

Form 3160-5
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021**SUNDRY NOTICES AND REPORTS ON WELLS**
***Do not use this form for proposals to drill or to re-enter an
abandoned well. Use Form 3160-3 (APD) for such proposals.***

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☐ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

3a. Address

3b. Phone No. (include area code)

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

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

8. Well Name and No.

9. API Well No.

10. Field and Pool or Exploratory Area

11. Country or Parish, State

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

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

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

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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

Office

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: NWNE / 330 FNL / 1510 FEL / TWSP: 25S / RANGE: 27E / SECTION: 7 / LAT: 32.150942 / LONG: -104.225836 (TVD: 0 feet, MD: 0 feet)

PPP: SWSE / 2640 FNL / 2006 FEL / TWSP: 25S / RANGE: 27E / SECTION: 7 / LAT: 32.144416 / LONG: -104.22742 (TVD: 9529 feet, MD: 11500 feet)

BHL: SWSE / 330 FSL / 2006 FEL / TWSP: 25S / RANGE: 27E / SECTION: 18 / LAT: 32.123603 / LONG: -104.227383 (TVD: 9613 feet, MD: 19073 feet)

CONFIDENTIAL

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-45708	² Pool Code 98220	³ Pool Name Purple Sage Wolfcamp Gas
⁴ Property Code 317791	⁵ Property Name DAVINCI 7-18 FEDERAL	⁶ Well Number 33H
⁷ OGRID No. 215099	⁸ Operator Name CIMAREX ENERGY CO.	⁹ Elevation 3307.3'

¹⁰ Surface Location

UL or lot no. B	Section 7	Township 25S	Range 27E	Lot Idn	Feet from the 330	North/South line NORTH	Feet from the 1510	East/West line EAST	County EDDY
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. O	Section 18	Township 25S	Range 27E	Lot Idn	Feet from the 100	North/South line SOUTH	Feet from the 1475	East/West line EAST	County EDDY
¹² Dedicated Acres 640	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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 NOTE:

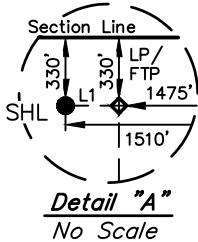
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearing is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'03.39" (32.150942°)
LONGITUDE = 104°13'33.01" (104.225836°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°09'02.96" (32.150822°)
LONGITUDE = 104°13'31.22" (104.225339°)
STATE PLANE NAD 83 (N.M. EAST)
N: 418664.49' E: 574605.74'
STATE PLANE NAD 27 (N.M. EAST)
N: 418606.97' E: 533422.76'

NAD 83 (LP/FTP)
LATITUDE = 32°09'03.39" (32.150942°)
LONGITUDE = 104°13'32.60" (104.225721°)
NAD 27 (LP/FTP)
LATITUDE = 32°09'02.96" (32.150822°)
LONGITUDE = 104°13'30.81" (104.225225°)
STATE PLANE NAD 83 (N.M. EAST)
N: 418664.89' E: 574641.17'
STATE PLANE NAD 27 (N.M. EAST)
N: 418607.37' E: 533458.19'

NAD 83 (BHL/LTP)
LATITUDE = 32°07'22.75" (32.122985°)
LONGITUDE = 104°13'32.41" (104.225669°)
NAD 27 (BHL/LTP)
LATITUDE = 32°07'22.31" (32.122864°)
LONGITUDE = 104°13'30.62" (104.225172°)
STATE PLANE NAD 83 (N.M. EAST)
N: 408494.64' E: 574667.67'
STATE PLANE NAD 27 (N.M. EAST)
N: 408437.31' E: 533484.53'

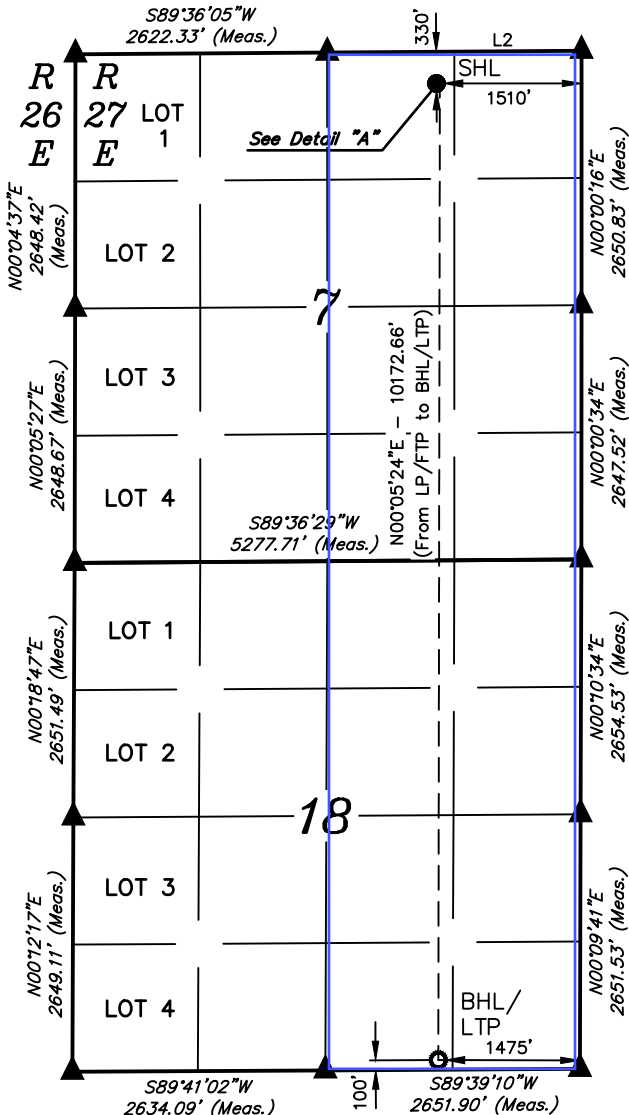
LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S89°39'31"W	35.40'
L2	S89°35'10"W	2648.27'



S C A L E

DRAWN BY: S.F. 05-29-17
REV: 1 05-18-21 R.J. (LP & BHL CHANGE)

- = SURFACE HOLE LOCATION
- = BOTTOM HOLE LOCATION/
LAST TAKE POINT
- ▲ = SECTION CORNER LOCATED
- ◆ = LANDING POINT/FIRST TAKE POINT



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.

Amithy Crawford 6/16/21
Signature Date

Amithy Crawford

Printed Name

Arcrowford@cimarex.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 11, 2017

Date of Survey

Signature and Seal of Professional Surveyor:



Certificate Number:

1. Geological Formations

TVD of target 9,600

Pilot Hole TD N/A

MD at TD 19,536

Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	0	Useable Water	
Salado	1252	N/A	
Castille	1870	N/A	
Bell Canyon	2088	Hydrocarbons	
Cherry Canyon	3075	Hydrocarbons	
Brushy Canyon	4127	Hydrocarbons	
Brushy Canyon Lower	5296	N/A	
Bone Spring	5621	N/A	
Bone Spring A Shale	5739	Hydrocarbons	
Bone Spring C Shale	6085	Hydrocarbons	
1st Bone Spring Ss	6576	Hydrocarbons	
2nd Bone Spring Ss	7037	Hydrocarbons	
2nd BS SS Lower	7788	Hydrocarbons	
3rd Bone Spring Ss	8389	Hydrocarbons	
Wolfcamp	8713	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	450	450	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	3.59	8.40	14.91
12 1/4	0	2068	2068	9-5/8"	36.00	J-55	LT&C	1.84	3.21	6.08
8 3/4	0	8185	8185	7"	26.00	L-80	LT&C	1.41	1.89	2.06
8 3/4	8185	9717	9551	7"	26.00	N-80	BT&C	1.21	1.62	17.01
6	8085	19536	9600	4-1/2"	11.60	HCP-110	BT&C	1.47	1.79	20.88
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

Cimarex Energy Co., Davinci 7-18 Federal Com 33H

	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?	N

3. Cementing Program

Casing	# Sk	Wt. lb/gal	Yld ft ³ /sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	91	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	392	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	121	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	444	10.30	3.64	22.18		Lead: Tuned Light + LCM
	110	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS
Completion System	730	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

Casing String	TOC	% Excess
Surface	0	33
Intermediate	0	50
Production	1868	25
Completion System	9517	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	5M	Annular	X	5M
			Blind Ram		
			Pipe Ram		
			Double Ram	X	
			Other		
6	13 5/8	5M	Annular	X	5M
			Blind Ram		
			Pipe Ram		
			Double Ram	X	
			Other		

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

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

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 450'	FW Spud Mud	8.30 - 8.80	30-32	N/C
450' to 2068'	Brine Water	9.70 - 10.20	30-32	N/C
2068' to 9717'	FW/Cut Brine	8.50 - 9.00	30-32	N/C
9717' to 19536'	Oil Based Mud	11.50 - 12.00	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
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6. Logging and Testing Procedures

Logging, Coring and Testing	
X	Will run GR/CNL from TD 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
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7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	5990 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	H ₂ S is present
X	H ₂ S 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 100% of working pressure. 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.



Cimarex Davinci 7-18 Federal Com #33H Rev2 RM 24May21 Proposal
Geodetic Report
 (Non-Def Plan)



Report Date: May 24, 2021 - 05:02 PM
Client: Cimarex Energy
Field: NM Eddy County (NAD 83)
Structure / Slot: Davinci 7-18 Federal Pad / New Slot
Well: Davinci 7-18 Federal Com #33H
Borehole: Davinci 7-18 Federal Com #33H
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Davinci 7-18 Federal Com #33H Rev2 RM 24May21
Survey Date: May 24, 2021
Tort / AHD / DDI / ERD Ratio: 90.876 ° / 10173.485 ft / 6.274 / 1.060
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 9' 3.38938", W 104° 13' 33.00905"
Location Grid N/E Y/X: N 418664.490 ftUS, E 574605.740 ftUS
CRS Grid Convergence Angle: 0.0572 °
Grid Scale Factor: 0.99991036
Version / Patch: 2.10.825.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.851 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3330.300 ft above MSL
Seabed / Ground Elevation: 3307.300 ft above MSL
Magnetic Declination: 7.030 °
Total Gravity Field Strength: 998.4348mgm (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47629.713 nT
Magnetic Dip Angle: 59.768 °
Declination Date: May 24, 2021
Magnetic Declination Model: HDGM 2021
North Reference: Grid North
Grid Convergence Used: 0.0572 °
Total Corr Mag North->Grid North: 6.9728 °
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 (°)	Longitude (°)
SHL [330' FNL, 1510' FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	418664.49	574605.74	32.15	-104.23
	100.00	0.00	169.00	100.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	200.00	0.00	169.00	200.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	300.00	0.00	169.00	300.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	400.00	0.00	169.00	400.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	500.00	0.00	169.00	500.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	600.00	0.00	169.00	600.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	700.00	0.00	169.00	700.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	800.00	0.00	169.00	800.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	900.00	0.00	169.00	900.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	1000.00	0.00	169.00	1000.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	1100.00	0.00	169.00	1100.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	1200.00	0.00	169.00	1200.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	1300.00	0.00	169.00	1300.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
Salado (Top Salt)	1334.00	0.00	169.00	1334.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	1400.00	0.00	169.00	1400.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	1500.00	0.00	169.00	1500.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	1600.00	0.00	169.00	1600.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	1700.00	0.00	169.00	1700.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	1800.00	0.00	169.00	1800.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
Castille (Base Salt)	1859.00	0.00	169.00	1859.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	1900.00	0.00	169.00	1900.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	2000.00	0.00	169.00	2000.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
Bell Canyon (Top Delaware)	2090.00	0.00	169.00	2090.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	2100.00	0.00	169.00	2100.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	2200.00	0.00	169.00	2200.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	2300.00	0.00	169.00	2300.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	2400.00	0.00	169.00	2400.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	2500.00	0.00	169.00	2500.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	2600.00	0.00	169.00	2600.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	2700.00	0.00	169.00	2700.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	2800.00	0.00	169.00	2800.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	2900.00	0.00	169.00	2900.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
Cherry Canyon	2944.00	0.00	169.00	2944.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	3000.00	0.00	169.00	3000.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	3100.00	0.00	169.00	3100.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	3200.00	0.00	169.00	3200.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	3300.00	0.00	169.00	3300.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	3400.00	0.00	169.00	3400.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	3500.00	0.00	169.00	3500.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	3600.00	0.00	169.00	3600.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	3700.00	0.00	169.00	3700.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	3800.00	0.00	169.00	3800.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	3900.00	0.00	169.00	3900.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	4000.00	0.00	169.00	4000.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
Brushy Canyon	4006.00	0.00	169.00	4006.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	4100.00	0.00	169.00	4100.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	4200.00	0.00	169.00	4200.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	4300.00	0.00	169.00	4300.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	4400.00	0.00	169.00	4400.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	4500.00	0.00	169.00	4500.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	4600.00	0.00	169.00	4600.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	4700.00	0.00	169.00	4700.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	4800.00	0.00	169.00	4800.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	4900.00	0.00	169.00	4900.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	5000.00	0.00	169.00	5000.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	5100.00	0.00	169.00	5100.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	5200.00	0.00	169.00	5200.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	5300.00	0.00	169.00	5300.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	5400.00	0.00	169.00	5400.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	5500.00	0.00	169.00	5500.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	5600.00	0.00	169.00	5600.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
Top Bone Spring	5624.00	0.00	169.00	5624.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	5700.00	0.00	169.00	5700.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	5800.00	0.00	169.00	5800.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	5900.00	0.00	169.00	5900.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	6000.00	0.00	169.00	6000.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	6100.00	0.00	169.00	6100.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	6200.00	0.00	169.00	6200.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	6300.00	0.00	169.00	6300.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Top 1st BSPG SS	6400.00	0.00	169.00	6400.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	6500.00	0.00	169.00	6500.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	6535.00	0.00	169.00	6535.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	6600.00	0.00	169.00	6600.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	6700.00	0.00	169.00	6700.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	6800.00	0.00	169.00	6800.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	6900.00	0.00	169.00	6900.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
Top 2nd BSPG SS	7000.00	0.00	169.00	7000.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	7100.00	0.00	169.00	7100.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	7109.00	0.00	169.00	7109.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	7200.00	0.00	169.00	7200.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	7300.00	0.00	169.00	7300.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	7400.00	0.00	169.00	7400.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	7500.00	0.00	169.00	7500.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
Top 3rd BSPS SS	7600.00	0.00	169.00	7600.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	7700.00	0.00	169.00	7700.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	7800.00	0.00	169.00	7800.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	7900.00	0.00	169.00	7900.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	8000.00	0.00	169.00	8000.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	8100.00	0.00	169.00	8100.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	8200.00	0.00	169.00	8200.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
Top Wolfcamp	8300.00	0.00	169.00	8300.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	8378.00	0.00	169.00	8378.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	8400.00	0.00	169.00	8400.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	8500.00	0.00	169.00	8500.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	8600.00	0.00	169.00	8600.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	8700.00	0.00	169.00	8700.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	8736.00	0.00	169.00	8736.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
Wolfcamp A	8800.00	0.00	169.00	8800.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	8900.00	0.00	169.00	8900.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
KOP - Build 12°/100' DLS	8946.00	0.00	169.00	8946.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	9000.00	0.00	169.00	9000.00	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
Wolfcamp A2	9085.53	0.00	169.00	9085.53	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
	9100.00	1.74	169.00	9100.00	0.22	-0.22	0.04	12.00	418664.27	574605.78	32.15	-104.23
	9200.00	13.74	169.00	9198.91	13.41	-13.41	2.61	12.00	418651.09	574608.35	32.15	-104.23
	9213.53	15.36	169.00	9212.00	16.75	-16.74	3.26	12.00	418647.75	574609.00	32.15	-104.23
Wolfcamp B Build & Turn 12°/100' DLS	9300.00	25.74	169.00	9292.86	46.52	-46.49	9.04	12.00	418618.00	574614.78	32.15	-104.23
	9355.09	32.35	169.00	9341.00	72.77	-72.73	14.14	12.00	418591.76	574619.88	32.15	-104.23
Wolfcamp C	9377.20	35.00	169.00	9359.39	84.80	-84.76	16.48	12.00	418579.74	574622.22	32.15	-104.23
	9400.00	37.64	170.24	9377.76	98.09	-98.04	18.91	12.00	418566.45	574624.65	32.15	-104.23
	9500.00	49.30	174.35	9450.23	166.18	-166.11	27.86	12.00	418498.40	574633.59	32.15	-104.23
	9583.50	59.13	176.79	9499.00	233.64	-233.56	32.99	12.00	418430.95	574638.73	32.15	-104.23
Build 4°/100' DLS	9600.00	61.07	177.21	9507.22	247.93	-247.84	33.74	12.00	418416.67	574639.48	32.15	-104.23
	9700.00	72.89	179.48	9546.26	339.77	-339.67	36.31	12.00	418324.85	574642.05	32.15	-104.23
	9717.83	75.00	179.85	9551.19	356.80	-356.80	36.41	12.00	418307.72	574642.15	32.15	-104.23
	9800.00	78.29	179.85	9570.17	436.83	-436.74	36.62	4.00	418227.79	574642.36	32.15	-104.23
Wolfcamp C2	9853.18	80.41	179.85	9580.00	489.10	-489.01	36.76	4.00	418175.53	574642.49	32.15	-104.23
	9900.00	82.29	179.85	9587.04	535.38	-535.29	36.88	4.00	418129.25	574642.61	32.15	-104.23
Landing Point	10000.00	86.29	179.85	9596.99	634.86	-634.77	37.14	4.00	418029.78	574642.87	32.15	-104.23
	10092.83	90.00	179.85	9600.00	727.63	-727.53	37.38	4.00	417937.02	574643.11	32.15	-104.23
	10100.00	90.00	179.85	9600.00	734.80	-734.70	37.39	0.00	417929.85	574643.13	32.15	-104.23
	10200.00	90.00	179.85	9600.00	834.80	-834.70	37.66	0.00	417829.86	574643.39	32.15	-104.23
	10300.00	90.00	179.85	9600.00	934.80	-934.70	37.92	0.00	417729.87	574643.65	32.15	-104.23
	10400.00	90.00	179.85	9600.00	1034.80	-1034.70	38.18	0.00	417629.88	574643.91	32.15	-104.23
	10500.00	90.00	179.85	9600.00	1134.80	-1134.70	38.44	0.00	417529.89	574644.17	32.15	-104.23
	10600.00	90.00	179.85	9600.00	1234.80	-1234.70	38.70	0.00	417429.90	574644.43	32.15	-104.23
	10700.00	90.00	179.85	9600.00	1334.80	-1334.70	38.96	0.00	417329.91	574644.69	32.15	-104.23
	10800.00	90.00	179.85	9600.00	1434.80	-1434.70	39.22	0.00	417229.92	574644.95	32.15	-104.23
	10900.00	90.00	179.85	9600.00	1534.80	-1534.70	39.48	0.00	417129.93	574645.21	32.15	-104.23
	11000.00	90.00	179.85	9600.00	1634.80	-1634.70	39.74	0.00	417029.94	574645.47	32.15	-104.23
	11100.00	90.00	179.85	9600.00	1734.80	-1734.70	40.00	0.00	416929.95	574645.73	32.15	-104.23
	11200.00	90.00	179.85	9600.00	1834.80	-1834.70	40.26	0.00	416829.96	574645.99	32.15	-104.23
	11300.00	90.00	179.85	9600.00	1934.80	-1934.70	40.52	0.00	416729.97	574646.25	32.15	-104.23
	11400.00	90.00	179.85	9600.00	2034.80	-2034.70	40.78	0.00	416629.98	574646.51	32.15	-104.23
	11500.00	90.00	179.85	9600.00	2134.80	-2134.70	41.04	0.00	416529.99	574646.77	32.15	-104.23
	11600.00	90.00	179.85	9600.00	2234.80	-2234.70	41.30	0.00	416430.00	574647.03	32.14	-104.23
	11700.00	90.00	179.85	9600.00	2334.80	-2334.70	41.56	0.00	416330.00	574647.29	32.14	-104.23
	11800.00	90.00	179.85	9600.00	2434.80	-2434.70	41.82	0.00	416230.01	574647.55	32.14	-104.23
	11900.00	90.00	179.85	9600.00	2534.80	-2534.70	42.08	0.00	416130.02	574647.81	32.14	-104.23
	12000.00	90.00	179.85	9600.00	2634.80	-2634.70	42.34	0.00	416030.03	574648.07	32.14	-104.23
	12100.00	90.00	179.85	9600.00	2734.80	-2734.70	42.60	0.00	415930.04	574648.33	32.14	-104.23
	12200.00	90.00	179.85	9600.00	2834.80	-2834.70	42.86	0.00	415830.05	574648.59	32.14	-104.23
	12300.00	90.00	179.85	9600.00	2934.80	-2934.70	43.12	0.00	415730.06	574648.85	32.14	-104.23

