3R - <u>3</u>05

REPORTS

DATE: 2001

3R305



Environmental Services 187 County Road 4980 Bloomfield, New Mexico 87413 (505) 632-4409 (office) (505) 632-4405 (fax)

March 20, 2002

Mr. William Olson Hydrologist Oil Conservation Division 1220 S. St. Francis Dr. Santa Fe, NM 87505

RECEIVED

APR 0 4 2002

ENVIRONMENTAL BUREAU OIL CONSERVATION DIVISION

RE: 2001 GROUND WATER SUMMARY REPORT

Dear Mr. Olson:

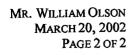
Enclosed for your review is the 2001 Ground Water Summary Report. The report presents monitoring data for eighteen sites having petroleum hydrocarbon impacted ground water, which resulted from the past use of unlined surface impoundments. The sites included in the report are listed in Table 1.

In 2001, three sites met the required remediation standards and were closed with OCD approval. The sites, listed in Table 2, achieved clean closure through a combination of contaminant source removal actions and monitored natural attenuation. Ground water cleanup objectives at each site were met in roughly three years, or less.

Of the eighteen active sites, five have accumulations of LNAPL in one or more monitoring well. In December 2001, the LNAPL accumulations were removed from these wells to evaluate LNAPL recovery rates and to augment the natural attenuation process. In 2002, passive LNAPL collection devices will be deployed or manual LNAPL removal events will be scheduled at some of the sites.

The remaining thirteen active sites either contain concentrations of dissolved BTEX in excess of cleanup standards or have met cleanup standards but have not yet demonstrated four consecutive clean quarters. Pursuant to discussions on the subject with OCD, Williams intends to implement various methods to accelerate the attenuation at select sites. These augmentation methods will be incorporated into an addendum to the Ground Water Management plan.





Thank you for your time to review this submittal. If you have any questions regarding the report, you may call me at (505) 632-4409 or Jim Struhs at (505) 632-4457.

Respectfully,

Mark B. Harvey Project Coordinator Mark.Harvey@Williams.com

James P. Struhs Project Hydrogeologist Jim.Struhs@Williams.com

Attachment Enclosure

c: Denny Foust, OCD Aztec District Office Bill Liess, BLM Farmington District Office Table 1. List of Active Sites for 2001 Report

