District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., 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 Department Oil Conservation Division 1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-144 Revised June 6, 2013

For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office.

For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

	Pit, Belov	w-Grade Tank, or			
120	the state of the state of the state of				
12136	Type of action: Below grade t	ank registration	•		
الاعد		posed alternative method			
45-55	·	w-grade tank, or proposed altern	native method		
	Modification t	to an existing permit/or registrat	ion		
	 , , ,	mitted for an existing permitted	or non-permitted pit,		
لمهليمه	below-grade tank, or proposed alternat				
ingiwes.	Instructions: Please submit one application (Form C				
environment. Nor ordinances.	that approval of this request does not relieve the operator r does approval relieve the operator of its responsibility to o				
1. Operator:	thompson Engineering and Production Corp.	OGRID #:37581	OIL CONS. DIV DIST.		
	15 E. Main St., Farmington, NM 87402				
	name:Kinbeto 15 #3		110 -		
	30-045-35411				
	KSection15Township				
	osed Design: Latitude36.22406 N		NAD: 1927 🔀 1983		
Surface Owner:	Federal State Private Tribal Trust or India	ın Allotment			
2.					
	ction F, G or J of 19.15.17.11 NMAC				
	Drilling Workover		- -		
	Emergency Cavitation P&A Multi-Well Fl	-	-		
	Jnlined Liner type: Thickness20mil 🔀 LLDP	E HDPE PVC Other	· · · · · · · · · · · · · · · · · · ·		
String-Reinfo					
Liner Seams: [X	Welded 🛮 Factory 🗌 Other	Volume:6,000bbl Dimension	ns: L_115′ x W_50′ x D_6′		
3.					
	e tank: Subsection I of 19.15.17.11 NMAC	· ·			
	bbl Type of fluid:				
	ion material:	-			
	containment with leak detection Wisible sidewalls,		ut-off		
	walls and liner Visible sidewalls only Other _				
Liner type: Thick	cknessmil	Other			
4.					
Alternative !					
Submittal of an	exception request is required. Exceptions must be sub	mitted to the Santa Fe Environmental Bure	au office for consideration of approval.		

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)	
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school	l, hospital,
institution or church)	
Four foot height, four strands of barbed wire evenly spaced between one and four feet	
Alternate. Please specify	
6.	
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)	
Screen Netting Other	
Monthly inspections (If netting or screening is not physically feasible)	
7.	
Signs: Subsection C of 19.15.17.11 NMAC	
12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers	
Signed in compliance with 19.15.16.8 NMAC	
8.	
<u>Variances and Exceptions:</u> Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.	
Please check a box if one or more of the following is requested, if not leave blank:	
☐ Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.	
Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.	
9.	
Siting Criteria (regarding permitting): 19.15.17.10 NMAC	
Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accematerial are provided below. Siting criteria does not apply to drying pads or above-grade tanks.	ptable source
material are provided below. String criteria does not apply to drying pads or above-grade tanks.	
General siting	
Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank.	Yes No
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	NA NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit.	Yes No
NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ NA
Within incorporated municipal houndaries or within a defined municipal fresh water well field covered under a municipal endinger	
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. (Does not apply to below grade tanks)	Yes No
- Written confirmation or verification from the municipality; Written approval obtained from the municipality	
Within the area overlying a subsurface mine. (Does not apply to below grade tanks)	Yes No
- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	163 110
Within an unstable area. (Does not apply to below grade tanks)	Yes No
 Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	
Within a 100-year floodplain. (Does not apply to below grade tanks)	Yes No
- FEMA map	
Below Grade Tanks	
Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured	
from the ordinary high-water mark).	Yes No
- Topographic map; Visual inspection (certification) of the proposed site	
Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;.	Yes No
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed.	1

sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) - Topographic map; Visual inspection (certification) of the proposed site	Yes No
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application.	Yes No
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	Yes No
Within 100 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	Yes No
Temporary Pit Non-low chloride drilling fluid	
Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	
	Yes No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application;	Yes No
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	Yes No
Within 300 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	Yes No
Permanent Pit or Multi-Well Fluid Management Pit	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).	
- Topographic map; Visual inspection (certification) of the proposed site	Yes No
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes No
Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of	
initial application NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	Yes No
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	Yes No
10. Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC	
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the do	cuments are
attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC) NMAC
Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 and 19.15.17.13 NMAC	9.15.17.9 NMAC
Previously Approved Design (attach copy of design) API Number: or Permit Number:	

Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC A List of wells with approved application for permit to drill associated with the pit. Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC				
Previously Approved Design (attach copy of design) API Number: or Permit Number:				
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Frosion Control Plan Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	documents are			
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan. Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Multi-well Fluid Alternative Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method	l Management Pit			
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached. Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC				
15. Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. In 19.15.17.10 NMAC for guidance.				
Ground water is less than 25 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No			
Ground water is between 25-50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No			

Title: OCD Permit Number:			
OCD Representative Signature: Approval Date: Approval Date:			
OCD Approval: Permit Application (including closure plant Closure Plan (only) OCD Conditions (see attachment)			
e-mail address:Telephone:			
Signature: Date:			
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and be Name (Print):			
Operator Application Certification:	oliof.		
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved) Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC			
Within a 100-year floodplain FEMA map	Yes No		
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	Yes No		
Within the area overlying a subsurface mine Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	Yes No		
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☐ No		
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	. Yes No		
- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site Written confirmation or verification from the municipality; Written approval obtained from the municipality	Yes No		
existence at the time of initial application.	. Yes No		
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes No		
Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	Yes No		
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA		

Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

Closure Completion Date:02/15/2012
20.
Closure Method: Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only) If different from approved plan, please explain.
Closure Report Attachment Checklist: _Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached. ☐ Proof of Closure Notice (surface owner and division) ☐ Proof of Deed Notice (required for on-site closure for private land only) ☐ Plot Plan (for on-site closures and temporary pits) ☐ Confirmation Sampling Analytical Results (if applicable) ☐ Waste Material Sampling Analytical Results (required for on-site closure) ☐ Disposal Facility Name and Permit Number ☐ Soil Backfilling and Cover Installation ☐ Re-vegetation Application Rates and Seeding Technique ☐ Site Reclamation (Photo Documentation)
On-site Closure Location: Latitude36.22406 N Longitude107.88753 W NAD:1927 🔀 1983
22. Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.
Name (Print):Paul C. Thompson
e-mail address:paul@walsheng.net Telephone:(505) 327-4892



Petroleum Engineering Consulting Lease Management Contract Pumping 7415 East Main Farmington, New Mexico 87402 (505) 327-4892 • Fax: (505) 327-9834

August 11, 2013

CERTIFIED MAIL

Bureau of Land Management Farmington Field Office 6251 College Blvd., Suite A Farmington, NM 87402

Re: Thompson Engineering and Production Corp.

Kinbeto 15 #3 (30-045-35411)

To Whom It May Concern,

Thompson Engineering and Production Corp. is notifying you that they have buried the drill cuttings in the reserve pit. The cutting were tested according to NMOCD rules, (Subsection B of 19.15.17.13 (B) (1)(b) NMAC) and found to meet all of the criteria for on-site burial. No action is required on your part. If you have any questions, please don't hesitate to call me.

