

District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company YATES PETROLEUM CORPORATION	OGRID Number 25575	Contact SHERRY BONHAM
Address 105 S 4 TH STREET		Telephone No. 505.748.1471
Facility Name RUBY ASV STATE #1	API Number 30 025 34498	Facility Type WELL

Surface Owner STATE	Mineral Owner STATE	Lease No. V-4415
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LOCATION OF RELEASE

Unit Letter H	Section 15	Township 16S	Range 32E	Feet from the 1650	North/South Line NORTH	Feet from the 700	East/West Line EAST	County LEA
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Latitude 32.92423 Longitude 103.74758

NATURE OF RELEASE

Type of Release CRUDE OIL	Volume of Release 20 B/O	Volume Recovered 15 B/O
Source of Release HEATER TREATER	Date and Hour of Occurrence 7/06/07 PM	Date and Hour of Discovery 7/6/07 PM
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour N/A	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	



If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
HOLE IN BOTTOM OF HEATER TREATER. HEATER TREATER REMOVED.

Describe Area Affected and Cleanup Action Taken.*
APPROXIMATE 30' X 100' X 2" AREA ON THE PAD WAS IMPACTED. VACUUMED ALL STANDING FLUID. EXCAVATED CONTAMINATED SOILS AND HAULED TO GANDY MARLEY DISPOSAL FACILITY. 8/7/07: PRELIMINARY SAMPLES OBTAINED AREA NEAR HEATER TREATER HAD TPH LEVELS ABOVE RRALS. (8/7/07 SAMPLE POINT DIAGRAM AND ANALYTICAL REPORT ATTACHED.) HEATER TREATER REMOVED AND FERTILIZER WAS RAKED INTO SOILS. 10/17/07: SOIL SAMPLES OBTAINED. SOIL SAMPLE ANALYSES BELOW RRALS. (10/17/07 SAMPLE POINT DIAGRAM AND ANALYTICAL REPORT ATTACHED) SOIL ANALYSES REPORTS DEMONSTRATE COMPLIANCE WITH RRALS REQUESTING CLOSURE TO INCIDENT. FINAL REPORT.

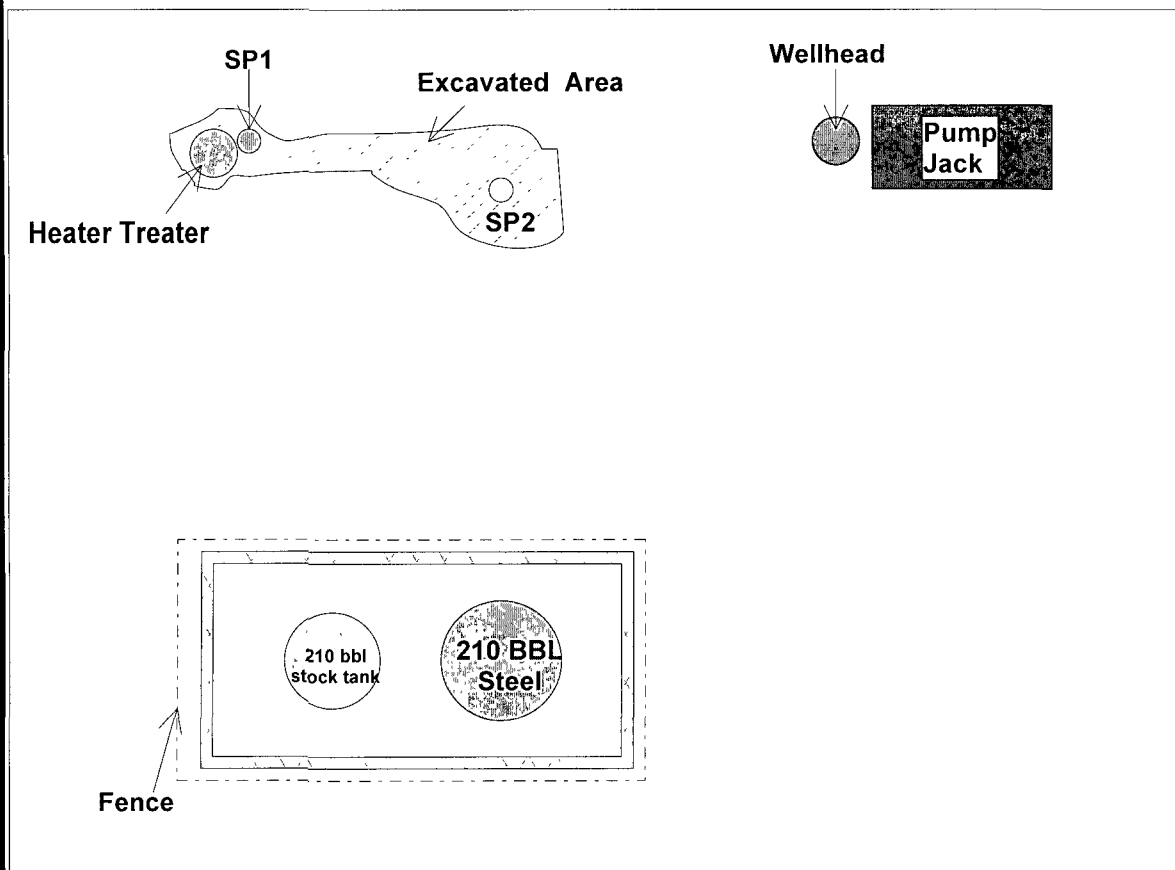
Depth to Ground Water: ≥100'; Wellhead protection? NO; Distance to surface water: ≥1000'. SITE RANKING: 0.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		OIL CONSERVATION DIVISION	
Printed Name: Sherry Bonham		Approved by District Supervisor: 	
Title: Environmental Regulatory Agent		Approval Date: <u>10/31/07</u>	Expiration Date:
E-mail Address: sherryb@ypcnm.com		Conditions of Approval:	
Date: October 23, 2007 Phone: 505.748.1471		Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

