg	Date Analyzed: 03/31/10 01:08	SU	RROGATE RE	COVERYS	STUDY	
BTE	Applyton	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
14 Diffuenchampene	Anarytes		0.0200		00.100	
1,4-Diffuorobenzene		0.0287	0.0300	96	80-120	
4-Bromoridorobenzene		0.0306	0.0300	102	80-120	
Lab Batch #: 800506	Sample: 559503-1-BSD / B	SD Batcl	n: 1 Matrix:	Solid		
Units: mg/kg	Date Analyzed: 03/31/10 01:30	SU	RROGATE RE	COVERYS	STUDY	
BTEX	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Dıfluorobenzene		0.0286	0.0300	95	80-120	
4-Bromofluorobenzene		0.0311	0.0300	104	80-120	
Lab Batch #: 800506	Sample: 559503-1-BLK / B	LK Batc	h: 1 Matrix:	Solid		
Units: mg/kg	Date Analyzed: 03/31/10 02:37	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4-Difluorobenzene		0.0244	0.0300	81	80-120	
4-Bromofluorobenzene		0.0302	0.0300	101	80-120	
Lab Batch #: 800506	Sample: 367141-001 / SMF	l Batel	h· 1 Matrix	Soil		
Units: mg/kg	Date Analyzed: 03/31/10 02:59	SU	RROGATE RE	COVERY	STUDY	
BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1,4-Difluorobenzene		0.0246	0.0300	82	80-120	
4-Bromofluorobenzene		0.0320	0.0300	107	80-120	
Lab Batch #: 800506	Sample: 367141-002 / SMI	Batc	h: 1 Matrix	:Soil		
Units: mg/kg	Date Analyzed: 03/31/10 03:22	SU	RROGATE RI	ECOVERY	STUDY	
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0244	0.0300	81	80-120	
4-Bromofluorobenzene	·····	0.0313	0.0300	104	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

Work Orders : 367141, Lab Batch #: 800506	Sample: 367141-003 / SMP	Project IE n: 1 Matrix:	GP II Ener Soil	гgy		
Units: mg/kg	Date Analyzed: 03/31/10 03:45	SUI	RROGATE RE	COVERY	STUDY	
BTEX	Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0242	0 0300	81	80-120	· · · · · · · · · · · · · · · · · · ·
4-Bromofluorobenzene		0.0311	0.0300	104	80-120	
Lab Batch #: 800506	Sample: 367141-004 / SMP	Batch	n: 1 Matrix:	Soil	<u> </u>	
Units: mg/kg	Date Analyzed: 03/31/10 04:07	SUI	RROGATE RE	COVERY	STUDY	
BTEX	L by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0244	0.0300	81	80-120	
4-Bromofluorobenzene		0.0310	0.0300	103	80-120	
Lab Batch #: 800506	Sample: 367141-005 / SMP	Batcl	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/31/10 04:30	SU	RROGATE RE	COVERY	STUDY	
BTEX	K by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0246	0.0300	82	80-120	
4-Bromofluorobenzene		0.0320	0.0300	107	80-120	
Lab Batch #: 800506	Sample: 367141-005 S / MS	Batcl	h: ¹ Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/31/10 11:37	SU	RROGATE RE	COVERY	STUDY	
BTEX	A polytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1 4-Difluorobenzene		0.0281	0.0300	94	80-120	
4-Bromofluorobenzenc		0.0302	0.0300	101	80-120	
Lab Batch #: 800506	Sample: 367141-005 SD / N	ISD Bate	h: ¹ Matrix:	: Soil		L <u>,</u>
Units: mg/kg	Date Analyzed: 03/31/10 11:59	SU	RROGATE RI	ECOVERY	STUDY	
ВТЕХ	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0280	0.0300	93	80-120	
4-Bromofluorobenzene		0.0316	0.0300	105	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

Work Orders : 367141, Lab Batch #: 800382	Sample: 559420-1-BKS / B	KS Batel	Project II	GP II Ener	·gy		
Units: mg/kg	Date Analyzed: 03/30/10 15:20	SU	RROGATE RE	COVERY S	STUDY		
ТРН Ву	SW8015 Mod nalytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	· · · · · · · · · · · · · · · · · · ·	115	99.7	115	70-135		
o-Terphenyl		54.6	49.9	109	70-135		
Lab Batch #: 800382	Sample: 559420-1-BSD / B	SD Batel	h: 1 Matrix:	Solid			
Units: mg/kg	Date Analyzed: 03/30/10 15:47	SURROGATE RECOVERY STUDY					
ТРН Ву	SW8015 Mod nalytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane		117	99.9	117	70-135		
o-Terphenyl		55.6	50.0	111	70-135		
Lab Batch #: 800382	Sample: 559420-1-BLK / B	LK Batel	h: 1 Matrix:	Solid			
Units: mg/kg	Date Analyzed: 03/30/10 16:14	SU	RROGATE RE	COVERY	STUDY		
ТРН Ву	SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane		121	100	121	70-135		
o-Terphenyl		60.6	50.1	121	70-135		
Lab Batch #: 800382	Sample: 367141-001 / SMP	Bate	h: ¹ Matrix:	Soil			
Units: mg/kg	Date Analyzed: 03/31/10 00:24	SU	RROGATE RI	ECOVERY	STUDY	u	
ТРН Ву	SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
A	nalytes			[D]			
1-Chlorooctanc		116	100	116	70-135		
o-Terphenyl		59 1	50.1	118	70-135		
Lab Batch #: 800382	Sample: 367141-002 / SMF	Batc	h: 1 Matrix	:Soil		<u>-</u>	
Units: mg/kg	Date Analyzed: 03/31/10 00:50	<u> </u>	RROGATE RI	ECOVERY	STUDY		
ТРН Ву	r SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane	<u> </u>	122	100	122	70-135		
o-Terphenyl		62.0	50.1	124	70-135		

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

Vork Orders : 367141 Lab Batch #: 800382	, Sample: 367141-003 / SMP	Batch	Project ID	GP II Ener Soil	gy		
Units: mg/kg	Date Analyzed: 03/31/10 01:17	SUI	RROGATE RE	COVERY S	STUDY		
ТРН І	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			ען			
1-Chlorooctane		115	100	115	70-135		
o-Terphenyl		58.1	50.0	116	70-135		
Lab Batch #: 800382	Sample: 367141-004 / SMP	Batch	h: Matrix:	Soil			
Units: mg/kg	Date Analyzed: 03/31/10 01:44	SUI	SURROGATE RECOVERY STUDY				
ТРН І	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctane		115	100	115	70-135		
o-Terphenyl		57.6	50.0	115	70-135		
Lah Batch #: 800382	Sample: 367068-003 S / MS	Batel	h: 1 Matrix:	Soil			
Units: mg/kg	Date Analyzed: 03/31/10 02:12	SU	RROGATE RE	COVERY	STUDY		
ТРН І	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
	Analytes			ען וען			
1-Chlorooctane		116	100	116	70-135		
o-Terphenyl		54.9	50.0	110	70-135		
Lab Batch #: 800382	Sample: 367068-003 SD / M	SD Batel	h: ¹ Matrix:	Soil			
Units: mg/kg	Date Analyzed: 03/31/10 02:39	SU	RROGATE RE	ECOVERY	STUDY		
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags	
1 Chlorestern	Analytes	120		121	70 125		
o-Terphenyl		57.1	99.5 49.8	121	70-135		
Lab B. 4. 5, 4, 800385	Secondary 550427 1 BKS / BL	ZS Bata	h. 1 Motriv	Solid			
Lab Batch #: 000303	Date Analyzed: 03/30/10 15:34	SU SU	RROGATE RI	ECOVERY	STUDY		
TPH 3	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
1-Chlorooctanc		110	99.7	110	70-135		
o-Tcrphenyl		50.8	49.9	102	70-135		

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

Vork Orders : 367141 Lab Batch #: 800385	l, Sample: 559427-1-BSD / BSI	D Batch:	Project IE	GP II Ener Solid	gy	
Units: mg/kg	Date Analyzed: 03/30/10 16:04	SUR	ROGATE RE	COVERY	STUDY	<u> </u>
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Y STUDY Y Control Limits %R 70-135 70-135 Y STUDY Y Y STUDY Y 70-135 70-135 70-135 70-135 Y STUDY Y Control Limits %R 70-135 Y STUDY Y STUDY Y Control Limits %R 70-135 Y STUDY Y STUDY Y STUDY Y STUDY Y Control Limits %R 70-135 Y STUDY Y STUDY Y O-135 70-135	Flags
1-Chlorooctane		108	99.9	108	70-135	
o-Terphenyl		49.6	50.0	99	70-135	,
Lab Batch #: 800385	Sample: 559427-1-BLK / BL	K Batch:	: 1 Matrix:	Solid		
Units: mg/kg	Date Analyzed: 03/30/10 16:35	SUR	ROGATE RE	COVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		102	100	102	70-135	
o-Terphenyl		54.1	50.1	102	70-135	
Lah Batch #• 800385	Sample: 367141-005 / SMP	Batch	1 Matriv	Soil		
Units: mg/kg	Date Analyzed: 03/31/10 00:15	SUR	ROGATE RE	COVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		105	100	105	70-135	
o-Terphenyl		56.4	50.1	113	70-135	
Lab Batch #: 800385	Sample: 367141-009 / SMP	Batch	: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/31/10 00:45	SUR	ROGATE RE	COVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes					
1-Chlorooctane		95.5	99.5	96	70-135	
	2	51.0	47.0	S = 11	70-135	L
Lab Batch #: 800385	Sample: 30/141-0107 SMP	Batch	ROGATE RI	COVERY	STUDY	
Units: mg/kg	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		94.8	99.9	95	70-135	
o-Terphenyl		50.5	50.0	101	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

Work Orders : 367141, Lab Batch #: 800385	Sample: 367141-011 / SMP	Batch	Project ID	GP II Ener Soil	Project ID: GP II Energy P Batch: Matrix: Soil							
Units: mg/kg	Date Analyzed: 03/31/10 01:45	SUI	RROGATE RE	COVERY	STUDY							
TPH B	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags						
	Analytes			ןען								
1-Chlorooctane		93.3	99.7	94	70-135							
o-I crphenyl		50.0	49.9	100	70-135							
Lab Batch #: 800385	Sample: 367141-012 / SMP	Batch	n: 1 Matrix:	Soil		- <u></u>						
Units: mg/kg	Date Analyzed: 03/31/10 02:16	SURROGATE RECOVERY STUDY										
TPH B	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
1-Chlorooctanc		75.5	99.7	76	70-135							
o-Terphenyl		39.5	49.9	79	70-135							
Lab Batch #: 800385	Sample: 367141-015 / SMP	Batch	n: 1 Matrix:	Soil								
Units: mg/kg	Date Analyzed: 03/31/10 02:49	SUI	RROGATE RE	COVERY	STUDY							
ТРН В	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
1-Chlorooctane		77 7	99.8	78	70-135							
o-Terphenyl		40.9	49.9	82	70-135							
Lab Batab #1 800385	Sample: 367141-016 / SMP	Pata	ht 1 Motriv	Soil								
Lab Batch #. 000505	Date Analyzed: 03/31/10 03:22	SU	RROGATE RE	COVERY	STUDY	·····						
TPH F	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags						
	Analytes			[D]								
1-Chlorooctane		79.4	99.6	80	70-135							
o-Terphenyl		41.4	49.8	83	70-135							
Lab Batch #: 800469	Sample: 559487-1-BKS / Bk	S Batel	h: ¹ Matrix:	Solid								
Units: mg/kg	Date Analyzed: 03/31/10 05:23	SU	RROGATE RE	ECOVERY	STUDY							
ТРН Н	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
1-Chlorooctane		119	99.5	120	70-135							
o-Terphenyl		57.0	49.8	114	70-135							

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



Project Name: Littlefield BO Fed #2

Work Orders : 367141	, Sample: 559487-1-BSD / BS	SD Batel	Project II	GP II Ener	гду	
Units: mg/kg	Date Analyzed: 03/31/10 05:49	SU	RROGATE RE	ECOVERY S	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctanc		118	99.5	119	70-135	
o-Terphenyl		56.8	49.8	114	70-135	
Lab Batch #: 800469	Sample: 559487-1-BLK / BI	LK Batcl	h: 1 Matrix	Solid		
Units: mg/kg	Date Analyzed: 03/31/10 06:16	SU	RROGATE RI	ECOVERY S	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		119	99.6	119	70-135	
o-Terpheny]		60.0	49.8	120	70-135	
Lab Batch #: 800469	Sample: 367141-017 / SMP	Batel	h: ¹ Matrix	Soil		
Units: mg/kg	Date Analyzed: 03/31/10 06:43	SU	RROGATE RI	ECOVERY	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		116	99.7	116	70-135	
o-Terphenyl		58.2	49.9	117	70-135	
Lab Batch #: 800469	Sample: 367141-018 / SMP	Batc	h: ¹ Matrix	Soil	J	
Units: mg/kg	Date Analyzed: 03/31/10 07:10	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	······································	126	100	126	70-135	
o-Terpheny]		63.0	50.0	126	70-135	
Lab Batch #: 800469	Sample: 367141-019 / SMP	Bate	h: ¹ Matrix	:Soil		
Units: mg/kg	Date Analyzed: 03/31/10 07:37	SU	RROGATE R	ECOVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctanc		131	100	131	70-135	
o-Terphenyl		65.0	50.1	130	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



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Form 2 - Surrogate Recoveries

Project Name: Littlefield BO Fed #2

Work Orders : 367141, Lab Batch #: 800469	Sample: 367141-020 / SMP	Batcl	Project II h: 1 Matrix:	GP II Ener	зу	
Units: mg/kg	Date Analyzed: 03/31/10 08:04	SU	RROGATE RE	ECOVERY S	STUDY	
ТРН Н	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		117	100	117	70-135	
o-Terphenyl		58.4	50.1	117	70-135	
Lab Batch #: 800469	Sample: 367141-021 / SMP	Batcl	h: 1 Matrix:	Soil		
Units: mg/kg	Date Analyzed: 03/31/10 08:31	SU	RROGATE RE	ECOVERY S	STUDY	
ТРН Н	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		117	99.8	117	70-135	
o-Terphenyl		58.5	49.9	117	70-135	
Lab Batch #: 800469	Sample: 367141-022 / SMP	Batel	h: 1 Matrix:	:Soil	<u> </u>	
Units: mg/kg	Date Analyzed: 03/31/10 08:58	SU	RROGATE RI	ECOVERY	STUDY	
ТРН І	3y SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		115	99.8	115	70-135	
o-Tcrphenyl		57.6	49.9	115	70-135	
Lab Batch #: 800469	Sample: 367141-023 / SMP	Bate	h: ¹ Matrix	Soil		
Units: mg/kg	Date Analyzed: 03/31/10 09:25	SU	RROGATE RI	ECOVERY	STUDY	
Трн і	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[U]		
1-Chlorooctanc	· · · · · · · · · · · · · · · · · · ·	118	99.8	118	70-135	
o-lerphenyl		59.5	49.9	119	70-135	
Lab Batch #: 800469	Sample: 367141-024 / SMP	Bate	h: 1 Matrix	:Soil	STUDY	
Units: mg/kg	Date Analyzed: 03/31/10 09:52					
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
I-Chlorooctane		117	100	117	70-135	
o-Terphenyl		58.4	50.0	117	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery $[D] \approx 100 * A / B$

All results are based on MDL and validated for QC purposes.



