

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

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

Form C-101  
August 1, 2011

Permit 354326

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

1. Operator Name and Address GREAT WESTERN DRILLING CO P.O. Box 1659 Midland, TX 79701		2. OGRID Number 9338
		3. API Number 30-025-52419
4. Property Code 335189	5. Property Name HIGH PLAINS STATE COM	6. Well No. 001H

**7. Surface Location**

UL - Lot M	Section 15	Township 14S	Range 34E	Lot Idn M	Feet From 150	N/S Line S	Feet From 660	E/W Line W	County Lea
---------------	---------------	-----------------	--------------	--------------	------------------	---------------	------------------	---------------	---------------

**8. Proposed Bottom Hole Location**

UL - Lot L	Section 10	Township 14S	Range 34E	Lot Idn L	Feet From 2310	N/S Line S	Feet From 660	E/W Line W	County Lea
---------------	---------------	-----------------	--------------	--------------	-------------------	---------------	------------------	---------------	---------------

**9. Pool Information**

WILDCAT G-06 S143423D;ABO	97854
---------------------------	-------

**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 4118
16. Multiple N	17. Proposed Depth 16400	18. Formation Abo	19. Contractor	20. Spud Date 4/1/2024
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54	2000	356	0
Int1	12.25	9.625	40	4500	1320	0
Prod	8.5	5.5	23	16400	2840	2000

**Casing/Cement Program: Additional Comments**

--

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	2000	Shaffer

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.  Signature: Printed Name: Electronically filed by Dennis L Hendrix Title: Vice President Email Address: dhendrix@gwdc.com Date: 1/5/2024	<b>OIL CONSERVATION DIVISION</b>  Approved By: Paul F Kautz Title: Geologist Approved Date: 1/11/2024 Expiration Date: 1/11/2026 Conditions of Approval Attached
---	--

**DISTRICT I**

1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-8161 Fax: (575) 393-0720

**DISTRICT II**

811 S. First St., Artesia, NM 88210  
Phone: (575) 746-1263 Fax: (575) 746-9720

**DISTRICT III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone: (505) 334-8178 Fax: (505) 334-8170

**DISTRICT IV**

1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3480 Fax: (505) 476-3482

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
1220 South St. Frances 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**

API Number <b>30-025-52419</b>	Pool Code <b>97854</b>	Pool Name <b>WILDCAT G-06 S143423D;ABO</b>
Property Code <b>335189</b>	Property Name HIGH PLAINS STATE COM	Well Number 1H
OGRID No. <b>9338</b>	Operator Name GREAT WESTERN DRILLING COMPANY	Elevation 4118'

**Surface Location**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	15	14 S	34 E		150	SOUTH	660	WEST	LEA

**Bottom Hole Location If Different From Surface**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	10	14 S	34 E		2310	SOUTH	660	WEST	LEA
Dedicated Acres	Joint or Infill	Consolidation Code	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

**NOTE:**  
1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1983. Distances shown hereon are mean horizontal surface values.

**LAST TAKE POINT & BOTTOM HOLE LOCATION (NAD83)**  
Plane Coordinate  
X = 794,890.83  
Y = 771,542.46  
Geodetic (D.M.S.)  
33°07'05.52" N  
103°30'18.69" W  
Geodetic (D.D.)  
33.11820040° N  
103.50519165° W

**FIRST TAKE POINT (NAD83)**  
Plane Coordinate  
X = 794,941.96  
Y = 764,614.49  
Geodetic (D.M.S.)  
33°05'56.97" N  
103°30'18.73" W  
Geodetic (D.D.)  
33.09915964° N  
103.50520331° W

**SURFACE LOCATION & KICK OFF POINT (NAD83)**  
Plane Coordinate  
X = 794,945.72  
Y = 764,104.49  
Geodetic (D.M.S.)  
33°05'51.93" N  
103°30'18.74" W  
Geodetic (D.D.)  
33.09775794° N  
103.50520417° W

**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.

*Janice Morris* 01/03/2024  
Signature Date

**Janice Morris**  
Printed Name

E-mail Address

**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.

November 09, 2023  
Date of Survey

**JOSHUA G.M. HAZEN**  
NEW MEXICO  
22403  
PROF. SURVEYOR

Joshua G.M. Hazen, RPLS  
2024.01.02 10:25:36-0600  
I have reviewed this document

W.O. Num. 2023-0222  
Certificate No. Joshua Hazen 22403

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

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

Form APD Conditions  
Permit 354326

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: GREAT WESTERN DRILLING CO [9338] P.O. Box 1659 Midland, TX 79701		API Number: 30-025-52419
		Well: HIGH PLAINS STATE COM #001H

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

Hydrogen Sulfide Drilling Operations Plan  
Great Western Drilling Company  
Section 15, T14S, R34E  
Lea County, NM

