

SB-1 North of Burlington
 ENVIROTECH INC. EXCAV.
 FIELD BORING LOG

Directly North of
 BK's excavation

TEST BORING NO. SB-1	MONITOR WELL NO.	PROJECT NO. 91304-Z1	PROJECT NAME Burlington Resources	SHEET OF: 1
MFG. DESIGNATION OF DRILL Hibitsu 61 B			PROJECT LOCATION Hampton 44; SE 3/4 Sec 13 T 30N R 11W	
TYPE OF BIT: Hollow Stem Auger - Pilot @ 2' T ₁			SURFACE ELEVATION OF TB OR MW	TOTAL DEPTH OF HOLE 20'
DATE	STARTED: 10-8-98	COMPLETED: 10-8-98	DRELLING CO.: Envirotech	
COMPLETION TYPE: Backfilling - Habit + Soil		ENGINEER: HMS	GROUNDWATER DEPTH: 15'	TIME: 11:00
CREW: MATT COIN, JB				

SURFACE CONDITIONS:

Bladed well Location; Coarse Heavy Sand.

DIST FROM SURF.	SAMPLE TYPE	SAMPLE NO.	OWN REAM IN RPM	BLOW COUNT 0 IN	USCS	LOG OF MATERIAL/COMMENTS
						0-1 1/2" Light LITE Brown Silty Sand. Actual of the hole. Sample
1						1 1/2" - 2' @ 5' 50 count blow to obtain 3" Sample.
2						2' Coarse Light Brown Sand Stone.
3						
4						
5						
6						
7						
8						
9						
0			1-4			50 count blow 4" Sample. Coarse Lt. Brown Sand Stone. Minor green clay nodules.
1			2-4			50 blow 4 1/2" Light Green Sandstone. Fine texture of Coarse Light Brown SS. Nodules.
2			3-7			50 blow 4"
3			6-9			50 blow 4" Coarsely Grained Silty Sand 4"
4			14-2			Coarse Sand Stone 2"
5			18-8			50 blow 4" Gray Clayey Silty Sand Nodules 2"
6			15-35			20 blow 2"
7			23-30			50 blow 6"
8			30-35			4" Groundwater 35 blow 6"
9						35 blow 6"
0						35 blow 10" sample Gray Coarse Sandstone Sand.
1						20' Total Depth.
2						

BORLOG.DOC - 3/93

EXHIBIT

PNM 51

PUBLIC SERVICE COMPANY OF NEW MEXICO

SB-1

PROJECT Hampton 4M 10/3/93		DEPARTMENT	
COMPONENT Just north of Burlington Excavation		FILE	SHEET OF
		BY	DATE
		CHECKED	DATE

	OVM	Blow counts	USCS
0			
1			
2			Course 1+ brown ss. 1+ grey
3			3" 1+ grey 1'-2'
4			
5	2.1		2' -
6			
7			
8			Course 1+ brown
9			
10		50 4"	
11		50 4.5"	
12		50 4"	
13		50 9"	
14			upper 4" Fine tan sand
15	<u>422</u> <u>1300</u>	50 4"	Rusty 2" course
16	1533	25 2"	gray clayey nodules 2"
17	77	30 6"	
18	18		GW? Saturated
19		25 6"	med-course gray
20		25 10"	

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW**EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons**

SB-1

Client: Burlington Resources
Sample ID: SB - 1 @ 15 - 16'
Laboratory Number: E041
Chain of Custody No: 6348
Sample Matrix: Soil
Preservative: Cool
Condition: Cool and Intact

Project #: 91364-21
Date Reported: 10-10-98
Date Sampled: 10-08-98
Date Received: 10-08-98
Date Extracted: 10-09-98
Date Analyzed: 10-09-98
Analysis Requested: 8015 TPH

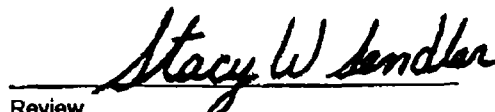
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	5.3	0.2
Diesel Range (C10 - C28)	21.1	0.1
Total Petroleum Hydrocarbons	26.4	0.2

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: Hampton 4M.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

SB-1

Client: Burlington Resources
Sample ID: SB - 1 @ 15 - 16'
Laboratory Number: E041
Chain of Custody: 6348
Sample Matrix: Soil
Preservative: Cool
Condition: Cool & Intact

Project #: 91364-21
Date Reported: 10-09-98
Date Sampled: 10-08-98
Date Received: 10-08-98
Date Analyzed: 10-09-98
Date Extracted: 10-09-98
Analysis Requested: BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	335	8.8
Toluene	697	8.4
Ethylbenzene	181	7.6
p,m-Xylene	1,330	10.8
o-Xylene	478	5.2
Total BTEX	3,020	

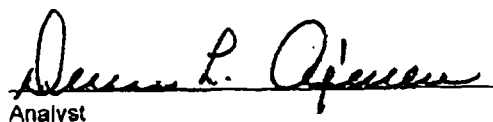
ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	97 %
	Bromofluorobenzene	97 %

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: Hampton 4M.