Project Name: Littlefield BO Fed #2

Work Orders : 367141	,	Project ID: GP II Energy									
Lab Batch #: 800469	Sample: 367141-025 / SMP	SMP Batch: 1 Matrix:Soil									
Units: mg/kg	Date Analyzed: 03/31/10 10:19	SU	RROGATE RE	COVERY	STUDY						
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R {D]	Control Limits %R	Flags					
1-Chlorooctane		119	99.6	119	70-135						
o-Terphenyl		60.1	49.8	121	70-135						
Lab Batch #: 800469	Sample: 367141-017 S / MS	Batc	h: ¹ Matrix:	:Soil	L						
Units: mg/kg	Date Analyzed: 03/31/10 12:08	SU	RROGATE RE	COVERY	STUDY						
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1-Chlorooctane		118	100	118	70-135						
o-Terphenyl		55.3	50,0	111	70-135						
Lab Batch #: 800469	Sample: 367141-017 SD / M	ISD Batc	h: 1 Matrix:	: Soil	L						
Units: mg/kg	Date Analyzed: 03/31/10 12:35	SURROGATE RECOVERY STUDY									
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags					
1-Chlorooctane		121	100	121	70-135						
o-Terphenyl		56.7	50.1	113	70-135						

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution





Project Name: Littlefield BO Fed #2

Work Order #: 367141		P	roject ID:		GP I	I Energy
Lab Batch #: 800464	Sample: 800464	-1-BKS	Matrix	: Solid		
Date Analyzed: 03/31/2010	Date Prepared: 03/31/2	2010	Analyst	: LATCOF	٤	
Reporting Units: mg/kg	Batch #: 1	BLANK /	BLANK SPI	KE REC	COVERY S	STUDY
Anions by E300	Blank Result [A]	Spike Added [B]	Blank Spike Result	Blank Spike %R	Control Limits %R	Flags
Analytes			[C]	[D]	1 '	1
Chloride	ND	10.0	9.54	95	75-125	
Lab Batch #: 800467	Sample: 800467	-1-BKS	Matrix	: Solid		
Date Analyzed: 03/31/2010	Date Prepared: 03/31/2	2010	Analyst	: LATCOF	<u>k</u>	
Reporting Units: mg/kg	Batch #: 1	BLANK /	BLANK SPI	KE REC	COVERY S	STUDY
Anions by E300	Blank Result	Spike Added [B]	Blank Spike Result	Blank Spike %P	Control Limits %B	Flags
Analytes		101	[C]	[D]	701	
Chloride	ND	10 0	10.7	107	75-125	

Blank Spike Recovery [D] = 100*[C]/[B] All results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit



WEREN TY -



Project Name: Littlefield BO Fed #2

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Work Order #: 367141 Analyst: ASA	D	ate Prepai	red: 03/30/201	0	Project ID: GP II Energy Date Analyzed: 03/31/2010										
Lab Batch ID: 800506 Sample: 559503-1-1	BKS	Batc	h #: 1					Matrix: S	Solid						
Units: mg/kg		BLAN	K/BLANK S	SPIKE / E	BLANK S	PIKE DUPI	LICATE	RECOVI	ERY STUE	ŷΥ					
BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate Besult (F)	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag				
Analytes															
Benzene	ND	0.1000	0.0989	99	0.1	0.1006	101	2	70-130	35	ļ				
Toluene	ND	0.1000	0.0976	98	0.1	0.0998	100	2	70-130	35					
Ethylbenzene	ND	0.1000	0.1010	101 0.1		0.1029	103	2	71-129	35					
m,p-Xylenes	ND	0.2000	0.1999	100	0.2	0.2037	102	2	70-135	35					
o-Xylene	ND	0.1000	0 1002	100	0.1	0.1028	103	3	71-133	35					
Analyst: BEV	Da	ate Prepar	ed: 03/30/201	0			Date A	nalyzed: (3/30/2010						
Lab Batch ID: 800382 Sample: 559420-1-1	BKS	Bate	h #: 1					Matrix: S	Solid						
Units: mg/kg		BLAN	K/BLANK S	SPIKE / E	BLANK S	PIKE DUPI	ICATE	RECOVE	ERY STUD	Ŷ					
TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag				
C6-C12 Gasoline Range Hydrocarbons	ND	997	1140	114	999	1160	116	2	70-135	35					
C12-C28 Diesel Range Hydrocarbons	ND 997 955 96 999 981 98									35					

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries

NO BRAISE REPAIR



Project Name: Littlefield BO Fed #2

Work Order #: 367141 Analyst: BEV	D	ate Prepar	Project ID: GP II Energy ared: 03/30/2010 Date Analyzed: 03/30/2010									
Lab Batch ID: 800385 Sample: 559427-	1-BKS	Bate	h #: 1					Matrix: S	Solid			
Units: mg/kg		BLAN	K/BLANK	SPIKE / I	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUE	ργ		
TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag	
C6-C12 Gasoline Range Hydrocarbons	ND	997	1010	101	999	979	98	3	70-135	35		
C12-C28 Diesel Range Hydrocarbons	ND	997	698	70	999	826	83	17	70-135	35		
Analyst: BEV	D;	ate Prepar	ed: 03/30/201	10	I		Date A	nalyzed: ()3/31/2010	<u>.</u>		
Analyst: BEV Lab Batch ID: 800469 Sample: 559487-	D: 1-BKS	ate Prepar Batci	ed: 03/30/201	10	1	I	Date A	nalyzed: (Matrix: S)3/31/2010 Solid	I		
Analyst: BEV Lab Batch ID: 800469 Sample: 559487- Units: mg/kg	D: 1-BKS	ate Prepar Batc BLAN	red: 03/30/201 h #: 1 K /BLANK \$	10 SPIKE / E	BLANK S	PIKE DUPI	Date A	nalyzed: (Matrix: S RECOVI	53/31/2010 Solid E RY STUD	Y		
Analyst: BEV Lab Batch ID: 800469 Sample: 559487- Units: mg/kg TPH By SW8015 Mod Analytes	D: 1-BKS Blank Sample Result [A]	ate Prepar Batcl BLAN Spike Added [B]	ed: 03/30/20 h #: 1 K /BLANK S Blank Spike Result [C]	IO SPIKE / F Blank Spike %R [D]	BLANK S Spike Added [E]	PIKE DUPI Blank Spike Duplicate Result [F]	Date A LICATE Blk. Spk Dup. %R [G]	nalyzed: (Matrix: S RECOVI RPD %	03/31/2010 Solid E RY STUD Control Limits %R	Y Control Limits %RPD	Flag	
Analyst: BEV Lab Batch ID: 800469 Sample: 559487- Units: mg/kg TPH By SW8015 Mod Analytes C6-C12 Gasoline Range Hydrocarbons	D: 1-BKS Blank Sample Result [A] ND	ate Prepar Batcl BLAN Spike Added [B] 995	ed: 03/30/201 h #: 1 K /BLANK S Blank Spike Result [C] 1170	SPIKE / F Blank Spike %R [D] 118	Spike Added [E] 995	Blank Blank Spike Duplicate Result [F]	Date A LICATE Blk. Spk Dup. %R [G] 118	nalyzed: (Matrix: S RECOVI RPD % 0	03/31/2010 Solid ERY STUD Control Limits %R 70-135	Y Control Limits %RPD 35	Flag	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes



Form 3 - MS Recoveries



Project Name: Littlefield BO Fed #2

Work Order #: 367141 Lab Batch #: 800464			Pro	oject ID:	GP II Energ	ЗУ				
Date Analyzed: 03/31/2010	Date Prepared: 03/3	1/2010	A	.nalyst: L	ATCOR					
QC- Sample ID: 367224-001 S	Batch #: 1		Ν	Matrix: Soil						
Reporting Units: mg/kg	MATI	RIX / MA	TRIX SPIKE	RECO	VERY STU	DY				
Inorganic Anions by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag				
Analytes	[A]	[B]		121						
Chloride	4440	1190	5440	84	75-125					
Lab Batch #: 800467										
Date Analyzed: 03/31/2010	Date Prepared: 03/3	1/2010	А	nalyst: L	ATCOR					
QC- Sample ID: 367141-019 S	Batch #: 1		Γ	Matrix: S	oil					
Reporting Units: mg/kg	MATI	RIX / MA	TRIX SPIKE	RECO	VERY STU	DY				
Inorganic Anions by EPA 300	Parent Sample Result	Spike Added	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag				
Analytes	[A]	[B]								
Chloride	348	432	836	113	75-125					

Matr_{1x} Spike Percent Recovery [D] = 100*(C-A)/BRelative Percent Difference [E] = 200*(C-A)/(C+B)All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit



Project Name: Littlefield BO Fed #2



Work Order # : 367141						Project I	D: GP II I	Energy														
Lab Batch ID: 800506 Date Analyzed: 03/31/2010	QC- Sample ID Date Prepared	: 367141 : 03/30/2	-005 S 010	Ba An	itch #: alyst:	l Matri ASA	x: Soil															
Reporting Units: mg/kg		N	IATRIX SPIK	E / MAT	'RIX ŠPI	KE DUPLICA	TE REC	OVERY	STUDY													
BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag											
Benzene	ND	0.1097	0.0672	61	0.1097	0.0659	60	2	70-130	35	x											
Toluene	ND	0.1097	0.0700	64	0.1097	0.0680	62	3	70-130	35	x											
Ethylbenzene	ND	0.1097	0.0736	67	0.1097	0.0722	66	2	71-129	35	x											
m,p-Xylenes	ND	0.2194	0.1465	67	0.2194	0.1433	65	2	70-135	35	x											
o-Xylene	ND	0.1097	0.0737	67	0.1097	0.0723	66	2	71-133	35	x											
Lab Batch ID: 800382 Date Analyzed: 03/31/2010	QC- Sample ID: Date Prepared	: 367068 : 03/30/2	-003 S 010	Ba An	tch #: alyst:	1 Matri BEV	x: Soil															
Reporting Units: mg/kg		N	LATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY												
		_																				
TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag											
TPH By SW8015 Mod Analytes C6-C12 Gasoline Range Hydrocarbons	Parent Sample Result [A] ND	Spike Added [B] 1150	Spiked Sample Result [C] 1380	Spiked Sample %R [D] 120	Spike Added [E] 1150	Duplicate Spiked Sample Result [F] 1390	Spiked Dup. %R [G] 121	RPD %	Control Limits %R	Control Limits %RPD	Flag											
TPH By SW8015 Mod Analytes C6-C12 Gasoline Range Hydrocarbons C12-C28 Diesel Range Hydrocarbons	Parent Sample Result [A] ND ND	Spike Added [B] 1150 1150	Spiked Sample Result [C] 1380 1270	Spiked Sample %R [D] 120 110	Spike Added [E] 1150 1150	Duplicate Spiked Sample Result [F] 1390 976	Spiked Dup. %R [G] 121 85	RPD %	Control Limits %R 70-135 70-135	Control Limits %RPD 35 35	Flag											
TPH By SW8015 Mod Analytes C6-C12 Gasoline Range Hydrocarbons C12-C28 Diesel Range Hydrocarbons Lab Batch ID: 800469 Date Analyzed: 03/31/2010	Parent Sample Result [A] ND ND QC- Sample ID: Date Prepared:	Spike Added [B] 1150 1150 : 367141 : 03/30/2	Spiked Sample Result [C] 1380 1270 -017 S 010	Spiked Sample %R [D] 120 110 Ba An	Spike Added [E] 1150 1150 tch #: alyst:	Duplicate Spiked Sample Result [F] 1390 976 1 Matrix BEV	Spiked Dup. %R [G] 121 85 x: Soil	RPD %	Control Limits %R 70-135 70-135	Control Limits %RPD 35 35	Flag											
TPH By SW8015 Mod Analytes C6-C12 Gasoline Range Hydrocarbons C12-C28 Diesel Range Hydrocarbons Lab Batch ID: 800469 Date Analyzed: 03/31/2010 Reporting Units: mg/kg	Parent Sample Result [A] ND ND QC- Sample ID: Date Prepared:	Spike Added [B] 1150 1150 : 367141 : 03/30/2 M	Spiked Sample Result [C] 1380 1270 -017 S 010 IATRIX SPIK	Spiked Sample %R [D] 120 110 Ba An E / MAT	Spike Added [E] 1150 1150 tch #: alyst: RIX SPI	Duplicate Spiked Sample Result [F] 1390 976 1 Matri: BEV KE DUPLICA	Spiked Dup. %R [G] 121 85 k: Soil TE REC	RPD % 1 26 OVERY	Control Limits %R 70-135 70-135 STUDY	Control Limits %RPD 35 35	Flag											
TPH By SW8015 Mod Analytes C6-C12 Gasoline Range Hydrocarbons C12-C28 Diesel Range Hydrocarbons Lab Batch ID: 800469 Date Analyzed: 03/31/2010 Reporting Units: mg/kg TPH By SW8015 Mod Analytes	Parent Sample Result [A] ND ND QC- Sample ID: Date Prepared: Parent Sample Result [A]	Spike Added [B] 1150 1150 367141 03/30/2 M Spike Added [B]	Spiked Sample Result [C] 1380 1270 -017 S 010 ATRIX SPIK Spiked Sample Result [C]	Spiked Sample %R [D] 120 110 Ba An E / MAT Spiked Sample %R [D]	Spike Added [E] 1150 1150 tch #: alyst: RIX SPI Spike Added [E]	Duplicate Spiked Sample Result [F] 1390 976 1 Matri: BEV KE DUPLICA Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G] 121 85 k: Soil TE REC Spiked Dup. %R [G]	RPD % 1 26 OVERY RPD %	Control Limits %R 70-135 70-135 STUDY Control Limits %R	Control Limits %RPD 35 35 35 Control Limits %RPD	Flag											
TPH By SW8015 Mod Analytes C6-C12 Gasoline Range Hydrocarbons C12-C28 Diesel Range Hydrocarbons Lab Batch ID: 800469 Date Analyzed: 03/31/2010 Reporting Units: mg/kg TPH By SW8015 Mod Analytes C6-C12 Gasoline Range Hydrocarbons	Parent Sample Result [A] ND ND QC- Sample ID: Date Prepared: Parent Sample Result [A] 17.7	Spike Added [B] 1150 1150 367141 03/30/2 M Spike Added [B] 1130	Spiked Sample Result [C] 1380 1270 -017 S 010 IATRIX SPIK Spiked Sample Result [C] 1320	Spiked Sample %R [D] 120 110 Ba An E / MAT Spiked Sample %R [D] 115	Spike Added [E] 1150 1150 tch #: alyst: RIX SPI Spike Added [E] 1130	Duplicate Spiked Sample Result [F] 1390 976 1 Matri: BEV KE DUPLICA Duplicate Spiked Sample Result [F] 1350	Spiked Dup. %R [G] 121 85 x: Soil TE REC Spiked Dup. %R [G] 118	RPD % 1 26 OVERY RPD % 2	Control Limits %R 70-135 70-135 STUDY Control Limits %R 70-135	Control Limits %RPD 35 35 35 Control Limits %RPD 35	Flag											

Matrix Spike Percent Recovery [D] = 100*(C-A)/BRelative Percent Difference RPD = 200*[(C-F)/(C+F)] Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

 $ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR \approx Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit$



Sample Duplicate Recovery



Project Name: Littlefield BO Fed #2

Work Order #: 367141					
Lab Batch #: 800464			Project I	D: GP II End	ergy
Date Analyzed: 03/31/2010 Date Pre	pared: 03/31/2010) Ana	lyst:LATC	OR	
QC- Sample ID: 367224-001 D B:	atch #: 1	Mat	rix: Soil		
Reporting Units: mg/kg	SAMPLE	/ SAMPLE	DUPLIC	ATE RECO	OVERY
Anions by E300 Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	4440	4240	5	20	
Lab Batch #: 800467					
Date Analyzed: 03/31/2010 Date Pre	pared: 03/31/2010) Ana	lyst:LATC	OR	
QC- Sample ID: 367141-019 D B	atch #: 1	Mat	rix: Soil		
Reporting Units: mg/kg	SAMPLE	/ SAMPLE	DUPLIC	ATE RECO	OVERY
Anions by E300	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[B]			
Chloride	348	549	45	20	F
Lab Batch #: 800406					
Date Analyzed: 03/30/2010 Date Pre	pared: 03/30/2010) Ana	lyst: WRU		
QC- Sample ID: 367141-021 D B	atch #: 1	Mat	rix: Soil		
Reporting Units: %	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	10.9	11.5	5	20	
Lab Batch #: 800411					
Date Analyzed: 03/30/2010 Date Pre	pared: 03/30/2010) Ana	lyst: WRU		
QC- Sample ID: 367141-001 D B	atch #: 1	Mat	trix: Soil		
Reporting Units: %	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
· · · · · · · · · · · · · · · · · · ·			<u> </u>	<u> </u>	h