Sincerely,

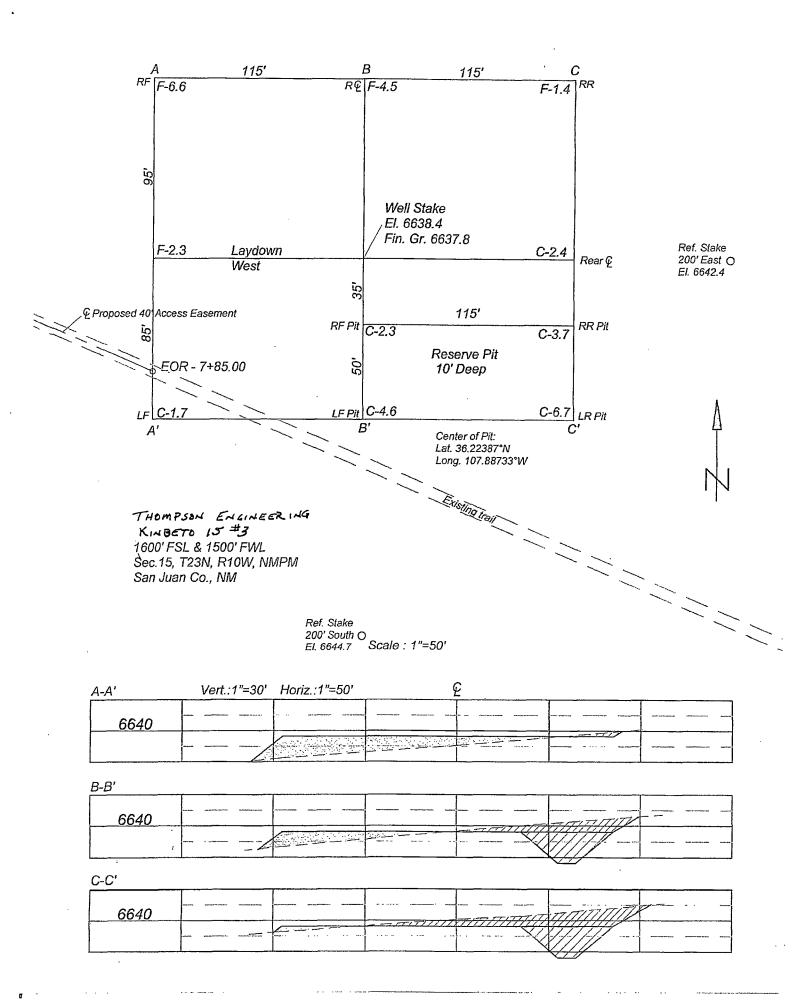
Paul C. Thompson, P.E.

Paul C. Thoys-

President

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	(Endorsement Required)			
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Report Summary

Client: Thompson Engineering

Chain of Custody Number: 15084

Samples Received: 01-24-13

Job Number: 07173-0001

Sample Number(s): 64131

Project Name/Location: Kinbeto 15 #3

Entire Report Reviewed By:

Date: /

The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.



Nonhalo nated Volatile Organics Total Petroleum Hydrocarbons

Client:	Thompson Engineering	Project #:	07173-0001
Sample ID:	Kinbeto 15 #3	Date Reported:	01-25-13
Laboratory Number:	64131	Date Sampled:	01-23-13
Chain of Custody No:	15084	Date Received:	01-24-13
Sample Matrix:	Soil	Date Extracted:	01-24-13
Preservative:	Cool	Date Analyzed:	01-25-13
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	0.6	0.1
Total Petroleum Hydrocarbons	0.6	

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:

Kinbeto 15 #3





Nonhalogenated Volatile Organics Total F coleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	0125TCAL QA/QC	Date Reported:	01-25-13
Laboratory Number:	64129	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	01-25-13
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	· Accept: Range
Gasoline Range C5 - C10	01-25-13	9.9960E+02	1.0000E+03	0.04%	0 - 15%
Diesel Range C10 - C28	01-25-13	9.9960E+02	1.0000E+03	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range	
Gasoline Range C5 - C10	3,220	3,360	4.3%	0 - 30%	
Diesel Range C10 - C28	3,030	3,270	7.9%	0 - 30%	
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	3,220	250	3,430	98.9%	75 - 125%
Diesel Range C10 - C28	3,030	250	3,420	104%	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 Samples 64129-64133





Analytical Laboratory

Client:	Thompson Engineering	Project #:	07173-0001
Sample ID:	Kinbeto 15 #3	Date Reported:	01-28-13
Laboratory Number:	64131	Date Sampled:	01-23-13
Chain of Custody:	15083	Date Received:	01-24-13
Sample Matrix:	['] Soil	Date Analyzed:	01-25-13
Preservative:	Cool	Date Extracted:	01-24-13
Condition:	Intact	Analysis Requested:	BTEX
		Dilutions	E0

	Dilution:	50	
		Det.	
	Concentration	Limit	
Parameter	(ug/Kg)	(ug/Kg)	
Benzene	ND	10.0	
Toluene	ND	10.0	
Ethylbenzene	ND	10.0	
p,m-Xylene	ND	10.0	
o-Xylene	ND	10.0	
Total BTEX	ND		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	91.2 %
	1,4-difluorobenzene	90.5 %
•	Bromochlorobenzene	93.9 %

References:

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

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846.

USEPA, December 1996.

Comments:

Kinbeto 15 #3







	~	<i>7</i>			
elient:	N/A		Project #:		N/A
Sample ID:	0125BCAL QA/QC		Date Reported:		01-25-13
Laboratory Number:	64130		Date Sampled:		N/A
Sample Matrix:	Soil		Date Received:		N/A
Preservative:	N/A		Date Analyzed:)1 - 25-13
Condition:	N/A		Analysis:		BTEX
E COLEGOSTER CONTROL SALVENT FOR CONTROL OF THE PROPERTY OF THE CONTROL OF THE CO	 And the supplemental of the state of the state of the supplemental of the state of the supplemental of the state of the state of the supplemental of the state of the state of the supplemental of the state of the s	TO A TANK OF A STANK AND A STANK	Dilution:		50
Calibration, and	, ⊱l-Cál RF:	C-Cal RF:	%Diff.	Blank	Detect.
Detection Limits (ug/L)	A CONTRACTOR OF THE PARTY OF TH	ccept. Range 0-15%	ACCUMANT OF THE	Conc	Limit
	ing sa Sa Pilanga Basis sa Pal an	Machan attiched at 15 a	ราช คือ คำกับเรายัง กั	1 29778	The second of the second
Benzene	1.5084E-05	1.5084E-05	0.000	ND	0.2
Toluene	1.6509E-05	1.6509E-05	0.000	ND	0.2
Ethylbenzene	1.8556E-05	1.8556E-05	0.000	ND	0.2
p,m-Xylene	1.6264E-05	1.6264E-05	0.000	ND	0.2
o-Xylene	1.9215E-05	1.9215E-05	0.000	ND	0.2
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect, Limit
Benzene	ND	ND	0.00	0 - 30%	10
Toluene	ND	ND	0.00	0 - 30%	10
Ethylbenzene	ND	ND	0.00	0 - 30%	10
p,m-Xylene	ND	ND	0.00	0 - 30%	10
o-Xylene	ND	ND	0.00	0 - 30%	10
o Aylone		145	0.00	0 - 30 /0	10
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
D	ND	0500	0.400		
Benzene	ND	2500	2400	96.0	39 - 150
Toluene	ND	2500	2390	95.6	46 - 148
Ethylbenzene	ND	2500	2400	96.0	32 - 160
p,m-Xylene	ND	5000	4790	95.8	46 - 148
				•	
o-Xylene	ND	2500	2420	96.8	46 - 148

ND - Parameter not detected at the stated detection limit.

Dilution: Spike and spiked sample concentration represent a dilution proportional to sample dilution.

*Note

Duplicate outside acceptable limits

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 64130-64133.