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Count Site Name Letter Section Township Range Longitude 1 Blanco Wash Drip J 31 27N 8W -107 72157 2 Chamberlain 1 F 14 32N 12W -108.06885 3 Davis 1 F 14 32N 12W -108.06885 4 Dogie East Pit D 4 25N 6W -107.47915 5 Dogie North Pit D 4 25N 6W -107.47915 6 Florance 124 C 27 29N 9W -107.6698 7 Florance 124 C 27 29N 9W -107.79982 9 Grenner 440 G 5 30N 9W -107.79982 10 Honolulu Drip B 15 26N 4W -107.6982 11 Ice Canyon Drip J 13 21N 11W -107.23846 11 Ice Canyon Drip			Unit						OCD Initial
Blanco Wash Drip J 31 27N 8W Chamberlain 1 F 14 32N 12W Davis 1 E 11 31N 12W Davis 1 E 11 31N 12W Dogie East Pit D 4 25N 6W Dogie North Pit D 4 25N 6W Florance 124 C 27 29N 9W Florance 124 C 27 29N 9W Florance 124 C 27 29N 9W Florance 40 G 21 30N 9W Florance 41 C 27 29N 9W Florance M47X G 21 30N 9W Florance M47X G 5 30N 9W Honolulu Drip B 15 26N 4W Honolulu Drip B 15 26N 7W Jicarilla Contract 147-6 C 6 25N <th>Count</th> <th></th> <th>Letter</th> <th>Section</th> <th>Township</th> <th>Range</th> <th>Longitude</th> <th>Latitude</th> <th>Notification</th>	Count		Letter	Section	Township	Range	Longitude	Latitude	Notification
Chamberlain 1 F 14 32N 12W Davis 1 E 11 31N 12W Dogie East Pit D 4 25N 6W Dogie North Pit D 4 25N 6W Pogie North Pit D 4 25N 6W Pogie North Pit D 4 25N 6W Florance 124 C 27 29N 9W Florance 124 C 27 29N 9W Florance 40 G 21 30N 8W Florance 41 G 51 11W 11W Honolulu Drip B 15 26N 4W Honolulu Drip B 15 26N 7W Jicarilla Contract 147-6 C 6 25N 7W Jicarilla Contract 147-6 C 6 25N 7W Jicarilla Contract 147-6 C 6 231N 13W O' Shea 1M F		Blanco Wash Drip	2	31	27N	8W	-107.721574	36.530995	19-Feb-99
Davis 1 E 11 31N 12W Dogie East Pit D 4 25N 6W Dogie North Pit D 4 25N 6W Plorance 124 C 27 29N 9W Florance 124 C 27 29N 9W Honolulu Drip G 21 30N 9W Honolulu Drip B 15 26N 7W Jicarilla Contract 147-6 C 6 25N 7W Jicarilla Contract 147-6 C 6 25N 7W Jicarilla Contract 147-6 C 6 25N 7W O'Shea 1M F 33 31N 13W O'Shea 1M F 3	2	Chamberlain 1	Ŀ	14	32N	12W	-108.068853	36.990549	30-Sep-99
Dogie East Pit D 4 25N 6W Dogie North Pit D 4 25N 6W Florance 124 C 27 29N 9W Florance 124 C 27 29N 9W Florance 124 C 27 29N 9W Florance 40 G 21 30N 8W Florance MATX G 5 30N 9W Florance MATX G 7 31N 11W Grenier 4A M 7 31N 11W Honolulu Drip B 15 26N 4W Ice Canyon Drip J 13 26N 7W Jicarilla Contract 147-6 C 6 25N 5W Monolulu Drip J 13 26N 7W Jicarilla Contract 147-6 C 6 25N 7W Kaufman 1 H 33 31N 13W O' Shea 1M F 3	ო	Davis 1	ш	11	31N	12W	-108.068919	36.916257	2-Mar-99
Dogie North Pit D 4 25N 6W Florance 124 C 27 29N 9W Florance 40 G 21 30N 9W Florance M47X G 5 30N 9W Florance M47X G 5 31N 11W Honolulu Drip B 15 26N 4W Honolulu Drip B 15 26N 7W Jicarilla Contract 147-6 C 6 25N 7W Jicarilla Contract 147-6 C 6 21N 13W Jicarilla Contract 147-6 C 6 25N 7W O'Shea 1M F 33 31N 13W O'Shea 1M F 3 31N 13W O'Shea 1M C 1	4	Dogie East Pit	٥	4	25N	9W	-107.478874	36.434196	7-Jul-97
Florance 124 C 27 29N 9W Florance 40 G 21 30N 8W Florance 40 G 2 30N 8W Florance 40 G 5 30N 9W Florance 40 G 5 30N 9W Grenier 4A M 7 31N 11W Honolulu Drip B 15 26N 4W Jicarilla Contract 147-6 C 6 25N 5W Jicarilla Contract 147-6 C 6 25N 7W Vicarilla Contract 147-6 C 6 25N 7W O' Shea 1M F 3 31N 13W O' Shea 1M F 3 31N 13W Patterson A Com A1 G 2 31N 13W Patterson A Com A1 G 30N 8W 3N Wilmerding 1M C 10 31N 13W	2	Dogie North Pit	D	4	25N	6W	-107.479158 36.435784	36.435784	7-Jul-97
