

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. **NMNM19858**
6. If Indian, Allottee or Tribe Name**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator **EOG RESOURCES INCORPORATED**3a. Address **1111 BAGBY SKY LOBBY 2, HOUSTON, TX 770** 3b. Phone No. (include area code)
(713) 651-70004. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEC 35/T24S/R33E/NMP

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

8. Well Name and No. **HAWK 35 FED/509H**9. API Well No. **3002548030**10. Field and Pool or Exploratory Area
Red Hills; Lower Bone Spring11. Country or Parish, State
LEA/NM**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

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

EOG respectfully requests an amendment to our approved APD for this well to reflect the following changes:

Hawk 35 Fed 509H API #: 30-025-48030

Change BHL from T-24-S, R-33-E, Sec 26, 100' FNL, 2405' FWL, Lea Co., NM,
to T-24-S, R-33-E, Sec 26, 100' FNL, 2400' FEL, Lea Co., N.M.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)
STAR HARRELL / Ph: (432) 848-9161Title **Regulatory Specialist**

Signature

Date

12/15/2022**THE SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

KEITH P IMMATTY / Ph: (575) 988-4722 / ApprovedTitle **ENGINEER**Date **12/28/2022**

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 **CARLSBAD**

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: SWSW / 696 FSL / 1265 FWL / TWSP: 24S / RANGE: 33E / SECTION: 35 / LAT: 32.1687426 / LONG: -103.54756 (TVD: 0 feet, MD: 0 feet)

PPP: SWSW / 100 FSL / 660 FWL / TWSP: 24S / RANGE: 33E / SECTION: 35 / LAT: 32.1671054 / LONG: -103.5495166 (TVD: 10526 feet, MD: 10579 feet)

BHL: NWNW / 100 FNL / 2405 FWL / TWSP: 24S / RANGE: 33E / SECTION: 26 / LAT: 32.1955753 / LONG: -103.549509 (TVD: 10791 feet, MD: 21038 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 30-025-48030	² Pool Code 51020	³ Pool Name Red Hills: Lower Bone Spring
⁴ Property Code 314178	⁵ Property Name HAWK 35 FED	⁶ Well Number 509H
⁷ OGRID No. 7377	⁸ Operator Name EOG RESOURCES, INC.	⁹ Elevation 3495'

¹⁰Surface Location

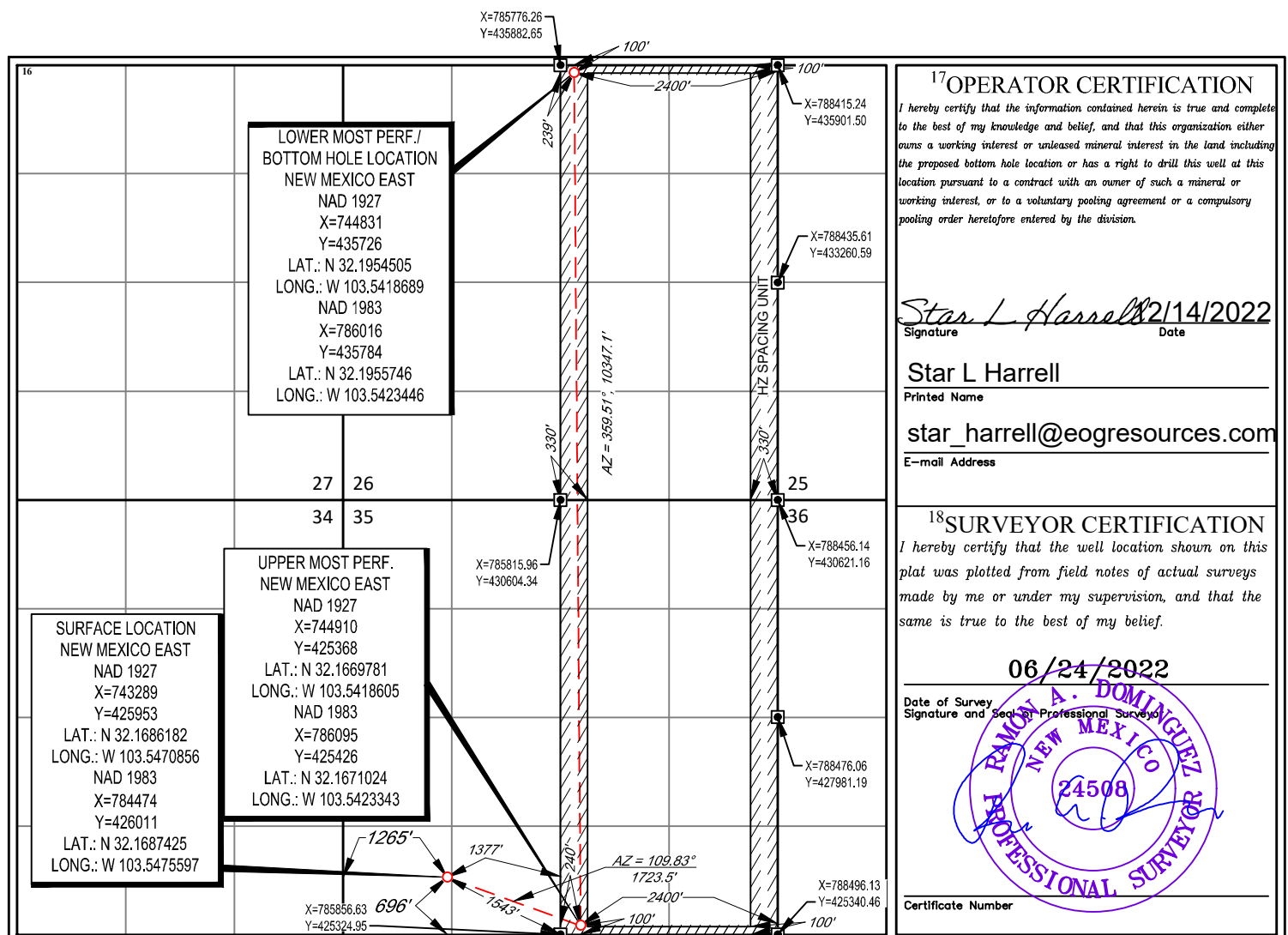
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	35	24-S	33-E	-	696'	SOUTH	1265'	WEST	LEA

¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	26	24-S	33-E	-	100'	NORTH	2400'	EAST	LEA

¹² Dedicated Acres 640.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.





