

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.
NMLC063228

6. Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

CIMAREX ENERGY CO

Contact: ARICKA EASTERLING

E-Mail: aeasterling@cimarex.com

8. Well Name and No.

TRISTE DRAW 25 FEDERAL COM 13H

9. API Well No.

30-025-44001-00-X1

3a. Address

202 S. CHEYENNE AVE., STE 1000
TULSA, OK 74103

3b. Phone No. (include area code)

Ph: 918.560.7060

10. Field and Pool or Exploratory Area

TRISTE DRAW-BONE SPRING

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 25 T23S R32E SESW 560FSL 2370FWL
32.269993 N Lat, 103.629211 W Lon

11. County or Parish, State

LEA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

13. Describe Proposed or Completed Operation: 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 recompleat 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Cimarex respectfully request approval to change the original drilling plan for the above referenced well. Cimarex proposes to change BHL there by changing the directional plan. No additional disturbance is required for the well pad.

Proposed
BHL: 330 FNL & 1610 FWL

Please see attached plat, directional plan, drilling plan for changes regarding the well.

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #391171 verified by the BLM Well Information System

For CIMAREX ENERGY CO, sent to the Hobbs

Committed to AFMSS for processing by CHRISTOPHER WALLS on 10/12/2017 (18CRW0010SE)

Name (Printed/Typed) ARICKA EASTERLING

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 10/09/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By CHRISTOPHER WALLS

Title PETROLEUM ENGINEER

Date 10/12/2017

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office Hobbs

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, 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.

(Instructions on page 2)

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

KZ

1. Geological Formations

TVD of target 9,830
MD at TD 14,462

Pilot Hole TD N/A
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1240	N/A	
Salado	1730	N/A	
Base of Salt	4800	N/A	
Delaware Sands	5030	N/A	
Brushy Canyon	7360	Hydrocarbons	
Bone Spring	8830	Hydrocarbons	
Avalon Shale	9320	Hydrocarbons	
Avalon Target	9830	Hydrocarbons	
1st Bone Spring Sand	10040	Hydrocarbons	

2. Casing Program

Hole Size	Casing Depth From	Casing Depth To	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	1290	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	1.25	2.93	5.20
12 1/4	0	5010	9-5/8"	40.00	J-55	LT&C	1.48	1.49	2.59
8 3/4	0	9223	5-1/2"	17.00	L-80	LT&C	1.43	1.75	2.02
8 3/4	9223	14462	5-1/2"	17.00	L-80	BT&C	1.34	1.65	38.47
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	N
Is 2nd string set 100' to 600' below the base of salt?	N
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	N
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	N
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	N

4. Pressure Control Equipment

A variance is requested for the use of a diverter on the surface casing. See attached for schematic.					
BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
12 1/4	13 5/8	2M	Annular	X	50% of working pressure
			Blind Ram		2M
			Pipe Ram		
			Double Ram	X	
			Other		
8 3/4	13 5/8	3M	Annular	X	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	X	
			Other		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.				
X	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.				
N	Are anchors required by manufacturer?				

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-44001	² Pool Code 96603	³ Pool Name Triste Draw Bone Spring
⁴ Property Code 39851	⁵ Property Name TRISTE DRAW 25 FEDERAL COM	⁶ Well Number 13H
⁷ OGRID No. 215099	⁸ Operator Name CIMAREX ENERGY CO.	⁹ Elevation 3690.3'