Florance 40 G 21 30N 8W Florance M47X G 5 30N 9W Florance M47X G 5 30N 9W Grenier 4A M 7 31N 11W Honolulu Drip B 15 26N 4W Honolulu Drip J 13 26N 7W Jicarilla Contract 147-6 C 6 25N 5W Kaufman 1 H 33 31N 13W O' Shea 1M F 3 31N 13W Patterson A Com A1 G 2 31N 13W Pritchard 2 J G 31N 13W Wilmerding 1M C 10 31N 13W	ဖ	Florance 124	c	27	29N	M6	-107.76698	36.70209	12-Aug-96
Florance M 47X G 5 30N 9W Grenier 4A M 7 31N 11W Grenier 4A M 7 31N 11W Honolulu Drip B 15 26N 4W Lee Canyon Drip J 13 26N 7W Jicarilla Contract 147-6 C 6 25N 5W Kaufman 1 H 33 31N 13W O' Shea 1M F 3 31N 13W O' Shea 1M F 3 31N 13W Patterson A Com A1 G 2 31N 13W Patterson A Com A1 G 2 31N 13W Vilmerding 1M C 10 31N 13W	~	Florance 40	ი	21	30N	8W	-107.67775	36.800088	27-Jan-97
Grenier 4A M 7 31N 11W Honolulu Drip B 15 26N 4W Honolulu Drip J 13 26N 4W Ice Canyon Drip J 13 26N 7W Jicarilla Contract 147-6 C 6 25N 5W Kaufman 1 H 33 31N 13W O' Shea 1M F 3 31N 13W Patterson A Com A1 G 2 31N 12W Patterson A Com A1 G 2 31N 12W Wilmerding 1M C 10 31N 13W	8	Florance M 47X	თ	2	30N	M6	-107.799823	36.843166	27-Jan-97
Honolulu Drip B 15 26N 4W Ice Canyon Drip J 13 26N 7W Jicarilla Contract 147-6 C 6 25N 5W Kaufman 1 H 33 31N 13W O' Shea 1M F 3 31N 13W O' Shea 1M F 3 31N 13W Patterson A Com A1 G 2 31N 12W Pritchard 2 J 6 30N 8W Wilmerding 1M C 10 31N 13W	ი	Grenier 4A	Μ	7	31N	11W	-108.036001 36.910167	36.910167	18-Oct-99
Ice Canyon Drip J 13 26N 7W Jicarilla Contract 147-6 C 6 25N 5W Kaufman 1 H 33 31N 13W Kaufman 1 H 33 31N 13W O' Shea 1M F 3 31N 13W Patterson A Com A1 G 2 31N 12W Pritchard 2 J 6 30N 8W Wilmerding 1M C 10 31N 13W	6	Honolulu Drip	В	15	26N	4W	-107.238469 36.492341	36.492341	18-Jun-96
Jicarilla Contract 147-6 C 6 25N 5W Kaufman 1 H 33 31N 13W Kaufman 1 H 33 31N 13W O' Shea 1M F 3 31N 13W Patterson A Com A1 G 2 31N 12W Patterson A Com A1 G 2 31N 12W Wilmerding 1M C 10 31N 13W Zachry 18E O 11 28N 10W	;	Ice Canyon Drip	ſ	13	26N	ML.	-107.52226	36.484972	1-Dec-97
Kaufman 1 H 33 31N 13W O' Shea 1M F 3 31N 13W O' Shea 1M F 3 31N 13W Patterson A Com A1 G 2 31N 12W Pritchard 2 J 6 30N 8W Wilmerding 1M C 10 31N 13W	12	Jicarilla Contract 147-6	ပ	6	25N	5W	-107.402363		13-Aug-98
O' Shea 1M F 3 31N 13W Patterson A Com A1 G 2 31N 12W Pritchard 2 J 6 30N 8W Wilmerding 1M C 10 31N 13W Zachry 18E O 11 28N 10W	13	Kaufman 1	н	33	31N	13W	-108.202128 36.860121	36.860121	9-Mar-00
Patterson A Com A1 G 2 31N 12W Pritchard 2 J 6 30N 8W Wilmerding 1M C 10 31N 13W Zachry 18E O 11 28N 10W	14	O' Shea 1M	F	3	31N	13W	-108.193596 36.932228	36.932228	6-Jun-98
Pritchard 2 J 6 30N 8W Wilmerding 1M C 10 31N 13W Zachry 18E O 11 28N 10W	15	Patterson A Com A1	ი	2	31N	12W	-108.061165	36.930755	2-Mar-99
Wilmerding 1M C 10 31N 13W Zachry 18E O 11 28N 10W	16	Pritchard 2	٦	9	30N	8W	-107.712068	36.837817	22-Feb-99
Zachry 18E 0 11 28N 10W	17	Wilmerding 1M	c	10	31N	13W	-108.193158	36.91846	5-Jun-98
	18	Zachry 18E	0	11	28N		-107.860007 36.670885	36.670885	6-Sep-96