Chloride



Client: Thompson Engineering Kinbeto 15 #3 Sample ID:

64131 Lab ID#:

Sample Matrix: Preservative: Condition:

Soil Cool Intact Project #: 07173-0001

Date Reported: 01-28-13

Date Sampled: 01-23-13 Date Received: 01-24-13

Date Analyzed: 01-25-13

Chain of Custody: 15084

Parameter

Concentration (mg/Kg)

Total Chloride

50

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:

Kinbeto 15 #3



15084

CHAIN OF CUSTODY RECORD

Client:			ject Name / Location						ANALYSIS / PARAMETERS														
THONESSON ENGINE	RING	- 1	KINBETO 15#3														,				 -		
Email results to:		Sa	mpler Name:		··				(6	21)	(0											-	
PAULE WALSHENG. N	'ET)	PAUL THO.	nePso.	4				8	80	826	S		Ì		-							
Client Phone No.:		Clie	ent No.:						po	햝	hod	letal	듣	ı	H/F	910	F	ш				8	itact
327-4892			07173-	000	51				Meth	₩ (¥	Met	8 №	/ A		with	ple	418	문			-	<u>e</u> C	e E
Sample No./ Identification	Sample	Sample	Lab No.	No./	Volume	1	eservat	ive	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anlon	교	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
	Date	Time		or Co	ntainers	HgCl ₂	HCI		F	8		Ш	0	<u>ac</u>	-	0	-	0				0)	 [
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Relinquished by: (Signature)						Recei	ved b	y: (Śi	gnatu	ire				∵		Ž	5						
Sample Matrix			····													•	<u></u>					-	\dashv
Soil 🔀 Solid 🗌 Sludge 🔲	Aqueous 🗌	Other 🔲																					
☐ Sample(s) dropped off after t	hours to sec	ure drop of	area.	} €	n V Anal	ir () † (e (atory		-												
5795 US Highway 64	• Farmingto	n, NM 8740	• 505-632-0615 • TI	ree Spri	ngs • 65 N	herca	to Stre	et, Sı	uite 1	15, Dı	urang	10, C	O 813	01 • 1	labor	ratory	/@en	virote	ch-ind	c.con	n		

14676

CHAIN OF CUSTODY RECORD

Client: THOMETSON ENGINE	EERING	Р	Project Name / Locati	ion: <i>16</i>	#3				ANALYSIS / PARAMETERS													
Email results to: PAUL @ WALSHENG.		s	Sampler Name: FAUL THOM						8015)	d 8021)	8260)	<u>s</u>	 		0	-				-		
Client Phone No.: 327-4892		С	Client No.:	3-0	00 i				TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P	CO Table 910-1	TPH (418.1)	HIDE			le Cool	Sample Intact
Sample No./ Identification	Sample Date	Sample Time	Lab No.	of Co	/Volume ontainers		reservat HCI	ive	ТРН (ВТЕХ	voc (RCR.	Cation	RCI	TCLP	00 T	TPH (CHLORIDE			Sample	Samp
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Relinquished by: (Signature)						Recei	ved by	y: (Siç	gnatu	ire)		•										
Sample Matrix Soil 🔀 Solid 🗌 Sludge 🗍 7	Aqueous 🗌	Other []																			
Sample(s) dropped off after h	iours to sec	ure drop o	iff area.	3 €	N V ∩ €	ir C) [(₽ €	itory												•	
5795 US Highway 64	• Farmingte	on, NM 874	01 • 505-632-0615 • Th	hree Spri	ngs • 65 N	1ercad	lo Stre	et, Su	ite 11	5, Du	ırangı	o, CC	8130	01 - io	aboro	atory(@env	irotec	:h-inc.	com		

TED STATES f of the interior BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0135 Expires Jnovember 30, 2000

07 2012	5.	Lease	Serial	Ŋ
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ı	AN/	NIN/I	109	1

6. If Indian, Allottee or Tribe Name

Do not use ti	his form	for propos	als to	drill or	reenter	an
abandoned we	ell. Use i	Form 3160-3	(APD) f	for such	proposa	ıls.

SUNDRY NOTICES AND REPORTS ON WELLS

7. If Unit or CA/Agreement, Name and/or No. SUBMIT IN TRIPLICATE - Other instructions on reverse side Type of Well Oil Well Gas Well Other 8. Well Name and No. Name of Operator Kinbeto 15 #3 Thompson Engineering and Production Corp. 9. API Well No. 3a. Address 30-045-35411 Phone No. (include area code) 505-327-4892 7415 E. Main, Farmington, NM, 87402 10. Field and Pool, or Exploratory Area Location of Well (Footage, Sec., T., R., M., or Survey Description) Basin Fruitland Coal 1600' FSL & 1500' FWL, Section 15, T23N, R10W 11. County or Parish, State San Juan

12. CHECK A	PPROPRIATE BOX(ES) TO	INDICATE NATURE OF	NOTICE, REPORT, OR OTHE	ER DATA
TYPE OF SUBMISSION		TYP	E OF ACTION	
Notice of Intent Subsequent Report	Acidize Alter Casing Casing Repair Change Plans	Deepen Fracture Treat New Construction Plug and Abandon	Production (Start/Resume) Reclamation Recomplete Temporarily Abandon	Water Shut-Off Well Integrity Other Production Casing & Cement
Final Abandonment Notice	Convert to Injection	Plug Back	Water Disposal	

13. Describe Proposed or Completed Operations (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days Following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once Testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

11/29/12 TD 7-7/8" production hole at 1085' KB. Ran 27 jts (1080.82') of 5-1/2", 15.5#, J-55, LT&C new casing and set at 1085' KB Cement with 100 sx (206 cu.ft.) of CI "G" with 2% SMS and 1/8 pps polyflake and 75 sx (89 cu.ft.) of CI "G" with 1/8 pps polyflake. Displaced the plug with 25.3 bbls of water and down at 1630 hrs 11/29/12. Bumped the plug to 1500 psi - floats held OK. Circulated 11 bbls of cement to surface. Set the slips with 14,000#. Released the rig and prepared to move.

Note: Cored interval from 856 to 912'. Took three coal samples for analysis.

		
14. I hereby certify that the foregoing is true and correct	1	
Name (Printed/Typed) Paul C. Thompson, P.E.	Title	President
Signature Paul C. Thomps -	Date	December 6, 2012
THIS SPACE FO	R FEDERAL OR STA	ATE USE
Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not ward certify that the applicant holds legal or equitable title to those rights in the subject which would entitle the applicant to conduct operations thereon.	rant or Office t lease	

Title 18 U.S.C. Section 1001, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Form 3 160-5 • (August 1999)