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

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	Project Manager: Curt Stanle	у	Page	1 of 3									*			Pr	oject	Name	: <u>Lit</u>	<u>tiefi</u> e	id B	O Fe	<u>d #2</u>	·		·			
	Company Name GPII Energy	y (Attention Jo	oe Com	oton)				_									Pro	ject á	: Gf	? (E	ner	Ŋ							_
	Company Address: PO Box 500	382														1	Projee	at Loc	: Ed	dy Ci	ountv	, New	Mex	ico			•		
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ORDER	# 26/171	·				·····		16		Prese	vatio	n&#c	f Cont	ainers	1	Matrix	Ē	Τ	T	T	8		8					a -	-1
(Aivo esin qei) # BYT Page 26 of 29	FIELD CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers 40 2	lce	HNO ₃	KCI	H ₂ SO, NaOH	NB ₂ S ₂ O ₃	Norte	Unter (Specify)	over-unitative successions of the succession of	TPH: 418.1 (BO158A) B	TPH: TX 1005 TX 1006 Cations (Ce. Mc. Na. K)	Antons (Cl. SO4, Altalinity)	BAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb H	Volatiles Reminicipilas	BTEX 8021BISOD or BTEX 8	RCI	N.O.R.M.	Chlorides EPA 300	НОГР	RUSH TAT (Praschedule) 2 Connect TAT	
-001	Pit F-1		10'		3/25/2010	0830		1	X							Soil	×		_	1			X			<u>x</u>	╞	\downarrow	4
-002	Pit SSW		5.5'		3/25/2010	0840	ļ	1	X		_	+	1_	\square	+	Soil	X		╞	_			X			<u>× </u> _	┯	\mathbb{H}^{\prime}	4
203	Pit WSW		5.5'		3/25/2010	0850	╂	1	X		-+			┝┾	╉	Soil	X		┢	┼╌			×	+	-+	X	╂	+	4
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-007	ROW F-2A		11'		3/25/2010	1110		1	Ŷ	+	+	+	╋╾		╋	Soil	┣┼	+	┢─	+-		-†-	╋╍			x	+-	<del>ال</del>	
-\$08	ROW F-3A	<u> </u>	9'		3/25/2010	1115		1	x	-+	+	╈	$\uparrow$		T	Soil		1		╋			1			x	T	<b>,</b>	]
rãos	ROW F-6A		6'		3/25/2010	1120		1	x						Ι	Soil	x										$\Gamma$	□,	
-010	ROW SSW-6A		5.5'		3/25/2010	1130		1	x							Soil	x		L										4
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	Project Manager: Curt Stanle	<u>ny</u>	Page	2 of 3													Pro	ject l	am	e: <u>Lit</u>	lefi	eld i	BO	Fed	#2					
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-011	ROW F-12A	·	4'		3/25/2010	1140		1	x							s	oil	x											T	Тx
-012	ROAD F-2A		6'		3/25/2010	1146		1	X							So	víl	x						$\Box$						×
-013	ROAD NSW-2A		5.5'		3/25/2010	1150		1	x							So	<u>il</u>										$\downarrow$	×	$\bot$	<u> </u>
-014	ROAD NSW-10.5		7'	ļ	3/25/2010	1200		1	X					$\bot$		So	ii I	_			$\bot$			$\square$				×		<b>↓</b> ×
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-016	ROAD SSW-11		6.5		3/25/2010	1215		1	X				-+-	+	-	So	il .	×	╇	┢		-	ļ	$\vdash$	$\vdash$	-+	4	ᄡᆃ		<b>↓</b> _×
-017	ROAD F-12		6'		3/25/2010	1230		1	X		-			-	+-	So	il	<u>×</u>	+		╞	╞		$\vdash$	┝─┤		_+	শ	┿	<b>I ⊢×</b>
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Environment	al Lab of Texas	CHAIN OF CUSTODY REC	ORD AND ANALYSIS REQUEST	2/7
A Xenco Laboratories Compa	ny	12600 West I-20 East Odessa, Texas 79765	Phone: <b>432-563-1800</b> Fax: <b>432-563-1713</b>	213
Project Manager:	Curt Stanley Page 3 of 3	Proje	ct Name: Littlefield BO Fed #2	<del></del>
Company Name	GPII Energy (Attention Joe Compton)	F	Project #: GP il Energy	
Company Address:	PO Box 50682	Pro	ject Loc: Eddy County, New Mexico	
City/State/Zin/	Hidiand TY 70701		20.4	

	City/State/Zip: Midland, T	X 79701		<u> </u>	·				<u>.</u>									f	°0#	·											
	Telephone No: 575-441-2	244				Fax No:		575	5-39	3-142	29					Rej	port F	orm	at:	X	] Ste	anda	ird			TRR	₹₽	Ľ	] NPC	DES	
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-021	ROAD WSW-15		8.5		3/26/2010	1010		1	x							Soi	ı x	<u>ا</u>				$\Box$	$\Box$			Ι		ĸ	$\Box$	$\Box$	
-072	ROAD F-16		3.5'		3/26/2010	1105		1	x							Soi		<u>ر</u>					$\Box$					R_			
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- 024	ROAD F-17		4'		3/26/2010	1205		1	x							Soi	ı X	<u>.</u>								$\bot$	;	4_			
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## Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client:	GPIL Energy
Date/ Time:	03-29-10 @ 0850
_ab ID # :	367141
Initials:	JMF

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#### Sample Receipt Checklist

			<u> </u>	lient initials
Temperature of container/ cooler?	(es)	No	1.6 °C	
Shipping container in good condition?	(res)	No		
Custody Seals intact on shipping container/ cooler?//abel	Tes	No	Not Present	
Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
Chain of Custody present?	(Yes)	No		
Sample instructions complete of Chain of Custody?	Tes	No		
Chain of Custody signed when relinquished/ received?	(Yes)	No		
Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
Container label(s) legible and intact?	(Yes)	No	Not Applicable	
Sample matrix/ properties agree with Chain of Custody?	(Yes>	No		
Containers supplied by ELOT?	(Yes )	No		
Samples in proper container/ bottle?	(Tes)	No	See Below	
Samples properly preserved?	Yes	No	See Below	
Sample bottles intact?	(Yes)	No		
Preservations documented on Chain of Custody?	(Yes)	No		
Containers documented on Chain of Custody?	(Yes )	No		
Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
All samples received within sufficient hold time?	Yes	No	See Below	
Subcontract of sample(s)?	Yes	Nà	Not Applicable	
VOC samples have zero headspace?	Yes	No	Not Applicable	
	Temperature of container/ cooler? Shipping container in good condition? Custody Seals intact on shipping container/ cooler?/(c.te.) Custody Seals intact on sample bottles/ container? Chain of Custody present? Sample instructions complete of Chain of Custody? Chain of Custody signed when relinquished/ received? Chain of Custody agrees with sample label(s)? Container label(s) legible and intact? Sample matrix/ properties agree with Chain of Custody? Containers supplied by ELOT? Samples in proper container/ bottle? Samples properly preserved? Sample bottles intact? Preservations documented on Chain of Custody? Containers documented on Chain of Custody? Sufficient sample amount for indicated test(s)? All samples received within sufficient hold time? Subcontract of sample(s)?	Temperature of container/ cooler?(es)Shipping container in good condition?(res)Custody Seals intact on shipping container/ cooler?/(a be)(res)Custody Seals intact on sample bottles/ container?YesChain of Custody present?(res)Sample instructions complete of Chain of Custody?(res)Chain of Custody signed when relinquished/ received?(res)Chain of Custody agrees with sample label(s)?(res)Container label(s) legible and intact?(res)Samples in proper container/ bottle?(res)Samples in proper container/ bottle?(res)Samples properly preserved?(res)Samples in proper container/ bottle?(res)Sample bottles intact?(res)Sample bottles intact?(res)Samples properly preserved?(res)Sample bottles intact?(res)Samples properly preserved?(res)Samples intact?(res)Sample bottles intact?(res)Sample bottles intact?(res)Subcontract do Chain of Custody?(res)Subcontract of sample(s)?(res)Subcontract of sample(s)?(res)VOC samples have zero headspace?(res)	Temperature of container/ cooler?(es)NoShipping container in good condition?(res)NoCustody Seals intact on shipping container/ cooler?/(c.be)(res)NoCustody Seals intact on sample bottles/ container?(res)NoCustody Seals intact on sample bottles/ container?(res)NoChain of Custody present?(res)NoSample instructions complete of Chain of Custody?(res)NoChain of Custody signed when relinquished/ received?(res)NoChain of Custody agrees with sample label(s)?(res)NoContainer label(s) legible and intact?(res)NoSample matrix/ properties agree with Chain of Custody?(res)NoSamples in proper container/ bottle?(res)NoSamples in proper container/ bottle?(res)NoSample bottles intact?(res)NoSample bottles intact?(res)NoSample bottles intact?(res)NoSample bottles intact?(res)NoSample bottles intact?(res)NoSample bottles intact?(res)NoSubcontract do cumented on Chain of Custody?(res)NoSufficient sample amount for indicated test(s)?(res)NoAll samples received within sufficient hold time?(res)NoSubcontract of sample(s)?(res)NoSubcontract of sample(s)?(res)No	Temperature of container/ cooler?       Yes       No       Yes       No         Shipping container in good condition?       Yes       No       No       Yes       No         Custody Seals intact on shipping container/ cooler?/(c.br)       Yes       No       Not Present         Custody Seals intact on sample bottles/ container?       Yes       No       Not Present         Chain of Custody present?       Yes       No       Not Present         Chain of Custody grees with complete of Chain of Custody?       Yes       No       Not Present         Chain of Custody agrees with sample label(s)?       Yes       No       Not Applicable         Container label(s) legible and intact?       Yes       No       Not Applicable         Sample matrix/ properties agree with Chain of Custody?       Yes       No       Not Applicable         Samples in proper container/ bottle?       Yes       No       See Below         Sample bottles intact?       Yes       No       See Below         Sample bottles intact?       Yes       No       See Below         Samples in proper container/ bottle?       Yes       No       See Below         Sample bottles intact?       Yes       No       See Below         Samples properiy preserved?       Yes

#### **Variance Documentation**

Contact:	<del></del>	 Contacted by:	Date/ Time:
Regarding:		 	
Corrective Act	ion Taken:		
······		 	
Check all that	Apply:	ee attached e-mail/ fax lient understands and would like to proceed with and	alysis

Client understands and would like to proceed with analysis

# Analytical Report 368398

for

## **GP II Energy**

**Project Manager: Curt Stanley** 

Littlefield BO Fed #2

**GP II Energy** 

08-APR-10





#### 12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295)



08-APR-10



Project Manager: **Curt Stanley GP II Energy** P.O. Box 50682(GP II Energy's Clients Address) Midland, TX 79710

Reference: XENCO Report No: 368398 Littlefield BO Fed #2 Project Address: Eddy Co. NM

#### **Curt Stanley:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 368398. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 368398 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

MA

Brent Barron, II Odessa Laboratory Manager

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## Sample Cross Reference 368398



#### GP II Energy, Midland, TX

Littlefield BO Fed #2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Stockpile #2	S	Apr-07-10 12:05		368398-001

* TRRP Tier I Comm/Indus Soils PCL's



Client Name: GP II Energy Project Name: Littlefield BO Fed #2



Project ID:GP II EnergyWork Order Number:368398

*Report Date: 08-APR-10 Date Received: 04/07/2010* 

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-801607 Percent Moisture None

Batch: LBA-801626 TPH By SW8015 Mod None

abaratorie

Project Id: GP II Energy

Contact: Curt Stanley

Project Location: Eddy Co. NM

Certificate of Analysis Summary 368398

GP II Energy, Midland, TX

Project Name: Littlefield BO Fed #2



Date Received in Lab: Wed Apr-07-10 05:37 pm

Report Date: 08-APR-10

Project Manager: Brent Barron, II

	Lab Id:	368398-001			
Analysis Deguested	Field Id:	Stockpile #2			
Analysis Requested	Depth:				
	Matrix:	SOIL			
	Sampled:	Apr-07-10 12.05			
Percent Moisture	Extracted:				
	Analyzed:	Apr-08-10 08:55			
	Units/RL:	% RL			
Percent Moisture		2.69 1.00			
TPH By SW8015 Mod	Extracted:	Apr-08-10 08:35			
	Analyzed:	Apr-08-10 11:54			
	Units/RL:	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		20.5 15.5		-	
C12-C28 Diesel Range Hydrocarbons		148 15.5			
C28-C35 Oil Range Hydrocarbons		ND 15.5			
Total TPH		169 15.5			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

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Brent Barron, II

Odessa Laboratory Manager

Final Ver. 1.000





- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- **F** RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL Below Reporting Limit.
- **RL** Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation.

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Houston - Dallas - San Antonio - Corpus Christi - Midland/Odessa - Tampa - Miami - Latin America Phone Fax (281) 240-4200 (281) 240-4280 4143 Greenbriar Dr, Stafford, Tx 77477 (214) 902 0300 (214) 351-9139 9701 Harry Hines Blvd, Dallas, TX 75220 (210) 509-3334 (210) 509-3335 5332 Blackberry Drive, San Antonio TX 78238 (813) 620-2000 (813) 620-2033 2505 North Falkenburg Rd, Tampa, FL 33619 (305) 823-8500 (305) 823-8555 5757 NW 158th St, Miami Lakes, FL 33014 (432) 563-1800 (432) 563-1713 12600 West I-20 East, Odessa, TX 79765 (361) 884-0371 (361) 884-9116 842 Cantwell Lane, Corpus Christi, TX 78408



## Project Name: Littlefield BO Fed #2

<b>Work Orders :</b> 368398	, Sample: 560195-1-BKS/B	KS Batal	Project ID	GP II Ener	зy	
Units: mg/kg	Date Analyzed: 04/08/10 10:34	SUI	RROGATE RE	COVERY S	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes					
a Temphenul		109	100	109	70-135	
0-1 erphenyl		41.1	50.1	82	/0-135	
Lab Batch #: 801626	<b>Sample:</b> 560195-1-BSD / B	SD Batch	h: ¹ Matrix:	Solid		···· -
Units: mg/kg	Date Analyzed: 04/08/10 11:01	SUI	RROGATE RE	ECOVERY S	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		111	100	111	70-135	
o-Terphenyl		41.4	50.2	82	70-135	
Lah Batch #: 801626	Sample: 560195-1-BLK / B	BLK Batch	h: 1 Matrix:	Solid	1	
Units: mg/kg	Date Analyzed: 04/08/10 11:28	SU	RROGATE RE	ECOVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		93.9	100	94	70-135	
o-Terphenyl		45.2	50.0	90	70-135	
Lab Batch #: 801626	Sample: 368398-001 / SMI	Batel	h: ¹ Matrix:	Soil		
Units: mg/kg	Date Analyzed: 04/08/10 11:54	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
1-Chlorooctane		98.8	100	99	70-135	
o-Terphenyl		45.6	50.2	91	70-135	
Lab Batch #: 801626	Sample: 368400-001 S / M	S Bate	h: ¹ Matrix	:Soil		
Units: mg/kg	Date Analyzed: 04/08/10 15:00	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		113	100	113	70-135	
o-Tcrphenyl		42.7	50.2	85	70-135	
L			L		1	L

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



### Project Name: Littlefield BO Fed #2

Work Orders : 368398	,		Project I	D: GP II Ener	rgy	
Lab Batch #: 801626	Sample: 368400-001 SD / N	ISD Batc	h: 1 Matrix	<b>x:</b> Soil		
Units: mg/kg	Date Analyzed: 04/08/10 15:27	SU	RROGATE R	roject ID: GP II Energy       Matrix: Soil       TE RECOVERY S       Recovery %R       [D]       01     107       .3     81	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
	Analytes			[D]		
I-Chlorooctane		108	101	107	70-135	
o-Terphenyl		40.5	50.3	81	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution



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**BS / BSD Recoveries** 



#### Project Name: Littlefield BO Fed #2

Work Order #: 368398 Analyst: BEV Lab Batch ID: 801626	Sample: 560195-1-B	Da	ate Prepar Bate	red: 04/08/201 h #: 1	.0			Pro Date A	ject ID: ( nalyzed: ( Matrix: S	GP II Energ )4/08/2010 Solid	у	
Units: mg/kg			BLAN	K/BLANK S	SPIKE / E	BLANK S	PIKE DUPI	ICATE	RECOVE	ERY STUD	Y	
TPH By SW80	15 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes			[B]	[C]	[D]	[E]	Result [F]	[G]				
C6-C12 Gasoline Range Hydroca	arbons	ND	1000	1130	113	1000	1150	115	2	70-135	35	
C12-C28 Diesel Range Hydrocar	rbons	ND	1000	731	73	1000	802	80	9	70-135	35	

Relative Percent Difference RPD =  $200^{*}|(C-F)/(C+F)|$ Blank Spike Recovery [D] =  $100^{*}(C)/[B]$ Blank Spike Duplicate Recovery [G] =  $100^{*}(F)/[E]$ All results are based on MDL and Validated for QC Purposes



### Form 3 - MS / MSD Recoveries

#### Project Name: Littlefield BO Fed #2



Work Order # : 368398						Project II	D: GP II E	nergy			
Lab Batch ID:801626QDate Analyzed:04/08/2010DDenoting Units:wo/kg	C- Sample ID: Date Prepared:	368400 04/08/2	-001 S 010	Ba An	tch #: alyst:	l Matrix BEV	c: Soil	01/001/			
Reporting Units: mg/kg		M	IATRIX SPIK	E/MAT	RIX SPI	KE DUPLICA	TE RECO	JVERY S	STUDY		
TPH By SW8015 Mod	Parent Sample Result	Spike	Spiked Sample Result	Spiked Sample %P	Spike	Duplicate Spiked Sample Result [F]	Spiked Dup. %P	RPD %	Control Limits %P	Control Limits % PPD	Flag
Analytes	[A]	[B]		[D]	E]	Kesun [1]	[G]	70	<b>JUK</b>	/ort D	
C6-C12 Gasoline Range Hydrocarbons	ND	1100	1200	109	1100	1170	106	3	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1100	909	83	1100	879	80	3	70-135	35	

Matrix Spike Percent Recovery  $[D] = 100^{*}(C-A)/B$ Relative Percent Difference RPD =  $200^{*}|(C-F)/(C+F)|$  Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Page 10 of 13