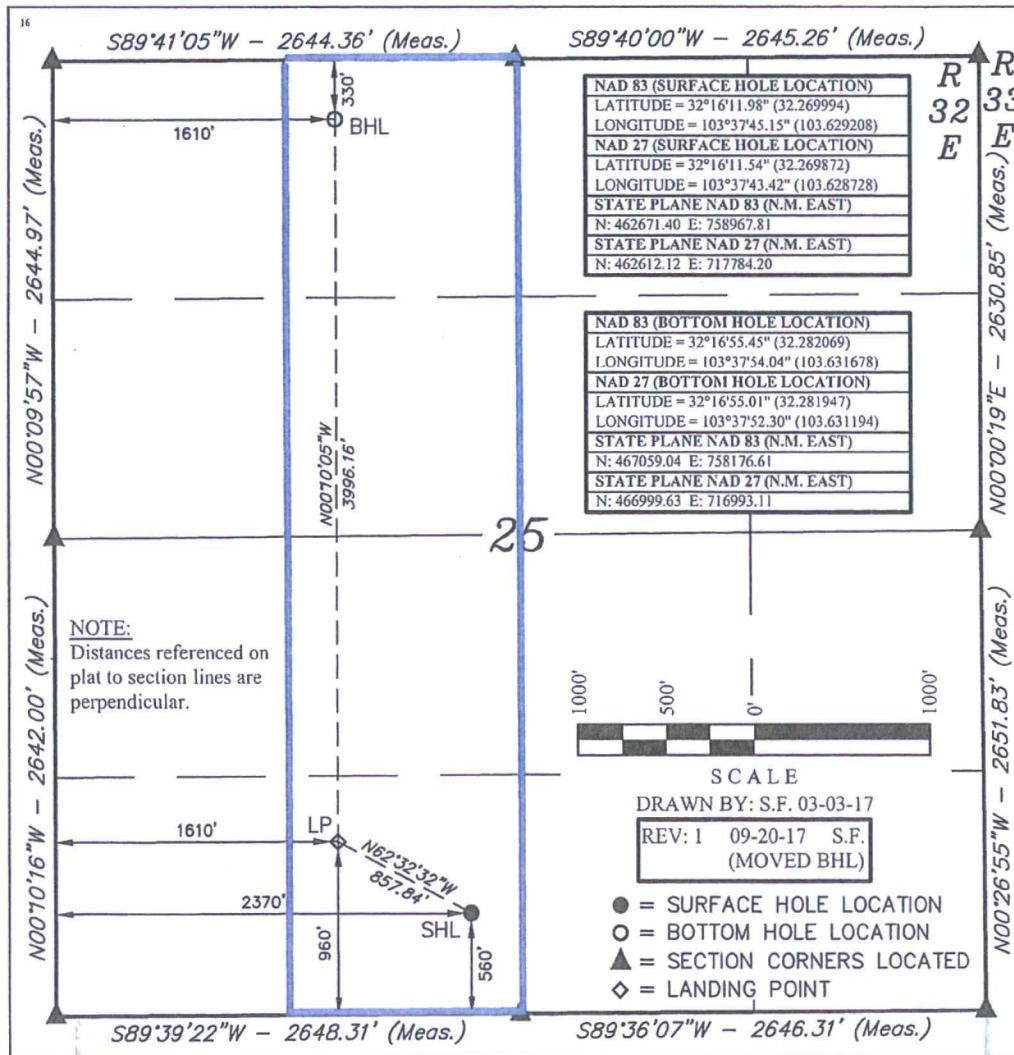
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot 1dn	Feet from the	North/South line	Feet from the	East/West line	County
N	25	23S	32E		560	SOUTH	2370	WEST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 1dn	Feet from the	North/South line	Feet from the	East/West line	County
C	25	23S	32E		330	NORTH	1610	WEST	LEA
¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. NSL Pending						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *Aricka Easterling* Date: 9/21/17

Printed Name: Aricka Easterling

E-mail Address: aeasterling@cimarex.com

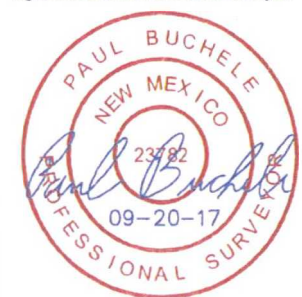
¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

February 21, 2017

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate Number:

Cimarex Triste Draw 25 Federal #13H Rev1 RM 21Sept17 Proposal

Geodetic Report

(Non-Def Plan)