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	Table

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		Unit						OCD Initial	
Count	Site Name	Letter	Section	Township	Range	ection Township Range Longitude	Latitude	Notification	Status
-	Albright #4 Drip	LL.	22	29N	10W	10W -107.868451 36.715299	36.715299	9-Jul-99	Approved; Wells Abandoned
2	Miles Federal 1E Drip	z	2	26N	MZ.	-107.602489	36.510939	23-Jun-97	-107.602489 36.510939 23-Jun-97 Approved; Wells Abandoned
с	Randleman 1	×	13	31N	11W	-107.945067	36.896329	9-May-97	11W -107.945067 36.896329 9-May-97 Pending OCD Approval

Site Summary Report

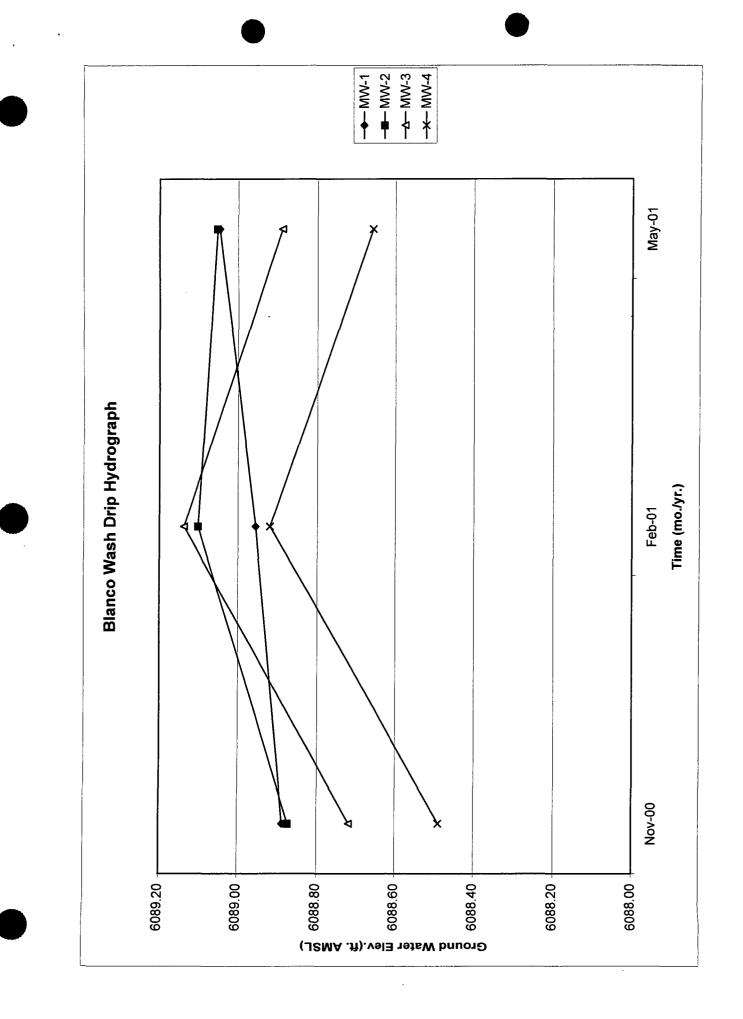
Site Name: Blanco Wash Drip

Reporting Period: 2001

Location: Unit J, Sec 31, Twn 27N, Rng 8W Canyon: Blanco Operator: Williams Vulnerable Class: expanded OCD Ranking: 40 Lead Agency: NMOCD, NNEPA, EPA

Status Narrative

This site has met NMOCD and USEPA ground water cleanup standards for three consecutive quarters. A final round of sampling has been scheduled with NNEPA for March 25, 2002. Assuming results from this sampling event remain consistent with previous results, this site will be closed in early 2002.