Hawk 35 Fed 509H

Revised Permit Information 12/14/2022:

Well Name: Hawk 35 Fed 509H

Location: SHL: 696' FSL & 1265' FWL, Section 35, T-24-S, R-33-E, Lea Co., N.M.

BHL: 100' FNL & 2400' FEL, Section 26, T-24-S, R-33-E, Lea Co., N.M.

Casing Program A:

Hole Size	Interval MD		Interval TVD		Csg OD	Weight	Grade	Conn
	From (ft)	To (ft)	From (ft)	To (ft)				
16"	0	1,310	0	1,310	13-3/8"	54.5#	J-55	STC
11"	0	4,283	0	4,000	9-5/8"	40#	J-55	LTC
11"	4,283	5,563	4,000	5,280	9-5/8"	40#	HCK-55	LTC
6-3/4"	0	21,369	0	10,910	5-1/2"	17#	HCP-110	LTC

Variance is requested to waive the centralizer requirements for the 9-5/8" casing in the 11" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 11" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 5-1/2" casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement for the intermediate (salt) section from Onshore Order #2 under the following conditions:

- The variance is not applicable within the Potash Boundaries or Capitan Reef areas.
- Operator takes responsibility to get casing to set point in the event that the clearance causes stuck pipe issues.

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
1,310' 13-3/8"	400	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	100	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 1,110')
5,280' 9-5/8"	510	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	170	14.8	1.32	Tail: Class C + 10% NaCl + 3% MagOx (TOC @ 4,220')
21,369' 5-1/2"	370	11.0	3.21	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 4,780')
	750	13.2	1.52	Tail: Class H + 5% NEX-020 + 0.2% NAC-102 + 0.15% NAS-725 + 0.5% NFL-549 + 0.2% NFP-703 + 1% NBE-737 + 0.3% NRT-241 (TOC @ 10690')

**Hawk 35 Fed 509H**

Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

Mud Program:

Depth (TVD)	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,310'	Fresh - Gel	8.6-8.8	28-34	N/c
1,310' – 5,280'	Brine	8.6-8.8	28-34	N/c
5,280' – 21,369'	Oil Base	8.8-9.5	58-68	N/c - 6

Wellhead & Offline Cementing:

EOG Resources Inc. (EOG) respectfully requests a variance from the minimum standards for well control equipment testing of Onshore Order No. 2 (item III.A.2.a.i) to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) along with Batch Drilling & Offline cement operations to include the following:

- Full BOPE test at first installation on the pad.
- Full BOPE test every 21 days per Onshore Order No. 2.
- Function test BOP elements per Onshore Order No. 2.
- Break testing BOP and BOPE coupled with batch drilling operations and option to offline cement and/or remediate (if needed) any surface or intermediate sections, according to attached offline cementing support documentation.
- After the well section is secured, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad.
- TA cap will also be installed per Wellhead vendor procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.
- See attached "EOG BLM Variance 3a -Offline Cement Intermediate Operational Procedure"



696' FSL
1265' FWL
Section 35
T-24-S, R-33-E

Revised Wellbore A:

API: 30-025-48030

KB: 3520'
GL: 3495'

Bit Size: 16"
13-3/8", 54.5#, J-55, STC
@ 0' - 1,310'

Bit Size: 11"
9-5/8", 40#, J-55, LTC
@ 0' - 4,000'
9-5/8", 40#, HCK-55, LTC
@ 4,000' - 5,280'

Bit Size: 6-3/4"
5-1/2", 17#, HCP-110, LTC
@ 0' - 21,369'

KOP: 10,688' MD, 10,433' TVD
EOC: 11,438' MD, 10,910' TVD

TOC: 4,780'

Lateral: 21,369' MD, 10,910' TVD
Upper Most Perf:
100' FSL & 2400' FEL Sec. 35
Lower Most Perf:
100' FNL & 2400' FEL Sec. 26
BH Location: 100' FNL & 2400' FEL
Sec. 26
T-24-S R-33-E



Hawk 35 Fed 509H

Revised Permit Information 12/14/2022:

Well Name: Hawk 35 Fed 509H

Location: SHL: 696' FSL & 1265' FWL, Section 35, T-24-S, R-33-E, Lea Co., N.M.

BHL: 100' FNL & 2400' FEL, Section 26, T-24-S, R-33-E, Lea Co., N.M.

Casing Program B:

Hole Size	Interval MD		Interval TVD		Csg OD	Weight	Grade	Conn
	From (ft)	To (ft)	From (ft)	To (ft)				
13-1/2"	0	1,310	0	1,310	10-3/4"	40.5#	J-55	STC
9-7/8"	0	5,563	0	5,280	8-3/4"	38.5#	P110-EC	VAM Sprint-SF
6-3/4"	0	21,369	0	10,910	5-1/2"	17#	HCP-110	LTC

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
1,310' 10-3/4"	420	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	110	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 1,110')
5,280' 8-3/4"	380	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	900	14.8	1.32	Tail: Class C + 10% NaCl + 3% MagOx (TOC @ 4,220')
21,369' 5-1/2"	620	11.0	3.21	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 4,780')
	770	13.2	1.52	Tail: Class H + 5% NEX-020 + 0.2% NAC-102 + 0.15% NAS-725 + 0.5% NFL-549 + 0.2% NFP-703 + 1% NBE-737 + 0.3% NRT-241 (TOC @ 10690')



Hawk 35 Fed 509H

Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
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- Function test BOP elements per Onshore Order No. 2.
- Break testing BOP and BOPE coupled with batch drilling operations and option to offline cement and/or remediate (if needed) any surface or intermediate sections, according to attached offline cementing support documentation.
- After the well section is secured, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad.
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- See attached "EOG BLM Variance 3a -Offline Cement Intermediate Operational Procedure"



696'
1265'
Section 35
T-24-S, R-33-E

Revised Wellbore B:

API: 30-025-48030

KB: 3520'
GL: 3495'

Bit Size: 13-1/2"
10-3/4", 40.5#, J-55, STC
@ 0' - 1,310'

Bit Size: 9-7/8"
8-3/4", 38.5#, P110-EC, VAM Sprint-SF
@ 0' - 5,280'

TOC: 4,780'

5-1/2", 17.#, HCP-110, LTC
@ 0' - 21,369'

Lateral: 21,369' MD, 10,910' TVD
Upper Most Perf:
100' FSL & 2400' FEL Sec. 35
Lower Most Perf:
100' FNL & 2400' FEL Sec. 26
BH Location: 100' FNL & 2400' FEL
Sec. 26
T-24-S R-33-E