Sample Duplicate Recovery



#### Project Name: Littlefield BO Fed #2

Work Order #: 368398

Lab Batch #: 801607 Date Analyzed: 04/08/2010 OC- Sample ID: 368398-001 D	<b>Date Prepared:</b> 04/08/2010 <b>Batch #:</b> 1	Project ID: GP II I         Date Prepared: 04/08/2010       Analyst: ASA         Batch #:       1       Matrix: Soil								
Reporting Units: %	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY					
Lab Batch #: 801607 Date Analyzed: 04/08/2010 C- Sample ID: 368398-001 D eporting Units: % Percent Moisture Analyte	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag					
Analyte		[0]	L							
Percent Moisture	2.69	2.55	5	20						

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit


## Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client:	GP 11 Energy
Date/ Time:	4.7.10 17.37
Lab ID # :	368398
Initials:	BB/M

рą

(Hill)

i Hi

#### Sample Receipt Checklist

				Client	Initials
#1	Temperature of container/ cooler?	(Yes)	No	5.1 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4_	Custody Seals intact on sample bottles/ container?	(es)	No	Not Present	
#5	Chain of Custody present?	res	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	Tes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(es)	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Tes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Belaw	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

#### Variance Documentation

Contact:	 Contacted by:	Date/ Time:
Regarding:	 · · · · · · · · · · · · · · · · · · ·	
Corrective Action Taken:	 	·
Check all that Apply:	See attached e-mail/ fax Client understands and would like Cooling process had begun short	e to proceed with analysis Ily after sampling event

## Analytical Report 374886

for

## **Basin Environmental Consulting, LLC**

**Project Manager: Curt Stanley** 

**BO Littlefield Fed #2** 

**GP II Energy** 

02-JUN-10





#### 12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295)



02-JUN-10



Project Manager: **Curt Stanley Basin Environmental Consulting, LLC** P.O. Box 381 Lovington, NM 88260

Reference: XENCO Report No: **374886 BO Littlefield Fed # 2** Project Address: Eddy Co., NM

#### Curt Stanley:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 374886. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 374886 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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**nelad** 

Sample Cross Reference 374886

### Basin Environmental Consulting, LLC, Lovington, NM

BO Littlefield Fed # 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Stockpile # 1 A	S	May-28-10 08:45		374886-001

Client Name: Basin Environmental Consulting, LLC Project Name: BO Littlefield Fed # 2



Project ID:GP II EnergyWork Order Number:374886

Report Date: 02-JUN-10 Date Received: 05/28/2010

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-808866 Percent Moisture None

Batch: LBA-808976 TPH by SW8015 Mod None



Project Id: GP II Energy

Contact: Curt Stanley

Project Location: Eddy Co., NM

## Certificate of Analysis Summary 374886

Basin Environmental Consulting, LLC, Lovington, NM





Date Received in Lab: Fri May-28-10 03:20 pm

Report Date: 02-JUN-10

Project Manager: Brent Barron, II

	Lab Id:	374886-001			
Analysis Paguastad	Field Id:	Stockpile # 1 A			
Analysis Kequestea	Depth:				
	Matrix:	SOIL			
	Sampled:	May-28-10 08:45			
Percent Moisture	Extracted:				
	Analyzed:	Jun-02-10 08.20			
	Units/RL:	% RL			
Percent Moisture		6.35 1.00			
TPH by SW8015 Mod	Extracted:	Jun-01-10 13:45			
	Analyzed:	Jun-01-10 17.43			
	Units/RL:	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons		ND 16.0			
C12-C28 Diesel Range Hydrocarbons		26.7 16.0			
C28-C35 Oil Range Hydrocarbons		ND 160			
Total TPH		26.7 16.0		,	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use The interpretations and results expressed throughout this analytical report represent the basi judgment of XENCO Laboratories XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our lability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latın America - Odessa - Corpus Christi

Brent Barron, II

Odessa Laboratory Manager





- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- **E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- **H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.
- **JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- **BRL** Below Reporting Limit.
- RL Reporting Limit
- * Outside XENCO's scope of NELAC Accreditation.

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## Project Name: BO Littlefield Fed # 2

Lab Batch: #:      Matrix:Solid        Units:      mg/kg      Date Analyzed:      6601/10      15:53      SURROGATE      RECOVERY STUDY        TPH by SW8015 Mod      Amount [A]      Amount [A]      Tree Amount [B]      Recovery %R      Control 10      Flags        1-Chlorooctane      116      100      116      70:13	<b>Vork Orders :</b> 374886	, ,		Project II	GP II Ener	gy							
Units: mg/kg      Date Analyzed: 06/01/10 15:53      SURROGATE      RECUVERY STUDY        TPH by SW8015 Mod      Amount [A]      True [B]      Recovery [B]      Control [Jmits]      Flags        1-Choreoctane      116      100      116      70-135      -        0-Terphenyl      46.6      50.0      93      70-135      -        Lab Batch #:      808976      Sample:      564699-1-BSD / BSD      Batch:      1      Matrix:Solid      -        Units: mg/kg      Date Analyzed:      06/01/10 16:20      SURROGATE      Recovery %R      Control Limits      Flags        1-Chloreoctane      119      100      119      70-135      -      -       Terphenyl      47.5      50.0      95      70-135      -      -        1-Chloreoctane      119      100      119      70-135      -      -       Terphenyl      47.5      50.0      95      70-135      -      -        1-Chloreoctane      119      100      119      70-135      -      -        TPH by SW8015 Mod      Am	Lab Batch #: 808976	<b>Sample:</b> 564699-1-BKS / B	KS Bate	h: 1 Matrix:	Solid								
TPH by SW8015 Mod Analytes      Anomnt Found [A]      True Anomnt [B]      Recovery WR      Control Junits %R      Flags        1-Chlorooctane      116      100      116      70-135      -        0-Terphenyl      46.6      50.0      93      70-135      -        Lab Batch #; 808976      Sample: 564699-1-BSD / BSD      Batch:      1      Matrix; Solid      -        Units: mg/kg      Date Analyzed: 06/01/10 16:20      SURROGATE RECOVERY STUDY      -      -        TPH by SW8015 Mod      Amount Found      Amount Amount Found      True Amount Amount Found      Recovery WR      Control Limits %R      Flags        1-Chlorooctane      119      100      119      70-135      -        1-Chlorooctane      119      100      119      70-135      -        1-Chlorooctane      106/01/10 16:48      SURROGATE RECOVERY STUDY      -      -        TPH by SW8015 Mod Analytes      Amount found (A)      Recovery (B)      Control Limits %R      -        1-Chlorooctane      106      100      106      70-135      -        1-Chlorooctane      0.071/10 17:43	Units: mg/kg	Date Analyzed: 06/01/10 15:53	SU	SURROGATE RECOVERY STUD									
1-Chlorooctane    116    100    116    70-135      o-Terphenyl    46.6    50.0    93    70-135      Lab Batch #: 808976    Sample: 564699-1-BSD / BSD    Batch:    1    Matrix:Solid      Units: mg/kg    Date Analyzed: 06/01/10 16:20    SURROGATE RECOVERY STUDY      TPH by SW8015 Mod    Amount Found    True Amount [A]    True Amount [B]    Recovery (DR    Control Limits %R    Flags      1-Chlorooctane    119    100    119    70-135    0    0    19    70-135    0    0    100    119    70-135    0    0    100    119    70-135    0    0    100    119    70-135    0    0    100    119    70-135    0    0    100    100    100    100    100    100    100    100    100    10    100    100    100    100    100    100    105    70-135    0    105    70-135    0    105    70-135    0    105    70-135    0    105    70-135    0    105    70-135    0 <t< th=""><th>Трн</th><th>by SW8015 Mod Analytes</th><th>Amount Found [A]</th><th>True Amount [B]</th><th>Recovery %R [D]</th><th>Control Limits %R</th><th>Flags</th></t<>	Трн	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
o-Terphenyl      46.6      50.0      93      70-135        Lab Batch #: 808976      Sample: 564699-1-BSD / BSD      Batch:      1      Matrix: Solid        Units: mg/kg      Date Analyzed: 06/01/10 16:20      SURROGATE RECOVERY STUDY      Control Links:      Flags        TPH by SW8015 Mod      Amount [A]      Amount [B]      Recovery % R (P)      Control Links:      Flags        1-Chlorooctane      119      100      119      70-135      Control Links:      Flags        0-Terphenyl      47.5      50.0      95      70-135      Flags        1-Chlorooctane      119      100      119      70-135      Flags        Lab Batch #: 808976      Sample: 564699-1-BLK / BLK      Batch:      1      Matrix: Solid      Flags        Units: mg/kg      Date Analyzed: 06/01/10 16:48      SURROGATE RECOVERY STUDY      Flags      % R      Flags        1-Chlorooctane      106      100      106      70-135      Flags      % R      Flags        1-Chlorooctane      106      100      106      70-135      Flags      % R      Flags      % R	1-Chlorooctanc		116	100	116	70-135							
Lab Batch #: 808976      Sample: 564699-1-BSD / BSD      Bate: 1      Matrix: Solid        Units: mg/kg      Date Analyzed: 06/01/10 16:20      SURROGATE RECOVERY STUDY        TPH by SW8015 Mod      Amount Found [A]      True Amount [B]      Recovery SR (D)      Control Units: SR (D)      Flags        1-Chlorooctane      119      100      119      70-135      -        0-Terphonyl      47.5      50.0      95      70-135      -        Lab Batch #: 808976      Sample: 564699-1-BLK / BLK      Batch: 1      Matrix: Solid      -        Units: mg/kg      Date Analyzed: 06/01/10 16:48      SURROGATE RECOVERY STUDY      -      -        Lab Batch #: 808976      Sample: 374886-001 / SMP      Amount [A]      True Amount [B]      Recovery Staff      Control Limits %R      Flags        1-Chlorooctane      106      100      106      70-135      -        1-Chlorooctane      106      100      106      70-135      -        1-Chlorooctane      106/01/10 17:43      SURROGATE RECOVERY STUDY      -      -        Lab Batch #: 808976      Sample: 374886-001 / SMP      Batch: 1      Matrix: Soil	o-Terphenyl		46.6	50.0	93	70-135							
Units: mg/kg      Date Analyzed: 06/01/10 16:20      SURROGATE RECOVERY STUDY        TPH by SW8015 Mod      Amount Found      True Amount [A]      True Amount [B]      Recovery %R      Control Linits      Flags        1-Chlorooctane      119      100      119      70-135      Flags        0-Terphonyl      47.5      50.0      95      70-135      Flags        Lab Batch #; 808976      Sample: 564699-1-BLK / BLK      Batch:      1      Matrix: Solid      Flags        Units: mg/kg      Date Analyzed: 06/01/10 16:48      SURROGATE RECOVERY STUDY      Flags      Flags        1-Chlorooctane      06/01/10 16:48      SURROGATE RECOVERY STUDY      Flags      Flags        1-Chlorooctane      106      100      106      70-135      Flags        1-Chlorooctane      106      100      106      70-135      Flags        Units: mg/kg      Date Analyzed: 06/01/10 17:43      SURROGATE RECOVERY STUDY      Flags        Lab Batch #: 808976      Sample: 374886-001 / SMP      Batch:      1      Matrix: Soil        Units: mg/kg      Date Analyzed: 06/01/10 17:43      SURROGATE RECOVERY STUDY      Contro	Lab Batch #: 808976	Sample: 564699-1-BSD / B	SD Batcl	h: 1 Matrix:	Solid								
TPH by SW8015 Mod Analytes      Amount Found [A]      True Amount [B]      Recovery %R [D]      Control Limits %R      Flags        1-Chlorooctane      119      100      119      70-135      Flags        0-Terphenyl      47.5      50.0      95      70-135      Flags        Lab Batch #: 808976      Sample: 564699-1-BLK / BLK      Batch: 1      Matrix: Solid      T        Units: mg/kg      Date Analyzed: 06/01/10 16:48      SURROGATE RECOVERY STUDY      Control Limits %R      Flags        1-Chlorooctane      06/01/10 16:48      SURROGATE RECOVERY STUDY      Flags      Flags        1-Chlorooctane      106      100      106      70-135      Flags        1-Chlorooctane      93.3      100      93      70-135      Flags        1-Chlorooctane      93.3      100      93      70-135      Flags	Units: mg/kg	Date Analyzed: 06/01/10 16:20	SU	RROGATE RE	COVERY	STUDY							
1-Chlorooctane      119      100      119      70-135        o-Terphenyl      47.5      50.0      95      70-135        Lab Batch #: 808976      Sample: 564699-1-BLK / BLK      Batch:      1      Matrix: Solid        Units: mg/kg      Date Analyzed: 06/01/10 16:48      SURROGATE RECOVERY STUDY      Control      Limits      Flags        Analytes      106      100      106      70-135      Flags      %R      Plags	ТРН	by SW8015 Mod Analvtes	Amount Found [A]	True Amount [B]	Recovery %R {D}	Control Limits %R	Flags						
o-Terphenyl      47.5      50.0      95      70-135        Lab Batch #: 808976      Sample: 564699-1-BLK / BLK      Batch: 1      Matrix: Solid        Units: mg/kg      Date Analyzed: 06/01/10 16:48      SURROGATE RECOVERY STUDY        TPH by SW8015 Mod      Amount Found [A]      True Amount [A]      Recovery (B]      Control Limits %R      Flags        1-Chlorooctane      106      100      106      70-135      Flags        0-Terphenyl      52.5      50.0      105      70-135      Flags        Lab Batch #: 808976      Sample: 374886-001 / SMP Units: mg/kg      Batch: 1      Matrix: Soil      Flags        Units: mg/kg      Date Analyzed: 06/01/10 17:43      SURROGATE RECOVERY STUDY      Flags      Flags        I-Chlorooctane      0-Terphenyl      47.7      50.0      93      70-135        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch: 1      Matrix: Soil      Flags        I-Chlorooctane      93.3      100      93      70-135      Flags        units: mg/kg      Date Analyzed: 06/02/10 11:44      SURROGATE RECOVERY STUDY      Lab Batch #: 808976      Sample: 374886-001 S / MS	I-Chlorooctane	· · · · · · · · · · · · · · · · · · ·	119	100	119	70-135							
Lab Bateh #: 808976      Sample: 564699-1-BLK / BLK      Batch:      1      Matrix: Solid        Units: mg/kg      Date Analyzed:      06/01/10      16:48      SURROGATE      RECOVERY STUDY        TPH by SW8015 Mod      Amount [A]      True [B]      Recovery %R      Control Limits      Flags        1-Chlorooctane      106      100      106      70-135      -        Lab Batch #:      808976      Sample:      374886-001 / SMP      Batch:      1      Matrix: Soil        Units:      mg/kg      Date Analyzed:      06/01/10      17:43      SURROGATE      Recovery %R      Control Limits      Flags        Units:      mg/kg      Date Analyzed:      06/01/10      17:43      SURROGATE      Recovery %R      Control Limits      Flags        0-Terphenyl      41.1      1      Matrix: Soil      Flags      Flags        0-Terphenyl      47.7      50.0      93      70-135      -        Lab Batch #:      808976      Sample::      374886-001 S / MS      Batch:      1      Matrix: Soil        Lab Batch #:      808976      Sample::<	o-Terphenyl		47.5	50.0	95	70-135							
Units: mg/kg      Date Analyzed: 06/01/10 16:48      SURROGATE RECOVERY STUDY        TPH by SW8015 Mod      Amount [A]      True Anount [B]      Recovery %R [D]      Control Linits %R [D]      Flags        1-Chlorooctane      106      100      106      70-135      -        o-Terphenyl      52.5      50.0      105      70-135      -        Lab Batch #: 808976      Sample: 374886-001 / SMP      Batch:      1      Matrix: Soil      -        Units: mg/kg      Date Analyzet: 06/01/10 17:43      SURROGATE RECOVERY STUDY      -      -        TPH by SW8015 Mod      Amount Found      True Amount [B]      Recovery %R [D]      Control Limits %R [D]      Flags        1-Chlorooctane      93.3      100      93      70-135      -        0-Terphenyl      47.7      50.0      95      70-135      -        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch:      1      Matrix: Soil      -        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch:      1      Matrix: Soil      -        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch: <td>Lab Batch #: 808976</td> <td>Sample: 564699-1-BLK / B</td> <td>LK Bate</td> <td>h: ¹ Matrix:</td> <td>Solid</td> <td>· · · · · · · · · · · · · · · · · · ·</td> <td></td>	Lab Batch #: 808976	Sample: 564699-1-BLK / B	LK Bate	h: ¹ Matrix:	Solid	· · · · · · · · · · · · · · · · · · ·							
TPH by SW8015 Mod      Amount Found [A]      True Amount [B]      True Amount [B]      Control Limits %R      Flags        1-Chlorooctane      106      100      106      70-135      -        0-Terphenyl      52.5      50.0      105      70-135      -        Lab Batch #: 808976      Sample: 374886-001 / SMP      Batch:      1      Matrix: Soil      -        Units: mg/kg      Date Analyzed: 06/01/10 17:43      SURROGATE RECOVERY STUDY      -      -        TPH by SW8015 Mod      Amount [A]      Amount Found [A]      True Amount [B]      Recovery %R      Control Limits %R      Flags        1-Chlorooctane      93.3      100      93      70-135      -        0-Terphenyl      47.7      50.0      95      70-135      -        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch:      1      Matrix: Soil      -        Units: mg/kg      Date Analyzed: 06/02/10 11:44      SURROGATE RECOVERY STUDY      -      -        TPH by SW8015 Mod      Amount [A]      True Amount [A]      Recovery %R      Control Limits %R      Flags        1-Chlorooctane<	Units: mg/kg	Date Analyzed: 06/01/10 16:48	SU	RROGATE RI	COVERY	STUDY	·						
I-Chlorooctanc      106      100      106      70-135        o-Terphenyl      52.5      50.0      105      70-135        Lab Batch #: 808976      Sample: 374886-001 / SMP      Batch:      1      Matrix: Soil        Units: mg/kg      Date Analyzed: 06/01/10 17:43      SURROGATE RECOVERY STUDY        TPH by SW8015 Mod      Amount [A]      True Amount [A]      Recovery (D)      Control Limits %R      Flags        1-Chlorooctane      93.3      100      93      70-135      -        0-Terphenyl      47.7      50.0      95      70-135      -        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch:      1      Matrix:Soil      -        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch:      1      Matrix:Soil      -        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch:      1      Matrix:Soil      -        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch:      1      Matrix:Soil      -        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch:      1      Matrix:Soil      -  <	ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
o-Terphenyl      52.5      50.0      105      70-135        Lab Batch #: 808976      Sample: 374886-001 / SMP      Batch:      1      Matrix: Soil        Units: mg/kg      Date Analyzed: 06/01/10 17:43      SURROGATE RECOVERY STUDY        TPH by SW8015 Mod      Amount Found [A]      True Amount [B]      Recovery %R [D]      Control Limits %R [D]      Flags        1-Chlorooctane      93.3      100      93      70-135      -        0-Terphenyl      47.7      50.0      95      70-135      -        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch:      1      Matrix: Soil      E        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch:      1      Matrix: Soil      E        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch:      1      Matrix: Soil      E        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch:      1      Matrix: Soil      E        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch:      1      Matrix: Soil      E        Linits: mg/kg      Date Analyzed: 06/02/10 11:44      SurroGATE RECOVE	1-Chlorooctane		106	100	106	70-135							
Lab Batch #: 808976      Sample: 374886-001 / SMP      Batch:      I      Matrix: Soil        Units: mg/kg      Date Analyzed: 06/01/10 17:43      SURROGATE RECOVERY STUDY        TPH by SW8015 Mod      Amount Found [A]      True Amount [B]      Recovery %R [D]      Control Limits %R      Flags        1-Chlorooctanc      93.3      100      93      70-135      -        0-Terphenyl      47.7      50.0      95      70-135      -        Lab Batch #: 808976      Sample: 374886-001 S / MS      Batch:      1      Matrix: Soil        Units: mg/kg      Date Analyzed: 06/02/10 11:44      SURROGATE RECOVERY STUDY      -        TPH by SW8015 Mod      Amount Found [A]      True Matrix: Soil      -        TPH by SW8015 Mod      Amount Found [A]      True Maunt [B]      Recovery %R [D]      Control Limits %R      Flags        1-Chlorooctanc      113      100      113      70-135      -        0-Terphenyl      51.1      50.0      102      70-135      -	o-Terphenyl		52.5	50.0	105	70-135							
Units: mg/kgDate Analyzed: 06/01/10 17:43SURROGATE RECOVERY STUDYTPH by SW8015 ModAmount Found [A]True Amount [B]Recovery %RControl Limits %RFlags1-Chlorooctane93.31009370-135-o-Terphenyl47.750.09570-135-Lab Batch #: 808976Sample: 374886-001 S / MS Date Analyzed: 06/02/10 11:44Batch: 1Matrix: Soil-TPH by SW8015 ModAmount Found [A]True Matrix: SoilControl Limits: Matrix: SoilFlagsTPH by SW8015 ModAmount Found [A]True Mount Found [A]Recovery %RControl Limits %RFlags1-Chlorooctane11310011370-135-0-Terphenyl51.150.010270-135-	Lab Batch #: 808976	Sample: 374886-001 / SMF	) Bate	h: ¹ Matrix:	Soil								
TPH by SW8015 ModAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %R %RFlags1-Chlorooctanc93.31009370-135-o-Terphenyl47.750.09570-135-Lab Batch #: 808976Sample: 374886-001 S / MSBatch:1Matrix: Soil-Units: mg/kgDate Analyzed: 06/02/10 11:44SURROGATE RECOVERY STUDY-TPH by SW8015 ModAmount [A]True Amount [A]Recovery %R [D]Control Limits %RFlags1-Chlorooctanc11310011370-135-0-Terphenyl51.150.010270-135-	Units: mg/kg	Date Analyzed: 06/01/10 17:43	SU	<b>RROGATE RI</b>	COVERY	STUDY	· <del></del> , ·						
Analytes      IOI      IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	ТРН	by SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags						
1-Chlorooctane    93.3    100    93    70-135      o-Terphenyl    47.7    50.0    95    70-135      Lab Batch #: 808976    Sample: 374886-001 S / MS    Batch:    1    Matrix: Soil      Units: mg/kg    Date Analyzed: 06/02/10 11:44    SURROGATE RECOVERY STUDY      TPH by SW8015 Mod    Amount [A]    True [B]    Recovery %R [D]    Control Limits %R    Flags      1-Chlorooctane    113    100    113    70-135    Flags      o-Terphenyl    51.1    50.0    102    70-135		Analytes		100									
o-1 crpnenyl    41.7    30.0    95    70-135      Lab Batch #: 808976    Sample: 374886-001 S / MS    Batch:    1    Matrix: Soil      Units: mg/kg    Date Analyzed: 06/02/10 11:44    SURROGATE RECOVERY STUDY      TPH by SW8015 Mod    Amount [A]    True [B]    Recovery %R    Control Limits %R    Flags      1-Chlorooctanc    113    100    113    70-135	I-Chlorooctane		93.3	100	93	70-135							
Lab Batch #: 808976Sample: 374886-001 S/MSBatch:1Matrix: SoilUnits: mg/kgDate Analyzed: 06/02/10 11:44SURROGATE RECOVERY STUDYTPH by SW8015 ModAmount [A]True [B]Recovery %R [D]Control Limits %RFlags1-Chlorooctanc11310011370-135	o-1erpnenyl		47.7	50.0	95	/0-135	L						
Units: mg/kgDate Analyzed: 06/02/10 11:44SURROGATE RECOVERT STODYTPH by SW8015 ModAmount Found [A]True Amount [B]Control Limits %R [D]Flags1-Chlorooctanc11310011370-135o-Terphenyl51.150.010270-135	Lab Batch #: 808976	Sample: 374886-001 S / M	S Bate	h:   Matrix	Soil	STUDV							
TPH by SW8015 ModAmount Found [A]True Amount [B]Control Limits %RFlagsAnalytes11310011370-135o-Terphenyl51.150.010270-135	Units: mg/kg	Date Analyzed: 06/02/10 11:44											
1-Chlorooctanc      113      100      113      70-135        o-Terphenyl      51.1      50.0      102      70-135	ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags						
o-Terphenyl 51.1 50.0 102 70-135	1-Chlorooctane		113	100	113	70-135							
	o-Terphenyl		51.1	50.0	102	70-135							

