

ENVIRONMENTAL PLUS, INC. Micro-Blaze Micro-Blaze On

STATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES

2 June 2005

Mr. Larry Johnson, Environmental Engineer Specialist New Mexico Oil Conservation Division 1625 North French Drive Hobbs, NM 88240

RE: ConocoPhillips SEMU Permian Well 80 Release Site (Ref. #150007) UL-J (NW¼ of the SE ¼) of Section 13, T20S, R37E Latitude N 32° 34' 13.5" and Longitude W 103° 12' 12.7"

Dear Mr. Johnson:

On October 29, 2004, a release of approximately 87 barrels of production fluid occurred as a result of a flow line leak at the above-referenced site. ConocoPhillips recovered approximately 65 barrels of production fluid and utilized a backhoe to back drag the release area to soak up any remaining fluid. ConocoPhillips retained Environmental Plus, Inc. (EPI) in January 2005 to delineate the vertical extent of impacted soil at the site. This letter report documents the results of the delineation activities and recommends how to proceed with the remediation of the impacted soil.

Site Background

P.O. BOX 1558

The site is located in the NW¼ of the SE¼ of Section 13, Township 20 South, Range37 East at an elevation of approximately 3,550 feet above mean sea level (reference *Figures 1 and 2*). The property is owned by Trent Stradley. A search for area water wells was completed utilizing the <u>New Mexico Office of the State Engineers</u> website and a database maintained by the United States Geological Survey (USGS). A total of 20 wells were found to be located either in Section 13 or one of the eight adjacent sections (i.e., sections 11, 12, 14, 23 and 24 of Township 20 South, Range 37 East and sections 7, 18 and 19 of Township 20 South, Range 38 East). The average depth to water in these wells was reported to be approximately 73 feet below ground surface (bgs) and ranged from 50 feet bgs to 89.05 feet bgs. (reference *Table 2*). No water supply wells or bodies of surface water were found to be located within a 1,000-foot radius of the release location, although one well (L 08069) is located near the 1,000-foot boundary (reference *Figures 1 and 2*). Based on available information it was determined that the distance between the contamination and groundwater was between 50 and100 feet. Utilizing this information, it was determined that the New Mexico Oil Conservation Division (NMOCD) Remedial Goals for this site were as follows:

| Parameter | Remedial Goal |
|-----------|-------------------------|
| Benzene | 10 parts per million |
| BTEX | 50 parts per million |
| TPH | 1,000 parts per million |

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DNMENTAL PL

Mr. Larry Johnson 2 June 2005

Field Work

EPI was on site from February 4, 2005 to advance two soil borings within the perimeter of the release area to delineate the vertical extent of production fluid-impacted soil (reference *Figure 4*). During the advancement of the soil boring, samples were collected at 5-foot intervals with a portion of the sample being placed in a laboratory provided container and the remainder placed in a self sealing polyethylene bag. The samples were placed in laboratory provided containers and immediately placed on ice for transport to Environmental Lab of Texas of Odessa, Texas, for quantification of benzene, toluene, ethylbenzene and total xylenes (BTEX), gasoline range organics (GRO), diesel range organics (DRO) and chlorides.

The portion of the samples placed in the self-sealing polyethylene bag were placed in a heated environment (i.e., cab of a truck) to allow the volatilization of organic vapors. After the samples had been allowed to equilibrate to \approx 70° F, they were analyzed for the presence of organic vapors utilizing a MiniRae[®] photoionozation detector (PID) equipped with a 9.8 electron-volt (eV) lamp. In addition, the samples were analyzed in the field for the presence of chloride using a LaMotte Chloride Test Kit.

The soil borings were advanced to a depths of 20 and 25 feet below ground surface (bgs) and samples were collected at 2-feet, 5-feet, 10-feet, 15-feet, 20-feet and 25-feet bgs. Field analyses of the samples collected during the advancement of soil boring BH-1 indicated the presence of organic vapors at concentrations ranging from 14.2 parts per million (ppm) at 20 feet bgs to 800 ppm at 5 feet bgs (reference *Table 1*). Field analyses for chloride indicated concentrations ranging from 240 milligrams per kilogram (mg/Kg) at 20 feet bgs to 560 mg/Kg at 2 and 5 feet bgs. Field analyses of samples collected during the advancement of soil boring BH-2 indicated the presence of organic vapors at concentrations ranging from 2.1 ppm at 25 feet bgs to 28.4 ppm at 2 feet bgs. Field analyses for chlorides indicated concentrations ranging from 1,200 mg/Kg at 25 feet bgs to 2,000 mg/Kg at 5 feet bgs.

During the advancement of the soil boring, the lithology was defined as sand to a depth of approximately 5 feet bgs, underlain by red clayey sand to a depth of at approximately 20 feet bgs. The red clayey sand is underlain by friable caliche to a depth of at least 25 feet bgs. (reference *Attachment II*).

Analytical Data

Analytical results for the samples collected during the advancement of soil boring BH-1 indicated soil impacted above the NMOCD remedial threshold extends to a depth of approximately 5-feet bgs (reference *Table* 1). Analytical results for the samples collected during the advancement of soil boring BH-2 indicated soil impacted above the NMOCD remedial thresholds extends to a depth of approximately 2-feet bgs. The only contaminant reported above the NMOCD remedial threshold for this site was total petroleum hydrocarbons (TPH) in the samples obtained from soil boring BH-1 to a depth of 5-feet bgs and the sample obtained from soil boring BH-2 at a depth of 2-feet bgs. Reported TPH concentrations ranged from 13,400 milligrams per kilogram (mg/Kg) in soil boring SB-1 to 29,500 mg/Kg in soil boring SB-3. Benzene and BTEX concentrations were reported at concentrations below the NMOCD remedial guidelines for all samples.

Chloride concentrations for the samples obtained during the advancement of soil boring BH-1 were reported ranging from 194 mg/Kg at 5-feet bgs to 21.4 mg/Kg at 15 feet bgs. These concentrations are below the New Mexico Water Quality Control Commission's (NMWQCC) standards for groundwater of 250 mg/Kg, and as such, will not, with reasonable probability, impact groundwater above the NMWQCC groundwater standards.

Chloride concentrations for the samples obtained during the advancement of soil boring BH-2 were reported ranging from 58.9 mg/Kg at 2-feet bgs to 2,020 mg/Kg at 5-feet bgs. In addition, chloride concentrations were report above the NMWQCC groundwater standards in all the soil samples collected during the advancement of this soil boring, with the exception of the sample collected from 2-feet bgs.

Conclusions

Based on field and analytical analyses, soil impacted above the NMOCD remedial thresholds extends to a depth of approximately 5-feet bgs within the confines of the release area (reference *Figure 3*). The release area is approximately 980 square feet in size, resulting in approximately 180 cubic yards (*in situ*) of soil impacted above NMOCD remedial guidelines for this site. It is likely that soil impacted above the NMOCD remedial guidelines for this site does not extend completely to 5 feet bgs across the entire release area, and as such, the volume of impacted soil is actually less than 180 cubic yards.

Chloride concentrations were reported above the NMWQCC standards for groundwater in all but one sample during the advancement of soil boring SB-2. Due to the elevated chloride levels reported in these samples and the depth to groundwater in the area, there is the possibility that groundwater could, in the future, be impacted by chloride.

Recommendations

Based on field and analytical results, it is recommended that impacted soil within the perimeter of the release area be excavated to a depth of five (5) feet below ground surface. Upon completion of excavation activities, the excavation basin will be sampled (i.e., grab samples collected from the sidewalls and floor) and the samples submitted to an independent laboratory for quantification of BTEX and TPH.

