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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

Form C-101
August 1, 2011

Permit 295183

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

1. Operator Name and Address	2. OGRID Number
Petrogulf Corporation 600 Grant St., Ste. 850 Denver, CO 80203	373806
	3. API Number 30-015-48288

4. Property Code	5. Property Name	6. Well No.
325393	CAPONE	001H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
D	35	22S	26E	D	918	N	230	W	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
C	36	22S	26E	C	330	N	2474	W	Eddy

9. Pool Information

PURPLE SAGE;WOLFCAMP (GAS)	98220

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3248
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	16735	Wolfcamp		10/1/2021
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

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

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	48	410	350	0
Int1	12.25	9.625	36	1775	400	0
Prod	8.75	7	26	8700	840	1575
Liner1	6.125	4.5	13.5	16735	325	8500

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	2500	
Double Ram	10000	5000	
Pipe	10000	5000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.** Signature:		**OIL CONSERVATION DIVISION**	
Printed Name: Electronically filed by Jerry Goedert		Approved By: Kurt Simmons	
Title:		Title: Petroleum Specialist - A	
Email Address: JGoedert@petrogulf.com		Approved Date: 9/30/2021	Expiration Date: 9/30/2023
Date: 5/10/2021	Phone: 303-893-5400	Conditions of Approval Attached	

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
		Purple Sage; Wolfcamp 98220

[4] Property Code	[5] Property Name	[6] Well Number
	CAPONE	1H

[7] OGRID No.	[8] Operator Name	[9] Elevation
	PETROGULF CORPORATION	3251.1'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	22S	26E		917	NORTH	230	WEST	EDDY

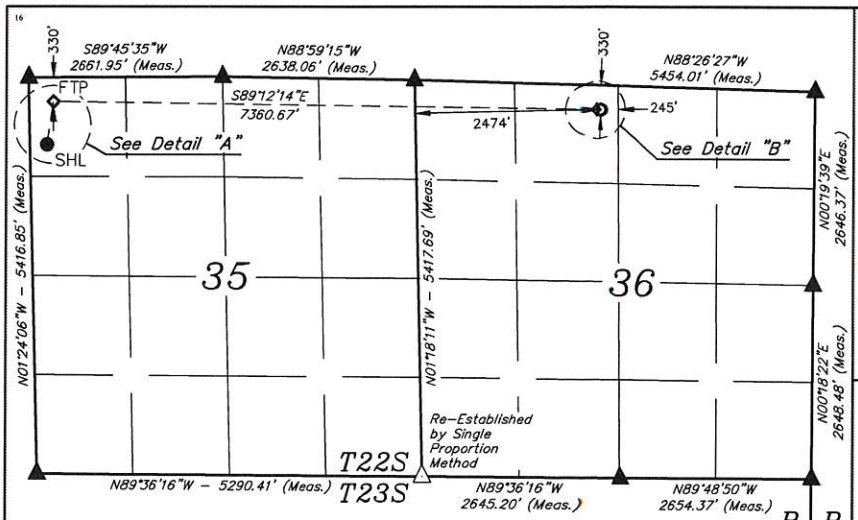
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	36	22S	26E		330	NORTH	2474	WEST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
480			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

[16]



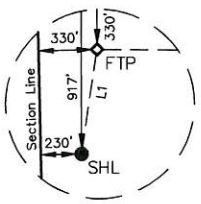
NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°21'12.80" (32.353557°)
LONGITUDE = 104°16'17.82" (104.271617°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°21'12.38" (32.353439°)
LONGITUDE = 104°16'16.01" (104.271113°)
STATE PLANE NAD 83 (N.M. EAST)
N: 492361.19' E: 560395.20'
STATE PLANE NAD 27 (N.M. EAST)
N: 492302.22' E: 519213.75'

NAD 83 (FIRST TAKE LOCATION)
LATITUDE = 32°21'18.61" (32.355171°)
LONGITUDE = 104°16'16.85" (104.271346°)
NAD 27 (FIRST TAKE LOCATION)
LATITUDE = 32°21'18.19" (32.355053°)
LONGITUDE = 104°16'15.03" (104.270842°)
STATE PLANE NAD 83 (N.M. EAST)
N: 492948.50' E: 560478.39'
STATE PLANE NAD 27 (N.M. EAST)
N: 492889.51' E: 519296.94'