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / BAll results are based on MDL and validated for QC purposes.



## Project Name: BO Littlefield Fed # 2

<b>Work Orders :</b> 374886 Lab Batch #: 808976	5, Sample: 374886-001 SD / N	ISD Batc	Project I h: ¹ Matrix	I <b>D:</b> GP II Ene x: Soil	rgy									
Units: mg/kg	Date Analyzed: 06/02/10 12:11	SURROGATE RECOVERY STUDY												
ТРН	by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags								
1-Chlorooctanc		111	100	111	70-135									
o-Terphenyl		50.3	50.0	101	70-135									

- * Surrogate outside of Laboratory QC limits
  ** Surrogates outside limits; data and surrogates confirmed by reanalysis
- *** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / BAll results are based on MDL and validated for QC purposes.



No. MY. COMMON MICHANDRON, SPACE WIN

az la



#### Project Name: BO Littlefield Fed # 2

Work Order #: 374886 Analyst: BEV Lab Batch ID: 808976 Sample: 564	D:	ate Prepar Batcl	ed: 06/01/20	10			Pro Date A	ject ID: ( nalyzed: ( Matrix: S	GP II Energ )6/01/2010 Solid	у	
Units: mg/kg		BLAN	K /BLANK	SPIKE / I	BLANK S	PIKE DUPI	LICATE	RECOVI	ERY STUE	Ŷ	
TPH by SW8015 Mod	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate Besult (E)	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[B]		[D]	[E]	Result [F]	[4]				
C6-C12 Gasoline Range Hydrocarbons	ND	1000	1070	107	1000	1130	113	5	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	863	86	1000	829	83	4	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes



#### Project Name: BO Littlefield Fed # 2



Work Order #: 374886						Project II	D: GP II F	inergy			
Lab Batch ID: 808976 Date Analyzed: 06/02/2010 Reporting Units: mg/kg	QC- Sample ID: Date Prepared:	374886 06/01/2 N	-001 S 010 IATRIX SPIK	Ba An E / MAT	tch #: alyst: RIX SPI	1 Matrix BEV KE DUPLICA	x: Soil	OVERY S	STUDY		
TPH by SW8015 Mod	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Resulf [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
C6-C12 Gasoline Range Hydrocarbons	ND	1070	1260	118	1070	1280	120	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	26.7	1070	794	72	1070	797	72	0	70-135	35	

Matrix Spike Percent Recovery  $[D] = 100^{(C-A)/B}$ Relative Percent Difference  $RPD = 200^{(C-F)/(C+F)}$  Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

 $ND = Not Detected, J \approx Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit$ 





### Project Name: BO Littlefield Fed # 2

Work Order #: 374886

Lab Batch #: 808866 Date Analyzed: 06/02/2010 QC- Sample ID: 374884-001 D	Date Prepared: 06/02/2010 Batch #: 1	Anal Mat	Project I yst:JLG rix: Soil	D: GP II En	ergy
Reporting Units: %	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte		[ <b>B</b> ]			
Percent Moisture	6.75	6.34	6	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit

Env	/ironment	al Lab of T	exa	as					120 Od	600  ess	Wes a, Te	CHA t 1-20 Xas	<b>XIN</b> ( ) Ea: 797(	OF ( st 35	cus	<b>TOL</b>	DY R	REC	OR	D A	ND 4	NA Pł F	LYS none ax:	SIS   5: 4: 4:	RE( 32-5 32-5	9 <i>UE</i> : 63-11 63-17	ST 800 713			
	Project Manager:	Curt Stanley			• • • • • • • • • • • • • • • • • • •										-		Pr	ojec	:t Na	ıme:	во	Litt	efic	eld I	Fed	#2				
	Company Name	Basin Environmental C	onsultir	1 <b>g</b>														P	roje	ct #:	GP	ll Er	nerg	I <u>Y</u>						
	Company Address:	P.O,Box 381														•	I	Proj	ect i	Loc:	Eddy	· Co,	NM						<u> </u>	
	City/State/Zip:	Lovington, NM 88260		<b></b> *,															P	0#:	PAA	J. F	lenr	Y						
	Telephone No:	(575)605-7210				Fax No:	:	(50	<del>5)</del> 3	96-1	42 <del>9</del>					R	epor	t Fa	ma	t:	× s	tand	ard			TRF	۲P	С	] NP(	DES
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RDER	# 374	886	<del></del>		<del></del>	<u></u>	<b>-</b>	হ্যধূ	Pr	eserv	ation	8/	of Co	ntain	ers	Ma	itrix	<u>8</u>				L: S	+-	╀						2 \$
LAB \$ (tab use only)	FIEL	LD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	cield Filtered	Total #. of Containers 402	EC8	HNO ₃	ΗG	NaCH	Na _z S ₂ O ₃	Nane	Other ( Specify)	DW-Drinking Water SL-Sludi GW - Groundwater S. Solition	NP - Non-Potable Specify Oth	TPH: 418 ( 80154 89	TPH. TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (CI, SO4, Alkalinity) SAD / FED / CEC	Metels. As Ag Ba Cd Cr Pb Ho	Volatiles	Sernivolatiles	BTEX 80218/5030 or BTEX 82	RCI	N.O.R.M.			RUSH TAT (Pre-Schedule) 24
ÐI	Stock	cpile #1 A			5/28/2010	845		1	x			1	t			5	5	X					Í				-	+-	Ħ	<u> </u>
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telinquish Relinquish	ied by:	B/2B Date	/52 T	me D me	Received by:										Date	<del>)</del>	+	Time		Cust Cust Sam	ody s ody s ole Hi y San	aals mile nod L	on c Stro Veliv Qier	ered nt Re	iner( (1)) (2), ?	8)03	(she	С С С С С С С С С С С С С С С С С С С		
telinquish	red by:	Date	T	me	Received by ELOT	. Tite	; ,							os.	Date - 28	, Đ	ĸ	Time ZO		b Temj	y Coc xerati	rier? ire U	pon	UPS Rec	eipt:	DHL	Fe	эdEx 36	Lone : °(	Star C

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**XENCO Laboratories** Atlanta, Corpus Christi, Dallas, Houston, Miami, Midland, Philadelphia, San Antonio, Tampa

Document Title: Sample Receipt Checklist Document No.: SYS - SRC Revision/Date : No.00, 05/18/10 Effective Date: 05/20/10 Page No.: 1 of 1

#### Prelogin / Nonconformance Report - Sample Log-In

Client: Basin Environmental
Date/Time: 05-28-10 @ 1520
Lab ID #:

JMF Initials:

#### Sample Receipt Checklist

1. Sample on ice?	Blue	Water	No	
2. Shipping container in good condition?	Yes	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Tes	No	N/A	aslabe
4. Chain of Custody present?	Yes	No	<u>-</u>	
5. Sample instructions complete on chain of custody?	Yes	No	<b></b>	
6. Any missing / extra samples?	Yes	(No >		
7. Chain of custody signed when relinquished / received?	(Yes-	No		
8. Chain of custody agrees with sample lable(s)?	Yes	No		
9. Container labels legible legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	Yes	No		
11. Samples in proper container / bottle?	Yes	No		
12. Samples properly preserved?	Yes	No	N/A	
13. Sample container intact?	Yes	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	Yes	No		
16. Subcontract of sample(s)?	Yes		N/A	
17. Voc sample have zero head space?	(Yes')	No	N/A	
18. Cooler 1 No. Cooler 2 No. Cooler 3 No.	Cooler 4	No.	Cooler	5 No.
Ibs 3,6°C Ibs °C Ibs °C	lbs	°C	lbs	°C ∣
		······		

Nonconformance Documentation

____

Contact:

Contacted by:_____Date/Time:_____

____

Regarding: __

Corrective ActionTaken:____

condition acceptable by NELAC 5.5.8.3 1.a.1.

E Initial and Backup Temperature confirm out of temperature conditions

Client understands and would like to proceed with analysis

Final Ver. 1 000

## Analytical Report 379806

for

## **Basin Environmental Consulting, LLC**

**Project Manager: Camille Bryant** 

BO Littlefield Fed # 2

**GP II Energy** 

02-JUL-10





#### 12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002) Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054) New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610) Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330) Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370) Xenco-Boca Raton (EPA Lab Code: FL00449): Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917) North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)





02-JUL-10

Project Manager: Camille Bryant Basin Environmental Consulting, LLC P.O. Box 381 Lovington, NM 88260

Reference: XENCO Report No: **379806 BO Littlefield Fed # 2** Project Address: Eddy County, New Mexico

#### **Camille Bryant**:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 379806. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 379806 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II Odessa Laboratory Manager

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Sample Cross Reference 379806

Basin Environmental Consulting, LLC, Lovington, NM

BO Littlefield Fed # 2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Stockpile # 3	S	Jun-30-10 14:30		379806-001



Client Name: Basin Environmental Consulting, LLC Project Name: BO Littlefield Fed # 2



Project ID:GP II EnergyWork Order Number:379806

Report Date: 02-JUL-10 Date Received: 07/01/2010

Sample receipt non conformances and Comments: None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-813111 Percent Moisture None

Batch: LBA-813114 Inorganic Anions by EPA 300 None

Batch: LBA-813120 TPH By SW8015 Mod SW8015MOD_NM

Batch 813120, o-Terphenyl recovered above QC limits . Matrix interferences is suspected; data not confirmed by re-analysis Samples affected are: 379806-001 S.