.ED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

JAN 25 2013

FORM APPROVED OMB No. 1004-0135

Expires Inovember 30, 2000

5. Lease Serial No.

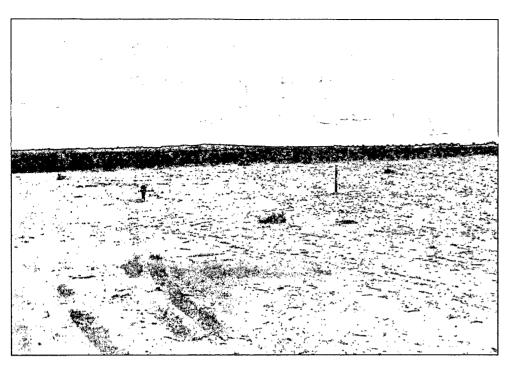
MMM	109403

Do not use thi abandoned well	s form for proposals to c . Use Form 3160-3 (APD) fo	drill or or such	reenternan; "proposáls".	in Fle .id !/:	ild Office anagonio	6. If Indian, All	ottee or Tribe Name
	ICATE – Other instruc						VAgreement, Name and/or No.
1. Type of Well Oil Well X Gas Well	Other					8. Well Name a	
Name of Operator Thompson Engineering and Pr	oduction Corp.					Kinbeto 15 #	
3a. Address		3b. Pho	one No. (include	area c	code)	30-045-3541	
7415 E. Main, Farmington, NN	<i>1</i> , 87402	505-32	7-4892			1	ol, or Exploratory Area
4. Location of Well (Footage, Sec., T.,						Basin Fruitla	
1600' FSL & 1500' FWL, Section	ON 15, 123N, RIUW					11. County or Pa	rish, State
						San Juan	
12. CHECK AP	PROPRIATE BOX(ES) TO IN	DICATE	NATURE OF	TON 5	TICE, REPO	RT, OR OTHER	R DATA
TYPE OF SUBMISSION			TYP	E OF	ACTION		
Notice of Intent	Acidize Alter Casing		ture Treat		Reclamation	Start/Resume)	Water Shut-Off Well Integrity
Subsequent Report	Casing Repair Change Plans	=	Construction and Abandon	片	Recomplete Temporarily	Abandon	Other Spud & Surface Casing
Final Abandonment Notice	Convert to Injection	= -	Back	ă	Water Dispo		
13. Describe Proposed or Completed Oper If the proposal is to deepen direction Attach the Bond under which the wo Following completion of the involved Testing has been completed. Final Adetermined that the site is ready for final 11/12/12 Spud 12-1/4" surface with 95 sx (112 cu.ft.) of CI "Ottested the BOP and choke manual contents."	e hole. Drilled to 135'. Ran 3 "with 2% CaCl2 and 1/4 pp	its (126 s polyfla	6.05') of 8-5/8 ake. Circulate	3", 247 ed 5 b	#, J-55, STo	&C new casing ent to surface.	and set at 132' KB. Cmt. NU BOP and pressure
·				4	ai <i>c</i> epte	Ó FOR FELCO	······································
					EER:	0 6 2013	
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				8	A Willig	nfield Offic am. Tamb	ekou ·
14. I hereby certify that the foregoing is	true and correct	Lesa					
Name (Printed/Typed) Paul C. Tho	ompson, P.E.	Title	;		þ	resident	
Signature 2	9	Date	:		Novem	nber 16, 2012	
Rus C. Tro	THIS SPACE I	OR FE	DERAL OR ST	ATE L			
Approved by			Title			Date	
Conditions of approval, if any, are attached certify that the applicant holds legal or equivalent would entitle the applicant to condu	uitable title to those rights in the sub	varrant or ject lease	Office				
				_=			

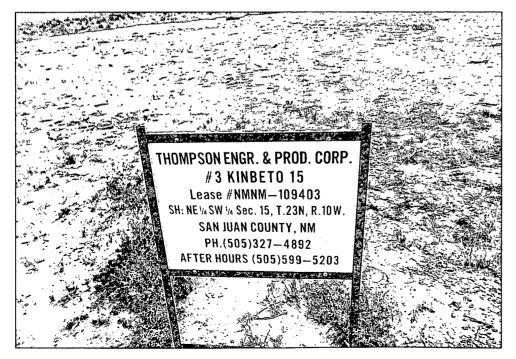
Thompson Engineering and Production Company Pit Closure Activities Kinbeto 15 #3

Closure Activities:

- 1 The free standing liquids in the pit were allowed to evaporate.
- A five point composite sample was taken of the pit using sampling tools and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). The samples were mixed with native soils in a 3:1 ratio. The resultant sample was tested by Envirotech Analytical Laboratory and the results are attached.
- 3 Detrick Services performed the reclamation activities on this location. They think they called the OCD Aztec office prior to starting the clean-up activities but they were not able to provide any documentation. Written documentation (or confirming emails) will be requested in the future.
- 4 Pit contents were mixed with native soils in order to achieve the solidification process. The mixing ratio did not exceed 3 parts clean soil to 1 part pit contents. After mixing the contents were determined to be safe and stable.
- The temporary pit liner was removed above "mud level" after stabilization. The part of the liner that was removed was disposed of at the Waste Management landfill on Crouch Mesa.
- After the solidification and testing, the pit area was backfilled with compacted, non-waste containing, earthen material with a minimum of four feet of cover. The top foot of cover was the top soil that was stock-piled during the construction of the pit.
- 7 The pit area and cut and fill slopes were re-contoured to match fit, shape, line, form and texture of the surrounding area. Drainage ditches were cut above the cut slope to prevent ponding and erosion.
- Thompson Engineering and Production seeded the re-claimed areas in May of 2013 using a discless drill tool. Seeding was accomplished on the contour using a BLM stipulated seed mixture consisting of Western wheatgrass, Indian ricegrass, Slender wheatgrass, Crested wheatgrass, bottlebrush squirreltail, and four-wing saltbush with an 80% purity rating. A total of 26# of bulk seed was used on this location.
- 9 A 4" diameter steel marker was installed in the center of the temporary pit. The marker contained the following information: Operator Name, Lease Name, Well Name and Number, unit Number, Section, Township, Range and an indicator that the marker is an onsite burial location











Analytical Report

Report Summary

Client: Thompson Engineering

Chain Of Custody Number: 17372

Samples Received: 8/27/2014 1:27:00PM

Job Number: 07173-0001 Work Order: P408118

Project Name/Location: Kinbeto 15 #3

Entire Report Reviewed By:

Tim Cain, Laboratory Manager

9/3/14

Date:

RCVD SEP 5'14

OIL CONS. DIV.

DIST. 3

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



7415 E. Main St

Farmington NM, 87402

Project Name:

Kinbeto 15 #3

Project Number:

07173-0001

Project Manager:

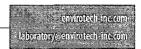
Paul Thompson

Reported:

03-Sep-14 18:16

Analyical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Kinbeto 15 #3	P408118-01A	Soil	08/26/14	08/27/14	Glass Jar, 4 oz.





7415 E. Main St

Farmington NM, 87402

Project Name:

Kinbeto 15 #3

Project Number: Project Manager: 07173-0001

Par

Paul Thompson

Reported:

03-Sep-14 18:16

Kinbeto 15 #3 P408118-01 (Solid)

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Petroleum Hydrocarbons by 418.1									
Total Petroleum Hydrocarbons	453	34.8	mg/kg	1	1436012	09/02/14	09/02/14	EPA 418.1	



7415 E. Main St

Farmington NM, 87402

Project Name:

Kinbeto 15 #3

Project Number:

07173-0001

Project Manager:

Paul Thompson

Reported: 03-Sep-14 18:16

Total Petroleum Hydrocarbons by 418.1 - Quality Control

Envirotech Analytical Laboratory

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1436012 - 418 Freon Extraction						_				
Blank (1436012-BLK1)				Prepared &	Analyzed:	02-Sep-14				
Total Petroleum Hydrocarbons	ND	34.9	mg/kg							
Duplicate (1436012-DUP1)	Source	e: P408118-	01	Prepared &	Analyzed:	02-Sep-14				
Total Petroleum Hydrocarbons	424	35.0	mg/kg		453			6.72	30	
Matrix Spike (1436012-MS1)	Source	e: P408118-	01	Prepared &	Analyzed:	02-Sep-14				
Total Petroleum Hydrocarbons	2080	34.9	mg/kg	2020	453	80.9	80-120			





Project Name:

Kinbeto 15 #3

7415 E. Main St

Project Number: Project Manager: 07173-0001 Paul Thompson **Reported:** 03-Sep-14 18:16

Farmington NM, 87402

Notes and Definitions

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference



17372

CHAIN OF CUSTODY RECORD

Client:			Pro	ject Name / Location		>								Α	NÁL	YSIS	/ PAI	R'AM	ETEF	is			
THOMPSON ENGINE	EERING			KINBETO	/2 . 3	-	······································		\dashv			1	1			ı	T	Τ	T	ГТ	- 1		r
Email results to:			Sar	npler Name:		_			-	(5)	021	(09											
PAUL C. WALSHENG, N	(ET			PAUL TH	0m758	1				98	8	1 82	S	_		<u>a</u>	1						
Client Phone No.:			Clie	ent No.:						De l	tho	90	Meta	nior		Ì	910	=	<u> </u>			00	tact
505-327- 4892				07173	000	<u> </u>				Vet	<u>₹</u>	Med	8	/ A		¥iŧ	ple	418	윤			Ое	e lu
Sample No./ Identification	Sample Date	Samp Time		Lab No.		/olume ntainers		HCI HCI	e	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	CO Table 910-1	TPH (418.1)	CHLORIDE			Sample Cool	Sample Intact
KIMBETO 15#3	8/26/14	3:71	М.	P408118-01	1-4	0z												X				N	y
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Jan C. Thom	u —				6/27/4	1327				100	and the second				1					awadan	\$/271	1 13	27
Relinquished by: (Signature)							Rece	ived by	r: (Siç	gnatu	ле)												
Sample Matrix															·····			_				-	
Soil Solid Sludge	Aqueous [] Othe	r 🔲																				
Sample(s) dropped off after						And										7. b						·	
5795 US Highway 6	4 • raimingi	ON, NM (5/40	1 - 202-027-0012 - 1	miee spri	ngs • ob	Merca	CO 21166	E1. 90	me I	3, U	niaut	30, C	O BIS	100 ·	GDD	idion	λισιeυ	MLO 16	cn-inc	Pac	e 6 c	of 6