RP#1651



Sample ID	Sample Date	Sample Type	Depth	BTEX	TPH (GRO)	TPH (DRO)	TPH (TOTAL)
SP1	8/7/2007	Grab	8"	0.0334	241	5900	6141
SP2	8/7/2007	Grab	8"	Non-Detect	30.5	3510	3540.5

Site Ranking is Zero (0). Depth to Ground Water > 100'

Analytical testing performed at Environmental Lab of Texas All results are ppm



RUBY ASV STATE 1

Sec. 15 T16S R32E

Lea County, NM

SAMPLE POINT DIAGRAM

Prepared by Sherry Bonham

Sample Date: August 7, 2007

(Not to Scale)

Analytical Report 287585

for

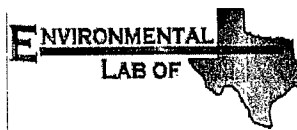
Yates Petroleum Corporation

Project Manager: Sherry Bonham

Ruby ASV State 1

3002534498

21-AUG-07



12600 West I-20 East Odessa, Texas 79765

A Xenco Laboratories Company

NELAC certification numbers:

Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America



21-AUG-07

Project Manager: **Sherry Bonham**
Yates Petroleum Corporation
105 South Fourth St.
Artesia, NM 88210

Reference: XENCO Report No: **287585**
Ruby ASV State 1
Project Address: 15-16S32E

Sherry Bonham:

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 287585. 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. 287585 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

Odessa Laboratory Director

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Certificate of Analysis Summary 287585

Yates Petroleum Corporation, Artesia, NM

Project Name: Ruby ASV State 1



Project Id: 3002534498

Contact: Sherry Bonham

Project Location: 15-16S32E

Date Received in Lab: Thu Aug-09-07 11:30 am


Report Date: 21-AUG-07

Project Manager: Brent Barron, II

Analysis Requested	Lab Id:	287585-001	287585-002				
	Field Id:	SP1	SP2				
	Depth:						
	Matrix:	SOIL	SOIL				
	Sampled:	Aug-07-07 12:45	Aug-07-07 13:00				
BTEX by EPA 8021B	Extracted:	Aug-16-07 12:11	Aug-16-07 12:11				
	Analyzed:	Aug-16-07 23:14	Aug-16-07 23:35				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		ND 0.0023	ND 0.0022				
Toluene		ND 0.0023	ND 0.0022				
Ethylbenzene		0.0040 0.0023	ND 0.0022				
m,p-Xylene		0.0214 0.0045	ND 0.0044				
o-Xylene		0.0080 0.0023	ND 0.0022				
Total Xylenes		0.0294	ND				
Total BTEX		0.0334	ND				
Percent Moisture	Extracted:						
	Analyzed:	Aug-13-07 11:15	Aug-13-07 11:20				
	Units/RL:	% RL	% RL				
Percent Moisture		11.8	9.83				
TPH by SW 8015B	Extracted:	Aug-13-07 09:33	Aug-13-07 09:33				
	Analyzed:	Aug-14-07 12:45	Aug-14-07 14:01				
	Units/RL:	mg/kg RL	mg/kg RL				
C6-C10 Gasoline Range Hydrocarbons		241 11.3	30.5 11.1				
C10-C28 Diesel Range Hydrocarbons		5900 11.3	3510 11.1				
Total TPH		6141	3540.5				

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.