- 1. Company and contract personnel will have undergone H<sub>2</sub>S training including:**
  - a) Evacuation procedure and routes
  - b) First aid and treatment
  - c) Characteristics, effects, and hazards of H<sub>2</sub>S
  - d) Use of safety equipment
  - e) Operation of H<sub>2</sub>S detectors and warning systems
- 2. H<sub>2</sub>S detection and alarm systems**
  - a) H<sub>2</sub>S detectors will be placed on the rig floor, mud pits, and in the cellar. Additional detectors will be placed, as necessary.
  - b) Audio alarms will be installed on the rig floor & doghouse.
- 3. Windsocks**
  - a) Windsocks will be placed on doghouse, rig floor, and mud pit.
  - b) Windsocks will be placed high enough to be visible.
- 4. Condition flags and signage**
  - a) Warning signs to be placed along road to location.
  - b) Condition flags to be placed at location entrance. Green indicates safe conditions. Yellow indicates potential danger. Red indicates dangerous conditions.
- 5. Well control**
  - a) Drilling supervisor must be familiar with effects of H<sub>2</sub>S on equipment and tubulars.
  - b) If H<sub>2</sub>S is encountered, formation and release of H<sub>2</sub>S will be controlled by changing mud composition. If necessary, mud gas separator & H<sub>2</sub>S scavenger will be brought to location.
- 6. Communication**
  - a) If working under masks, chalkboards, or hand signals to be used for communication.
  - b) Cell phones will be used to communicate with outside emergency personnel. If unable to use cell phones, two-way radio communication will be utilized.

**Emergency Procedures in case of H<sub>2</sub>S gas release**

- Isolate and restrict entry into areas with 100+ ppm H<sub>2</sub>S concentrations.
- Evacuate any public places with 100+ ppm H<sub>2</sub>S concentrations.
- Personnel must wear air packs and H<sub>2</sub>S monitors when controlling the release.
- Must use a team consisting of a minimum of two people when controlling a release.
- Contact operator and local officials to aid in response. See attached for contact information.

**Ignition of H<sub>2</sub>S Gas**

Intentional ignition of H<sub>2</sub>S gas must be coordinated with the NMOCD and local officials. Special care must be exercised to protect downwind of ignition against Sulfur Dioxide exposure. If State Police become involved, they will act as Incident Command of any release.

Hydrogen Sulfide Drilling Operations Plan  
Great Western Drilling Company  
Section 15, T14S, R34E  
Lea County, NM

**Coordination with Authorities**

It is Great Western Drilling Company's (GWD) responsibility to work with the proper agencies to properly respond to a major release. Every response by GWD must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER). In case of release, the OCD must be notified no later than four hours after start of release. When reporting a release, GWD must possess necessary information about the release such as: directions to wellsite, wind direction, volume, and location of release, etc. See below for contact information of company, local, state, and national officials, and agencies.

**Great Western Drilling Company**

Office.....432-682-5241

**Lovington (3 miles away)**

Ambulance.....911  
City Police.....575-396-2811  
Lea County Sheriff's Office.....575-396-3611  
Fire Department.....575-396-2359  
NM State Police.....575-885-3138  
Lea County Emergency Planning.....575-391-2983

**Hobbs City and Agencies (7 miles away)**

City Police.....575-397-9265  
Fire Department.....575-397-9308  
New Mexico OCD.....575-393-6161 (**EMERGENCY: 575-370-3186**)  
Bureau of Land Management.....575-393-3612



**Great Western  
Drilling Company**

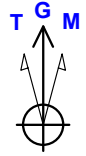
**Well: High Plains State Com #1H**  
**Site: Section 15-T14S-R34E**  
**Project: Lea County, New Mexico NAD83 NmE**  
**Design: rev1**  
**Rig:**

#### Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
1	9027.04	0.00	0.000	9027.04	0.00	0.00	0.00	0.00	0.00	KOP Begin 10°/100' build
2	9927.04	90.00	360.000	9600.00	572.96	0.00	10.00	360.00	572.96	Begin 90.00° lateral
3	16464.08	90.00	360.000	9600.00	7110.00	0.00	0.00	0.00	7110.00	PBHL @ 16464.08 MD 9600.00 TVD

#### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Tres Apache #1H BHL 1980 FSL 660 FWL	9600.00	7110.00	0.00	699671.008	843150.182	32.919539666	-103.349783954



