

Adam G. Rankin agrankin@hollandhart.com

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### April 10, 2012

### VIA HAND DELIVERY

Jami Bailey, Director Oil Conservation Division New Mexico Department of Energy, Minerals and Natural Resources 1220 South Saint Francis Drive Santa Fe, New Mexico 87505

Re: Application of Coulthurst Management & Investment, LLC, for Authorization to Inject as Part of a Pressure Maintenance Project, Sandoval County, New Mexico.

Case 14835

Dear Ms. Bailey:

Enclosed in triplicate is the above-referenced application of Coulthurst Management & Investment, LLC ("Coulthurst") as well as a copy of a legal advertisement. Coulthurst requests that this matter be placed on the docket for the May 10, 2012, examiner hearing.

Very truly yours,

Adam G. Rankin

Enclosures

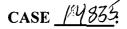
cc: Paul Thompson, Walsh Eng'g

#### Holland & Hart LLP

Phone [505] 988-4421 Fax [505] 983-6043 www.hollandhart.com

110 North Guadalupe Suite 1 Santa Fe, NM 87501 Mailing Address P.O. Box 2208 Santa Fe, NM 87504-2208

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Application of Coulthurst Management & Investment, LLC, for Authorization to Inject as Part of a Pressure Maintenance Project, Sandoval County, New Mexico. Applicant in the above-styled cause seeks authorization to inject produced water in the Menefee formation, South San Luis-Mesaverde Pool, through the Erin No. 2 well (API 30-043-20862), located 990 feet from the North line and 2310 from the West line (Unit C) of Section 33, Township 18 North, Range 3 West, N.M.P.M., Sandoval County, New Mexico. The proposed project area is approximately 520 acres in size, consisting of the W/2, N/2 NE/4, N/2 SE/4, SE/4 SE/4 of said Section. The Erin No. 2 well and proposed project area are located approximately 6 miles sou\theast of Torreon, New Mexico.

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STATE OF NEW MEXI	
*ENERGY, MINERALS	AND NATURAL
RESOURCES DEPART	MENT

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

FORM C-108 Cure 1983 Forme 10, 2003

# APPLICATION FOR AUTHORIZATION TO INJEC

	APPLICATION FOR AUTHORIZATION TO INJECT
I.	PURPOSE:       Secondary Recovery       X       Pressure Maintenance       Disposal       Storage         Application qualifies for administrative approval?       Yes       X       No
II.	OPERATOR:Coulthurst Management & Inv., LLC
	ADDRESS:5319 Broadway Terrace #303, Oakland, CA 94618
	CONTACT PARTY: _Paul Thompson, c/o Walsh Engineering, 7415 E. Main St., Farmington, NM 87402 PHONE: (505) 327-4892
III.	WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
IV.	Is this an expansion of an existing project?YesNo If yes, give the Division order number authorizing the project:
V.	Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
VI.	Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
VII.	Attach data on the proposed operation, including:
	<ul> <li>of any plugged well illustrating all plugging detail.</li> <li>Attach data on the proposed operation, including:</li> <li>Proposed average and maximum daily rate and volume of fluids to be injected;</li> <li>Whether the system is open or closed;</li> <li>Proposed average and maximum injection pressure;</li> <li>Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,</li> <li>If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).</li> </ul>
*VIII.	Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
IX.	Describe the proposed stimulation program, if any.
*X.	Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
*XI.	Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
XII.	Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
XIII.	Applicants must complete the "Proof of Notice" section on the reverse side of this form.
XIV.	Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
	NAME:Paul C. Thompson, P.ETITLE: _Agent
	SIGNATURE: Tau/C. Thompson DATE: April 3, 2012
*	E-MAIL ADDRESS:paul@walsheng.net If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:

Side 2

#### III. WELL DATA

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- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
  - (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
  - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
  - (3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
  - (1) The name of the injection formation and, if applicable, the field or pool name.
  - (2) The injection interval and whether it is perforated or open-hole.
  - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
  - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
  - (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

### XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

### NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

ide 1	ulthurst Management & Investments, Inc., 1	LC			·
		,			
	MBER:Erin #2				
VELL LOCATION: _	_990' FNL & 2310' FWL, Unit C, Section FOOTAGE LOCATION	33, T18N, R3W	CTION	TOWNSHIP	RANGE
<u>WEL</u>	LBORE SCHEMATIC		<u>WELL CO</u> Surface C	NSTRUCTION DATA asing	<u>4</u>
10 5/8" HOLE		Hole Size:10 – 5/8" Cemented with:35			
	-2 8% c81	Top of Cement:Surface			
			Intermediate	e Casing	
		Hole Size:			
		Cemented with:			
		Top of Cement:			l:
6 1/4" HOLE			Production	<u>i Casing</u>	
\$\$ 74 HOLE		Hole Size:6-3/4"		Casing Size:4-	1/2"
	PACKER 500 +/-	Cemented with:120	SX.	or	ft
	530	Top of Cement:Surface		Method Determined	d: _Visual
	546 MENEFEE PERF 554 580	Total Depth:647'	Injection	Interval	
		525'	C	t to 580' perfor	ated