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	15100.00	90.00	179.85	9600.00	5734.80	-5734.69	50.40	0.00	412930.33	574656.13	32.14	-104.23
	15200.00	90.00	179.85	9600.00	5834.80	-5834.69	50.66	0.00	412830.34	574656.39	32.13	-104.23
	15300.00	90.00	179.85	9600.00	5934.80	-5934.69	50.92	0.00	412730.35	574656.65	32.13	-104.23
	15400.00	90.00	179.85	9600.00	6034.80	-6034.69	51.18	0.00	412630.36	574656.91	32.13	-104.23
	15500.00	90.00	179.85	9600.00	6134.80	-6134.69	51.44	0.00	412530.37	574657.17	32.13	-104.23
	15600.00	90.00	179.85	9600.00	6234.80	-6234.69	51.70	0.00	412430.38	574657.43	32.13	-104.23
	15700.00	90.00	179.85	9600.00	6334.80	-6334.69	51.96	0.00	412330.38	574657.69	32.13	-104.23
	15800.00	90.00	179.85	9600.00	6434.80	-6434.69	52.22	0.00	412230.39	574657.95	32.13	-104.23
	15900.00	90.00	179.85	9600.00	6534.80	-6534.69	52.48	0.00	412130.40	574658.21	32.13	-104.23
	16000.00	90.00	179.85	9600.00	6634.80	-6634.68	52.74	0.00	412030.41	574658.47	32.13	-104.23
	16100.00	90.00	179.85	9600.00	6734.80	-6734.68	53.00	0.00	411930.42	574658.73	32.13	-104.23
	16200.00	90.00	179.85	9600.00	6834.80	-6834.68	53.26	0.00	411830.43	574658.99	32.13	-104.23
	16300.00	90.00	179.85	9600.00	6934.80	-6934.68	53.52	0.00	411730.44	574659.25	32.13	-104.23
	16400.00	90.00	179.85	9600.00	7034.80	-7034.68	53.78	0.00	411630.45	574659.51	32.13	-104.23
	16500.00	90.00	179.85	9600.00	7134.80	-7134.68	54.04	0.00	411530.46	574659.77	32.13	-104.23
	16600.00	90.00	179.85	9600.00	7234.80	-7234.68	54.30	0.00	411430.47	574660.03	32.13	-104.23
	16700.00	90.00	179.85	9600.00	7334.80	-7334.68	54.56	0.00	411330.48	574660.29	32.13	-104.23
	16800.00	90.00	179.85	9600.00	7434.80	-7434.68	54.82	0.00	411230.49	574660.55	32.13	-104.23
	16900.00	90.00	179.85	9600.00	7534.80	-7534.68	55.08	0.00	411130.50	574660.81	32.13	-104.23
	17000.00	90.00	179.85	9600.00	7634.80	-7634.68	55.34	0.00	411030.51	574661.07	32.13	-104.23
	17100.00	90.00	179.85	9600.00	7734.80	-7734.68	55.60	0.00	410930.52	574661.33	32.13	-104.23
	17200.00	90.00	179.85	9600.00	7834.80	-7834.68	55.86	0.00	410830.53	574661.59	32.13	-104.23
	17300.00	90.00	179.85	9600.00	7934.80	-7934.68	56.12	0.00	410730.54	574661.86	32.13	-104.23
	17400.00	90.00	179.85	9600.00	8034.80	-8034.68	56.38	0.00	410630.55	574662.12	32.13	-104.23
	17500.00	90.00	179.85	9600.00	8134.80	-8134.68	56.64	0.00	410530.56	574662.38	32.13	-104.23
	17600.00	90.00	179.85	9600.00	8234.80	-8234.68	56.90	0.00	410430.57	574662.64	32.13	-104.23
	17700.00	90.00	179.85	9600.00	8334.80	-8334.68	57.16	0.00	410330.57	574662.90	32.13	-104.23
	17800.00	90.00	179.85	9600.00	8434.80	-8434.68	57.42	0.00	410230.58	574663.16	32.13	-104.23
	17900.00	90.00	179.85	9600.00	8534.80	-8534.68	57.68	0.00	410130.59	574663.42	32.13	-104.23
	18000.00	90.00	179.85	9600.00	8634.80	-8634.68	57.94	0.00	410030.60	574663.68	32.13	-104.23
	18100.00	90.00	179.85	9600.00	8734.80	-8734.68	58.20	0.00	409930.61	574663.94	32.13	-104.23
	18200.00	90.00	179.85	9600.00	8834.80	-8834.68	58.46	0.00	409830.62	574664.20	32.13	-104.23
	18300.00	90.00	179.85	9600.00	8934.80	-8934.68	58.72	0.00	409730.63	574664.46	32.13	-104.23
	18400.00	90.00	179.85	9600.00	9034.80	-9034.68	58.98	0.00	409630.64	574664.72	32.13	-104.23
	18500.00	90.00	179.85	9600.00	9134.80	-9134.68	59.24	0.00	409530.65	574664.98	32.13	-104.23
	18600.00	90.00	179.85	9600.00	9234.80	-9234.68	59.50	0.00	409430.66	574665.24	32.13	-104.23
	18700.00	90.00	179.85	9600.00	9334.80	-9334.68	59.76	0.00	409330.67	574665.50	32.13	-104.23
	18800.00	90.00	179.85	9600.00	9434.80	-9434.68	60.02	0.00	409230.68	574665.76	32.13	-104.23
	18900.00	90.00	179.85	9600.00	9534.80	-9534.68	60.28	0.00	409130.69	574666.02	32.12	-104.23
	19000.00	90.00	179.85	9600.00	9634.80	-9634.67	60.54	0.00	409030.70	574666.28	32.12	-104.23
	19100.00	90.00	179.85	9600.00	9734.80	-9734.67	60.80	0.00	408930.71	574666.54	32.12	-104.23
	19200.00	90.00	179.85	9600.00	9834.80	-9834.67	61.06	0.00	408830.72	574666.80	32.12	-104.23
	19300.00	90.00	179.85	9600.00	9934.80	-9934.67	61.32	0.00	408730.73	574667.06	32.12	-104.23
	19400.00	90.00	179.85	9600.00	10034.80	-10034.67	61.58	0.00	408630.74	574667.32	32.12	-104.23
	19500.00	90.00	179.85	9600.00	10134.80	-10134.67	61.84	0.00	408530.75	574667.58	32.12	-104.23

Cimarex Davinci
7-18 Federal
Com #33H -
PBHL [100'
FSL,1475FEL]

19536.11

90.00

179.85

9600.00

10170.91

-10170.78

61.94

0.00

408494.64

574667.67

32.12

-104.23

Survey Type:

Non-Def Plan

Survey Error Model:

ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

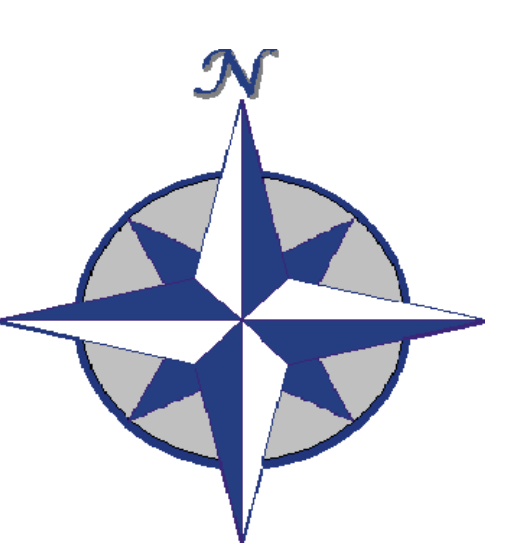
Survey Program:

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	17.500	13.375		NAL_MWD_IFR1+MS-Depth Only	Davinci 7-18 Federal Com #33H / Cimarex Davinci 7-18 Federal Com #33H Rev2 RM 24May21
	1	23.000	19536.109	1/100.000	17.500	13.375		NAL_MWD_IFR1+MS	Davinci 7-18 Federal Com #33H / Cimarex Davinci 7-18 Federal

Borehole:	Well:	Field:	Structure:
Davinci 7-18 Federal Com #33H	Davinci 7-18 Federal Com #33H	NM Eddy County (NAD 83)	Davinci 7-18 Federal Pad

Gravity & Magnetic Parameters						Surface Location				NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous			
Model:	HDGM 2021	Dip:	59.768°	Date:	24-May-2021	Lat:	N 32 9 3.39	Northing:	418664.49ftUS	Grid Conv:	0.0572°	Slot:	New Slot	TVD Ref:	RKB(3330.3ft above MSL)		
MagDec:	7.03°	FS:	47629.713nT	Gravity FS:	998.435mgn (9.80665 Based)	Lon:	W 104 13 33.01	Easting:	574605.74ftUS	Scale Fact:	0.99991036	Plan:	Cimarex Davinci 7-18 Federal Com #33H Rev2 RM 24May21				

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [330' FNL, 1510' FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Salado (Top Salt)	1334.00	0.00	169.00	1334.00	0.00	0.00	0.00	0.00
Castille (Base Salt)	1859.00	0.00	169.00	1859.00	0.00	0.00	0.00	0.00
Bell Canyon (Top Delaware)	2090.00	0.00	169.00	2090.00	0.00	0.00	0.00	0.00
Cherry Canyon	2944.00	0.00	169.00	2944.00	0.00	0.00	0.00	0.00
Brushy Canyon	4006.00	0.00	169.00	4006.00	0.00	0.00	0.00	0.00
Top Bone Spring	5624.00	0.00	169.00	5624.00	0.00	0.00	0.00	0.00
Top 1st BSPG SS	6535.00	0.00	169.00	6535.00	0.00	0.00	0.00	0.00
Top 2nd BSPG SS	7109.00	0.00	169.00	7109.00	0.00	0.00	0.00	0.00
Top 3rd BSPS SS	8378.00	0.00	169.00	8378.00	0.00	0.00	0.00	0.00
Top Wolfcamp	8736.00	0.00	169.00	8736.00	0.00	0.00	0.00	0.00
Wolfcamp A	8946.00	0.00	169.00	8946.00	0.00	0.00	0.00	0.00
KOP - Build 12"/100' DLS	9085.53	0.00	169.00	9085.53	0.00	0.00	0.00	0.00
Wolfcamp A2	9213.53	15.36	169.00	9212.00	16.75	-16.74	3.26	12.00
Wolfcamp B	9355.09	32.35	169.00	9341.00	72.77	-72.73	14.14	12.00
Build & Turn 12"/100' DLS	9377.20	35.00	169.00	9359.39	84.80	-84.76	16.48	12.00
Wolfcamp C	9583.50	59.13	176.79	9499.00	233.64	-233.56	32.99	12.00
Build 4"/100' DLS	9717.83	75.00	179.85	9551.19	356.80	-356.80	36.41	12.00
Wolfcamp C2	9853.18	80.41	179.85	9580.00	489.10	-489.01	36.76	4.00
Landing Point	10092.83	90.00	179.85	9600.00	727.63	-727.53	37.38	4.00
Cimarex Davinci 7-18 Federal Com #33H - PBHL [100' FSL, 1475' FEL]	19536.11	90.00	179.85	9600.00	10170.91	-10170.78	61.94	0.00



Grid
True
Mag

Grid North
Tot Corr (M->G 6.973°)
Mag Dec (7.030°)
Grid Conv (0.057°)