Thompson Engineering and Production Corp

Temporary Reserve Pit Inspection Form

Well Name: Kinbeto 15 #3

Date	Liner Intact	Freeboard	Approximate Free Liquid	Checked By	Notes:
12/6/2012	? Yes	5'	2'	JC	
12/13/2014	Yes	7'	0'	JC	Detrick pulled water to AugaMoss
1/10/2013	3 Yes	7'	0'	JC	Pit is dry

												WEAR OF	TRIPS						-	
DEPTH I	NTERV	/AL	DRJLLD	COR	_	FORM	<u></u>		ROTARY	WT ON	BUMB	PUMP	NO. 1	= PU	JMP NO. 2	PUM	P NO. 3	PUM	P NO. 4	TOTAL
FROM		то	REAMR COREC	CORE NO.			RECOVERY)	1	TABLE SPEED	WT. ON BIT	PUMP PRESSURE	LINER SIZE	S.P.M.	LINE SIZE	R S.P.M.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	PUMP OUTPUT
																<u></u>		ļ	-	
																				-
		DEPTH	DEV.		DIR.	TVD	HORIZ. DISP.	DE	PTH	DEV.	DIR.	TVD	HOF	RIZ. P.	DEPTH	DEV.	DIR.		TVD	HORIZ. DISP.
DEVIATION		· ·	-								-						_	_		
TIME	LOG		ELAPSEI TIME		ODE NO.	DETAILS	OF OPERATION	ONS	N SEOUE	NCE AND	BEMARKS									
FROM	+	ТО	TIME			JETTINE,						/					-d	·/-		
	\vdash												INBE	70	/S #/3	<u> </u>	E /,	11/3	0/12	
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DEPTH II	NTERV	'AL	DRILLD	CORE		FORM	ATION		ROTARY	WT. ON	PUMP	PUMP	NO. 1	PU	MP NO. 2	PUMI	P NO. 3	 	P NO. 4	TOTAL
	VTERV		DRILLD REAMR COREC	CORE NO.			ATION RECOVERY)		ROTARY TABLE SPEED	WT. ON BIT	PUMP PRESSURE	PUMP LINER SIZE	NO. 1	PU LINEF SIZE	RSPM	PUMI LINER SIZE	P NO. 3	PUMI LINER SIZE	P NO. 4	PUMP
			REAMR COREC						TABLE			LINER		LINE	RSPM	LINER	T	LINER	Τ	PUMP
			REAMR COREC						TABLE			LINER		LINE	RSPM	LINER	T	LINER	Τ	PUMP
			REAMR COREC						TABLE			LINER		LINEF	RSPM	LINER	T	LINER	S.P.M.	PUMP
DEPTH II FROM DEVIATION RECOR	NO	то	REAMR COREC		(5	SHOW CORE	RECOVERY)		TABLE	BIT	PRESSURE	LINER	S.P.M.	LINEF	R S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMP OUTPUT
DEVIATION RECOR	NO	то	DEV.	NQ.	DIR.	TVD	HORIZ. DISP.	DE	TABLE SPEED	DEV.	DIR.	LINER	S.P.M.	LINEF	R S.P.M.	LINER	S.P.M.	LINER	S.P.M.	OUTPUT
DEVIATION RECOR	DN D	то	DEV.	NQ.	DIR.	TVD	RECOVERY)	DE	TABLE SPEED	DEV.	DIR. REMARKS	TVD	S.P.M.	LINEF SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	PUMP OUTPUT
DEVIATION RECOR	DN D	DEPTH TO	DEV.	NQ.	DIR.	TVD DETAILS	HORIZ. DISP.	DE	TABLE SPEED	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINEF SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	PUMP OUTPUT
DEVIATION RECOR	DN D	DEPTH TO	DEV.	NQ.	DIR.	TVD DETAILS	HORIZ DISP.	DE	TABLE SPEED	DEV.	DIR.	LINER SIZE	S.P.M.	LINEF SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	PUMP OUTPU
DEVIATION RECOR	DN D	DEPTH TO	DEV.	NQ.	DIR.	TVD DETAILS	HORIZ. DISP.	DE	TABLE SPEED	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINEF SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	PUMP OUTPU
DEVIATION TIME	DN D	DEPTH TO	DEV.	NQ.	DIR.	TVD DETAILS	HORIZ. DISP.	DE	TABLE SPEED	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINEF SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	PUMP OUTPU
DEVIATION TIME	DN D	DEPTH TO	DEV.	NQ.	DIR.	TVD DETAILS	HORIZ. DISP.	DE	TABLE SPEED	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINEF SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	PUMP OUTPU
DEVIATION TIME	DN D	DEPTH TO	DEV.	NQ.	DIR.	TVD DETAILS	HORIZ. DISP.	DE	TABLE SPEED	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINEF SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	PUMP OUTPU
DEVIATION TIME	DN D	DEPTH TO	DEV.	NQ.	DIR.	TVD DETAILS	HORIZ. DISP.	DE	TABLE SPEED	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINEF SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	PUMP OUTPU
DEVIATION TIME	DN D	DEPTH TO	DEV.	NQ.	DIR.	TVD DETAILS	HORIZ. DISP.	DE	TABLE SPEED	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINEF SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	PUMP OUTPU
DEVIATION RECOR	DN D	DEPTH TO	DEV.	NQ.	DIR.	TVD DETAILS	HORIZ. DISP.	DE	TABLE SPEED	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINEF SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	PUMP OUTPUT
DEVIATION RECOR	DN D	DEPTH TO	DEV.	NQ.	DIR.	TVD DETAILS	HORIZ. DISP.	DE	TABLE SPEED PTH N SEQUE	DEV.	DIR. REMARKS	TVD	S.P.M.	LINEF SIZE	S.P.M.	DEV.	S.P.M.	LINER	S.P.M.	PUMP OUTPU