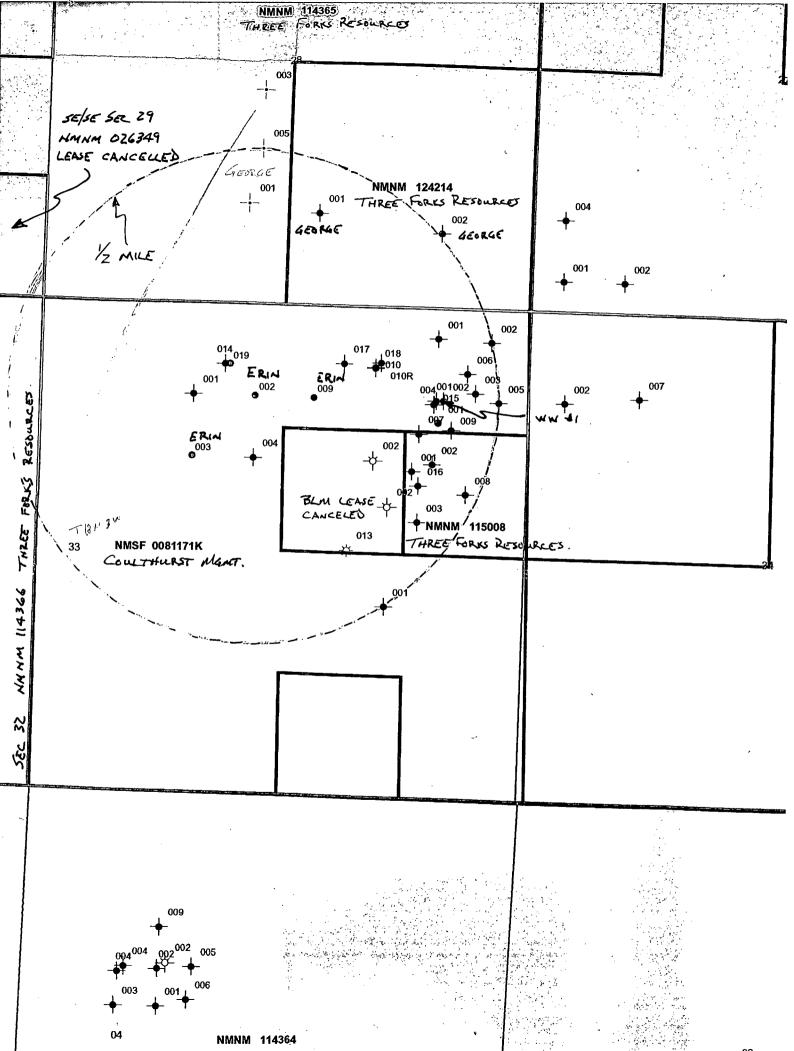
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# **INJECTION WELL DATA SHEET**

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Туре		
	e of Packer:Arrow Set 1 with on-off tool	
Pack	ter Setting Depth:Approx. 500'	
Othe	er Type of Tubing/Casing Seal (if applicable):	
	Additional Data	
1.	Is this a new well drilled for injection?YesXNo	
	If no, for what purpose was the well originally drilled?Oil production	
2.	Name of the Injection Formation:Menefee	
3.	Name of Field or Pool (if applicable):South San Luis – Mesa Verde Oil Pool	
	Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) usedNo	_
	Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:None	

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### Coulthurst Management Investments, Inc., LLC

Erin #2 Injection Well

### C 108 Data Sheet

### V. See Attached Map

VI. See Attached Tabulation Sheet

#### VII. Operation Data

- 1. A. Average Daily Injection Rate = 60 bbls
  - Maximum Daily Injection Rate = 100 bbls
  - B. Proposed Volume 150,000 bbls
- 2. The system is closed
- 3. Proposed Pressures
  - A. Average and maximum injection pressures will be 105 psi until a step/rate test is completed.
- 4. Source of Injection Fluid
  - A. Erin #9 (B Sec. 33, T18N, R3W) and the Erin #3 (F Sec. 33, T18N, R3W). Both wells are Menefee completions so the waters should be compatible.
- 5. Not Applicable

VIII. Geology

The reservoir is a series of sand bars or near shore marine deposition intermingled with shales all of which seem to have been affected by stream bed arrangement in the immediate area. There are no known domestic water wells within on mile of the proposed injection well (Office of the State Engineer). All of the proposed injection water, and the in-situ water in the Erin #2, has been tested at less than 10,000 TDS.

IX. No stimulation in the Erin #2 is anticipated.

X. Well logs are on file with the NMOCD.

XI. Analysis of the San Luis Water Well #1 is attached

XII. Not Applicable

XIII. See attached certified mail receipts.

# Well Tabulation Sheet

## Wells Within One-Half Mile of Erin #2

Unit	Section Operator	Locat Well N - S	on E-W	Spud Date GL Elev.	Casing Surface	Production	T.D.	Status
O N	28 Coulthurst Mgmt & Inv., Inc 28 Three Forks Resources	: Jenny #1 990/S George #1 1069/S	2310/E 2182/W			4-1/2" @ 614' '' 4-1/2" @ 860'	763' 865'	P&A Plug with 54 cu.ft. from TD to surface. Producing
A A A	33 Noel Reynolds 33 Entrada Corp. 33 Coulthurst Mgmt & Inv., Inc	Ann #1 326/N Federal #1-33 990/N ; Water Well #1 1224/I	1086/E 990/E N 968/E		0 0 16" @30' 7 7" @ ??	2-7/8" @ 620' 4-1/2" @ 800'	1010' 880' 1001'	P&A Plug with 28 sx from TD to surface. P&A Btm from 780- 880'. Int plug from 250 - 450'. Surface plug 0 - 10'. Convert to a Water Well
B B	33 Coulthurst Mgmt & Inv., Inc 33 Rader Oil Co.	: Erin #9 990/N Ann #10R 605/N	2310/E 1592/E	8/13/1996 647 12/5/1984 647	•	)' 4-1/2" @ 1006'	1010' 650'	Producing P&A Plug with 30 sx from 550 - 650'. Plug with 30 sx from 0 to 100'.
C C	33 Coulthurst Mgmt & Inv., Inc 33 Noel Reynolds	: Erin #1 990/N Ann #19 660/N	1650/W 2030/W		3 8-5/8" @ 40' 9 7" @ 34'	4-1/2" @ 736' 4-1/2" @ 604'	750' 605'	P&APlug with 50 sx from 736' to surface. Top off with 15 sx.P&APlug with 16 sk plug from 100' to surface.
F F	33 Coulthurst Mgmt & Inv., Inc 33 Coulthurst Mgmt & Inv., Inc				7 8-5/8" @ 78' 3 8-5/8" @ 80'	4-1/2" @ 708' 4-1/2" @ 660'	720' 660'	P&A Plug with 57 sx CI "B" from TD to surface. Producing
G	33 J.I. Harvey	Federal #2 1650/1	N 1650/E	9/29/1959 659	0 6-1/2" @ 30'		820'	P&A Bottom plug from 720' to 820'. Plug from 520 to 570'. Plug from 0 to 50'

envirotech Analytical Laboratory

# EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

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Coulthurst Mgmt	Project #:	06027-0002
NENW, 33, 18N, 3W Sandoval Co	Date Reported:	07-14-11
58911	Date Sampled:	
12164	Date Received:	07-12-11
Aqueous	Date Extracted:	07-13-11
Cool	Date Analyzed:	07-13-11
Intact	Analysis Requested:	8015 TPH
	NENW, 33, 18N, 3W Sandoval Co 58911 12164 Aqueous Cool	NENW, 33, 18N, 3W Sandoval CoDate Reported:58911Date Sampled:12164Date Received:AqueousDate Extracted:CoolDate Analyzed:

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Gasoline Range (C5 - C10)	0.5	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	0.5	0.1

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: Erin #2

Review

5796 US Highway 64, Farmington, NM 87401

envirotech Analytical Laboratory

# EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

### **Quality Assurance Report**

<b>A</b> 11 <b>I</b>					
Client:	QA/QC		Project #:		N/A
Sample ID:	0713TBLK	QA/QC	Date Reported:		07-14-11
Laboratory Number:	58909		Date Sampled:		N/A
Sample Matrix:	Methylene Ch	loride	Date Received:		N/A
Preservative:	N/A		Date Analyzed:		07-13-11
Condition:	N/A		Analysis Requeste	ed:	ТРН
		I-Cal RF	C-Cal RF:	% Difference	Accept. Range
Gasoline Range C5 - C10	a a la construction de la construct	1.0000E+000	9.9800E-001	0.20%	0 - 15%
Diesel Range C10 - C28		9.9372E-001	9.9173E-001	0.20%	0 - 15%
Blank Conc. (mg/L)		Concentration		Detection Lin	
Gasoline Range C5 - C10		3.7		0.2	
Diesel Range C10 - C28		7.9		0.1	
Duplicate Conc. (mg/L)	Sample	Duplicate	% Difference	Accept Range	
Gasoline Range C5 - C10	0.3	0.3	0.0%	0 - 30%	im. B
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%	•
Spike Conc. (mg/L)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	0.3	25.0	24.8	98.0%	75 - 125%
		25.0		99.2%	75 - 125%

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:

QA/QC for Sample 58909-58912

Review

5796 US Highway 64, Farmington, NM 87401



### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Coulthurst Mgmt	Project #:	06027-0002
Sample ID:	NENW 33, 18N, 3W Sandoval Co	Date Reported:	07-15-11
Chain of Custody:	12164	Date Sampled:	
Laboratory Number:	58911	Date Received:	07-12-11
Sample Matrix:	Aqueous	Date Analyzed:	07-14-11
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Intact		

		Det.
Concentration	Dilution	Limit
(ug/L)	Factor	(ug/L)
7.2	1	0.2
24.0	1	. 0.2
37.1	1	0.2
159	1 .	0.2
74.7	1	0.1
	(ug/L) 7.2 24.0 37.1 159	(ug/L) Factor 7.2 1 24.0 1 37.1 1 159 1

### **Total BTEX**

302

ND - Parameter not detected at the stated detection limit.

Surrogate Re	coveries: Parameter	Percent Recovery
	fluorobenzene	88.0 %
,	1,4-difluorobenzene	94.0 %
	4-bromochlorobenzene	104 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

Erin #2

Review



### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client: Sample ID: Laboratory Number: Sample Matrix: Preservative: Condition:	N/A 0714BBLK QA/QC 58909 Aqueous N/A N/A		Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Analysis:	,	N/A 07-15-11 N/A N/A 07-14-11 BTEX
Calibration and	I-Cal RF:	C-Cal RF:	%Diff.	Blank	Detect.
Detection Limits (ug/L)		Accept. Rang	<u>je 0 - 15%</u>	Conc	Limit
Benzene	2.9392E+006	2.9480E+006	0.3%	ND	0.2
Toluene	2.9994E+006	3.0084E+006	0.3%	ND	0.2
Ethylbenzene	2.6453E+006	2.6532E+006	0.3%	ND	0.2
p,m-Xylene	7.0148E+006	7.0359E+006	0.3%	ND	0.2
o-Xylene	2.4121E+006	2.4193E+006	0.3%	ND	0.1
Duplicate Conc. (ug/L) Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene	6.9 5.2 30.2 87.3 55.8	7.1 5.7 28.9 83.9 52.7	%Diff. 3.7% 9.4% 4.1% 3.9% 5.6%	Accept Limit 0 - 30% 0 - 30% 0 - 30% 0 - 30% 0 - 30%	
Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Récovery	Accept Limits
Benzene	6.9	50.0	59.9	105%	39 - 150
Toluene	5.2	50.0	53.7	97.2%	46 - 148
Ethylbenzene	30.2	50.0	85.6	107%	32 - 160
p,m-Xylene	87.3	100	140	74.8%	46 - 148
o-Xylene	55.8	50.0	104	98.1%	46 - 148

ND - Parameter not detected at the stated detection limit.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-848, USEPA, December 1996. Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

**Comments:** QA/QC for Samples 58909-58912

Review



Chloride

Client:	Coulthurst Mgmt	Project #:	06027-0002
Sample ID:	NENW 33, 18N, 3W Sandoval Co	Date Reported:	07/13/11
Lab ID#:	58911	Date Sampled:	
Sample Matrix:	Aqueous	Date Received:	07/12/11
Preservative:	Cool	Date Analyzed:	07/13/11
Condition:	Intact	Chain of Custody:	12164

Parameter

## **Total Chloride**

10

Concentration (mg/L)

Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments:

Erin #2

Anal

Review Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

5796 US Highway 64, Farmington, NM 87401



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Water Analysis

Client:	Coulthurst Mgmt	Project #:	06027-0002
Sample ID:	NENW 33, 18N, 3W Sandoval Co	Date Reported:	07/15/11
Laboratory Number:	58911	Date Sampled:	,



