N								
orm 3160-5 August 2007)	UNITED STATES DEPARTMENT OF THE INTI BUREAU OF LAND MANAGEI	OCD Hobbs ERIOR MENT	FORM OMB N Expires	APPROVED NO. 1004-0135 : July 31, 2010				
SUNDF Do not use abandoned	RY NOTICES AND REPORT this form for proposals to dri well. Use form 3160-3 (APD) f	S ON WELLS Il or to re-enter an for such proposals.	6. If Indian, Allottee	3 or Tribe Name				
SUBMIT IN T	TRIPLICATE - Other instruction	ns on reverse side.	7. If Unit or CA/Agr	eement, Name and/or No.				
1. Type of Well	Other: INJECTION	<u> </u>	8. Well Name and No MITCHELL B 7	. /				
2. Name of Operator CONOCOPHILLIPS COM	Contact: SU PANY E-Mail: Susan.B.Maun	SAN B MAUNDER der@conocophillips.com	9. APÌ Well No. 30-025-00591-	00-S1				
3a. Address MIDLAND, TX 79710	. 3b	 Phone No. (include area code h: 281-206-5281) 10. Field and Pool, o MALJAMAR	r Exploratory				
4. Location of Well (Footage, Se	c., T., R., M., or Survey Description	· · · · · · · · · · · · · · · · · · ·	11. County or Parish	, and State				
Sec 17 T17S R32E NWSV	V 1980FSL 660FWL		LEA COUNTY,	NM				
12. CHECK A	PPROPRIATE BOX(ES) TO IN	IDICATE NATURE OF	NOTICE, REPORT, OR OTHE	ER DATA				
TYPE OF SUBMISSION		ТҮРЕ О	FACTION					
Notice of Intent Subsequent Percent	AcidizeAlter Casing	 Deepen Fracture Treat 	re Treat					
Subsequent Report Final Ahandonment Notice	Casing Repair	New Construction Plug and Abandon	Recomplete Temporarily Abandon	🛛 Other				
	Convert to Injection	Plug Back	□ Water Disposal					
following completion of the invo testing has been completed. Find determined that the site is ready ConocoPhillips Company a the conditions of approval continues to support comp	Ived operations. If the operation results al Abandonment Notices shall be filed of for final inspection.) respectfully submits the attached for using this location for fresh w letion operations.	in a multiple completion or rec nly after all requirements, inclu d water quality analysis in vater poseidon tank. The p	completion in a new interval, a Form 31 ding reclamation, have been completed compliance with posseidon tank	60-4 shall be filed once , and the operator has				
			JUL 1 4	£ 2014				
			RECE	VED				
			4.					
14. I hereby certify that the foregoi	ng is true and correct. Electronic Submission #237	621 verified by the BLM We	Il Information System	•				
Comn	For CONOCOPH nitted to AFMSS for processing by	ILLIPS COMPANY, sent to BEVERLY WEATHERFOR	the Hobbs D on 05/02/2014 (14BMW0341SE)	1				
Name (Printed/Typed) SUSA	N B MAUNDER	Title SENIC	R REGULATORY SPECIALIST					
Signature (Electro	nic Submission)	Date 03/04/2	2014					
	THIS SPACE FOR	FEDERAL OR STATE	OFFICE USE					
APPROVED BY ACCEP	<u>'TED</u>	JAMES A _{Title} SUPERV	AMOS SORY EPS	Date 07/08/20				
Conditions of approval, if any, are att ertify that the applicant holds legal o which would entitle the applicant to c	ached. Approval of this notice does not r equitable title to those rights in the sub onduct operations thereon.	warrant or oject lease Office Hobbs						
itle 18 U.S.C. Section 1001 and Titl States any false, fictitious or fraudu	e 43 U.S.C. Section 1212, make it a crim lent statements or representations as to a	ne for any person knowingly an any matter within its jurisdiction	d willfully to make to any department on the second s	or agency of the United				
** BLM R		* BLM REVISED ** BL DAD 7/14 2	M REVISED ** BLM REVISE	ED** U 1 5 2012				

