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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-101
August 1, 2011

Permit 336018

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
CIMAREX ENERGY CO. OF COLORADO 600 N. Marienfeld Street Midland, TX 79701	162683
	3. API Number 30-025-51233

4. Property Code	5. Property Name	6. Well No.
329861	RED HILLS 32 5 STATE COM	200H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
A	32	25S	33E	A	407	N	450	E	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
P	5	26S	33E	P	100	S	624	E	Lea

9. Pool Information

WC-025 G-08 S253235G;LWR BONE SPRIN	97903

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3390
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	21154	2nd Bone Spring Sand		11/1/2024
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	48	976	605	0
Int1	12.25	9.625	40	4980	1239	0
Prod	8.75	7	29	11205	474	4780
Prod	8.75	7	29	10455	0	0
Liner1	6	4.5	11.6	21154	738	11005

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	2000	2000	Cameron
Double Ram	3000	3000	Cameron
Double Ram	5000	5000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.

Signature:

OIL CONSERVATION DIVISION

Printed Name:	Electronically filed by Sarah Jordan	Approved By:	Paul F Kautz
Title:	Regulatory Analyst	Title:	Geologist
Email Address:	sarah.jordan@coterra.com	Approved Date:	3/27/2023
Date:	3/21/2023 Phone: 432-620-1909	Conditions of Approval Attached	Expiration Date: 3/27/2025

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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	[2] Pool Code	[3] Pool Name
30-025-51233	97903	WC-025 G-08 S253235G; LWR Bone Spring

[4] Property Code	[5] Property Name	[6] Well Number
329861	RED HILLS 32-5 STATE COM	200H

[7] OGRID No.	[8] Operator Name	[9] Elevation
162683	CIMAREX ENERGY CO. of Colorado	3390.3'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	32	25S	33E		407	NORTH	450	EAST	LEA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	5	26S	33E		100	SOUTH	624	EAST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
1280			NSP-2145

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.

[16]

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°05'35.48" (32.093189°)
LONGITUDE = 103°35'14.03" (103.587231°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°05'35.03" (32.093065°)
LONGITUDE = 103°35'12.34" (103.586761°)
STATE PLANE NAD 83 (N.M. EAST)
N: 398438.41' E: 772388.86'
STATE PLANE NAD 27 (N.M. EAST)
N: 398380.79' E: 731202.38'

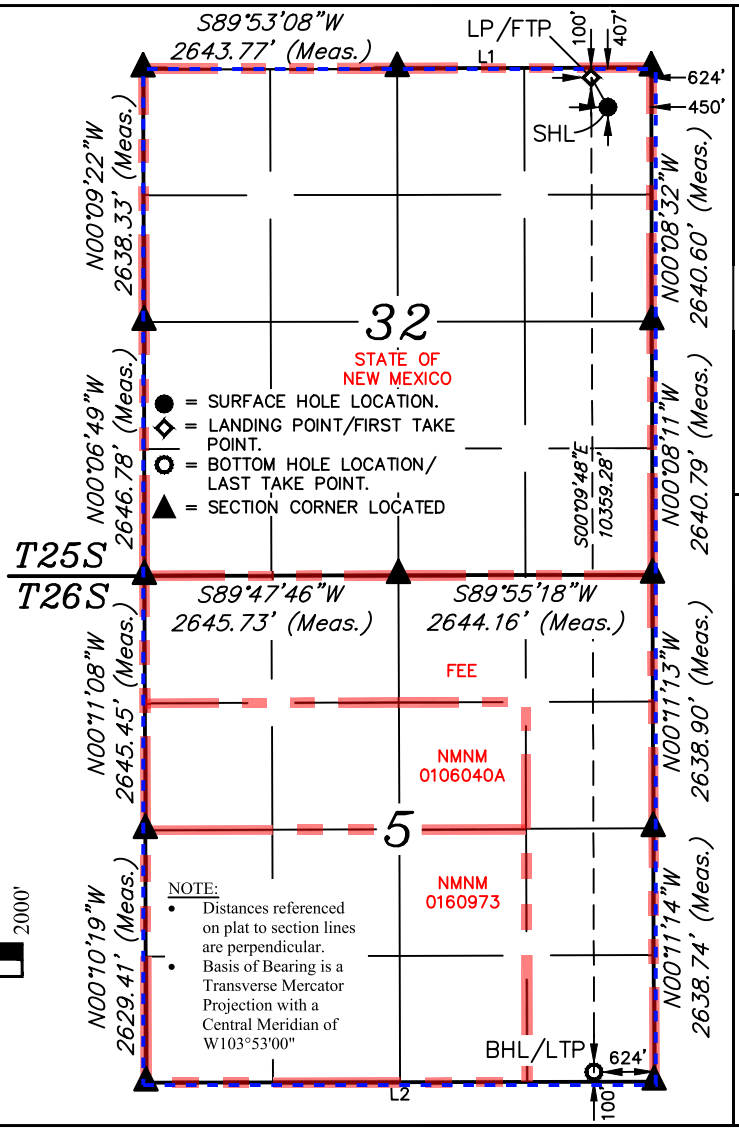
NAD 83 (LP/FTP)
LATITUDE = 32°05'38.52" (32.094035°)
LONGITUDE = 103°35'16.05" (103.587793°)
NAD 27 (LP/FTP)
LATITUDE = 32°05'38.08" (32.093910°)
LONGITUDE = 103°35'14.36" (103.587322°)
STATE PLANE NAD 83 (N.M. EAST)
N: 398744.66' E: 772212.86'
STATE PLANE NAD 27 (N.M. EAST)
N: 398687.03' E: 731026.40'

NAD 83 (BHL/LTP)
LATITUDE = 32°03'56.03" (32.065564°)
LONGITUDE = 103°35'16.04" (103.587789°)
NAD 27 (BHL/LTP)
LATITUDE = 32°03'55.58" (32.065439°)
LONGITUDE = 103°35'14.35" (103.587320°)
STATE PLANE NAD 83 (N.M. EAST)
N: 388387.42' E: 772285.57'
STATE PLANE NAD 27 (N.M. EAST)
N: 388330.04' E: 731098.63'

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S89°54'44"W	2645.70'
L2	S89°53'20"W	5290.67'
L3	N29°38'45"W	353.28'

2000' 1000' 0' 2000'

SCALE
DRAWN BY: S.S. 02-13-20
REV: 2 10-03-22 D.M.C.
(ADD LEASE INFORMATION & BORE CHANGE)



[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.

3/9/23
Signature Date

Kanicia Schlichting
Printed Name

kanicia.schlichting@coterra.com
E-mail Address

[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.

May 01, 2018
Date of Survey
Signature and Seal of Professional Surveyor:

PAUL BUCHELE
NEW MEXICO
23782
PROFESSIONAL SURVEYOR
10-03-22

Certificate Number:

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Conditions

Permit 336018

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
CIMAREX ENERGY CO. OF COLORADO [162683] 600 N. Marienfeld Street Midland, TX 79701	30-025-51233
	Well: RED HILLS 32 5 STATE COM #200H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

Schlumberger

COTERRA

Coterra Red Hills 32-5 State Com 200H Rev1 kFc 28Nov22 Proposal
Geodetic Report
(Def Plan)

Report Date:	November 28, 2022 - 12:10 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	COTERRA	**Vertical Section Azimuth:**	179.600 ° (Grid North)
Field:	NM Lea County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Coterra Red Hills 32-5 State Com Pad (east) / 200H	**TVD Reference Datum:**	RKB = 23ft
Well:	Red Hills 32-5 State Com 200H	**TVD Reference Elevation:**	3413.300 ft above MSL
Borehole:	Red Hills 32-5 State Com 200H	**Seabed / Ground Elevation:**	3390.300 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.279 °
Survey Name:	Coterra Red Hills 32-5 State Com 200H Rev1 kFc 28Nov22	**Total Gravity Field Strength:**	998.4316mgn (9.80665 Based)
Survey Date:	November 28, 2022	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	107.725 ° / 10677.764 ft / 6.343 / 0.967	**Total Magnetic Field Strength:**	47408.103 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.644 °
Location Lat / Long:	N 32° 5' 35.48190", W 103° 35' 14.03270"	**Declination Date:**	November 28, 2022
Location Grid N/E Y/X:	N 398438.410 ftUS, E 772388.860 ftUS	**Magnetic Declination Model:**	HDGM 2022
CRS Grid Convergence Angle:	0.3964 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99997023	**Grid Convergence Used:**	0.3964 °
Version / Patch:	2.10.834.0	**Total Corr Mag North->Grid North:**	5.8826 °
		Local Coord Referenced To:	Well Head