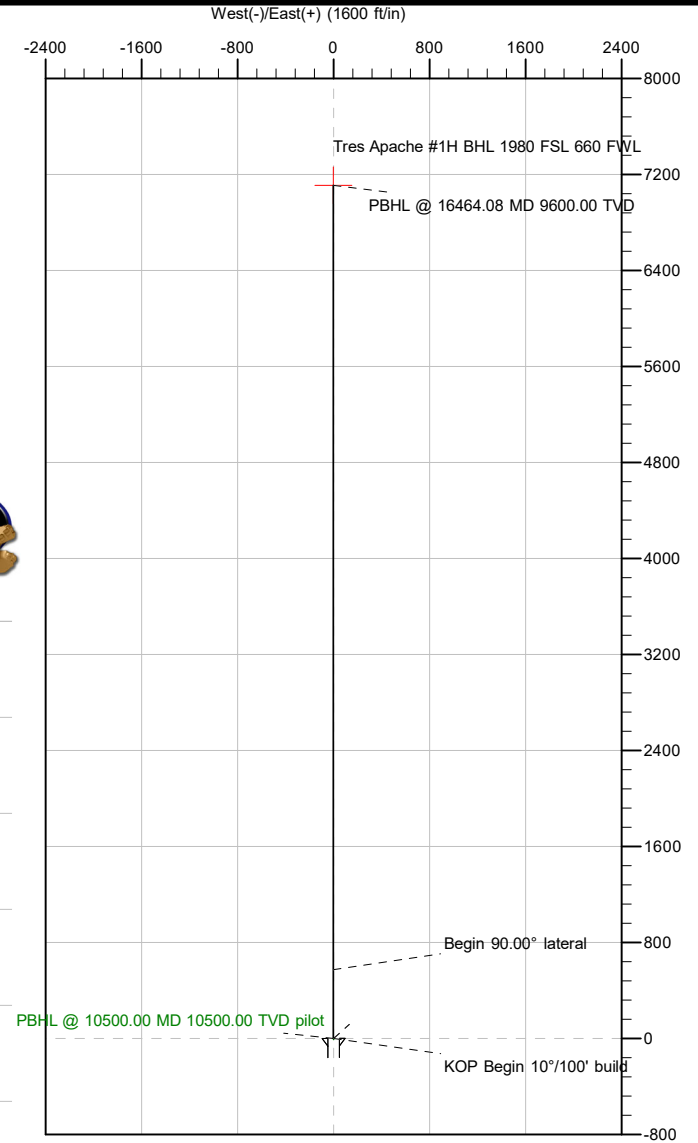
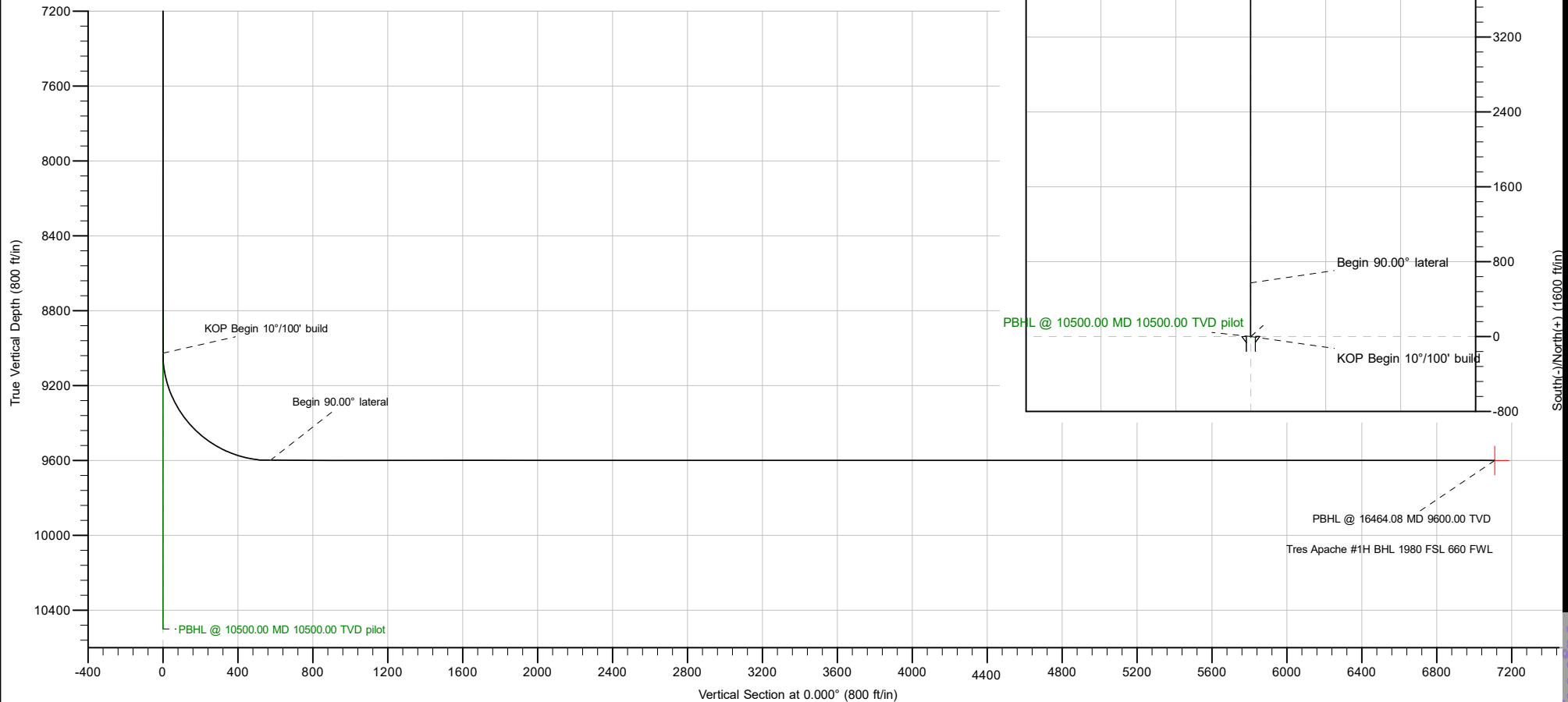
Azimuths to Grid North  
 True North: -0.53°  
 Magnetic North: 5.66°