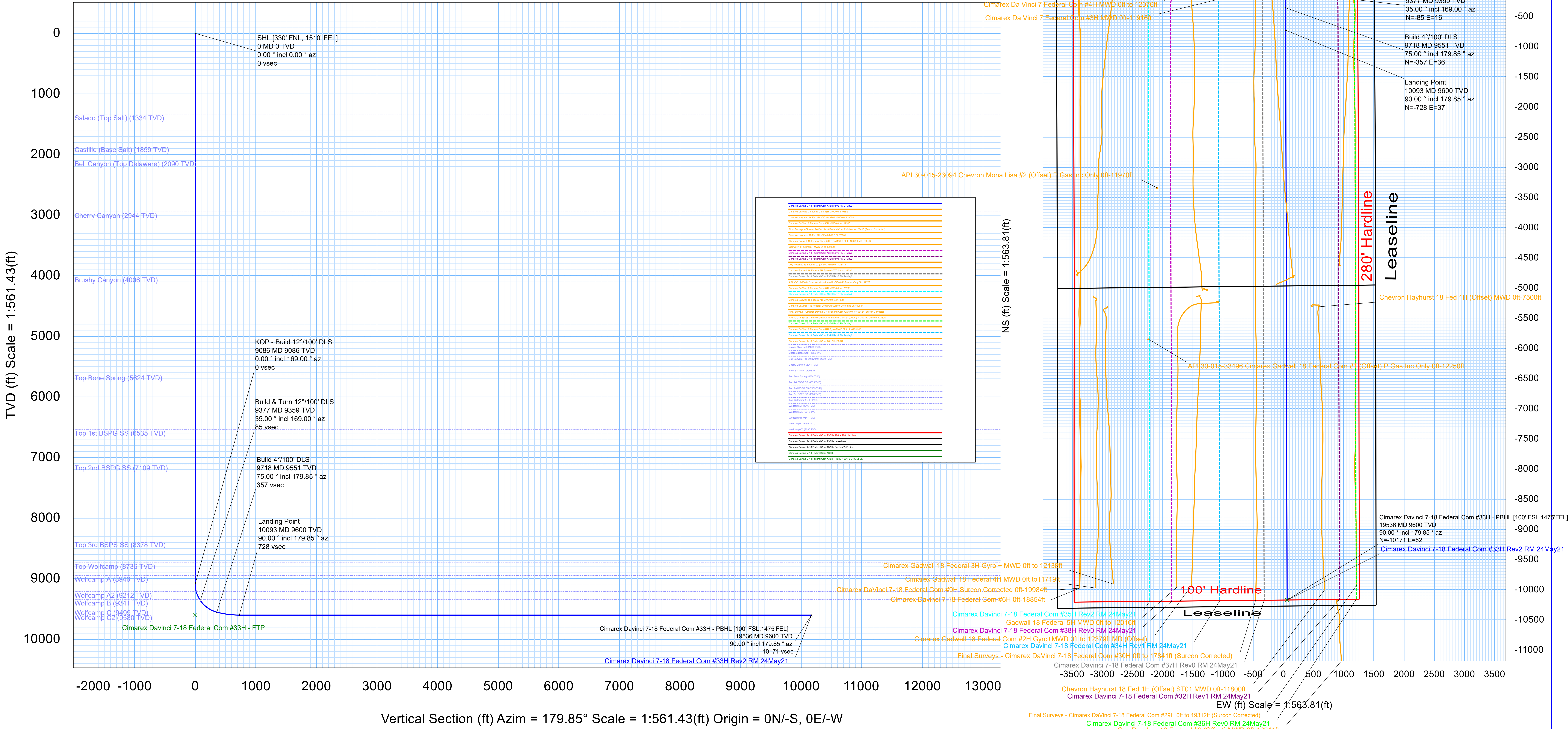
CONTROLLED

Cimarex Davinci 7-18 Federal Com #33H Rev2 RM 24May21

of 3

24-May-2021

1	Client	
2	Client	
3	Office	
4	Office	
Copy number		for





Cimarex Davinci 7-18 Federal Com #33H Rev2 RM 24May21 Proposal
Geodetic Report
(Non-Def Plan)



Report Date: May 24, 2021 - 05:02 PM
Client: Cimarex Energy
Field: NM Eddy County (NAD 83)
Structure / Slot: Davinci 7-18 Federal Pad / New Slot
Well: Davinci 7-18 Federal Com #33H
Borehole: Davinci 7-18 Federal Com #33H
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Davinci 7-18 Federal Com #33H Rev2 RM 24May21
Survey Date: May 24, 2021
Tort / AHD / DDI / ERD Ratio: 90.876 ° / 10173.485 ft / 6.274 / 1.060
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 9' 3.38938", W 104° 13' 33.00905"
Location Grid N/E Y/X: N 418664.490 ftUS, E 574605.740 ftUS
CRS Grid Convergence Angle: 0.0572 °
Grid Scale Factor: 0.99991036
Version / Patch: 2.10.825.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.851 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3330.300 ft above MSL
Seabed / Ground Elevation: 3307.300 ft above MSL
Magnetic Declination: 7.030 °
Total Gravity Field Strength: 998.4348mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47629.713 nT
Magnetic Dip Angle: 59.768 °
Declination Date: May 24, 2021
Magnetic Declination Model: HDGM 2021
North Reference: Grid North
Grid Convergence Used: 0.0572 °
Total Corr Mag North->Grid North: 6.9728 °
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 (°)	Longitude (°)
SHL [330' FNL, 1510' FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	418664.49	574605.74	32.15	-104.23
KOP - Build 12"/100' DLS	9085.53	0.00	169.00	9085.53	0.00	0.00	0.00	0.00	418664.49	574605.74	32.15	-104.23
Build & Turn 12"/100' DLS	9377.20	35.00	169.00	9359.39	84.80	-84.76	16.48	12.00	418579.74	574622.22	32.15	-104.23
Build 4"/100' DLS	9717.83	75.00	179.85	9551.19	356.90	-356.80	36.41	12.00	418307.72	574642.15	32.15	-104.23
Landing Point Cimarex Davinci 7-18 Federal Com #33H - PBHL [100' FSL,1475'FEL]	10092.83	90.00	179.85	9600.00	727.63	-727.53	37.38	4.00	417937.02	574643.11	32.15	-104.23
	19536.11	90.00	179.85	9600.00	10170.91	-10170.78	61.94	0.00	408494.64	574667.67	32.12	-104.23

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	17.500	13.375		NAL_MWD_IFR1+MS-Depth Only	Davinci 7-18 Federal Com #33H / Cimarex Davinci 7-18 Federal Com #33H Rev2 RM 24May21
	1	23.000	19536.109	1/100.000	17.500	13.375		NAL_MWD_IFR1+MS	Davinci 7-18 Federal Com #33H / Cimarex Davinci 7-18 Federal



Cimarex Davinci 7-18 Federal Com #33H Rev2 RM 24May21 Anti-Collision Summary Report

Analysis Date-24hr Time: May 24, 2021 - 17:04

Client: Cimarex Energy

Field: NM Eddy County (NAD 83)

Structure: Davinci 7-18 Federal Pad

Slot: New Slot

Well: Davinci 7-18 Federal Com #33H

Borehole: Davinci 7-18 Federal Com #33H

Scan MD Range: 0.00ft ~ 19536.11ft

Analysis Method: 3D Least Distance

Reference Trajectory: Cimarex Davinci 7-18 Federal Com #33H Rev2 RM 24May21 (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: 2.10.825.0

Database / Project: us1455vsm3115/drilling-NM Eddy County 2.10

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

Offset Trajectories Summary

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 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 Da Vinci 7 Federal
Com #3H MWD Off-11916ft
(Def Survey)

Fail Minor

4961.22	32.81	4959.24	4928.41	N/A	MAS = 10.00 (m)	0.00	0.00					Surface
4960.85	32.81	4958.81	4928.04	79924.33	MAS = 10.00 (m)	23.00	23.00					MinPt-O-SF
475.99	146.85	377.43	329.14	4.91	OSF1.50	6960.00	6960.00	OSF<5.00				Enter Alert
235.46	236.23	77.32	-0.76	1.50	OSF1.50	7280.00	7280.00		OSF<1.50			Enter Minor
209.55	260.19	35.42	-50.65	1.21	OSF1.50	7390.00	7390.00					MinPts
233.28	238.14	73.87	-4.85	1.47	OSF1.50	7490.00	7490.00			OSF>1.50		Exit Minor
480.61	146.53	382.26	334.08	4.97	OSF1.50	7820.00	7820.00	OSF>5.00				Exit Alert
2220.30	82.55	2164.61	2137.75	41.30	OSF1.50	10560.00	9600.00					MinPt-O-ADP
2219.99	82.17	2164.55	2137.83	41.49	OSF1.50	10600.00	9600.00					MINPT-O-EQU
2219.78	81.51	2164.79	2138.28	41.83	OSF1.50	10670.00	9600.00					MinPt-CtCt
2227.11	74.71	2176.64	2152.40	45.89	OSF1.50	11370.00	9600.00					MinPt-O-SF
2225.16	74.45	2174.89	2150.70	46.01	OSF1.50	11580.00	9600.00					MinPts
2223.14	74.45	2172.81	2148.65	45.97	OSF1.50	11830.00	9600.00					MinPt-CtCt
2223.17	74.65	2172.74	2148.51	45.85	OSF1.50	11870.00	9600.00					MINPT-O-EQU
2223.21	74.71	2172.74	2148.53	45.81	OSF1.50	11880.00	9600.00					MinPt-O-ADP
2224.94	75.60	2173.88	2149.34	45.23	OSF1.50	12080.00	9600.00					MinPt-O-SF
2222.64	76.43	2171.03	2146.22	44.74	OSF1.50	12290.00	9600.00					MinPt-CtCt
2222.92	77.26	2170.76	2145.67	44.25	OSF1.50	12360.00	9600.00					MinPts
2223.01	77.31	2170.81	2145.70	44.22	OSF1.50	12370.00	9600.00					MinPt-O-SF
2222.40	78.21	2169.60	2144.19	43.69	OSF1.50	12500.00	9600.00					MinPt-CtCt
2222.70	79.07	2169.33	2143.63	43.21	OSF1.50	12560.00	9600.00					MINPT-O-EQU
2223.35	79.79	2169.54	2143.59	42.82	OSF1.50	12620.00	9600.00					MinPt-O-ADP
2225.45	81.53	2170.43	2143.91	41.92	OSF1.50	12760.00	9600.00					MinPt-O-SF
2224.92	82.73	2169.11	2142.19	41.29	OSF1.50	12890.00	9600.00					MinPt-CtCt
2225.52	84.41	2168.53	2141.12	40.47	OSF1.50	12990.00	9600.00					MINPT-O-EQU
2226.18	85.24	2168.69	2140.94	40.07	OSF1.50	13040.00	9600.00					MinPt-O-ADP
2226.33	85.34	2168.77	2140.98	40.02	OSF1.50	13050.00	9600.00					MinPt-O-SF
2225.96	86.87	2167.39	2139.09	39.30	OSF1.50	13170.00	9600.00					MinPt-CtCt
2223.73	93.06	2161.04	2130.68	36.59	OSF1.50	13530.00	9600.00					MinPt-CtCt
2224.34	94.98	2160.32	2129.36	35.84	OSF1.50	13620.00	9600.00					MINPT-O-EQU
2225.04	95.84	2160.43	2129.23	35.53	OSF1.50	13660.00	9600.00					MinPt-O-ADP
2375.86	114.38	2298.95	2261.48	31.63	OSF1.50	14580.00	9600.00					MinPt-O-SF
5955.10	119.27	5874.93	5835.83	76.13	OSF1.50	19536.11	9600.00					TD

Cimarex Davinci 7-18 Federal
Com #32H Rev1 RM 24May21
(Non-Def Plan)

Warning Alert

19.98	16.24	18.70	3.74	N/A	MAS = 4.95 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert
19.98	16.24	18.70	3.74	14025.69	MAS = 4.95 (m)	23.00	23.00					WRP
19.98	19.47	6.58	0.52	1.54	OSF1.50	1990.00	1990.00					MinPt-CtCt
20.00	19.63	6.49	0.37	1.53	OSF1.50	2010.00	2010.00					MINPT-O-EQU
20.06	19.70	6.49	0.35	1.53	OSF1.50	2020.00	2020.00					MinPts
70.20	22.46	54.80	47.74	4.88	OSF1.50	2540.00	2540.00	OSF>5.00				Exit Alert
813.35	58.31	774.01	754.98	21.34	OSF1.50	7170.00	7170.00					MINPT-O-EQU
813.41	58.44	774.02	754.97	21.31	OSF1.50	7180.00	7180.00					MinPt-O-ADP
816.94	59.02	777.16	757.92	21.13	OSF1.50	7280.00	7280.00					MinPt-O-SF
2089.38	43.28	2060.08	2046.08	74.59	OSF1.50	10100.00	9600.00					MinPt-CtCt
2089.39	322.41	1874.02	1766.93	9.75	OSF1.50	19536.11	9600.00					MinPts

Cimarex Davinci 7-18 Federal
Com #34H Rev1 RM 24May21
(Non-Def Plan)

Warning Alert

20.07	16.31	18.79	3.76	N/A	MAS = 4.97 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert
20.06	16.31	18.78	3.76	N/A	MAS = 4.97 (m)	23.00	23.00					WRP
20.06	19.56	6.60	0.51	1.54	OSF1.50	2000.00	2000.00					MinPt-CtCt
20.08	19.63	6.56	0.45	1.54	OSF1.50	2010.00	2010.00					MINPT-O-EQU
20.13	19.70	6.57	0.43	1.53	OSF1.50	2020.00	2020.00					MinPts
70.06	22.42	54.68	47.64	4.88	OSF1.50	2540.00	2540.00	OSF>5.00				Exit Alert
1079.52	71.53	1031.43	1007.99	23.03	OSF1.50	8600.00	8600.00					MINPT-O-EQU
1079.58	71.60	1031.42	1007.98	23.00	OSF1.50	8620.00	8620.00					MinPt-O-ADP
1086.55	72.70	1037.66	1013.85	22.80	OSF1.50	8870.00	8870.00					MinPt-O-SF
1132.54	325.48	915.12	807.04	5.23	OSF1.50	19536.11	9600.00					MinPts

Cimarex Davinci 7-18 Federal
Com #35H Rev1 RM 24May21
(Non-Def Plan)

Warning Alert

40.03	32.27	38.75	7.76	N/A	MAS = 9.84 (m)	0.00	0.00	CtCt<=15m<15.00				Enter Alert
40.02	32.27	38.73	7.75	N/A	MAS = 9.84 (m)	23.00	23.00					WRP
40.02	32.27	29.69	7.75	4.29	MAS = 9.84 (m)	1500.00	1500.00					MinPts

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		
40.03	32.27	29.66	7.76	4.26		MAS = 9.84 (m)	1510.00	1510.00				MINPT-O-EQU	
40.61	32.27	30.00	8.34	4.22		MAS = 9.84 (m)	1560.00	1560.00				MinPt-O-SF	
51.53	32.27	40.18	19.26	4.99		MAS = 9.84 (m)	1760.00	1760.00				Exit Alert	
2272.02	89.39	2212.00	2182.63	38.66		OSF1.50	9580.00	9497.19	OSF<5.00			MinPt-O-SF	
2277.56	330.22	2056.98	1947.33	10.38		OSF1.50	19536.11	9600.00				MinPts	

Final Surveys - Cimarex DaVinci
7-18 Federal Com #30H 0ft to
17841ft (Surcon Corrected)
(Def Survey)

Warning Alert												
100.07	32.81	98.78	67.26	361148.58		MAS = 10.00 (m)	0.00	0.00				Surface
100.03	32.81	98.73	67.22	6145.60		MAS = 10.00 (m)	23.00	23.00				WRP
99.29	32.81	97.62	66.49	277.64		MAS = 10.00 (m)	130.00	130.00				MinPts
99.29	32.81	97.63	66.48	252.91		MAS = 10.00 (m)	140.00	140.00				MINPT-O-EQU
68.73	32.81	60.43	35.93	9.39		MAS = 10.00 (m)	1640.00	1640.00				MinPts
68.79	32.81	60.41	35.98	9.34		MAS = 10.00 (m)	1650.00	1650.00				MINPT-O-EQU
56.66	32.81	44.47	23.85	4.98		MAS = 10.00 (m)	2510.00	2510.00	OSF<5.00			Enter Alert
55.87	32.81	43.05	23.06	4.65		MAS = 10.00 (m)	2640.00	2640.00				MinPts
55.96	32.81	42.95	23.15	4.58		MAS = 10.00 (m)	2680.00	2680.00				MINPT-O-EQU
57.47	32.81	43.89	24.66	4.49		MAS = 10.00 (m)	2800.00	2800.00				MinPt-O-SF
69.44	32.81	54.67	36.63	4.98		MAS = 10.00 (m)	3050.00	3050.00	OSF>5.00			Exit Alert
467.64	48.67	434.85	418.97	14.69		OSF1.50	6960.00	6960.00				MinPt-CtCt
467.76	49.04	434.73	418.73	14.58		OSF1.50	7020.00	7020.00				MINPT-O-EQU
467.91	49.21	434.78	418.70	14.53		OSF1.50	7050.00	7050.00				MinPt-O-ADP
471.30	51.28	436.77	420.03	14.04		OSF1.50	7360.00	7360.00				MinPt-O-ADP
475.60	52.85	440.02	422.73	13.74		OSF1.50	7600.00	7600.00				MinPt-O-SF
1760.65	33.17	1738.20	1727.48	82.10		OSF1.50	10130.00	9600.00				MinPt-O-ADP
1723.43	81.08	1669.06	1642.38	32.27		OSF1.50	12240.00	9600.00				MinPt-CtCt
1724.73	84.70	1667.92	1640.03	30.90		OSF1.50	12380.00	9600.00				MINPT-O-EQU
1726.75	88.65	1667.31	1638.11	29.54		OSF1.50	12520.00	9600.00				MINPT-O-EQU
1727.38	89.38	1667.46	1638.00	29.31		OSF1.50	12550.00	9600.00				MinPt-O-ADP
1739.63	169.94	1626.00	1569.69	15.44		OSF1.50	15300.00	9600.00				MinPt-CtCt
1740.33	171.98	1625.33	1568.34	15.26		OSF1.50	15380.00	9600.00				MINPT-O-EQU
1740.98	172.75	1625.47	1568.23	15.20		OSF1.50	15410.00	9600.00				MinPt-O-ADP
1745.31	177.42	1626.68	1567.89	14.83		OSF1.50	15570.00	9600.00				MinPt-O-ADP
1750.54	187.12	1625.45	1563.42	14.10		OSF1.50	15880.00	9600.00				MinPt-CtCt
1752.84	198.41	1620.23	1554.44	13.31		OSF1.50	16270.00	9600.00				MINPT-O-EQU
1753.98	199.72	1620.49	1554.29	13.23		OSF1.50	16320.00	9600.00				MinPt-O-ADP
1769.52	229.77	1616.00	1539.75	11.60		OSF1.50	17310.00	9600.00				MinPt-CtCt
1768.13	249.77	1601.25	1518.33	10.66		OSF1.50	17980.00	9600.00				MinPt-CtCt
1767.47	258.13	1595.04	1509.34	10.31		OSF1.50	18260.00	9600.00				MinPt-CtCt
1770.33	280.30	1583.12	1490.03	9.50		OSF1.50	19000.00	9600.00				MinPt-CtCt
1771.28	288.08	1578.90	1483.21	9.25		OSF1.50	19260.00	9600.00				MinPt-CtCt
1772.94	296.24	1575.10	1476.70	9.00		OSF1.50	19536.11	9600.00				MinPts