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 [407' FNL, 450' FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	398438.41	772388.86	N 32.093189	W 103.587231
	100.00	0.00	1.86	100.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
	200.00	0.00	1.86	200.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
	300.00	0.00	1.86	300.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
	400.00	0.00	1.86	400.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
	500.00	0.00	1.86	500.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
	600.00	0.00	1.86	600.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
	700.00	0.00	1.86	700.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
	800.00	0.00	1.86	800.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
	900.00	0.00	1.86	900.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
Rustler	*926.00*	*0.00*	*1.86*	*926.00*	*0.00*	*0.00*	*0.00*	*0.00*	*398438.41*	*772388.86*	*N 32.093189*	*W 103.587231*
	1000.00	0.00	1.86	1000.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
	1100.00	0.00	1.86	1100.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
	1200.00	0.00	1.86	1200.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
Top Salt	*1295.00*	*0.00*	*1.86*	*1295.00*	*0.00*	*0.00*	*0.00*	*0.00*	*398438.41*	*772388.86*	*N 32.093189*	*W 103.587231*
	1300.00	0.00	1.86	1300.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
	1400.00	0.00	1.86	1400.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
	1500.00	0.00	1.86	1500.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
	1600.00	0.00	1.86	1600.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
Nudge, Build 2°/100ft	1650.00	0.00	1.86	1650.00	0.00	0.00	0.00	0.00	398438.41	772388.86	N 32.093189	W 103.587231
	1700.00	1.00	1.86	1700.00	-0.44	0.44	0.01	2.00	398438.85	772388.87	N 32.093191	W 103.587231
	1800.00	3.00	1.86	1799.93	-3.92	3.92	0.13	2.00	398442.33	772388.99	N 32.093200	W 103.587231
Hold	1821.68	3.43	1.86	1821.57	-5.14	5.14	0.17	2.00	398443.55	772389.03	N 32.093204	W 103.587231
	1900.00	3.43	1.86	1899.76	-9.83	9.83	0.32	0.00	398448.24	772389.18	N 32.093216	W 103.587230
	2000.00	3.43	1.86	1999.58	-15.81	15.81	0.51	0.00	398454.22	772389.37	N 32.093233	W 103.587229
	2100.00	3.43	1.86	2099.40	-21.79	21.80	0.71	0.00	398460.21	772389.57	N 32.093249	W 103.587229
	2200.00	3.43	1.86	2199.22	-27.78	27.79	0.90	0.00	398466.19	772389.76	N 32.093266	W 103.587228
	2300.00	3.43	1.86	2299.04	-33.76	33.77	1.10	0.00	398472.18	772389.96	N 32.093282	W 103.587227
	2400.00	3.43	1.86	2398.86	-39.75	39.76	1.29	0.00	398478.17	772390.15	N 32.093299	W 103.587226
	2500.00	3.43	1.86	2498.68	-45.73	45.74	1.49	0.00	398484.15	772390.35	N 32.093315	W 103.587225
	2600.00	3.43	1.86	2598.50	-51.72	51.73	1.68	0.00	398490.14	772390.54	N 32.093332	W 103.587225
	2700.00	3.43	1.86	2698.32	-57.70	57.72	1.88	0.00	398496.12	772390.74	N 32.093348	W 103.587224
	2800.00	3.43	1.86	2798.14	-63.69	63.70	2.07	0.00	398502.11	772390.93	N 32.093364	W 103.587223
	2900.00	3.43	1.86	2897.96	-69.67	69.69	2.27	0.00	398508.09	772391.13	N 32.093381	W 103.587222
	3000.00	3.43	1.86	2997.78	-75.65	75.67	2.46	0.00	398514.08	772391.32	N 32.093397	W 103.587222
	3100.00	3.43	1.86	3097.60	-81.64	81.66	2.66	0.00	398520.07	772391.52	N 32.093414	W 103.587221
	3200.00	3.43	1.86	3197.42	-87.62	87.64	2.85	0.00	398526.05	772391.71	N 32.093430	W 103.587220
	3300.00	3.43	1.86	3297.24	-93.61	93.63	3.05	0.00	398532.04	772391.91	N 32.093447	W 103.587219
	3400.00	3.43	1.86	3397.06	-99.59	99.62	3.24	0.00	398538.02	772392.10	N 32.093463	W 103.587219
	3500.00	3.43	1.86	3496.88	-105.58	105.60	3.44	0.00	398544.01	772392.30	N 32.093480	W 103.587218
	3600.00	3.43	1.86	3596.71	-111.56	111.59	3.63	0.00	398549.99	772392.49	N 32.093496	W 103.587217
	3700.00	3.43	1.86	3696.53	-117.54	117.57	3.83	0.00	398555.98	772392.69	N 32.093513	W 103.587216
	3800.00	3.43	1.86	3796.35	-123.53	123.56	4.02	0.00	398561.97	772392.88	N 32.093529	W 103.587216
	3900.00	3.43	1.86	3896.17	-129.51	129.55	4.22	0.00	398567.95	772393.08	N 32.093545	W 103.587215
	4000.00	3.43	1.86	3995.99	-135.50	135.53	4.41	0.00	398573.94	772393.27	N 32.093562	W 103.587214
	4100.00	3.43	1.86	4095.81	-141.48	141.52	4.61	0.00	398579.92	772393.47	N 32.093578	W 103.587213
	4200.00	3.43	1.86	4195.63	-147.47	147.50	4.80	0.00	398585.91	772393.66	N 32.093595	W 103.587213
	4300.00	3.43	1.86	4295.45	-153.45	153.49	4.99	0.00	398591.89	772393.85	N 32.093611	W 103.587212
	4400.00	3.43	1.86	4395.27	-159.44	159.48	5.19	0.00	398597.88	772394.05	N 32.093628	W 103.587211
	4500.00	3.43	1.86	4495.09	-165.42	165.46	5.38	0.00	398603.87	772394.24	N 32.093644	W 103.587210
	4600.00	3.43	1.86	4594.91	-171.40	171.45	5.58	0.00	398609.85	772394.44	N 32.093661	W 103.587209
	4700.00	3.43	1.86	4694.73	-177.39	177.43	5.77	0.00	398615.84	772394.63	N 32.093677	W 103.587209
	4800.00	3.43	1.86	4794.55	-183.37	183.42	5.97	0.00	398621.82	772394.83	N 32.093693	W 103.587208
	4900.00	3.43	1.86	4894.37	-189.36	189.40	6.16	0.00	398627.81	772395.02	N 32.093710	W 103.587207
Lamar	*4905.64*	*3.43*	*1.86*	*4900.00*	*-189.69*	*189.74*	*6.17*	*0.00*	*398628.15*	*772395.03*	*N 32.093711*	*W 103.587207*
Delaware Sands/Bell Canyon	*4935.69*	*3.43*	*1.86*	*4930.00*	*-191.49*	*191.54*	*6.23*	*0.00*	*398629.95*	*772395.09*	*N 32.093716*	*W 103.587207*
	5000.00	3.43	1.86	4994.19	-195.34	195.39	6.36	0.00	398633.79	772395.22	N 32.093726	W 103.587206
	5100.00	3.43	1.86	5094.01	-201.33	201.38	6.55	0.00	398639.78	772395.41	N 32.093743	W 103.587206
	5200.00	3.43	1.86	5193.83	-207.31	207.36	6.75	0.00	398645.77	772395.61	N 32.093759	W 103.587205
	5300.00	3.43	1.86	5293.65	-213.29	213.35	6.94	0.00	398651.75	772395.80	N 32.093776	W 103.587204
	5400.00	3.43	1.86	5393.47	-219.28	219.33	7.14	0.00	398657.74	772396.00	N 32.093792	W 103.587203
	5500.00	3.43	1.86	5493.29	-225.26	225.32	7.33	0.00	398663.72	772396.19	N 32.093809	W 103.587203
	5600.00	3.43	1.86	5593.11	-231.25	231.31	7.53	0.00	398669.71	772396.39	N 32.093825	W 103.587202
	5700.00	3.43	1.86	5692.94	-237.23	237.29	7.72	0.00	398675.69	772396.58	N 32.093841	W 103.587201
	5800.00	3.43	1.86	5792.76	-243.22	243.28	7.92	0.00	398681.68	772396.78	N 32.093858	W 103.587200
	5900.00	3.43	1.86	5892.58	-249.20	249.26	8.11	0.00	398687.67	772396.97	N 32.093874	W 103.587200
Cherry Canyon	*5967.54*	*3.43*	*1.86*	*5960.00*	*-253.24*	*253.31*	*8.24*	*0.00*	*398691.71*	*772397.10*	*N 32.093886*	*W 103.587199*
	6000.00	3.43	1.86	5992.40	-255.19	255.25	8.31	0.00	398693.65	772397.17	N 32.093891	W 103.587199
	6100.00	3.43	1.86	6092.22	-261.17	261.24	8.50	0.00	398699.64	772397.36	N 32.093907	W 103.587198
	6200.00	3.43	1.86	6192.04	-267.15	267.22	8.70	0.00	398705.62	772397.56	N 32.093924	W 103.587197
	6300.00	3.43	1.86	6291.86	-273.14	273.21	8.89	0.00	398711.61	772397.75	N 32.093940	W 103.587196
	6400.00	3.43	1.86	6391.68	-279.12	279.19	9.09	0.00	398717.59	772397.95	N 32.093957	W 103.587196
	6500.00	3.43	1.86	6491.50	-285.11	285.18	9.28	0.00	398723.58	772398.14	N 32.093973	W 103.587195
	6600.00	3.43	1.86	6591.32	-291.09	291.17	9.47	0.00	398729.57	772398.33	N 32.093990	W 103.587194