Report Date: September 21, 2017 - 10:57 AM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Triste Draw 25 Federal #13H / Cimarex Triste Draw 25 Federal #13H
Well: Cimarex Triste Draw 25 Federal #13H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Triste Draw 25 Federal #13H Rev1 RM 21Sept17
Survey Date: March 22, 2017
Tort / AHD / DDI / ERD Ratio: 159.446 ° / 4948.216 ft / 6.065 / 0.503
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 16' 11.98413", W 103° 37' 45.15435"
Location Grid N/E Y/X: N 462671.400 ftUS, E 758967.810 ftUS
CRS Grid Convergence Angle: 0.3760 °
Grid Scale Factor: 0.99996334
Version / Patch: 2.10.544.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 359.590 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3714.300 ft above MSL
Seabed / Ground Elevation: 3690.300 ft above MSL
Magnetic Declination: 6.864 °
Total Gravity Field Strength: 998.4367mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48141.834 nT
Magnetic Dip Angle: 60.067 °
Declination Date: September 21, 2017
Magnetic Declination Model: HDGM 2016
North Reference: Grid North
Grid Convergence Used: 0.3760 °
Total Corr Mag North->Grid North: 6.4879 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL [560' FSL, 2370' FWL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	100.00	0.00	270.71	100.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	200.00	0.00	270.71	200.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	300.00	0.00	270.71	300.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	400.00	0.00	270.71	400.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	500.00	0.00	270.71	500.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	600.00	0.00	270.71	600.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	700.00	0.00	270.71	700.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	800.00	0.00	270.71	800.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	900.00	0.00	270.71	900.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	1000.00	0.00	270.71	1000.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	1100.00	0.00	270.71	1100.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	1200.00	0.00	270.71	1200.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
Rustler	1240.00	0.00	270.71	1240.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	1300.00	0.00	270.71	1300.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	1400.00	0.00	270.71	1400.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	1500.00	0.00	270.71	1500.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	1600.00	0.00	270.71	1600.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	1700.00	0.00	270.71	1700.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
Top of Salt (Salado)	1730.00	0.00	270.71	1730.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	1800.00	0.00	270.71	1800.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	1900.00	0.00	270.71	1900.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	2000.00	0.00	270.71	2000.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	2100.00	0.00	270.71	2100.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15
	2200.00	0.00	270.71	2200.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98	W 103 37 45.15

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	2300.00	0.00	270.71	2300.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	2400.00	0.00	270.71	2400.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	2500.00	0.00	270.71	2500.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	2600.00	0.00	270.71	2600.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	2700.00	0.00	270.71	2700.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	2800.00	0.00	270.71	2800.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	2900.00	0.00	270.71	2900.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	3000.00	0.00	270.71	3000.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	3100.00	0.00	270.71	3100.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	3200.00	0.00	270.71	3200.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	3300.00	0.00	270.71	3300.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	3400.00	0.00	270.71	3400.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	3500.00	0.00	270.71	3500.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	3600.00	0.00	270.71	3600.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	3700.00	0.00	270.71	3700.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	3800.00	0.00	270.71	3800.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	3900.00	0.00	270.71	3900.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	4000.00	0.00	270.71	4000.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	4100.00	0.00	270.71	4100.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	4200.00	0.00	270.71	4200.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	4300.00	0.00	270.71	4300.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	4400.00	0.00	270.71	4400.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	4500.00	0.00	270.71	4500.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	4600.00	0.00	270.71	4600.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	4700.00	0.00	270.71	4700.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
Base of Salt	4800.00	0.00	270.71	4800.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	4900.00	0.00	270.71	4900.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	5000.00	0.00	270.71	5000.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
Delaware Sands	5030.00	0.00	270.71	5030.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	5100.00	0.00	270.71	5100.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	5200.00	0.00	270.71	5200.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	5300.00	0.00	270.71	5300.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	5400.00	0.00	270.71	5400.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	5500.00	0.00	270.71	5500.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	5600.00	0.00	270.71	5600.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	5700.00	0.00	270.71	5700.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	5800.00	0.00	270.71	5800.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	5900.00	0.00	270.71	5900.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	6000.00	0.00	270.71	6000.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	6100.00	0.00	270.71	6100.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	6200.00	0.00	270.71	6200.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	6300.00	0.00	270.71	6300.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	6400.00	0.00	270.71	6400.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	6500.00	0.00	270.71	6500.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	6600.00	0.00	270.71	6600.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	6700.00	0.00	270.71	6700.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	6800.00	0.00	270.71	6800.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	6900.00	0.00	270.71	6900.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	7000.00	0.00	270.71	7000.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	7100.00	0.00	270.71	7100.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	7200.00	0.00	270.71	7200.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	7300.00	0.00	270.71	7300.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
Brushy Canyon	7360.00	0.00	270.71	7360.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	7400.00	0.00	270.71	7400.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	7500.00	0.00	270.71	7500.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	7600.00	0.00	270.71	7600.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	7700.00	0.00	270.71	7700.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15
	7800.00	0.00	270.71	7800.00	0.00	0.00	0.00	0.00	462671.40	758967.81	N 32 16 11.98 W	103 37 45.15