Cimarex Davinci 7-18 Federal
Com #37H Rev0 RM 24May21
(Non-Def Plan)

Warning Alert												
100.04	32.81	98.76	67.24	N/A		MAS = 10.00 (m)	0.00	0.00				Surface
100.04	32.81	98.75	67.24	17095.63		MAS = 10.00 (m)	23.00	23.00				WRP
71.33	32.81	56.01	38.52	5.00		MAS = 10.00 (m)	2480.00	2480.00	OSF<5.00			Enter Alert
60.03	32.81	43.70	27.22	3.90		MAS = 10.00 (m)	2700.00	2700.00				MinPts
60.04	32.81	43.66	27.23	3.89		MAS = 10.00 (m)	2710.00	2710.00				MINPT-O-EQU
60.39	32.81	43.87	27.58	3.88		MAS = 10.00 (m)	2740.00	2740.00				MinPt-O-SF
83.96	32.81	66.09	51.15	4.99		MAS = 10.00 (m)	3040.00	3040.00	OSF>5.00			Exit Alert
345.60	67.15	300.40	278.45	7.84		OSF1.50	8310.00	8310.00				MinPt-CtCt
345.61	67.18	300.33	278.43	7.84		OSF1.50	8320.00	8320.00				MinPts
345.69	67.20	300.46	278.48	7.84		OSF1.50	8330.00	8330.00				MinPt-O-SF
1072.54	317.03	860.74	755.43	5.03		OSF1.50	19536.11	9600.00				MinPts

Cimarex Davinci 7-18 Federal
Com #38H Rev0 RM 24May21
(Non-Def Plan)

Pass												
84.90	32.81	83.62	52.09	N/A		MAS = 10.00 (m)	0.00	0.00				Surface
84.90	32.81	83.61	52.09	19807.05		MAS = 10.00 (m)	23.00	23.00				WRP
60.04	32.81	47.30	27.23	5.13		MAS = 10.00 (m)	2080.00	2080.00				MinPts
60.06	32.81	47.23	27.26	5.11		MAS = 10.00 (m)	2090.00	2090.00				MINPT-O-EQU
60.33	32.81	47.45	27.52	5.09		MAS = 10.00 (m)	2110.00	2110.00				MinPt-O-SF
2158.12	340.54	1930.66	1817.58	9.54		OSF1.50	19536.11	9600.00				MinPts

Final Surveys - Cimarex DaVinci
7-18 Federal Com #29H 0ft to
19312ft (Surcon Corrected)
(Def Survey)

Pass												
116.62	32.81	115.33	83.81	490387.97		MAS = 10.00 (m)	0.00	0.00				Surface
116.60	32.81	115.30	83.79	10083.81		MAS = 10.00 (m)	23.00	23.00				WRP
111.71	32.81	109.08	78.90	81.85		MAS = 10.00 (m)	360.00	360.00				MinPts
111.76	32.81	109.03	78.95	77.04		MAS = 10.00 (m)	380.00	380.00				MINPT-O-EQU
113.82	32.81	106.61	81.08	18.33		MAS = 10.00 (m)	1390.00	1390.00				MinPts
113.93	32.81	106.56	81.12	18.08		MAS = 10.00 (m)	1410.00	1410.00				MINPT-O-EQU
125.12	32.81	116.33	92.31	16.18		MAS = 10.00 (m)	1750.00	1750.00				MinPt-O-SF
714.85	42.68	686.06	672.17	25.74		OSF1.50	6080.00	6080.00				MinPt-O-SF
763.92	45.33	733.36	718.59	25.83		OSF1.50	6460.00	6460.00				MinPt-O-SF
836.47	49.54	803.10	786.93	25.83		OSF1.50	7040.00	7040.00				MinPt-O-SF
934.59	54.26	898.08	880.34	26.31		OSF1.50	7710.00	7710.00				MinPt-O-SF
1018.95	58.32	979.73	960.63	26.63		OSF1.50	8280.00	8280.00				MinPt-O-SF
1092.06	64.11	1048.98	1027.95	25.94		OSF1.50	9030.00	9030.00				MinPts
1092.97	64.45	1049.66	1028.51	25.82		OSF1.50	9085.53	9085.53				MinPt-O-SF
1113.76	61.63	1072.33	1052.13	27.54		OSF1.50	9570.00	9491.91				MinPt-O-SF
1126.12	64.77	1082.62	1061.35	26.46		OSF1.50	10530.00	9600.00				MinPt-CtCt
1126.19	64.91	1082.53	1061.24	26.39		OSF1.50	10550.00	9600.00				MINPT-O-EQU
1126.25	65.04	1082.57	1061.23	26.35		OSF1.50	10560.00	9600.00				MinPt-O-ADP
1132.35	71.83	1084.13	1060.52	23.95		OSF1.50	11100.00	9600.00				MinPt-CtCt
1132.54	72.44	1083.92	1060.10	23.75		OSF1.50	11140.00	9600.00				MINPT-O-EQU
1132.80	72.74	1083.98	1060.06	23.66		OSF1.50	11160.00	9600.00				MinPt-O-ADP
1149.10	79.61	1095.64	1069.41	21.88		OSF1.50	11550.00	9600.00				MINPT-O-EQU
1149.90	80.63	1095.82	1069.27	21.64		OSF1.50	11600.00	9600.00				MinPt-O-ADP
1145.71	100.13	1078.69	1045.64	17.32		OSF1.50	12480.00	9600.00				MinPt-CtCt
1149.08	111.88	1074.14	1037.18	15.53		OSF1.50	12950.00	9600.00				MinPt-CtCt
1148.21	117.77	1069.37	1030.44	14.73		OSF1.50	13180.00	9600.00				MinPt-CtCt
1146.73	123.03	1064.38	1023.70	14.08		OSF1.50	13380.00	9600.00				MinPt-CtCt
1147.56	125.60	1063.50	1021.96	13.80		OSF1.50	13480.00	9600.00				MINPT-O-EQU

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		
1150.22	131.74	1062.08	1018.48	13.18		OSF1.50	13710.00	9600.00				MINPT-O-EQU	
1151.31	133.05	1062.28	1018.28	13.07		OSF1.50	13760.00	9600.00				MinPt-O-ADP	
1142.83	150.49	1042.18	992.34	11.46		OSF1.50	14390.00	9600.00				MinPt-CtCt	
1143.30	151.77	1041.79	991.52	11.36		OSF1.50	14440.00	9600.00				MINPT-O-EQU	
1144.50	160.28	1037.32	984.22	10.77		OSF1.50	14740.00	9600.00				MinPt-CtCt	
1142.83	169.04	1029.81	973.79	10.19		OSF1.50	15050.00	9600.00				MinPt-CtCt	
1144.27	177.54	1025.61	966.77	9.72		OSF1.50	15350.00	9600.00				MINPT-O-EQU	
1143.74	184.22	1020.81	959.53	9.36		OSF1.50	15590.00	9600.00				MinPt-CtCt	
1144.13	185.55	1020.10	958.58	9.29		OSF1.50	15630.00	9600.00				MINPT-O-EQU	
1144.55	186.06	1020.18	958.43	9.27		OSF1.50	15650.00	9600.00				MinPt-O-ADP	
1135.23	205.34	998.01	929.89	8.33		OSF1.50	16310.00	9600.00				MinPt-CtCt	
1135.81	206.97	997.50	928.84	8.26		OSF1.50	16370.00	9600.00				MINPT-O-EQU	
1136.50	207.76	997.64	928.74	8.24		OSF1.50	16400.00	9600.00				MinPt-O-ADP	
1139.53	211.17	998.43	928.37	8.13		OSF1.50	16510.00	9600.00				MinPt-CtCt	
1140.52	215.48	996.57	925.09	7.97		OSF1.50	16660.00	9600.00				MINPT-O-EQU	
1141.41	216.52	996.74	924.83	7.94		OSF1.50	16700.00	9600.00				MinPt-O-ADP	
1125.88	232.51	970.54	893.37	7.29		OSF1.50	17240.00	9600.00				MinPt-CtCt	
1126.51	236.64	968.42	889.87	7.16		OSF1.50	17380.00	9600.00				MinPt-CtCt	
1127.57	239.77	967.40	887.81	7.08		OSF1.50	17490.00	9600.00				MINPT-O-EQU	
1128.98	241.45	967.69	887.53	7.04		OSF1.50	17550.00	9600.00				MinPt-O-ADP	
1138.58	254.55	968.53	884.03	6.73		OSF1.50	17990.00	9600.00				MINPT-O-EQU	
1139.48	255.66	968.71	883.82	6.71		OSF1.50	18030.00	9600.00				MinPt-O-ADP	
1146.52	262.17	971.41	884.35	6.58		OSF1.50	18250.00	9600.00				MinPt-O-ADP	
1156.02	271.65	974.54	884.35	6.40		OSF1.50	18570.00	9600.00				MinPt-O-ADP	
1150.53	293.56	954.55	857.02	5.89		OSF1.50	19300.00	9600.00				MinPt-CtCt	
1150.65	293.81	954.43	856.85	5.89		OSF1.50	19310.00	9600.00				MINPT-O-EQU	
1150.81	294.02	954.47	856.73	5.89		OSF1.50	19320.00	9600.00				MinPt-O-ADP	
1152.32	294.69	955.53	857.62	5.88		OSF1.50	19360.00	9600.00				MinPt-O-SF	
1175.22	293.75	979.06	881.47	6.02		OSF1.50	19536.11	9600.00				TD	

Cimarex Davinci 7-18 Federal
Com #36H Rev0 RM 24May21
(Non-Def Plan)

Pass

116.66	32.81	115.37	83.85	N/A	MAS = 10.00 (m)	0.00	0.00	Surface
116.66	32.81	115.36	83.85	16226.76	MAS = 10.00 (m)	23.00	23.00	WRP
116.66	32.81	101.98	83.85	8.62	MAS = 10.00 (m)	2190.00	2190.00	MinPts
116.68	32.81	101.90	83.87	8.55	MAS = 10.00 (m)	2210.00	2210.00	MINPT-O-EQU
118.23	32.81	103.02	85.42	8.44	MAS = 10.00 (m)	2300.00	2300.00	MinPt-O-SF
1128.79	57.75	1089.86	1071.04	29.95	OSF1.50	6550.00	6550.00	MinPt-O-SF
1180.25	65.32	1136.27	1114.93	27.62	OSF1.50	8010.00	8010.00	MinPt-CtCt
1180.27	65.38	1136.25	1114.89	27.59	OSF1.50	8020.00	8020.00	MINPT-O-EQU
1180.31	65.43	1136.27	1114.89	27.57	OSF1.50	8030.00	8030.00	MinPt-O-ADP
1189.38	66.51	1144.61	1122.87	27.32	OSF1.50	8240.00	8240.00	MinPt-O-SF
1522.14	68.09	1476.32	1454.06	34.15	OSF1.50	10530.00	9600.00	MinPt-CtCt
1522.23	330.34	1301.53	1191.91	6.93	OSF1.50	19536.11	9600.00	MinPts

Cimarex Da Vinci 7 Federal
Com #2H Gyro+MWD Off to
11690ft MD (Def Survey)

Pass

4723.65	32.81	4722.36	4690.84	N/A	MAS = 10.00 (m)	0.00	0.00	Surface
4723.31	32.81	4721.97	4690.52	84270.54	MAS = 10.00 (m)	23.00	23.00	MinPt-O-SF
4722.95	32.81	4721.54	4690.14	37281.04	MAS = 10.00 (m)	80.00	80.00	MinPts
4723.83	32.81	4720.73	4691.02	2692.96	MAS = 10.00 (m)	390.00	390.00	MINPT-O-EQU
4727.43	32.81	4721.35	4694.63	944.34	MAS = 10.00 (m)	1080.00	1080.00	MinPts
4722.94	32.81	4712.45	4690.13	504.49	MAS = 10.00 (m)	1960.00	1960.00	MINPT-O-EQU
1107.44	186.09	983.02	921.35	8.97	OSF1.50	7360.00	7360.00	MinPts
1107.46	186.11	983.02	921.34	8.97	OSF1.50	7370.00	7370.00	MinPts
2471.63	102.11	2403.23	2369.52	36.65	OSF1.50	10100.00	9600.00	MinPt-CtCt
2471.95	96.94	2407.04	2375.02	38.63	OSF1.50	10320.00	9600.00	MINPT-O-EQU
2471.61	95.88	2407.36	2375.73	39.05	OSF1.50	10400.00	9600.00	MinPt-CtCt
2465.28	88.18	2406.17	2377.10	42.39	OSF1.50	10730.00	9600.00	MinPt-O-ADP
2449.45	81.12	2395.04	2368.33	45.83	OSF1.50	11200.00	9600.00	MinPt-O-ADP
2438.10	79.01	2385.10	2359.10	46.88	OSF1.50	11530.00	9600.00	MinPts
2434.64	78.31	2382.10	2356.32	47.21	OSF1.50	11750.00	9600.00	MinPt-CtCt
2434.65	78.35	2382.09	2356.30	47.19	OSF1.50	11760.00	9600.00	MINPT-O-EQU
2434.68	78.38	2382.11	2356.30	47.17	OSF1.50	11770.00	9600.00	MinPt-O-ADP
2436.13	78.86	2383.23	2357.27	46.91	OSF1.50	11890.00	9600.00	MinPt-O-SF
2432.46	76.82	2380.92	2355.64	48.05	OSF1.50	12080.00	9600.00	MinPt-O-SF
2420.53	80.68	2366.38	2339.82	45.54	OSF1.50	12670.00	9600.00	MinPt-CtCt
2414.25	91.01	2353.25	2323.24	40.21	OSF1.50	13430.00	9600.00	MinPt-CtCt
2414.55	91.95	2352.92	2322.60	39.80	OSF1.50	13470.00	9600.00	MINPT-O-EQU
2415.11	92.64	2353.03	2322.47	39.51	OSF1.50	13500.00	9600.00	MinPt-O-ADP
2601.84	111.87	2526.93	2489.94	35.13	OSF1.50	14510.00	9600.00	MinPt-O-SF
6203.92	119.28	6124.07	6084.64	78.65	OSF1.50	19536.11	9600.00	TD

Cimarex Da Vinci 7 Federal
Com #4H MWD Off to 12076ft
(Def Survey)