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 °)
	6700.00	3.43	1.86	6691.14	-297.08	297.15	9.67	0.00	398735.55	772398.53	N 32.094006	W 103.587193
Drop 2°/100ft	6783.69	3.43	1.86	6774.68	-302.08	302.16	9.83	0.00	398740.56	772398.69	N 32.094020	W 103.587193
	6800.00	3.11	1.86	6790.96	-303.01	303.09	9.86	2.00	398741.49	772398.72	N 32.094022	W 103.587193
	6900.00	1.11	1.86	6890.89	-306.69	306.77	9.98	2.00	398745.17	772398.84	N 32.094032	W 103.587192
Hold	6955.36	0.00	1.86	6946.25	-307.22	307.30	10.00	2.00	398745.70	772398.86	N 32.094034	W 103.587192
	7000.00	0.00	1.86	6990.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	7100.00	0.00	1.86	7090.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	7200.00	0.00	1.86	7190.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	7300.00	0.00	1.86	7290.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	7400.00	0.00	1.86	7390.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
Brushy Canyon	*7489.11*	*0.00*	*1.86*	*7480.00*	*-307.22*	*307.30*	*10.00*	*0.00*	*398745.70*	*772398.86*	*N 32.094034*	*W 103.587192*
	7500.00	0.00	1.86	7490.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	7600.00	0.00	1.86	7590.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	7700.00	0.00	1.86	7690.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	7800.00	0.00	1.86	7790.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	7900.00	0.00	1.86	7890.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	8000.00	0.00	1.86	7990.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	8100.00	0.00	1.86	8090.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	8200.00	0.00	1.86	8190.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	8300.00	0.00	1.86	8290.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	8400.00	0.00	1.86	8390.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	8500.00	0.00	1.86	8490.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	8600.00	0.00	1.86	8590.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	8700.00	0.00	1.86	8690.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	8800.00	0.00	1.86	8790.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
Basal Brushy Canyon	*8864.11*	*0.00*	*1.86*	*8855.00*	*-307.22*	*307.30*	*10.00*	*0.00*	*398745.70*	*772398.86*	*N 32.094034*	*W 103.587192*
	8900.00	0.00	1.86	8890.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	9000.00	0.00	1.86	8990.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
Bone Spring Lime	*9049.11*	*0.00*	*1.86*	*9040.00*	*-307.22*	*307.30*	*10.00*	*0.00*	*398745.70*	*772398.86*	*N 32.094034*	*W 103.587192*
Leonard	*9074.11*	*0.00*	*1.86*	*9065.00*	*-307.22*	*307.30*	*10.00*	*0.00*	*398745.70*	*772398.86*	*N 32.094034*	*W 103.587192*
	9100.00	0.00	1.86	9090.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	9200.00	0.00	1.86	9190.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	9300.00	0.00	1.86	9290.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
Avalon	*9339.11*	*0.00*	*1.86*	*9330.00*	*-307.22*	*307.30*	*10.00*	*0.00*	*398745.70*	*772398.86*	*N 32.094034*	*W 103.587192*
	9400.00	0.00	1.86	9390.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	9500.00	0.00	1.86	9490.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	9600.00	0.00	1.86	9590.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	9700.00	0.00	1.86	9690.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	9800.00	0.00	1.86	9790.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	9900.00	0.00	1.86	9890.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	10000.00	0.00	1.86	9990.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
1st BS Sand	*10029.11*	*0.00*	*1.86*	*10020.00*	*-307.22*	*307.30*	*10.00*	*0.00*	*398745.70*	*772398.86*	*N 32.094034*	*W 103.587192*
	10100.00	0.00	1.86	10090.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	10200.00	0.00	1.86	10190.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
2nd BS Shale	*10229.11*	*0.00*	*1.86*	*10220.00*	*-307.22*	*307.30*	*10.00*	*0.00*	*398745.70*	*772398.86*	*N 32.094034*	*W 103.587192*
	10300.00	0.00	1.86	10290.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	10400.00	0.00	1.86	10390.89	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
KOP. Build 10°/100ft	10455.36	0.00	1.86	10446.25	-307.22	307.30	10.00	0.00	398745.70	772398.86	N 32.094034	W 103.587192
	10500.00	4.46	185.60	10490.84	-305.49	305.57	9.83	10.00	398743.97	772398.69	N 32.094029	W 103.587193
2nd BS Sand	*10585.22*	*12.99*	*185.60*	*10575.00*	*-292.65*	*292.72*	*8.57*	*10.00*	*398731.12*	*772397.43*	*N 32.093994*	*W 103.587197*
	10600.00	14.46	185.60	10589.36	-289.16	289.23	8.23	10.00	398727.63	772397.09	N 32.093984	W 103.587198
	10700.00	24.46	185.60	10683.52	-256.07	256.11	4.98	10.00	398694.51	772393.84	N 32.093893	W 103.587209
	10800.00	34.46	185.60	10770.48	-207.21	207.22	0.19	10.00	398645.62	772389.05	N 32.093759	W 103.587226
	10900.00	44.46	185.60	10847.58	-144.08	144.04	-6.00	10.00	398582.45	772382.86	N 32.093585	W 103.587247
	11000.00	54.46	185.60	10912.49	-68.59	68.50	-13.41	10.00	398506.91	772375.45	N 32.093378	W 103.587273
	11100.00	64.46	185.60	10963.24	16.96	-17.11	-21.80	10.00	398421.30	772367.06	N 32.093143	W 103.587302
	11200.00	74.46	185.60	10998.27	109.97	-110.19	-30.92	10.00	398328.22	772357.94	N 32.092887	W 103.587334
Build & Turn 5°/100ft	11205.36	75.00	185.60	10999.68	115.12	-115.34	-31.43	10.00	398323.07	772357.44	N 32.092873	W 103.587335
	11300.00	79.58	186.82	11020.50	206.79	-207.09	-41.42	5.00	398231.33	772347.44	N 32.092621	W 103.587370
	11400.00	84.42	188.08	11034.42	304.86	-305.25	-54.27	5.00	398133.17	772334.59	N 32.092351	W 103.587413
	11500.00	89.27	189.32	11039.92	403.42	-403.91	-69.37	5.00	398034.51	772319.49	N 32.092081	W 103.587464
Landing Point	11522.52	90.36	189.60	11040.00	425.61	-426.13	-73.07	5.00	398012.29	772315.79	N 32.092020	W 103.587477
	11600.00	90.36	189.60	11039.52	501.91	-502.52	-85.99	0.00	397935.90	772302.87	N 32.091810	W 103.587520
	11700.00	90.36	189.60	11038.89	600.39	-601.12	-102.66	0.00	397837.31	772286.20	N 32.091539	W 103.587576
	11800.00	90.36	189.60	11038.27	698.87	-699.72	-119.34	0.00	397738.71	772269.53	N 32.091268	W 103.587632
Turn 2°/100ft	11834.52	90.36	189.60	11038.05	732.87	-733.76	-125.09	0.00	397704.68	772263.77	N 32.091175	W 103.587652
	11900.00	90.36	188.29	11037.65	797.47	-798.44	-135.27	2.00	397640.00	772253.59	N 32.090997	W 103.587686
	12000.00	90.36	186.29	11037.02	896.57	-897.62	-147.96	2.00	397540.82	772240.91	N 32.090725	W 103.587729
	12100.00	90.36	184.29	11036.40	996.07	-997.19	-157.17	2.00	397441.25	772231.69	N 32.090451	W 103.587761
	12200.00	90.36	182.29	11035.77	1095.85	-1097.02	-162.91	2.00	397341.43	772225.96	N 32.090177	W 103.587782
	12300.00	90.36	180.29	11035.15	1195.80	-1196.98	-165.16	2.00	397241.46	772223.71	N 32.089902	W 103.587791
Hold	12334.50	90.36	179.60	11034.93	1230.30	-1231.48	-165.12	2.00	397206.97	772223.74	N 32.089808	W 103.587792
	12400.00	90.36	179.60	11034.52	1295.80	-1296.98	-164.66	0.00	397141.47	772224.20	N 32.089628	W 103.587792
	12500.00	90.36	179.60	11033.90	1395.80	-1396.98	-163.96	0.00	397041.48	772224.90	N 32.089353	W 103.587792
	12600.00	90.36	179.60	11033.28	1495.79	-1496.97	-163.26	0.00	396941.49	772225.60	N 32.089078	W 103.587792
	12700.00	90.36	179.60	11032.66	1595.79	-1596.97	-162.56	0.00	396841.49	772226.30	N 32.088803	W 103.587792
	12800.00	90.36	179.60	11032.03	1695.79	-1696.96	-161.86	0.00	396741.50	772227.00	N 32.088528	W 103.587792
	12900.00	90.36	179.60	11031.41	1795.79	-1796.96	-161.16	0.00	396641.51	772227.71	N 32.088253	W 103.587792
	13000.00	90.36	179.60	11030.79	1895.79	-1896.95	-160.46	0.00	396541.52	772228.41	N 32.087978	W 103.587792
	13100.00	90.36	179.60	11030.16	1995.79	-1996.95	-159.76	0.00	396441.52	772229.11	N 32.087704	W 103.587792
	13200.00	90.36	179.60	11029.54	2095.78	-2096.94	-159.06	0.00	396341.53	772229.81	N 32.087429	W 103.587792
	13300.00	90.36	179.60	11028.92	2195.78	-2196.94	-158.36	0.00	396241.54	772230.51	N 32.087154	W 103.587792
	13400.00	90.36	179.60	11028.30	2295.78	-2296.94	-157.65	0.00	396141.55	772231.21	N 32.086879	W 103.587792
	13500.00	90.36	179.60	11027.67	2395.78	-2396.93	-156.95	0.00	396041.55	772231.91	N 32.086604	W 103.587792
	13600.00	90.36	179.60	11027.05	2495.78	-2496.93	-156.25	0.00	395941.56	772232.61	N 32.086329	W 103.587792
	13700.00	90.36	179.60	11026.43	2595.77	-2596.92	-155.55	0.00	395841.57	772233.31	N 32.086054	W 103.587792
	13800.00	90.36	179.60	11025.80	2695.77	-2696.92	-154.85	0.00	395741.58	772234.01	N 32.085779	W 103.587791
	13900.00	90.36	179.60	11025.18	2795.77	-2796.91	-154.15	0.00	395641.59	772234.72	N 32.085505	W 103.587791
	14000.00	90.36	179.60	11024.56	2895.77	-2896.91	-153.45	0.00	395541.59	772235.42	N 32.085230	W 103.587791
	14100.00	90.36	179.60	11023.94	2995.77	-2996.91	-152.75	0.00	395441.60	772236.12	N 32.084955	W 103.587791
	14200.00	90.36	179.60	11023.31	3095.76	-3096.90	-152.05	0.00	395341.61	772236.82	N 32.084680	W 103.587791
	14300.00	90.36	179.60	11022.69	3195.76	-3196.90	-151.35	0.00	395241.62	772237.52	N 32.084405	W 103.587791
	14400.00	90.36	179.60	11022.07	3295.76	-3296.89	-150.64	0.00	395141.62	772238.22	N 32.084130	W 103.587791
	14500.00	90.36	179.60	11021.45	3395.76	-3396.89	-149.94	0.00	395041.63	772238.92	N 32.083855	W 103.587791
	14600.00	90.36	179.60	11020.82	3495.76	-3496.88	-149.24	0.00	394941.64	772239.62	N 32.083581	W 103.587791
	14700.00	90.36	179.60	11020.20	3595.75	-3596.88	-148.54	0.00	394841.65	772240.32	N 32.083306	W 103.587791
	14800.00	90.36	179.60	11019.58	3695.75	-3696.87	-147.84	0.00	394741.65	772241.02	N 32.083031	W 103.587791
	14900.00	90.36	179.60	11018.95	3795.75	-3796.87	-147.14	0.00	394641.66	772241.73	N 32.082756	W 103.587791
	15000.00	90.36	179.60	11018.33	3895.75	-3896.87	-146.44	0.00	394541.67	772242.43	N 32.082481	W 103.587791
	15100.00	90.36	179.60	11017.71	3995.75	-3996.86	-145.74	0.00	394441.68	772243.13	N 32.082206	W 103.587791
	15200.00	90.36	179.60	11017.09	4095.74	-4096.86	-145.04	0.00	394341.68	772243.83	N 32.081931	W 103.587791
	15300.00	90.36	179.60	11016.46	4195.74	-4196.85	-144.34	0.00	394241.69	772244.53	N 32.081657	W 103.587791
	15400.00	90.36	179.60	11015.84	4295.74	-4296.85	-143.63	0.00	394141.70	772245.23	N 32.081382	W 103.587791
	15500.00	90.36	179.60	11015.22	4395.74	-4396.84	-142.93	0.00	394041.71	772245.93	N 32.081107	W 103.587791
	15600.00	90.36	179.60	11014.59	4495.74	-4496.84	-142.23	0.00	393941.71	772246.63	N 32.080832	W 103.587791