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DEPTH I	INTEF	RVAL	DRILLD REAMR	CORE			IATION	ROTARY TABLE	W 1. ON	PUMP		NO. 1	 -	NO. 2	 	NO. 3		NO. 4	TOTA
FROM		то	COREC	NO.		(SHOW CORE	E RECOVERY	SPEED	BIT	PRESSURE	LINER	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	OUTPL
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DEPTH I	INTER	IVAL	DRILLD	CORE		FORM	ATION	ROTARY	Į WI. OIV	PUMP	PUMP	NO. 1	PUMP	NO. 2	PUMP	NO. 3	PUMP		TOTA
DEPTH II	INTER	TO TO	DRILLD REAMR COREC	CORE NO.			ATION : RECOVERY)	TARIF	WT. ON BIT	PUMP PRESSURE	PUMP LINER SIZE	NO. 1	PUMP LINER SIZE	NO. 2 S.P.M.	PUMP LINER SIZE	NO. 3	PUMP LINER SIZE		TOTAL PUMF OUTPL
FROM		то	REAMR COREC		-	SHOW CORE	RECOVERY)	TABLE SPEED	BIT	PRESSURE	LINER SIZE	S.P.M.		Γ—	 				
					-		RECOVERY)	ROTARY TABLE SPEED	Į WI. OIV	PUMP PRESSURE	LINER			Γ—	 				PUMF OUTPL
FROM		то	REAMR COREC		-	SHOW CORE	RECOVERY)	TABLE SPEED	BIT	PRESSURE	LINER SIZE	S.P.M.		Γ—	 				PUMF OUTPL
FROM		то	REAMR COREC		-	SHOW CORE	RECOVERY)	TABLE SPEED	BIT	PRESSURE	LINER SIZE	S.P.M.	LINER	Γ—	 			S.P.M.	PUMF
FROM	1	то	REAMR COREC	NO.	-	SHOW CORE	RECOVERY)	TABLE SPEED	BIT	PRESSURE	LINER SIZE	S.P.M.	LINER SIZE	Γ—	 			S.P.M.	PUMF OUTPL
FROM	ON	TO R.S.	REAMR COREC	NO.	=	SHOW CORE	RECOVERY)	TABLE SPEED	BIT	PRESSURE	LINER	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION	ON RD	DEPTH	REAMR COREC	NO.	=	SHOW CORE	RECOVERY)	TABLE SPEED	BIT	PRESSURE	LINER	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECOR	ON	DEPTH	REAMR COREC	NO.	=	TVD	HORIZ. DISP.	TABLE SPEED	BIT	PRESSURE 3 S	LINER	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECOR	ON RD	DEPTH TO	DEV.	NO.	DIR.	TVD DETAILS	HORIZ. DISP.	TABLE SPEED	BIT	PRESSURE 3 S	LINER	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECOR	ON RD	DEPTH	DEV.	No.	DIR.	TVD DETAILS	HORIZ. DISP.	TABLE SPEED	BIT	PRESSURE 3 S	LINER	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
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DEVIATION RECOR	ON RD	DEPTH TO	DEV.	D CO	DIR.	TVD DETAILS	HORIZ. DISP.	DEPTH ONS IN SEQUE	DEV.	DIR	TVD	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECOR	ON RD	DEPTH TO	DEV.	NO.	DIR.	TVD DETAILS	HORIZ. DISP.	DEPTH ONS IN SEQUE	DEV.	DIR	LINER	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECOR	ON ND ELOG	DEPTH TO	DEV.	D CO	DIR.	TVD DETAILS	HORIZ. DISP.	DEPTH ONS IN SEQUE	DEV.	DIR	TVD	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECOR	ON RD	DEPTH TO	DEV.	NO.	DDE NO	TVD DETAILS	HORIZ. DISP.	DEPTH ONS IN SEQUE	DEV.	DIR	TVD	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECOR	ON RD	DEPTH TO	DEV.	D CO	DDE NO	TVD DETAILS	HORIZ. DISP.	DEPTH ONS IN SEQUE	DEV.	DIR. REMARKS	TVD	S.P.M.	LINER SIZE	S.P.M.	DEV.	S.P.M.	LINER	S.P.M.	PUMF
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DEVIATION RECOR	ON RD	DEPTH TO	DEV.	D CO	DDE NO	TVD DETAILS	HORIZ. DISP.	DEPTH ONS IN SEQUE	DEV.	DIR	TVD	S.P.M.	LINER SIZE	S.P.M.	DEV.	S.P.M. DIR.	LINER	S.P.M.	PUMF

