

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-025-44724
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No. L0-3882-0002
7. Lease Name or Unit Agreement Name Canyonlands 2 State Com
8. Well Number 1H
9. OGRID Number 215099
10. Pool name or Wildcat Red Hills; Bone Spring, North (96434)

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐ HOBBS OCD	
2. Name of Operator Cimarex Energy Co.	JUN 27 2018
3. Address of Operator 600 N. Marienfeld St., Suite 600 Midland, TX 79701	RECEIVED
4. Well Location Unit Letter <u>P</u> : 390 feet from the <u>South</u> line and 1020 feet from the <u>East</u> line Section <u>02</u> Township <u>24S</u> Range <u>34E</u> NMPM County <u>Lea</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3426' GR	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☒	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: ☐		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Cimarex respectfully requests approval to change the BHL of the Canyonlands 2 State Com #1H.

Approved:
BHL: 330' FNL & 1040' FEL

Proposed:
BHL: 330' FNL & 940' FEL

Please see the attached plat and directional plan for changes due to the BHL move.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [Signature] TITLE Regulatory Analyst DATE 06/27/2018

Type or print name Fatima Vasquez E-mail address: fvasquez@cimarex.com PHONE: (432) 620-1933
For State Use Only

APPROVED BY: [Signature] TITLE Staff Mgr DATE 6/27/18
Conditions of Approval (if any):

Cimarex Canyonlands 2 State Com 1H Rev2 RM 27June18 Anti-Collision Summary Report

Analysis Date-24hr Time: June 27, 2018 - 14:17

Client: Cimarex

Field: NM Lea County (NAD 83)

Structure: Cimarex Canyonlands 2 State Com 1H

Slot: Cimarex Canyonlands 2 State Com 1H

Well: Cimarex Canyonlands 2 State Com 1H

Borehole: Original Borehole

Scan MD Range: 0.00ft - 15804.57ft

Analysis Method: 3D Least Distance

Reference Trajectory: Cimarex Canyonlands 2 State Com 1H Rev2 RM 27June18 (Non-Def Plan)

Depth Interval: Every 10.00 Measured Depth (ft)

Rule Set: NAL Procedure: D&M AntiCollision Standard S002

Min Pts: All local minima indicated.

Version / Patch: 2.10.715.0

Database \ Project: US1153APP452.dir.slb.com/drilling-NM Lea County 2.10

ISCWSA0 3-D 95.000% Confidence 2.7955 sigma, for subject well. For offset wells, error model version is specified with each well respectively.

Trajectory Error Model:

Offset Selection Criteria

Wellhead distance scan: Not performed!

Selection filters: Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans

- All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

Offset Trajectories Summary

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		
Results highlighted: Sep-Factor separation <= 1.50 ft													
Cimarex Canyonlands 2 State Com 2H Rev0 RM 22June18 (Def Plan)													
	19.93	18.44	17.43	3.49	N/A	MAS = 5.01 (m)	0.00	0.00	CtCt<=15m<15.00			Enter Alert	Fail Major
	19.93	18.44	17.43	3.49	N/A	MAS = 5.01 (m)	23.00	23.00				WRP	
	19.93	20.02	5.75	-0.09	1.49	OSF1.50	1920.00	1920.00	OSF<1.50			Enter Minor	
	19.93	28.00	-0.03	-8.79	1.00	OSF1.50	2340.00	2840.00				Enter Major	
	19.93	34.91	-4.18	-14.58	0.81	OSF1.50	3530.00	3500.00				MinPt-CtCt	
	19.95	34.09	-4.21	-15.03	0.81	OSF1.50	3510.00	3510.00				MinPt	
	20.00	35.05	-4.20	-15.00	0.81	OSF1.50	3520.00	3520.00				MinPt-O-ADP	
	24.34	35.67	-0.41	-11.67	0.98	OSF1.50	3660.00	3660.00				Exit Major	
	36.50	36.51	11.32	-0.01	1.50	OSF1.50	3510.00	3810.00	OSF>1.50			Exit Minor	
	128.01	40.36	100.27	87.85	4.97	OSF1.50	4490.00	4490.00	OSF>5.00			Exit Alert	
	601.86	83.38	538.78	508.49	9.85	OSF1.50	11480.00	11372.03				MinPt-O-SF	
	597.45	81.10	535.89	508.35	10.07	OSF1.50	11650.00	11434.78				MinPt-O-SF	
	597.43	81.09	535.87	508.34	10.07	OSF1.50	11690.00	11436.15				MinPt	
	609.29	177.66	490.01	431.63	5.20	OSF1.50	15790.00	11340.36				MinPt-CtCt	
	609.35	178.20	489.71	431.14	5.18	OSF1.50	15804.57	11340.00				MinPt	
Cimarex State 1 #2 (Offset) Inc Only 0H-13046ft (Def Survey)													
	4346.45	32.81	4343.95	4313.84	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	Warning Alert
	4346.40	32.81	4343.90	4313.80	625196.70	MAS = 10.00 (m)	10.00	10.00				MinPt-O-SF	
	4346.38	32.81	4343.88	4313.57	N/A	MAS = 10.00 (m)	23.00	23.00				WRP	
	2512.19	759.28	2004.16	1752.81	4.98	OSF1.50	13100.00	11406.46	OSF<5.00			Enter Alert	
	818.84	757.70	312.80	81.14	1.82	OSF1.50	15470.00	11348.22				MinPt	
	818.83	757.83	312.87	81.21	1.82	OSF1.50	15480.00	11347.98				MinPt-CtCt	
	882.34	756.58	377.12	125.78	1.75	OSF1.50	15804.57	11340.00				TD	