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America


Brent Barron
Odessa Laboratory Director



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.

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(210) 509-3334	(201) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555



Form 2 - Surrogate Recoveries



Project Name: Ruby ASV State 1

Work Order #: 287585

Project ID: 3002534498

Lab Batch #: 702725

Sample: 287585-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
4-Bromofluorobenzene	0.1182	0.1000	118	80-120	

Lab Batch #: 702725

Sample: 287585-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
4-Bromofluorobenzene	0.0989	0.1000	99	80-120	

Lab Batch #: 702725

Sample: 287585-004 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
4-Bromofluorobenzene	0.1140	0.1000	114	80-120	

Lab Batch #: 702725

Sample: 287585-004 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
4-Bromofluorobenzene	0.1175	0.1000	118	80-120	

Lab Batch #: 702725

Sample: 498325-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
4-Bromofluorobenzene	0.0801	0.1000	80	80-120	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 \times A / B$

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



Form 2 - Surrogate Recoveries



Project Name: Ruby ASV State 1

Work Order #: 287585

Project ID: 3002534498

Lab Batch #: 702725

Sample: 498325-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
4-Bromofluorobenzene	0.0736	0.1000	74	80-120	*

Lab Batch #: 702247

Sample: 287445-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW 8015B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	62.1	50.0	124	70-135	
1-Chlorooctane	66.9	50.0	134	70-135	

Lab Batch #: 702247

Sample: 287445-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW 8015B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	53.5	50.0	107	70-135	
1-Chlorooctane	60.7	50.0	121	70-135	

Lab Batch #: 702247

Sample: 287585-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW 8015B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	50.3	50.0	101	70-135	
1-Chlorooctane	56.6	50.0	113	70-135	

Lab Batch #: 702247

Sample: 287585-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH by SW 8015B	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctadecane	50.9	50.0	102	70-135	
1-Chlorooctane	51.1	50.0	102	70-135	

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

*** Poor recoveries due to dilution

Surrogate Recovery [D] = $100 \times A / B$

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



Form 2 - Surrogate Recoveries

Project Name: Ruby ASV State 1



Work Order #: 287585

Project ID: 3002534498

Lab Batch #: 702247

Sample: 498161-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY

TPH by SW 8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	51.1	50.0	102	70-135	
1-Chlorooctane	54.8	50.0	110	70-135	

Lab Batch #: 702247

Sample: 498161-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY

TPH by SW 8015B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctadecane	46.1	50.0	92	70-135	
1-Chlorooctane	45.9	50.0	92	70-135	

** 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.



Blank Spike Recovery



Project Name: Ruby ASV State 1

Work Order #: 287585

Project ID:

3002534498

Lab Batch #: 702725

Sample: 498325-1-BKS

Matrix: Solid

Date Analyzed: 08/16/2007

Date Prepared: 08/16/2007

Analyst: SHE

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY 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	0.0500	0.0468	94	70-130	
Toluene	ND	0.0500	0.0486	97	70-130	
Ethylbenzene	ND	0.0500	0.0518	104	71-129	
m,p-Xylene	ND	0.1000	0.0909	91	70-135	
o-Xylene	ND	0.0500	0.0499	100	71-133	

Lab Batch #: 702247

Sample: 498161-1-BKS

Matrix: Solid

Date Analyzed: 08/14/2007

Date Prepared: 08/13/2007

Analyst: CELKEE

Reporting Units: mg/kg

Batch #: 1

BLANK /BLANK SPIKE RECOVERY STUDY

TPH by SW 8015B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
C6-C10 Gasoline Range Hydrocarbons	ND	500	624	125	70-135	
C10-C28 Diesel Range Hydrocarbons	ND	500	600	120	70-135	