Batch: LBA-813124 BTEX by EPA 8021B SW8021BM

Batch 813124, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Samples affected are: 379806-001. The Laboratory Control Sample for Toluene, m,p-Xylenes, Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits



Project Id: GP II Energy

Contact: Camille Bryant

Project Location: Eddy County, New Mexico

### Certificate of Analysis Summary 379806

Basin Environmental Consulting, LLC, Lovington, NM

Project Name: BO Littlefield Fed # 2



Date Received in Lab: Thu Jul-01-10 02:45 pm

Report Date: 02-JUL-10

Project Manager: Brent Barron, II

	Lab Id:	379806-001			
Analysis Paguastad	Field Id:	Stockpile # 3			
Analysis Kequestea	Depth:				
	Matrix:	SOIL			
	Sampled:	Jun-30-10 14:30			
Anions by E300	Extracted:	····	<u></u>	 	
	Analyzed:	Jul-01-10 16.07			
	Units/RL:	mg/kg RL			
Chloride		218 8.63			
BTEX by EPA 8021B	Extracted:	Jul-01-10 15:45			
	Analyzed:	Jul-02-10 02.35			
	Units/RL:	mg/kg RL			
Benzene	-	ND 0.0010			
Toluene		ND 0.0020			
Ethylbenzene		0.0010 0.0010	 		
m,p-Xylenes		0.0028 0.0020		 	
o-Xylene		0.0013 0.0010		 	
Total Xylenes		0.0041 0.0010	 	 	
Total BTEX		0.0051 0.0010	 		
Percent Moisture	Extracted:				
	Analyzed:	Jul-02-10 08:15			
	Units/RL:	% RL			
Percent Moisture		2.67 1.00		 	
TPH By SW8015 Mod	Extracted:	Jul-01-10 15:10			
	Analyzed:	Jul-01-10 18:54			
	Units/RL:	mg/kg RL			
C6-C12 Gasoline Range Hydrocarbons	1	ND 15.0	 		
C12-C28 Diesel Range Hydrocarbons		61.0 15.0			
C28-C35 Oil Range Hydrocarbons		ND 150			
Total TPH		61.0 15.0			

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented Our lability is limited to the amount invoiced for this work order unless otherwise agreed to in writing

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II

Odessa Laboratory Manager

Final 1.000



## **Flagging Criteria**

- X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- **B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- **D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F RPD exceeded lab control limits.
- J The target analyte was positively identified below the MQL and above the SQL.
- U Analyte was not detected.
- L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

**RL** Reporting Limit

MDL Method Detection Limit

- PQL Practical Quantitation Limit
- * Outside XENCO's scope of NELAC Accreditation.

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## Project Name: BO Littlefield Fed # 2

Date      Date      Analyzed:      O'DOLAT      SURROGATE      RECOVERY STUDY        BTEX by EPA 8021B      Amount found      Amount found      Amount found      True found      Recovery for SR      Control Links      Flags        1.4-Difluorobenzene      0.0304      0.0300      99      80-120      -        4.Bromofluorobenzene      0.0298      0.0300      99      80-120      -        Lab Batch #: 813124      Sample: 567201-1-BSD / BSD      Batch:      1      Matrix:Solid      -        Units: mg/kg      Date Analyzed: 07/02/10 01:05      SURROGATE      RECOVERY STUDY      -        BTEX by EPA 8021B      Amount found      True Amount found      Recovery for R      Control found      -        1.4-Difluorobenzene      0.0307      0.0300      102      80-120        Lab Batch # 813124      Sample: 567201-1-BLK / BLK      Batch:      1      Matrix: Solid        Units:: mg/kg      Date Analyzed:      0702/10 02:13      SURROGATE      RECOVERY STUDY        Lab Batch # 813124      Sample: 379806-001 / SMP      Batch:      1      Matrix: Solid        Lab Batch # 813124	Work Orders : 379806 Lab Batch #: 813124	5, Sample: 567201-1-BKS/B	KS Batel	Project ID	GP II Ener	rgy	
BTEX by EPA 8021B      Amount Found [A]      True Amount [B]      True Amount [B]      Recovery %R [D]      Control %R %R      Flags %R        1.4-Diffuorobenzene      0.0304      0.0300      0.0300      99      80.120        4-Bromoffuorobenzene      0.0304      0.0300      99      80.120        Lab Batch #: 813124      Sample: 567201-1-BSD / BSD      Batch:      1      Matrix: Solid        Units: mg/kg      Date Analyzed: 07/02/10 01:05      SURROGATE RECOVERY STUDY      Control Links      Flags        1.4-Diffuorobenzene      0.0307      0.0300      102      80-120        4-Bromoffuorobenzene      0.0307      0.0300      102      80-120        1.4-Diffuorobenzene      0.0294      0.0300      98      80-120        Lab Batch #; 813124      Sample: 567201-1-BLK / BLK      Batch:      1      Matrix: Solid        Units: mg/kg      Date Analyzed: 07/02/10 02:13      SURROGATE RECOVERY STUDY      Control 1.Anits      Flags        1.4-Diffuorobenzene      0.0295      0.0300      88      80-120        1.4-Diffuorobenzene      0.0295      0.0300      88      80-120	Units: mg/kg	Date Analyzed: 07/02/10 00:43	SU	RROGATE RE	COVERY	STUDY	
Analytes      101      101        1,4-Diffuorobenzene      0.0304      0.0300      101      80-120        4-Bromoffuorobenzene      0.0298      0.0300      99      80-120        4-Bromoffuorobenzene      0.0298      0.0300      99      80-120        4-Bromoffuorobenzene      0.0298      0.0300      99      80-120        4-Bromoffuorobenzene      Date Analyzed: 07/02/10 01:05      SURROGATE RECOVERY STUDY      Flags        Analytes      [A]      [B]      7rue      Recovery      Limits        [A]      [B]      7rue      Recovery      Limits      Flags        [A]      [B]      7R      Flags      Flags      Flags        [A]      [B]      7R      Flags      Flags      Flags        [A]      [B]      7R      Recovery      Limits      Sold      Units: solid        Lab Batch #: \$13124      Sample: 567201-1-BLK / BLK      Batch: 1      Matrix: Solid      Sold	BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
I.4-Diffuoroberzene      0.0304      0.0300      101      80-120        4-Bromefluoroberzene      0.0298      0.0300      99      80-120        Lab Batch #: 813124      Sample: 567201-1-BSD / BSD      Batch: 1      Matrix: Solid        Units: mg/kg      Date Analyzed: 07/02/10 01:05      SURROGATE RECOVERY STUDY        BTEX by EPA 8021B      Amount [A]      True Amount [A]      Matrix: Solid        1.4-Diffuoroberzene      0.0307      0.0300      98      80-120        -A-Bromofluoroberzene      0.0307      0.0300      98      80-120        -A-Bromofluoroberzene      0.0307      0.0300      98      80-120        Lab Batch #: 813124      Sample: 567201-1-BLK / BLK      Batch: 1      Matrix: Solid        Units: mg/kg      Date Analyzed: 07/02/10 02:13      SURROGATE RECOVERY STUDY        BTEX by EPA 8021B      Amount Found      True Amount [A]      Matrix: Solid        1.4-Difluoroberzene      0.0255      0.0300      98      80-120        Lab Batch #: 813124      Sample: 379806-001 / SMP      Batch: 1      Matrix: Soli        Units: mg/kg      Date Analyzed: 07/02/10 02:35      SURROGATE RECO		Analytes			נטן		
4-Bromonuoronenzene      0.0298      0.0300      99      80-120        Lab Batch #: 813124      Sample: 567201-1-BSD / BSD      Batch:      1      Matrix: Solid        BTEX by EPA 8021B      Analyzes:      One of the control	1,4-Difluorobenzene		0.0304	0.0300	101	80-120	
Lab Batch #: 813124      Sample: 567201-1-BSD / BSD      Batch: 1      Matrix: Solid        Units: mg/kg      Date Analyzed: 07/02/10 01:05      SURROGATE RECOVERY STUDY        BTEX by EPA 8021B      Amount [A]      True [B]      Receivery [D]      Control 5%R        1.4-Difluorobenzene      0.0307      0.0300      102      80-120        4-Bromofluorobenzene      0.0294      0.0300      98      80-120        Lab Batch #: 813124      Sample: 567201-1-BLK / BLK      Batch: 1      Matrix: Solid        Units: mg/kg      Date Analyzed: 07/02/10 02:13      SURROGATE RECOVERY STUDY        BTEX by EPA 8021B      Amount Found [A]      True Amount [B]      Receivery %R      Control Limits %R      Flags        1.4-Difluorobenzene      0.0295      0.0300      85      80-120        Lab Batch #: 813124      Sample: 379806-001 / SMP      Batch: 1      Matrix: Soil        Lab Batch #: 813124      Sample: 379806-001 / SMP      Batch: 1      Matrix: Soil        Units: mg/kg      Date Analyzed: 07/02/10 02:35      SURROGATE RECOVERY STUDY        BTEX by EPA 8021B      Amount [A]      True Amount [A]      Recovery %R      Control Limits %R <t< td=""><td>4-Bromofluorobenzene</td><td></td><td>0.0298</td><td>0.0300</td><td>99</td><td>80-120</td><td></td></t<>	4-Bromofluorobenzene		0.0298	0.0300	99	80-120	
Units: mg/kg      Date Analyzed: 07/02/10 01:05      SURROGATE RECOVERY STUDY        BTEX by EPA 8021B      Amount Found [A]      True Amount [B]      Control Amount [B]      Control SR (D]      Control Limits %R      Flags        1.4-Drifluorobenzene      0.0307      0.0300      102      80-120      -        4-Bromofluorobenzene      0.0294      0.0300      98      80-120      -        Lab Batch #: 813124      Sample: 567201-1-BLK / BLK      Batch:      1      Matrix: Solid      -        Units: mg/kg      Date Analyzed: 07/02/10 02:13      SURROGATE RECOVERY STUDY      -      -        BTEX by EPA 8021B      Amount Found [A]      True [B]      Recovery %R      Control Limits %R      Flags        1.4-Difluorobenzene      0.0255      0.0300      98      80-120        Lab Batch #: 813124      Sample: 379806-001 / SMP      Batch:      1      Matrix:Soil        Units: mg/kg      Date Analyzed: 07/02/10 02:35      SURROGATE RECOVERY STUDY      -        BTEX by EPA 8021B      Amount Found [A]      True Amount Found [B]      Recovery %R      Control Limits %R      -        1.4-Difluorobenzene      0.0261 <td>Lab Batch #: 813124</td> <td>Sample: 567201-1-BSD / B</td> <td>SD Batel</td> <td>h: 1 Matrix:</td> <td>Solid</td> <td></td> <td></td>	Lab Batch #: 813124	Sample: 567201-1-BSD / B	SD Batel	h: 1 Matrix:	Solid		
BTEX by EPA 8021B      Amount Found [A]      True Amount [B]      Recovery %R [D]      Control Limits %R [D]      Flags %R %R [D]        1.4-Drfluorobenzene      0.0307      0.0300      102      80-120        4-Bromofluorobenzene      0.0294      0.0300      98      80-120        4-Bromofluorobenzene      0.0294      0.0300      98      80-120        Lab Batch #: 813124      Sample: 567201-1-BLK / BLK      Batch: 1      Matrix: Solid        Units: mg/kg      Date Analyzed: 07/02/10 02:13      SURROGATE RECOVERY STUDY        BTEX by EPA 8021B      Amount Found [A]      True Recovery %R      Control Limits %R      Flags        1.4-Difluorobenzene      0.0255      0.0300      98      80-120        Lab Batch #: 813124      Sample: 379806-001 / SMP Linits: mg/kg      Batch: 1      Matrix: Soil        BTEX by EPA 8021B      Amount Found [A]      True Analytes      Control Limits %R      Flags        1.4-Dufluorobenzene      0.02261      0.0300      87      80-120        Lab Batch #: 813124      Sample: 379806-001 S / MS      Batch: 1      Matrix: Soil        Linits: mg/kg      Date Analyzed: 07/02/10 02:58	Units: mg/kg	Date Analyzed: 07/02/10 01:05	SU	RROGATE RE	COVERY	STUDY	
I.4-Difluorobenzene      0.0307      0.0300      102      80-120        4-Bromofluorobenzene      0.0294      0.0300      98      80-120        Lab Batch #: \$13124      Sample: 567201-1-BLK / BLK      Batch ::      1      Matrix: Solid        Units: mg/kg      Date Analyzed: 07/02/10 02:13      SURROGATE RECOVERY STUDY      Control      Limits        BTEX by EPA 8021B      Amount      True Amount      Recovery % 1D1      Control      Flags        1.4-Difluorobenzene      0.0255      0.0300      85      80-120      Imits      Flags        1.4-Difluorobenzene      0.0255      0.0300      98      80-120      Imits        4-Bromofluorobenzene      0.0295      0.0300      98      80-120      Imits        Lab Batch #: 813124      Sample: 379806-001 / SMP      Batch:      1      Matrix: Soil      Imits        Units: mg/kg      Date Analyzed: 07/02/10 02:35      SURROGATE RECOVERY STUDY      Imits      Flags        Analytes      I/A1      I/B1      Marount      True Amount      Recovery StuDy      Solid        1.4-Difluorobenzene      0.02261	BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene      0.0294      0.0300      98      80-120        Lab Batch #: 813124      Sample: 567201-1-BLK / BLK      Batch:      1      Matrix: Solid        Units: mg/kg      Date Analyzed: 07/02/10 02:13      SURROGATE RECOVERY STUDY      Control Limits      Flags        BTEX by EPA 8021B      Amount [A1]      True [B]      Recovery %R      Control Limits      Flags        4.4-Diffuorobenzene      0.0255      0.0300      85      80-120        4-Bromofluorobenzene      0.0255      0.0300      98      80-120        Lab Batch #: 813124      Sample: 379806-001 / SMP      Batch:      1      Matrix: Soil        Units: mg/kg      Date Analyzed: 07/02/10 02:35      SURROGATE RECOVERY STUDY        BTEX by EPA 8021B      Amount [A1]      True [B]      Recovery %R      Control Limits      Flags        J.1.4-Diffuorobenzene      0.0261      0.0300      87      80-120        Lab Batch #: 813124      Sample: 379806-001 S / MS      Batch:      1      Matrix: Soil        Units: mg/kg      Date Analyzed: 07/02/10 02:58      SURROGATE RECOVERY STUDY        Lab Batch #: 813124      Sample: 379806-001	1,4-Difluorobenzene	·	0.0307	0.0300	102	80-120	
Lab Batch #: 813124      Sample: 567201-1-BLK / BLK      Batch:      1      Matrix: Solid        Units: mg/kg      Date Analyzed: 07/02/10 02:13      SURROGATE RECOVERY STUDY        BTEX by EPA 8021B      Amount [A1]      True [B]      Recovery %R      Control Limits      Flags        Analytes      0.0255      0.0300      85      80-120	4-Bromofluorobenzene		0.0294	0.0300	98	80-120	
Units:      market      Order Notice      Sumplet      Order Notice      Market State        Units:      mg/kg      Date Analyzed:      07/02/10 02:13      SURROGATE      RECOVERY STUDY        BTEX by EPA 8021B      Amount [A]      True [B]      Recovery %R      Control Limits %R      Flags        1.4-Difluorobenzene      0.0255      0.0300      85      80-120        4-Bromofluorobenzene      0.0295      0.0300      98      80-120        Lab Batch #: 813124      Sample:      379806-001 / SMP      Batch:      1      Matrix: Soil        Units:      mg/kg      Date Analyzed:      07/02/10 02:35      SURROGATE      Recovery %R      Control Limits      Flags        Matrix:      Sumple:      379806-001 / SMP      Batch:      1      Matrix: Soil        BTEX by EPA 8021B      Amount [A]      True Recovery      Control Limits      Flags        1.4-Difluorobenzene      0.0261      0.0300      87      80-120        Lab Batch #: 813124      Sample:      379806-001 S / MS      Batch:      1      Matrix: Soil        Units:      mg/kg      Dat	Lah Batch # 813124	Sample: 567201-1-BLK / B	I.K. Batel	h• 1 Matrix	Solid		
BTEX by EPA 8021B      Amount Found [A]      True Amount [B]      Recovery %R [D]      Control Limits %R      Flags        1.4-Difluorobenzene      0.0255      0.0300      85      80-120	Units: mg/kg	Date Analyzed: 07/02/10 02:13	SU	RROGATE RE	COVERY	STUDY	
I.4-Diffuorobenzene      0.0255      0.0300      85      80-120        4-Bromofluorobenzene      0.0295      0.0300      98      80-120        Lab Batch #: 813124      Sample: 379806-001 / SMP      Batch:      1      Matrix: Soil        Units: mg/kg      Date Analyzed: 07/02/10 02:35      SURROGATE RECOVERY STUDY      Flags        BTEX by EPA 8021B      Amount [A]      True Found [A]      Recovery %R      Control Limits      Flags        1.4-Diffuorobenzene      0.0261      0.0300      87      80-120        Lab Batch #: 813124      Sample: 379806-001 S / MS      Batch:      1      Matrix: Soil        Lab Batch #: 813124      Sample: 379806-001 S / MS      Batch:      1      Matrix: Soil        Units: mg/kg      Date Analyzed: 07/02/10 02:58      SURROGATE RECOVERY STUDY      Imatrix: Soil        Lab Batch #: 813124      Sample: 379806-001 S / MS      Batch:      1      Matrix: Soil        Units: mg/kg      Date Analyzed: 07/02/10 02:58      SURROGATE RECOVERY STUDY      Imatrix: Soil        BTEX by EPA 8021B      Amount Found [A]      True Found [A]      Recovery [B]      Control Limits %R      Flags <tr< td=""><td>BTE</td><td>Amount Found [A]</td><td>True Amount [B]</td><td>Recovery %R [D]</td><td>Control Limits %R</td><td>Flags</td></tr<>	BTE	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags	
A-Bromofluorobenzene      0.0223      0.0300      98      80-120        4-Bromofluorobenzene      0.0295      0.0300      98      80-120        Lab Batch #: 813124      Sample: 379806-001 / SMP      Batch:      1      Matrix: Soil        Units: mg/kg      Date Analyzed: 07/02/10 02:35      SURROGATE RECOVERY STUDY        BTEX by EPA 8021B      Amount [A]      True [B]      Recovery %R      Control Limits      Flags        1.4-Difluorobenzene      0.0261      0.0300      87      80-120	1.4-Diffuorobenzene	Anaryus	0.0255	0.0300	85	80.120	
Lab Batch #: \$13124      Sample: 379806-001 / SMP      Batch:      1      Matrix: Soil        Units: mg/kg      Date Analyzed: 07/02/10 02:35      SURROGATE RECOVERY STUDY        BTEX by EPA 8021B      Amount Found [A]      True Amount [B]      Recovery %R      Control Limits %R      Flags        1.4-Difluorobenzene      0.0261      0.0300      87      80-120        4-Bromofluorobenzene      0.0299      0.0300      100      80-120        Lab Batch #: 813124      Sample: 379806-001 S / MS      Batch:      1      Matrix: Soil        Units: mg/kg      Date Analyzed: 07/02/10 02:58      SURROGATE RECOVERY STUDY      Control      End        BTEX by EPA 8021B      Amount Found [A]      True [A]      Matrix: Soil      End        Units: mg/kg      Date Analyzed: 07/02/10 02:58      SURROGATE RECOVERY STUDY      End        BTEX by EPA 8021B      Amount [A]      True [A]      Recovery [B]      Control Limits %R      Flags        1.4-Difluorobenzene      0.0294      0 0300      98      80-120      End        1.4-Bromofluorobenzene      0.0288      0.0300      96      80-120      End	4-Bromofluorobenzene	·····	0.0295	0.0300	98	80-120	
Lab Batch #: 013124      Sample: 379800-001 / SMP      Batch:      1      Matrix: Soli        Units: mg/kg      Date Analyzed: 07/02/10 02:35      SURROGATE RECOVERY STUDY        BTEX by EPA 8021B      Amount [A]      True [B]      Recovery %R      Control Limits      Flags        1.4-Difluorobenzene      0.0261      0.0300      87      80-120	L . L D L	5	010 <u>1</u> 220		Soil		
Units:mg/kgDate Analyzed:0//02/10 02:35SURROUATE RECOVERTUR ODTBTEX by EPA 8021BAmount [A]True [B]Recovery %R [D]Control Limits %RFlags1.4-Difluorobenzene0.02610.03008780-1204-Bromofluorobenzene0.02990.030010080-120Lab Batch #: 813124Sample:379806-001 S / MSBatch:1Matrix: SoilUnits:mg/kgDate Analyzed:07/02/10 02:58SURROGATE RECOVERY STUDYBTEX by EPA 8021BAmount Found [A]True [B]Recovery %R [D]Control Limits1.4-Difluorobenzene0.02940 03009880-120	Lab Batch #: 015124	Sample: 579806-0017 SMP	Bate	REACTE PROCATE PR	COVERV	STUDY	
BTEX by EPA 8021BAmount Found [A]True Amount [B]Control Limits %R [D]Flags1,4-Difluorobenzene0.02610.03008780-1204-Bromofluorobenzene0.02990.030010080-120Lab Batch #: 813124Sample: 379806-001 S / MSBatch:1Matrix:SoilUnits: mg/kgDate Analyzed: 07/02/10 02:58SURROGATE RECOVERY STUDYBTEX by EPA 8021BAmount Found [A]True Amount [B]Recovery %R %R [D]Control Limits1,4-Difluorobenzene0.02940 03009880-1204-Bromofluorobenzene0.02940 03009680-120	Units: mg/kg	Date Analyzed: 07/02/10 02:35	30				(
Analytes      IDI      IDI        1,4-Difluorobenzene      0.0261      0.0300      87      80-120        4-Bromofluorobenzene      0.0299      0.0300      100      80-120        Lab Batch #: 813124      Sample: 379806-001 S / MS      Batch:      1      Matrix: Soil        Units: mg/kg      Date Analyzed: 07/02/10 02:58      SURROGATE RECOVERY STUDY        BTEX by EPA 8021B      Amount Found [A]      True Amount [B]      Recovery %R [D]      Control Limits %R      Flags        1,4-Difluorobenzene      0.0294      0 0300      98      80-120        4-Bromofluorobenzene      0.0288      0.0300      96      80-120	BTE	X by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags
1,4-Difluorobenzene    0.0261    0.0300    87    80-120      4-Bromofluorobenzene    0.0299    0.0300    100    80-120      Lab Batch #: 813124    Sample: 379806-001 S / MS    Batch:    1    Matrix: Soil      Units: mg/kg    Date Analyzed: 07/02/10 02:58    SURROGATE RECOVERY STUDY      BTEX by EPA 8021B    Amount [A]    True [A]    Recovery %R [D]    Control Limits %R    Flags      1,4-Difluorobenzene    0.0294    0 0300    98    80-120      4-Bromofluorobenzene    0.0288    0.0300    96    80-120		Analytes			ען וען		L
4-Bromofiluorobenzene    0.0299    0.0300    100    80-120      Lab Batch #: 813124    Sample: 379806-001 S / MS    Batch:    1    Matrix: Soil      Units: mg/kg    Date Analyzed: 07/02/10 02:58    SURROGATE    RECOVERY STUDY      BTEX by EPA 8021B    Amount [A]    True [B]    Recovery %R [D]    Control Limits %R    Flags      1,4-Dıfluorobenzene    0.0294    0 0300    98    80-120    4-Bromofiluorobenzene    96    80-120	1,4-Difluorobenzene	······································	0.0261	0.0300	87	80-120	
Lab Batch #: 813124  Sample: 379806-001 S / MS  Batch:  1  Matrix: Soil    Units: mg/kg  Date Analyzed: 07/02/10 02:58  SURROGATE  RECOVERY  STUDY    BTEX by EPA 8021B  Amount [A]  True [A]  Recovery [B]  Control %R [D]  Flags    1.4-Difluorobenzene  0.0294  0 0300  98  80-120    4-Bromofluorobenzene  0.0288  0.0300  96  80-120	4-Bromofluorobenzene		0.0299	0.0300	100	80-120	
Units: mg/kgDate Analyzed: 07/02/10 02:58SURROGATERECOVERY STUDYBTEX by EPA 8021BAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %RFlags1,4-Dıfluorobenzene0.02940 03009880-1204-Bromofluorobenzene0.02880.03009680-120	Lab Batch #: 813124	Sample: 379806-001 S / M3	S Batc	h: ¹ Matrix	Soil		
BTEX by EPA 8021BAmount Found [A]True Amount [B]Recovery %R [D]Control Limits %RFlags1,4-Difluorobenzene0.02940 03009880-1204-Bromofluorobenzene0.02880.03009680-120	Units: mg/kg	Date Analyzed: 07/02/10 02:58	SU	<b>RROGATE RI</b>	ECOVERY	STUDY	
1,4-Difluorobenzene      0.0294      0.0300      98      80-120        4-Bromofluorobenzene      0.0288      0.0300      96      80-120	BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene 0.0288 0.0300 96 80-120	1,4-Difluorobenzene		0.0294	0 0300	98	80-120	
	4-Bromofluorobenzene	· · · · · ·	0.0288	0.0300	96	80-120	<u> </u>