HOBBS OCD
JUN 27 2018
RECEIVED

Cimarex Canyonlands 2 State Com 1H Rev2 RM 27June18 Proposal

Geodetic Report

(Non-Def Plan)



Report Date: June 27, 2018 - 02:16 PM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Canyonlands 2 State Com 1H / Cimarex Canyonlands 2 State Com 1H
Well: Cimarex Canyonlands 2 State Com 1H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Canyonlands 2 State Com 1H Rev2 RM 27June18
Survey Date: April 10, 2018
Tort / AHD / DDI / ERD Ratio: 93.570 * / 4573.350 ft / 5.772 / 0.400
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 14' 25.30073", W 103° 26' 7.83742"
Location Grid N/E Y/X: N 452337.280 RUS, E 818928.330 RUS
CRS Grid Convergence Angle: 0.4790 *
Grid Scale Factor: 0.99999734
Version / Patch: 2.10.715.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 359.280 * (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3449.300 ft above MSL
Seabed / Ground Elevation: 3426.300 ft above MSL
Magnetic Declination: 6.738 *
Total Gravity Field Strength: 998.4634mgn (9.80685 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48028.019 nT
Magnetic Dip Angle: 59.966 *
Declination Date: June 27, 2018
Magnetic Declination Model: HDGM 2018
North Reference: Grid North
Grid Convergence Used: 0.4790 *
Total Corr Mag North->Grid North: 6.2586 *
Local Coord Referenced To: Structure Reference Point

HOBBS OCD

JUN 27 2018

RECEIVED

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 (390' FSL, 1020' FEL)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	100.00	0.00	15.41	100.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	200.00	0.00	15.41	200.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	300.00	0.00	15.41	300.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	400.00	0.00	15.41	400.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	500.00	0.00	15.41	500.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	600.00	0.00	15.41	600.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	700.00	0.00	15.41	700.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	800.00	0.00	15.41	800.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	900.00	0.00	15.41	900.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
Rustler	990.00	0.00	15.41	990.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	1000.00	0.00	15.41	1000.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	1100.00	0.00	15.41	1100.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
Top of Salt	1200.00	0.00	15.41	1200.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	1300.00	0.00	15.41	1300.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	1400.00	0.00	15.41	1400.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	1500.00	0.00	15.41	1500.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	1600.00	0.00	15.41	1600.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	1700.00	0.00	15.41	1700.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	1800.00	0.00	15.41	1800.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	1900.00	0.00	15.41	1900.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	2000.00	0.00	15.41	2000.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	2100.00	0.00	15.41	2100.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	2200.00	0.00	15.41	2200.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	2300.00	0.00	15.41	2300.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	2400.00	0.00	15.41	2400.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	2500.00	0.00	15.41	2500.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	2600.00	0.00	15.41	2600.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	2700.00	0.00	15.41	2700.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	2800.00	0.00	15.41	2800.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	2900.00	0.00	15.41	2900.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	3000.00	0.00	15.41	3000.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	3100.00	0.00	15.41	3100.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	3200.00	0.00	15.41	3200.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	3300.00	0.00	15.41	3300.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	3400.00	0.00	15.41	3400.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	3500.00	0.00	15.41	3500.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	3600.00	0.00	15.41	3600.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	3700.00	0.00	15.41	3700.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	3800.00	0.00	15.41	3800.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	3900.00	0.00	15.41	3900.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	4000.00	0.00	15.41	4000.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	4100.00	0.00	15.41	4100.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	4200.00	0.00	15.41	4200.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	4300.00	0.00	15.41	4300.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	4400.00	0.00	15.41	4400.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	4500.00	0.00	15.41	4500.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	4600.00	0.00	15.41	4600.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	4700.00	0.00	15.41	4700.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
Base of Salt	4800.00	0.00	15.41	4800.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	4875.00	0.00	15.41	4875.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	4900.00	0.00	15.41	4900.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	5000.00	0.00	15.41	5000.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	5100.00	0.00	15.41	5100.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
Lamar	5180.00	0.00	15.41	5180.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	5200.00	0.00	15.41	5200.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
Bell Canyon	5240.00	0.00	15.41	5240.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	5300.00	0.00	15.41	5300.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	5400.00	0.00	15.41	5400.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	5500.00	0.00	15.41	5500.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	5600.00	0.00	15.41	5600.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	5700.00	0.00	15.41	5700.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	5800.00	0.00	15.41	5800.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	5900.00	0.00	15.41	5900.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	6000.00	0.00	15.41	6000.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
Cherry Canyon	6100.00	0.00	15.41	6100.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	6150.00	0.00	15.41	6150.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	6200.00	0.00	15.41	6200.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	6300.00	0.00	15.41	6300.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	6400.00	0.00	15.41	6400.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	6500.00	0.00	15.41	6500.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	6600.00	0.00	15.41	6600.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	6700.00	0.00	15.41	6700.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	6800.00	0.00	15.41	6800.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	6900.00	0.00	15.41	6900.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 26 7.84
	7000.00	0.00	15.41	7000.00	0.00	0.00						