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FROM		то	REAMR COREC	NO.	(S	HOW CORE	RECOVERY)		TABLE SPEED	BIT	PRESSURE	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	PUMI
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FROM		то	REAM.R COREC	CORE NO.	(S	FORMA HOW CORE	RECOVERY)	ROTARY TABLE SPEED	WT. ON BIT	PUMP PRESSURE	LINER	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	TOTA PUMI OUTPI
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TIME	LOG		ELAPSEI TIME) (0	DE NO.	DETAILS	OF OPERATIO	ONS IN SEQU	ENICE AND	DEMARKS									
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DE(507451			PUMP	NO. 1	PUMF	NO. 2	PUMP	NO. 3	PUMF	NO. 4	7074
FROM	_		DRILLD REAMR COREC	CORE NO.	(SI	FORMA HOW CORE	TION RECOVERY)	ROTARY TABLE SPEED	WT. ON BIT	PUMP PRESSURE	LINER		LINER		LINER		LINER	NO. 4	TOTA PUMF OUTPL
FROM		то	REAMR COREC			HOW CORE	RECOVERY)	SPEED	BIT	PUMP PRESSURE	LINER SIZE	S.P.M.				NO. 3 S.P.M.		I	PUMF
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		то	REAMR COREC			HOW CORE	RECOVERY)	SPEED	BIT	PUMP PRESSURE	LINER SIZE	S.P.M.	LINER SIZE		LINER		LINER	S.P.M.	PUMF
85~	ક	то	REAMR COREC	NO.		HOW CORE	RECOVERY)	SPEED	BIT	PUMP PRESSURE	LINER SIZE	S.P.M.	LINER SIZE		LINER		LINER	S.P.M.	PUMF
	8	77	REAMR COREC	NO.	S.	HOW CORE	RECOVERY)	TABLE SPEED	BIT とい	PRESSURE	LINER	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
S 5 ≈ DEVIATIO	e e	77	DEV.	NO.	SJ.	TVD	HORIZ. DISP.	TABLE SPEED	DEV.	DIR.	LINER	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	S) Log	то	DEV.	NO.	PIR.	TVD DETAILS C	HORIZ. DISP.	TABLE SPEED	DEV.	DIR.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	DN LOG	то	DEV.	NO.	SJ.	TVD DETAILS C	HORIZ. DISP.	TABLE SPEED	DEV.	DIR.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	DN LOG	DEPTH TO	DEV.	NO.	PIR.	TVD DETAILS C	HORIZ. DISP.	TABLE SPEED	DEV.	DIR.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	S LOG	DEPTH	DEV.	COI	SIR.	TVD DETAILS C	HORIZ. DISP.	TABLE SPEED	DEV.	DIR	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	S LOG	DEPTH TO	DEV.	COI	DE NO.	TVD DETAILS C	HORIZ DISP.	DEPTH DEPTH	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	S Log	DEPTH	DEV.	COI	SI.	TVD DETAILS C	HORIZ. DISP.	DEPTH DEPTH	DEV.	DIR. REMARKS	TVD	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	S Log	DEPTH TO Signature Signature	DEV.	NO.	DE NO.	TVD DETAILS C	HORIZ. DISP.	DEPTH DEPTH	DEV.	DIR. REMARKS	TVD	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	8 Log 8 7 11 11	то	DEV.	NO.	DE NO.	TVD DETAILS C	HORIZ. DISP.	DEPTH DEPTH	DEV.	DIR. REMARKS	TVD	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	8 Log 8 9 11 11 2	DEPTH TO	DEV.	COI	SIR. DE NO.	TVD DETAILS C	HORIZ, DISP.	DEPTH DEPTH	DEV.	DIR. REMARKS	TVD	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
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DEPTH II	NTER	RVAL	DRILLD	CORE		FORM	ATION	ROTARY TABLE	WT. ÓN	PUMP	PUMP		PUMI	P NO. 2	PUME	NO. 3	PUMF	NO. 4	ТОТА
FROM		то	REAMR COREC	NO.	(S		RECOVERY)	SPEED	BIT	PRESSURE	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	LINER SIZE	S.P.M.	PUMI
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FROM	E LOG	ТО	ELAPSEI TIME	co	DE NO.	DETAILS	OF OPERATION	ONS IN SEQUE	ENCE AND	REMARKS									
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DEPTH II	NTER	IVAL .						POTABL			PUMP) NO. 1	PUMI	P NO. 2	PUMF	P NO. 3	PUMF	, NO. 4	TOTAL
DEPTH IN	NTER		DRILLD REAMR COREC	CORE NO.	(s	FORMA HOW CORE	ATION RECOVERY)	ROTARY TABLE SPEED	WT. ON BIT	PUMP PRESSURE		ı —			 -			1	TOTAI PUMF OUTPL
FROM		то	REAMR	CORE NO.	 	HOW CORE	RECOVERY)	SPEED	BIT	PRESSURE	LINER SIZE	S.P.M.	LINER SIZE		PUMF LINER SIZE	P NO. 3	PUMF LINER SIZE	NO. 4 S.P.M.	PUMF
			REAMR	CORE NO.	(S	HOW CORE	RECOVERY)	TABLE	BIT	PUMP PRESSURE		S.P.M.	LINER SIZE		 -			1	PUMF
FROM		то	REAMR	CORE NO.	 	HOW CORE	RECOVERY)	SPEED	BIT	PRESSURE	LINER SIZE	S.P.M.	LINER SIZE		 -			1	PUMF
FROM		TO	REAMR COREC	NO.	e	HOW CORE	RECOVERY)	TABLE SPEED	्रेचे	3	LINER	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
FROM Lock S DEVIATION	E.	то	REAMR	NO.	 	HOW CORE	RECOVERY)	SPEED	BIT	PRESSURE	LINER SIZE	S.P.M.	LINER SIZE		 -		LINER	S.P.M.	PUMF
FROM	E.	TO	REAMR COREC	NO.	e	HOW CORE	RECOVERY)	TABLE SPEED	्रेचे	3	LINER	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
FROM Cod 5 DEVIATION RECORD	E.	TO ⊰∠∵_↓ DEPTH	DEV.	NO.	DIR.	TVD	HORIZ. DISP.	TABLE SPEED	DEV.	DIR.	LINER	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	ON D	TO ⊰∠∵_↓ DEPTH	DEV.	NO.	DIR. DE NO.	TVD	HORIZ. DISP.	TABLE SPEED	DEV.	DIR.	LINER	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
FROM Cod 5 DEVIATION RECORD	ON D	TO ⊰∠∵_↓ DEPTH	DEV.	NO.	DIR.	TVD	HORIZ. DISP.	TABLE SPEED	DEV.	DIR.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	ON D	DEPTH TO	DEV.	NO.	DIR. DE NO.	TVD	HORIZ. DISP.	DEPTH ONS IN SEQUE	DEV.	DIR.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	ON D	DEPTH TO	DEV.	CO	DIR. DE NO.	TVD DETAILS	HORIZ. DISP.	DEPTH ONS IN SEQUE	DEV.	DIR.	TVD	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	ON D	DEPTH TO 3.3.1 1.1.5	DEV.	CO	DIR. DE NO.	TVD DETAILS	HORIZ DISP.	DEPTH ONS IN SEQUE	DEV.	DIR. REMARKS	TVD	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	OND	DEPTH TO 3.1 1.1.5	DEV.	CO	DE NO.	TVD DETAILS	HORIZ DISP.	DEPTH ONS IN SEQUE	DEV.	DIR. REMARKS	TVD	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	ON DD	DEPTH TO 13.3 1.15	DEV.	CO	DE NO.	TVD DETAILS (HORIZ DISP.	DEPTH ONS IN SEQUE	DEV.	DIR. REMARKS	TVD	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD TIME FROM 1130	ON D	DEPTH TO 3 1.	DEV.	CO	DE NO.	TVD DETAILS	HORIZ DISP.	DEPTH ONS IN SEQUE	DEV.	DIR. REMARKS	TVO	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD	ON D	DEPTH TO 3 1.	DEV.	CO	DIR. DE NO.	TVD DETAILS	HORIZ. DISP.	DEPTH ONS IN SEQUE	DEV.	DIR. REMARKS	TVD	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD TIME FROM 1130	ON DD	DEPTH TO 3 1.	DEV.	CO	DE NO.	TVD DETAILS	HORIZ. DISP.	DEPTH ONS IN SEQUE	DEV.	DIR. REMARKS	TVO	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD TIME FROM 1130 1130 1130	ON DD	TO DEPTH TO 300 100 100 100 100 100 100 100 100 100	DEV.	CO	DIR. DE NO.	TVD DETAILS	HORIZ. DISP.	DEPTH ONS IN SEQUE	DEV.	DIR. REMARKS 100	TVD	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD TIME FROM TO SEE T	ON DD	TO DEPTH TO 1351 1351 1351 1351 1350 1350	DEV. BLAPSET TIME '/	CO	DE NO.	TVD DETAILS () () () () () () () () () (HORIZ. DISP.	DEPTH ONS IN SEQUE	DEV.	DIR. REMARKS 100 100 100 100 100 100 100 1	TVO	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
DEVIATION RECORD TIME FROM 1130 1130 1130	ON DD	TO DEPTH TO 13.1 1.15 1.15 1.25 1.35	DEV.	CO	DE NO.	TVD DETAILS () () () () () () () () () (HORIZ. DISP.	DEPTH ONS IN SEQUE	DEV.	DIR. REMARKS 100 100 100 100 100 100 100 1	TVD	S.P.M.	LINER SIZE	S.P.M.	LINER	S.P.M.	LINER	S.P.M.	PUMF
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DEPTH II	NTERVA	L	DRILLD REAMR	CORE		FORM	ATION	ROTARY TABLE	WT. ON	PUMP	PUMP	NO. 1	PUMI	P NO. 2	PUMF	NO. 3	PUM	P NO. 4	TOTAL
FROM	то	,	COREC	NO.	(S	HOW CORE	RECOVERY)	SPEED	BIT	PRESSURE	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	PUMP OUTPU
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FROM	TO)	ELAPSE(TIME	co	DE NO.	DETAILS	OF OPERATIO	NS IN SEQU	ENCE AND	REMARKS									
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FROM	то	1	COREC	NO.	(SI	HOW CORE	RECOVERY)	SPEED	BIT	PRESSURE	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	OUTPL
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DEPTH IN	NTER	VAL	DRILLD			CODM	TION	ROTARY			PUMP	NO.	PUM	P NO. 2	PUMP	NO. 3	РИМ	NO. 4	1.0
FROM		то	REAMR COREC	CORE NO.	(S	FORMA HOW CORE	RECOVERY)	TABLE	WT. ON BIT	PUMP PRESSURE	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	TOT. PUN OUTF
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DEVIATION RECOR		DEPTH	DEV.		OIR.	TVD	DISP.	DEPTH	DEV.	DIR.	TVD	DIS		DEPTH	DEV.	DIR.	Т	VD	HORIZ DISP,
TIME	E LOG	ТО	ELAPSEI TIME) (co	DE NO.	DETAILS	OF OPERATION	ONS IN SEQUI	ENCE AND	REMARKS									
THOM										Kı.	N B & T	s 15	*3		1/13/	, / Z			
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DEPTH IN	1	/AL TO	DRILLD REAMR COREC	CORE NO.	(S	FORMA HOW CORE	ATION RECOVERY)	ROTARY TABLE SPEED	WT. ON BIT	PUMP PRESSURE	PUMP LINER SIZE	NO. 1 S.P.M.	PUMI LINER SIZE	NO. 2	1	NO. 3 S.P.M.	PUMF LINER SIZE	P NO. 4	PUN
	1		REAMR		(S			(TABLE			LINER		LINER	γ	PUMP		LINER	ι — —	PUN
	1		REAMR		(S			(TABLE			LINER		LINER	γ	PUMP		LINER	ι — —	PUN
			REAMR COREC	NO.	(S			(TABLE			LINER		LINER SIZE	γ	PUMP		LINER	S.P.M.	TOTA PUM OUTP
FROM	ON	то	REAMR COREC	NO.		HOW CORE	RECOVERY)	SPEED	BIT	PRESSURE	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	OUTP
DEVIATION RECORE	ON	то	DEV.	NO.	DIR. DE NO.	TVD	HORIZ. DISP.	SPEED	DEV.	DIR.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	OUTP
DEVIATION TIME FROM	ON BD	DEPTH TO	DEV.	NO.	DIR. DE NO.	TVD DETAILS (HORIZ. DISP.	DEPTH DONS IN SEQUE	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	HORIZ DISP.
DEVIATION TIME FROM	ON ID	DEPTH TO	DEV.	NO.	DE NO.	TVD DETAILS (HORIZ. DISP.	DEPTH DONS IN SEQUE	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	HORIZ DISP.
DEVIATION TIME FROM	ON ID	DEPTH TO	DEV.	NO.	DIR. DE NO.	TVD DETAILS (HORIZ. DISP.	DEPTH	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	HORIZ DISP.
DEVIATION TIME FROM	ON ID	DEPTH TO	DEV.	NO.	DE NO.	TVD DETAILS (HORIZ. DISP.	DEPTH DONS IN SEQUE	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	HORIZ DISP
DEVIATION TIME FROM	ON ID	DEPTH TO	DEV.	NO.	DE NO.	TVD DETAILS (HORIZ. DISP.	DEPTH DONS IN SEQUE	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	HORIZ DISP
DEVIATION TIME FROM	ON ID	DEPTH TO	DEV.	NO.	DE NO.	TVD DETAILS (HORIZ. DISP.	DEPTH DONS IN SEQUE	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	HORIZ DISP.
DEVIATION RECORD	ON ID	DEPTH TO	DEV.	NO.	DE NO.	TVD DETAILS (HORIZ. DISP.	DEPTH DONS IN SEQUE	DEV.	DIR. REMARKS	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	HORIZ DISP.
DEVIATION RECORD	ON ID	DEPTH TO	DEV.) co	DE NO.	TVD DETAILS (HORIZ. DISP.	DEPTH DOWN IN SEQUE	DEV.	DIR. REMARKS	TVD	S.P.M.	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	HORIZ DISP.