Analytical Report 479046

for Conoco Phillips

Project Manager: Ben Warden Maljamar Tank- Feb Sample HOBBS OCD

JUL 1 4 2014

RECEIVED

19-FEB-14

Collected By: Client





12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122): Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054) New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046): Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135) Louisiana (04176), USDA (P330-07-00105)

> Xenco-Lakeland: Florida (E84098) Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX) Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757) Xenco Tucson (EPA Lab code: AZ00989): Arizona (AZ0758)





19-FEB-14

Project Manager: **Ben Warden Conoco Phillips** 3300 North A Street Midland, TX 79705

Reference: XENCO Report No(s): 479046 Maljamar Tank- Feb Sample Project Address: Maljamar NM

Ben Warden:

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(s) 479046. 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. The uncertainty of measurement associated with the results of analysis reported is available upon request. 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. 479046 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.

espectfully.

Kelsey Brooks Project Manager

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Sample Cross Reference 479046



Conoco Phillips, Midland, TX

Maljamar Tank- Feb Sample

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Maljamar Tank-Feb Monthyl Sample	W	02-10-14 14:30		479046-001



CASE NARRATIVE



Client Name: Conoco Phillips Project Name: Maljamar Tank- Feb Sample

Project ID: Work Order Number(s): 479046 Report Date:19-FEB-14Date Received:02/11/2014

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments: Batch: LBA-933886 Inorganic Anions by EPA 300/300.1 Chloride recovered above QC limits in the Matrix Spike. Samples affected are: 479046-001. The Laboratory Control Sample for Chloride is within laboratory Control Limits

Batch: LBA-933941 Metals per ICP by EPA 200.7 Sodium recovered above QC limits in the Matrix Spike. Samples affected are: 479046-001. The Laboratory Control Sample for Sodium is within laboratory Control Limits

11

Project Id:

Contact: Ben Warden

Project Location: Maljamar NM

Certificate of Analysis Summary 479046

Conoco Phillips, Midland, TX

Project Name: Maljamar Tank- Feb Sample



Date Received in Lab: Tue Feb-11-14 08:47 am

Draft

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- - -

Report Date: 19-FEB-14

Project Manager: Kelsey Brooks

	Lab Id:	479046-0	01					
Analysis Requested	Field Id:	Maljamar Tank-Fel	b Monthyl					
Anuiysis Kequesieu	Depth:							
	Matrix:	WATER	ł					
· ·	Sampled:	Feb-10-14 1	4:30	-				
Alkalinity by SM2320B	Extracted:							
SUB: E871002	Analyzed:	Feb-13-14 1	7:07					
	Units/RL:	mg/L	RL					
Alkalinity, Total (as CaCO3)		165	4.00					
Carbon Dioxide by SM 4500-CO2 D	Extracted:							
SUB: E871002	Analyzed:	Feb-13-14 ()9:34					
	Units/RL:	mg/L	RL			•	-	
Carbon Dioxide, (Free)	· · · · · · · · · · · · · · · · · · ·	10.2	0.370					
Carbon Dioxide		155	1.25			· ·		
Hydrogen Sulfide by Calculation by	Extracted:							
SM4500S2-H	Analyzed:	Feb-18-14 1	5:51					
SUB: E8/1002	Units/RL:	mg/L	RL					
Hydrogen sulfide		ND	5.00					
Inorganic Anions by EPA 300/300.1	Extracted:	Feb-12-14 1	4:43		· · · · · · · · · · · · · · · · · · ·			
	Analyzed:	Feb-12-14 1	4:43					
	Units/RL:	mg/L	RL					
Chloride		43.8	5.00					
Sulfate		37.8	10.0					

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.