Magnetic Field  
 Strength: 47642.8nT  
 Dip Angle: 60.45°  
 Date: 1/5/2024  
 Model: IGRF2020

Geodetic System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone: New Mexico Eastern Zone  
 System Datum: Mean Sea Level  
 Depth Reference: Approx GL @ 4000.00ft  
 Surface location:

Northing	Easting	Latitude	Longitude
692561.022	843150.182	32.900000000	-103.350000000

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Add 5.66°





Planning Report

Database:	DT_Aug2923v16	Local Co-ordinate Reference:	Well Tres Apache #1H
Company:	Great Western Drilling Company	TVD Reference:	Approx GL @ 4000.00ft
Project:	Lea County, New Mexico NAD83 NmE	MD Reference:	Approx GL @ 4000.00ft
Site:	Section 15-T14S-R34E	North Reference:	Grid
Well:	Tres Apache #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Sidetrack 01 lateral		
Design:	rev1		

Project	Lea County, New Mexico NAD83 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	Section 15-T14S-R34E				
Site Position:		Northing:	692,561.022 usft	Latitude:	32.900000000
From:	Lat/Long	Easting:	843,150.182 usft	Longitude:	-103.350000000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	Tres Apache #1H, Surf loc: 150 FSL 660 FWL Sec15-T14S-R34E					
Well Position	+N/-S	0.00 ft	Northing:	692,561.022 usft	Latitude:	32.900000000
	+E/-W	0.00 ft	Easting:	843,150.182 usft	Longitude:	-103.350000000
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,000.00 ft
Grid Convergence:		0.53 °				

Wellbore	Sidetrack 01 lateral				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	1/5/2024	6.19	60.45	47,642.77555410

Design	rev1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	9,027.04
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	0.000

Plan Survey Tool Program	Date	1/5/2024			
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks	
1	9,027.04	16,464.08	rev1 (Sidetrack 01 lateral)	MWD	
				OWSG MWD - Standard	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
9,027.04	0.00	0.000	9,027.04	0.00	0.00	0.00	0.00	0.00	0.00	
9,927.04	90.00	360.000	9,600.00	572.96	0.00	10.00	10.00	0.00	360.00	
16,464.08	90.00	360.000	9,600.00	7,110.00	0.00	0.00	0.00	0.00	0.00	Tres Apache #1H BHI



Planning Report

Database:	DT_Aug2923v16	Local Co-ordinate Reference:	Well Tres Apache #1H
Company:	Great Western Drilling Company	TVD Reference:	Approx GL @ 4000.00ft
Project:	Lea County, New Mexico NAD83 NmE	MD Reference:	Approx GL @ 4000.00ft
Site:	Section 15-T14S-R34E	North Reference:	Grid
Well:	Tres Apache #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Sidetrack 01 lateral		
Design:	rev1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.000	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.000	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.000	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.000	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.000	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.000	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.000	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.000	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.000	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.000	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.000	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.000	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.000	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.000	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.000	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.000	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.000	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.000	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.000	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.000	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.000	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.000	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.000	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.000	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.000	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.000	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.000	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.000	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.000	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.000	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.000	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.000	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.000	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.000	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.000	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.000	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.000	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.000	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.000	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.000	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.000	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.000	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00