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 °)
	15700.00	90.36	179.60	11013.97	4595.73	-4596.83	-141.53	0.00	393841.72	772247.33	N 32.080557	W 103.587791
	15800.00	90.36	179.60	11013.35	4695.73	-4696.83	-140.83	0.00	393741.73	772248.03	N 32.080282	W 103.587791
	15900.00	90.36	179.60	11012.73	4795.73	-4796.83	-140.13	0.00	393641.74	772248.74	N 32.080007	W 103.587791
Section 32-5 Line Cross	*15977.33*	*90.36*	*179.60*	*11012.24*	*4873.06*	*-4874.15*	*-139.59*	*0.00*	*393564.41*	*772249.28*	*N 32.079795*	*W 103.587791*
	16000.00	90.36	179.60	11012.10	4895.73	-4896.82	-139.43	0.00	393541.74	772249.44	N 32.079732	W 103.587791
	16100.00	90.36	179.60	11011.48	4995.73	-4996.82	-138.73	0.00	393441.75	772250.14	N 32.079458	W 103.587791
	16200.00	90.36	179.60	11010.86	5095.72	-5096.81	-138.03	0.00	393341.76	772250.84	N 32.079183	W 103.587791
	16300.00	90.36	179.60	11010.23	5195.72	-5196.81	-137.33	0.00	393241.77	772251.54	N 32.078908	W 103.587791
	16400.00	90.36	179.60	11009.61	5295.72	-5296.80	-136.62	0.00	393141.77	772252.24	N 32.078633	W 103.587791
	16500.00	90.36	179.60	11008.99	5395.72	-5396.80	-135.92	0.00	393041.78	772252.94	N 32.078358	W 103.587791
	16600.00	90.36	179.60	11008.37	5495.72	-5496.80	-135.22	0.00	392941.79	772253.64	N 32.078083	W 103.587791
	16700.00	90.36	179.60	11007.74	5595.72	-5596.79	-134.52	0.00	392841.80	772254.34	N 32.077808	W 103.587791
	16800.00	90.36	179.60	11007.12	5695.71	-5696.79	-133.82	0.00	392741.80	772255.04	N 32.077534	W 103.587791
	16900.00	90.36	179.60	11006.50	5795.71	-5796.78	-133.12	0.00	392641.81	772255.74	N 32.077259	W 103.587790
	17000.00	90.36	179.60	11005.88	5895.71	-5896.78	-132.42	0.00	392541.82	772256.45	N 32.076984	W 103.587790
	17100.00	90.36	179.60	11005.25	5995.71	-5996.77	-131.72	0.00	392441.83	772257.15	N 32.076709	W 103.587790
	17200.00	90.36	179.60	11004.63	6095.71	-6096.77	-131.02	0.00	392341.83	772257.85	N 32.076434	W 103.587790
	17300.00	90.36	179.60	11004.01	6195.70	-6196.76	-130.32	0.00	392241.84	772258.55	N 32.076159	W 103.587790
	17400.00	90.36	179.60	11003.38	6295.70	-6296.76	-129.61	0.00	392141.85	772259.25	N 32.075884	W 103.587790
	17500.00	90.36	179.60	11002.76	6395.70	-6396.76	-128.91	0.00	392041.86	772259.95	N 32.075609	W 103.587790
	17600.00	90.36	179.60	11002.14	6495.70	-6496.75	-128.21	0.00	391941.87	772260.65	N 32.075335	W 103.587790
	17700.00	90.36	179.60	11001.52	6595.70	-6596.75	-127.51	0.00	391841.87	772261.35	N 32.075060	W 103.587790
	17800.00	90.36	179.60	11000.89	6695.69	-6696.74	-126.81	0.00	391741.88	772262.05	N 32.074785	W 103.587790
	17900.00	90.36	179.60	11000.27	6795.69	-6796.74	-126.11	0.00	391641.89	772262.75	N 32.074510	W 103.587790
	18000.00	90.36	179.60	10999.65	6895.69	-6896.73	-125.41	0.00	391541.90	772263.46	N 32.074235	W 103.587790
	18100.00	90.36	179.60	10999.02	6995.69	-6996.73	-124.71	0.00	391441.90	772264.16	N 32.073960	W 103.587790
	18200.00	90.36	179.60	10998.40	7095.69	-7096.72	-124.01	0.00	391341.91	772264.86	N 32.073685	W 103.587790
	18300.00	90.36	179.60	10997.78	7195.68	-7196.72	-123.31	0.00	391241.92	772265.56	N 32.073411	W 103.587790
	18400.00	90.36	179.60	10997.16	7295.68	-7296.72	-122.60	0.00	391141.93	772266.26	N 32.073136	W 103.587790
	18500.00	90.36	179.60	10996.53	7395.68	-7396.71	-121.90	0.00	391041.93	772266.96	N 32.072861	W 103.587790
	18600.00	90.36	179.60	10995.91	7495.68	-7496.71	-121.20	0.00	390941.94	772267.66	N 32.072586	W 103.587790
	18700.00	90.36	179.60	10995.29	7595.68	-7596.70	-120.50	0.00	390841.95	772268.36	N 32.072311	W 103.587790
	18800.00	90.36	179.60	10994.66	7695.67	-7696.70	-119.80	0.00	390741.96	772269.06	N 32.072036	W 103.587790
	18900.00	90.36	179.60	10994.04	7795.67	-7796.69	-119.10	0.00	390641.96	772269.76	N 32.071761	W 103.587790
	19000.00	90.36	179.60	10993.42	7895.67	-7896.69	-118.40	0.00	390541.97	772270.47	N 32.071486	W 103.587790
	19100.00	90.36	179.60	10992.80	7995.67	-7996.69	-117.70	0.00	390441.98	772271.17	N 32.071212	W 103.587790
	19200.00	90.36	179.60	10992.17	8095.67	-8096.68	-117.00	0.00	390341.99	772271.87	N 32.070937	W 103.587790
	19300.00	90.36	179.60	10991.55	8195.66	-8196.68	-116.30	0.00	390241.99	772272.57	N 32.070662	W 103.587790
	19400.00	90.36	179.60	10990.93	8295.66	-8296.67	-115.59	0.00	390142.00	772273.27	N 32.070387	W 103.587790
	19500.00	90.36	179.60	10990.31	8395.66	-8396.67	-114.89	0.00	390042.01	772273.97	N 32.070112	W 103.587790
	19600.00	90.36	179.60	10989.68	8495.66	-8496.66	-114.19	0.00	389942.02	772274.67	N 32.069837	W 103.587790
	19700.00	90.36	179.60	10989.06	8595.66	-8596.66	-113.49	0.00	389842.02	772275.37	N 32.069562	W 103.587790
	19800.00	90.36	179.60	10988.44	8695.66	-8696.65	-112.79	0.00	389742.03	772276.07	N 32.069288	W 103.587790
	19900.00	90.36	179.60	10987.81	8795.65	-8796.65	-112.09	0.00	389642.04	772276.77	N 32.069013	W 103.587790
	20000.00	90.36	179.60	10987.19	8895.65	-8896.65	-111.39	0.00	389542.05	772277.48	N 32.068738	W 103.587789
	20100.00	90.36	179.60	10986.57	8995.65	-8996.64	-110.69	0.00	389442.05	772278.18	N 32.068463	W 103.587789
	20200.00	90.36	179.60	10985.95	9095.65	-9096.64	-109.99	0.00	389342.06	772278.88	N 32.068188	W 103.587789
	20300.00	90.36	179.60	10985.32	9195.65	-9196.63	-109.28	0.00	389242.07	772279.58	N 32.067913	W 103.587789
	20400.00	90.36	179.60	10984.70	9295.64	-9296.63	-108.58	0.00	389142.08	772280.28	N 32.067638	W 103.587789
	20500.00	90.36	179.60	10984.08	9395.64	-9396.62	-107.88	0.00	389042.08	772280.98	N 32.067363	W 103.587789
	20600.00	90.36	179.60	10983.45	9495.64	-9496.62	-107.18	0.00	388942.09	772281.68	N 32.067089	W 103.587789
	20700.00	90.36	179.60	10982.83	9595.64	-9596.61	-106.48	0.00	388842.10	772282.38	N 32.066814	W 103.587789
	20800.00	90.36	179.60	10982.21	9695.64	-9696.61	-105.78	0.00	388742.11	772283.08	N 32.066539	W 103.587789
	20900.00	90.36	179.60	10981.59	9795.63	-9796.61	-105.08	0.00	388642.12	772283.78	N 32.066264	W 103.587789
	21000.00	90.36	179.60	10980.96	9895.63	-9896.60	-104.38	0.00	388542.12	772284.49	N 32.065989	W 103.587789
	21100.00	90.36	179.60	10980.34	9995.63	-9996.60	-103.68	0.00	388442.13	772285.19	N 32.065714	W 103.587789
Red Hills 32-5 State Com 200H - BHL [100' FSL, 624' FEL]	21154.71	90.36	179.60	10980.00	10050.34	-10051.31	-103.29	0.00	388387.42	772285.57	N 32.065564	W 103.587789