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Kelsey Brooks Project Manager

Project Id:

Contact: Ben Warden

Project Location: Maljamar NM

Certificate of Analysis Summary 479046

Conoco Phillips, Midland, TX



Project Name: Maljamar Tank- Feb Sample

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Date Received in Lab: Tue Feb-11-14 08:47 am

Report Date: 19-FEB-14

Project Manager: Kelsey Brooks

	Lab Id:	479046-0	01			
Anghoig Degrand	Field Id: 🕅	Aaljamar Tank-Fe	b Monthyl			
Analysis Kequestea	Depth:					
	Matrix:	WATE	R .			
	Sampled:	Feb-10-14 1	14:30	-		
Metals per ICP by EPA 200.7	Extracted:	Feb-13-14	10:30		·	
SUB: E871002	Analyzed:	Feb-13-14	15:27			
	Units/RL:	mg/L	RL			,
Barium		0.108	0.0100			
Calcium		50.2	0.200			
Hardness		178 U	1.32		 	
Iron	•	ND	0.200			
Magnesium		12.9	0.200			
Potassium		. 3.56	0.500			
Sodium		46.6	0.500			
Strontium		0.743	0.0200			· · ·
Resistivity by ASTM D1125	Extracted:					
SUB: E871002	Analyzed:	Feb-17-14	12:21			
· · · · · · · · · · · · · · · · · · ·	Units/RL:	Ohm-cm	RL			
Resistivity (as received)		1850	10.0			
Specific Conductance by EPA 120.1	Extracted:					
SUB: E871002	Analyzed:	Feb-14-14	14:52	•	• •	
	Units/RL:	uS/cm	RL			
Conductivity		541	2.00			
Sulfide by SM4500-S-F-00	Extracted:					
SUB: E871002	Analyzed:	Feb-17-14	16:39			
	Units/RL:	mg/L	RL			
Sulfide, total		ND	5.00			

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Kelsey Brooks Project Manager

Page 6 of 18

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Labo	ratories

Project Id:

Contact: Ben Warden

Project Location: Maljamar NM

Certificate of Analysis Summary 479046

Conoco Phillips, Midland, TX



Project Name: Maljamar Tank- Feb Sample

Draft

Date Received in Lab: Tue Feb-11-14 08:47 am

Report Date: 19-FEB-14

Project Manager: Kelsey Brooks

	Lab Id:	479046-0	J01				
Analysis Paguastad	Field Id:	Aaljamar Tank-Fo	eb Monthy				
Analysis Requested	Depth:						
	Matrix:	WATE	R				
	Sampled:	Feb-10-14	14:30				
TDS by SM2540C	Extracted:			 -			
	Analyzed:	Feb-12-14	13:00				
	Units/RL:	mg/L	RL				
Total dissolved solids		358	5.00				
Total Residue by SM2540B	Extracted:						
SUB: E871002	Analyzed:	Feb-17-14	14:00				
4	Units/RL:	mg/L	RL				
Total Residue		413	5.00				
pH, Electrometric by EPA 150.2	Extracted:	5					· ·
	Analyzed:	Feb-11-14	14:41			•	
	Units/RL:	Deg C	RL		·		
Temperature		19.7					
pH, Electrometric by EPA 150.2	Extracted:					1	
	Analyzed:	Feb-11-14	14:41				
	Units/RL:	SU	RL				
pH		8.53				·	

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Huns Roah

Kelsey Brooks Project Manager



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 affect the recovery of the spike concentration. This condition could also affect 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 quantitation limit and above the detection limit.
- 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.
- JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- ** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

- MDL Method Detection Limit SDL Sample Detection Limit
- PQL Practical Quantitation Limit MQL Method Quantitation Limit

LOD Limit of Detection

DL Method Detection Limit

NC Non-Calculable

- + NELAC certification not offered for this compound.
- * (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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hone	Fax
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813) 620-2000	(813) 620-2033
432) 563-1800	(432) 563-1713
770) 449-8800	(770) 449-5477
602) 437-0330	