Water Analysis

Client:	Coulthurst Mgmt	Project #:	06027-0002
Sample ID:	NENW 33, 18N, 3W Sandoval Co	Date Reported:	07/15/11
Laboratory Number:	58911	Date Sampled:	
Sample Matrix:	Aqueous	Date Received:	07/12/11
Preservative:	Cool	Date Analyzed:	07/13/11
Condition:	Intact	Chain of Custody:	12164

	Analytical	
Parameter	Result	Units

Total Dissolved Solids @ 180C

1,370

mg/L

Reference:

U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Erin #2

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Review

5796 US Highway 64, Farmington, NM 87401

# **CHAIN OF CUSTODY RECORD**

Client: Cowthurst	. N	- <b>f</b>	Project Name /	$\frac{1}{2}$	:										ANAL	YSIS	/ PAR	AME	TERS					
Client Address:		MI S	Sampler Name:		1				3	e D	51	G		<u> </u>	[				<b></b>					
			Phil	مر	Mont					801	d 80	826	S	_		<b>_</b>								
Client Phone No.:		C	Client No.:		-000Z	7	~			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P		TPH (418.1)	RIDE	5			Sample Cool	Sample Intact
Sample No./ Identification	Sample Date	Sample Time	Lab No.		ample Matrix	No./Vol of Contai	ners Hg	cij ha		TPH (I	BTEX	VOC (	RCRA	Cation	RCI	TCLP	PAH	TPH (	CHLORIDE	F	•		Samp	Samp
NENW 33, 191 Sandoval C	N,3W		58911	Soil Solid	Sludge Aqueous	2	10	5	 	X	X	L	. <u>.</u>						X	$\times$			Y	X
Sandoval C	ø			Soil Solid	Sludge Aqueous	)																		
				Soll Solid	Sludge Aqueous																			
				Soil Solid	Sludge Aqueous			_																·
				Soil Solid	Sludge Aqueous																		-	
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12164

envirotech Analytical Laboratory

# **EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons**

Client:	Coulthurst Mgmt	Project #:	06027-0002
Sample ID:	NMSF081171K SENW33, 18N,,3W	/ Date Reported:	07-14-11
Laboratory Number:	58909	Date Sampled:	
Chain of Custody No:	12162	Date Received:	07-12-11
Sample Matrix:	Aqueous	Date Extracted:	07-13-11
Preservative:		Date Analyzed:	07-13-11
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Gasoline Range (C5 - C10)	0.3	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	0.3	0.1

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 Erin #3 Н Analyst

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5796 US Highway 64, Farmington, NM 87401

envirotech Analytical Laboratory

# EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

### **Quality Assurance Report**

Client:	QA/QC		Project #:		N/A
Sample ID:	0713TBLK Q	A/QC	Date Reported:		07-14-11
Laboratory Number:	58909		Date Sampled:		N/A
Sample Matrix:	Methylene Chlo	oride	Date Received:		N/A
Preservative:	N/A		Date Analyzed:		07-13-11
Condition:	N/A	٢	Analysis Requeste	ed:	ТРН
		I	CCCal READ	% Difference:	Accept: Range:
Gasoline Range C5 - C10		1.0000E+000	9.9800E-001	0.20%	0 - 15%
Diesel Range C10 - C28		9.9372E-001	9.9173E-001	0.20%	0 - 15%
Blank Conc. (mg/L)		Concentration		Detection Lin	iii
Gasoline Range C5 - C10		3.7		0.2	e0.4
Diesel Range C10 - C28		7.9		0.1	
_					
Duplicate Conc. (mg/L)	Sample	Duplicate	% Difference	Accept. Range	
Gasoline Range C5 - C10	0.3	0.3	0.0%	0 - 30%	
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%	
Spike Conc. (mg/L)	Sample	Spike Added	Spike Result	% Recovery	Accept: Range
		CALL CHINE AND CH			1100000
Gasoline Range C5 - C10	0.3	25.0	24.8	98.0%	75 - 125%
Gasoline Range C5 - C10 Diesel Range C10 - C28	0.3 NĐ	25.0 25.0	24.8 24.8	98.0% 99.2%	75 - 125% 75 - 125%

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:

QA/QC for Sample 58909-58912

Analyst

Revie



### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Coulthurst Mgmt	Project #:	06027-0002
Sample ID:	NMSF 081171K SENW33, 18N, 3W	Date Reported:	07-15-11
Chain of Custody:	12162	Date Sampled:	
Laboratory Number:	58909	Date Received:	07-12-11
Sample Matrix:	Aqueous	Date Analyzed:	07-14-11
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
			•
Benzene	6.9	1	0.2
Toluene	5.2	1	0.2
Ethylbenzene	30.2	1	0.2
p,m-Xylene	87.3	1	0.2
o-Xylene	55.8	1	0.1

### Total BTEX

185

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries: Parameter	Percent Recovery
fluorobenzene	90.3 %
1,4-difluorobenzene	94.3 %
4-bromochlorobenzene	94.5 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