Blank Spike Recovery [D] = $100 * [C] / [B]$

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



Form 3 - MS / MSD Recoveries



Project Name: Ruby ASV State 1

Work Order #: 287585

Project ID: 3002534498

Lab Batch ID: 702725

QC- Sample ID: 287856-004 S

Batch #: 1 Matrix: Soil

Date Analyzed: 08/17/2007

Date Prepared: 08/16/2007

Analyst: SHE

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY 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	0.1369	0.1228	90	0.1369	0.1197	87	3	70-130	35	
Toluene	ND	0.1369	0.1207	88	0.1369	0.1172	86	2	70-130	35	
Ethylbenzene	ND	0.1369	0.1159	85	0.1369	0.1147	84	1	71-129	35	
m,p-Xylene	ND	0.2737	0.2055	75	0.2737	0.2057	75	0	70-135	35	
o-Xylene	ND	0.1369	0.1111	81	0.1369	0.1104	81	0	71-133	35	

Lab Batch ID: 702247

QC- Sample ID: 287445-001 S

Batch #: 1 Matrix: Soil

Date Analyzed: 08/14/2007

Date Prepared: 08/13/2007

Analyst: CELKEE

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW 8015B 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-C10 Gasoline Range Hydrocarbons	14.2	560	852	150	560	836	147	2	70-135	35	X
C10-C28 Diesel Range Hydrocarbons	1460	560	1400	0	560	1200	0	NC	70-135	35	X

Matrix Spike Percent Recovery $[D] = 100 \cdot (C-A)/B$
Relative Percent Difference $RPD = 200 \cdot (D-G)/(D+G)$

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

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



Sample Duplicate Recovery



Project Name: Ruby ASV State 1

Work Order #: 287585

Lab Batch #: 702239

Project ID: 3002534498

Date Analyzed: 08/13/2007

Date Prepared: 08/13/2007

Analyst: JLG

QC- Sample ID: 287585-001 D

Batch #: 1

Matrix: Soil

Reporting Units: %

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	11.8	12.6	7	20	

Spike Relative Difference $RPD = 200 * |(B-A)/(B+A)|$

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

Environmental Lab of Texas

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

12600 West I-20 East
Odessa, Texas 79765Phone: 432-563-1800
Fax: 432-563-1713Project Manager: Sherry BonhamProject Name: Ruby ASV State 1Company Name: Yates Petroleum CorporationProject #: 3002534498Company Address: 105 S 4th StreetProject Loc: 15-16S 32ECity/State/Zip: Artesia, NM 88210PO #: 1032420Telephone No: 505 748 4162 or 505 513 1529Fax No: 505 748 4650Report Format: ☒ Standard ☐ TRRP ☐ N'Sampler Signature: [Signature]e-mail: sherryb@ypcnm.com

(lab use only)

ORDER #: 287585

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers										Matrix										TCL P-TOTAL	Analyze For	RUSH TAT (Pre-shipped) 24, 48, 72 hrs	Standard TAT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
								Ice	HNO ₃	HCl	H ₂ SO ₄	HNO ₃	H ₂ SO ₄	None	Other (Specify)	Dry (Freezing Water - 5, -10, -15, -20, -25, -30, -35, -40, -45, -50, -55, -60, -65, -70, -75, -80, -85, -90, -95, -100)	SW - Groundwater	SW - Surface Water	SW - Other	TPH	418.1	8018A	TX 1005	TX 1008	TX 1009	TX 1010	TX 1011					TX 1012	TX 1013	TX 1014	TX 1015	TX 1016	TX 1017	TX 1018	TX 1019	TX 1020	TX 1021	TX 1022	TX 1023	TX 1024	TX 1025	TX 1026	TX 1027	TX 1028	TX 1029	TX 1030	TX 1031	TX 1032	TX 1033	TX 1034	TX 1035	TX 1036	TX 1037	TX 1038	TX 1039	TX 1040	TX 1041	TX 1042	TX 1043	TX 1044	TX 1045	TX 1046	TX 1047	TX 1048	TX 1049	TX 1050	TX 1051	TX 1052	TX 1053	TX 1054	TX 1055	TX 1056	TX 1057	TX 1058	TX 1059	TX 1060	TX 1061	TX 1062	TX 1063	TX 1064	TX 1065	TX 1066	TX 1067	TX 1068	TX 1069	TX 1070	TX 1071	TX 1072	TX 1073	TX 1074	TX 1075	TX 1076	TX 1077	TX 1078	TX 1079	TX 1080	TX 1081	TX 1082	TX 1083	TX 1084	TX 1085	TX 1086	TX 1087	TX 1088	TX 1089	TX 1090	TX 1091	TX 1092	TX 1093	TX 1094	TX 1095	TX 1096	TX 1097	TX 1098	TX 1099	TX 1100	TX 1101	TX 1102	TX 1103	TX 1104	TX 1105	TX 1106	TX 1107	TX 1108	TX 1109	TX 1110	TX 1111	TX 1112	TX 1113	TX 1114	TX 1115	TX 1116	TX 1117	TX 1118	TX 1119	TX 1120	TX 1121	TX 1122	TX 1123	TX 1124	TX 1125	TX 1126	TX 1127	TX 1128	TX 1129	TX 1130	TX 1131	TX 1132	TX 1133	TX 1134	TX 1135	TX 1136	TX 1137	TX 1138	TX 1139	TX 1140	TX 1141	TX 1142	TX 1143	TX 1144	TX 1145	TX 1146	TX 1147	TX 1148	TX 1149	TX 1150	TX 1151	TX 1152	TX 1153	TX 1154	TX 1155	TX 1156	TX 1157	TX 1158	TX 1159	TX 1160	TX 1161	TX 1162	TX 1163	TX 1164	TX 1165	TX 1166	TX 1167	TX 1168	TX 1169	TX 1170	TX 1171	TX 1172	TX 1173	TX 1174	TX 1175	TX 1176	TX 1177	TX 1178	TX 1179	TX 1180	TX 1181	TX 1182	TX 1183	TX 1184	TX 1185	TX 1186	TX 1187	TX 1188	TX 1189	TX 1190	TX 1191	TX 1192	TX 1193	TX 1194	TX 1195	TX 1196	TX 1197	TX 1198	TX 1199	TX 1200	TX 1201	TX 1202	TX 1203	TX 1204	TX 1205	TX 1206	TX 1207	TX 1208	TX 1209	TX 1210	TX 1211	TX 1212	TX 1213	TX 1214	TX 1215	TX 1216	TX 1217	TX 1218	TX 1219	TX 1220	TX 1221	TX 1222	TX 1223	TX 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Environmental Lab of Texas
Variance/ Corrective Action Report- Sample Log-In