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7900.00	0.00	270.71	7900.00	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
	8000.00	0.00	270.71	8000.00	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
	8100.00	0.00	270.71	8100.00	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
	8200.00	0.00	270.71	8200.00	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
	8300.00	0.00	270.71	8300.00	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
	8400.00	0.00	270.71	8400.00	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
	8500.00	0.00	270.71	8500.00	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
	8600.00	0.00	270.71	8600.00	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
	8700.00	0.00	270.71	8700.00	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
	8800.00	0.00	270.71	8800.00	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
Bone Spring	8830.00	0.00	270.71	8830.00	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
	8900.00	0.00	270.71	8900.00	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
	9000.00	0.00	270.71	9000.00	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
	9100.00	0.00	270.71	9100.00	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
	9200.00	0.00	270.71	9200.00	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
KOP - Build 12"/100' DLS	9223.45	0.00	270.71	9223.45	0.00	0.00	0.00	0.00	462671.40	758967.81 N	32 16 11.98 W	103 37 45.15
	9300.00	9.19	270.71	9299.67	0.12	0.08	-6.12	12.00	462671.48	758961.69 N	32 16 11.99 W	103 37 45.23
Avalon Shale	9320.67	11.67	270.71	9320.00	0.19	0.12	-9.86	12.00	462671.52	758957.95 N	32 16 11.99 W	103 37 45.27
	9400.00	21.19	270.71	9396.00	0.63	0.40	-32.27	12.00	462671.80	758935.54 N	32 16 11.99 W	103 37 45.53
	9500.00	33.19	270.71	9484.79	1.52	0.96	-77.87	12.00	462672.36	758889.94 N	32 16 12.00 W	103 37 46.06
	9600.00	45.19	270.71	9562.16	2.75	1.74	-140.93	12.00	462673.14	758826.88 N	32 16 12.01 W	103 37 46.80
	9700.00	57.19	270.71	9624.73	4.27	2.70	-218.70	12.00	462674.10	758749.11 N	32 16 12.03 W	103 37 47.70
	9800.00	69.19	270.71	9669.75	6.01	3.80	-307.78	12.00	462675.20	758660.04 N	32 16 12.04 W	103 37 48.74
Build & Turn 12"/100' DLS	9810.95	70.50	270.71	9673.53	6.21	3.93	-318.06	12.00	462675.33	758649.76 N	32 16 12.04 W	103 37 48.86
	9900.00	70.92	282.02	9703.03	16.11	13.24	-401.43	12.00	462684.64	758566.40 N	32 16 12.14 W	103 37 49.83
	10000.00	72.20	294.60	9734.77	46.53	43.01	-491.26	12.00	462714.41	758476.57 N	32 16 12.44 W	103 37 50.87
	10100.00	74.28	306.95	9763.71	96.04	91.94	-573.31	12.00	462763.34	758394.53 N	32 16 12.93 W	103 37 51.82
	10200.00	77.03	319.01	9788.57	162.50	157.89	-643.99	12.00	462829.29	758323.85 N	32 16 13.59 W	103 37 52.64
	10300.00	80.31	330.78	9808.28	242.98	237.98	-700.21	12.00	462909.37	758267.63 N	32 16 14.38 W	103 37 53.29
	10400.00	84.00	342.31	9821.98	333.99	328.70	-739.52	12.00	463000.09	758228.32 N	32 16 15.28 W	103 37 53.74
	10500.00	87.91	353.69	9829.05	431.53	426.10	-760.20	12.00	463097.48	758207.64 N	32 16 16.25 W	103 37 53.98
Landing Point	10552.17	90.00	359.59	9830.00	483.59	478.14	-763.26	12.00	463149.52	758204.58 N	32 16 16.76 W	103 37 54.01
	10600.00	90.00	359.59	9830.00	531.42	525.97	-763.60	0.00	463197.35	758204.24 N	32 16 17.24 W	103 37 54.01
	10700.00	90.00	359.59	9830.00	631.42	625.97	-764.31	0.00	463297.35	758203.53 N	32 16 18.23 W	103 37 54.01
	10800.00	90.00	359.59	9830.00	731.42	725.97	-765.03	0.00	463397.34	758202.81 N	32 16 19.22 W	103 37 54.01
	10900.00	90.00	359.59	9830.00	831.42	825.97	-765.74	0.00	463497.33	758202.10 N	32 16 20.21 W	103 37 54.01
	11000.00	90.00	359.59	9830.00	931.42	925.96	-766.46	0.00	463597.33	758201.38 N	32 16 21.20 W	103 37 54.01
	11100.00	90.00	359.59	9830.00	1031.42	1025.96	-767.18	0.00	463697.32	758200.66 N	32 16 22.19 W	103 37 54.01
	11200.00	90.00	359.59	9830.00	1131.42	1125.96	-767.89	0.00	463797.31	758199.95 N	32 16 23.18 W	103 37 54.01
	11300.00	90.00	359.59	9830.00	1231.42	1225.95	-768.61	0.00	463897.31	758199.23 N	32 16 24.16 W	103 37 54.01
	11400.00	90.00	359.59	9830.00	1331.42	1325.95	-769.32	0.00	463997.30	758198.52 N	32 16 25.15 W	103 37 54.01
	11500.00	90.00	359.59	9830.00	1431.42	1425.95	-770.04	0.00	464097.29	758197.80 N	32 16 26.14 W	103 37 54.01
	11600.00	90.00	359.59	9830.00	1531.42	1525.95	-770.75	0.00	464197.29	758197.09 N	32 16 27.13 W	103 37 54.01
	11700.00	90.00	359.59	9830.00	1631.42	1625.94	-771.47	0.00	464297.28	758196.37 N	32 16 28.12 W	103 37 54.02
	11800.00	90.00	359.59	9830.00	1731.42	1725.94	-772.18	0.00	464397.28	758195.66 N	32 16 29.11 W	103 37 54.02
	11900.00	90.00	359.59	9830.00	1831.42	1825.94	-772.90	0.00	464497.27	758194.94 N	32 16 30.10 W	103 37 54.02
	12000.00	90.00	359.59	9830.00	1931.42	1925.94	-773.61	0.00	464597.26	758194.23 N	32 16 31.09 W	103 37 54.02
	12100.00	90.00	359.59	9830.00	2031.42	2025.93	-774.33	0.00	464697.26	758193.51 N	32 16 32.08 W	103 37 54.02
	12200.00	90.00	359.59	9830.00	2131.42	2125.93	-775.05	0.00	464797.25	758192.79 N	32 16 33.07 W	103 37 54.02
	12300.00	90.00	359.59	9830.00	2231.42	2225.93	-775.76	0.00	464897.24	758192.08 N	32 16 34.06 W	103 37 54.02
	12400.00	90.00	359.59	9830.00	2331.42	2325.93	-776.48	0.00	464997.24	758191.36 N	32 16 35.05 W	103 37 54.02
	12500.00	90.00	359.59	9830.00	2431.42	2425.92	-777.19	0.00	465097.23	758190.65 N	32 16 36.04 W	103 37 54.02
	12600.00	90.00	359.59	9830.00	2531.42	2525.92	-777.91	0.00	465197.22	758189.93 N	32 16 37.03 W	103 37 54.02
	12700.00	90.00	359.59	9830.00	2631.42	2625.92	-778.62	0.00	465297.22	758189.22 N	32 16 38.02 W	103 37 54.02
	12800.00	90.00	359.59	9830.00	2731.42	2725.92	-779.34	0.00	465397.21	758188.50 N	32 16 39.01 W	103 37 54.02
	12900.00	90.00	359.59	9830.00	2831.42	2825.91	-780.05	0.00	465497.20	758187.79 N	32 16 40.00 W	103 37 54.02
	13000.00	90.00	359.59	9830.00	2931.42	2925.91	-780.77	0.00	465597.20	758187.07 N	32 16 40.99 W	103 37 54.02