Upon receipt of analytical results confirming the removal of soil impacted above the NMOCD remedial guidelines in the sidewalls of the excavation, it is recommended that a one-foot thick clay barrier be installed in the base of the excavation. The emplacement of the compacted clay barrier would prevent infiltration of precipitation from migrating vertically through the elevated contaminant levels and impacting the groundwater; thus, effectively eliminating the possibility of contaminants impacting groundwater in the area above NMWQCC standards.

The excavated soil impacted above the NMOCD remedial thresholds will be treated either by transporting it to a State approved land treatment facility and backfilling the excavation with clean soil obtained off-site or from the surrounding dunes after land owner approval.

Mr. Larry Johnson 2 June 2005

Should you have any questions or concerns, please feel free to contact me at (505) 394-3481 or via e-mail at <u>iolness@hotmail.com</u>. Upon your approval, EPI will initiate the next phase of the remediation. All official correspondence should be submitted to John Abney at:

John Abney, SHEAR Specialist ConocoPhillips 1410 Northwest County Road Hobbs, NM 88240

(505) 391-3128 John.H.Abney@conocophillips.com

Sincerely,

ENVIRONMENTAL PLUS, INC.

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Iain A. Olness, P.G. Hydrogeologist

- cc: John Abney, ConocoPhillips Hobbs C. John Coy, ConocoPhillips – Hobbs Trent Stradley, Property Owner File
- encl. Figure 1 Area Map Figure 2 – Site Location Map Figure 3 – Site Map Figure 4 – Soil Boring Location Map Table 1 – Summary of Soil Boring Analytical Results Table 2 – Well Data Attachment I – Laboratory Results and Chain-of-Custody Form Attachment II – Soil Boring Logs Attachment III – Copy of Initial C-141









Summary of Soil Boring Analytical Results **TABLE 1**

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Conoco Phillips SEMU Permian Well 80 (Ref. #150007)

| | Denth | | PID Reding | Field Chloride | Ranzano | Tohiano | Fthul honzone | m o. Yvlenee | Vulane | Total BTFV | НЧТ | Hd.I, | Tatal TBU | Chlorida |
|-------------|-----------|---------------|------------|----------------|---------|----------|---------------|--------------|-----------|------------|---------------|-------------|-----------|----------|
| Soil Boring | (feet) | Sample Date | | | | T diacac | | samatfer.d'm | amail V-n | Varia mant | (as gasoline) | (as diesel) | | |
| | | | (undel) | (Img/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) | (mg/Kg) |
| | 2 | 04-Feb-05 | 426 | 560 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| | 5 | 04-Feb-05 | 800 | 560 | 0.618 | 11.8 | 17.5 | 26.8 | 10.3 | 67.0 | 2,650 | 5,740 | 8,390 | 194 |
| SB-1 | 10 | 04-Feb-05 | 117 | 240 | 0.110 | 2.88 | 6.81 | 12.6 | 4.66 | 27.1 | 229 | 460 | 689 | 20.5 |
| | 15 | 04-Feb-05 | 23.9 | 284 | <0.025 | <0.025 | <0.025 | 0.0425 | 0.0264 | 0.0689 | <10 | <10 | <10 | 21.4 |
| | 20 | 04-Feb-05 | 14.2 | 240 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| | 2 | 04-Feb-05 | 28.4 | 320 | 0.113 | 067.0 | 0.484 | 3.46 | 1.39 | 6.24 | 783 | 3,400 | 4.180 | 58.9 |
| | 5 | 04-Fcb-05 | 10.3 | 2,000 | ⊲0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.125 | <10 | 25.8 | 25.8 | 2,020 |
| SR-2 | 10 | 04-Feb-05 | 7.2 | 1,520 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.125 | <10 | 18.3 | 18.3 | 1,650 |
| 1 | 15 | 04-Feb-05 | 4.4 | 1,200 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| | 20 | 04-Fcb-05 | 3.1 | 1,600 | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1,180 |
| | 25 | 04-Feb-05 | 2.1 | 1,200 | NA | NA | NA | NA | NA | NA | NA | NA | NA | 1,640 |
| NMOC. | D Remedia | al Thresholds | 100^{3} | | 10 | | | | | 50 | | | 1,000 | 2504 |
| | | | | | | | | | | | | | | |

⁷ Balded values are in excess of the NMOCD Remediation Thresholds ² NA : Not Analyzed ³ In lieu of laboratory analyes of benzene, toluene, ethylbenzene and total xylenes. ⁴ Chloride residuals may not be capable of impacting local groundwaterabow the NMWQCCstandard of 250 mg/L

TABLE 2

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Well Data

Conoco Phillips SEMU Permian Well 80 (Ref. #150007)

| Well Number | Diversion ^A | Омпег | Use | Source | Twsp | Rng | Sec q q q | Latitude | Longitude | Date Measured | Surface Elevation ^B | Depth to Water (ft bgs) |
|-------------|------------------------|--------------|-----|--------|------|------|-----------|-----------------|-------------------|------------------|-----------------------------------|-------------------------------|
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| L 02498 | 3 | Billy Walker | MOG | | 20 S | 38 E | 07 2 2 4 | N 32° 35' 41.2" | W 103° 10' 59.07" | | 3,563 | |
| USGS #3 | | | | | 20 S | 38 E | 07 222 | | | 22-Jan-76 | 3,561 | 61.48 |
| | | | | | | | | | | | | |
| USGS #7 | | | | | 20 S | 38 E | 1932 | | | | 5, 537 3, 537 | |
| | | | | | | | | | | | | |

* = Data obtained from the New Mexico Office of the State Engineer Website (http://iwaters.ose.state.nm.us.7001/iWATERS/wr_RegisServlet1) Shaded well information indicates well location shown on Figure 2

 $^{\rm A}$ = in acre feet per amum

 $^B{}_{=}$ Elevation interpolated from USGS topographical map based on referenced location. DOM = Domestic

STK = Livestock Watering EXP = Expired IRR = Irrigation

quarters are 1=NW, 2=NE, 3=SW, 4=SE; quarters are biggest to smallest



Analytical Report

Prepared for:

Iain Olness Environmental Plus, Incorporated P.O. Box 1558 Eunice, NM 88231

Project: Conoco Phillips/ SEMU Permian Well 80 Project Number: 150007 Location: None Given

Lab Order Number: 5B09013

Report Date: 02/18/05

| Environmental Plus, Incorporated | Project: | Conoco Phillips/ SEMU Permian Well 80 | Fax: 505-394-2601 |
|----------------------------------|------------------|---------------------------------------|-------------------|
| P.O. Box 1558 | Project Number: | 150007 | Reported: |
| Eunice NM, 88231 | Project Manager: | Iain Olness | 02/18/05 08:29 |

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ANALYTICAL REPORT FOR SAMPLES