Erin #3

1

Analyst



### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client: Sample ID: Laboratory Number: Sample Matrix: Preservative: Condition:	N/A 0714BBLK QA/QC 58909 Aqueous N/A N/A	ם ם ם ם	roject #: ate Reported: ate Sampled: ate Received: ate Analyzed: nalysis:		N/A 07-15-11 N/A N/A 07-14-11 BTEX
Calibration and Detection Limits	l.cal RF.⊭ s (ug/L)	C-Cal RF Accept Range	%Diff. 0 = 15%	Blank Conc	Detect:
Benzene	2.9392E+006	2.9480E+006	0.3%	ND	0.2
Foluene	2.9994E+006	3.0084E+006	0.3%	ND	0.2
Ethylbenzene	2.6453E+006	2.6532E+006	0.3%	ND	0.2
o,m-Xylene	7.0148E+006	7.0359E+006	. 0.3%	ND	0.2
o-Xylene	2.4121E+006	2.4193E+006	0.3%	ND	0.1
Duplicate Conc. (	ug/L)- Sample	Duplicate	%D#f.	Accept Limit	
Benzene	6.9	7.1	3.7%	0 - 30%	
Toluene	5.2	5.7	9.4%	0 - 30%	
Ethylbenzene	30.2	28.9	4.1%	0 - 30%	
p,m-Xylene	87.3	83. <del>9</del>	3.9%	0 - 30%	
o-Xylene	55.8	52.7	5.6%	0 - 30%	
	`				
Spike Conc: (ug/	L) Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	6.9	50.0	59.9	105%	39 - 150
Toluene	5.2	50.0	53.7	97.2%	46 - 148
Ethylbenzene	30.2	50.0	85.6	107%	32 - 160
p,m-Xylene	87.3	100	140	74.8%	46 - 148
o-Xylene	55.8	50.0	104	98.1%	46 - 148
ND - Parameter not	t detected at the stated detection limit.				,
ND - Parameter not References:	Method 5030B, Purge-and-Trap, Test Mel December 1996. Method 8021B, Aromatic and Halogenate	d Volatiles by Gas Chr	omatography Using		
References:	Method 5030B, Purge-and-Trap, Test Met December 1996. Method 8021B, Aromatic and Halogenate Photoionization and/or Electrolytic Condu	d Volatiles by Gas Chro ctivity Detectors, SW-8	omatography Using		
	Method 5030B, Purge-and-Trap, Test Mel December 1996. Method 8021B, Aromatic and Halogenate	d Volatiles by Gas Chro ctivity Detectors, SW-8	omatography Using		$\sum$
References:	Method 5030B, Purge-and-Trap, Test Met December 1996. Method 8021B, Aromatic and Halogenate Photoionization and/or Electrolytic Condu	d Volatiles by Gas Chro ctivity Detectors, SW-8	omatography Using		2
References:	Method 5030B, Purge-and-Trap, Test Method 5030B, Purge-and-Trap, Test Method 8021B, Aromatic and Halogenate Photoionization and/or Electrolytic Condu	d Volatiles by Gas Chro ctivity Detectors, SW-8	omatography Using		<u> </u>



Chloride

Sample ID:NMSF081171K SENW 33, 18N,, 3WDate Reported:07/13/11Lab ID#:58909Date Sampled:Sample Matrix:AqueousDate Received:07/12/11	Client:	Coulthurst Mgmt	Project #:	06027-0002
Sample Matrix: Aqueous Date Received: 07/12/11		•	•	
Sample Matrix: Aqueous Date Received: 07/12/11	Lab ID#:	58909	Date Sampled:	
Preservative: Cool Date Analyzed: 07/13/11	Sample Matrix:		Date Received:	07/12/11
	Preservative:	Cool	Date Analyzed:	07/13/11
Condition: Intact Chain of Custody: 12162	Condition:	Intact	Chain of Custody:	12162

Parameter

# **Total Chloride**

30

Concentration (mg/L)

Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments:

Erin #3

М Analyst

Revie

5796 US Highway 64, Farmington, NM 87401



Water Analysis

Paramet	er Result		Units
	Analytical		_
Condition:	Intact	Chain of Custody:	12162
Preservative:	Cool	Date Analyzed:	07/13/11
Sample Matrix:	Aqueous	Date Received:	07/12/11
Laboratory Number:	58909	Date Sampled:	
Sample ID:	NMSF 081171K SENW 33, 18N,,3W	Date Reported:	07/15/11
Client:	Coulthurst Mgmt	Project #:	06027-0002

Total Dissolved Solids @ 180C

1,390

mg/L

Reference:

U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Erin #3

. 17 Analyst

5796 US Highway 64, Farmington, NM 87401

# CHAIN OF CUSTODY RECORD

Client:	ħ.,	+	Project Name /	Location	ו:									ANAL	YSIS	/ PAR	AME	TERS	•				
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Chent Address:	U	ľ	Sampler Name: Philli		Intog	IC_			8015)	d 8021	8260)	<u>s</u>				ļ							
Client Phone No.:			Gliefit NO	•	-0002				TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P		418.1)	RIDE	Ś			Sample Cool	Sample Intact
Sample No./ Identification	Sample Date	Sample	Lab No.	1	Sample Matrix	No./Volume of Containers	Prese HgCl, H	ervative ICI	TPH (A	BTEX	VOC (N	RCRA	Cation	RCI	TCLP	PAH	TPH (418.1)	CHLORIDE	L.			Sample	Sample
NMSF08117 SENW33,	IK		58909	Soil Solid	Sludge Aqueous	2 has			X	×								X	X			Y	Ý
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			5796 115	Highwa	y 64 • Farming								-ine o									<u> </u>	

12162

envirotech Analytical Laboratory

# EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Coulthurst Mgmt	Project #:	06027-0002
Sample ID:	MWNE, 33, 18N, 3W NMSF-081171K	Date Reported:	07-14-11
Laboratory Number:	58910	Date Sampled:	
Chain of Custody No:	12163	Date Received:	07-12-11
Sample Matrix:	Aqueous	Date Extracted:	07-13-11
Preservative:	Cool	Date Analyzed:	07-13-11
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Gasoline Range (C5 - C10)	0.8	0.2
Diesel Range  (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	0.8	0.1

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:

Erin #9

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Review

5796 US Highway 64, Farmington, NM 87401

**EPA Method 8015 Modified** Nonhalogenated Volatile Organics **Total Petroleum Hydrocarbons** 

### **Quality Assurance Report**

-					
Client:	QA/QC		Project #:		N/A
Sample ID:	0713TBLK QA	QC	Date Reported:		07-14-11
Laboratory Number:	58909		Date Sampled:		N/A
Sample Matrix:	Methylene Chlorid	de	Date Received:		N/A
Preservative:	N/A		Date Analyzed:		07-13-11
Condition:	N/A		Analysis Requeste	ed:	TPH
		I-Cal RF	C-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10		1.0000E+000	9.9800E-001	0.20%	0 - 15%
Diesel Range C10 - C28		9.9372E-001	9.9173E-001	0.20%	0 - 15%
Blank Conc. (mg/L)		Concentration		Detection Lin	nit
Gasoline Range C5 - C10		3.7		0.2	
Diesel Range C10 - C28		7.9		0.1	
Duplicate Conc. (mg/L)	Sample	Duplicate	% Difference	Accept. Rang	e
Gasoline Range C5 - C10 🕤	0.3	0.3	0.0%	0 - 30%	
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%	i.
Spike Conc. (mg/L)	Sample	Spike Added	Spike Result	% Recovery	Accept Rang
Gasoline Range C5 - C10	0.3	25.0	24.8	98.0%	75 - 125%