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, °, '")
Brushy Canyon	7100.00	0.00	15.41	7100.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	7200.00	0.00	15.41	7200.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	7300.00	0.00	15.41	7300.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	7400.00	0.00	15.41	7400.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	7500.00	0.00	15.41	7500.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	7575.00	0.00	15.41	7575.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	7600.00	0.00	15.41	7600.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	7700.00	0.00	15.41	7700.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	7800.00	0.00	15.41	7800.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	7900.00	0.00	15.41	7900.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
Bone Spring	8000.00	0.00	15.41	8000.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	8100.00	0.00	15.41	8100.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	8200.00	0.00	15.41	8200.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	8300.00	0.00	15.41	8300.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	8400.00	0.00	15.41	8400.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	8500.00	0.00	15.41	8500.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	8600.00	0.00	15.41	8600.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	8700.00	0.00	15.41	8700.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	8800.00	0.00	15.41	8800.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	8920.00	0.00	15.41	8920.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
1st Bone Spring Sand	9000.00	0.00	15.41	9000.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	9100.00	0.00	15.41	9100.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	9200.00	0.00	15.41	9200.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	9300.00	0.00	15.41	9300.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	9400.00	0.00	15.41	9400.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	9500.00	0.00	15.41	9500.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	9600.00	0.00	15.41	9600.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	9700.00	0.00	15.41	9700.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	9800.00	0.00	15.41	9800.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	9940.00	0.00	15.41	9940.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
2nd Bone Spring Carb	10000.00	0.00	15.41	10000.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	10090.00	0.00	15.41	10090.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	10100.00	0.00	15.41	10100.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	10200.00	0.00	15.41	10200.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	10300.00	0.00	15.41	10300.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	10390.00	0.00	15.41	10390.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	10400.00	0.00	15.41	10400.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	10500.00	0.00	15.41	10500.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	10600.00	0.00	15.41	10600.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	10700.00	0.00	15.41	10700.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
3rd Bone Spring Carb	10760.00	0.00	15.41	10760.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	10800.00	0.00	15.41	10800.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	10900.00	0.00	15.41	10900.00	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	10955.34	0.00	15.41	10955.34	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30 W 103 26 7.84	818928.33
	11000.00	5.36	15.41	10999.93	2.01	2.01	0.55	12.00	452339.29	818928.88	N 32 14 25.32 W 103 26 7.83	818928.88
	11100.00	17.36	15.41	11097.80	20.89	20.97	5.78	12.00	452358.25	818934.11	N 32 14 25.51 W 103 26 7.77	818934.11
	11200.00	29.36	15.41	11189.43	56.81	59.12	18.29	12.00	452396.40	818944.62	N 32 14 25.88 W 103 26 7.64	818944.62
	11223.95	32.23	15.41	11210.00	70.69	70.94	19.55	12.00	452408.22	818947.86	N 32 14 26.00 W 103 26 7.60	818947.86
	11300.00	41.36	15.41	11270.84	114.40	114.81	31.64	12.00	452452.09	818959.87	N 32 14 26.43 W 103 26 7.46	818959.87
	Build & Turn 12°/100' DLS	11330.34	45.00	15.41	11292.96	134.34	134.82	37.15	12.00	452472.10	818965.48	N 32 14 26.83 W 103 26 7.39
Landline Point	11400.00	52.84	11.53	11338.71	185.22	185.85	49.27	12.00	452523.13	818977.80	N 32 14 27.14 W 103 26 7.25	818977.80
	11500.00	64.25	7.18	11390.83	269.07	269.88	62.91	12.00	452607.16	818991.24	N 32 14 27.97 W 103 26 7.08	818991.24
	11600.00	75.77	3.61	11424.96	362.35	363.27	71.63	12.00	452700.55	818999.98	N 32 14 28.89 W 103 26 6.97	818999.98
	11700.00	87.34	0.38	11439.62	460.97	461.95	75.02	12.00	452793.31	819003.35	N 32 14 29.81 W 103 26 6.92	819003.35
	11735.09	91.41	359.28	11440.00	486.05	487.03	74.92	12.00	452834.31	819003.25	N 32 14 30.27 W 103 26 6.92	819003.25
	11800.00	91.41	359.28	11438.41	560.94	561.92	74.10	0.00	452899.19	819002.43	N 32 14 30.85 W 103 26 6.92	819002.43
	11900.00	91.41	359.28	11435.95	660.81	661.88	72.85	0.00	452999.12	819001.18	N 32 14 31.84 W 103 26 6.93	819001.18
	12000.00	91.41	359.28	11433.49	760.85	761.84	71.58	0.00	453199.08	818999.92	N 32 14 32.82 W 103 26 6.93	818999.92
	12100.00	91.41	359.28	11431.03	860.85	861.80	70.34	0.00	453299.04	818998.66	N 32 14 33.82 W 103 26 6.94	818998.66
	12200.00	91.41	359.28	11428.58	960.82	961.76	69.08	0.00	453399.00	818997.41	N 32 14 34.81 W 103 26 6.94	818997.41