KOP: 10,688' MD, 10,433' TVD
EOC: 11,438' MD, 10,910' TVD



Midland

Lea County, NM (NAD 83 NME)

Hawk 35 Fed

#509H

76868

OH

Plan: Plan #1

Standard Planning Report

15 December, 2022





Planning Report



Database:	PEDM	Local Co-ordinate Reference:	Well #509H
Company:	Midland	TVD Reference:	kb = 26' @ 3521.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3521.0usft
Site:	Hawk 35 Fed	North Reference:	Grid
Well:	#509H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Hawk 35 Fed				
Site Position:		Northing:	430,092.00 usft	Latitude:	32° 10' 47.900 N
From:	Map	Easting:	783,830.00 usft	Longitude:	103° 32' 58.362 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	#509H					
Well Position	+N/-S	0.0 usft	Northing:	426,011.00 usft	Latitude:	32° 10' 7.471 N
	+E/-W	0.0 usft	Easting:	784,474.00 usft	Longitude:	103° 32' 51.216 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,495.0 usft
Grid Convergence:		0.42 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	12/24/2022	6.35	59.80	47,304.07983072

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	8.97	

Plan Survey Tool Program	Date	12/15/2022			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	21,369.1 Plan #1 (OH)	EOG MWD+IFR1		
			MWD + IFR1		



Planning Report



Database:	PEDM	Local Co-ordinate Reference:	Well #509H
Company:	Midland	TVD Reference:	kb = 26' @ 3521.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3521.0usft
Site:	Hawk 35 Fed	North Reference:	Grid
Well:	#509H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,280.7	17.61	111.39	2,266.9	-49.0	125.1	2.00	2.00	0.00	111.39	
7,146.0	17.61	111.39	6,904.1	-586.0	1,495.9	0.00	0.00	0.00	0.00	
8,026.7	0.00	0.00	7,771.0	-635.0	1,621.0	2.00	-2.00	0.00	180.00	
10,688.2	0.00	0.00	10,432.5	-635.0	1,621.0	0.00	0.00	0.00	0.00	KOP(Hawk 35 Fed #5
10,908.7	26.46	0.00	10,645.2	-585.0	1,621.0	12.00	12.00	0.00	0.00	FTP(Hawk 35 Fed #5
11,438.2	90.00	359.56	10,909.9	-157.5	1,618.7	12.00	12.00	-0.08	-0.49	
21,369.1	90.00	359.56	10,910.0	9,773.0	1,542.0	0.00	0.00	0.00	0.00	PBHL(Hawk 35 Fed #



Planning Report



Database:	PEDM	Local Co-ordinate Reference:	Well #509H
Company:	Midland	TVD Reference:	kb = 26' @ 3521.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3521.0usft
Site:	Hawk 35 Fed	North Reference:	Grid
Well:	#509H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	2.00	111.39	1,500.0	-0.6	1.6	-0.4	2.00	2.00	0.00
1,600.0	4.00	111.39	1,599.8	-2.5	6.5	-1.5	2.00	2.00	0.00
1,700.0	6.00	111.39	1,699.5	-5.7	14.6	-3.4	2.00	2.00	0.00
1,800.0	8.00	111.39	1,798.7	-10.2	26.0	-6.0	2.00	2.00	0.00
1,900.0	10.00	111.39	1,897.5	-15.9	40.5	-9.4	2.00	2.00	0.00
2,000.0	12.00	111.39	1,995.6	-22.8	58.3	-13.5	2.00	2.00	0.00
2,100.0	14.00	111.39	2,093.1	-31.0	79.2	-18.3	2.00	2.00	0.00
2,200.0	16.00	111.39	2,189.6	-40.5	103.3	-23.9	2.00	2.00	0.00
2,280.7	17.61	111.39	2,266.9	-49.0	125.1	-28.9	2.00	2.00	0.00
2,300.0	17.61	111.39	2,285.3	-51.1	130.5	-30.2	0.00	0.00	0.00
2,400.0	17.61	111.39	2,380.6	-62.2	158.7	-36.7	0.00	0.00	0.00
2,500.0	17.61	111.39	2,475.9	-73.2	186.8	-43.2	0.00	0.00	0.00
2,600.0	17.61	111.39	2,571.2	-84.2	215.0	-49.7	0.00	0.00	0.00
2,700.0	17.61	111.39	2,666.5	-95.3	243.2	-56.2	0.00	0.00	0.00
2,800.0	17.61	111.39	2,761.8	-106.3	271.4	-62.7	0.00	0.00	0.00
2,900.0	17.61	111.39	2,857.2	-117.3	299.6	-69.2	0.00	0.00	0.00
3,000.0	17.61	111.39	2,952.5	-128.4	327.7	-75.7	0.00	0.00	0.00
3,100.0	17.61	111.39	3,047.8	-139.4	355.9	-82.2	0.00	0.00	0.00
3,200.0	17.61	111.39	3,143.1	-150.5	384.1	-88.8	0.00	0.00	0.00
3,300.0	17.61	111.39	3,238.4	-161.5	412.3	-95.3	0.00	0.00	0.00
3,400.0	17.61	111.39	3,333.7	-172.5	440.4	-101.8	0.00	0.00	0.00
3,500.0	17.61	111.39	3,429.0	-183.6	468.6	-108.3	0.00	0.00	0.00
3,600.0	17.61	111.39	3,524.3	-194.6	496.8	-114.8	0.00	0.00	0.00
3,700.0	17.61	111.39	3,619.6	-205.6	525.0	-121.3	0.00	0.00	0.00
3,800.0	17.61	111.39	3,715.0	-216.7	553.1	-127.8	0.00	0.00	0.00
3,900.0	17.61	111.39	3,810.3	-227.7	581.3	-134.3	0.00	0.00	0.00
4,000.0	17.61	111.39	3,905.6	-238.8	609.5	-140.9	0.00	0.00	0.00
4,100.0	17.61	111.39	4,000.9	-249.8	637.7	-147.4	0.00	0.00	0.00
4,200.0	17.61	111.39	4,096.2	-260.8	665.9	-153.9	0.00	0.00	0.00
4,300.0	17.61	111.39	4,191.5	-271.9	694.0	-160.4	0.00	0.00	0.00
4,400.0	17.61	111.39	4,286.8	-282.9	722.2	-166.9	0.00	0.00	0.00
4,500.0	17.61	111.39	4,382.1	-293.9	750.4	-173.4	0.00	0.00	0.00
4,600.0	17.61	111.39	4,477.4	-305.0	778.6	-179.9	0.00	0.00	0.00
4,700.0	17.61	111.39	4,572.8	-316.0	806.7	-186.4	0.00	0.00	0.00
4,800.0	17.61	111.39	4,668.1	-327.1	834.9	-192.9	0.00	0.00	0.00
4,900.0	17.61	111.39	4,763.4	-338.1	863.1	-199.5	0.00	0.00	0.00
5,000.0	17.61	111.39	4,858.7	-349.1	891.3	-206.0	0.00	0.00	0.00
5,100.0	17.61	111.39	4,954.0	-360.2	919.4	-212.5	0.00	0.00	0.00
5,200.0	17.61	111.39	5,049.3	-371.2	947.6	-219.0	0.00	0.00	0.00