Blank Spike Recovery



Project Name: Maljamar Tank- Feb Sample

Work Order #:	479046	Project ID:								
Lab Batch #:	933920	Sample: 933920	-1-BKS	Matrix						
Date Analyzed:	02/12/2014	Date Prepared: 02/12/2	.014	Analys						
Reporting Units:	mg/L	Batch #: 1	BLANK /	K/BLANK SPIKE RECOVERY STUDY						
	TDS by SM2540C	Blank Result	Spike Added	Blank Spike	Blank Spike	Control Limits	Flags			
	Analytes	[A]	[B]	Result [C]	%R [D]	%R				
Total dissolved sol	ids	10.0	1000	972	97	80-120				

Blank Spike Recovery [D] = 100*[C]/[B] All results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit



BS / BSD Recoveries



Project Name: Maljamar Tank- Feb Sample

Work Order #: 479046							Proj	ect ID:			
Analyst: ALA	D	ate Prepare	ed: 02/13/20	14			Date A	nalyzed:	02/13/2014		
Lab Batch ID: 933950 Sample: 933950-	1-BKS	Batch	#: 1					Matrix:	Water		
Units: mg/L		BLAN	K/BLANK	SPIKE /	BLANK	SPIKE DUP	LICATE	RECOV	ERY STU	DY	
Alkalinity by SM2320B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Alkalinity, Total (as CaCO3)	<4.00	250	257	103	250	257	103	0	80-120	20	· ·
Analyst: AMB	D	ate Prepare	ed: 02/12/20)14	-	-!	Date A	nalyzed:	02/12/2014	·	
Lab Batch ID: 933886 Sample: 650913-	1-BKS	Batch	1#: 1					Matrix:	Water		
Units: mg/L	[BLAN	K /BLANK	SPIKE /	BLANK	SPIKE DUP	LICATE	RECOV	ERY STU	DY	
Inorganic Anions by EPA 300/300.1 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Biank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<1.00	25.0	23.3	93	25.0	24.7	99	6	80-120	20	1
Sulfate	<2.00	25.0	24.3	97	25.0	24.7	99	2	80-120	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)| Blank Spike Recovery [D] = 100*(C)/[B] Blank Spike Duplicate Recovery [G] = 100*(F)/[E] All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Maljamar Tank- Feb Sample

Work Order #: 479046	x						Proj	ect ID:			
Analyst: MKO	D	ate Prepar	ed: 02/13/20	14			Date A	nalyzed:	02/13/2014		
Lab Batch ID: 933941 Sample: 650975-	1-BKS	-BKS Batch #: 1						Matrix:	Water		
Units: mg/L		BLAN	K/BLANK	SPIKE / J	BLANK S	SPIKE DUP	LICATE	RECOV	ERY STUI	DY	
Metals per ICP by EPA 200.7	Blank Sample Result [A]	Spike Added	Blank Spike Result	Blank Spike %R	Spike Added	Blank Spike Duplicate	Blk. Spk Dup. %R	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes		[13]		[U]	[E]	Result [F]	[G]				
Barium	<0.0100	1.00	0.995	100	1.00	0.975	98	2	85-115	20	
Calcium	<0.200	25.0	25.7	103	25.0	25.0	100	3	85-115	20	
lron	<0.200	5.00	5.26	105	5.00	5.10	102	3 .	85-115	20	
Magnesium	<0.200	25.0	25.1	100	25.0	24.3	97	3	85-115	20	
Potassium	<0.500	10.0	10.1	101	10.0	9.93	99	2	85-115	20	1
Sodium	<0.500	25.0	25.9	104	25.0	25.1	100	3	85-115	20	
Strontium	<0.0200	1.00	1.06	106	1.00	1.05	105	1	85-115	20	
Analyst: DHE	D	ate Prepar	ed: 02/14/20	14	-+	<u>, </u>	Date A	nalyzed:	02/14/2014		-h
Lab Batch ID: 934040 Sample: 934040	1-BKS	Batel	n#: 1					Matrix:	Water		
Units: uS/cm		BLAN	K/BLANK	SPIKE /]	BLANK	SPIKE DUP	LICATE	RECOV	ERY STU	DY	.
Specific Conductance by EPA 120.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result {C}	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Conductivity	-2.00	1410	1440	102	1410	1420	101		00.110	20	<u> </u>
	~2.00	1410	. 1440	102	1410	1450	101	I	90-110		<u> </u>