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| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|------------|---------------|--------|----------------|----------------|
| BH-1 (5') | 5B09013-01 | Soil | 02/04/05 09:53 | 02/09/05 16:15 |
| BH-1 (10') | 5B09013-02 | Soil | 02/04/05 10:07 | 02/09/05 16:15 |
| BH-1 (15') | 5B09013-03 | Soil | 02/04/05 10:51 | 02/09/05 16:15 |
| BH-2 (2') | 5B09013-05 | Soil | 02/04/05 13:15 | 02/09/05 16:15 |
| BH-2 (5') | 5B09013-06 | Soil | 02/04/05 13:27 | 02/09/05 16:15 |
| BH-2 (10') | 5B09013-07 | Soil | 02/04/05 13:52 | 02/09/05 16:15 |
| BH-2 (20') | 5B09013-09 | Soil | 02/04/05 15:20 | 02/09/05 16:15 |
| BH-2 (25') | 5B09013-10 | Soil | 02/04/05 15:47 | 02/09/05 16:15 |

| Environmental Plus, Incorporated | Project: | Conoco Phillips/ SEMU Permian Well 80 | Fax: 505-394-2601 |
|----------------------------------|------------------|---------------------------------------|-------------------|
| P.O. Box 1558 | Project Number: | 150007 | Reported: |
| Eunice NM, 88231 | Project Manager: | Iain Olness | 02/18/05 08:29 |

Organics by GC **Environmental Lab of Texas**

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prenared | Analyzed | Method | Noted |
|-----------------------------------|--------|--------------------|------------|----------|---------|----------|--------------|-----------|-------|
| BH-1 (5') (5B09013-01) Soil | | | | | Suton | 1.000 | / 1101 / 200 | | |
| Benzene | 0.618 | 0.0250 | mg/kg dry | 25 | EB51409 | 02/10/05 | 02/10/05 | EPA 8021B | |
| Toluene | 11.8 | 0.0250 | н | " | ., | " | " | 10 | |
| Ethylbenzene | 17.5 | 0.0250 | н | н | " | " | н | 0 | |
| Xylene (p/m) | 26.8 | 0.0250 | н | н | " | 11 | 11 | u | |
| Xylene (0) | 10.3 | 0.0250 | n . | 11 | | n | | н | |
| Surrogate: a,a,a-Trifluorotoluene | | 163 % | 80-1 | 120 | " | " | " | " | S-04 |
| Surrogate: 4-Bromofluorobenzene | | 116 % | 80-1 | 120 | " | " | " | " | |
| Gasoline Range Organics C6-C12 | 2650 | 50.0 | mg/kg dry | 5 | EB51006 | 02/10/05 | 02/10/05 | EPA 8015M | |
| Diesel Range Organics >C12-C35 | 5740 | 50.0 | " | " | 11 | н | | 11 | |
| Total Hydrocarbon C6-C35 | 8390 | 50.0 | " | " | ** | n | " | u | |
| Surrogate: 1-Chlorooctane | | 26.6 % | 70-1 | 130 | " | " | " | " | S-06 |
| Surrogate: 1-Chlorooctadecane | | 16.4 % | 70-1 | 130 | " | " | " | " | S-06 |
| BH-1 (10') (5B09013-02) Soil | | | | | | | | | |
| Benzene | 0.110 | 0.0250 | mg/kg dry | 25 | EB51409 | 02/10/05 | 02/10/05 | EPA 8021B | |
| Toluene | 2.88 | 0.0250 | н | n | 11 | н | " | н | |
| Ethylbenzene | 6.81 | 0.0250 | " | n | n | н | н | n | |
| Xylene (p/m) | 12.6 | 0.0250 | ** | н | м | " | н | 17 | |
| Xylene (0) | 4.66 | 0.0250 | | n | н | " | 11 | ** | |
| Surrogate: a,a,a-Trifluorotoluene | | 174 % | 80-1 | 120 | " | " | " | " | S-04 |
| Surrogate: 4-Bromofluorobenzene | | 103 % | 80 | 120 | " | " | " | n | * |
| Gasoline Range Organics C6-C12 | 229 | 10.0 | mg/kg dry | 1 | EB51006 | 02/10/05 | 02/10/05 | EPA 8015M | |
| Diesel Range Organics >C12-C35 | 460 | 10.0 | " | R | н | " | | 11 | |
| Total Hydrocarbon C6-C35 | 689 | 10.0 | н | " | 11 | n | 11 | n | |
| Surrogate: 1-Chlorooctane | | 88.4 % | 70-1 | 130 | " | " | " | " | |
| Surrogate: 1-Chlorooctadecane | | 80.4 % | 70-1 | 130 | " | " | " | " | |
| BH-1 (15') (5B09013-03) Soil | | | | | | | | | |
| Benzene | ND | 0.0250 | mg/kg dry | 25 | EB51409 | 02/10/05 | 02/14/05 | EPA 8021B | |
| Toluene | ND | 0.0250 | н | ** | н | " | " | н | |
| Ethylbenzene | ND | 0.0250 | " | | н | н | " | 61 | |
| Xylene (p/m) | 0.0425 | 0.0250 | н | н | | н | | | |
| Xylene (0) | 0.0264 | 0.0250 | N | " | " | 11 | " | " | |
| Surrogate: a,a,a-Trifluorotoluene | | 116 % | 80-1 | 20 | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 92.0 % | 80-1 | 20 | " | " | " | " | |
| Gasoline Range Organics C6-C12 | ND | 10.0 | mg/kg dry | 1 | EB51006 | 02/10/05 | 02/10/05 | EPA 8015M | |
| Diesel Range Organics >C12-C35 | ND | 10.0 | " | н | " | 11 | " | " | |
| Total Hydrocarbon C6-C35 | ND | 10.0 | " | " | " | 11 | 11 | R | |
| ······ | | | | | | | | | |

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas. Page 2 of 11

| Environmental Plus, Incorporated | | P | Project: Co | noco Phil | lips/ SEMU | J Permian W | vell 80 | Fax: 505- | 394-2601 |
|-----------------------------------|--------|--------------------------|--------------------------|------------------|--------------|-------------|----------|------------------------|------------------|
| P.O. Box 1558 Eunice NM, 88231 | | Project No Project Ma | umber: 15 anager: Iai | 0007 n Olness | | | | Repo 02/18/0 | rted: 5 08:29 |
| | | Or | ganics b | oy GC | | | | | |
| | | Environ | nental I | Lab of] | fexas | | | | |
| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
| BH-1 (15') (5B09013-03) Soil | | | | | | | | | |
| Surrogate: 1-Chlorooctane | | 90.0 % | 70- . | 130 | EB51006 | 02/10/05 | 02/10/05 | EPA 8015M | |
| Surrogate: 1-Chlorooctadecane | | 79.0 % | 70- . | 130 | " | " | " | " | |
| BH-2 (2') (5B09013-05) Soil | | | | | | | | | |
| Benzene | 0.113 | 0.0500 | mg/kg dry | 50 | EB51409 | 02/10/05 | 02/10/05 | EPA 8021B | |
| Toluene | 0.790 | 0.0500 | и | 17 | " | м | | n | |
| Ethylbenzene | 0.484 | 0.0500 | " | 10 | 11 | " | н | н | |
| Xylene (p/m) | 3.46 | 0.0500 | 17 | U II | | " | u | н | |
| Xylene (0) | 1.39 | 0.0500 | | 11 | H | fi | N | н | |
| Surrogate: a,a,a-Trifluorotoluene | | 177 % | 80 | 120 | " | " | " | " | S-04 |
| Surrogate: 4-Bromofluorobenzene | | 94.2 % | <i>80</i> | 120 | " | " | " | " | |
| Gasoline Range Organics C6-C12 | 783 | 10.0 | mg/kg dry | 1 | EB51006 | 02/10/05 | 02/10/05 | EPA 8015M | |
| Diesel Range Organics >C12-C35 | 3400 | 10.0 | ** | 11 | | " | " | 11 | |
| Total Hydrocarbon C6-C35 | 4180 | 10.0 | " | " | 41 | н | п | 11 | |
| Surrogate: 1-Chlorooctane | | 102 % | 70- | 130 | " | " | " | " | |
| Surrogate: 1-Chlorooctadecane | | 104 % | 7 0- - | 130 | " | " | " | " | |
| BH-2 (5') (5B09013-06) Soil | | | | | | | | | |
| Benzene | ND | 0.0250 | mg/kg dry | 25 | EB51409 | 02/10/05 | 02/14/05 | EPA 8021B | |
| Toluene | ND | 0.0250 | " | и | " | | n | n | |
| Ethylbenzene | ND | 0.0250 | N | " | 11 | " | 11 | ** | |
| Xylene (p/m) | ND | 0.0250 | " | " | н | n | n | " | |
| Xylene (o) | ND | 0.0250 | " | " | 0 | 11 | " | 11 | |
| Surrogate: a,a,a-Trifluorotoluene | | 102 % | 80 | 120 | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 81.4 % | 80 | 120 | " | " | " | " | |
| Gasoline Range Organics C6-C12 | ND | 10.0 | mg/kg dry | 1 | EB51006 | 02/10/05 | 02/10/05 | EPA 8015M | |
| Diesel Range Organics >C12-C35 | 25.8 | 10.0 | н | | | " | 11 | 11 | |
| Total Hydrocarbon C6-C35 | 25.8 | 10.0 | n | N | " | ** | " | 11 | |
| Surrogate: 1-Chlorooctane | | 91.0 % | 70 | 130 | " | " | " | " | |
| Surrogate: 1-Chlorooctadecane | | 77.8 % | 70 | 130 | " | " | " | " | |