Site Name:

Blanco Wash Drip

Reporting Period:

7/1/00 To 12/31/01

Well ID	Sample Date	Sample ID	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylene (Total) ug/i
MW-1		e in the second				
C	5/1/01	103201MAY01	<1	<1	<1	<1
MW-2						
Lenikiki Thirt, " ." 5 milit (Poster)	11/22/00	095222NOV00	<1	<1	<1	<1
•	2/22/01	165022FEB01	<1	<1	<1	<1
	5/1/01	104001MAY01	<1	<1	<1	<1
MW-3			Chant Gardyn of Sour			a an an ann an 1977.
1	5/1/01	105101MAY01	<1	<1	<1	<1
MW-4						
 Interference interference inter	5/1/01	110401MAY01	<1	<1	<1	2.42

QWAL LABORATORIES, INC.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

Sample Matrix: WATER

LABOR	ATORY REPORT:	REFERENCE #:	0011656	
SENT	WILLIAMS GAS PIPELINE	DATE REPORTED:	12/01/00	<u> </u>
TO:	187 COUNTY ROAD # 4980	DATE COLLECTED:	11/22/00	
	BLOOMFIELD, NM 87413	DATE RECEIVED:	11/28/00	
	JIM STRUHS	P.O. #:	JPS-112700-01	
PROJE	CT:WES/BLANCO WASH DRIP			

Sample ID: BLNC-SAMW2 Collection Date: 11/22/00 09:52:00

TEST METHOD-CAS # RESULT UNITS PQL ANALYZED EXTRACTED BTEX OA1/8021B 3.0 BENZENE 71-43-2 ND UG/L 1.0 11/30/00MB TOLUENE 108-88-3 ND UG/L 1.0 11/30/00MB ETHYLBENZENE 100-41-4 ND UG/L 1.0 11/30/00MB TOTAL XYLENES 1330-20-7 ND UG/L 1.0 11/30/00MB BFB (SURROGATE) 92 125 75 -

NDENONE DETECTED

PRACTICAL QUANTITATION LIMIT SUESTANDARD UNITS *BACKGROUND CONTAMINATION SUR=SURROGATE Q=OUTSIDE LIMITS B=DETECTED IN METHOD BLANK

APPROVED BY :-

TERRY KOESTER

ABORATORY DIRECTOR



2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABOR	ATORY REPORT:	REFERENCE	#: 0102613	
SENT	WILLIAMS GAS PIPELINE	DATE REPORT	ED: 02/27/01	
TO:	187 COUNTY ROAD # 4980	DATE COLLEC	TED: 02/22/01	
	BLOOMFIELD, NM 87413	DATE RECEIV	ED: 02/24/01	
	JIM STRUHS	P.O.	#: SWA-022301-02	
PROJE	CT:WES/BLANCO WASH DRIP			

Sample ID: BLNC-SA-MW2 Collection Date: 02/22/01 16:50:00

TEST METHOD-CAS # RESULT UNITS PQL ANALYZED EXTRACTED BTEX OA1/8021B 3.0 BENZENE 71-43-2 ND UG/L 1.0 02/26/01KKL 108-88-3 ND UG/L 1.0 02/26/01KKL TOLUENE ETHYLBENZENE 100-41-4 ND UG/L 1.0 02/26/01KKL TOTAL XYLENES 1330-20-7 ND UG/L 1.0 02/26/01KKL BFB (SURROGATE) 101 125 75

NENONE DETECTED

PRACTICAL QUANTITATION LIMIT SU=STANDARD UNITS *BACKGROUND CONTAMINATION SUR=SURROGATE Q=OUTSIDE LIMITS B=DETECTED IN METHOD BLANK

APPROVED BY :- TERRY KOESTER

Sample Matrix: WATER

TERRY KOESTER LABORATORY DIRECTOR

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0105064

DATE COLLECTED: 05/01/01 DATE RECEIVED: 05/02/01

05/09/01

DATE REPORTED:

IAMS GA	S PIF	ELINE
COUNTY	ROAD	#4980
MFIELD,	NM	87413
STRUHS		
	COUNTY MFIELD,	IAMS GAS PIF COUNTY ROAD MFIELD, NM STRUHS

PROJECT: WES/BLANCO WASH DRIP

Reference Fraction:0105064-04A Sample ID: BLNC-UG-MW1 Sample Date Collected: 05/01/0110:32:00