Planning Report



Database:	PEDM	Local Co-ordinate Reference:	Well #509H
Company:	Midland	TVD Reference:	kb = 26' @ 3521.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3521.0usft
Site:	Hawk 35 Fed	North Reference:	Grid
Well:	#509H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	17.61	111.39	5,144.6	-382.3	975.8	-225.5	0.00	0.00	0.00
5,400.0	17.61	111.39	5,239.9	-393.3	1,004.0	-232.0	0.00	0.00	0.00
5,500.0	17.61	111.39	5,335.3	-404.3	1,032.1	-238.5	0.00	0.00	0.00
5,600.0	17.61	111.39	5,430.6	-415.4	1,060.3	-245.0	0.00	0.00	0.00
5,700.0	17.61	111.39	5,525.9	-426.4	1,088.5	-251.5	0.00	0.00	0.00
5,800.0	17.61	111.39	5,621.2	-437.4	1,116.7	-258.1	0.00	0.00	0.00
5,900.0	17.61	111.39	5,716.5	-448.5	1,144.9	-264.6	0.00	0.00	0.00
6,000.0	17.61	111.39	5,811.8	-459.5	1,173.0	-271.1	0.00	0.00	0.00
6,100.0	17.61	111.39	5,907.1	-470.6	1,201.2	-277.6	0.00	0.00	0.00
6,200.0	17.61	111.39	6,002.4	-481.6	1,229.4	-284.1	0.00	0.00	0.00
6,300.0	17.61	111.39	6,097.7	-492.6	1,257.6	-290.6	0.00	0.00	0.00
6,400.0	17.61	111.39	6,193.1	-503.7	1,285.7	-297.1	0.00	0.00	0.00
6,500.0	17.61	111.39	6,288.4	-514.7	1,313.9	-303.6	0.00	0.00	0.00
6,600.0	17.61	111.39	6,383.7	-525.7	1,342.1	-310.1	0.00	0.00	0.00
6,700.0	17.61	111.39	6,479.0	-536.8	1,370.3	-316.7	0.00	0.00	0.00
6,800.0	17.61	111.39	6,574.3	-547.8	1,398.4	-323.2	0.00	0.00	0.00
6,900.0	17.61	111.39	6,669.6	-558.9	1,426.6	-329.7	0.00	0.00	0.00
7,000.0	17.61	111.39	6,764.9	-569.9	1,454.8	-336.2	0.00	0.00	0.00
7,100.0	17.61	111.39	6,860.2	-580.9	1,483.0	-342.7	0.00	0.00	0.00
7,146.0	17.61	111.39	6,904.1	-586.0	1,495.9	-345.7	0.00	0.00	0.00
7,200.0	16.53	111.39	6,955.7	-591.8	1,510.7	-349.1	2.00	-2.00	0.00
7,300.0	14.53	111.39	7,052.0	-601.6	1,535.6	-354.9	2.00	-2.00	0.00
7,400.0	12.53	111.39	7,149.3	-610.1	1,557.4	-359.9	2.00	-2.00	0.00
7,500.0	10.53	111.39	7,247.2	-617.4	1,576.0	-364.2	2.00	-2.00	0.00
7,600.0	8.53	111.39	7,345.8	-623.4	1,591.5	-367.8	2.00	-2.00	0.00
7,700.0	6.53	111.39	7,445.0	-628.2	1,603.7	-370.6	2.00	-2.00	0.00
7,800.0	4.53	111.39	7,544.5	-631.7	1,612.7	-372.7	2.00	-2.00	0.00
7,900.0	2.53	111.39	7,644.3	-634.0	1,618.4	-374.0	2.00	-2.00	0.00
8,000.0	0.53	111.39	7,744.3	-635.0	1,620.9	-374.6	2.00	-2.00	0.00
8,026.7	0.00	0.00	7,771.0	-635.0	1,621.0	-374.6	2.00	-2.00	0.00
8,100.0	0.00	0.00	7,844.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
8,200.0	0.00	0.00	7,944.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
8,300.0	0.00	0.00	8,044.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
8,400.0	0.00	0.00	8,144.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
8,500.0	0.00	0.00	8,244.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
8,600.0	0.00	0.00	8,344.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
8,700.0	0.00	0.00	8,444.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
8,800.0	0.00	0.00	8,544.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
8,900.0	0.00	0.00	8,644.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
9,000.0	0.00	0.00	8,744.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
9,100.0	0.00	0.00	8,844.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
9,200.0	0.00	0.00	8,944.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
9,300.0	0.00	0.00	9,044.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
9,400.0	0.00	0.00	9,144.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
9,500.0	0.00	0.00	9,244.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
9,600.0	0.00	0.00	9,344.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
9,700.0	0.00	0.00	9,444.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
9,800.0	0.00	0.00	9,544.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
9,900.0	0.00	0.00	9,644.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
10,000.0	0.00	0.00	9,744.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
10,100.0	0.00	0.00	9,844.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
10,200.0	0.00	0.00	9,944.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
10,300.0	0.00	0.00	10,044.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
10,400.0	0.00	0.00	10,144.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00