Client lates
Date/ Time 8-9-07 11:30
Lab ID # 287585
Initials al

Sample Receipt Checklist

			Client Initials	
#1	Temperature of container/ cooler?	<u>Yes</u>	No	<u>2.5</u> °C
#2	Shipping container in good condition?	<u>Yes</u>	No	
#3	Custody Seals intact on shipping container/ cooler?	<u>Yes</u>	No	Not Present
#4	Custody Seals intact on sample bottles/ container?	<u>Yes</u>	No	Not Present
#5	Chain of Custody present?	<u>Yes</u>	No	
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No	
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No	
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont / Lid
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No	
#11	Containers supplied by ELOT?	<u>Yes</u>	No	
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below
#13	Samples properly preserved?	<u>Yes</u>	No	See Below
#14	Sample bottles intact?	<u>Yes</u>	No	
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No	
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No	
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below
#19	Subcontract of sample(s)?	<u>Yes</u>	No	Not Applicable
#20	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable

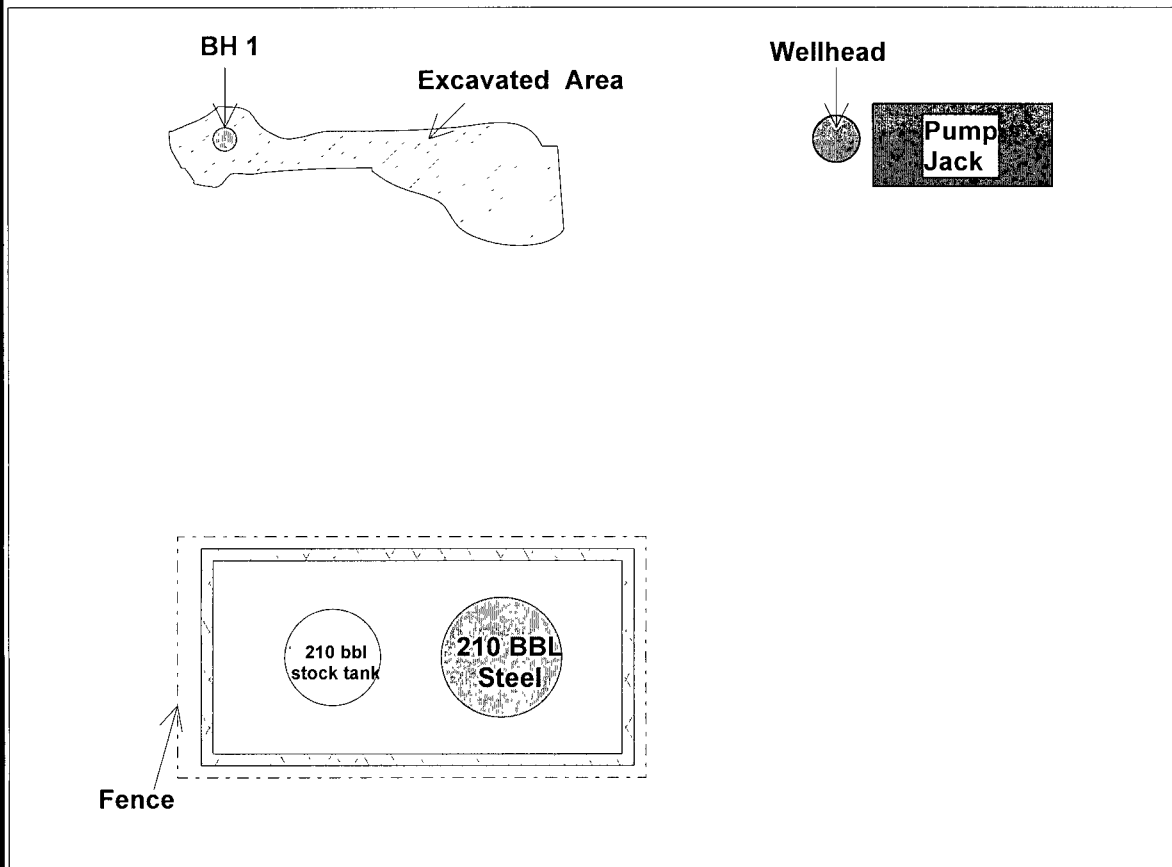
Variance Documentation

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



Sample ID	Sample Date	Sample Type	Depth	BTEX	TPH (GRO)	TPH (DRO)	TPH (TOTAL)
BH1	10/17/2007	Grab	8"	<0.02	2.4	2380	2382.4

Site Ranking is Zero (0). Depth to Ground Water > 100'

Analytical testing performed at Trace Analysis, Inc. All results are ppm



RUBY ASV STATE 1

Sec. 15 T16S R32E

Lea County, NM

SAMPLE POINT DIAGRAM

Prepared by Sherry Bonham

Sample Date: October 17, 2007

(Not to Scale)



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 806•378•1296 806•794•1296 FAX 806•794•1296
200 East Sunset Road, Suite E El Paso, Texas 79922 915•585•3443 915•585•3443 FAX 915•585•3443