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 ° ' ")
Cimarex Canyonlands 2 State Com 1H - PBHL [330' FNL, 940' FEL]	15804.57	91.41	359.28	11340.00	4584.30	4584.96	23.80	0.00	456902.22	818952.13	N 32 15 10.47 W 103 26 7.12	

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	23.000	1/100.000	30.000	30.000		NAL_MWD_IFR1+MS-Depth Only	Original Borehole / Cimarex Canyonlands 2 State Com 1H Rev2 RM 27June18
	1	23.000	15804.570	1/100.000	30.000	30.000		NAL_MWD_IFR1+MS	Original Borehole / Cimarex Canyonlands 2 State Com 1H

Cimarex Canyonlands 2 State Com 1H Rev2 RM 27June18 Proposal

Geodetic Report

(Non-Def Plan)



Report Date: June 27, 2018 - 02:16 PM
Client: Cimarex
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Canyonlands 2 State Com 1H / Cimarex Canyonlands 2 State Com 1H
Well: Cimarex Canyonlands 2 State Com 1H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Canyonlands 2 State Com 1H Rev2 RM 27June18
Survey Date: April 10, 2018
Tort / AHD / DDI / ERD Ratio: 93.570 ° / 4573.350 ft / 5.772 / 0.400
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 14' 25.30073", W 103° 28' 7.83742"
Location Grid N/E Y/X: N 452337.280 ftUS, E 818928.330 ftUS
CRS Grid Convergence Angle: 0.4790 °
Grid Scale Factor: 0.99999734
Version / Patch: 2.10.715.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 359.280 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3449.300 ft above MSL
Seabed / Ground Elevation: 3426.300 ft above MSL
Magnetic Declination: 6.738 °
Total Gravity Field Strength: 998.4634mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 48028.019 nT
Magnetic Dip Angle: 59.968 °
Declination Date: June 27, 2018
Magnetic Declination Model: HDGM 2018
North Reference: Grid North
Grid Convergence Used: 0.4790 °
Total Corr Mag North->Grid North: 6.2588 °
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 [390' FSL, 1020' FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	452337.28	818928.33	N 32 14 25.30	W 103 28 7.84
KOP - Build 12"/100' DLS	10955.34	0.00	15.41	10955.34	0.00	0.00	0.00	0.00	452337.28	818928.33	N 32 14 25.30	W 103 28 7.84
Build & Turn 12"/100' DLS	11330.34	45.00	15.41	11292.96	134.34	134.82	37.15	12.00	452472.10	818965.48	N 32 14 26.83	W 103 28 7.39
Landing Point Cimarex Canyonlands 2 State Com 1H - PBHL [330' FNL, 940' FEL]	11735.09	91.41	359.28	11440.00	496.05	497.03	74.92	12.00	452834.31	819003.25	N 32 14 30.21	W 103 28 6.92
	15804.57	91.41	359.28	11340.00	4564.30	4564.96	23.80	0.00	456902.22	818952.13	N 32 15 10.47	W 103 28 7.12

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	23.000	1/100.000	30.000	30.000		NAL_MWD_IFR1+MS-Depth Only	Original Borehole / Cimarex Canyonlands 2 State Com 1H Rev2 RM 27June18
	1	23.000	15804.570	1/100.000	30.000	30.000		NAL_MWD_IFR1+MS	Original Borehole / Cimarex Canyonlands 2 State Com 1H

HOBBS OCD
 JUN 27 2018
 RECEIVED