Pass

5202.27	32.81	5200.99	5169.46	N/A	MAS = 10.00 (m)	0.00	0.00	Surface
5201.82	32.81	5200.45	5169.01	65288.25	MAS = 10.00 (m)	23.00	23.00	MinPt-O-SF
5195.23	32.81	5191.46	5162.43	2066.04	MAS = 10.00 (m)	580.00	580.00	MinPts
5185.37	32.81	5175.57	5152.53	609.38	MAS = 10.00 (m)	1920.00	1920.00	MinPts
5185.50	32.81	5175.43	5152.70	591.76	MAS = 10.00 (m)	1980.00	1980.00	MINPT-O-EQU
1537.31	202.26	1402.04	1335.05	11.46	OSF1.50	7320.00	7320.00	MinPts
1537.33	202.28	1402.04	1335.05	11.46	OSF1.50	7330.00	7330.00	MinPts
2701.48	116.35	2623.43	2585.13	35.20	OSF1.50	10410.00	9600.00	MinPt-O-ADP
2690.35	110.23	2616.43	2580.12	37.02	OSF1.50	10750.00	9600.00	MinPts
2687.75	107.37	2615.73	2580.39	37.99	OSF1.50	10910.00	9600.00	MinPt-O-ADP
2687.69	107.28	2615.73	2580.40	38.02	OSF1.50	10920.00	9600.00	MINPT-O-EQU
2687.57	106.95	2615.84	2580.62	38.14	OSF1.50	10960.00	9600.00	MinPt-CtCt
2683.17	99.15	2616.63	2584.01	41.10	OSF1.50	11420.00	9600.00	MinPt-O-ADP
2683.13	99.12	2616.62	2584.01	41.12	OSF1.50	11430.00	9600.00	MINPT-O-EQU
2683.11	99.05	2616.65	2584.06	41.15	OSF1.50	11450.00	9600.00	MinPt-CtCt
2695.84	91.85	2634.18	2603.99	44.63	OSF1.50	12090.00	9600.00	MinPt-CtCt
2695.86	91.93	2634.15	2603.93	44.59	OSF1.50	12110.00	9600.00	MINPT-O-EQU
2695.90	91.98	2634.19	2603.93	44.57	OSF1.50	12120.00	9600.00	MinPt-O-ADP
2699.11	92.42	2637.07	2606.69	44.41	OSF1.50	12290.00	9600.00	MinPt-O-SF
2704.41	91.74	2642.82	2612.67	44.82	OSF1.50	12560.00	9600.00	MinPt-O-SF
2704.13	90.12	2643.65	2614.04	45.64	OSF1.50	12660.00	9600.00	MinPt-CtCt
2704.20	90.26	2643.53	2613.93	45.57	OSF1.50	12680.00	9600.00	MINPT-O-EQU
2704.24	90.32	2643.59	2613.91	45.54	OSF1.50	12690.00	9600.00	MinPts

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		
2702.47		90.54	2641.68	2611.93	45.40	OSF1.50	12870.00	9600.00				MinPt-CtCt	
2702.60		90.94	2641.56	2611.68	45.21	OSF1.50	12920.00	9600.00				MINPT-O-EQU	
2702.87		91.25	2641.61	2611.62	45.03	OSF1.50	12960.00	9600.00				MinPts	
2698.98		91.69	2637.42	2607.23	44.73	OSF1.50	13130.00	9600.00				MinPt-O-SF	
2698.91		91.66	2637.37	2607.23	44.77	OSF1.50	13140.00	9600.00				MinPt-O-ADP	
2698.78		91.47	2637.37	2607.31	44.87	OSF1.50	13150.00	9600.00				MINPT-O-EQU	
2691.89		91.47	2630.43	2600.42	44.74	OSF1.50	13270.00	9600.00				MinPts	
2638.34		101.46	2570.28	2536.89	39.49	OSF1.50	13910.00	9600.00				MinPt-CtCt	
2638.68		102.57	2569.87	2536.11	39.06	OSF1.50	13960.00	9600.00				MINPT-O-EQU	
2639.03		103.01	2569.93	2536.02	38.90	OSF1.50	13980.00	9600.00				MinPt-O-ADP	
2807.72		121.00	2726.62	2686.72	35.16	OSF1.50	14970.00	9600.00				MinPt-O-SF	
5941.77		127.16	5856.57	5814.61	70.79	OSF1.50	19536.11	9600.00				TD	

Oxy Peaches 19 Federal #2
(Offset) MWD Off-12641ft (Def
Survey)

												Pass	
10212.81		32.81	10211.52	10180.00	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
10212.47		32.81	10211.12	10179.66	164901.73	MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF	
10210.03		32.81	10205.58	10177.23	3169.22	MAS = 10.00 (m)	770.00	770.00				MinPts	
10210.28		32.81	10205.43	10177.47	2844.63	MAS = 10.00 (m)	860.00	860.00				MINPT-O-EQU	
10209.52		32.81	10202.44	10176.71	1763.11	MAS = 10.00 (m)	1360.00	1360.00				MinPts	
10209.96		32.81	10202.07	10177.15	1546.18	MAS = 10.00 (m)	1540.00	1540.00				MINPT-O-EQU	
10210.02		32.81	10200.14	10177.21	1187.25	MAS = 10.00 (m)	1980.00	1980.00				MinPts	
10210.40		32.81	10197.92	10177.63	911.99	MAS = 10.00 (m)	2560.00	2560.00				MinPts	
10210.81		32.81	10197.55	10178.00	853.12	MAS = 10.00 (m)	2740.00	2740.00				MINPT-O-EQU	
10214.49		32.81	10198.85	10181.68	711.21	MAS = 10.00 (m)	3290.00	3290.00				MINPT-O-EQU	
10216.37		32.81	10198.82	10183.56	628.02	MAS = 10.00 (m)	3720.00	3720.00				MINPT-O-EQU	
10218.11		32.81	10198.83	10185.34	567.59	MAS = 10.00 (m)	4110.00	4110.00				MinPts	
10218.30		32.81	10198.63	10185.49	556.65	MAS = 10.00 (m)	4190.00	4190.00				MINPT-O-EQU	
10313.11		41.01	10285.34	10272.10	389.36	OSF1.50	6010.00	6010.00				MinPt-CtCt	
10313.37		41.81	10285.07	10271.56	381.74	OSF1.50	6130.00	6130.00				MINPT-O-EQU	
10313.65		42.14	10285.13	10271.51	378.66	OSF1.50	6180.00	6180.00				MinPt-O-ADP	
10319.30		46.21	10288.07	10273.10	344.56	OSF1.50	6790.00	6790.00				MinPt-O-ADP	
10321.82		48.14	10289.30	10273.68	330.41	OSF1.50	7080.00	7080.00				MinPt-CtCt	
10321.82		48.87	10288.80	10272.94	325.31	OSF1.50	7190.00	7190.00				MinPt-CtCt	
10321.94		49.27	10288.64	10272.67	322.60	OSF1.50	7250.00	7250.00				MINPT-O-EQU	
10322.10		49.47	10288.64	10272.63	321.27	OSF1.50	7280.00	7280.00				MinPt-O-ADP	
10475.75		60.75	10434.81	10414.93	264.21	OSF1.50	9085.53	9085.53				MinPt-O-SF	
1950.03		211.86	1808.35	1738.15	13.88	OSF1.50	19536.11	9600.00				MinPts	

Chevron Hayhurst 18 Fed 1H
(Offset) MWD Off-7500ft (Def
Survey)

												Pass	
5326.08		32.81	5324.79	5293.27	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
5325.72		32.81	5324.37	5292.91	85215.17	MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF	
5325.21		32.81	5323.75	5292.40	31118.94	MAS = 10.00 (m)	100.00	100.00				MinPts	
5325.42		32.81	5323.55	5292.61	9171.81	MAS = 10.00 (m)	190.00	190.00				MINPT-O-EQU	
5303.48		32.81	5293.66	5270.66	622.73	MAS = 10.00 (m)	1870.00	1870.00				MinPts	
5303.73		32.81	5293.50	5270.92	593.72	MAS = 10.00 (m)	1990.00	1990.00				MINPT-O-EQU	
5304.08		32.81	5293.33	5271.27	563.78	MAS = 10.00 (m)	2130.00	2130.00				MINPT-O-EQU	
5307.19		32.81	5293.54	5274.38	429.16	MAS = 10.00 (m)	2820.00	2820.00				MINPT-O-EQU	
5309.86		32.81	5293.77	5277.06	358.47	MAS = 10.00 (m)	3370.00	3370.00				MINPT-O-EQU	
5313.33		32.81	5293.12	5280.52	280.73	MAS = 10.00 (m)	4260.00	4260.00				MinPts	
5315.86		36.15	5291.33	5279.67	228.42	OSF1.50	5230.00	5230.00				MINPT-O-EQU	
5316.25		36.65	5291.38	5279.59	225.43	OSF1.50	5300.00	5300.00				MinPt-O-ADP	
5322.31		41.92	5293.93	5280.38	196.42	OSF1.50	6060.00	6060.00				MinPt-CtCt	
5322.54		43.67	5293.00	5278.87	188.34	OSF1.50	6340.00	6340.00				MinPt-CtCt	
5322.71		44.24	5292.73	5278.47	185.82	OSF1.50	6430.00	6430.00				MINPT-O-EQU	
5322.98		44.56	5292.84	5278.42	184.46	OSF1.50	6480.00	6480.00				MinPt-O-ADP	
5548.23		59.90	5507.87	5488.34	141.97	OSF1.50	9085.53	9085.53				MinPt-O-SF	
2076.61		116.71	1998.37	1959.90	26.97	OSF1.50	14680.00	9600.00				MinPt-CtCt	
2076.85		117.50	1998.09	1959.35	26.79	OSF1.50	14710.00	9600.00				MINPT-O-EQU	
2077.25		118.01	1998.14	1959.23	26.68	OSF1.50	14730.00	9600.00				MinPt-O-ADP	
2141.05		127.43	2055.67	2013.63	25.45	OSF1.50	15200.00	9600.00				MinPt-O-SF	
5282.73		111.91	5207.69	5170.82	71.61	OSF1.50	19536.11	9600.00				TD	

API 30-015-23094 Chevron
Mona Lisa #2 (Offset) P Gas
Inc Only Off-11970ft (Def
Survey)

												Pass	
3945.64		32.81	3944.35	3912.83	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
3945.20		32.81	3943.84	3912.39	54576.63	MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF	
3944.54		32.81	3940.39	3911.73	1372.04	MAS = 10.00 (m)	230.00	230.00				MinPts	
3943.63		36.66	3918.81	3907.02	167.19	OSF1.50	820.00	820.00				MinPt-CtCt	
3946.26		44.57	3916.12	3901.69	136.71	OSF1.50	1060.00	1060.00				MINPT-O-EQU	
3942.42		69.92	3895.38	3872.50	86.13	OSF1.50	1460.00	1460.00				MinPt-CtCt	
3942.65		70.54	3895.17	3872.07	85.32	OSF1.50	1510.00	1510.00				MINPT-O-EQU	
3942.87		70.84	3895.22	3872.03	85.01	OSF1.50	1530.00	1530.00				MinPt-O-ADP	
3938.71		94.16	3875.51	3844.55	63.60	OSF1.50	1910.00	1910.00				MinPt-CtCt	
3939.00		95.06	3875.13	3843.94	62.99	OSF1.50	1970.00	1970.00				MINPT-O-EQU	
3939.24		95.36	3875.24	3843.83	62.79	OSF1.50	1990.00	1990.00				MinPt-O-ADP	
3936.82		139.07	3843.68	3797.76	42.85	OSF1.50	2770.00	2770.00				MinPt-CtCt	
3939.03		238.43	3779.71	3700.66	24.91	OSF1.50	4690.00	4690.00				MinPt-CtCt	
3936.88		337.65	3711.34	3599.22	17.55	OSF1.50	6590.00	6590.00				MinPt-CtCt	
3943.34		420.96	3662.27	3522.38	14.09	OSF1.50	8190.00	8190.00				MinPt-CtCt	
2135.45		495.70	1804.60	1639.79	6.47	OSF1.50	12700.00	9600.00				MinPt-CtCt	
2135.49		495.73	1804.58	1639.76	6.47	OSF1.50	12710.00	9600.00				MinPts	
2135.63		495.79	1804.68	1639.84	6.47	OSF1.50	12730.00	9600.00				MinPt-O-SF	
7157.10		498.17	6824.56	6658.94	21.60	OSF1.50	19536.11	9600.00				TD	

Cimarex Gadowell 18 Federal
Com #2H Gyro-MWD Off to
12379ft MD (Offset) (Def
Survey)

												Pass	
5332.68		32.81	5330.70	5299.87	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
5332.23		32.81	5330.18	5299.43	67830.57	MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF	
5331.47		32.81	5329.20	5298.63	20501.46	MAS = 10.00 (m)	120.00	120.00				MinPts	
5331.85		32.81	5328.83	5299.04	5141.86	MAS = 10.00 (m)	280.00	280.00				MINPT-O-EQU	
5334.72		32.81	5328.12	5301.91	1153.47	MAS = 10.00 (m)	1080.00	1080.00				MinPts	
5310.48		32.81	5295.39	5277.63	405.39	MAS = 10.00 (m)	2900.00	2900.00				MinPts	
5310.67		32.81	5293.97	5277.88	360.62	MAS = 10.00 (m)	3270.00	3270.00				MinPts	
5311.60		32.81	5292.88	5278.79	317.16	MAS = 10.00 (m)	3680.00	3680.00				MINPT-O-EQU	

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		
5318.34	33.43	5295.40	5284.92	253.59		OSF1.50	4650.00	4650.00				MinPt-O-ADP	
5319.12	34.21	5295.65	5284.91	247.44		OSF1.50	4770.00	4770.00				MinPt-O-ADP	
5319.46	34.55	5295.76	5284.91	244.85		OSF1.50	4820.00	4820.00				MinPt-O-ADP	
5323.84	43.86	5293.94	5279.98	190.59		OSF1.50	6150.00	6150.00				MinPt-CtCt	
5323.97	44.18	5293.85	5279.78	189.15		OSF1.50	6200.00	6200.00				MINPT-O-EQU	
5324.14	44.38	5293.84	5279.76	188.29		OSF1.50	6230.00	6230.00				MinPt-O-ADP	
5563.18	62.10	5521.12	5501.04	138.74		OSF1.50	9085.53	9085.53				MinPt-O-SF	
2211.45	127.01	2126.10	2084.42	26.51		OSF1.50	15050.00	9600.00				MinPt-CtCt	
2212.14	129.56	2125.09	2082.55	25.98		OSF1.50	15150.00	9600.00				MINPT-O-EQU	
2213.24	130.88	2125.33	2082.36	25.73		OSF1.50	15200.00	9600.00				MinPt-O-ADP	
2223.90	139.36	2130.32	2084.52	24.26		OSF1.50	15500.00	9600.00				MINPT-O-EQU	
2224.71	140.22	2130.57	2084.43	24.12		OSF1.50	15530.00	9600.00				MinPt-O-ADP	
2233.55	147.48	2134.56	2086.06	23.01		OSF1.50	15770.00	9600.00				MinPt-O-ADP	
2239.77	153.00	2137.11	2086.78	22.23		OSF1.50	15940.00	9600.00				MINPT-O-EQU	
2241.07	154.98	2137.13	2086.13	21.96		OSF1.50	16000.00	9600.00				MINPT-O-EQU	
2244.71	159.36	2137.61	2085.35	21.38		OSF1.50	16140.00	9600.00				MinPt-O-ADP	
2248.77	163.58	2139.03	2085.18	20.85		OSF1.50	16260.00	9600.00				MINPT-O-EQU	
2249.96	165.35	2139.07	2084.62	20.64		OSF1.50	16310.00	9600.00				MINPT-O-EQU	
2253.17	169.24	2139.63	2083.93	20.19		OSF1.50	16430.00	9600.00				MinPt-O-ADP	
2264.63	196.45	2133.00	2068.17	17.45		OSF1.50	17170.00	9600.00				MINPT-O-EQU	
2268.05	200.58	2133.67	2067.47	17.12		OSF1.50	17290.00	9600.00				MinPt-O-ADP	
2277.68	209.96	2137.05	2067.72	16.41		OSF1.50	17530.00	9600.00				MINPT-O-EQU	
2281.34	220.05	2133.99	2061.30	15.68		OSF1.50	17760.00	9600.00				MinPt-CtCt	
2282.64	224.74	2132.17	2057.93	15.36		OSF1.50	17900.00	9600.00				MINPT-O-EQU	
2283.89	226.20	2132.44	2057.74	15.27		OSF1.50	17950.00	9600.00				MinPt-O-ADP	
2304.53	267.84	2125.33	2036.68	12.99		OSF1.50	18970.00	9600.00				MINPT-O-EQU	
2306.31	270.61	2125.24	2035.69	12.87		OSF1.50	19040.00	9600.00				MINPT-O-EQU	
2316.94	284.10	2126.88	2032.84	12.31		OSF1.50	19370.00	9600.00				MinPt-O-ADP	
2324.85	286.07	2133.48	2038.76	12.26		OSF1.50	19500.00	9600.00				MinPt-O-SF	
2328.33	286.43	2136.72	2041.90	12.27		OSF1.50	19536.11	9600.00				TD	

Chevron Hayhurst 18 Fed 1H
(Offset) ST01 MWD Off-11800ft
(Def Survey)