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|Blank Spike Recovery [D] = 100*(C)/[B]Blank Spike Duplicate Recovery [G] = 100*(F)/[E]All results are based on MDL and Validated for QC Purposes



BS / BSD Recoveries



Project Name: Maljamar Tank- Feb Sample

Work Order #: 479046							Proj	ect ID:			
Analyst: DHE	D	ate Prepar	ed: 02/17/20	14	Date Analyzed: 02/17/2014						
Lab Batch ID: 934189 Sample: 93418	39-1-BKS	Batcl	n #: 1					Matrix:	Water		
Units: mg/L		BLAN	K/BLANK	SPIKE /	BLANK	SPIKE DUP	LICATE	RECOV	ERY STUI)Y	
Sulfide by SM4500-S-F-00	Blank Sample Result [A]	Spike Added (B)	Blank Spike Result [C]	Blank Spike %R ID)	Spike Added	Blank Spike Duplicate Result (F)	Blk. Spk Dup. %R (G)	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											ļ
Sulfide, total	<5.00	50.0	42.8	86	50.0	43.2	86	1	80-120	20	
Analyst: ANS	D	ate Prepar	ed: 02/17/20	14			Date A	nalyzed:	02/17/2014		
Lab Batch ID: 934230 Sample: 93423	30-1-BKS	Bate	h#: 1					Matrix:	Water		
Units: mg/L		BLAN	K/BLANK	SPIKE /	BLANK	SPIKE DUP	LICATE	RECOV	ERY STU	DY	
Total Residue by SM2540B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Total Residue	<5.00	1000	1050	105	1000	1080	108	3	80-120	20	

Relative Percent Difference RPD = $200^{*}|(C-F)/(C+F)|$ Blank Spike Recovery [D] = $100^{*}(C)/[B]$ Blank Spike Duplicate Recovery [G] = $100^{*}(F)/[E]$ All results are based on MDL and Validated for QC Purposes

ACENCO Laboratories: Projec	and the second se														
Work Order #: 479046	. v		I												
Lab Batch #: 933886	Project ID:														
Date Analyzed: 02/12/2014	Date Prepared: 02/12	Date Prepared: 02/12/2014 Ar													
QC- Sample ID: 478846-001 S	Batch #: 1		I	Matrix: V	rix: Water										
Reporting Units: mg/L	MATE	MATRIX / MATRIX SPIKE RECOVERY STUDY													
Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag									
Chłoride	202	125	382	144	80-120	x									
Sulfate	<10.0	125	136	109	80-120										
Date Analyzed: 02/13/2014 QC- Sample ID: 478787-001 S	Date Prepared: 02/11 Batch #: 1	3/2014	· A	.nalyst: N Matrix: C	IKO fround Water										
Reporting Units: mg/L	MATRIX / MATRIX SPIKE RECOVERY STUDY														
Metals per ICP by EPA 200.7 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag									
Barium	0.270	1.00	1.26	99	70-130										
Calcium	60.5	25.0	87.3	107	70-130										
Iron	0.422 .	5.00	5.73	106	70-130										
Magnesium	12.9	25.0	37.0	96	70-130										
Potassium	2.73	10.0	13.7	110	70-130										
Sodium	193	25.0	228	140	70-130	X									
Strontium	0.568	1.00	1.62	105	70-130										