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| Environmental Plus, Incorporated | Project: Conoco Phillips/ SEMU Permian Well 80 | Fax: 505-394-2601 |
|----------------------------------|--|-------------------|
| P.O. Box 1558 | Project Number: 150007 | Reported: |
| Eunice NM, 88231 | Project Manager: Iain Olness | 02/18/05 08:29 |

Organics by GC

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|-----------------------------------|--------|--------------------|-----------|----------|---------|----------|----------|-----------|-------|
| BH-2 (10') (5B09013-07) Soil | | | · | | | | | | |
| Benzene | ND | 0.0250 | mg/kg dry | 25 | EB51409 | 02/10/05 | 02/14/05 | EPA 8021B | |
| Toluene | ND | 0.0250 | M | | | n | " | " | |
| Ethylbenzene | ND | 0.0250 | N | " | 11 | H | " | | |
| Xylene (p/m) | ND | 0.0250 | н | н | | " | н | n | |
| Xylene (o) | ND | 0.0250 | n | н | н | 11 | " | " | |
| Surrogate: a,a,a-Trifluorotoluene | | 114 % | 80-1 | 20 | " | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | | 105 % | 80-1 | 20 | " | " | " | " | |
| Gasoline Range Organics C6-C12 | ND | 10.0 | mg/kg dry | 1 | EB51006 | 02/10/05 | 02/10/05 | EPA 8015M | |
| Diesel Range Organics >C12-C35 | 18.3 | 10.0 | W | н | " | n | n | * | |
| Total Hydrocarbon C6-C35 | 18.3 | 10.0 | 11 | n | H | 11 | " | * | |
| Surrogate: 1-Chlorooctane | | 102 % | 70-1 | 30 | " | " | " | " | |
| Surrogate: 1-Chlorooctadecane | | 78.8 % | 70-1 | 30 | " | " | " | " | |

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

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General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|------------------------------|--------|--------------------|-------|----------|---------|----------|----------|---------------|-------|
| BH-1 (5') (5B09013-01) Soil | | | | | | | | | |
| Chloride | 194 | 10.0 | mg/kg | 20 | EB51717 | 02/14/05 | 02/14/05 | EPA 300.0 | |
| % Moisture | 11.1 | 0.1 | % | 1 | EB51102 | 02/10/05 | 02/11/05 | % calculation | |
| BH-1 (10') (5B09013-02) Soil | | | | | | | | | |
| Chloride | 20.5 | 5.00 | mg/kg | 10 | EB51717 | 02/14/05 | 02/14/05 | EPA 300.0 | |
| % Moisture | 11.3 | 0.1 | % | 1 | EB51102 | 02/10/05 | 02/11/05 | % calculation | |
| BH-1 (15') (5B09013-03) Soil | | | | | | | | | |
| Chloride | 21.4 | 5.00 | mg/kg | 10 | EB51717 | 02/14/05 | 02/14/05 | EPA 300.0 | |
| % Moisture | 8.5 | 0.1 | % | 1 | EB51102 | 02/10/05 | 02/11/05 | % calculation | |
| BH-2 (2') (5B09013-05) Soil | | | | | | | | | |
| Chloride | 58.9 | 5.00 | mg/kg | 10 | EB51717 | 02/14/05 | 02/14/05 | EPA 300.0 | |
| % Moisture | 14.3 | 0.1 | % | 1 | EB51102 | 02/10/05 | 02/11/05 | % calculation | |
| BH-2 (5') (5B09013-06) Soil | | | | | | | | | |
| Chloride | 2020 | 100 | mg/kg | 200 | EB51717 | 02/14/05 | 02/14/05 | EPA 300.0 | |
| % Moisture | 8.9 | 0.1 | % | 1 | EB51102 | 02/10/05 | 02/11/05 | % calculation | |
| BH-2 (10') (5B09013-07) Soil | | | | | | | | | |
| Chloride | 1650 | 50.0 | mg/kg | 100 | EB51717 | 02/14/05 | 02/14/05 | EPA 300.0 | - |
| % Moisture | 11.8 | 0.1 | % | 1 | EB51102 | 02/10/05 | 02/11/05 | % calculation | |
| BH-2 (20') (5B09013-09) Soil | | | | | | | | | |
| Chloride | 1180 | 25.0 | mg/kg | 50 | EB51717 | 02/14/05 | 02/14/05 | EPA 300.0 | |
| BH-2 (25') (5B09013-10) Soil | | | | | | | | | |
| Chloride | 1640 | 50.0 | mg/kg | 100 | EB51717 | 02/14/05 | 02/14/05 | EPA 300.0 | |

Environmental Lab of Texas

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| P.O. Box 1558 |
| Eunice NM, 88231 |