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 432•689•6301 FAX 432•689•6301
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•281•5260 817•281•5260
E-Mail: tau@traceanalysis.com

Analytical and Quality Control Report

Sherry Bonham
Yates Petroleum Corp.
105 South 4th South
Artesia, NM, 88210

Report Date: October 24, 2007

Work Order: 7101817



Project Location: Lea County, NM
Project Name: Ruby AVS ST. COM. #1
Project Number: YATESPO50SPL

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
139522	BH-1	soil	2007-10-17	09:40	2007-10-18

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 8 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Ruby AVS ST. COM. #1 were received by TraceAnalysis, Inc. on 2007-10-18 and assigned to work order 7101817. Samples for work order 7101817 were received intact at a temperature of 3.2 deg C.

Samples were analyzed for the following tests using their respective methods.

Test	Method
BTEX	S 8021B
TPH DRO	Mod. 8015B
TPH GRO	S 8015B

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 7101817 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 139522 - BH-1

Analysis: BTEX	Analytical Method: S 8021B	Prep Method: S 5035
QC Batch: 42242	Date Analyzed: 2007-10-19	Analyzed By: DC
Prep Batch: 36425	Sample Preparation: 2007-10-18	Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	2	0.0100
Toluene		<0.0200	mg/Kg	2	0.0100
Ethylbenzene		<0.0200	mg/Kg	2	0.0100
Xylene		<0.0200	mg/Kg	2	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.54	mg/Kg	2	2.00	77	39.6 - 116
4-Bromofluorobenzene (4-BFB)		1.32	mg/Kg	2	2.00	66	47.3 - 144.2

Sample: 139522 - BH-1

Analysis: TPH DRO	Analytical Method: Mod. 8015B	Prep Method: N/A
QC Batch: 42207	Date Analyzed: 2007-10-19	Analyzed By: LD
Prep Batch: 36449	Sample Preparation: 2007-10-19	Prepared By: LD