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	13100.00	90.00	359.59	9830.00	3031.42	3025.91	-781.49	0.00	465697.19	758186.35	N 32 16 41.98 W	103 37 54.03
	13200.00	90.00	359.59	9830.00	3131.42	3125.91	-782.20	0.00	465797.19	758185.64	N 32 16 42.97 W	103 37 54.03
	13300.00	90.00	359.59	9830.00	3231.42	3225.90	-782.92	0.00	465897.18	758184.92	N 32 16 43.95 W	103 37 54.03
	13400.00	90.00	359.59	9830.00	3331.42	3325.90	-783.63	0.00	465997.17	758184.21	N 32 16 44.94 W	103 37 54.03
	13500.00	90.00	359.59	9830.00	3431.42	3425.90	-784.35	0.00	466097.17	758183.49	N 32 16 45.93 W	103 37 54.03
	13600.00	90.00	359.59	9830.00	3531.42	3525.90	-785.06	0.00	466197.16	758182.78	N 32 16 46.92 W	103 37 54.03
	13700.00	90.00	359.59	9830.00	3631.42	3625.89	-785.78	0.00	466297.15	758182.06	N 32 16 47.91 W	103 37 54.03
	13800.00	90.00	359.59	9830.00	3731.42	3725.89	-786.49	0.00	466397.15	758181.35	N 32 16 48.90 W	103 37 54.03
	13900.00	90.00	359.59	9830.00	3831.42	3825.89	-787.21	0.00	466497.14	758180.63	N 32 16 49.89 W	103 37 54.03
	14000.00	90.00	359.59	9830.00	3931.42	3925.89	-787.93	0.00	466597.13	758179.92	N 32 16 50.88 W	103 37 54.03
	14100.00	90.00	359.59	9830.00	4031.42	4025.88	-788.64	0.00	466697.13	758179.20	N 32 16 51.87 W	103 37 54.03
	14200.00	90.00	359.59	9830.00	4131.42	4125.88	-789.36	0.00	466797.12	758178.48	N 32 16 52.86 W	103 37 54.03
	14300.00	90.00	359.59	9830.00	4231.42	4225.88	-790.07	0.00	466897.11	758177.77	N 32 16 53.85 W	103 37 54.03
	14400.00	90.00	359.59	9830.00	4331.42	4325.88	-790.79	0.00	466997.11	758177.05	N 32 16 54.84 W	103 37 54.03
Cimarex Triste Draw 25 Federal #13H - PBHL [330' FNL, 1610' FWL]	14461.94	90.00	359.59	9830.00	4393.36	4387.81	-791.23	0.00	467059.04	758176.61	N 32 16 55.45 W	103 37 54.04