ND - Parameter not detected at the stated detection limit.

envirotech Analytical Laboratory

**References:** 

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments:

QA/QC for Sample 58909-58912

Abalyst

Review



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### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Coulthurst Mgmt	Project #:	06027-0002
Sample ID:	MWNE, 33, 18N, 3W NMSF-081171K	Date Reported:	07-15-11
Chain of Custody:	12163	Date Sampled:	
Laboratory Number:	58910	Date Received:	07-12-11
Sample Matrix:	Aqueous	Date Analyzed:	07-14-11
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	8.4	1	0.2
Toluene	58.6	1	0.2
Ethylbenzene	53.8	1	0.2
p,m-Xylene	305	1	0.2
o-Xylene	112	1	0.1

### **Total BTEX**

538

ND - Parameter not detected at the stated detection limit.

Surrogate Reco	overies: Parameter	Percent Recovery
	fluorobenzene	90.5 %
	1,4-difluorobenzene	91.9 %
	4-bromochlorobenzene	102 %
References:	Method 5030B, Purge-and-Trap, Test Method December 1996.	Is for Evaluating Solid Waste, SW-846, USEPA,
	Method 8021B, Aromatic and Halogenated Vo Photoionization and/or Electrolytic Conductivit	olatiles by Gas Chromatography Using y Detectors, SW-846, USEPA December 1996.
Comments:	Erin #9	
Anetyst	2 B	Review



### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	N/A		Project #:		N/A
Sample ID:	0714BBLK QA/QC		Date Reported:		07-15-11
_aboratory Number: Sample Matrix:	58909 Aqueous		Date Sampled: Date Received:		N/A N/A
Preservative:	N/A		Date Analyzed:		07-14-11
Condition:	N/A		Analysis:		BTEX
Calibration and Detection Limits (	I-Ĉal RF	C-Cal RF: Accept. Rang	%Diff	Blank Conc	Detect. Limit
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Benzene	2.9392E+006	2.9480E+006	0.3%	ND	0.2
Toluene	2.9994E+006	3.0084E+006	0.3%	ND	0.2
Ethylbenzene	2.6453E+006	2.6532E+006	0.3%	ND	0.2
p,m-Xylene	7.0148E+006	7.0359E+006	0.3%	ND	0.2
o-Xylene	2.4121E+006	2.4193E+006	0.3%	ND	0.1
	•				
Duplicate Conc: (u	g/L) Sample	Duplicaté	%Diff.	Accept Limit	
Benzene	6.9	7.1	3.7%	0 - 30%	
Toluene	5.2	5.7	9.4%	0 - 30%	
Ethylbenzene	30.2	28.9	4.1%	0 - 30%	
p,m-Xylene	87.3	83.9	3.9%	0-30%	
o-Xylene	55.8	52.7	5.6%	0 - 30%	-
Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
		, and mini constant the 2 starts of the second		an a sha afa afaa a aa ay ah aha dha ahaa aha yo Turaa a	
Benzene	6.9	50.0	59.9	105%	<u> 3</u> 9 - 150
Toluene	5.2	50.0	53.7	97.2%	46 - 148
Ethylbenzene	30.2	50.0	85.6	107%	32 - 160
p,m-Xylene	87.3	100	140	74.8%	46 - 148
o-Xylene	55.8	50.0	104	98.1%	46 - 148
ND - Parameter not de	etected at the stated detection limit.				
References:	Method 5030B, Purge-and-Trap, Test Met	hods for Evaluating S	olid Waste. SW-846.	USEPA.	
Keterences:	Method 5030B, Purge-and-Trap, Test Met December 1996.	nods for Evaluating S	ond Waste, SW-846,	USEPA,	

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photolonization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

**Comments:** QA/QC for Samples 58909-58912 Analys Review



# Chloride

Client:	Coulthurst Mgmt	Project #:	06027-0002	
Sample ID:	MWNE.33, 18N 3W, NMSF-081171K	Date Reported:	07/13/11	
Lab ID#:	58910	Date Sampled:		
Sample Matrix:	Aqueous	Date Received:	07/12/11	``
Preservative:	Cool	Date Analyzed:	07/13/11	
Condition:	Intact	Chain of Custody:	12163	

### Parameter

## Total Chloride

15

Concentration (mg/L)

Reference:

U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Erin #9 Analvs Review

5796 US Highway 64, Farmington, NM 87401



Water Analysis

Paramet	er Result		Units
	Analytical	·····	·
Condition:	Intact	Chain of Custody:	12163
Preservative:	Cool	Date Analyzed:	07/13/11
Sample Matrix:	Aqueous	Date Received:	07/12/11
Laboratory Number:	58910	Date Sampled:	
Sample ID:	MWNE, 33, 18N 3W, NMSF-081171K	Date Reported:	07/15/11
Client:	Coulthurst Mgmt	Project #:	06027-0002

**Total Dissolved Solids @ 180C** 

1,320

mg/L

U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. **Reference:** Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Erin #9

Anatyst

5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

Review

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# **CHAIN OF CUSTODY RECORD**