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		2380	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane	¹	1340	mg/Kg	1	150	893	17.3 - 169.6

Sample: 139522 - BH-1

Analysis: TPH GRO	Analytical Method: S 8015B	Prep Method: S 5035
QC Batch: 42221	Date Analyzed: 2007-10-19	Analyzed By: DC
Prep Batch: 36425	Sample Preparation: 2007-10-18	Prepared By: DC

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		2.40	mg/Kg	2	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.40	mg/Kg	2	2.00	70	50.2 - 89.3
4-Bromofluorobenzene (4-BFB)		1.50	mg/Kg	2	2.00	75	50.8 - 131.6

¹High surrogate recovery due to peak interference.

Method Blank (1) QC Batch: 42207

QC Batch: 42207
Prep Batch: 36449

Date Analyzed: 2007-10-19
QC Preparation: 2007-10-19

Analyzed By: LD
Prepared By: LD

Parameter	Flag	MDL Result	Units	RL
DRO		19.2	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		101	mg/Kg	1	150	67	32.9 - 156.1

Method Blank (1) QC Batch: 42221

QC Batch: 42221
Prep Batch: 36425

Date Analyzed: 2007-10-19
QC Preparation: 2007-10-18

Analyzed By: DC
Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
GRO		<0.739	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.688	mg/Kg	1	1.00	69	67.8 - 103
4-Bromofluorobenzene (4-BFB)		0.559	mg/Kg	1	1.00	56	54.4 - 111.8

Method Blank (1) QC Batch: 42242

QC Batch: 42242
Prep Batch: 36425

Date Analyzed: 2007-10-19
QC Preparation: 2007-10-18

Analyzed By: DC
Prepared By: DC

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00110	mg/Kg	0.01
Toluene		<0.00150	mg/Kg	0.01
Ethylbenzene		<0.00160	mg/Kg	0.01
Xylene		<0.00410	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.706	mg/Kg	1	1.00	71	58.2 - 121.3
4-Bromofluorobenzene (4-BFB)		0.538	mg/Kg	1	1.00	54	53.1 - 111.6

Laboratory Control Spike (LCS-1)

QC Batch: 42207
Prep Batch: 36449

Date Analyzed: 2007-10-19
QC Preparation: 2007-10-19

Analyzed By: LD
Prepared By: LD

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	317	mg/Kg	1	250	55.4	105	49.1 - 142.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	264	mg/Kg	1	250	55.4	83	49.1 - 142.3	18	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Triacontane	178	115	mg/Kg	1	150	119	77	49 - 133.2

Laboratory Control Spike (LCS-1)

QC Batch: 42221
Prep Batch: 36425

Date Analyzed: 2007-10-19
QC Preparation: 2007-10-18

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	7.49	mg/Kg	1	10.0	<0.739	75	56 - 105.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	7.33	mg/Kg	1	10.0	<0.739	73	56 - 105.2	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.870	0.844	mg/Kg	1	1.00	87	84	61.1 - 148.1
4-Bromofluorobenzene (4-BFB)	0.706	0.713	mg/Kg	1	1.00	71	71	67.2 - 119.2

Laboratory Control Spike (LCS-1)

QC Batch: 42242
Prep Batch: 36425

Date Analyzed: 2007-10-19
QC Preparation: 2007-10-18

Analyzed By: DC
Prepared By: DC

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.882	mg/Kg	1	1.00	<0.00110	88	71.2 - 119
Toluene	0.894	mg/Kg	1	1.00	<0.00150	89	76.3 - 116.5
Ethylbenzene	0.884	mg/Kg	1	1.00	<0.00160	88	77.6 - 114
Xylene	2.68	mg/Kg	1	3.00	<0.00410	89	78.8 - 113.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	0.925	mg/Kg	1	1.00	<0.00110	92	71.2 - 119	5	20

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Toluene	0.930	mg/Kg	1	1.00	<0.00150	93	76.3 - 116.5	4	20
Ethylbenzene	0.928	mg/Kg	1	1.00	<0.00160	93	77.6 - 114	5	20
Xylene	2.81	mg/Kg	1	3.00	<0.00410	94	78.8 - 113.9	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.673	0.676	mg/Kg	1	1.00	67	68	56.1 - 107.8
4-Bromofluorobenzene (4-BFB)	0.636	0.631	mg/Kg	1	1.00	64	63	56.2 - 118.8