Planning Report

Database:	DT_Aug2923v16	Local Co-ordinate Reference:	Well Tres Apache #1H
Company:	Great Western Drilling Company	TVD Reference:	Approx GL @ 4000.00ft
Project:	Lea County, New Mexico NAD83 NmE	MD Reference:	Approx GL @ 4000.00ft
Site:	Section 15-T14S-R34E	North Reference:	Grid
Well:	Tres Apache #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Sidetrack 01 lateral		
Design:	rev1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,400.00	0.00	0.000	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,500.00	0.00	0.000	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,600.00	0.00	0.000	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,700.00	0.00	0.000	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,800.00	0.00	0.000	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,900.00	0.00	0.000	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,000.00	0.00	0.000	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,100.00	0.00	0.000	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,200.00	0.00	0.000	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,300.00	0.00	0.000	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,400.00	0.00	0.000	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,500.00	0.00	0.000	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,600.00	0.00	0.000	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,700.00	0.00	0.000	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,800.00	0.00	0.000	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,900.00	0.00	0.000	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,000.00	0.00	0.000	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,100.00	0.00	0.000	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,200.00	0.00	0.000	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,300.00	0.00	0.000	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,400.00	0.00	0.000	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,500.00	0.00	0.000	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,600.00	0.00	0.000	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,700.00	0.00	0.000	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,800.00	0.00	0.000	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,900.00	0.00	0.000	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,000.00	0.00	0.000	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,100.00	0.00	0.000	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,200.00	0.00	0.000	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,300.00	0.00	0.000	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,400.00	0.00	0.000	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,500.00	0.00	0.000	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,600.00	0.00	0.000	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,700.00	0.00	0.000	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,800.00	0.00	0.000	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,900.00	0.00	0.000	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,000.00	0.00	0.000	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,027.04	0.00	0.000	9,027.04	0.00	0.00	0.00	0.00	0.00	0.00	
9,050.00	2.30	360.000	9,049.99	0.46	0.00	0.46	10.00	10.00	0.00	
9,100.00	7.30	360.000	9,099.80	4.64	0.00	4.64	10.00	10.00	0.00	
9,150.00	12.30	360.000	9,149.06	13.14	0.00	13.14	10.00	10.00	0.00	
9,200.00	17.30	360.000	9,197.39	25.91	0.00	25.91	10.00	10.00	0.00	
9,250.00	22.30	360.000	9,244.42	42.84	0.00	42.84	10.00	10.00	0.00	
9,300.00	27.30	360.000	9,289.79	63.80	0.00	63.80	10.00	10.00	0.00	
9,350.00	32.30	360.000	9,333.17	88.64	0.00	88.64	10.00	10.00	0.00	
9,400.00	37.30	360.000	9,374.21	117.16	0.00	117.16	10.00	10.00	0.00	
9,450.00	42.30	360.000	9,412.62	149.15	0.00	149.15	10.00	10.00	0.00	
9,500.00	47.30	360.000	9,448.09	184.37	0.00	184.37	10.00	10.00	0.00	
9,550.00	52.30	360.000	9,480.35	222.55	0.00	222.55	10.00	10.00	0.00	
9,600.00	57.30	360.000	9,509.17	263.39	0.00	263.39	10.00	10.00	0.00	
9,650.00	62.30	360.000	9,534.31	306.59	0.00	306.59	10.00	10.00	0.00	
9,700.00	67.30	360.000	9,555.60	351.81	0.00	351.81	10.00	10.00	0.00	
9,750.00	72.30	360.000	9,572.86	398.72	0.00	398.72	10.00	10.00	0.00	
9,800.00	77.30	360.000	9,585.97	446.96	0.00	446.96	10.00	10.00	0.00	