Pass

5326.08	32.81	5324.79	5293.27	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
5325.72	32.81	5324.37	5292.91	85215.17		MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF	
5325.21	32.81	5323.78	5292.43	31118.94		MAS = 10.00 (m)	100.00	100.00				MinPts	
5325.42	32.81	5323.55	5292.61	9171.81		MAS = 10.00 (m)	190.00	190.00				MINPT-O-EQU	
5303.46	32.81	5293.63	5270.63	622.73		MAS = 10.00 (m)	1870.00	1870.00				MinPts	
5303.73	32.81	5293.52	5270.92	593.72		MAS = 10.00 (m)	1990.00	1990.00				MINPT-O-EQU	
5304.08	32.81	5293.33	5271.27	563.78		MAS = 10.00 (m)	2130.00	2130.00				MINPT-O-EQU	
5307.19	32.81	5293.54	5274.38	429.16		MAS = 10.00 (m)	2820.00	2820.00				MINPT-O-EQU	
5309.86	32.81	5293.77	5277.06	358.47		MAS = 10.00 (m)	3370.00	3370.00				MINPT-O-EQU	
5313.33	32.81	5293.12	5280.52	280.73		MAS = 10.00 (m)	4260.00	4260.00				MinPts	
5315.86	36.18	5291.34	5279.67	228.42		OSF1.50	5230.00	5230.00				MINPT-O-EQU	
5316.25	36.65	5291.34	5279.53	225.43		OSF1.50	5300.00	5300.00				MinPt-O-ADP	
5322.31	41.92	5293.93	5280.38	196.42		OSF1.50	6060.00	6060.00				MinPt-CtCt	
5322.54	43.67	5293.00	5278.87	188.34		OSF1.50	6340.00	6340.00				MinPt-CtCt	
5322.71	44.24	5292.73	5278.47	185.82		OSF1.50	6430.00	6430.00				MINPT-O-EQU	
5322.98	44.56	5292.84	5278.42	184.46		OSF1.50	6480.00	6480.00				MinPt-O-ADP	
5696.16	57.96	5657.09	5638.20	150.72		OSF1.50	8990.00	8990.00				MinPt-O-SF	
2244.61	130.35	2157.29	2114.27	26.07		OSF1.50	15290.00	9600.00				MinPt-CtCt	
2245.34	132.33	2156.63	2113.00	25.69		OSF1.50	15370.00	9600.00				MINPT-O-EQU	
2246.34	133.56	2156.87	2112.73	25.46		OSF1.50	15420.00	9600.00				MinPt-O-ADP	
2250.09	140.74	2155.84	2109.36	24.19		OSF1.50	15710.00	9600.00				MINPT-O-EQU	
2252.48	147.14	2153.93	2105.34	23.15		OSF1.50	15960.00	9600.00				MINPT-O-EQU	
2253.57	148.42	2154.20	2105.18	22.96		OSF1.50	16010.00	9600.00				MinPt-O-ADP	
2254.98	151.15	2153.79	2103.84	22.56		OSF1.50	16110.00	9600.00				MinPt-CtCt	
2256.74	160.00	2149.63	2096.74	21.32		OSF1.50	16440.00	9600.00				MINPT-O-EQU	
2257.84	161.31	2149.87	2096.53	21.15		OSF1.50	16490.00	9600.00				MinPt-O-ADP	
2257.51	167.30	2145.61	2090.28	20.39		OSF1.50	16700.00	9600.00				MinPt-CtCt	
2257.41	172.62	2141.90	2084.79	19.75		OSF1.50	16890.00	9600.00				MinPt-CtCt	
2258.36	175.84	2140.73	2082.52	19.40		OSF1.50	17010.00	9600.00				MINPT-O-EQU	
2259.23	176.89	2140.88	2082.34	19.29		OSF1.50	17050.00	9600.00				MinPt-O-ADP	
2242.04	194.99	2111.62	2047.05	17.35		OSF1.50	17680.00	9600.00				MinPt-CtCt	
2242.95	197.96	2110.55	2044.99	17.10		OSF1.50	17790.00	9600.00				MINPT-O-EQU	
2248.44	214.61	2104.94	2033.83	15.80		OSF1.50	18360.00	9600.00				MINPT-O-EQU	
2250.28	216.85	2105.23	2033.43	15.65		OSF1.50	18440.00	9600.00				MinPt-O-ADP	
2257.11	228.64	2104.26	2028.47	14.88		OSF1.50	18810.00	9600.00				MinPt-CtCt	
2257.93	231.42	2103.22	2026.51	14.71		OSF1.50	18910.00	9600.00				MINPT-O-EQU	
2258.80	232.49	2103.34	2026.31	14.65		OSF1.50	18950.00	9600.00				MinPt-O-ADP	
2265.48	239.91	2105.11	2025.57	14.23		OSF1.50	19190.00	9600.00				MinPt-O-ADP	
2283.42	249.55	2116.62	2033.87	13.79		OSF1.50	19536.11	9600.00				MinPt-O-SF	

API 30-015-33496 Cimarex
Gadwell 18 Federal Com #1
(Offset) P Gas Inc Only Off-
12250ft (Def Survey)

Pass

6270.93	32.81	6269.64	6238.12	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
6270.51	32.81	6269.15	6237.70	84646.82		MAS = 10.00 (m)	23.00	23.00				MinPt-O-SF	
6267.76	32.81	6255.93	6234.95	594.23		MAS = 10.00 (m)	430.00	430.00				MinPts	
6271.47	32.81	6251.51	6238.66	335.79		MAS = 10.00 (m)	750.00	750.00				MINPT-O-EQU	
6268.77	69.95	6221.71	6198.82	136.91		OSF1.50	1490.00	1490.00				MinPt-CtCt	
6268.17	129.13	6181.65	6139.04	73.53		OSF1.50	2640.00	2640.00				MinPt-CtCt	
6270.91	215.29	6126.95	6055.62	43.95		OSF1.50	4310.00	4310.00				MinPt-CtCt	
6264.12	304.24	6060.87	5959.88	31.01		OSF1.50	6010.00	6010.00				MinPt-CtCt	
6263.65	385.66	6006.11	5877.99	24.44		OSF1.50	7570.00	7570.00				MinPt-CtCt	
2283.66	504.05	1947.19	1779.60	6.81		OSF1.50	15210.00	9600.00				MinPt-CtCt	
2283.68	504.11	1947.17	1779.56	6.81		OSF1.50	15220.00	9600.00				MinPts	
2284.44	504.40	1947.74	1780.03	6.81		OSF1.50	15270.00	9600.00				MinPt-O-SF	
4891.04	504.35	4554.37	4386.69	14.58		OSF1.50	19536.11	9600.00				TD	

Cimarex Davinci 7-18 Federal
Com #6H Off-18854ft (Def
Survey)

Pass

2653.03	32.81	2651.05	2620.22	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
2652.96	32.81	2650.98	2620.16	274089.93		MAS = 10.00 (m)	10.00	10.00				MinPt-O-SF	
2652.93	32.81	2650.92	2620.13	593848.01		MAS = 10.00 (m)	20.00	20.00				MINPT-O-EQU	
2652.93	32.81	2650.95	2620.12	N/A		MAS = 10.00 (m)	23.00	23.00				WRP	
2652.93	32.81	2650.92	2620.12	70184.66		MAS = 10.00 (m)	40.00	40.00				MinPts	
2652.97	32.81	2650.85	2620.16	19078.45		MAS = 10.00 (m)	80.00	80.00				MINPT-O-EQU	

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		
2653.08	32.81	2650.89	2620.28	10916.68		MAS = 10.00 (m)	110.00	110.00				MINPT-O-EQU	
2659.68	32.81	2654.48	2626.89	825.28		MAS = 10.00 (m)	780.00	780.00				MinPt	
2659.78	32.81	2654.38	2626.97	772.47		MAS = 10.00 (m)	830.00	830.00				MINPT-O-EQU	
2634.34	32.81	2622.56	2601.53	268.71		MAS = 10.00 (m)	2250.00	2250.00				MinPts	
2634.41	32.81	2622.49	2601.60	265.08		MAS = 10.00 (m)	2280.00	2280.00				MINPT-O-EQU	
3237.53	59.94	3196.91	3177.59	83.74		OSF1.50	8000.00	8000.00				MinPt-CtCt	
3237.64	60.26	3196.84	3177.38	83.27		OSF1.50	8060.00	8060.00				MINPT-O-EQU	
3237.78	60.43	3196.85	3177.35	83.04		OSF1.50	8090.00	8090.00				MinPt-O-ADP	
3336.45	65.94	3291.83	3270.51	78.23		OSF1.50	9085.53	9085.53				MinPt-O-SF	
3507.28	101.64	3438.85	3405.63	52.76		OSF1.50	10340.00	9600.00				MinPt-CtCt	
3510.03	128.75	3423.53	3381.27	41.51		OSF1.50	10950.00	9600.00				MinPt-CtCt	
3511.36	132.84	3422.11	3378.48	40.21		OSF1.50	11090.00	9600.00				MINPT-O-EQU	
3514.61	136.84	3422.73	3377.77	39.07		OSF1.50	11210.00	9600.00				MinPt-O-ADP	
3508.91	169.80	3395.04	3339.10	31.35		OSF1.50	11790.00	9600.00				MinPt-CtCt	
3510.26	173.77	3393.74	3336.50	30.63		OSF1.50	11920.00	9600.00				MINPT-O-EQU	
3511.80	175.58	3394.08	3336.21	30.33		OSF1.50	11980.00	9600.00				MinPt-O-ADP	
3514.82	191.66	3386.39	3323.16	27.78		OSF1.50	12220.00	9600.00				MinPt-CtCt	
3513.26	215.45	3368.96	3297.81	24.67		OSF1.50	12680.00	9600.00				MinPt-CtCt	
3517.86	237.87	3358.62	3279.99	22.36		OSF1.50	13170.00	9600.00				MINPT-O-EQU	
3517.27	270.93	3335.99	3246.34	19.61		OSF1.50	13740.00	9600.00				MinPt-CtCt	
3519.10	280.43	3331.48	3238.67	18.95		OSF1.50	13970.00	9600.00				MINPT-O-EQU	
3520.64	282.29	3331.73	3238.35	18.83		OSF1.50	14030.00	9600.00				MinPt-O-ADP	
3526.06	301.34	3324.53	3224.74	17.66		OSF1.50	14380.00	9600.00				MINPT-O-EQU	
3528.18	304.01	3324.84	3224.14	17.51		OSF1.50	14450.00	9600.00				MinPt-O-ADP	
3539.22	314.56	3328.84	3224.63	16.97		OSF1.50	14680.00	9600.00				MINPT-O-EQU	
3534.71	340.78	3306.86	3193.92	15.64		OSF1.50	15050.00	9600.00				MinPt-CtCt	
3533.57	360.21	3292.76	3173.35	14.79		OSF1.50	15410.00	9600.00				MinPt-CtCt	
3520.25	421.76	3238.42	3098.49	12.57		OSF1.50	16550.00	9600.00				MinPt-CtCt	
3516.84	442.23	3221.36	3074.61	11.98		OSF1.50	16930.00	9600.00				MinPt-CtCt	
3521.72	465.05	3211.02	3056.67	11.40		OSF1.50	17350.00	9600.00				MinPt-CtCt	
3525.52	498.68	3192.41	3026.84	10.64		OSF1.50	17970.00	9600.00				MinPt-CtCt	
3517.23	541.23	3155.80	2976.05	9.78		OSF1.50	18740.00	9600.00				MinPt-CtCt	
3527.10	575.17	3142.93	2951.93	9.22		OSF1.50	19420.00	9600.00				MINPT-O-EQU	
3527.37	575.46	3143.07	2951.91	9.22		OSF1.50	19430.00	9600.00				MinPt-O-ADP	
3531.98	576.71	3146.85	2955.27	9.21		OSF1.50	19536.11	9600.00				MinPt-O-SF	

Cimarex DaVinci 7-18 Federal
Com #9H Surcon Corrected Off-
19984ft (Def Survey)

Pass

2803.33	32.81	2801.35	2770.52	N/A		MAS = 10.00 (m)	0.00	0.00				Surface	
2803.26	32.81	2801.27	2770.45	261741.83		MAS = 10.00 (m)	10.00	10.00				MinPt-O-SF	
2803.22	32.81	2801.23	2770.41	786237.55		MAS = 10.00 (m)	23.00	23.00				WRP	
2784.11	32.81	2777.94	2751.31	664.11		MAS = 10.00 (m)	990.00	990.00				MinPts	
2784.16	32.81	2777.90	2751.35	651.22		MAS = 10.00 (m)	1010.00	1010.00				MINPT-O-EQU	
2785.81	32.81	2777.53	2753.04	442.34		MAS = 10.00 (m)	1470.00	1470.00				MinPts	
2785.90	32.81	2777.54	2753.10	436.38		MAS = 10.00 (m)	1490.00	1490.00				MINPT-O-EQU	
3336.95	60.38	3296.04	3276.58	85.66		OSF1.50	8590.00	8590.00				MinPt-CtCt	
3337.18	61.13	3295.77	3276.05	84.58		OSF1.50	8710.00	8710.00				MINPT-O-EQU	
3337.49	61.50	3295.83	3275.93	84.05		OSF1.50	8770.00	8770.00				MinPt-O-ADP	
3345.74	63.54	3302.72	3282.20	81.43		OSF1.50	9085.53	9085.53				MinPt-O-SF	
3423.94	64.35	3380.38	3359.53	82.29		OSF1.50	9520.00	9462.96				MinPts	
3407.64	67.30	3362.11	3340.33	78.20		OSF1.50	10230.00	9600.00				MinPt-CtCt	
3407.70	67.47	3362.04	3340.23	78.00		OSF1.50	10260.00	9600.00				MINPT-O-EQU	
3409.22	71.87	3360.65	3337.35	73.13		OSF1.50	10620.00	9600.00				MINPT-O-EQU	
3411.42	78.44	3358.43	3332.98	66.88		OSF1.50	11030.00	9600.00				MINPT-O-EQU	
3412.21	83.00	3356.22	3329.21	63.13		OSF1.50	11250.00	9600.00				MinPt-CtCt	
3413.40	95.53	3349.06	3317.87	54.70		OSF1.50	11840.00	9600.00				MinPt-CtCt	
3412.82	111.94	3337.54	3300.89	46.53		OSF1.50	12520.00	9600.00				MinPt-CtCt	
3412.68	115.23	3335.18	3297.43	45.18		OSF1.50	12650.00	9600.00				MinPt-CtCt	
3414.27	124.82	3330.40	3289.46	41.67		OSF1.50	13020.00	9600.00				MinPt-CtCt	
3415.94	135.79	3324.76	3280.15	38.27		OSF1.50	13430.00	9600.00				MinPt-CtCt	
3416.06	141.29	3321.20	3274.76	36.76		OSF1.50	13630.00	9600.00				MinPt-CtCt	
3416.32	152.25	3314.16	3264.07	34.08		OSF1.50	14030.00	9600.00				MinPt-CtCt	
3416.74	159.52	3309.73	3257.22	32.51		OSF1.50	14290.00	9600.00				MinPt-CtCt	
3416.72	168.19	3303.93	3248.53	30.82		OSF1.50	14600.00	9600.00				MinPt-CtCt	
3417.55	173.54	3301.20	3244.01	29.86		OSF1.50	14810.00	9600.00				MINPT-O-EQU	
3418.47	174.66	3301.38	3243.82	29.68		OSF1.50	14860.00	9600.00				MinPt-O-ADP	
3429.34	197.08	3297.29	3232.26	26.35		OSF1.50	15610.00	9600.00				MinPt-CtCt	
3431.07	204.18	3294.34	3226.90	25.44		OSF1.50	15880.00	9600.00				MINPT-O-EQU	
3431.21	214.79	3287.35	3216.42	24.17		OSF1.50	16220.00	9600.00				MinPt-CtCt	
3411.61	246.74	3246.71	3165.13	20.90		OSF1.50	17310.00	9600.00				MinPt-CtCt	
3412.51	248.50	3246.13	3164.01	20.75		OSF1.50	17390.00	9600.00				MINPT-O-EQU	
3413.25	249.36	3246.35	3163.83	20.68		OSF1.50	17430.00	9600.00				MinPt-O-ADP	
3414.56	250.54	3246.88	3164.02	20.59		OSF1.50	17480.00	9600.00				MinPt-O-ADP	
3424.05	274.79	3240.19	3149.26	18.82		OSF1.50	18260.00	9600.00				MinPt-CtCt	
3424.64	276.53	3239.62	3148.11	18.70		OSF1.50	18340.00	9600.00				MINPT-O-EQU	
3425.17	277.17	3239.73	3148.00	18.66		OSF1.50	18370.00	9600.00				MinPt-O-ADP	
3431.05	285.27	3240.21	3145.78	18.16		OSF1.50	18640.00	9600.00				MINPT-O-EQU	
3433.56	290.65	3239.13	3142.91	17.83		OSF1.50	18820.00	9600.00				MINPT-O-EQU	
3436.06	294.77	3238.83	3141.29	17.59		OSF1.50	18960.00	9600.00				MINPT-O-EQU	
3438.24	297.36	3239.34	3140.83	17.45		OSF1.50	19060.00	9600.00				MinPt-O-ADP	
3437.93	306.57	3232.94	3131.41	16.92		OSF1.50	19330.00	9600.00				MinPt-CtCt	
3438.20	307.25	3232.63	3130.92	16.88		OSF1.50	19370.00	9600.00				MINPT-O-EQU	
3438.49	307.63	3232.74	3130.83	16.86		OSF1.50	19390.00	9600.00				MinPt-O-ADP	
3444.10	309.83	3236.89	3134.27	16.77		OSF1.50	19536.11	9600.00				MinPt-O-SF	