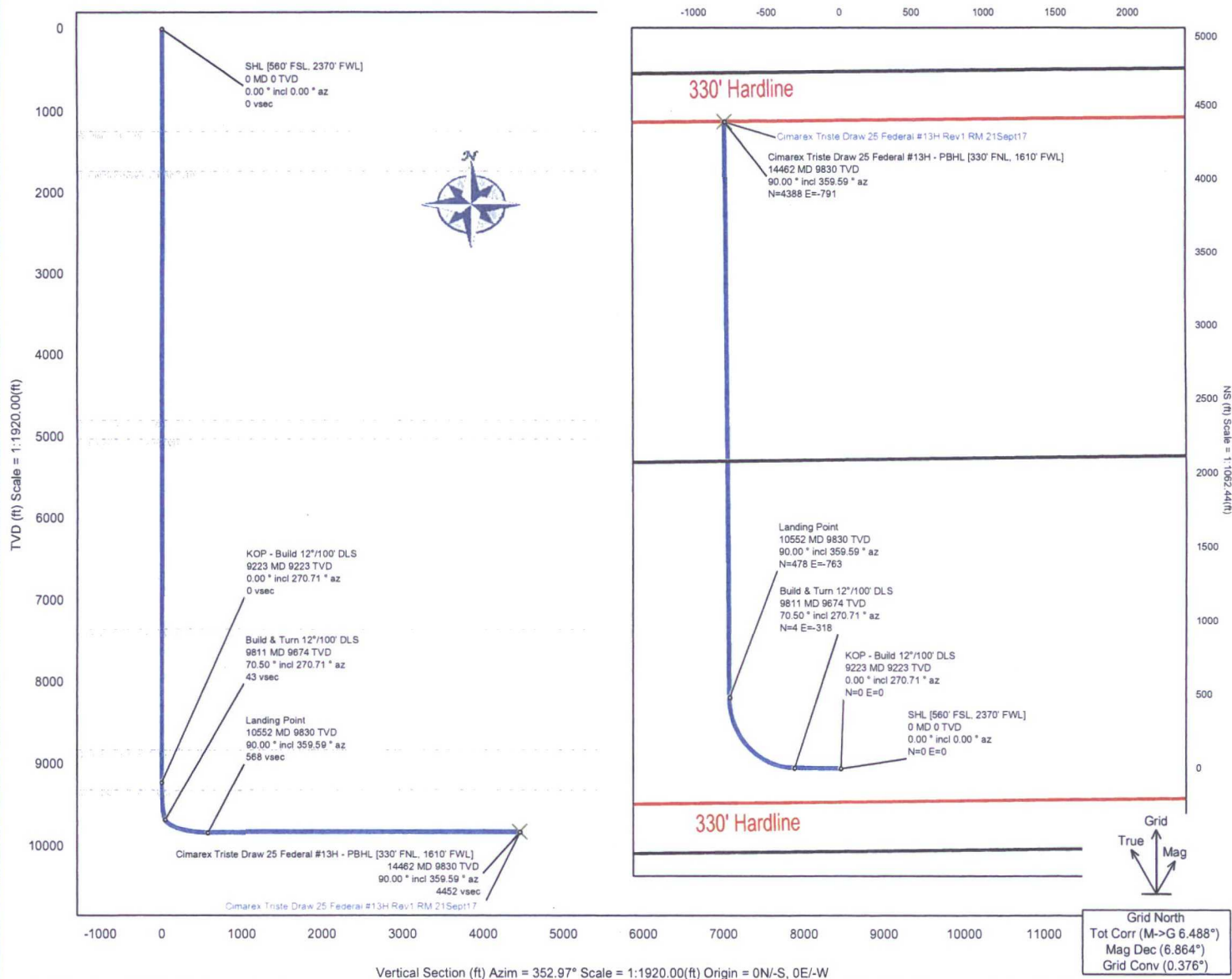
Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	24.000	1/100.000	30.000	30.000		NAL_MWD_PLUS_0.5_DEG- Depth Only	Original Borehole / Cimarex Triste Draw 25 Federal #13H Rev1 RM 21Sept17
	1	24.000	14461.936	1/100.000	30.000	30.000		NAL_MWD_PLUS_0.5_DEG	Original Borehole / Cimarex Triste Draw 25 Federal #13H