Sample Matrix: WATER

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.0		
BENZENE		ND	UG/L	1.0	05/07/01	MB
TOLUENE		ND	UG/L	1.0	05/07/01	MB
ETHYLBENZENE		ND	UG/L	1.0	05/07/01	MB
TOTAL XYLENES		ND	UG/L	1.0	05/07/01	MB
BFB (SURROGATE)		117	125	75		

ND=NONE DETECTED = PRACTICAL QUANTITAION LIMIT SU=STANDARD UNITS B=DETECTED IN METHOD BLANK

APPROVED BY: ERRÝ KOESTER LABORATORY DIRECTOR

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0105064

DATE COLLECTED: 05/01/01 DATE RECEIVED: 05/02/01

05/09/01

DATE REPORTED:

SENT	WILLIAMS GAS PIPELINE
TO:	187 COUNTY ROAD #4980
	BLOOMFIELD, NM 87413
	JIM STRUHS
	OT WEG DIANCO WACH DOTE

PROJECT: WES/BLANCO WASH DRIP

Reference Fraction:0105064-03A Sample ID: BLNC-SA-MW2 Sample Date Collected: 05/01/0110:40:00

Sample Matrix: WATER

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.	0	
BENZENE		ND	UG/L	1.	05/07/01	MB
TOLUENE		ND	UG/L	1.	05/07/01	MB
ETHYLBENZENE		ND	UG/L	1.	05/07/01	MB
TOTAL XYLENES		ND	UG/L	1.	05/07/01	MB
BFB (SURROGATE)		113	125	7	• •	

ND=NONE DETECTED

= PRACTICAL QUANTITAION LIMIT

B=DETECTED IN METHOD BLANK

APPROVED BY: PERRY KOESTER LABORATORY DIRECTOR 44

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0105064

DATE COLLECTED: 05/01/01 DATE RECEIVED: 05/02/01

05/09/01

DATE REPORTED:

SENT	WILLIAMS GAS PIPELINE
TO:	187 COUNTY ROAD #4980
	BLOOMFIELD, NM 87413
	JIM STRUHS
PROJE	CT: WES/BLANCO WASH DRIP

Reference Fraction:0105064-02A Sample ID: BLNC-DG-MW3 Sample Date Collected: 05/01/0110:51:00

Sample Matrix: WATER

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B		····	3.	0	
BENZENE	·	ND	UG/L	1.	0 05/07/01	MB
TOLUENE		ND	UG/L	1.	0 05/07/01	MB
ETHYLBENZENE		ND	UG/L	1.	0 05/07/01	MB
TOTAL XYLENES		ND	UG/L	1.	0 05/07/01	MB
BFB (SURROGATE)		120	125	7	• •	

ND=NONE DETECTED = PRACTICAL QUANTITAION LIMIT SU=STANDARD UNITS B=DETECTED IN METHOD BLANK

APPROVED BY: TERRY' KOESTER LABORATORY DIRECTOR

íU).

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 0105064

DATE COLLECTED: 05/01/01 DATE RECEIVED: 05/02/01

05/09/01

DATE REPORTED:

SENT	WII	LIAMS	GAS	PIF	PELI	.NE	
TO:	187	COUN	TY R	OAD	#49	80	
	BLC	OMFIE	LD, i	NM	874	13	
	JIN	I STRU	HS				
	<u>~</u>	MDO (D)		∧ 1.1 3	OTT	DD T	

PROJECT: WES/BLANCO WASH DRIP

Reference Fraction:0105064-01A Sample ID: BLNC-CG-MW4 Sample Date Collected: 05/01/0111:04:00

Sample Matrix: WATER

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
BTEX	OA1/8021B			3.0		
BENZENE	·	ND	UG/L	1.0	05/08/01	MB
TOLUENE		ND	UG/L	1.0	05/08/01	MB
ETHYLBENZENE		ND	UG/L	1.0	05/08/01	MB
TOTAL XYLENES		2.42	UG/L	1.0	05/08/01	
BFB (SURROGATE)		102	125	75		

ND=NONE DETECTED = PRACTICAL QUANTITAION LIMIT S0=STANDARD UNITS B=DETECTED IN METHOD BLANK

APPROVED BY: TERRY KOESTER LABORATORY DIRECTOR h