02/18/05 08:29

Organics by GC - Quality Control

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|------------------------------------|-------------|--------------------|-----------|----------------|---------------------------------------|-------------|----------------|-----|--------------|---------------------------------------|
| Batch EB51006 - Solvent Extraction | (GC) | | | | | | | | | |
| Blank (EB51006-BLK1) | | | | Prepared | & Analyze | ed: 02/10/0 | 05 | | _ | |
| Gasoline Range Organics C6-C12 | ND | 10.0 | mg/kg wet | | · · · · · · · · · · · · · · · · · · · | | | | | |
| Diesel Range Organics >C12-C35 | ND | 10.0 | | | | | | | | |
| Total Hydrocarbon C6-C35 | ND | 10.0 | " | | | | | | | |
| Surrogate: 1-Chlorooctane | 47.5 | | mg/kg | 50.0 | | 95.0 | 70-130 | | | |
| Surrogate: 1-Chlorooctadecane | 37.4 | | " | 50.0 | | 74.8 | 70-130 | | | |
| Blank (EB51006-BLK2) | | | | Prepared: | 02/10/05 | Analyzed | l: 02/11/05 | | | |
| Gasoline Range Organics C6-C12 | ND | 10.0 | mg/kg wet | | | | | | | |
| Diesel Range Organics >C12-C35 | ND | 10.0 | W | | | | | | | |
| Total Hydrocarbon C6-C35 | ND | 10.0 | " | | | | | | | |
| Surrogate: 1-Chlorooctane | 47.6 | | mg/kg | 50.0 | | 95.2 | 70-130 | | | |
| Surrogate: 1-Chlorooctadecane | 35.2 | | " | 50.0 | | 70.4 | 70-130 | | | |
| LCS (EB51006-BS1) | | | | Prepared | & Analyze | ed: 02/10/ | 05 | | | |
| Gasoline Range Organics C6-C12 | 429 | 10.0 | mg/kg wet | 500 | | 85.8 | 75-125 | | | |
| Diesel Range Organics >C12-C35 | 442 | 10.0 | н | 500 | | 88.4 | 75-125 | | | |
| Total Hydrocarbon C6-C35 | 871 | 10.0 | u | 1000 | | 87.1 | 75-125 | | | |
| Surrogate: 1-Chlorooctane | 43.1 | | mg/kg | 50.0 | | 86.2 | 70-130 | | | · · · · · · · · · · · · · · · · · · · |
| Surrogate: 1-Chlorooctadecane | 38.5 | | " | 50.0 | | 77.0 | 70-130 | | | |
| LCS (EB51006-BS2) | | | | Prepared: | 02/10/05 | Analyzed | 1: 02/11/05 | | | |
| Gasoline Range Organics C6-C12 | 445 | 10.0 | mg/kg wet | 500 | | 89.0 | 75-125 | | | |
| Diesel Range Organics >C12-C35 | 459 | 10.0 | м | 500 | | 91.8 | 75-125 | | | |
| Total Hydrocarbon C6-C35 | 904 | 10.0 | 11 | 1000 | | 90.4 | 75-125 | | | - |
| Surrogate: 1-Chlorooctane | 39.3 | | mg/kg | 50.0 | | 78.6 | 70-130 | | | |
| Surrogate: 1-Chlorooctadecane | 35.9 | | " | 50.0 | | 71.8 | 70-130 | | | |
| Calibration Check (EB51006-CCV1) | | | | Prepared | & Analyze | ed: 02/10/ | 05 | | | |
| Gasoline Range Organics C6-C12 | 489 | | mg/kg | 500 | | 97.8 | 80-120 | | 4 | |
| Diesel Range Organics >C12-C35 | 494 | | " | 500 | | 98.8 | 80-120 | | | |
| Total Hydrocarbon C6-C35 | 983 | | ** | 1000 | | 98.3 | 80-120 | | | |
| Surrogate: 1-Chlorooctane | 49.3 | | " | 50.0 | | 98.6 | 70-130 | | | |
| Surrogate: 1-Chlorooctadecane | <i>38.3</i> | | " | 50.0 | | 76:6 | 70-130 | | | |

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| P.O. Box 1558 |
| Eunice NM, 88231 |

Project: Conoco Phillips/ SEMU Permian Well 80 Project Number: 150007 Project Manager: Iain Olness

Organics by GC - Quality Control

Environmental Lab of Texas

| | Degult | Reporting | T Inite | Spike | Source | M DEC | %REC | | RPD | N-4 |
|------------------------------------|--------|-------------|-----------|-----------|----------|------------|-------------|-------|----------|-------|
| Analyte | Result | | Units | Level | Kesuit | 70REC | Limits | | | Notes |
| Batch EB51006 - Solvent Extraction | (GC) | | | | | | | | | |
| Calibration Check (EB51006-CCV2) | | | | Prepared: | 02/10/05 | Analyzed | 1: 02/11/05 | | | |
| Gasoline Range Organics C6-C12 | 490 | | mg/kg | 500 | | 98.0 | 80-120 | | | |
| Diesel Range Organics >C12-C35 | 506 | | n | 500 | | 101 | 80-120 | | | |
| Total Hydrocarbon C6-C35 | 996 | | 11 | 1000 | | 99.6 | 80-120 | | | |
| Surrogate: 1-Chlorooctane | 41.2 | | " | 50.0 | | 82.4 | 70-130 | | <u> </u> | |
| Surrogate: 1-Chlorooctadecane | 37.7 | | " | 50.0 | | 75.4 | 70-130 | | | |
| Matrix Spike (EB51006-MS1) | So | urce: 5B090 | 14-01 | Prepared | & Analyz | ed: 02/10/ | 05 | | | |
| Gasoline Range Organics C6-C12 | 558 | 10.0 | mg/kg dry | 574 | ND | 97.2 | 75-125 | | | |
| Diesel Range Organics >C12-C35 | 614 | 10.0 | n | 574 | ND | 107 | 75-125 | | | |
| Total Hydrocarbon C6-C35 | 1170 | 10.0 | " | 1150 | ND | 102 | 75-125 | | | |
| Surrogate: 1-Chlorooctane | 51.6 | | mg/kg | 50.0 | | 103 | 70-130 | | | |
| Surrogate: 1-Chlorooctadecane | 39.5 | | " | 50.0 | | 79.0 | 70-130 | | | |
| Matrix Spike (EB51006-MS2) | So | urce: 5B090 | 15-04 | Prepared: | 02/10/05 | Analyzed | l: 02/11/05 | | | |
| Gasoline Range Organics C6-C12 | 491 | 10.0 | mg/kg dry | 531 | ND | 92.5 | 75-125 | | | |
| Diesel Range Organics >C12-C35 | 560 | 10.0 | " | 531 | ND | 105 | 75-125 | | | |
| Total Hydrocarbon C6-C35 | 1050 | 10.0 | n | 1060 | ND | 99.1 | 75-125 | | | |
| Surrogate: 1-Chlorooctane | 49.1 | ····· *···· | mg/kg | 50.0 | | 98.2 | 70-130 | | | |
| Surrogate: 1-Chlorooctadecane | 39.7 | | " | 50.0 | | 79.4 | 70-130 | | | |
| Matrix Spike Dup (EB51006-MSD1) | So | urce: 5B090 | 14-01 | Prepared | & Analyz | ed: 02/10/ | 05 | | | |
| Gasoline Range Organics C6-C12 | 527 | 10.0 | mg/kg dry | 574 | ND | 91.8 | 75-125 | 5.71 | 20 | |
| Diesel Range Organics >C12-C35 | 604 | 10.0 | H | 574 | ND | 105 | 75-125 | 1.64 | 20 | |
| Total Hydrocarbon C6-C35 | 1130 | 10.0 | н | 1150 | ND | 98.3 | 75-125 | 3.48 | 20 | |
| Surrogate: 1-Chlorooctane | 48.5 | | mg/kg | 50.0 | | 97.0 | 70-130 | | | |
| Surrogate: 1-Chlorooctadecane | 36.4 | | " | 50.0 | | 72.8 | 70-130 | | | |
| Matrix Spike Dup (EB51006-MSD2) | So | urce: 5B090 | 15-04 | Prepared | 02/10/05 | Analyzed | 1: 02/11/05 | | | |
| Gasoline Range Organics C6-C12 | 516 | 10.0 | mg/kg dry | 531 | ND | 97.2 | 75-125 | 4.97 | 20 | |
| Diesel Range Organics >C12-C35 | 546 | 10.0 | ** | 531 | ND | 103 | 75-125 | 2.53 | 20 | |
| Total Hydrocarbon C6-C35 | 1060 | 10.0 | и | 1060 | ND | 100 | 75-125 | 0.948 | 20 | |
| Surrogate: 1-Chlorooctane | 49.9 | | mg/kg | 50.0 | | 99.8 | 70-130 | | | |
| Surrogate: 1-Chlorooctadecane | 38.0 | | " | 50.0 | | 76.0 | 70-130 | | | |