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 3 *** 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		A001Mb_MWD-Depth Only	Red Hills 32-5 State Com 200H / Coterra Red Hills 32-5 State Com
	1	23.000	21154.714	1/100.000	30.000	30.000		A001Mb_MWD	Red Hills 32-5 State Com 200H / Coterra Red Hills 32-5 State Com

Intent ☐ As Drilled ☐

API #

Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number

1. Geological Formations

TVD of target 10,980
MD at TD 21,155

Pilot Hole TD N/A
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	926	Useable Water	
Top of Salt	1295	N/A	
Base of Salt	4900	N/A	
Cherry Canyon	5960	N/A	
Brushy Canyon	8855	Hydrocarbons	
Bone Spring Lime	9040	Hydrocarbons	
Avalon	9330	Hydrocarbons	
1st Bone Spring	10020	Hydrocarbons	
2nd Bone Spring	11040	Hydrocarbons	

2. Casing Program

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	976	976	13-3/8"	48.00	H-40	ST&C	1.75	4.09	6.87
12 1/4	0	4980	4980	9-5/8"	40.00	HCK-55	LT&C	1.43	1.48	2.82
8 3/4	0	10455	10455	7"	29.00	L-80	LT&C	1.43	1.67	1.84
8 3/4	10455	11205	11000	7"	29.00	P-110	BT&C	1.66	2.18	58.78
6	9455	21154	10980	4-1/2"	11.60	P-110	BT&C	1.40	1.97	20.75
					BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.
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
Is AC Report included?	Y

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	410	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	195	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate	948	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	291	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	349	10.30	3.64	22.18		Lead: Tuned Light + LCM
	125	14.80	1.36	6.57	9.5	Tail: Class C + Retarder
Completion System	738	14.50	1.30	5.79	20	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + Expanding Agent + Retarder + Antifoam

Casing String	TOC	% Excess
Surface	0	42
Intermediate	0	49
Production	4780	25
Completion System	11005	10

Cimarex request the ability to perform casing integrity tests after plug bump of cement job.

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	2M
			Blind Ram		
			Pipe Ram		
			Double Ram	X	
			Other		
8 3/4	13 5/8	3M	Annular	X	3M
			Blind Ram		
			Pipe Ram		
			Double Ram	X	
			Other		
6	13 5/8	5M	Annular	X	5M
			Blind Ram		
			Pipe Ram	X	
			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.

X	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?

5. Mud Program

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 976'	Fresh Water	7.83 - 8.33	28	N/C
976' to 4980'	Brine Water	9.80 - 10.30	30-32	N/C
4980' to 11205'	Cut Brine or OBM	8.50 - 9.00	27-70	N/C
11205' to 21154'	OBM	9.00 - 9.50	50-70	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing	
	Will run GR/CNL fromTD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test?
	Coring?

Additional Logs Planned	Interval

7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	5424 psi
Abnormal Temperature	No

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
X	H2S is present
X	H2S plan is attached

8. Other Facets of Operation

9. Wellhead

A multi-bowl wellhead system will be utilized.

After running the 13-3/8" surface casing, a 13 5/8" BOP/BOPE system with a minimum working pressure of 5000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5000 psi test. Annular will be tested to working pressure, or a maximum test pressure of 5000 psi. The pressure test will be repeated at least every 30 days,as per Onshore Order No. 2.

The multi-bowl wellhead will be installed by vendor's representative. A copy of the installation instructions has been sent to the BLM field office.

The wellhead will be installed by a third-party welder while being monitored by the wellhead vendor representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

A solid steel body pack-off will be utilized after running and cementing the production casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

All casing strings will be tested as per Onshore Order No.2 to at least 0.22 psi/ft or 1,500 whichever is greater and not to exceed 70% of casing burst.

If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

10.Other Variances

Cimarex requests to perform offline cementing. OLC procedure as follows: 1. Land casing on solid body mandrel hanger. Engagepackoff and lock ring 2. Install BPV. 3. Skid rig. 4. Check for pressure and remove BPV. 5. Circulate down casing, taking returns through casing valves. 6. Pump lead and tail cement. 7. Displace cement and bump the plug. 8. Ensure floats are holding pressure. 9. RD cement crew. 10. Install BPV and TA cap.

Cimarex requests permission to skid the rig to the next well on the pad to begin operations instead of waiting 8 hours for surface cement to harden on this 200H well. Surface cement will be pumped and we will ensure floats hold, do a green cement test and then skid to the next well on pad. We will not perform any operations on this 200H well until at least 8 hours and when both tail and lead slurry reach 500 psi. The mandrel hanger is made up on the last joint of 13 3/8" casing and then lowered down with and landing joint. It is then lowered down until the mandrel contacts the landing ring which is pre-welded to the conductor pipe. At this point the 13 3/8"casing is entirely supported by the conductor pipe via the landing ring/mandrel and is independent from the rig. This allows us to walk the rig away from the 200H well and begin work on the next well while the cement is hardening. There is no way for the casing to be moved or knocked off center since it is hanging from the landing ring.

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Cimarex Energy Company of Colorado **OGRID:** 162683 **Date:** 1/31/2023

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Red Hills 32-5 State Com 200H		A, Sec 32 T25S, R33E	407 FNL/450 FEL	1834	3300	3700

IV. Central Delivery Point Name: Red Hills 32-5 CTB Sales [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Red Hills 32-5 State Com 200H		2/1/2025	4/1/2025	7/1/2025	8/1/2025	8/1/2025

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	Sarah Jordan
Printed Name:	Sarah Jordan
Title:	Regulatory Analyst
E-mail Address:	sarah.jordan@coterra.com
Date:	1/31/2023
Phone:	432/620-1909

OIL CONSERVATION DIVISION

(Only applicable when submitted as a standalone form)

Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

From State of New Mexico, Natural Gas Management Plan

VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.

XEC Standard Response

Standard facility gas process flow begins at the inlet separator. These vessels are designed based off of forecasted rates and residence times in accordance with, and often greater than, API 12J. The separated gas is then routed to an additional separation vessel (ie sales scrubber) in order to extract liquids that may have carried over or developed due to the decrease in pressure. The sales scrubber is sized based on API 521. From the sales scrubber, the gas leaves the facility and enters the gas midstream gathering network.

Cimarex
VII. Operational Practices

Cimarex values the sustainable development of New Mexico's natural resources. Venting and flaring of natural gas is a source of waste in the industry, and Cimarex will ensure that its values are aligned with those of NMOCD. As such, Cimarex plans to take pointed steps to ensure compliance with Subsection A through F of 19.15.27.8 NMAC.

Specifically, below are the steps Cimarex will plan to follow under routine well commissioning and operations.