Cimarex Da Vinci 7 Federal
Com #5H MWD Off to 11750ft
(Def Survey)

Pass

5815.49	32.81	5813.51	5782.68	N/A	MAS = 10.00 (m)	0.00	0.00		Surface
5815.12	32.81	5813.08	5782.31	92730.85	MAS = 10.00 (m)	23.00	23.00		MinPt-O-SF
5814.51	32.81	5812.37	5781.76	26970.18	MAS = 10.00 (m)	110.00	110.00		MinPts
5814.98	32.81	5811.95	5782.17	5730.75	MAS = 10.00 (m)	280.00	280.00		MINPT-O-EQU
5838.44	32.81	5827.65	5805.63	662.23	MAS = 10.00 (m)	2010.00	2010.00		MINPT-O-EQU
2822.54	295.63	2624.52	2526.91	14.44	OSF1.50	7300.00	7300.00		MinPts
2822.57	295.63	2624.55	2526.94	14.44	OSF1.50	7310.00	7310.00		MinPt-O-SF
3815.23	117.05	3736.53	3698.18	49.71	OSF1.50	11770.00	9600.00		MinPts
3838.90	118.07	3759.53	3720.83	49.53	OSF1.50	12280.00	9600.00		MinPt-O-SF
3866.97	100.86	3799.07	3766.11	58.63	OSF1.50	12570.00	9600.00		MinPts
3871.47	101.88	3802.88	3769.58	58.10	OSF1.50	12820.00	9600.00		MinPt-O-SF

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		
3878.03		102.02	3809.35	3776.01	58.12	OSF1.50	12970.00	9600.00				MinPt-O-SF	
3882.12		96.79	3816.93	3785.33	61.39	OSF1.50	13130.00	9600.00				MinPt-CtCt	
3882.35		97.48	3816.70	3784.87	60.94	OSF1.50	13200.00	9600.00				MINPT-O-EQU	
3882.70		97.90	3816.77	3784.84	60.69	OSF1.50	13230.00	9600.00				MinPt-O-ADP	
4302.90		129.17	4216.12	4173.73	50.72	OSF1.50	15420.00	9600.00				MinPt-O-SF	
6930.23		147.41	6831.30	6782.82	71.46	OSF1.50	19536.11	9600.00				TD	

Gadwall 18 Federal 5H MWD
Oft to 12016ft (Def Survey)

Pass

5344.19	32.81	5342.21	5311.38	N/A	MAS = 10.00 (m)	0.00	0.00	Surface
5343.80	32.81	5341.76	5310.95	79897.88	MAS = 10.00 (m)	23.00	23.00	MinPt-O-SF
5343.22	32.81	5341.07	5310.42	31219.46	MAS = 10.00 (m)	100.00	100.00	MinPts
5322.34	32.81	5305.51	5289.43	359.46	MAS = 10.00 (m)	3370.00	3370.00	MinPts
5322.93	32.81	5304.95	5290.12	332.73	MAS = 10.00 (m)	3640.00	3640.00	MINPT-O-EQU
5330.51	32.81	5309.05	5297.70	273.48	MAS = 10.00 (m)	4430.00	4430.00	MINPT-O-EQU
5348.61	42.75	5319.45	5305.86	196.72	OSF1.50	6160.00	6160.00	MinPt-CtCt
5348.74	43.15	5319.32	5305.60	194.81	OSF1.50	6220.00	6220.00	MINPT-O-EQU
5348.85	43.28	5319.34	5305.57	194.19	OSF1.50	6240.00	6240.00	MinPt-O-ADP
5798.07	60.16	5757.30	5737.81	149.45	OSF1.50	9085.53	9085.53	MinPt-O-SF
2917.35	116.08	2839.29	2801.25	38.33	OSF1.50	14620.00	9600.00	MinPt-CtCt
2917.74	117.28	2838.88	2800.45	37.93	OSF1.50	14670.00	9600.00	MINPT-O-EQU
2918.14	117.76	2838.98	2800.38	37.78	OSF1.50	14690.00	9600.00	MinPt-O-ADP
2924.39	121.63	2842.64	2802.76	36.64	OSF1.50	14830.00	9600.00	MINPT-O-EQU
2925.20	122.61	2842.80	2802.59	36.35	OSF1.50	14870.00	9600.00	MinPt-O-ADP
2945.80	135.78	2854.64	2810.05	33.01	OSF1.50	15350.00	9600.00	MINPT-O-EQU
2942.21	145.05	2844.84	2797.15	30.83	OSF1.50	15660.00	9600.00	MinPt-CtCt
2944.59	152.38	2842.34	2792.21	29.35	OSF1.50	15910.00	9600.00	MINPT-O-EQU
2947.55	156.85	2842.33	2790.71	28.53	OSF1.50	16050.00	9600.00	MINPT-O-EQU
2953.86	166.00	2842.53	2787.86	27.00	OSF1.50	16330.00	9600.00	MINPT-O-EQU
2866.88	297.26	2568.05	2569.63	14.55	OSF1.50	19320.00	9600.00	MinPt-CtCt
2867.16	298.12	2667.76	2569.04	14.51	OSF1.50	19360.00	9600.00	MINPT-O-EQU
2867.51	298.53	2667.83	2568.98	14.49	OSF1.50	19380.00	9600.00	MinPt-O-ADP
2875.02	301.28	2673.51	2573.75	14.40	OSF1.50	19536.11	9600.00	MinPt-O-SF

Cimarex Gadwall 18 Federal 3H
Gyro + MWD Oft to 12138ft
(Def Survey)

Pass

6086.51	32.81	6084.53	6053.71	N/A	MAS = 10.00 (m)	0.00	0.00	Surface
6086.13	32.81	6084.09	6053.32	91339.81	MAS = 10.00 (m)	23.00	23.00	MinPt-O-SF
6085.42	32.81	6083.28	6052.67	28226.50	MAS = 10.00 (m)	110.00	110.00	MinPts
6085.98	32.81	6082.63	6053.18	4584.17	MAS = 10.00 (m)	340.00	340.00	MINPT-O-EQU
6095.50	32.81	6087.33	6062.69	983.73	MAS = 10.00 (m)	1230.00	1230.00	MinPt-O-SF
6093.77	32.81	6085.33	6060.98	944.35	MAS = 10.00 (m)	1360.00	1360.00	MinPt-O-SF
6058.88	32.81	6042.05	6026.07	409.05	MAS = 10.00 (m)	3270.00	3270.00	MinPts
6059.45	32.81	6041.77	6026.64	385.93	MAS = 10.00 (m)	3470.00	3470.00	MINPT-O-EQU
6104.11	44.85	6073.55	6059.26	213.50	OSF1.50	6180.00	6180.00	MINPT-O-EQU
6104.61	45.48	6073.63	6059.13	210.44	OSF1.50	6260.00	6260.00	MinPt-O-ADP
6334.42	63.82	6291.22	6270.60	153.59	OSF1.50	9085.53	9085.53	MinPt-O-SF
3459.55	129.89	3372.29	3329.66	40.55	OSF1.50	15120.00	9600.00	MinPt-CtCt
3460.32	132.01	3371.68	3328.31	39.90	OSF1.50	15210.00	9600.00	MINPT-O-EQU
3460.67	132.53	3371.68	3328.14	39.74	OSF1.50	15230.00	9600.00	MINPT-O-EQU
3382.24	212.74	3239.76	3169.51	24.06	OSF1.50	17350.00	9600.00	MinPt-CtCt
3378.12	232.73	3222.31	3145.39	21.95	OSF1.50	17810.00	9600.00	MinPt-CtCt
3379.39	237.70	3220.29	3141.69	21.49	OSF1.50	17960.00	9600.00	MINPT-O-EQU
3380.80	239.38	3220.55	3141.42	21.35	OSF1.50	18020.00	9600.00	MinPt-O-ADP
3400.91	261.48	3225.93	3139.43	19.65	OSF1.50	18440.00	9600.00	MinPt-CtCt
3360.07	298.51	3160.41	3061.57	16.99	OSF1.50	19260.00	9600.00	MinPt-CtCt
3360.26	299.10	3160.20	3061.15	16.95	OSF1.50	19300.00	9600.00	MINPT-O-EQU
3360.38	299.25	3160.22	3061.13	16.95	OSF1.50	19310.00	9600.00	MinPt-O-ADP
3371.02	301.82	3169.15	3069.20	16.85	OSF1.50	19536.11	9600.00	MinPt-O-SF

Cimarex Gadwall 18 Federal 4H
MWD Oft to 11719ft (Def
Survey)

Pass

6014.78	32.81	6012.80	5981.97	N/A	MAS = 10.00 (m)	0.00	0.00	Surface
6014.43	32.81	6012.39	5981.62	101472.12	MAS = 10.00 (m)	23.00	23.00	MinPt-O-SF
6013.92	32.81	6011.77	5981.11	35140.15	MAS = 10.00 (m)	100.00	100.00	MinPts
6014.27	32.81	6011.42	5981.46	6953.60	MAS = 10.00 (m)	250.00	250.00	MINPT-O-EQU
6015.22	32.81	6011.43	5982.41	3315.59	MAS = 10.00 (m)	450.00	450.00	MINPT-O-EQU
6034.28	32.81	6023.49	6001.45	683.78	MAS = 10.00 (m)	2010.00	2010.00	MinPts
6032.84	32.81	6019.42	6000.03	527.48	MAS = 10.00 (m)	2600.00	2600.00	MinPts
6032.52	32.81	6018.02	5999.72	481.53	MAS = 10.00 (m)	2840.00	2840.00	MinPts
6032.74	32.81	6017.81	5999.93	465.52	MAS = 10.00 (m)	2930.00	2930.00	MINPT-O-EQU
6032.84	32.81	6017.41	6000.03	448.44	MAS = 10.00 (m)	3040.00	3040.00	MinPts
6034.11	32.81	6016.67	6001.30	390.26	MAS = 10.00 (m)	3470.00	3470.00	MINPT-O-EQU
6034.76	32.81	6016.47	6001.95	369.79	MAS = 10.00 (m)	3660.00	3660.00	MINPT-O-EQU
6035.78	32.81	6016.40	6002.97	346.71	MAS = 10.00 (m)	3910.00	3910.00	MINPT-O-EQU
6037.12	32.81	6015.07	6004.31	299.62	MAS = 10.00 (m)	4510.00	4510.00	MINPT-O-EQU
6038.01	33.15	6015.25	6004.89	290.45	OSF1.50	4650.00	4650.00	MinPt-O-ADP
6466.16	59.48	6425.85	6406.68	168.64	OSF1.50	9085.53	9085.53	MinPt-O-SF
3903.12	129.92	3815.86	3773.22	45.74	OSF1.50	15100.00	9600.00	MinPt-CtCt
3904.18	132.38	3815.27	3771.80	44.89	OSF1.50	15200.00	9600.00	MINPT-O-EQU
3905.93	134.51	3815.60	3771.42	44.19	OSF1.50	15280.00	9600.00	MinPt-O-ADP
3887.12	166.08	3775.77	3721.07	35.51	OSF1.50	16160.00	9600.00	MinPt-CtCt
3889.56	172.47	3773.92	3717.08	34.20	OSF1.50	16370.00	9600.00	MINPT-O-EQU
3891.86	175.22	3774.39	3716.64	33.68	OSF1.50	16460.00	9600.00	MinPt-O-ADP
3854.76	255.10	3684.03	3599.65	22.83	OSF1.50	18290.00	9600.00	MinPt-CtCt
3856.25	259.58	3682.53	3596.69	22.45	OSF1.50	18440.00	9600.00	MINPT-O-EQU
3857.61	261.70	3682.43	3595.91	22.27	OSF1.50	18500.00	9600.00	MINPT-O-EQU
3863.77	269.21	3683.64	3584.53	21.68	OSF1.50	18700.00	9600.00	MinPt-O-ADP
3881.76	282.86	3692.53	3598.90	20.72	OSF1.50	19040.00	9600.00	MINPT-O-EQU
3881.88	328.12	3662.45	3553.74	17.84	OSF1.50	19330.00	9600.00	MinPt-CtCt
3882.08	328.71	3662.28	3553.36	17.81	OSF1.50	19370.00	9600.00	MINPT-O-EQU
3882.19	328.85	3662.30	3553.34	17.81	OSF1.50	19380.00	9600.00	MinPt-O-ADP
3887.38	330.81	3666.18	3556.57	17.72	OSF1.50	19536.11	9600.00	MinPt-O-SF

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

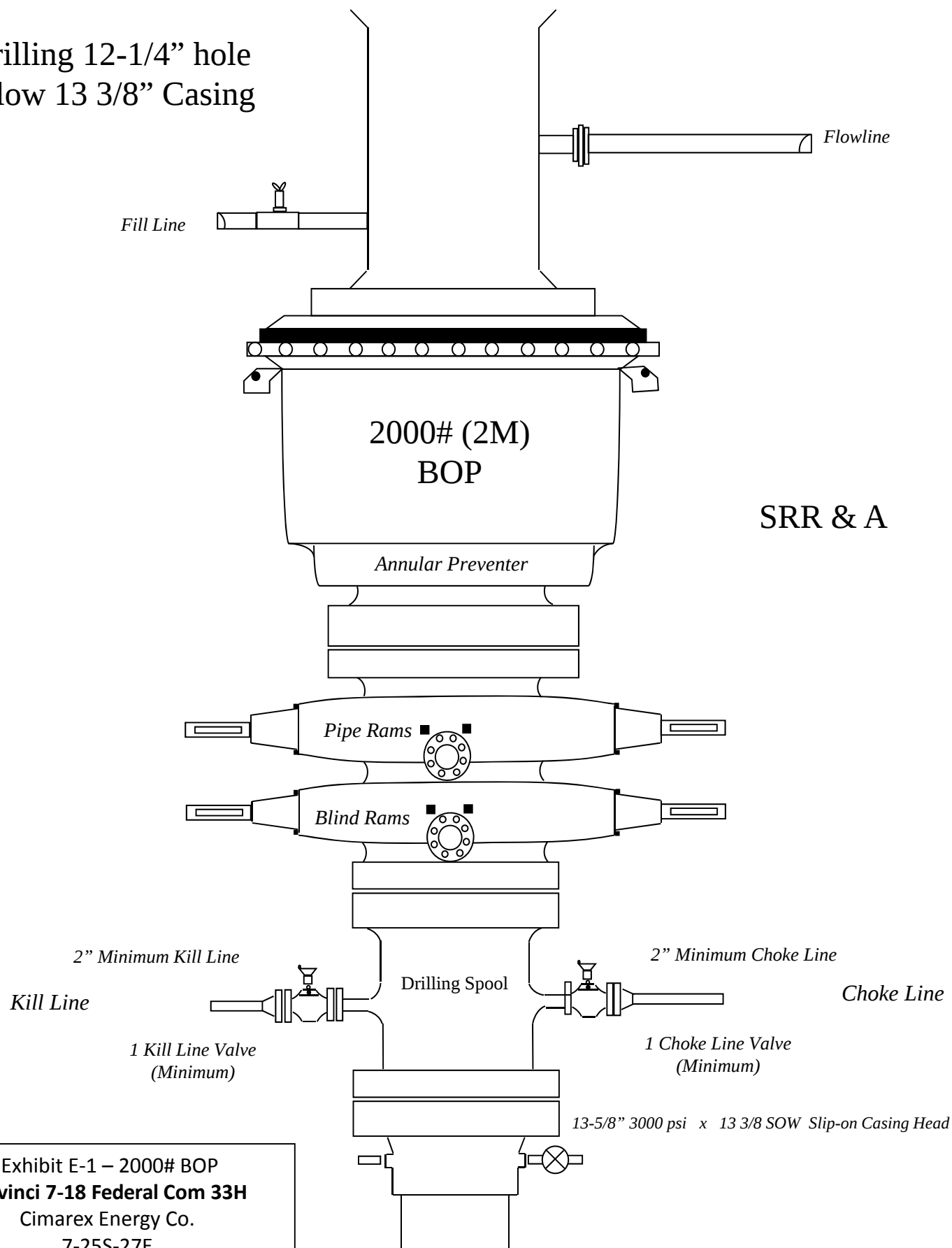


Exhibit E-1 – 2000# BOP
Davinci 7-18 Federal Com 33H
Cimarex Energy Co.
7-25S-27E
Eddy County, NM