Great Western  
Drilling Company

## Planning Report

<b>Database:</b>	DT_Aug2923v16	<b>Local Co-ordinate Reference:</b>	Well Tres Apache #1H
<b>Company:</b>	Great Western Drilling Company	<b>TVD Reference:</b>	Approx GL @ 4000.00ft
<b>Project:</b>	Lea County, New Mexico NAD83 NmE	<b>MD Reference:</b>	Approx GL @ 4000.00ft
<b>Site:</b>	Section 15-T14S-R34E	<b>North Reference:</b>	Grid
<b>Well:</b>	Tres Apache #1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Sidetrack 01 lateral		
<b>Design:</b>	rev1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,850.00	82.30	360.000	9,594.83	496.15	0.00	496.15	10.00	10.00	0.00	
9,900.00	87.30	360.000	9,599.36	545.93	0.00	545.93	10.00	10.00	0.00	
9,927.04	90.00	360.000	9,600.00	572.96	0.00	572.96	10.00	10.00	0.00	
10,000.00	90.00	360.000	9,600.00	645.92	0.00	645.92	0.00	0.00	0.00	
10,100.00	90.00	360.000	9,600.00	745.92	0.00	745.92	0.00	0.00	0.00	
10,200.00	90.00	360.000	9,600.00	845.92	0.00	845.92	0.00	0.00	0.00	
10,300.00	90.00	360.000	9,600.00	945.92	0.00	945.92	0.00	0.00	0.00	
10,400.00	90.00	360.000	9,600.00	1,045.92	0.00	1,045.92	0.00	0.00	0.00	
10,500.00	90.00	360.000	9,600.00	1,145.92	0.00	1,145.92	0.00	0.00	0.00	
10,600.00	90.00	360.000	9,600.00	1,245.92	0.00	1,245.92	0.00	0.00	0.00	
10,700.00	90.00	360.000	9,600.00	1,345.92	0.00	1,345.92	0.00	0.00	0.00	
10,800.00	90.00	360.000	9,600.00	1,445.92	0.00	1,445.92	0.00	0.00	0.00	
10,900.00	90.00	360.000	9,600.00	1,545.92	0.00	1,545.92	0.00	0.00	0.00	
11,000.00	90.00	360.000	9,600.00	1,645.92	0.00	1,645.92	0.00	0.00	0.00	
11,100.00	90.00	360.000	9,600.00	1,745.92	0.00	1,745.92	0.00	0.00	0.00	
11,200.00	90.00	360.000	9,600.00	1,845.92	0.00	1,845.92	0.00	0.00	0.00	
11,300.00	90.00	360.000	9,600.00	1,945.92	0.00	1,945.92	0.00	0.00	0.00	
11,400.00	90.00	360.000	9,600.00	2,045.92	0.00	2,045.92	0.00	0.00	0.00	
11,500.00	90.00	360.000	9,600.00	2,145.92	0.00	2,145.92	0.00	0.00	0.00	
11,600.00	90.00	360.000	9,600.00	2,245.92	0.00	2,245.92	0.00	0.00	0.00	
11,700.00	90.00	360.000	9,600.00	2,345.92	0.00	2,345.92	0.00	0.00	0.00	
11,800.00	90.00	360.000	9,600.00	2,445.92	0.00	2,445.92	0.00	0.00	0.00	
11,900.00	90.00	360.000	9,600.00	2,545.92	0.00	2,545.92	0.00	0.00	0.00	
12,000.00	90.00	360.000	9,600.00	2,645.92	0.00	2,645.92	0.00	0.00	0.00	
12,100.00	90.00	360.000	9,600.00	2,745.92	0.00	2,745.92	0.00	0.00	0.00	
12,200.00	90.00	360.000	9,600.00	2,845.92	0.00	2,845.92	0.00	0.00	0.00	
12,300.00	90.00	360.000	9,600.00	2,945.92	0.00	2,945.92	0.00	0.00	0.00	
12,400.00	90.00	360.000	9,600.00	3,045.92	0.00	3,045.92	0.00	0.00	0.00	
12,500.00	90.00	360.000	9,600.00	3,145.92	0.00	3,145.92	0.00	0.00	0.00	
12,600.00	90.00	360.000	9,600.00	3,245.92	0.00	3,245.92	0.00	0.00	0.00	
12,700.00	90.00	360.000	9,600.00	3,345.92	0.00	3,345.92	0.00	0.00	0.00	
12,800.00	90.00	360.000	9,600.00	3,445.92	0.00	3,445.92	0.00	0.00	0.00	
12,900.00	90.00	360.000	9,600.00	3,545.92	0.00	3,545.92	0.00	0.00	0.00	
13,000.00	90.00	360.000	9,600.00	3,645.92	0.00	3,645.92	0.00	0.00	0.00	
13,100.00	90.00	360.000	9,600.00	3,745.92	0.00	3,745.92	0.00	0.00	0.00	
13,200.00	90.00	360.000	9,600.00	3,845.92	0.00	3,845.92	0.00	0.00	0.00	
13,300.00	90.00	360.000	9,600.00	3,945.92	0.00	3,945.92	0.00	0.00	0.00	
13,400.00	90.00	360.000	9,600.00	4,045.92	0.00	4,045.92	0.00	0.00	0.00	
13,500.00	90.00	360.000	9,600.00	4,145.92	0.00	4,145.92	0.00	0.00	0.00	
13,600.00	90.00	360.000	9,600.00	4,245.92	0.00	4,245.92	0.00	0.00	0.00	
13,700.00	90.00	360.000	9,600.00	4,345.92	0.00	4,345.92	0.00	0.00	0.00	
13,800.00	90.00	360.000	9,600.00	4,445.92	0.00	4,445.92	0.00	0.00	0.00	
13,900.00	90.00	360.000	9,600.00	4,545.92	0.00	4,545.92	0.00	0.00	0.00	
14,000.00	90.00	360.000	9,600.00	4,645.92	0.00	4,645.92	0.00	0.00	0.00	
14,100.00	90.00	360.000	9,600.00	4,745.92	0.00	4,745.92	0.00	0.00	0.00	
14,200.00	90.00	360.000	9,600.00	4,845.92	0.00	4,845.92	0.00	0.00	0.00	
14,300.00	90.00	360.000	9,600.00	4,945.92	0.00	4,945.92	0.00	0.00	0.00	
14,400.00	90.00	360.000	9,600.00	5,045.92	0.00	5,045.92	0.00	0.00	0.00	
14,500.00	90.00	360.000	9,600.00	5,145.92	0.00	5,145.92	0.00	0.00	0.00	
14,600.00	90.00	360.000	9,600.00	5,245.92	0.00	5,245.92	0.00	0.00	0.00	
14,700.00	90.00	360.000	9,600.00	5,345.92	0.00	5,345.92	0.00	0.00	0.00	
14,800.00	90.00	360.000	9,600.00	5,445.92	0.00	5,445.92	0.00	0.00	0.00	
14,900.00	90.00	360.000	9,600.00	5,545.92	0.00	5,545.92	0.00	0.00	0.00	
15,000.00	90.00	360.000	9,600.00	5,645.92	0.00	5,645.92	0.00	0.00	0.00	