Planning Report



Database:	PEDM	Local Co-ordinate Reference:	Well #509H
Company:	Midland	TVD Reference:	kb = 26' @ 3521.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3521.0usft
Site:	Hawk 35 Fed	North Reference:	Grid
Well:	#509H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,500.0	0.00	0.00	10,244.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
10,600.0	0.00	0.00	10,344.3	-635.0	1,621.0	-374.6	0.00	0.00	0.00
10,688.2	0.00	0.00	10,432.5	-635.0	1,621.0	-374.6	0.00	0.00	0.00
10,700.0	1.41	0.00	10,444.3	-634.9	1,621.0	-374.5	12.00	12.00	0.00
10,725.0	4.41	0.00	10,469.2	-633.6	1,621.0	-373.2	12.00	12.00	0.00
10,750.0	7.41	0.00	10,494.1	-631.0	1,621.0	-370.7	12.00	12.00	0.00
10,775.0	10.41	0.00	10,518.8	-627.1	1,621.0	-366.8	12.00	12.00	0.00
10,800.0	13.41	0.00	10,543.2	-622.0	1,621.0	-361.7	12.00	12.00	0.00
10,825.0	16.41	0.00	10,567.4	-615.5	1,621.0	-355.4	12.00	12.00	0.00
10,850.0	19.41	0.00	10,591.2	-607.9	1,621.0	-347.8	12.00	12.00	0.00
10,875.0	22.41	0.00	10,614.5	-598.9	1,621.0	-339.0	12.00	12.00	0.00
10,900.0	25.41	0.00	10,637.4	-588.8	1,621.0	-329.0	12.00	12.00	0.00
10,908.7	26.46	0.00	10,645.2	-585.0	1,621.0	-325.2	12.00	12.00	0.00
10,925.0	28.41	359.96	10,659.7	-577.5	1,621.0	-317.8	12.00	12.00	-0.22
10,950.0	31.41	359.92	10,681.3	-565.0	1,621.0	-305.5	12.00	12.00	-0.19
10,975.0	34.41	359.88	10,702.3	-551.4	1,621.0	-292.1	12.00	12.00	-0.16
11,000.0	37.41	359.85	10,722.6	-536.8	1,620.9	-277.6	12.00	12.00	-0.13
11,025.0	40.41	359.82	10,742.0	-521.1	1,620.9	-262.1	12.00	12.00	-0.12
11,050.0	43.41	359.79	10,760.6	-504.4	1,620.8	-245.6	12.00	12.00	-0.10
11,075.0	46.41	359.77	10,778.3	-486.7	1,620.8	-228.2	12.00	12.00	-0.09
11,100.0	49.41	359.75	10,795.1	-468.2	1,620.7	-209.9	12.00	12.00	-0.08
11,125.0	52.41	359.73	10,810.8	-448.8	1,620.6	-190.7	12.00	12.00	-0.08
11,150.0	55.41	359.71	10,825.6	-428.6	1,620.5	-170.8	12.00	12.00	-0.07
11,175.0	58.41	359.69	10,839.2	-407.6	1,620.4	-150.1	12.00	12.00	-0.07
11,200.0	61.41	359.68	10,851.7	-386.0	1,620.3	-128.8	12.00	12.00	-0.06
11,225.0	64.41	359.66	10,863.1	-363.7	1,620.1	-106.8	12.00	12.00	-0.06
11,250.0	67.41	359.65	10,873.3	-340.9	1,620.0	-84.3	12.00	12.00	-0.06
11,275.0	70.41	359.64	10,882.3	-317.6	1,619.8	-61.3	12.00	12.00	-0.05
11,300.0	73.41	359.62	10,890.1	-293.8	1,619.7	-37.8	12.00	12.00	-0.05
11,325.0	76.41	359.61	10,896.6	-269.7	1,619.5	-14.0	12.00	12.00	-0.05
11,350.0	79.41	359.60	10,901.8	-245.3	1,619.4	10.1	12.00	12.00	-0.05
11,375.0	82.41	359.59	10,905.8	-220.6	1,619.2	34.5	12.00	12.00	-0.05
11,400.0	85.41	359.58	10,908.4	-195.7	1,619.0	59.0	12.00	12.00	-0.05
11,425.0	88.41	359.56	10,909.8	-170.8	1,618.8	83.6	12.00	12.00	-0.05
11,438.2	90.00	359.56	10,909.9	-157.5	1,618.7	96.7	12.00	12.00	-0.05
11,500.0	90.00	359.56	10,909.9	-95.8	1,618.2	157.6	0.00	0.00	0.00
11,600.0	90.00	359.56	10,909.9	4.2	1,617.5	256.3	0.00	0.00	0.00
11,700.0	90.00	359.56	10,909.9	104.2	1,616.7	354.9	0.00	0.00	0.00
11,800.0	90.00	359.56	10,909.9	204.2	1,615.9	453.6	0.00	0.00	0.00
11,900.0	90.00	359.56	10,909.9	304.2	1,615.1	552.2	0.00	0.00	0.00
12,000.0	90.00	359.56	10,909.9	404.2	1,614.4	650.9	0.00	0.00	0.00
12,100.0	90.00	359.56	10,909.9	504.2	1,613.6	749.5	0.00	0.00	0.00
12,200.0	90.00	359.56	10,910.0	604.2	1,612.8	848.2	0.00	0.00	0.00
12,300.0	90.00	359.56	10,910.0	704.2	1,612.1	946.9	0.00	0.00	0.00
12,400.0	90.00	359.56	10,910.0	804.2	1,611.3	1,045.5	0.00	0.00	0.00
12,500.0	90.00	359.56	10,910.0	904.2	1,610.5	1,144.2	0.00	0.00	0.00
12,600.0	90.00	359.56	10,910.0	1,004.2	1,609.7	1,242.8	0.00	0.00	0.00
12,700.0	90.00	359.56	10,910.0	1,104.2	1,609.0	1,341.5	0.00	0.00	0.00
12,800.0	90.00	359.56	10,910.0	1,204.2	1,608.2	1,440.1	0.00	0.00	0.00
12,900.0	90.00	359.56	10,910.0	1,304.2	1,607.4	1,538.8	0.00	0.00	0.00
13,000.0	90.00	359.56	10,910.0	1,404.2	1,606.7	1,637.4	0.00	0.00	0.00
13,100.0	90.00	359.56	10,910.0	1,504.2	1,605.9	1,736.1	0.00	0.00	0.00
13,200.0	90.00	359.56	10,910.0	1,604.2	1,605.1	1,834.7	0.00	0.00	0.00
13,300.0	90.00	359.56	10,910.0	1,704.2	1,604.3	1,933.4	0.00	0.00	0.00