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / BAll results are based on MDL and validated for QC purposes.



### Project Name: BO Littlefield Fed # 2

Work Orders : 379806 Lab Batch #: 813124	, Sample: 379806-001 SD / N	MSD Batcl	Project II h: ¹ Matrix:	<b>):</b> GP II Ener Soil	rgy	
Units: mg/kg	Date Analyzed: 07/02/10 03:20	SU	RROGATE RI	ECOVERY S	STUDY	
BTE	X by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene		0.0292	0.0300	97	80-120	
4-Bromofluorobenzene		0.0301	0.0300	100	80-120	
Lab Batch #: 813120	Sample: 567195-1-BKS / B	KS Bate	h: ¹ Matrix:	Solid	•	
Units: mg/kg	Date Analyzed: 07/01/10 17:27	SU	RROGATE RI	ECOVERY	STUDY	
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		116	100	116	70-135	
o-Tcrphcnyl		55.8	50.1	111	70-135	
Lab Batch #: 813120	Sample: 567195-1-BSD / B	SD Batc	h: 1 Matrix	Solid	1	
Units: mg/kg	Date Analyzed: 07/01/10 17:56	SU	RROGATE RI	COVERY	STUDY	
ТРН	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		116	100	116	70-135	
o-Terphenyl	· · · · ·	56.7	50.1	113	70-135	
Lah Batch #: 813120	Sample: 567195-1-BLK / F	L	h·   Matrix	Solid		
Units: mg/kg	Date Analyzed: 07/01/10 18:25	SU	RROGATE RI	ECOVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	· · · · · · · · · · · · · · · · · · ·	104	99.9	104	70-135	
o-Terphenyl		59.4	50.0	119	70-135	
Lab Batch #: 813120	Sample: 379806-001 / SMI	Bate	h: ¹ Matrix	:Soil		
Units: mg/kg	Date Analyzed: 07/01/10 18:54	SU	<b>RROGATE RI</b>	ECOVERY	STUDY	
ТРН	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane		106	100	106	70-135	
o-Terphenyl		60.4	50.0	121	70-135	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



## Project Name: BO Littlefield Fed # 2

Work Orders : 379806	,	Project ID: GP II Energy						
Lab Batch #: 813120	Sample: 379806-001 S / M3	S Batc	h: 1 Matrix	:Soil				
Units: mg/kg	Date Analyzed: 07/01/10 19:51	SU	RROGATE R	ECOVERY	STUDY			
TPH	By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R	Control Limits %R	Flags		
	Analytes			[D]				
1-Chlorooctane		130	99.5	131	70-135			
o-Terphenyl		68.3	49.8	137	70-135	*		
Lab Batch #: 813120	Sample: 379806-001 SD / N	MSD Bate	h: 1 Matrix	:Soil				
Units: mg/kg	Date Analyzed: 07/01/10 20:21	SU	RROGATE R	ECOVERY	STUDY			
TPH	By SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags		
1-Chlorooctane	-	120	100	120	70-135			
o-Terphenyl		55.8	50.0	112	70-135			

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.



## **BS / BSD Recoveries**



#### Project Name: BO Littlefield Fed # 2

Work Order #: 379806							Pro	ject ID: (	GP II Energ	у	
Analyst: ASA	D	ate Prepa	red: 07/01/20	10			Date A	nalyzed: (	07/02/2010	-	
Lab Batch ID: 813124 Sample: 567201-1-1	BKS	Bate	<b>h #:</b> 1					Matrix: S	Solid		
Units: mg/kg		BLAN	K /BLANK S	SPIKE / E	BLANK S	SPIKE DUPI	LICATE	RECOVI	ERY STUD	Ŷ	
BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.1089	109	0.1	0.1103	110	1	70-130	35	
Toluene	ND	0.1000	0.0997	100	0.1	0.1014	101	2	70-130	35	
Ethylbenzene	ND	0.1000	0.1046	105	0.1	0.1077	108	3	71-129	35	
m,p-Xylenes	ND	0.2000	0.2102	105	0.2	0.2173	109	3	70-135	35	
o-Xylene	ND	0.1000	0.1047	105	0.1	0.1075	108	3	71-133	35	
Analyst: LATCOR	D	ate Prepar	ed: 07/01/201	10			Date A	nalyzed: (	07/01/2010		
Lab Batch ID: 813114 Sample: 813114-1-1	BKS	Bate	<b>h #:</b> 1					Matrix: S	Solid		
Units: mg/kg		BLAN	K /BLANK S	SPIKE / E	BLANK S	PIKE DUPI	LICATE	RECOVI	ERY STUD	Y	
Anions by E300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	ND	11.0	11.4	104	11	11.5	105	1	75-125	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes



### **BS / BSD Recoveries**



#### **Project Name: BO Littlefield Fed # 2**

Work Order #: 379806 Analyst: BEV Lab Batch ID: 813120	<b>Sample:</b> 567195-1-BKS	Project ID: GP II Energy      Date Prepared: 07/01/2010    Date Analyzed: 07/01/2010      KS    Batch #: 1    Matrix: Solid							у			
Units: mg/kg		BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
TPH By SW80	15 Mod Sai	Blank mple Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydroca	arbons	ND	1000	1050	105	1000	1050	105	0	70-135	35	
C12-C28 Diesel Range Hydrocar	bons	ND	1000	807	81	1000	827	83	2	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes



## Form 3 - MS Recoveries



### Project Name: BO Littlefield Fed # 2

Work Order #: 379806 Lab Batch #: 813114		Pr	oject ID	: GP II Energ	gy	
Date Analyzed: 07/01/2010	Date Prepared: 07/01/2010	) 4	<b>Analyst:</b> L	ATCOR		
QC- Sample ID: 379806-001 S	Batch #: 1	]	Matrix: S	loil		
Reporting Units: mg/kg	MATRIX / MATRIX SPIKE RECOVERY STUD					
Inorganic Anions by EPA 300	Parent Sample Spi Result Add	Spiked Sample ke Result led [C]	%R [D]	Control Limits %R	Flag	
Analytes	[A] [B				j	
Chloride	218 20	0 380	81	75-125		

Matrix Spike Percent Recovery  $[D] = 100^{*}(C-A)/B$ Relative Percent Difference  $[E] = 200^{*}(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes

3

BRL - Below Reporting Limit



## Form 3 - MS / MSD Recoveries

#### Project Name: BO Littlefield Fed # 2



Work Order #: 379806						Project I	D: GP II E	Energy			
Lab Batch ID:      813124      Q        Date Analyzed:      07/02/2010      1	C- Sample ID: Date Prepared:	379806 07/01/2	-001 S 010	Ba An	tch #: alyst:	1 Matri ASA	x: Soil			<u></u>	
Reporting Units: mg/kg		Μ	IATRIX SPIK	E / MAT	RIX SPI	KE DUPLICA	TE REC	OVERY	STUDY		
BTEX by EPA 8021B	Parent Sample	Spike	Spiked Sample Result	Spiked Sample	Spike	Duplicate Spiked Sample	Spiked Dup.	RPD	Control Limits	Control Limits	Flag
Analytes	Result [A]	Added [B]	[C]	%R [D]	Added [E]	Result [F]	%R [G]	%	%R	%RPD	
Benzene	ND	0.0990	0.0683	69	0,0990	0.0631	64	8	70-130	35	X
Toluene	ND	0.0990	0.0603	61	0.0990	0.0572	58	5	70-130	35	X
Ethylbenzene	0.0010	0.0990	0.0524	52	0.0990	0.0554	55	6	71-129	35	X
m,p-Xylenes	0.0028	0.1980	0.0894	44	0.1980	0.1039	51	15	70-135	35	X
o-Xylene	0.0013	0.0990	0.0527	52	0.0990	0.0542	53	3	71-133	35	X
Lab Batch ID:      813120      Q        Date Analyzed:      07/01/2010      1	C- Sample ID: Date Prepared:	379806 07/01/2	-001 S 010	Ba An	tch #: alyst:	1 <b>Matri</b> BEV	x: Soil				
Reporting Units: mg/kg		Μ	ATRIX SPIK	E / MAT	RIX SPI	KE DU <mark>PLICA</mark>	TE REC	OVERY	STUDY		
TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	995	1280	129	1000	1030	103	22	70-135	35	
C12-C28 Diesel Range Hydrocarbons	61.0	995	971	91	1000	836	78	15	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/BRelative Percent Difference RPD = 200*|(C-F)/(C+F)| Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit





### Project Name: BO Littlefield Fed # 2

Work Order #: 379806

Lab Batch #: 813114				Project I	D: GP II En	ergy
Date Analyzed: 07/01/2010	Date Prepare	<b>d:</b> 07/01/2010	) Anal	yst:LATC	OR	
QC- Sample ID: 379806-001 D	Batch	#: 1	Mat	rix: Soil		
Reporting Units: mg/kg	ſ	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Anions by E300	F	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte			<b>[B</b> ]			
Chloride		218	220	1	20	
Lab Batch #: 813111						
Date Analyzed: 07/02/2010	Date Prepare	<b>d:</b> 07/02/2010	) Anal	yst:JLG		
QC- Sample ID: 379806-001 D	Batch	#: 1	Mat	rix: Soil		
Reporting Units: %	ſ	SAMPLE	SAMPLE	DUPLIC	ATE REC	OVERY
Percent Moisture	F	Parent Sample Result [A]	Sample Duplicate Result	RPD	Control Limits %RPD	Flag
Analyte			D			