Borehole: Original Borehole		Well: Cimarex Triste Draw 25 Federal #13H	Field: NM Lea County (NAD 83)	Structure: Cimarex Triste Draw 25 Federal #13H
Gravity & Magnetic Parameters Model: HDGM 2016 Dip: 60.087° Date: 21-Sep-2017 MagDec: 6.864° FS: 48141.834nT Gravity FS: 998.437mgm (9.80665 Based)		Surface Location NAD83 New Mexico State Plane, Eastern Zone, US Feet Lat: N 32 16 11.98 Northing: 482671.48US Grid Conv: 0.376° Lon: W 103 37 45.15 Easting: 758967.81RUS Scale Fact: 0.99996334		Miscellaneous: Cimarex Triste Draw 25 Federal #13H Plan: Cimarex Triste Draw 25 Federal #13H Rev1 RM 21Sept17 Slot: Draw 25 Federal #13H - PBHL [330' FNL, 1610' FWL] TVD Ref: RKB(3714.3ft above MSL)

EW (ft) Scale = 1:1062.44(ft)



Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [560' FSL, 2370' FWL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Rustler	1240.00	0.00	270.71	1240.00	0.00	0.00	0.00	0.00
Top of Salt (Salado)	1730.00	0.00	270.71	1730.00	0.00	0.00	0.00	0.00
Base of Salt	4800.00	0.00	270.71	4800.00	0.00	0.00	0.00	0.00
Delaware Sands	5030.00	0.00	270.71	5030.00	0.00	0.00	0.00	0.00
Brushy Canyon	7360.00	0.00	270.71	7360.00	0.00	0.00	0.00	0.00
Bone Spring	8830.00	0.00	270.71	8830.00	0.00	0.00	0.00	0.00
KOP - Build 12°/100' DLS	9223.45	0.00	270.71	9223.45	0.00	0.00	0.00	0.00
Avalon Shale	9320.67	11.67	270.71	9320.00	0.19	0.12	-9.86	12.00
Build & Turn 12°/100' DLS	9810.95	70.50	270.71	9673.53	6.21	3.93	-318.06	12.00
Landing Point	10552.17	90.00	359.59	9830.00	483.59	478.14	-763.26	12.00
Cimarex Triste Draw 25 Federal #13H - PBHL [330' FNL, 1610' FWL]	14461.94	90.00	359.59	9830.00	4393.36	4387.81	-791.23	0.00
1st Bone Spring Sand	NaN			10040.00				