Planning Report



Database:	PEDM	Local Co-ordinate Reference:	Well #509H
Company:	Midland	TVD Reference:	kb = 26' @ 3521.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3521.0usft
Site:	Hawk 35 Fed	North Reference:	Grid
Well:	#509H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,400.0	90.00	359.56	10,910.0	1,804.2	1,603.6	2,032.1	0.00	0.00	0.00
13,500.0	90.00	359.56	10,910.0	1,904.2	1,602.8	2,130.7	0.00	0.00	0.00
13,600.0	90.00	359.56	10,910.0	2,004.2	1,602.0	2,229.4	0.00	0.00	0.00
13,700.0	90.00	359.56	10,910.0	2,104.2	1,601.2	2,328.0	0.00	0.00	0.00
13,800.0	90.00	359.56	10,910.0	2,204.2	1,600.5	2,426.7	0.00	0.00	0.00
13,900.0	90.00	359.56	10,910.0	2,304.2	1,599.7	2,525.3	0.00	0.00	0.00
14,000.0	90.00	359.56	10,910.0	2,404.2	1,598.9	2,624.0	0.00	0.00	0.00
14,100.0	90.00	359.56	10,910.0	2,504.2	1,598.2	2,722.6	0.00	0.00	0.00
14,200.0	90.00	359.56	10,910.0	2,604.2	1,597.4	2,821.3	0.00	0.00	0.00
14,300.0	90.00	359.56	10,910.0	2,704.2	1,596.6	2,919.9	0.00	0.00	0.00
14,400.0	90.00	359.56	10,910.0	2,804.2	1,595.8	3,018.6	0.00	0.00	0.00
14,500.0	90.00	359.56	10,910.0	2,904.1	1,595.1	3,117.3	0.00	0.00	0.00
14,600.0	90.00	359.56	10,910.0	3,004.1	1,594.3	3,215.9	0.00	0.00	0.00
14,700.0	90.00	359.56	10,910.0	3,104.1	1,593.5	3,314.6	0.00	0.00	0.00
14,800.0	90.00	359.56	10,910.0	3,204.1	1,592.7	3,413.2	0.00	0.00	0.00
14,900.0	90.00	359.56	10,910.0	3,304.1	1,592.0	3,511.9	0.00	0.00	0.00
15,000.0	90.00	359.56	10,910.0	3,404.1	1,591.2	3,610.5	0.00	0.00	0.00
15,100.0	90.00	359.56	10,910.0	3,504.1	1,590.4	3,709.2	0.00	0.00	0.00
15,200.0	90.00	359.56	10,910.0	3,604.1	1,589.7	3,807.8	0.00	0.00	0.00
15,300.0	90.00	359.56	10,910.0	3,704.1	1,588.9	3,906.5	0.00	0.00	0.00
15,400.0	90.00	359.56	10,910.0	3,804.1	1,588.1	4,005.1	0.00	0.00	0.00
15,500.0	90.00	359.56	10,910.0	3,904.1	1,587.3	4,103.8	0.00	0.00	0.00
15,600.0	90.00	359.56	10,910.0	4,004.1	1,586.6	4,202.5	0.00	0.00	0.00
15,700.0	90.00	359.56	10,910.0	4,104.1	1,585.8	4,301.1	0.00	0.00	0.00
15,800.0	90.00	359.56	10,910.0	4,204.1	1,585.0	4,399.8	0.00	0.00	0.00
15,900.0	90.00	359.56	10,910.0	4,304.1	1,584.2	4,498.4	0.00	0.00	0.00
16,000.0	90.00	359.56	10,910.0	4,404.1	1,583.5	4,597.1	0.00	0.00	0.00
16,100.0	90.00	359.56	10,910.0	4,504.1	1,582.7	4,695.7	0.00	0.00	0.00
16,200.0	90.00	359.56	10,910.0	4,604.1	1,581.9	4,794.4	0.00	0.00	0.00
16,300.0	90.00	359.56	10,910.0	4,704.1	1,581.2	4,893.0	0.00	0.00	0.00
16,400.0	90.00	359.56	10,910.0	4,804.1	1,580.4	4,991.7	0.00	0.00	0.00
16,500.0	90.00	359.56	10,910.0	4,904.1	1,579.6	5,090.4	0.00	0.00	0.00
16,600.0	90.00	359.56	10,910.0	5,004.1	1,578.8	5,189.0	0.00	0.00	0.00
16,700.0	90.00	359.56	10,910.0	5,104.1	1,578.1	5,287.7	0.00	0.00	0.00
16,800.0	90.00	359.56	10,910.0	5,204.1	1,577.3	5,386.3	0.00	0.00	0.00
16,900.0	90.00	359.56	10,910.0	5,304.1	1,576.5	5,485.0	0.00	0.00	0.00
17,000.0	90.00	359.56	10,910.0	5,404.1	1,575.8	5,583.6	0.00	0.00	0.00
17,100.0	90.00	359.56	10,910.0	5,504.1	1,575.0	5,682.3	0.00	0.00	0.00
17,200.0	90.00	359.56	10,910.0	5,604.1	1,574.2	5,780.9	0.00	0.00	0.00
17,300.0	90.00	359.56	10,910.0	5,704.1	1,573.4	5,879.6	0.00	0.00	0.00
17,400.0	90.00	359.56	10,910.0	5,804.1	1,572.7	5,978.2	0.00	0.00	0.00
17,500.0	90.00	359.56	10,910.0	5,904.1	1,571.9	6,076.9	0.00	0.00	0.00
17,600.0	90.00	359.56	10,910.0	6,004.1	1,571.1	6,175.6	0.00	0.00	0.00
17,700.0	90.00	359.56	10,910.0	6,104.1	1,570.3	6,274.2	0.00	0.00	0.00
17,800.0	90.00	359.56	10,910.0	6,204.1	1,569.6	6,372.9	0.00	0.00	0.00
17,900.0	90.00	359.56	10,910.0	6,304.0	1,568.8	6,471.5	0.00	0.00	0.00
18,000.0	90.00	359.56	10,910.0	6,404.0	1,568.0	6,570.2	0.00	0.00	0.00
18,100.0	90.00	359.56	10,910.0	6,504.0	1,567.3	6,668.8	0.00	0.00	0.00
18,200.0	90.00	359.56	10,910.0	6,604.0	1,566.5	6,767.5	0.00	0.00	0.00
18,300.0	90.00	359.56	10,910.0	6,704.0	1,565.7	6,866.1	0.00	0.00	0.00
18,400.0	90.00	359.56	10,910.0	6,804.0	1,564.9	6,964.8	0.00	0.00	0.00
18,500.0	90.00	359.56	10,910.0	6,904.0	1,564.2	7,063.4	0.00	0.00	0.00
18,600.0	90.00	359.56	10,910.0	7,004.0	1,563.4	7,162.1	0.00	0.00	0.00
18,700.0	90.00	359.56	10,910.0	7,104.0	1,562.6	7,260.8	0.00	0.00	0.00