Planning Report

Database:	DT_Aug2923v16	Local Co-ordinate Reference:	Well Tres Apache #1H
Company:	Great Western Drilling Company	TVD Reference:	Approx GL @ 4000.00ft
Project:	Lea County, New Mexico NAD83 NmE	MD Reference:	Approx GL @ 4000.00ft
Site:	Section 15-T14S-R34E	North Reference:	Grid
Well:	Tres Apache #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Sidetrack 01 lateral		
Design:	rev1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
15,100.00	90.00	360.000	9,600.00	5,745.92	0.00	5,745.92	0.00	0.00	0.00	
15,200.00	90.00	360.000	9,600.00	5,845.92	0.00	5,845.92	0.00	0.00	0.00	
15,300.00	90.00	360.000	9,600.00	5,945.92	0.00	5,945.92	0.00	0.00	0.00	
15,400.00	90.00	360.000	9,600.00	6,045.92	0.00	6,045.92	0.00	0.00	0.00	
15,500.00	90.00	360.000	9,600.00	6,145.92	0.00	6,145.92	0.00	0.00	0.00	
15,600.00	90.00	360.000	9,600.00	6,245.92	0.00	6,245.92	0.00	0.00	0.00	
15,700.00	90.00	360.000	9,600.00	6,345.92	0.00	6,345.92	0.00	0.00	0.00	
15,800.00	90.00	360.000	9,600.00	6,445.92	0.00	6,445.92	0.00	0.00	0.00	
15,900.00	90.00	360.000	9,600.00	6,545.92	0.00	6,545.92	0.00	0.00	0.00	
16,000.00	90.00	360.000	9,600.00	6,645.92	0.00	6,645.92	0.00	0.00	0.00	
16,100.00	90.00	360.000	9,600.00	6,745.92	0.00	6,745.92	0.00	0.00	0.00	
16,200.00	90.00	360.000	9,600.00	6,845.92	0.00	6,845.92	0.00	0.00	0.00	
16,300.00	90.00	360.000	9,600.00	6,945.92	0.00	6,945.92	0.00	0.00	0.00	
16,400.00	90.00	360.000	9,600.00	7,045.92	0.00	7,045.92	0.00	0.00	0.00	
16,464.08	90.00	360.000	9,600.00	7,110.00	0.00	7,110.00	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude		Longitude
- hit/miss target										
- Shape										
Tres Apache #1H BHL 1	0.00	0.000	9,600.00	7,110.00	0.00	699,671.007	843,150.182	32.919539666		-103.349783954
- plan hits target center										
- Point										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (")	Hole Diameter (")
2,600.00	2,600.00			13-3/8	17-1/2
4,500.00	4,500.00			9-5/8	12-1/4

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
9,027.04	9,027.04	0.00	0.00	KOP Begin 10°/100' build	
9,927.04	9,600.00	572.96	0.00	Begin 90.00° lateral	
16,464.08	9,600.00	7,110.00	0.00	PBHL @ 16464.08 MD 9600.00 TVD	

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

Submit Electronically  
Via E-permitting

## NATURAL GAS MANAGEMENT PLAN

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

### Section 1 – Plan Description

Effective May 25, 2021

I. Operator: Great Western Drilling OGRID: 9339 Date:    /   /   

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

If Other, please describe: \_\_\_\_\_

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
HPSC #1H				125	125	700
HPSC #2H				"	"	"

IV. Central Delivery Point Name: \_\_\_\_\_ [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
HPSC #1H		4/1/2024	4/25/2024	6/1/2024	6/10/2024	6/10/2024
HPSC #2H		5/1/2024	5/25/2024	7/1/2024	7/10/2024	7/10/2024

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

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

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



**Section 2 – Enhanced Plan****EFFECTIVE APRIL 1, 2022**

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

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

**IX. Anticipated Natural Gas Production:**

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

**X. Natural Gas Gathering System (NGGS):**

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

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

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

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

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

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

**Section 3 - Certifications****Effective May 25, 2021**

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

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

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

*If Operator checks this box, Operator will select one of the following:*

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

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

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

**Section 4 - Notices**

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

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

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

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

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

Signature:	<i>Janice Morris</i>
Printed Name:	Janice Morris
Title:	Regulatory Analyst
E-mail Address:	janice.morris@transgloballlc.com
Date:	12/28/2023
Phone:	682-626-6514
<b>OIL CONSERVATION DIVISION</b> (Only applicable when submitted as a standalone form)	
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

## **VI. Separation Equipment**

GREAT WESTERN DRILLING COMPANY utilizes a "stage separation" process in which oil and gas separation is carried out through a series of separators operating at successively reduced pressures. Hydrocarbon liquids are produced into a high-pressure inlet separator, then carried through one or more lower pressure separation vessels before entering the storage tanks. The purpose of this separation process is to attain maximum recovery of liquid hydrocarbons from the fluids and allow maximum capture of produced gas into the sales pipeline. GREAT WESTERN DRILLING COMPANY utilizes a series of low-pressure compression units to capture gas off the staged separation and send it to the sales pipeline. This process minimizes the amount of flash gas that enters the end stage storage tanks that is subsequently vented or flared.

## **VII. Operational Practices**

GREAT WESTERN DRILLING COMPANY will employ best management practices and control technologies to maximize the recovery and minimize waste of natural gas through venting and flaring.