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit

Env	vironment	tal Lab o	f Texa	S					1: 0	2600 des:	We sa, T	C/ st I- Texa	4 <b>A//</b> 20 E 15 79	V OF Sast 1765	CU	STO	DY	REC	OR	DA	ND	<b>AN</b> A P	λLΥ hon Fax:	'SIS 19:4 ;4	RE( 32-5 32-5	2 <i>UE</i> 163-1 163-1	::ST 1800 1713	1			
	Project Manager:	Camille Bryant	<u> </u>											<u>.</u>		_	P	roje	ct Na	me	<u>BC</u>	) Lit	tlefi	blei	Fed	#2					
	Company Name	Basin Environmer	ntal Consultin	g, LLC												-		F	roje	ct #:	GF	<u>   E</u>	ner	gy							
	Company Address:	P. O. Box 381		<u>~</u>												-		Pro	ect	Loc:	Ed	ty Co	xint	y, Ne	<u>w M</u>	exic	<u></u>				_
	City/State/Zip:	Lovington, NM 882	260													-			P	0#:							<u> </u>				
	Telephone No:	4575)605-7210				Fax No	:	(5	05) :	<u>396-</u>	429	)				_	Repo	nt Fe	orma	t:	X	Stan	dard	ł	Γ	] TR	RP		٩ロ	IPDE	s
	Sampler Signature	amel	e B	r	xout_	e-mail	:	व	bŋ	(an	@!	bas	<u>in-</u>	cons	sulti	ng.	con	<u>}</u>						-		_					_
(lab use	only)		]		0													E			Т	ιP:			T	T			Τ	┥ _≝	
ORDER	<b>≈#</b> : 379	.800							P	reser	vatio	on &	ŧ of	Conta	iners	N	latrix	-	Т		סד	AL:		+		<b>1</b>		Š		19	
LAB # (ab use only)	FIE	LD CODE	Beghnning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO,	нсі	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃ Mine	Other ( Specify)	DW-Drinking water SL-Sludg	GW = Groundwater S=SolVSol ND=Non-Driving Specify crit	TPH: 418.1 801547 801	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR/ESP/CEC	Melans: As Ag ta Ud Ur Po Hg	Votatios Semi <u>volati</u> les	BTEX 80218/5030 pr BTEX 82	RCI	N.O.R.M	Chlouces 23		RUSH TAT (Pre-Schedule 24,	Standard TAT 4 DAY
01	Stoc	ckpile #3			30-Jun-10	1430		<b>1</b> 1	×	<u> </u>			_		+-	_	Soil	×	_		_	-	4	╇	Ļ×	Ц	Ц	×		Ľ	+
Special	instructions:	<u> </u>			L		-	1	1	<u>,                                     </u>					-1-	L		- <b>I</b>	<b>-</b>	Lab	orat	ory C	Lonu Somu	ment		 860 1					 2~30 <b>9</b> 8
Relinquis	ined by: Mr. Ole Buy bed by:	1 7 	inte Tir LLD LD Bits I Tir 1-1/L LC Jats Tir	ne 0   1-49 ne	Received by:										Da 7-1- Da Da	ate -/() ate	<i>[,</i>	Тип 0:{ Тіт Тіт		VO( Line Cus San	iple by S period	seal seal Hand ample ourier 0 Z	Heat Heat Son Dell Sr/Cli Upo	adspray of the second s	ace? alner d ep.? Socipt	時代 (8) のHL	نگین نگین - ا - د	Food L			s∰ ¢∰ ar



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#### XENCO Laboratories

Atlanta, Boca Raton, Corpus Christi, Dallas

Houston, Miami, Odessa, Philadelphia

Phoenix, San Antonio, Tampa

Document Title: Sample Receipt Checklist Document No.: SYS-SRC Revision/Date: No. 01, 5/27/2010 Effective Date: 6/1/2010 Page 1 of 1

### Prelogin / Nonconformance Report - Sample Log-In

Client:	Jasin E	inu.	
Date/Time:	7.1.10	14:45	
Lab ID # :	3	79806	
Initials:		72	

#### Sample Receipt Checklist

1. Samples on ice?	Blue	Water	No	
2. Shipping container in good condition?	Yes	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	Yes	No	N/A	
4. Chain of Custody present?	Yes	No		
5. Sample instructions complete on chain of custody?	Yes	No		
6. Any missing / extra samples?	Yes	No		
7. Chain of custody signed when relinquished / received?	Yes	No		
8. Chain of custody agrees with sample label(s)?	Yes	No		· · · · · · · · · · · · · · · · · · ·
9. Container labels legible and intact?	Yes	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	Yes	No		
12. Samples property preserved?	Yes	No	N/A	
13. Sample container intact?	Yes	No		
14. Sufficient sample amount for indicated test(s)?	Yes	No		
15. All samples received within sufficient hold time?	Yes	No		
16. Subcontract of sample(s)?	Yes	No	NA	
17. VOC sample have zero head space?	Yes	No	N/A	
18. Cooler 1 No. Cooler 2 No. Cooler 3 No.	Cooler 4 N	0	Cooler 5 No.	
	lbs	°c	; Ibs	<u>°0</u>

#### Nonconformance Documentation

Contact:	Contacted by:	Date/Time:	
Regarding:			
Corrective Action Tal	en:		
Check all that apply:	Cooling process has begun shortly after sa condition acceptable by NELAC 5.5.8	mpling event and out of temperature 3.1.a.1.	

□ Initial and Backup Temperature confirm out of temperature conditions □ Client understands and would like to proceed with analysis

# Appendix D Soil Boring Logs

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## Soil Boring SB-1

below				00				
ground surface	Soil Columns	Chloride Field Test	Petroleum F <u>Odor</u>	Petroleum <u>Stain</u>	Soil Description	Date D	Boring S	<u>3B-1</u>
Ē			None None	None	0 - 10' - Clay, brown, sandy, moist, more clay with	Thickne Depth e Depth t	iss of Bentonite Seal_ of Exploratory Boring _ o Groundwater	30 Ft bgs
- 10			None	None	depth	Ground	Water Elevation	
- 15	7. CT. 94. 19. T	$\bigcirc$	None	None		y y	Indicates the PSH leve on Indicates the groundw measured on	x measured ater level
- - - 20		$\bigcirc$	None	None	10 - 26' - Clay, brown, sandy with gypsum stringers	O PID	Indicates samples sele Laboratory Analysis. Head-space reading in with a photo-ionization	cted for ppm oblained detector.
- 25		180	None	None				
Ē"		128	None	None	26 - 30' - Clay, red, sandy, moist			

#### **Completion Notes**

The monitor well was advanced on date using air rotary drilling techniques.
 The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

#### Soil Boring SB-1

Depth

**GP II Energy** Littlefield "BO" Federal #2 Eddy County, New Mexico

### **Basin Environmental Consulting**

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Prep By: CDS	Checked By: CJB		
May 26, 2010			

Soil	Bc	orin	g	S	<b>B-</b> 2

below					
ground	Soil	Chloride Field Test	Petroleum F	Petroleum	Soil Description
Sunace	Countins	ried rest	None	None	
Ē	>321.4 .2 # 2 2		None	None	
- 5 	ిద్దాదళి: ిద్దించింగి: 'ద్దాదళి స్టాదళ	776	None	None	0 - 12' - Clay, brown to red to light red, sandy with some caliche fragments
Ē		_	None	None	
- 15 -		2,500	None	None	12 - 20' - Clay, dark red
-20		1,000	None	None	20 - 26' - Clay, sandy, silty with some gypsum stringers
Ē			None	None	26 - 30' - Clay and sandstone, tite, hard
Ē∞		368	Nama	N	
<b>-</b> 35	7 - 2 7 - 27.	(368)	None	None	
E		$\bigcirc$	None	None	
-40		1,352	None	None	30 - 55' - Clay, red, sility with some selenite and gypsum stringers
- 45		(1,045)	None	None	
- 50 -		(206)	None	None	
Ł₅	<b>Z=2</b> 10	180			

Depth

#### Boring SB-2

Date	DrilledApril 11	. 2010
Thick	ness of Bentonite Seat	55 Ft
Depth	h of Exploratory Boring	5 Ft bgs
Depth	h to Groundwater	
Grour	nd Water Elevation	
⊻	Indicates the PSH level m	easured
▼.	on Indicates the groundwater	level
0	Indicates samples selecter Laboratory Analysis.	d for

PID Head-space reading in ppm obtained with a photo-ionization detector.

**Completion Notes** 

1.) The monitor well was advanced on date using air rotary drilling techniques.

 The lines between material types shown on the profile tog represent approximate boundaries. Actual transitions may be gradual.

Soil Boring SB-2

GP II Energy Littlefield "BO" Federal #2 Eddy County, New Mexico

### **Basin Environmental Consulting**

Prep By: CDS	Checked By: CJB					
May 26, 2010						

Depth	• • • • • • • • • • • • • • • • • • • •			80	il Boring SB 2	
below				30	II DUTING SD-S	
ground	Soil	Chloride	Petroleum F	etroleum		Boring SB-3
surface	Columns	Field Test	<u>Odor</u>	<u>Stain</u>	Soil Description	Date Drilled April 11, 2010
r°	DECECI		Moderate	Slight	0 - 2' - Caliche, white and sand, light brown (Road	Thickness of Bentonite Seat 75 Ft
E	स्टब्स्	€2,424	Moderate	Slight	Base)	Depth of Exploratory Boring75 Ft bgs
<b>F</b> .s				U	2 11'-Clav rod	Depth to Groundwater
E		$\bigcirc$	None	None		
<b>L</b> 10		$\bigcirc$				_
Ē	TT I	$\bigcirc$	None	None		Indicates the PSH level measured on
E 15		1.048				Indicates the groundwater level
F		.,	None	None		Indicates samples selected for
E,		(1168)	None	( toric		Laboratory Analysis. PID Head-space reading in ppm obtained
<u>۽</u>	11 H		Nono	Nono		with a photo-ionization detector.
E.			None	None		
E			N	M		
ŧ.	EE E	$\bigcirc$	None	None		
<b>E</b>	111	$\bigcirc$				
E			None	None		
35	1114	708				
E		$\frown$	None	None		
-40		<u>(848</u> )				
Ē			None	None	11 - 75' - Sand and sandstone, light brown	
-45	11-11	840				
F			None	None		
<b>⊢</b> ∞	1-1-3) 1-14 H	(840)				
E			None	None		
- 55		580				
E			None	None		
- 60		(412)				
F		$\bigcirc$	None	None		
Eه	314	368	Nono			
F		000	None	None		
E_	1,14	368	NULE	NONG		
۴.		000	Nono	Nono		
Ē.		269	None	None		
- /5	TD	300				

Completion Notes

The monitor well was advanced on date using air rotary drilling techniques.
 The fines between material types shown on the profile log represent approximate boundaries, Actuel transitions may be gradual.

Soil Boring SB-3

**GP II Energy** Littlefield "BO" Federal #2 Eddy County, New Mexico

## **Basin Environmental Consulting**

Prep By: CDS	Checked By:	; CJB	
May 26, 2010			
			12

Appendix E Release Notification and Corrective Action (Form C-141)

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		а. /			2 	ł			
<u>District I</u> 1625 N. French Dr., Hobbs, NM 88 <u>District II</u> 1301 W. Grand Avenue, Artesia, NI <u>District III</u> 1000 Rio Brazos Road, Aztec, NM District IV	40 1 88210 7410	Sta Energy Mir Oil C 1220	ate of 1 nerals a Conserv South	New Mex and Natura vation Div St. Franc	ico I Resources vision is Dr.	tan an totan	Submit 2 C District ( Wi	Form C-141 vised October 10, 2003 Copies to appropriate Office in accordance th Rule 116 on back	
1220 S. St. Francis Dr., Santa Fe, N	M 87505	Sa	inta Fe	Fe, NM 87505			side of form		
		<b>Release</b> Notific	ation	and Co	orrective A	ction			
				OPERAT	ГOR	📴 In	itial Report	Final Report	
Name of Company	GF	II Energy, Inc. 8359	(	Contact		Joe Compton			
Address Facility Name Feder	PO B	DX 50682		Telephone No.		432-684-4748 Battery - Oil and Produced Water Storage			
racinty realice recen		and bo rank battery	<u>_</u>	acinty typ		Dattery - Oil at		rater Storage	
LITTLEFIELD BO FEDERAL	ederal	Mineral O	wner		Federal	Leas	e No. L	C-065928A	
30-015-24529		LOCA	TION	OF REI	LEASE	r			
Unit Letter Section Tow	ship	ange Feet from the	North/S	South Line	Feet from the	East/West Lin	e County		
A 34 26	S	29E -/10 724		N	-750 	E		Eddy	
Latitude N 32 0' 12.10" Longitude W -103 57' 59.06"									
		NATURE OF RELEASE night of Dec. 7. 2009 ~11:00am Dec.8. 2009							
Type of Release	Pr	pduced Oil Volume of Release ~9				2.5 Bbls. Volume Recovered 20 Bbls.			
Source of Release	Oil	Storage Tank		Date and H	our of Occurrenc	e Date a	nd Hour of Disc	overy	
was inititediate routee Given?		es 🔳 No 🗌 Not Rec	quired	that a spill !	had been report	ed by New Me	xico OCD field	d inspector at the	
By Whom?				Date and H	our Check with	k battery BLM			
Was a Watercourse Reached?		Ves 🕅 No		If YES, Vol	lume Impacting t	he Watercourse.			
If a Watercourse was Impacted,	Describe	Fully.*			·····				
Describe Cause of Problem and barrel into oil storage tank. E barrel capable of handling pre	Remedia qualizer duction	Action Taken.* Worked was unable to accommo surges of this volume.	l over Fi	ederal "BO" ow and oil r	#6. Well flowe an over the stor	d during night age tank. We	and pushed w are going to ir	ater from the gun	
Describe Area Affected and Cle spill. We are currently remov have the cut areas sampled a	anup Act ng conta nd analy	on Taken.* Please refer minated soil and cleani zed for contamination p	to attac ing up th prior to b	hed google le road und ackfilling wi	earth map. Th er the direct sup ith approved so	e green line m pervision of a E Il or road mate	arks the lengtl ILM field agen rial.	n and path of the t. We will	
I hereby certify that the informa regulations all operators are req public health or the environmen should their operations have fail or the environment. In addition federal, state, or local laws and/	ion give aired to r . The ac ed to ade NMOCI r regulat	above is true and comple port and/or file certain rel ceptance of a C-141 report quately investigate and ren acceptance of a C-141 re ons.	ete to the lease not t by the l mediate o eport doe	best of my k ifications and NMOCD mai contaminatio s not relieve	nowledge and ur d perform correct rked as "Final Re n that pose a thre the operator of re	iderstand that pu ive actions for r port" does not r at to ground wa esponsibility for	resuant to NMO eleases which n elieve the opera ter, surface wate compliance wit	CD rules and nay endanger tor of liability er, human health th any other	
	20	Λ			OIL CONS	ERVATIO	<u>N DIVISIO</u>	<u>N</u>	
Signature:	Joe L	compton	A1	proved by E	District Speerviso	The second s	<ul> <li>Remediation Ac Final C-141 sul analyses/docum Expiration Date</li> </ul>	tions to be completed <u>21.4</u> pmitted with confirmation contation on or before the	
Title:	Agen			menual Data	. 17 . 11. 1.0	Eugland'	- Data IIZ -	16. 7.6.11	
	noton@	n2energy com		prova Date	10-18-01	Expiration	NMACC	Dannoval chall b -	
E-mail Address:		100 201	Co Within	onditions of A 30 days, on (	Approval: <u>U</u>	21-2010	obtained	prior to any backfillin	
Date: 12-11-2009		Phone:432-684-4748	comple delinea	uon ot a rem tion should t	ediation work place of finalized and s	an based on submitted for			
SEA0934917776	ecessary		approval to the Division summarizing all a taken and/or to be taken to mitigate environmental damage.			g all actions	Notify OCF obtaining sa are to be pre	0.48 hours prior to imples where analyses esented to OCD	
n 26043484 1742 i 569043484 1742		T S a Ø R d d	The plan m score, soil i and planned other COC Remediatic locument r	nest include gen nemediation act d analytical test s as applicable, on of Leaks Spi nav be found at	erai site characteristi ion levels, soil remec- ing for TPH, B-TEA Please use the "Gui Ik & keleases" as y the toflowing link- the toflowing link-	es, site ranking hation methods, , Chlorides or an- delines for our guide. This 2011, coll.1. stf.			