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Environmental Plus, Incorporated P.O. Box 1558 Eunice NM, 88231 Project: Conoco Phillips/ SEMU Permian Well 80 Project Number: 150007 Project Manager: Iain Olness

Organics by GC - Quality Control

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|-----------------------------------|--------|--------------------|-----------|----------------|------------------|------------|----------------|-----|--------------|-------|
| Batch EB51409 - EPA 5030C (GC) | | | | | | | | | | |
| Blank (EB51409-BLK1) | | | | Prepared | & Analyze | ed: 02/10/ | 05 | | | |
| Benzene | ND | 0.0250 | mg/kg wet | | | | | | | |
| Toluene | ND | 0.0250 | 11 | | | | | | | |
| Ethylbenzene | ND | 0.0250 | " | | | | | | | |
| Xylene (p/m) | ND | 0.0250 | W | | | | | | | |
| Xylene (0) | ND | 0.0250 | ** | | | | | | | |
| Surrogate: a,a,a-Trifluorotoluene | 94.0 | | ug/kg | 100 | | 94.0 | 80-120 | | | |
| Surrogate: 4-Bromofluorobenzene | 108 | | " | 100 | | 108 | 80-120 | | | |
| LCS (EB51409-BS1) | | | | Prepared | & Analyze | ed: 02/10/ | 05 | | | |
| Benzene | 100 | | ug/kg | 100 | | 100 | 80-120 | | | |
| Toluene | 103 | | н | 100 | | 103 | 80-120 | | | |
| Ethylbenzene | 117 | | " | 100 | | 117 | 80-120 | | | |
| Xylene (p/m) | 238 | | н | 200 | | 119 | 80-120 | | | |
| Xylene (0) | 113 | | N | 100 | | 113 | 80-120 | | | |
| Surrogate: a,a,a-Trifluorotoluene | 117 | | - 17 | 100 | | 117 | 80-120 | | ····· | |
| Surrogate: 4-Bromofluorobenzene | 120 | | " | 100 | | 120 | 80-120 | | | |
| Calibration Check (EB51409-CCV1) | | | | Prepared: | : 02/10/05 | Analyzed | I: 02/11/05 | ; | | |
| Benzene | 102 | | ug/kg | 100 | | 102 | 80-120 | | | |
| Toluene | 97.6 | | н | 100 | | 97.6 | 80~120 | | | |
| Ethylbenzene | 99.1 | | n | 100 | | 99.1 | 80-120 | | | |
| Xylene (p/m) | 214 | | " | 200 | | 107 | 80-120 | | | |
| Xylene (0) | 106 | | н | 100 | | 106 | 80-120 | | | - |
| Surrogate: a,a,a-Trifluorotoluene | 118 | | " | 100 | | 118 | 80-120 | | | |
| Surrogate: 4-Bromofluorobenzene | 103 | | " | 100 | | 103 | 80-120 | | | |
| Matrix Spike (EB51409-MS1) | So | urce: 5B100 |)10-01 | Prepared | & Analyze | ed: 02/10/ | 05 | | | |
| Benzene | 100 | | ug/kg | 100 | ND | 100 | 80-120 | | | |
| Toluene | 98.9 | | н | 100 | ND | 98.9 | 80-120 | | | |
| Ethylbenzene | 105 | | ** | 100 | ND | 105 | 80-120 | | | |
| Xylene (p/m) | 227 | | n | 200 | ND | 114 | 80-120 | | | |
| Xylene (o) | 111 | | н | 100 | ND | 111 | 80-120 | | | |
| Surrogate: a,a,a-Trifluorotoluene | 116 | | " | 100 | | 116 | 80-120 | | | |
| Surrogate: 4-Bromofluorobenzene | 111 | | " | 100 | | 111 | 80-120 | | | |

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Environmental Plus, Incorporated P.O. Box 1558 Eunice NM, 88231

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Project: Conoco Phillips/ SEMU Permian Well 80 Project Number: 150007 Project Manager: Iain Olness Fax: 505-394-2601 Reported: 02/18/05 08:29

Organics by GC - Quality Control

Environmental Lab of Texas

| | | Reporting | | Spike | Source | | %REC | | RPD | |
|---------|--------|-----------|-------|-------|--------|------|--------|-----|-------|-------|
| Analyte | Result | Limit | Units | Level | Result | %REC | Limits | RPD | Limit | Notes |

Batch EB51409 - EPA 5030C (GC)

| Matrix Spike Dup (EB51409-MSD1) | Source: | 5B10010-01 | Prepared: | 02/10/05 | Analyze | d: 02/11/05 | | | |
|-----------------------------------|---------|------------|-----------|----------|---------|-------------|------|----|--|
| Benzene | 91.0 | ug/kg | 100 | ND | 91.0 | 80-120 | 9.42 | 20 | |
| Toluene | 87.3 | " | 100 | ND | 87.3 | 80-120 | 12.5 | 20 | |
| Ethylbenzene | 91.4 | | 100 | ND | 91.4 | 80-120 | 13.8 | 20 | |
| Xylene (p/m) | 200 | н | 200 | ND | 100 | 80-120 | 13.1 | 20 | |
| Xylene (o) | 100 | n | 100 | ND | 100 | 80-120 | 10.4 | 20 | |
| Surrogate: a,a,a-Trifluorotoluene | 107 | " | 100 | | 107 | 80-120 | | | |
| Surrogate: 4-Bromofluorobenzene | 117 | " | 100 | | 117 | 80-120 | | | |

Environmental Lab of Texas

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General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|-------------------------------------|--------|--------------------|-------|----------------|---------------------------------------|------------|----------------|------|--------------|---------------------------------------|
| Batch EB51102 - General Preparation | (Prep) | | | | | | | | | |
| Blank (EB51102-BLK1) | | | | Prepared: | 02/10/05 | Analyzed | l: 02/11/05 | | | |
| % Moisture | ND | 0.1 | % | | | | | | | |
| Duplicate (EB51102-DUP1) | So | urce: 5B0901 | 2-01 | Prepared: | Prepared: 02/10/05 Analyzed: 02/11/05 | | | | | |
| % Moisture | 1.5 | 0.1 | % | | 1,4 | | | 6.90 | 20 | |
| Batch EB51717 - Water Extraction | | | | | | | | | | |
| Blank (EB51717-BLK1) | | | | Prepared | & Analyz | ed: 02/14/ | 05 | | | |
| Chloride | ND | 0.500 | mg/kg | | | | | | | · · · · · · · · · · · · · · · · · · · |
| LCS (EB51717-BS1) | | | | Prepared | & Analyz | ed: 02/14/ | 05 | | | |
| Chloride | 9.45 | | mg/L | 10.0 | | 94.5 | 80-120 | | | |
| LCS Dup (EB51717-BSD1) | | | | Prepared | & Analyz | ed: 02/14/ | 05 | | | |
| Chloride | 9.31 | | mg/L | 10.0 | | 93.1 | 80-120 | 1.49 | 20 | |
| Calibration Check (EB51717-CCV1) | | | | Prepared | & Analyz | ed: 02/14/ | 05 | | | |
| Chloride | 9.74 | | mg/L | 10.0 | | 97.4 | 80-120 | | | |
| Duplicate (EB51717-DUP1) | So | urce: 5B0901 | 2-02 | Prepared | & Analyz | ed: 02/14/ | 05 | | | |
| Chloride | 1790 | 50.0 | mg/kg | | 1810 | | | 1.11 | 20 | |

Environmental Lab of Texas

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| Environmental Plus, Incorporated | Project: | Conoco Phillips/ SEMU Permian Well 80 | Fax: 505-394-2601 |
|----------------------------------|------------------|---------------------------------------|-------------------|
| P.O. Box 1558 | Project Number: | 150007 | Reported: |
| Eunice NM, 88231 | Project Manager: | Iain Olness | 02/18/05 08:29 |

Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect. S-04
- DET Analyte DETECTED
- Analyte NOT DETECTED at or above the reporting limit ND
- Not Reported NR
- Sample results reported on a dry weight basis dry
- RPD **Relative Percent Difference**
- Laboratory Control Spike LCS
- MS Matrix Spike
- Dup Duplicate

alandk Tub Report Approved By: Date: 2-18-05

Raland K. Tuttle, Lab Manager Celey D. Keene, Lab Director, Org. Tech Director Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director James L. Hawkins, Chemist/Geologist Sandra Sanchez, Lab Tech.