Client: Couthur: Client Address:	L		Project Name /											ANAL	YSIS	/ PAF	AME	TERS	;				
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Client Address:		0	Sampler Name:						6	51)	6	1		1			:	-	<b>ř</b>	[			
			Client No.:	M	mtori	2			10	80	326	6											
Client Phone No.:	<u>.</u> ,		Client No.:	<u> </u>	<u>,                                    </u>				1 mg	poc	g	stal	lo		₽₽							5	ğ
			0602	7-	0002				etř	Viet	eth	Me	An		E.		Ω.	≝	1h			ပိ	Inte
Sample No./	Sample	Sample			Sample	No./Volume	Drace	arvativo	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	ļ	TCLP with H/P	ļ	TPH (418.1)	CHLORIDE	s _r			Sample Cool	Sample Intact
Identification	Date	Time	Lab No.		Matrix	of Containers	HoCL		Ë	H ۲	Įõ	Ъ	ati	RCI	5	PAH	<u> </u>	<u><u></u><u></u><u></u></u>	R			àm	am
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MWNE 33, 18M	1		58910		Aqueous	2 001	5		X	メ				ļ				メ		ł		Y	Y
MWNE, 33, 181 3W, NMSF	-08	אור וו	<	Soil	Sludge			-f		1	[	[	[		[		[					- <b>e</b>	
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12163

envirotech Analytical Laboratory

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# EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Coulthurst Mgmt	Project #:	06027-0002
Sample ID:	NMSF 081171K API 30-043-20887	Date Reported:	07-14-11
Laboratory Number:	58912	Date Sampled:	
Chain of Custody No:	12165	Date Received:	07-12-11
Sample Matrix:	Aqueous	Date Extracted:	07-13-11
Preservative:	Cooi	Date Analyzed:	07-13-11
Condition:	Intact	Analysis Requested:	8015 TPH

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

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: So. Sa	n Luis Water \	Nell #1	\ .		
				·	
Arraives			Review	fn	
5796 US Highway 64, Farmington, NM 87401	Ph (505) 632-0615	Fr (800) 362-1879	Fx (505) 632-1865	lab@envirotech-inc.com	envirotech-inc.com

EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

## **Quality Assurance Report**

		•				
Client:		QA/QC		Project #:		N/A
Sample ID:		0713TBLK	QA/QC	Date Reported:		07-14-11
Laboratory Num	iber:	58909		Date Sampled:		N/A
Sample Matrix:		Methylene C	hloride	Date Received:		N/A
Preservative:	•	N/A		Date Analyzed:		07-13-11
Condition:		N/A		Analysis Request	ed:	трн
			I-Cal RF:	C-Cal RF:	% Difference	Accept Range
Gasoline Rang	je C5-C10		1.0000E+000	9.9800E-001	0.20%	0 - 15%
Diesel Range	C10 - C28		9.9372E-001	9.9173E-001	0.20%	0 - 15%
				-	والافتراقية والمرابع والمرابع والمرابع	1 a i i i
Blank Conc.			Concentration		Detection Lin	nit
Gasoline Rang	je C5-C10		3.7		0.2	
Diesel Range	C10 - C28		7.9		0.1	
Duplicate C	onc. (mg/L)	Sample	Duplicate	% Difference	Accept, Rang	e :
Gasoline Rang	ge C5-C10	0.3	0.3	0.0%	0 - 30%	
Diesel Range	C10 - C28	ND	ND	0.0%	0 - 30%	
	(mo/L)	Sample	Spike Added	Spike Result	% Recovery	Accept Rang
Splke Conc.	그 김 씨는 걸려서 한 것 같아요. 그 것이 잘 같아?			الهوود والمقاربين فيكونها فيكونها فيتقون سرجود فيختب ومصيرت بالتيان	برحى بمذدريتها الارتكاش أكال اوتعواؤه ستجملون جاءه	
Spike Conc Gasoline Rang	ولى مادمىمىيى وماز ياماير سايتها والمنصحيات والماليسية مطال	0.3	25.0	24.8	98.0%	75 - 125%

ND - Parameter not detected at the stated detection limit.

envirotech Analytical Laboratory

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments:

QA/QC for Sample 58909-58912

Review

5796 US Highway 64, Farmington, NM 87401



### EPA METHOD 8021 **AROMATIC VOLATILE ORGANICS**

Client:	Coulthurst Mgmt	Project #:	06027-0002
Sample ID:	NMSF 081171K API 30-043-20887	Date Reported:	07-15-11
Chain of Custody:	12165	Date Sampled:	
Laboratory Number:	58912	Date Received:	07-12-11
Sample Matrix:	Aqueous	Date Analyzed:	07-14-11
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Intact		

Demonster	Concentration	Dilution	Det. Limit
Parameter	(ug/L)	Factor	(ug/L)
Benzene	2.3	1	0.2
Toluene	ND	1	0.2
Ethylbenzene	0.5	1	0.2
p,m-Xylene	1.4	1	0.2
o-Xylene	0.8	1	0.1

## **Total BTEX**

5.0

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries: Parameter	Percent Recovery
fluorobenzene	95.7 %
1,4-difluorobenzene	101 %
4-bromochlorobenzene	101 %

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, References: December 1996.

> Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

So. San Luis Water Well #1

Review



### **EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT**

Client: Sample ID: Laboratory Number: Sample Matrix: Preservative: Condition:	N/A 0714BBLK QA/QC 58909 Aqueous N/A N/A		Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Analysis:	•	N/A 07-15-11 N/A N/A 07-14-11 BTEX
			-	ولوكيمينا وجانعا فيقاد شريا روار	an a
Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cál RF: Accept. Rang	%Diff. ie 0 - 15%	Blank Conc	Detect.
Benzene	2.9392E+006	2.9480E+006	0.3%	ND	0.2
Toluene	2.9994E+006	3.0084E+006	0.3%	ND	0.2
Ethylbenzene	2.6453E+006	2.6532E+006	0.3%	ND	0.2
p,m-Xylene	7.0148E+006	7.0359E+006	0.3%	ND	0.2
o-Xylene	2.4121E+006	2.4193E+006	0.3%	ND	0.1
Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit	
	6.9 5.2 30.2 87.3 55.8	Duplicate 7.1 5.7 28.9 83.9 52.7	3.7% 9.4% 4.1% 3.9% 5.6%	Accept Limit 0 - 30% 0 - 30% 0 - 30% 0 - 30% 0 - 30%	
Duplicate Conc. (ug/L) Benzene Toluene Ethylbenzene p,m-Xylene	6.9 5.2 30.2 87.3	7.1 5.7 28.9 83.9 52.7	3.7% 9.4% 4.1% 3.9%	0 - 30% 0 - 30% 0 - 30% 0 - 30%	
Duplicate Conc. (ug/L) Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene	6.9 5.2 30.2 87.3 55.8 Sample 6.9	7.1 5.7 28.9 83.9 52.7	3.7% 9.4% 4.1% 3.9% 5.6%	0 - 30% 0 - 30% 0 - 30% 0 - 30% 0 - 30%	
Duplicate Conc. (ug/L) Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene Spike Conc. (ug/L)	6.9 5.2 30.2 87.3 55.8 Sample	7.1 5.7 28.9 83.9 52.7	3.7% 9.4% 4.1% 3.9% 5.6% Spiked Sample	0 - 30% 0 - 30% 0 - 30% 0 - 30% 0 - 30%	Accept Limits
Duplicate Conc. (ug/L) Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene Spike Conc. (ug/L) Benzene	6.9 5.2 30.2 87.3 55.8 Sample 6.9	7.1 5.7 28.9 83.9 52.7 Ämount Spiked	3.7% 9.4% 4.1% 3.9% 5.6% Spiked Sample 59.9	0 - 30% 0 - 30% 0 - 30% 0 - 30% 0 - 30%	Accépt Limits 39 - 150
Duplicate Conc. (ug/L) Benzene Toluene Ethylbenzene p,m-Xylene o-Xylene Spike Conc. (ug/L) Benzene Toluene	6.9 5.2 30.2 87.3 55.8 Sample 6.9 5.2	7.1 5.7 28.9 83.9 52.7 Amount Spiked 50.0 50.0	3.7% 9.4% 4.1% 3.9% 5.6% Spiked Sample 59.9 53.7	0 - 30% 0 - 30% 0 - 30% 0 - 30% 0 - 30% % Recovery 105% 97.2%	<u>Accept Limits</u> 39 - 150 46 - 148

ND - Parameter not detected at the stated detection limit.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

**Comments:** QA/QC for Samples 58909-58912

Review



# Chloride

Client:	Coulthurst Mgmt	Project #:	06027-0002
Sample ID:	NMSF 081171K API 30-043-20887	Date Reported:	07/13/11
Lab ID#:	58912	Date Sampled:	
Sample Matrix:	Aqueous	Date Received:	07/12/11
Preservative:	Cool	Date Analyzed:	07/13/11
Condition:	Intact	Chain of Custody:	12165

### Parameter

### Concentration (mg/L)

**Total Chloride** 

100

Reference:

U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments:

So. San Luis Water Well #1

5795 68 Highway 64, Farmington, NM 87401

 Review

 Ph (505) 632-0615
 Fr (800) 362-1879
 Fx (505) 632-1865
 lab@envirotech-inc.com
 envirotech-inc.com



# Water Analysis

Client:	Coulthurst Mgmt	Project #:	06027-0002
Sample ID:	NMSF 081171K API 30-043-20887	Date Reported:	07/15/11
Laboratory Number:	58912	Date Sampled:	
Sample Matrix:	Aqueous	Date Received:	07/12/11
Preservative:	Cool	Date Analyzed:	07/13/11
Condition:	Intact	Chain of Custody:	12165

	Analytical		
Parameter	Result	Units	

Total Dissolved Solids @ 180C

1,830

mg/L

Reference:

U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: So. San Luis Water Well #1

5796 US Highway 64, Farmington, NM 87401

Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

Review

# CHAIN OF CUSTODY RECORD

Client: Coul thurst	Mo	nt	Project Name / Location:							ANALYSIS / PARAMETERS													
Client Address: Cuba, NM Client Phone No.:		So. San Luis Waterh Sampler Name: Phillip Montoya Client No.: 06027-0002						TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P		118.1)	RIDE	1 N			e Cool	e Intact	
Sample No./ Identification	Sample Date	Sample Time	Eab No.	Lab No.		No./Volume of Containers		Preservative HgCi, HCi		BTEX (	VOC (N	RCRA	Cation	RCI	TCLP	PAH	TPH (418.1)	CHLORIDE	R	•		Sample Cool	Sample Intact
NMSF 08/1714 AP1 30-0			58912	1	Sludge Aqueous	Mas Z jar	m		X	X			 					X	$\left  \right\rangle$		-	Y	X
APT 30-0	43-2	000	-y 	Soil Solid Soil Solid	Sludge Aqueous Sludge Aqueous																		
				Soil Solid	Sludge Aqueous																		·
				Soil Solid	Sludge Aqueous	<u>_</u>						•											
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12165



Adam G. Rankin agrankin@hollandhar t.com

April 10, 2012

### <u>CERTIFIED MAIL</u> RETURN RECEIPT REQUESTED

### **TO: AFFECTED PARTIES**

1

### Re: Application of Coulthurst Management & Investment, LLC, for Authorization to Inject as Part of a Pressure Maintenance Project, Sandoval County, New Mexico.

Ladies and Gentlemen:

This letter is to advise you that Coulthurst Management & Investment, LLC ("Coulthurst") has filed the enclosed application with the New Mexico Oil Conservation Division. This application has been set for hearing before a Division Examiner at 8:15 a.m. on May 10, 2012. The hearing will be held in Porter Hall in the Oil Conservation Division's Santa Fe Offices located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505. You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

Parties appearing in cases are required by Division Rule 1208.B to file a Pre-hearing Statement four days in advance of a scheduled hearing. This statement must be filed at the Division's Santa Fe office at the above specified address and should include: the names of the parties and their attorneys; a concise statement of the case; the names of all witnesses the party will call to testify at the hearing; the approximate time the party will need to present its case; and identification of any procedural matters that are to be resolved prior to the hearing.

If you have any questions regarding this application, please contact Paul Thompson at (505) 327-4892.

Sincerely,

Adam G. Rankin Coulthurst Management & Investment, LLC

### Enclosures

#### Holland & Hart LLP

Phone [505] 988-4421 Fax (505) 983-6043 www.hollandhart.com

110 North Guadalupe Suite 1 Santa Fe, NM 87501 Mailing Address P.O. Box 2208 Santa Fe, NM 87504-2208 Denver Aspen Boulder Colorado Springs Denver Tech Center Billings Boise Cheyenne Jackson Hole Las Vegas Salt Lake City Santa Fe Washington, D.C. 🖏