B.E.S.T.

Biosphere Environmental

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ConocoPhillips Company
Lindrith B # 77
1660' FNL & 1656' FEL, Unit Letter "B"
Section 1, Township 24 North, Range 3 West
NMPM, Rio Arriba County, NM
Lease Number: SF-078911

30-039-24915

Biosphere Environmental Sciences and Technologies, LLC (BEST) conducted an assessment of the Lindrith B # 77 plugged and abandoned well site. The well site is located on private surface land owned by Jack and Jessie Bechdol. Assessment of the well site was performed utilizing a Geoprobe to determine if hydrocarbon impacted soils were present. Four test holes were drilled and evaluated for hydrocarbon presence. Results of the field assessment provided no indication of hydrocarbons in the first three test holes located west (down gradient) of the wellhead marker. The fourth test hole was assessed from interviews with Mr. Jack Bechdol. The fourth test hole provided field results from approximately 2-feet to 8-feet in depth a hydrocarbon staining and odor. A soil sample was extracted from approximately 7-8 feet in depth and sent to Envirotech Laboratories and analyzed for Benzene, Toluene, Ethyl benzene, Xylene (BTEX) and Gasoline Range Organics (GRO), and Diesel Range Organics (DRO). (See Lab results attached) At approximately 9-10 feet in depth, groundwater was encountered. A groundwater monitoring well was placed in the fourth test hole. (See attached field assessment worksheet).

On June 19, 2003, a water sample was retrieved from the established monitor well (Test Hole # 4). The sample was sent to Envirotech Laboratories for BTEX, and GRO/DRO analysis. Results of the analysis were within New Mexico Water Quality Standards.

On July 16, 2003, excavation of hydrocarbon-impacted soils began. During excavation, continuous sampling, utilizing headspace analysis, of impacted soils was maintained. Sample results are listed on the field closure form attached. One sample from the highest headspace analysis was sent to Envirotech Labs for BTEX and GRO/DRO analysis. Results of the sample area attached and are within NMOCD Guidelines. The excavated area was backfilled with soil from the Bechdol Ranch.

Impacted soils were landfarmed on-site. On July 29, 2003, the landfarm was sampled utilizing Headspace analysis. Results of the Headspace were within NMOCD Guidelines and are attached on the field closure report. A second sample was sent to Envirotech Labs and analyzed for GRO/DRO analysis. Results of the sample were within NMOCD Guidelines and are attached.

Frank McDonald

Sr. Environmental Specialist

B.E.S.T., LLC



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	96052-026-017
Sample ID:	Sample #1	Date Reported:	07-30-03
Laboratory Number:	26207	Date Sampled:	07-29-03
Chain of Custody No:	11189	Date Received:	07-30-03
Sample Matrix:	Soil	Date Extracted:	07-30-03
Preservative:	Cool	Date Analyzed:	07-30-03
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)	
Gasoline Range (C5 - C10)	ND	0.2	
Diesel Range (C10 - C28)	ND	0.1	
Total Petroleum Hydrocarbons	ND	0.2	

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

Lindrith B #77.

Analyst

Review



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	ConocoPhillips	Project #:	97070-003-517
Sample ID:	Sample #5	Date Reported:	07-22-03
Laboratory Number:	26127	Date Sampled:	07-18-03
Chain of Custody No:	11160	Date Received:	07-21-03
Sample Matrix:	Soil	Date Extracted:	07-21-03
Preservative:	Cool	Date Analyzed:	07-22-03
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)	
Gasoline Range (C5 - C10)	ND	0.2	
Diesel Range (C10 - C28)	ND	0.1	
Total Petroleum Hydrocarbons	ND	0.2	

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

Lindrith B #77.

Analyst

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EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client	Conon Division	Desir at #	07070 000 517
Client:	ConocoPhillips	Project #:	97070-003-517
Sample ID:	Sample #5	Date Reported:	07-22-03
Laboratory Number:	26127	Date Sampled:	07-18-03
Chain of Custody:	11160	Date Received:	07-21-03
Sample Matrix:	Soil	Date Analyzed:	07-22-03
Preservative:	Cool	Date Extracted:	07-21-03
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)	
Benzene	ND	1.8	
Toluene	26.5	1.7	
Ethylbenzene	16.2	1.5	
p,m-Xylene	40.8	2.2	
o-Xylene	10.8	1.0	
Total BTEX	94.3		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98 %
	1,4-difluorobenzene	98 %
	Bromochlorobenzene	98 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846,

USEPA, December 1996.

Comments:

Lindrith B #77.

Analyst

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