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Environmental Labs of Texas

12600 West I-20 East, Odessa, TX 79763

Chain of Custody Form

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Environmental Lab of Texas Variance / Corrective Action Report – Sample Log-In

| Client: Env | ironmenta | l Plus | | | | | |
|-------------|-----------|--------|--|--|--|--|--|
| Date/Time: | 2/9/05 | 16:45 | | | | | |
| Order #: | | | | | | | |
| Initials. | · | | | | | | |

Sample Receipt Checklist

| Temperature of container/cooler? | (es | No | 4.0 C |
|---|------------|----|----------------|
| Shipping container/cooler in good condition? | E | No | |
| Custody Seals intact on shipping container/cooler? | Yes | No | Not present |
| Custody Seals intact on sample bottles? | Yes | No | Not present |
| Chain of custody present? | (Ves) | No | |
| Sample Instructions complete on Chain of Custody? | CES | No | |
| Chain of Custody signed when relinguished and received? | res | No | |
| Chain of custody agrees with sample label(s) | res | No | |
| Container labels legible and intact? | (es) | No | |
| Sample Matrix and properties same as on chain of custody? | Tes | No | |
| Samples in proper container/bottle? | (Jes) | No | |
| Samples properly preserved? | res | No | |
| Sample bottles intact? | res | No | |
| Preservations documented on Chain of Custody? | (e) | No | |
| Containers documented on Chain of Custody? | res | No | |
| Sufficient sample amount for indicated test? | (es) | No | |
| All samples received within sufficient hold time? | œ | No | |
| VOC samples have zero headspace? | res | No | Not Applicable |

Other observations:

Variance Documentation:

| Regarding: | Date/ I me: | Contacted by: | |
|--------------------------|-------------|---------------|--|
| | | | |
| Corrective Action Taken: | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| | | | | | I | _og | Of | Test Borings | (NOTE - Page 1 of 1) | | | | |
|---------------------|----------------|--|---------|-------------------------|------------------|----------------|--|--|----------------------|--|--|--|--|
| | | | | | | | Project Number: 150005 | | | | | | |
| | | | | ral P | LUS, IN | C. | Pr | Project Name: Conoco Phillips SEMU Permian Well 80 | | | | | |
| ĘĽ | | ATE APPROVED LAND FARM AND ENVIRONMENTAL SERVICES | | | | | Location: UL-J, Section 13, Township 20 South, Range 37 East | | | | | | |
| EUNICE 505-394-3481 | | | | | | | Bor | Boring Number: SB-1 Surface Flevation: 3.548 | | | | | |
| # v | | 20 | e v | s | | | | tort Date: 02/04/05 | Time: 0910 hrs | | | | |
| l Ti | Sample Type | Recove (Inches | Moistur | PID Reading (ppm) | U.S.C.S Symbo | Depth (feet | | Completion Date: 02/04/05 | Time: 1120 hrs | | | | |
| Sam and | | | | | | | | Description | | | | | |
| 0935 | Cuttings | NA | Da | 426 | SP | L | | SAND, Oil Stained | | | | | |
| | | | | | | - | | | - | | | | |
| | | | | | | \vdash | | | - | | | | |
| | | | | | | <u> </u> | | | - | | | | |
| | | | | <u>†</u> | | <u> </u> | 5 | Γίανον δανη | - | | | | |
| 0953 | cs | 9 | Da | 800 | SP | - | | orayey oning | | | | | |
| | | | | | | <u> </u> | | | - | | | | |
| | | | | | | | | | - | | | | |
| | | | | | | | 10 | | _ | | | | |
| 1007 | 20 | 9* | Moist | 117 | SP | | | Clayey SAND, Red and Oily | | | | | |
| | | | | | | | | | _ | | | | |
| | | | | | | L | | | _ | | | | |
| | | | | | | F | | | _ | | | | |
| | | | | | | | 15 | | - | | | | |
| 1051 | cs | 8 | Da | 23.9 | SP | <u> </u> | | Clayey SAND, Red | - | | | | |
| | | | | | | - | | | - | | | | |
| | | | | | | | | | - | | | | |
| | | | | | | - | 20 | | - | | | | |
| 1120 | | 4 | Desir | 14.2 | 50 | | | Callata CAND | _ | | | | |
| 1120 | | 4 | шгу | 14.6 | <u>১</u> г | | | Latiche Sand | - | | | | |
| | | | | | | _ | | End of Boring at 22.0' | _ | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | 52 | | - | | | | |
| | | | | | | <u> </u> | | | - | | | | |
| | | | | | | <u> </u> | | | | | | | |
| | | | | | | | | | - | | | | |
| | | | | | | | 20 | | - | | | | |
| | | | | | | — | 30 | | - | | | | |
| | | | | | | | | | | | | | |
| Dote | Vater | r Leve | el Meas | urement Casino | s (fee | t) n I V | nte | Drilling Method: HSA 3.5" | ID | | | | |
| 12/04/ | | D | epth | Depth | Depth | <u> </u> | eve | Backfill Method: Bento | onite | | | | |
| - | | | - | - | - | | - | | | | | | |
| | | | | | L | | | Them Representative: M | u | | | | |