Matrix Spike Percent Recovery $[D] = 100^{*}(C-A)/B$ Relative Percent Difference $[E] = 200^{*}(C-A)/(C+B)$ All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

~



Form 3 - MS / MSD Recoveries

Project Name: Maljamar Tank- Feb Sample



Matrix Spike Percent Recovery [D] = 100*(C-A)/BRelative Percent Difference RPD = 200*[(C-F)/(C+F)] Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, $J \approx Present Below Reporting Limit$, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

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Work Order #: 479046



Project Name: Maljamar Tank- Feb Sample

Lab Batch #: 933950 Date Analyzed: 02/13/2014 17:07 Date Prepar QC- Sample ID: 479046-001 D Batch	ed: 02/13/2014	4 Ana Mai	Project I lyst: ALA trix: Water	ID:					
Reporting Units: mg/L	SAMPLE	OVERY							
Alkalinity by SM2320B		Sample Duplicate Result	RPD	Control Limits %RPD	Flag				
Analyte		· [D]							
Alkalinity, Total (as CaCO3)	165	166	1	20					
Lab Batch #: 933970 Date Analyzed: 02/13/2014 09:34 Date Prepar	ed: 02/13/2014	4 Ana	lyst: ALA						
QC- Sample ID: 479046-001 D Batcl	n #: 1	Mat	trix: Water	- 					
Reporting Units: mg/L	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY				
Carbon Dioxide by SM 4500-CO2 D Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag				
Carbon Dioxide	155 .	157	1	20					
Carbon Dioxide, (Free)	10.2	10.3	1	20					
Lab Batch #: 934040 Date Analyzed: 02/14/2014 14:52 Date Prepar QC- Sample ID: 479046-001 D Batch	ed: 02/14/2014	4 Ana Mat	lyst:DHE rix: Water		<u></u>				
Reporting Units: uS/cm	SAMPLE	/ SAMPLE	DUPLIC	ATE REC	OVERY				
Specific Conductance by EPA 120.1 Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag				
Conductivity	541	553	2	20					
Lab Batch #: 933920			·		·				
Date Analyzed: 02/12/2014 13:00 Date Prepar	ed: 02/12/2014	Ana	lyst: ALR						
QC- Sample ID: 478861-001 D Batch	ı#: 1	Mat	rix: Water						
Reporting Units: mg/L	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY				
TDS by SM2540C Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag				
Total dissolved solids	1900	2020	6	10					

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit



Sample Duplicate Recovery



Project Name: Maljamar Tank- Feb Sample

Work Order #: 479046

Lab Batch #: 934230			Project J	D :	
Date Analyzed: 02/17/2014 14:00 Date Prepar	r ed: 02/17/2014	4 An:	alyst: ANS		
QC- Sample ID: 479046-001 D Bate	h #: 1	Ma	trix: Water		
Reporting Units: mg/L	SAMPLE /	/ SAMPLE	DUPLIC	ATE REC	OVERY
Total Residue by SM2540B Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total Residue	413	406	2	20	ŀ. 1
Lab Batch #: 933884				· ·	
Date Analyzed: 02/11/2014 14:41 Date Prepar	ed: 02/11/2014	4 Ans	alyst: WRU		
QC- Sample ID: 479046-001 D Batch	n #: 1	Ma	trix: Water		
Reporting Units: Deg C	SAMPLE /	SAMPLE	DUPLIC	ATE REC	OVERY
pH, Electrometric by EPA 150.2 Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Temperature	19.7	19.7	0	20	
Lab Batch #: 933884 Date Analyzed: 02/11/2014 14:41 Date Prepar QC- Sample ID: 479046-001 D Batcl	ed:02/11/2014	Ana Ma	lyst: WRU		
Reporting Units: SU	SAMPLE	DUPLIC	ATE RECO	OVERY	
pH, Electrometric by EPA 150.2 Analyte	Parent Sample Result [A]	Sample Duplicate Rcsult [B]	RPD	Control Limits %RPD	Flag