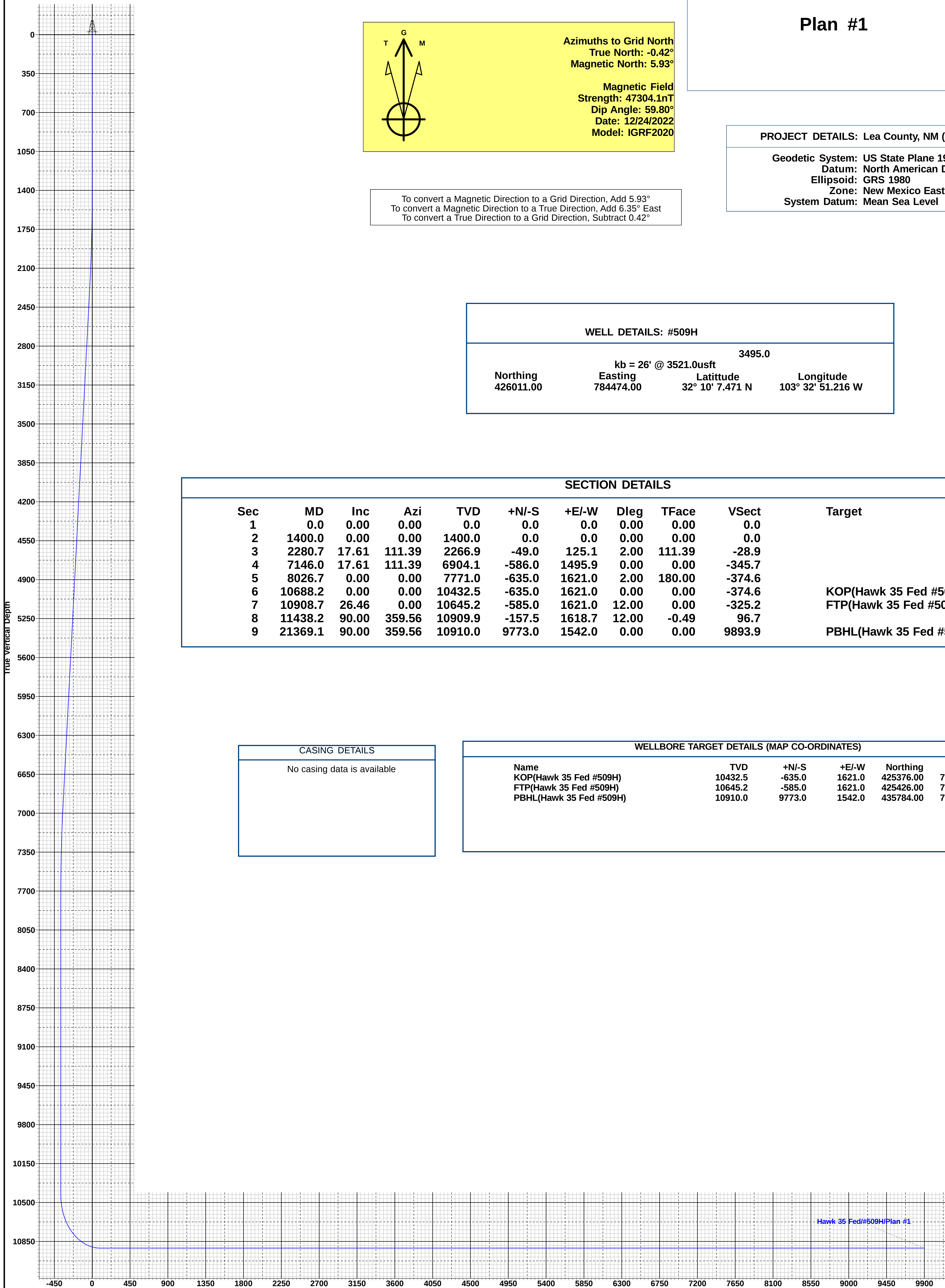
Planning Report



Database:	PEDM	Local Co-ordinate Reference:	Well #509H
Company:	Midland	TVD Reference:	kb = 26' @ 3521.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	kb = 26' @ 3521.0usft
Site:	Hawk 35 Fed	North Reference:	Grid
Well:	#509H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
18,800.0	90.00	359.56	10,910.0	7,204.0	1,561.8	7,359.4	0.00	0.00	0.00	
18,900.0	90.00	359.56	10,910.0	7,304.0	1,561.1	7,458.1	0.00	0.00	0.00	
19,000.0	90.00	359.56	10,910.0	7,404.0	1,560.3	7,556.7	0.00	0.00	0.00	
19,100.0	90.00	359.56	10,910.0	7,504.0	1,559.5	7,655.4	0.00	0.00	0.00	
19,200.0	90.00	359.56	10,910.0	7,604.0	1,558.8	7,754.0	0.00	0.00	0.00	
19,300.0	90.00	359.56	10,910.0	7,704.0	1,558.0	7,852.7	0.00	0.00	0.00	
19,400.0	90.00	359.56	10,910.0	7,804.0	1,557.2	7,951.3	0.00	0.00	0.00	
19,500.0	90.00	359.56	10,910.0	7,904.0	1,556.4	8,050.0	0.00	0.00	0.00	
19,600.0	90.00	359.56	10,910.0	8,004.0	1,555.7	8,148.6	0.00	0.00	0.00	
19,700.0	90.00	359.56	10,910.0	8,104.0	1,554.9	8,247.3	0.00	0.00	0.00	
19,800.0	90.00	359.56	10,910.0	8,204.0	1,554.1	8,346.0	0.00	0.00	0.00	
19,900.0	90.00	359.56	10,910.0	8,304.0	1,553.3	8,444.6	0.00	0.00	0.00	
20,000.0	90.00	359.56	10,910.0	8,404.0	1,552.6	8,543.3	0.00	0.00	0.00	
20,100.0	90.00	359.56	10,910.0	8,504.0	1,551.8	8,641.9	0.00	0.00	0.00	
20,200.0	90.00	359.56	10,910.0	8,604.0	1,551.0	8,740.6	0.00	0.00	0.00	
20,300.0	90.00	359.56	10,910.0	8,704.0	1,550.3	8,839.2	0.00	0.00	0.00	
20,400.0	90.00	359.56	10,910.0	8,804.0	1,549.5	8,937.9	0.00	0.00	0.00	
20,500.0	90.00	359.56	10,910.0	8,904.0	1,548.7	9,036.5	0.00	0.00	0.00	
20,600.0	90.00	359.56	10,910.0	9,004.0	1,547.9	9,135.2	0.00	0.00	0.00	
20,700.0	90.00	359.56	10,910.0	9,104.0	1,547.2	9,233.8	0.00	0.00	0.00	
20,800.0	90.00	359.56	10,910.0	9,204.0	1,546.4	9,332.5	0.00	0.00	0.00	
20,900.0	90.00	359.56	10,910.0	9,304.0	1,545.6	9,431.2	0.00	0.00	0.00	
21,000.0	90.00	359.56	10,910.0	9,404.0	1,544.9	9,529.8	0.00	0.00	0.00	
21,100.0	90.00	359.56	10,910.0	9,504.0	1,544.1	9,628.5	0.00	0.00	0.00	
21,200.0	90.00	359.56	10,910.0	9,603.9	1,543.3	9,727.1	0.00	0.00	0.00	
21,300.0	90.00	359.56	10,910.0	9,703.9	1,542.5	9,825.8	0.00	0.00	0.00	
21,369.1	90.00	359.56	10,910.0	9,773.0	1,542.0	9,893.9	0.00	0.00	0.00	