Analyst


Review

SB-2

Between

MW-2 & MW-6

Between MW#2

and MW#6

North side of
Location

ENVIROTECH INC.

FIELD BORING LOG

TEST BORING NO.	MONITOR WELL NO.	PROJECT NO.	PROJECT NAME	SHEET
SB 2		91364-2.1	Burlington Resources	1
MFG. DESIGNATION OF DRILL:		PROJECT LOCATION		
Wellsite 613		Hampton Ym		
TYPE OF BIT:		SURFACE ELEVATION OF TB OR MW:		TOTAL DEPTH OF HOLE
Hollow Stem Auger				23'
DATE	STARTED	COMPLETED	DRILLING CO.	
	10-8-98	10-8-98	Envirotech	
COMPLETION TYPE:		ENGINEER:	GROUNDWATER DEPTH	TIME
Back Fill - Native Soil		MWB, MW		
		CREW MC JD	Confined @ 22'	

SURFACE CONDITIONS:

Black Water Location - Fill over former PM.

DIST FROM SURF.	SAMPLE TYPE	SAMPLE NO.	DYN HEAD IN PPM	BLOWS PER 6 IN.	USGS	LOG OF MATERIAL / COMMENTS
						0 - 13.75 Backfill / overburden Coarse Sand. 12:00 Noon
1						
2						
3						
4						
5						
6						
7						
8						
9						
0						
1						
2						
3						VAPOR COR.
4						50 3' @ 13.75 medium to coarse fine Backfill Native Sand
5						50 2" LT Tan / orange Medium Coarse Sand (odor)
6						50 Blows - 2" The full screen Medium grained Sand. (odor)
7						50 Blows - 3" Variable LT Tan; orange Black organics in Coarse med. (odor)
8						50 Blows - 10" Med to coarse sand Hazy, orange, med. LT Tan (odor)
9						50 Blows - 10" Med to coarse LT Tan & orange (odor)
0						50 Blows - 10" Med well sorted LT Tan & orange (odor LTR)
1						50 Blows - 6" Med grained Tan (odor)
2						50 Blows - 4" Med grain, Orange & Tan (Free Product? Coarse Grained sand)

Keep Sample

overage

1294

1020

663'

1728'

1446'

1196

Sample

50 Blows 5" Light to medium Coarse Sand, Coated

PUBLIC SERVICE COMPANY OF NEW MEXICO

SB-2

PROJECT		DEPARTMENT	
Hampton 4M 10/8/72		FILE	SHEET OF
COMPONENT		BY	DATE
Former PNM Pit area 5' north between MW-6 & MW-2		CHECKED	DATE

	OWN	Blow	USCS	
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				med - coarse
12				
13				
13.5				
14	1086	So	3"	
15	LAB 2000	So	8"	Med - coarse 1+ Tan orange Weathered SS color med
16	1294	So	2"	1+ green
17	1020	So	8"	1+ orange organics black coarse
18	663	So	10"	med coarse 1+ grey orange
19	1723	So	10"	
20	1416	So	6"	Med coarse Fairly well sorted
21	1196			Most trace clay tan orange
22	Saturated Hc LAB Sample			
23'	Dipping Dr. P			

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW**EPA METHOD 8021
AROMATIC VOLATILE ORGANICS**

SB-2

Client:	Burlington Resources	Project #:	91364-21
Sample ID:	SB - 2 @ 15	Date Reported:	10-09-98
Laboratory Number:	E042	Date Sampled:	10-08-98
Chain of Custody:	6348	Date Received:	10-08-98
Sample Matrix:	Soil	Date Analyzed:	10-09-98
Preservative:	Cool	Date Extracted:	10-09-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	1,950	8.8
Toluene	9,960	8.4
Ethylbenzene	2,460	7.6
p,m-Xylene	15,990	10.8
o-Xylene	6,600	5.2
Total BTEX	36,960	

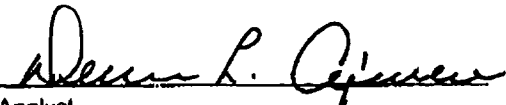
ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	100 %
	Bromofluorobenzene	100 %

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: Hampton 4M.


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Total Petroleum Hydrocarbons**

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Condition: Cool and Intact

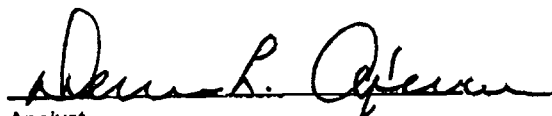
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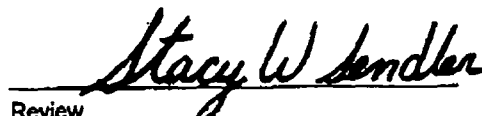
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	149	0.2
Diesel Range (C10 - C28)	44.5	0.1
Total Petroleum Hydrocarbons	194	0.2

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: Hampton 4M.


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Review