Matrix Spike (MS-1) Spiked Sample: 139522

QC Batch: 42207
Prep Batch: 36449

Date Analyzed: 2007-10-19
QC Preparation: 2007-10-19

Analyzed By: LD
Prepared By: LD

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	² 2970	mg/Kg	1	250	2380	236	30.2 - 201.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	³ 3240	mg/Kg	1	250	2380	344	30.2 - 201.4	9	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Triacontane	^{4 5} 1810	2070	mg/Kg	1	150	1207	1380	10 - 194

Matrix Spike (MS-1) Spiked Sample:

QC Batch: 42221
Prep Batch: 36425

Date Analyzed: 2007-10-19
QC Preparation: 2007-10-18

Analyzed By: DC
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	6.26	mg/Kg	1	10.0	1.7899	45	10 - 102.2

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	6.10	mg/Kg	1	10.0	1.7899	43	10 - 102.2	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

²Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

³Matrix spike recovery out of control limits due to peak interference. Use LCS/LCSD to demonstrate analysis is under control.

⁴High surrogate recovery due to peak interference.

⁵High surrogate recovery due to peak interference.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.559	0.671	mg/Kg	1	1	56	67	47.2 - 84.2
4-Bromofluorobenzene (4-BFB)	0.848	0.804	mg/Kg	1	1	85	80	58 - 162.6

Matrix Spike (MS-1) Spiked Sample: 139330

QC Batch: 42242
Prep Batch: 36425

Date Analyzed: 2007-10-19
QC Preparation: 2007-10-18

Analyzed By: DC
Prepared By: DC

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	0.908	mg/Kg	1	1.00	<0.00110	91	65.7 - 119.1
Toluene	0.942	mg/Kg	1	1.00	<0.00150	94	47.7 - 153.8
Ethylbenzene	0.986	mg/Kg	1	1.00	<0.00160	99	73.5 - 126.3
Xylene	3.01	mg/Kg	1	3.00	<0.00410	100	73.6 - 125.9

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.01	mg/Kg	1	1.00	<0.00110	101	65.7 - 119.1	11	20
Toluene	1.05	mg/Kg	1	1.00	<0.00150	105	47.7 - 153.8	11	20
Ethylbenzene	1.10	mg/Kg	1	1.00	<0.00160	110	73.5 - 126.3	11	20
Xylene	3.36	mg/Kg	1	3.00	<0.00410	112	73.6 - 125.9	11	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.678	0.680	mg/Kg	1	1	68	68	51 - 109.6
4-Bromofluorobenzene (4-BFB)	0.723	0.716	mg/Kg	1	1	72	72	60.3 - 124.3

Standard (ICV-1)

QC Batch: 42207

Date Analyzed: 2007-10-19

Analyzed By: LD

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	247	99	85 - 115	2007-10-19

Standard (CCV-1)

QC Batch: 42207

Date Analyzed: 2007-10-19

Analyzed By: LD

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	262	105	85 - 115	2007-10-19

Standard (ICV-1)

QC Batch: 42221

Date Analyzed: 2007-10-19

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.929	93	85 - 115	2007-10-19

Standard (CCV-1)

QC Batch: 42221

Date Analyzed: 2007-10-19

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.04	104	85 - 115	2007-10-19

Standard (ICV-1)

QC Batch: 42242

Date Analyzed: 2007-10-19

Analyzed By: DC

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0881	88	85 - 115	2007-10-19
Toluene		mg/Kg	0.100	0.0885	88	85 - 115	2007-10-19
Ethylbenzene		mg/Kg	0.100	0.0879	88	85 - 115	2007-10-19
Xylene		mg/Kg	0.300	0.267	89	85 - 115	2007-10-19

Standard (CCV-1)

QC Batch: 42242

Date Analyzed: 2007-10-19

Analyzed By: DC

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0897	90	85 - 115	2007-10-19
Toluene		mg/Kg	0.100	0.0920	92	85 - 115	2007-10-19
Ethylbenzene		mg/Kg	0.100	0.0919	92	85 - 115	2007-10-19
Xylene		mg/Kg	0.300	0.280	93	85 - 115	2007-10-19

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If different from above) YATES PET ROVERUM SITE-4 BOADHAM

Project Name:

RUB4 "MS" S.T. COM. #1

Sampler Signature:

[illegible]

ANALYSIS REQUEST

(Circle or Specify Method No.)

[illegible]

REMARKS:

LAB USE ONLY

REMARKS: all tests - midland

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<input type="checkbox"/>	Check If Special Reporting Limits Are Needed

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