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DEPTH II	INTER	RVAL	DDII D					-	BOTABY				NO. 1	PUMF	NO. 2	PUMF	NO. 3	PUM	NO. 4	
FROM		то	DRILLD REAMR COREC	CORE NO.	(SH		MATION E RECOV	'ERY)	ROTARY TABLE SPEED	WT. ON BIT	PUMP PRESSURE	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	LINER SIZE	S.P.M.	PUM OUTPI
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		DEPTH	DEV.		DIR.	TVD	HOF DIS	RIZ. P.	DEPTH	DEV.	DIR.	TVD	HOF	RIZ.	EPTH	DEV.	DIR.	Т	VD	HORIZ. DISP.
DEVIATION RECOR																				
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FROM		то	REAMR COREC	CORE NO.	· ·	OW COR	E RECOV	ERY)	SPEED	BIT	PUMP PRESSURE	LINER SIZE	NO. 1 S.P.M.	PUMF LINER SIZE		1		PUMF LINER SIZE	P NO. 4	PUMI
			REAMR		· ·		E RECOV	ERY)	TABLE	BIT		LINER		LINER	P NO. 2	PUMP	NO. 3	LINER	T	TOTA PUMI OUTPI
FROM		то	REAMR COREC		· ·	OW COR	E RECOV	ERY)	SPEED	BIT	PRESSURE	LINER SIZE	S.P.M.	LINER	P NO. 2	PUMP	NO. 3	LINER	T	PUMI
FROM		то	REAMR COREC	NO.	· ·	OW COR	E RECOV	ilZ.	SPEED	BIT	PRESSURE	LINER SIZE	S.P.M.	LINER SIZE	P NO. 2	PUMP	NO. 3	LINER	S.P.M.	PUMI
FROM	ON ON	TO 3.5	REAMR COREC	NO.	~	OW CORI	E RECOV	ilZ.	TABLE SPEED	BIT	PRESSURE	LINER	S.P.M.	LINER SIZE	P NO. 2	PUMP LINER SIZE	NO. 3 S.P.M.	LINER	S.P.M.	PUMF OUTPI
DEVIATION	ON	TO P3 ら	DEV.	NO.	DIR.	TVD	HOR DIS	91Z. P.	TABLE SPEED	N <	DIR.	LINER	S.P.M.	LINER SIZE	P NO. 2	PUMP LINER SIZE	NO. 3 S.P.M.	LINER	S.P.M.	PUMF OUTPI
DEVIATION RECORD	ON ND	TO P3 ら	DEV.	NO.	DIR.	TVD	HOR DIS	91Z. P.	TABLE SPEED	N <	DIR.	LINER	S.P.M.	LINER SIZE	P NO. 2	PUMP LINER SIZE	NO. 3 S.P.M.	LINER	S.P.M.	PUMF OUTPI
DEVIATION RECORD	ON RD	DEPTH TO 3.5	DEV.	NO.	DIR.	TVD	HOR DIS	91Z. P.	TABLE SPEED	DEV.	DIR.	LINER SIZE	S.P.M.	LINER SIZE	P NO. 2	PUMP LINER SIZE	NO. 3 S.P.M.	LINER	S.P.M.	PUMF OUTPI
DEVIATION RECORD	ON RD	DEPTH TO 3.5	DEV.	NO.	DIR.	TVD DETAILS	HOR DIS	P. RATION	DEPTH DEPTH	DEV.	DIR. REMARKS	TVD	S.P.M. (b (3) HOP DIS	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	PUMF OUTPI
DEVIATION RECORD	ON	DEPTH TO 3.5	DEV.	CO	DE NO.	TVD TVD	HOR DIS	P. RATION	DEPTH DEPTH	DEV.	DIR. REMARKS	TVD	S.P.M. (b F3 HOF DIS	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	PUMF OUTPI
DEVIATION RECORD	ON	DEPTH TO 3:5	DEV.	CO S	DIR.	TVD TVD TVD	HOR DIS	P. P. RATION	DEPTH DEPTH	DEV.	DIR. REMARKS	TVD	S.P.M. (b F3 HOF DIS	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	PUMF OUTPI
DEVIATION RECORD	ON	DEPTH TO 3:53	DEV.	CO	DE NO.	TVD TVD	HOR DIS	RATION	DEPTH DEPTH	DEV.	DIR. REMARKS	TVD	S.P.M. (b F3 HOF DIS	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	PUMF OUTPI
DEVIATION RECORD	ON RD	DEPTH TO 353	DEV.	CO	DE NO.	TVD TVD TVD	HOR DIS	RATION	DEPTH IS IN SEQUE	DEV.	DIR. REMARKS	TVD	S.P.M. (b. F3 HOPP DIS	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	PUMF OUTPI
DEVIATION RECORD	ON RD	TO DEPTH TO 353	DEV.	CO	DE NO.	TVD TVD TVD	HOR DIS	RATION	DEPTH IS IN SEQUE	DEV.	DIR	TVD	S.P.M. (b. F3 HOPP DIS	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	PUMI OUTPI
DEVIATION RECORD	ON RD	TO DEPTH TO 353	DEV.	CO	DE NO.	TVD TVD DETAILS	HOR DIS	RATION	DEPTH IS IN SEQUE	DEV.	DIR	TVD	S.P.M. (b. F3 HOPP DIS	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	PUMF OUTPI
DEVIATION RECORD	ON RD	TO DEPTH TO 353	DEV.	CO	DE NO.	TVD TVD DETAILS	HOR DIS	RATION	DEPTH IS IN SEQUE	DEV.	DIR	TVD	S.P.M. (b. F3 HOPP DIS	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	PUMF OUTPI
DEVIATION RECORD	ON RD	TO DEPTH TO 353	DEV.	CO	DE NO.	TVD TVD DETAILS	HOR DIS	RATION	DEPTH IS IN SEQUE	DEV.	DIR	TVD	S.P.M. (b. F3 HOPP DIS	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	PUMF OUTPI
DEVIATION RECORD	ON RD	TO DEPTH TO 353	DEV.	NO.	DE NO.	TVO DETAILS TVO A A V V	HOR DIS	RATION	DEPTH DEPTH	DEV.	DIR	TVD	S.P.M. (b [3] HOPP DIS	LINER SIZE	S.P.M.	PUMP LINER SIZE	S.P.M.	LINER	S.P.M.	PUMF OUTPI