Spike Relative Difference RPD 200 * | (B-A)/(B+A) | All Results are based on MDL and validated for QC purposes. BRL - Below Reporting Limit

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							CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST									•															
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	Project Manager:	Ben Warden	·				<u> </u>									•	Pro	ject	Nam	ie: <u>M</u>	aljan	har Ta	ank -	Febs	sampi	e					_
	Company Name	ConocoPhillips										<u></u>				•		Pro	ject	#:											
	Company Address:	: 3300 North A S	Street				· .										P	rojea	st Lo	oc: <u>m</u>	aljar	nar f	M								
	City/State/Zip:	Midland, TX 79	705	•															PO	#:											- {
	Telephone No:	432-250-3096					Fax	No:								R	eport	For	m at :	V] st	anda	ard	[] [.] T	RRP			NPD	ES	č
	Sampler Signature	Byron Murphy					e-m	ail:	be	n.war	den	@co	nocc	phill	ips.c	om			-							فناقيوه					ć
(lab use	only)	1																	T	- 	1		naly:	ze Fo	<u>r:</u> T		1	TT		2	
ORDE	R#: 47904	6								Pri	eserva	lion &	# of C	ontain	ers	Ма	itrix												phic	48, 72 h	
LAB # (lab use only)	FIE Maljamar Tank	LD CODE	nple	Beginning Depth	Ending Depth	Date Sampled	Time Sampled		Tend Thucked Total #. of Containers	 ▲ Ice * Ice 	HCI HCI	H ₂ SO ₄	NaOH	Na ₂ S ₂ O ₃ Mone ·	Other (Specify)	DW=Dinking Water SL=Sludge	A couramater accouracian NP=Non-Potable Specify Other	< Cations (Ca, Mg, Na, K)	Anions (Cl. SO4, Alkalinity)	× ×			< HCO ₃	Specific Gravity at 60F		 Total Solids & TDS 	 CO2, Calculated 	Resistivity, ohms/m at 77F	Bacteria: APB, SRB & Heterotro	KUSH IAI (Pre-Schedule) 24,	
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Special	Instructions: Please send me th	e invoice and	I will label	it with	the p	proper codes a	and my sig	natu	e.											Labo Sami	rato ole C	ry Co onta	iners	ients Inta	: ct?			Y	1	4	
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Client: Conoco Phillips

XENCO Laboratories Prelogin/Nonconformance Report- Sample Log-In



Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient Date/ Time Received: 02/11/2014 08:47:00 AM **Temperature Measuring device used :** Work Order #: 479046 Sample Receipt Checklist Comments #1 *Temperature of cooler(s)? 2.5 #2 *Shipping container in good condition? N/A #3 *Samples received on ice? Yes #4 *Custody Seals intact on shipping container/ cooler? N/A #5 Custody Seals intact on sample bottles? N/A #6 *Custody Seals Signed and dated? N/A #7 *Chain of Custody present? Yes #8 Sample instructions complete on Chain of Custody? Yes #9 Any missing/extra samples? No #10 Chain of Custody signed when relinquished/ received? Yes #11 Chain of Custody agrees with sample label(s)? Yes #12 Container label(s) legible and intact? Yes #13 Sample matrix/ properties agree with Chain of Custody? Yes #14 Samples in proper container/ bottle? Yes #15 Samples properly preserved? Yes #16 Sample container(s) intact? Yes #17 Sufficient sample amount for indicated test(s)? Yes #18 All samples received within hold time? Yes #19 Subcontract of sample(s)? Yes #20 VOC samples have zero headspace (less than 1/4 inch bubble)? Yes #21 <2 for all samples preserved with HNO3,HCL, H2SO4? Yes #22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH? Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by: Mms Moah Kelsey Brooks Checklist reviewed by: Mms Moah Kelsey Brooks

Date: 02/11/2014

Date: 02/11/2014