1. Capture or combust natural gas during drilling operations where technically feasible, using the best industry practices and control technologies.
    a. All flares during these operations will be a minimum of 100ft away from the nearest surface-hole location.
2. All gas present during post-completion drill-out and flow back will be routed through separation equipment, and, if technically feasible, flare unsellable vapors rather than vent. Lastly, formal sales separator commissioning to process well-stream fluids and send gas to a gas flow line/collection system or use the gas for on-site fuel or beneficial usage, gas as soon as is safe and technically feasible.
3. Cimarex will ensure the flare or combustion equipment is properly sized to handle expected flow rates, ensure this equipment is equipped with an automatic or continuous ignition source, and ensure this equipment is designed for proper combustion efficiency.
4. If Cimarex must flare because gas is not meeting pipeline specifications, Cimarex will limit flaring to <60 days, analyze gas composition at least twice per week, and route gas into a gathering pipeline as soon as pipeline specifications are met.
5. Under routine production operations, Cimarex will not flare/vent unless:
    a. Venting or flaring occurs due to an emergency or equipment malfunction.
    b. Venting or flaring occurs as a result of unloading practices, and an operator is onsite (or within 30 minutes of drive time and posts contact information at the wellsite) until the end of unloading practice.
    c. The venting or flaring occurs during automated plungerlift operations, in which case the Cimarex operator will work to optimize the plungerlift system to minimize venting/flaring.
    d. The venting or flaring occurs during downhole well maintenance, in which case Cimarex will work to minimize venting or flaring operations to the extent that it does not pose a risk to safe operations.
    e. The well is an exploratory well, the division has approved the well as an exploratory well, venting or flaring is limited to 12 months, as approved by the division, and venting/flaring does not cause Cimarex to breach its State-wide 98% gas capture requirement.
    f. Venting or flaring occurs because the stock tanks or other low-pressure vessels are being gauged, sampled, or liquids are being loaded out.
    g. The venting or flaring occurs because pressurized vessels are being maintained and are being blown-down or depressurized.
    h. Venting or flaring occurs as a result of normal dehydration unit operations.

i. Venting or flaring occurs as a result of bradenhead testing.
j. Venting or flaring occurs as a result of normal compressor operations, including general compressor operations, compressor engines and turbines.
k. Venting or flaring occurs as a result of a packer leakage test.
l. Venting or flaring occurs as a result of a production test lasting less than 24 hours unless otherwise approved by the division.
m. Venting or flaring occurs as a result of new equipment commissioning and is necessary to purge impurities from the pipeline or production equipment.

6. Cimarex will maintain its equipment in accordance with its Operations and Maintenance Program, to ensure venting or flaring events are minimized and that equipment is properly functioning.
7. Cimarex will install automatic tank gauging equipment on all production facilities constructed after May 25, 2021, to ensure minimal emissions from tank gauging practices.
8. By November 25, 2022, all Cimarex facilities equipped with flares or combustors will be equipped with continuous pilots or automatic igniters, and technology to ensure proper function, i.e. thermocouple, fire-eye, etc…
9. Cimarex will perform AVO (audio, visual, olfactory) facility inspections in accordance with NMOCD requirements. Specifically, Cimarex will:
    a. Perform weekly inspections during the first year of production, and so long as production is greater than 60 MCFD.
    b. If production is less than 60 MCFD, Cimarex will perform weekly AVO inspections when an operator is present on location, and inspections at least once per calendar month with at least 20 calendar days between inspections.
10. Cimarex will measure or estimate the volume of vented, flared or beneficially used natural gas, regardless of the reason or authorization for such venting or flaring.
11. On all facilities constructed after May 25, 2021, Cimarex will install metering where feasible and in accordance with available technology and best engineering practices, in an effort to measure how much gas could have been vented or flared.
    a. In areas where metering is not technically feasible, such as low-pressure/low volume venting or flaring applications, engineering estimates will be used such that the methodology could be independently verified.
12. Cimarex will fulfill the division's requirements for reporting and filing of venting or flaring that exceeds 50 MCF in volume or last eight hours or more cumulatively within any 24-hour period.

VIII. Best Management Practices to minimize venting during active and planned maintenance

Cimarex strives to ensure minimal venting occurs during active and planned maintenance activities. Below is a description of common maintenance practices, and the steps Cimarex takes to limit venting exposure.

- **Workovers:**
  - Always strive to kill well when performing downhole maintenance.
  - If vapors or trapped pressure is present and must be relieved then:
    - Initial blowdown to production facility:
      - Route vapors to LP flare if possible/applicable
    - Blowdown to portable gas buster tank:
      - Vent to existing or portable flare if applicable.

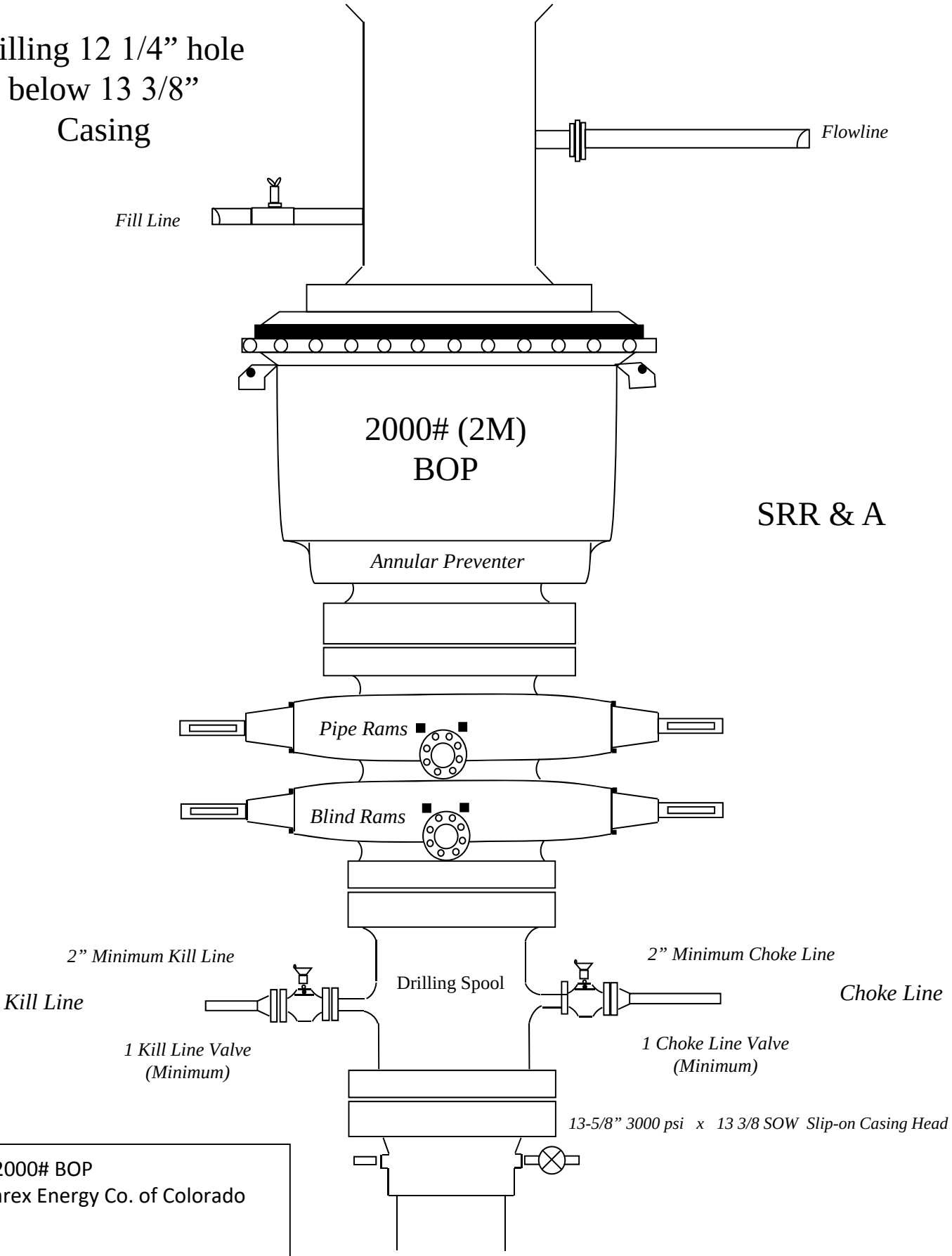
- **Stock tank servicing:**
  - Minimize time spent with thief hatches open.
  - When cleaning or servicing via manway, suck tank bottoms to ensure minimal volatiles exposed to atmosphere.
    - Connect vacuum truck to low pressure flare while cleaning bottoms to limit venting.
  - Isolate the vent lines and overflows on the tank being serviced from other tanks.

- **Pressure vessel/compressor servicing and associated blowdowns:**
  - Route to flare where possible.
  - Blow vessel down to minimum available pressure via pipeline, prior to venting vessel.
  - Preemptively changing anodes to reduce failures and extended corrosion related servicing.
  - When cleaning or servicing via manway, suck vessel bottoms to ensure minimal volatiles exposed to atmosphere.

- **Flare/combustor maintenance:**
  - Minimize downtime by coordinating with vendor and Cimarex staff travel logistics.
  - Utilizing preventative and predictive maintenance programs to replace high wear components before failure.
  - Because the flare/combustor is the primary equipment used to limit venting practices, ensure flare/combustor is properly maintained and fully operational at all times via routine maintenance, temperature telemetry, onsite visual inspections.