| | | | | | l | _og | ۵f | Test Borings (NDTE - Page 1 of 1 | | | | | |
|----------------------|----------------|--------------------------|---------------|--------------------------|--------------------|-----------------|--|---|-------------|--|--|--|--|
| | | | | | | | Pr | oject Number: 150005 | | | | | |
| | | ENVIRONMENTAL PLUS, INC. | | | | | Pr | oject Name: Conoco Phillips SEMU Permian Well 80 | | | | | |
| | | | | INTAL SERVICES | | | Location: UL-J, Section 13, Township 20 South, Range 37 East | | | | | | |
| 505-394-3481 E | | | | | | | Bor | Boring Number: SB-2 Surface Elevation: 3,548 | | | | | |
| Sample # and Time | Sample Type | Recovery (inches) | Moisture | PID Readings (ppm) | U.S.C.S. Symbol | Depth (feet) | S | tart Date: <u>02/04/05</u> Time: <u>1315 hrs</u> Completion Date: <u>02/04/05</u> Time: <u>1547 hrs</u> Description | | | | | |
| 1315 | Cuttings | NA | Da | 28.4 | SP | _ | | SAND, OIL Stained | | | | | |
| | | | | | | <u> </u> | | | | | | | |
| | | | | | | L | | | — | | | | |
| | ļ | | Į | | | - | 5 | | _ | | | | |
| 1327 | CS | 8 | Do | 10.3 | SP | | - | Clayey SAND | _ | | | | |
| | | | | | | | | | _ | | | | |
| | | | | | | — | | | _ | | | | |
| | | | | | | | | | _ | | | | |
| | | | Da | 7.2 | SP | | 10 | CLOVEY SAND. Red | | | | | |
| 1352 | CS | 9* | | | | | | | | | | | |
| | | | | | | _ | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | 15 | | | | | | |
| 1422 | CS | 9 | Da | 4.4 | SP | - | | Clayey SAND, Red | _ | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | _ | | | | |
| | | | | | | | 20 | | | | | | |
| 1520 | cs | 8 | Molst | 3.1 | SP | <u> </u> | | Caliche SAND | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | 25 | | | | | | |
| 1547 | cs | 8 | Moist | 2.1 | SP | | | Caliche SAND | - | | | | |
| | | | | | | _ | | End of Boring at 27.0' | _ | | | | |
| | | | | | | _ | | | _ | | | | |
| | | | | | | <u> </u> | 30 | | | | | | |
| | | | | | | | | | | | | | |
| | Wate | r Leve | l el Meas | urement | s (fee | b, | | Drilling Mathody HSA 254 ID | | | | | |
| Date | Time | 2 So D | ample epth | Casing Depth | Cave-i Depth | n Vi L | ater .evel | | | | | | |
| 2/04/ | 05 - | | - | - | - | - | | Backtill Method: Bentonite | | | | | |
| | _1 | | | | L | | | Field Representative: MG | | | | | |

;505 391 3102 # 4/ 5

| <u>District I</u> 1625 N. Frencl <u>District II</u> 1301 W. Grant <u>District III</u> 1000 Rio Brazz <u>District IV</u> 1220 S. St. Fra | h Dr., Hobbs, 1 Avenne, Art 05 Road, Azte ncis Dr., Sant | NM 88240 esia, NM 8821 ec, NM 87410 a Fe, NM 8750 | 0 5 | Energy N Oil 122 | State o Ainerals Conse 20 Sout | f New Mex s and Natur rvation Di h St. Fran- ie NM 87 | | Form C-14 Revised June 10, 200: Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form | | | | | |
|--|---|--|-------------------------|---------------------------------------|---|---|------------------------|--|------------------------------|----------------------|-------------------|--|--|
| | | | Dal | aaga Niatif | icatio | r and C | orrective A | otion | | | * | | |
| | | | UCI: | Case Inutil | icauv | | TOD | icuo) | к Бати | | | | |
| Name of C | ompany C | onocoPhilli | ns | | 7 | Contact J | IOK John Ahney | | K Int | al Report | Final Repoi | | |
| Address 14 | 10 N. Wes | it County R | d. Hobbs | NM. | | Telephone No. 505-391-3128 | | | | | | | |
| Facility Na | me SEMI | J Permian # | 80 | | | Facility Ty | pe Oil & Gas | Well | | | \leq | | |
| Surface Ow | mer Tren | t Stradley | • | Mineral | Owner | BLM Lease No. LC - NM-557686 | | | | | | | |
| | | | | LOC | ATIO | N OF RE | NOF BELEASE 2003506087 | | | | | | |
| Unit Letter | Section | Township | Range | Feet from the | Feet from the | East/V | Vest Line | County | / | | | | |
| J | 13 | 205 | 37E |) (| | | ł |] | | Lea | ì | | |
| | | | | | | | | | | | | | |
| Type of Rele | ase Oil an | d Produced V | Nater | EASE Release 87bbis | 87bbis Volume Recovered 65 bbls | | | | | | | | |
| Source of Re | lease | u x ivuuccu | - us ci | | | Date and H | Iour of Occurrence | e | Date and | id Hour of Discovery | | | |
| Flow line | ate Motice (| Swan7 | | | | 10-29-04 | 9:00 am | | 10-29-04 | 9:00 am | | | |
| was minicon | ale Nouce C | | Yes 🔲 | No 🗌 Not I | Required | Sylvia Dic | key | | | | | | |
| By Whom? | John Abney | / | | | | Date and H | lour 10/29/04 3 | pm | | | | | |
| Was a Water | course Reac | hed? | Ves M | No | | If YES, Vo | dume Impacting t | he Water | rcourse, | | | | |
| YC | | | | | | <u> </u> | | | | | | | |
| II a Watercou | irse was iinj | acted, Descri | be rully.* | | | | | | | | (| | |
| { | | | | | | | × | | | | | | |
| | | | | | | | | | | | | | |
| Describe Cau On October | se of Proble 29, 2004, at | m and Remed | ial Action | Taken.* | nt 9:00 A | M. found fle | w line leak in na | sture. A | rea cover | ed 40' X 50 | Approx 87 | | |
| BBLS of oil a | and produc | ed water was | released. | 65 BBLS was | recovere | d. No livestoc | k was present in | area. | | 00 10 1055 | · mphase of | | |
| | | | | | | | | | | | Í | | |
| | | | | | | | | | · | | | | |
| Describe Area Shut in well. | and called a | nd Cleanup A for a vacuum | ction Take truck 25 | zn.* oil. and 40 bb | Is of wate | ar was recove | red. Left well sh | nt in ove | er weeken | d and repla | ced 4 its of pine | | |
| Section of the | e pipe was t | aken in analy | sis. 2" lin | e appeared to | have into | rnal corrosic | on. The site will I | have to I | be delinea | ted and esti | mates gathered | | |
| for cleanup. | This will no ce it difficul | t be an easy i t to get equin | task becar ment in t | use of the locati n clean up the (| on. The contamin | spill site in lo vated soil. | cated in a very s | andy are | ea in the p | asture dow | n in a low area | | |
| | | - to Bet eduib | | | ~~~ | | | , | | | | | |
| | | | | | | | | | | | | | |
| I hereby certif | y that the in | formation giv | en above i | is true and comp | lete to th | e best of my k | mowledge and un | derstand | that pursu | ant to NMC | CD rules and | | |
| public health of | operators a or the enviro | re required to minent. The a | report and | for the certain r | release no | NMOCD ma | d perform correct | ive action port" doe | ns for relea es not relie | eses which n | tay endanger | | |
| should their of | perations ha | ve failed to ad | lequately i | nvestigate and r | emediate | contaminatio | n that pose a three | at to grou | und water, | surface wat | er, human health | | |
| federal, state, | ment. In ad- or local laws | duion, NMOC s aud/or regula | D accepts | ance of a C-141 | report do | és not relieve | the operator of re | spousibi | lity for co | mpliance wi | th any other | | |
| | | Δ. | | | | | OIL CONS | ERVA | TION | DIVISIO | N | | |
| Signature: | | Money | 1 | | | | Care I | · | ~ | | | | |
| | | 0 | h | | A | opproved by I | Listrict Supervisor | NGR | $\Box \circ$ | | l | | |
| Printed Name: | John Abn | ey | | · · · · · · · · · · · · · · · · · · · | | ····· | | | 2 679 | | = | | |
| Title: SHEAL | R Specialist | | | · | A | Approval Date: 6 14.07 Expiration Date: | | | | | | | |
| E-mail Addres | s: John.H. | Abney@Con | ocoPhillip | os.com | c | Conditions of Approval: | | | | | | | |
| Date: 11/05/04 | 1 | | Phone: 4 | 505-391-3128 | | | | | | | i | | |
| ttach Additio | onal Sheets | If Necessar | y | | | | 200 | | | | | | |
| | | | | | | | (KY | - 14 | 715 | | | | |
| | - | | | | | | | v | | <u>}</u> | | | |