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP(Hawk 35 Fed #509 - plan hits target center - Point	0.00	0.00	10,432.5	-635.0	1,621.0	425,376.00	786,095.00	32° 10' 1.070 N	103° 32' 32.413 W
FTP(Hawk 35 Fed #509I - plan hits target center - Point	0.00	0.00	10,645.2	-585.0	1,621.0	425,426.00	786,095.00	32° 10' 1.565 N	103° 32' 32.408 W
PBHL(Hawk 35 Fed #50 - plan hits target center - Point	0.00	0.00	10,910.0	9,773.0	1,542.0	435,784.00	786,016.00	32° 11' 44.065 N	103° 32' 32.441 W



To convert a Magnetic Direction to a Grid Direction, Add 5.93°
To convert a Magnetic Direction to a True Direction, Add 6.35° East
To convert a True Direction to a Grid Direction, Subtract 0.42°

WELL DETAILS: #509H				
kb = 26' @ 3521.0usft				
3495.0				
Northing	Easting	Latitude	Longitude	
426011.00	784474.00	32° 10' 7.471 N	103° 32' 51.216 W	

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1400.0	0.00	0.00	1400.0	0.0	0.0	0.00	0.00	0.0	
3	2280.7	17.61	111.39	2266.9	-49.0	125.1	2.00	111.39	-28.9	
4	7146.0	17.61	111.39	6904.1	-586.0	1495.9	0.00	0.00	-345.7	
5	8026.7	0.00	0.00	7771.0	-635.0	1621.0	2.00	180.00	-374.6	
6	10688.2	0.00	0.00	10432.5	-635.0	1621.0	0.00	0.00	-374.6	KOP(Hawk 35 Fed #509H)
7	10908.7	26.46	0.00	10645.2	-585.0	1621.0	12.00	0.00	-325.2	FTP(Hawk 35 Fed #509H)
8	11438.2	90.00	359.56	10909.9	-157.5	1618.7	12.00	-0.49	96.7	
9	21369.1	90.00	359.56	10910.0	9773.0	1542.0	0.00	0.00	9893.9	PBHL(Hawk 35 Fed #509H)

CASING DETAILS
No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)					
Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Hawk 35 Fed #509H)	10432.5	-635.0	1621.0	425376.00	786095.00
FTP(Hawk 35 Fed #509H)	10645.2	-585.0	1621.0	425426.00	786095.00
PBHL(Hawk 35 Fed #509H)	10910.0	9773.0	1542.0	435784.00	786016.00

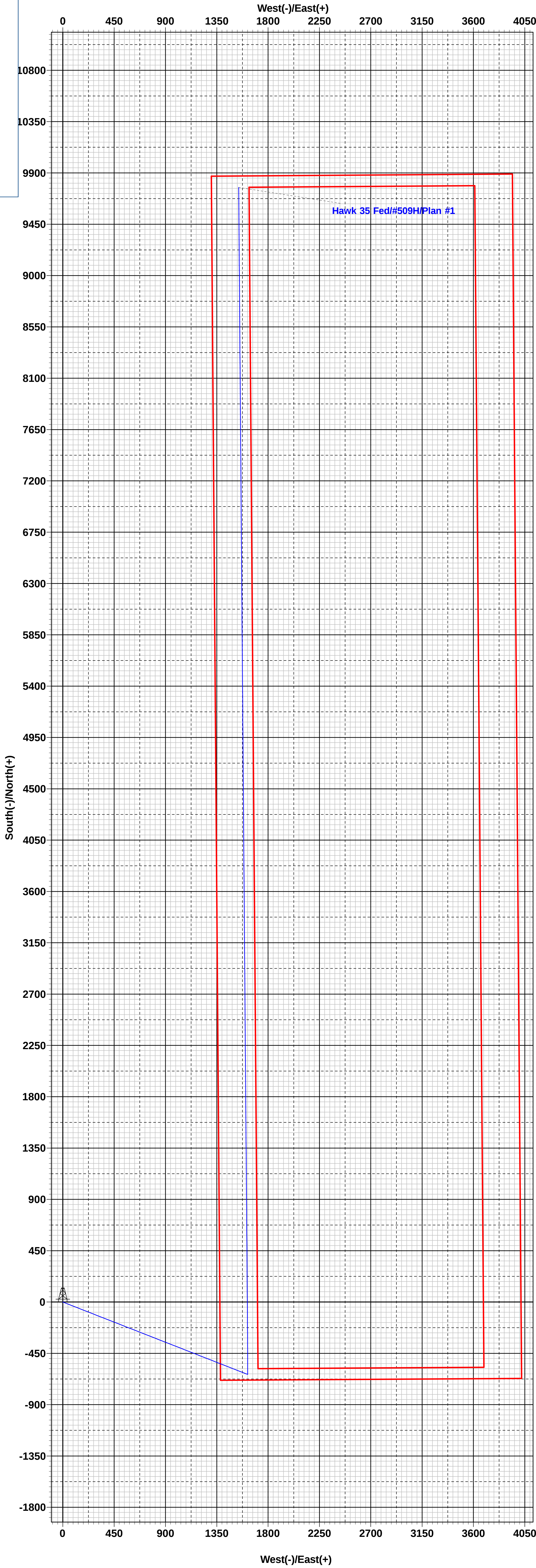
Lea County, NM (NAD 83 NME)

Hawk 35 Fed #509H

Plan #1

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level



District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 171532

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 171532
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	1/5/2023