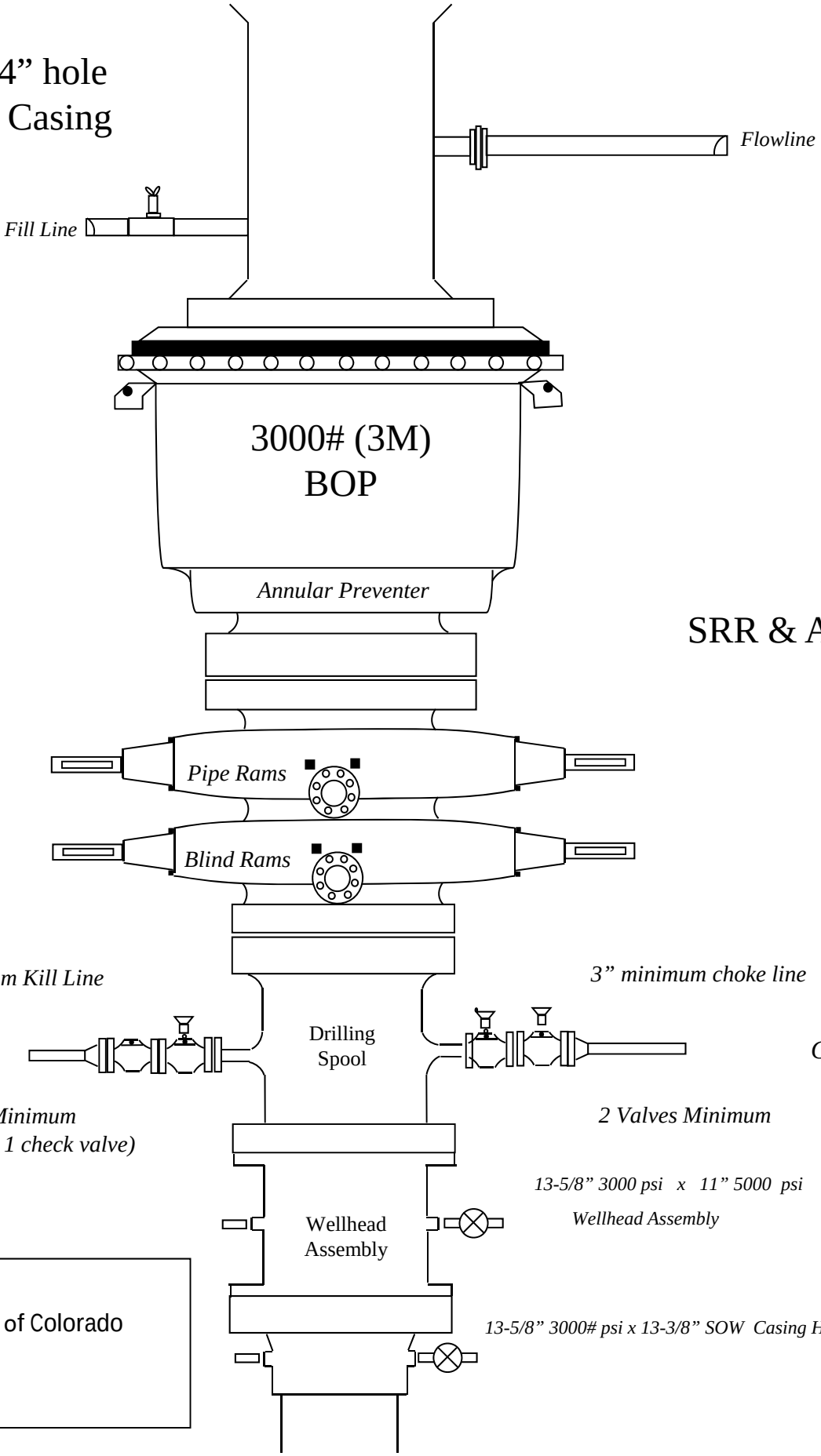
The Cimarex expectation is to limit all venting exposure. Equipment that may not be listed on this document is still expected to be maintained and associated venting during such maintenance minimized.

Drilling 12 1/4" hole below 13 3/8" Casing



2000# BOP
Cimarex Energy Co. of Colorado

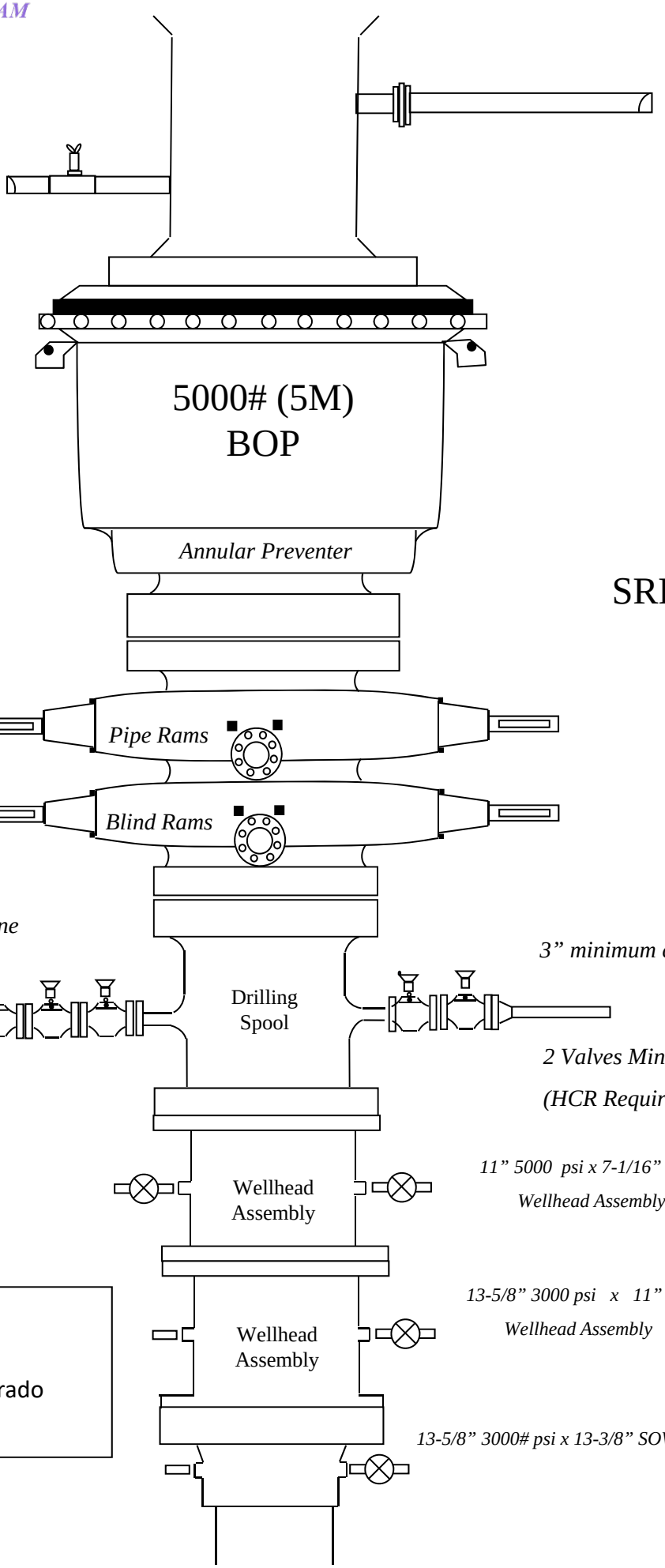
Drilling 8-3/4" hole
below 9 5/8" Casing



SRR & A

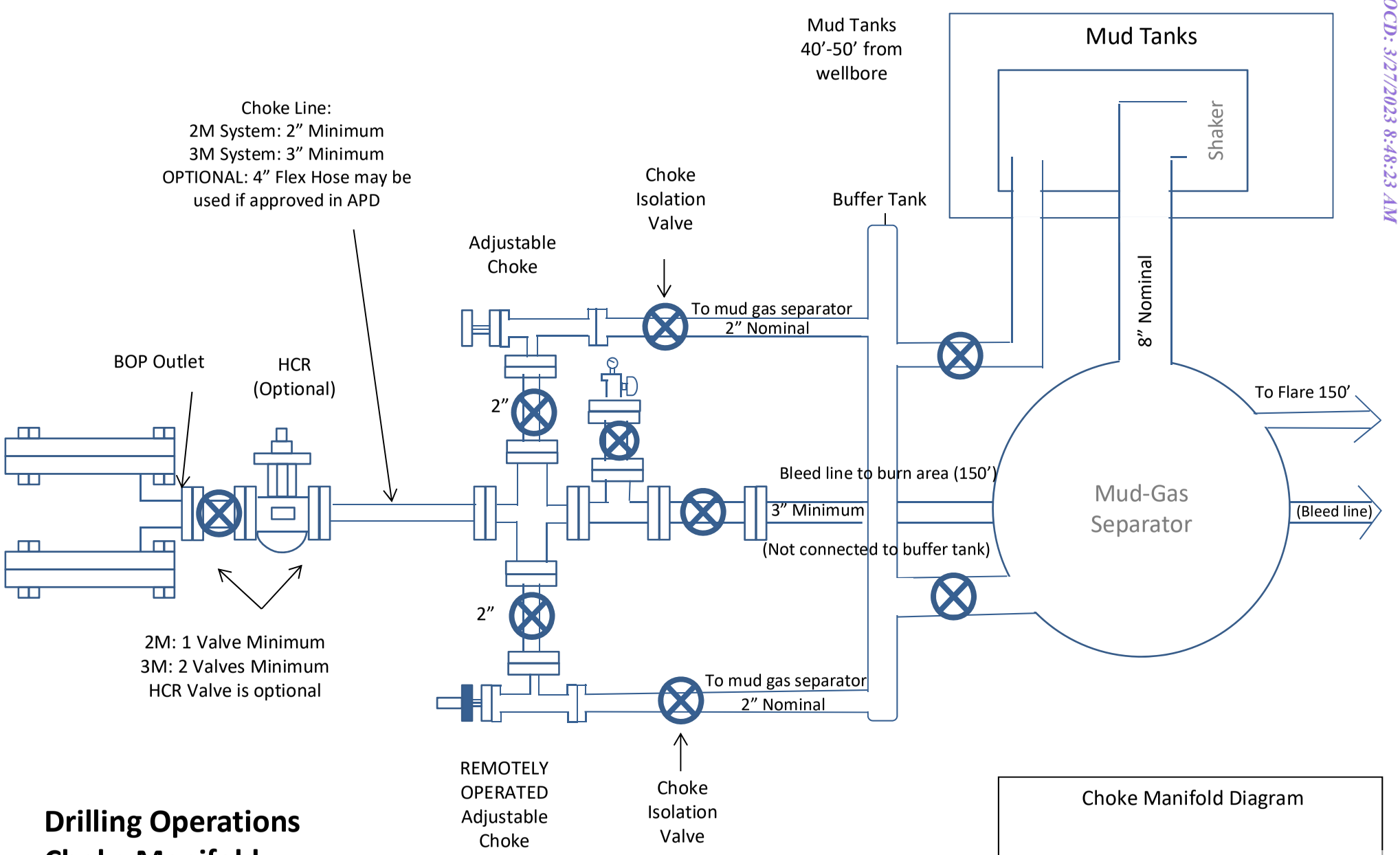
3000# BOP
Cimarex Energy Co. of Colorado