- During drilling operations, GREAT WESTERN DRILLING COMPANY will utilize flares and/or combustors to capture and control natural gas, where technically feasible. If flaring is deemed technically unfeasible, GREAT WESTERN DRILLING COMPANY will employ best management practices to minimize or reduce venting to the extent possible.
- During completions operations, GREAT WESTERN DRILLING COMPANY will utilize Green Completion methods to capture gas produced during well completions that is otherwise vented or flared. If capture is technically unfeasible, flares and/or combustors will be used to capture and control flowback fluids entering into frac tanks during initial flowback. Upon indication of first measurable hydrocarbon volumes, GREAT WESTERN DRILLING COMPANY will turn operations to onsite separation vessels and flow to the gathering pipeline.
- During production operations, GREAT WESTERN DRILLING COMPANY will take every practical effort to minimize waste of natural gas through venting and flaring by:
- Designing and constructing facilities in a manner consistent to achieve maximum capture and control of hydrocarbon liquids & produced gas.
- Utilizing a closed-loop capture system to collect and route produced gas to sales line via low pressure compression, or to a flare/combustor.
- Flaring in lieu of venting, where technically feasible.
- Utilizing auto-ignitors or continuous pilots, with thermocouples connected to Scada, to quickly detect and resolve issues related to malfunctioning flares/combustors,
- Employ the use of automatic tank gauging to minimize storage tank venting during loading events.
- Installing air-driven or electric-driven pneumatics & combustion engines, where technically feasible to minimize venting to the atmosphere.
- Confirm equipment is properly maintained and repaired through a preventative maintenance and repair program to ensure equipment meets all manufacturer specifications.
- Conduct and document AVO Inspections on the frequency set forth in Part 27 to detect and repair any onsite leaks as quickly and efficiently as feasible.



**VIII. Best Management Practices during Maintenance**

GREAT WESTERN DRILLING COMPANY will utilize best management practices to minimize venting during active and planned maintenance activities. GREAT WESTERN DRILLING COMPANY is operating under guidance that production facilities permitted under NOI permits have no provisions to allow high pressure flaring and high pressure-flaring is only allowed in disruption scenarios so long as the duration is less than eight hours. When technically feasible, flaring during maintenance activities will be utilized in lieu of venting to the atmosphere. GREAT WESTERN DRILLING COMPANY will work with third-party operators during scheduled maintenance of downstream pipeline or processing plants to address those events ahead of time to minimize venting. Actions considered include identifying alternative capture approaches or planning to temporarily reduce production or shut in the well to address these circumstances.

**Natural Gas Management Plan****Items VI-VIII****VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.**

- Separation equipment will be sized to provide adequate separation for anticipated rates.
- Adequate separation relates to retention time for Liquid-Liquid separation and velocity for Gas-Liquid separation.
- Collection systems are appropriately sized to handle facility production rates on all (3) phases.
- Ancillary equipment and metering is selected to be serviced without flow interruptions or the need to release gas from the well.

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

- All flare stacks will be properly sized. The flare stacks will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared, unless there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety and the environment, at which point the gas will be vented.

**Completions/Recompletion Operations**

- New wells will not be flowed back until they are connected to a properly sized gathering system.
- The facility will be built/sized for maximum anticipated flowrates and pressures to minimize waste.
- For flowback operations, multiple stages of separation will be used as well as excess VRU and blowers to make sure waste is minimized off the storage tanks and facility.
- During initial flowback, the well stream will be routed to separation equipment.
- At an existing facility, when necessary, post separation natural gas will be flared until it meets pipeline specifications, at which point it will be turned into a collection system.
- At a new facility, post separation natural gas will be vented until storage tanks can safely function, at which point it will be flared until it meets pipeline spec.

**Production Operations**

- Weekly AVOs will be performed on all facilities.
- All flares will be equipped with auto-ignition systems and continuous pilot operations.
- After a well is stabilized from liquid unloading, the well will be turned back into the collection system.
- All plunger lift systems will be optimized to limit the amount of waste.
- All tanks will have automatic gauging equipment installed.
- Leaking thief hatches found during AVOs will be cleaned and properly re-sealed.

**Performance Standards**

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- Weekly AVOs will be performed on all wells and facilities that produce more than 60 MCFD.

**Measurement & Estimation**

- All volume that is flared or vented that is not measured will be estimated.
- All measurement equipment for flared volumes will conform to API 14.10.
- No meter bypasses will be installed.
- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated.

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

- During downhole well maintenance, GREAT WESTERN DRILLING COMPANY will use best management practices to vent as minimally as possible.
- After downhole well maintenance, natural gas will be flared until it reaches pipeline specification.

GREAT WESTERN DRILLING COMPANY  
TRES APACHE #1H  
SURFACE HOLE LOCATION: 150' FSL & 660' FWL , SEC 15, T-14-S, R-34-E, LEA COUNTY, NEW MEXICO  
BOTTOM HOLE LOCATION: 1980' FSL & 660' FWL , SEC 10, T-14-S, R-34-E, LEA COUNTY, NEW MEXICO