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

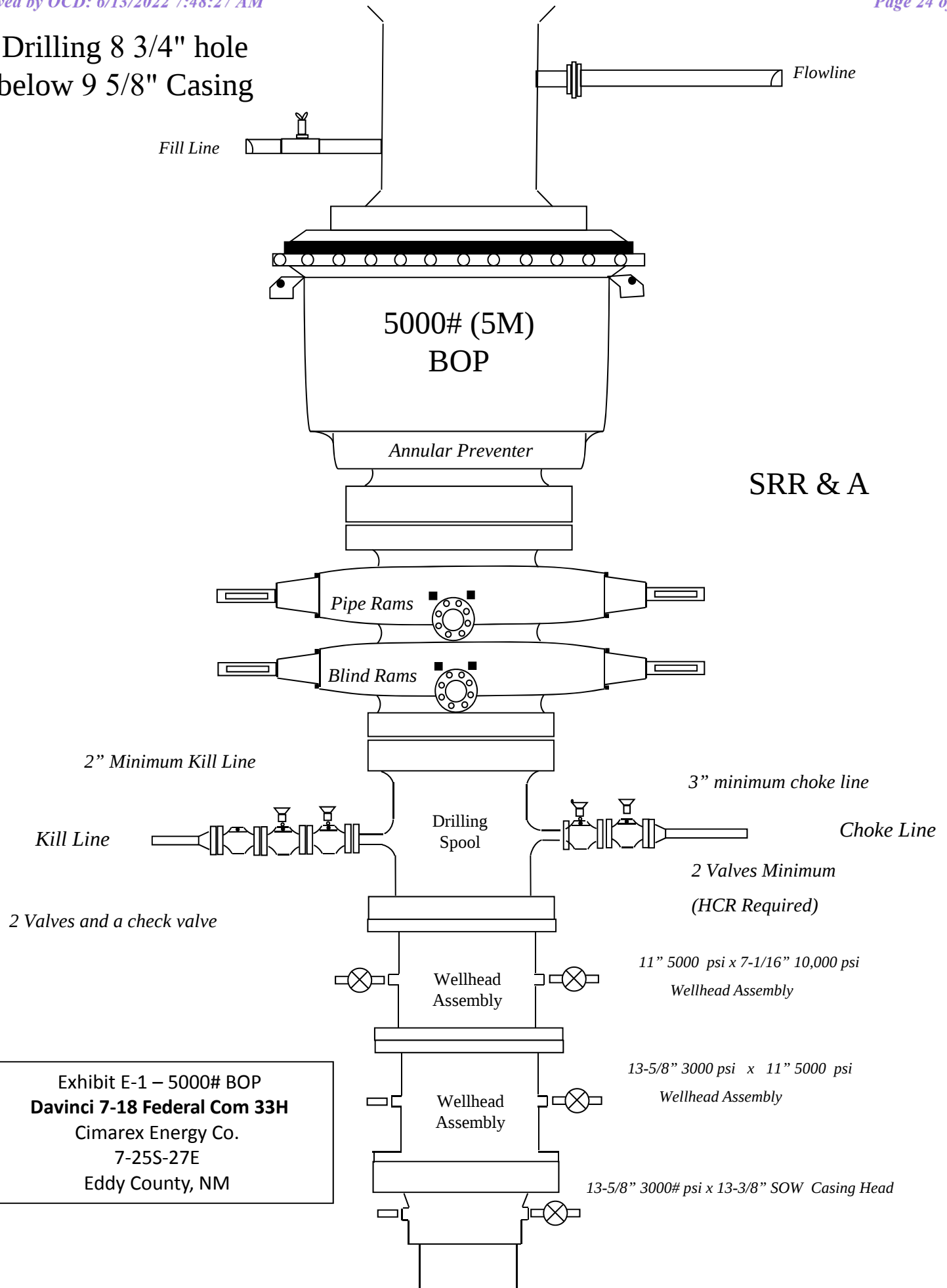


Exhibit E-1 – 5000# BOP
Davinci 7-18 Federal Com 33H
Cimarex Energy Co.
7-25S-27E
Eddy County, NM

Drilling 6" hole below 7"
Casing

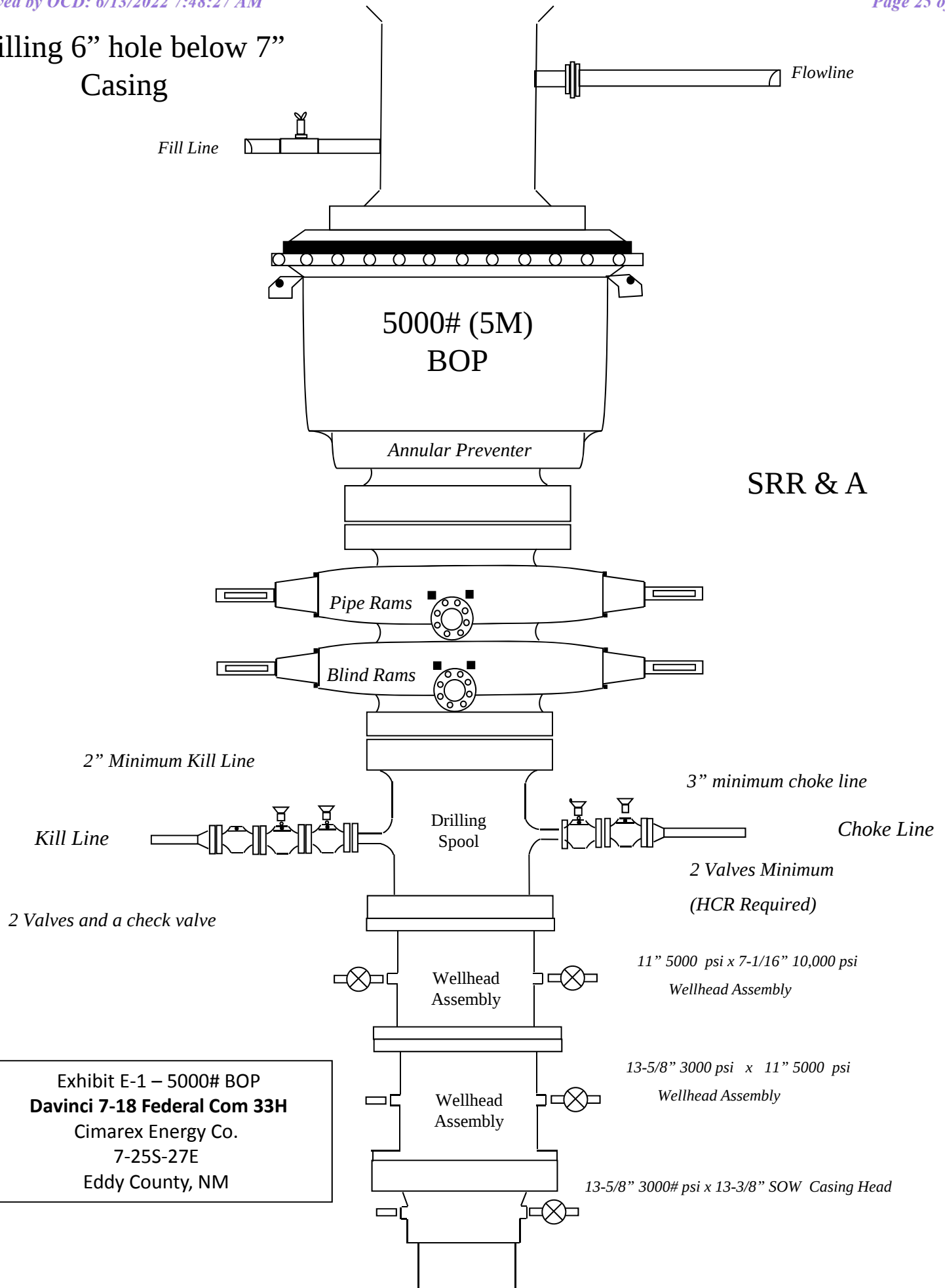


Exhibit E-1 – 5000# BOP
Davinci 7-18 Federal Com 33H
Cimarex Energy Co.
7-25S-27E
Eddy County, NM

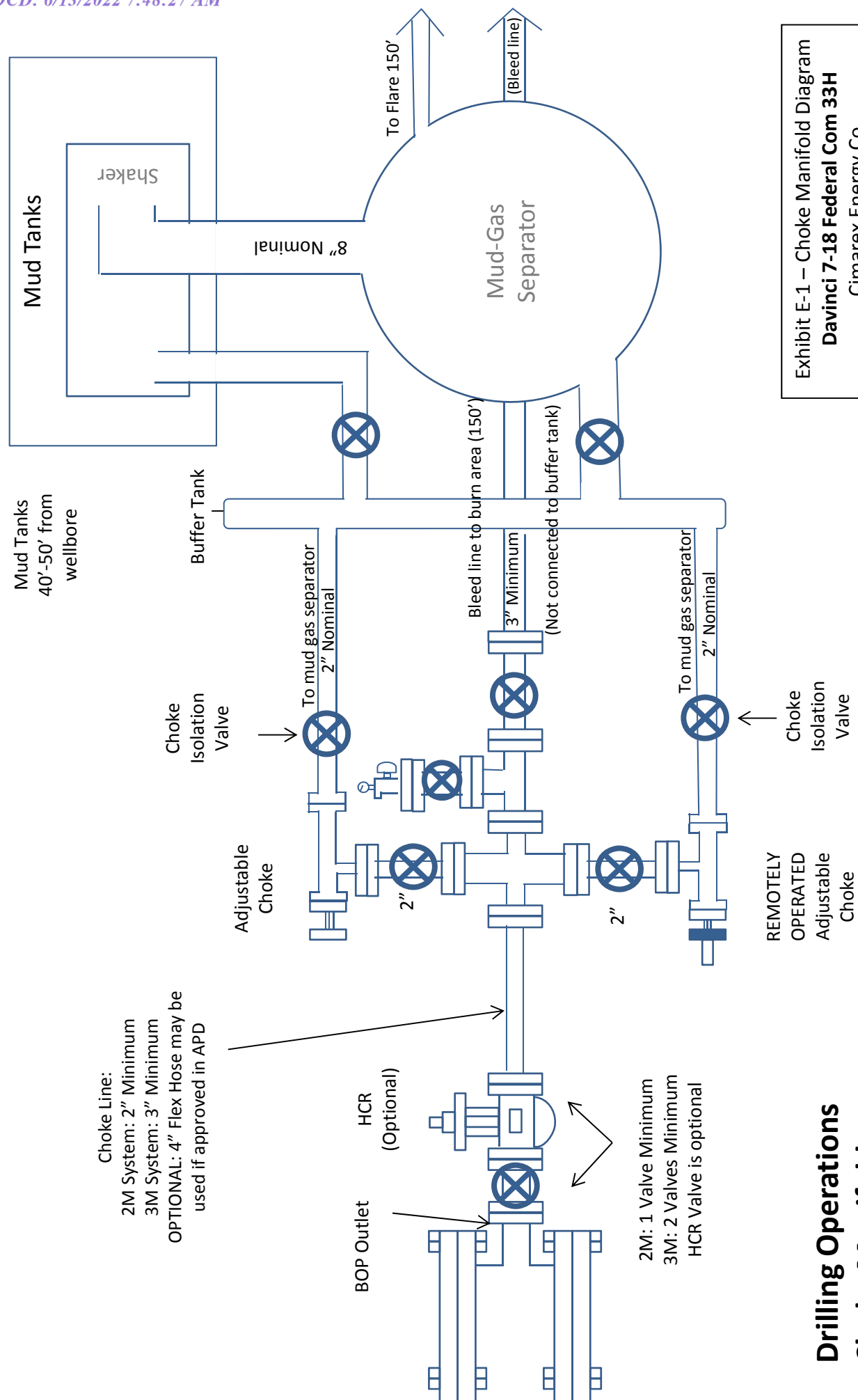
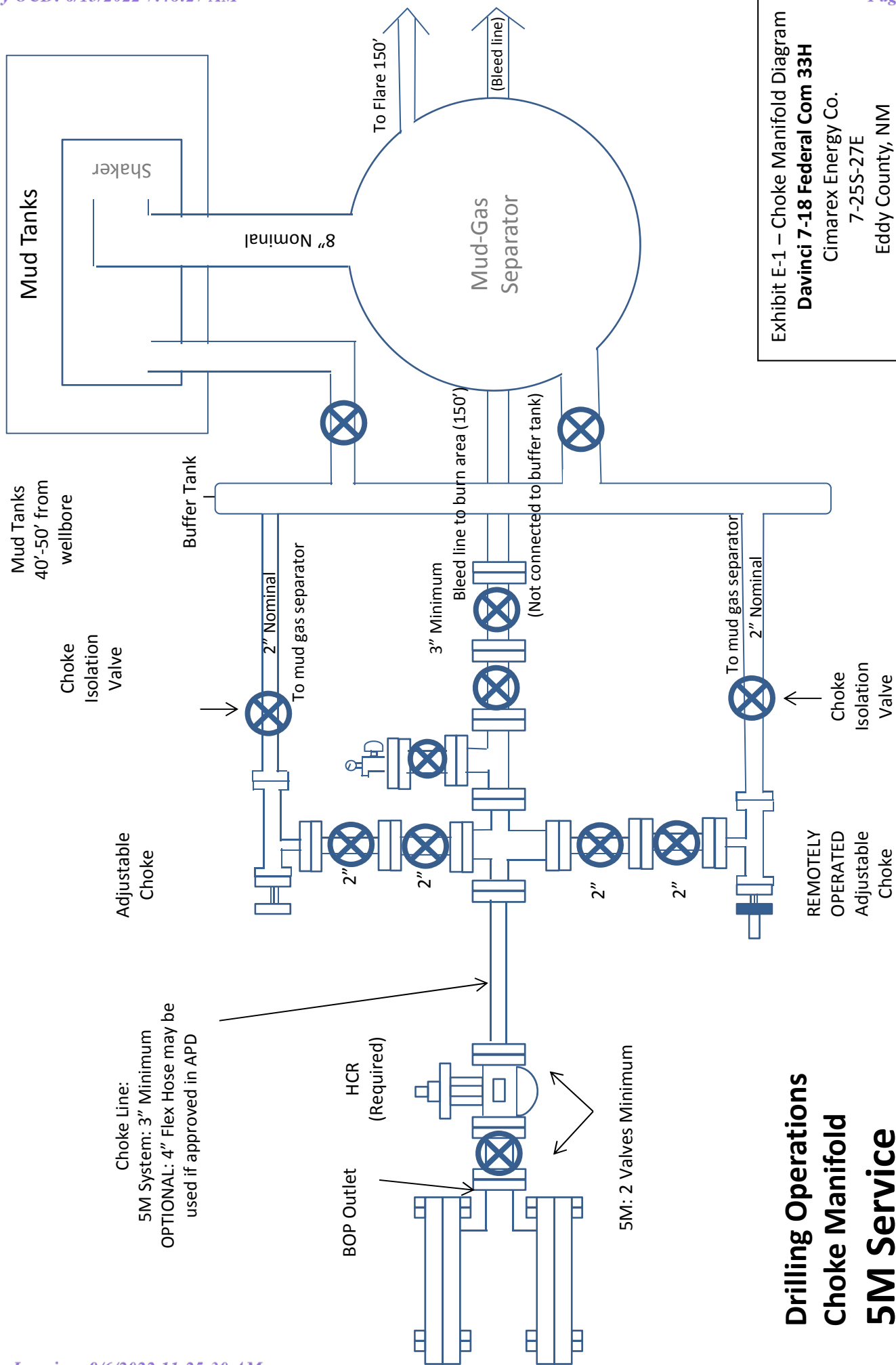


Exhibit E-1 — Choke Manifold Diagram
Davinci 7-18 Federal Com 33H
 Cimarex Energy Co.
 7-25S-27E
 Eddy County, NM

Drilling Operations Choke Manifold 2M/3M Service



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
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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

COMMENTS

Action 116102

COMMENTS

Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Midland, TX 79701	OGRID: 215099
	Action Number: 116102
	Action Type: [C-103] NOI Change of Plans (C-103A)

COMMENTS

Created By	Comment	Comment Date
jagarcia	Approved, John Garcia, Petroleum Engineer	9/6/2022

District I
1625 N. French Dr., Hobbs, NM 88240
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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

CONDITIONS

Action 116102

CONDITIONS

Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Midland, TX 79701	OGRID: 215099
	Action Number: 116102
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
jagarcia	None	9/6/2022