Drilling 6” hole below 7” Casing



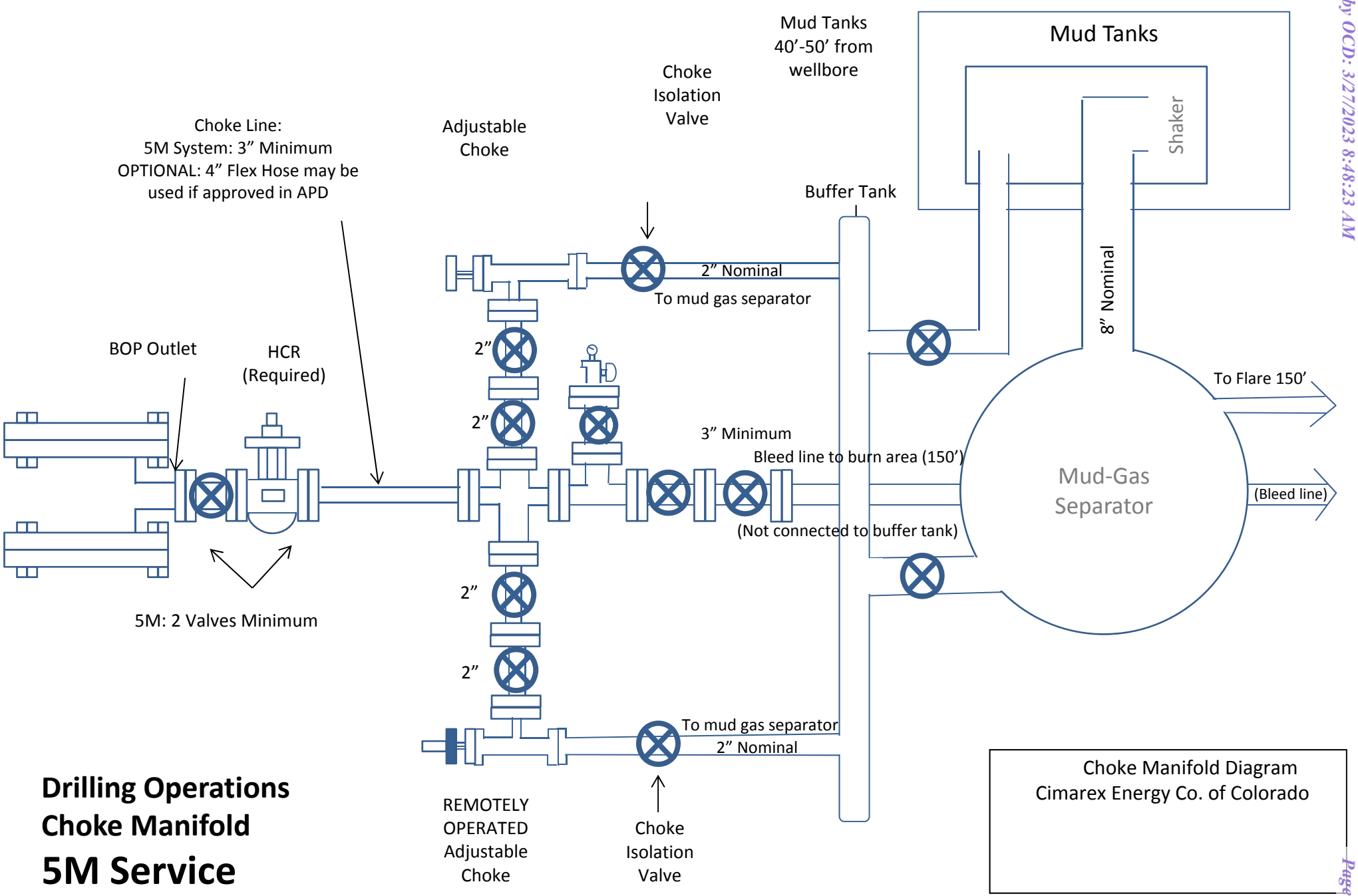
SRR & A

5000# BOP
Cimarex Energy Co. of Colorado



Drilling Operations
Choke Manifold
2M/3M Service

Choke Manifold Diagram



Drilling Operations
Choke Manifold
5M Service

Choke Manifold Diagram
Cimarex Energy Co. of Colorado

Hydrogen Sulfide Drilling Operations Plan
Red Hills 32-5 State Com 200H, 201H, 202H,203H
Cimarex Energy Co. of Colorado
Lea Co., NM

1 All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:

A. Characteristics of H_2S
B. Physical effects and hazards
C. Principal and operation of H2S detectors, warning system and briefing areas.
D. Evacuation procedure, routes and first aid.
E. Proper use of safety equipment & life support systems
F. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30 minute pressure demand air packs.

H_2S Detection and Alarm Systems:

A. H2S sensors/detectors to be located on the drilling rig floor, in the base of the sub structure/cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may play placed as deemed necessary.

B. An audio alarm system will be installed on the derrick floor and in the top doghouse.

3 Windsock and/or wind streamers:

A. Windsock at mudpit area should be high enough to be visible.

B. Windsock on the rig floor and / or top doghouse should be high enough to be visible.

4 Condition Flags and Signs

A. Warning sign on access road to location.
B. Flags to be displayed on sign at entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates danger (H_2S present in dangerous concentration). Only H2S trained and certified personnel admitted to location.

5 Well control equipment:

A. See exhibit "E-1"

6 Communication:

A. While working under masks chalkboards will be used for communication.
B. Hand signals will be used where chalk board is inappropriate.
C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

7 Drillstem Testing:
No DSTs r cores are planned at this time.

8 Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.

9 If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H2S scavengers if necessary.

H_2S Contingency Plan

Cimarex Energy Co. of Colorado
Lea Co., NM

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must:

« Isolate the area and prevent entry by other persons into the 100 ppm ROE.
« Evacuate any public places encompassed by the 100 ppm ROE.
« Be equipped with H_2S monitors and air packs in order to control the release.
« Use the "buddy system" to ensure no injuries occur during the 432-620-1975
« Take precautions to avoid personal injury during this operation.
« Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
« Have received training in the:
  · Detection of H_2S, and
  · Measures for protection against the gas,
  · Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

Characteristics of H_2S and SO_2

Please see attached International Chemical Safety Cards.

Contacting Authorities

Cimarex Energy Co. of Colorado's personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Cimarex Energy Co. of Colorado's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

H_2S Contingency Plan Emergency Contacts

Cimarex Energy Co. of Colorado
Lea Co., NM

Company Office			
Cimarex Energy Co. of Colorado		800-969-4789	
Co. Office and After-Hours Menu			

Key Personnel

Name	**Title**	**Office**	**Mobile**
Larry Seigrist	Drilling Manager	432-620-1934	580-243-8485
Charlie Pritchard	Drilling Superintendent	432-620-1975	432-238-7084
Roy Shirley	Construction Superintendent		432-634-2136

Artesia		
Ambulance	911	
State Police	575-746-2703	
City Police	575-746-2703	
Sheriff's Office	575-746-9888	
Fire Department	**575-746-2701**	
Local Emergency Planning Committee	575-746-2122	
New Mexico Oil Conservation Division	575-748-1283	

Carlsbad		
Ambulance	911	
State Police	575-885-3137	
City Police	575-885-2111	
Sheriff's Office	575-887-7551	
Fire Department	**575-887-3798**	
Local Emergency Planning Committee	575-887-6544	
US Bureau of Land Management	575-887-6544	

Santa Fe	
New Mexico Emergency Response Commission (Santa Fe)	505-476-9600
New Mexico Emergency Response Commission (Santa Fe) 24 Hrs	505-827-9126
New Mexico State Emergency Operations Center	505-476-9635

National	
National Emergency Response Center (Washington, D.C.)	800-424-8802

Medical	
Flight for Life - 4000 24th St.; Lubbock, TX	806-743-9911
Aerocare - R3, Box 49F; Lubbock, TX	806-747-8923
Med Flight Air Amb - 2301 Yale Blvd S.E., #D3; Albuquerque, NM	505-842-4433
SB Air Med Service - 2505 Clark Carr Loop S.E.; Albuquerque, NM	505-842-4949

Other			
Boots & Coots IWC	800-256-9688	or	281-931-8884
Cudd Pressure Control	432-699-0139	or	432-563-3356
Halliburton	575-746-2757		
B.J. Services	575-746-3569		