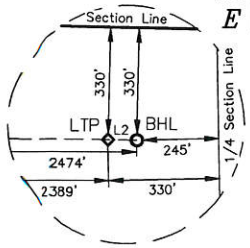
NAD 83 (LAST TAKE POINT)
LATITUDE = 32°21'17.86" (32.354961°)
LONGITUDE = 104°14'51.06" (104.247516°)
NAD 27 (LAST TAKE POINT)
LATITUDE = 32°21'17.43" (32.354843°)
LONGITUDE = 104°14'49.25" (104.247013°)
STATE PLANE NAD 83 (N.M. EAST)
N: 492877.18' E: 567836.96'
STATE PLANE NAD 27 (N.M. EAST)
N: 492818.04' E: 526655.39'

NAD 83 (BOTTOM HOLE LOCATION)
LATITUDE = 32°21'17.84" (32.354955°)
LONGITUDE = 104°14'50.07" (104.247240°)
NAD 27 (BOTTOM HOLE LOCATION)
LATITUDE = 32°21'17.41" (32.354837°)
LONGITUDE = 104°14'48.25" (104.246737°)
STATE PLANE NAD 83 (N.M. EAST)
N: 492875.22' E: 567921.97'
STATE PLANE NAD 27 (N.M. EAST)
N: 492816.08' E: 526740.40'

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N08°18'08"E	593.31'
L2	S88°26'27"E	85.05'



Detail "A"
No Scale



Detail "B"
No Scale

[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.

Jerry Goedert
Signature Date

Jerry Goedert
Printed Name

JGoedert@Petrogulf.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.

March 30, 2019
Date of Survey
Signature and Seal of Professional Surveyor:

Certificate Number:

● = SURFACE HOLE LOCATION
◇ = FIRST TAKE POINT/LAST TAKE POINT
○ = BOTTOM HOLE LOCATION
▲ = SECTION CORNER LOCATED
△ = SECTION CORNER RE-ESTABLISHED. (Not Set on Ground.)

SCALE
DRAWN BY: J.A. 04-01-19
REV: 2 03-29-21 R.J. (LTP & BHL CHANGE)

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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

GAS CAPTURE PLAN

Date: 9/30/2021

☒ Original

☐ Amended - Reason for Amendment:

Operator & OGRID No.: [373806] Petrogulf Corporation

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
CAPONE #001H	30-015-48288	D-35-22S-26E	0918N 0230W	2000	Flared	Gas will be flared ~21 days during flowback and then turned to tank battery depending on sales connect and well cleanup

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to LUCID ENERGY DELAWARE, LLC and will be connected to LUCID ENERGY DELAWARE, LLC Low Pressure gathering system located in Eddy County, New Mexico. It will require 15000' of pipeline to connect the facility to Low Pressure gathering system. Petrogulf Corporation provides (periodically) to LUCID ENERGY DELAWARE, LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Petrogulf Corporation and LUCID ENERGY DELAWARE, LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at LUCID ENERGY DELAWARE, LLC Processing Plant located in Sec. 35, Twn. 23S, Rng. 27E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on LUCID ENERGY DELAWARE, LLC system at that time. Based on current information, it is Petrogulf Corporation's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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

Form APD Comments

Permit 295183

PERMIT COMMENTS

Operator Name and Address:	API Number:
Petrogulf Corporation [373806] 600 Grant St., Ste. 850 Denver, CO 80203	30-015-48288
	Well: CAPONE #001H

Created By	Comment	Comment Date
jgoedert	This application is to replace the recently expired Capone 1H APD. This application is for a 1-1/2 mile lateral.	5/5/2021

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Oil Conservation Division
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Santa Fe, NM 87505

Form APD Conditions

Permit 295183

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
Petrogulf Corporation [373806] 600 Grant St., Ste. 850 Denver, CO 80203	30-015-48288
	Well: CAPONE #001H

OCD Reviewer	Condition
ksimmons	Notify OCD 24 hours prior to casing & cement
ksimmons	Will require a File As Drilled C-102 and a Directional Survey with the C-104
ksimmons	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
kpickford	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
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing
kpickford	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
kpickford	OCD conditionally approves this permit for drilling and completion activity. As a condition of approval, this well cannot be drilled or completed until: (i) the remediation of the brine well project is complete, (ii) the well is considered stabilized, and (iii) the OCD Director or his/her delegate has provided written (which includes email) confirmation that the well can be spud.
kpickford	If drilling or completion activities occur after the conclusion of the brine well remediation project, this permit remains subject to the following:
kpickford	1) Operator shall provide, at least 14 days prior to the start of any drilling or completion activities, a notice to OCD with a request for confirmation to proceed from the OCD.
kpickford	2) Prior to the commencement of any drilling or completion activities the operator must first receive written (which includes email) confirmation from the OCD Director or his/her delegate that the OCD has no concerns with such activities proceeding.
kpickford	3) OCD retains the right to require the cessation of any drilling or completion activities associated with this permit due to concerns about potential impacts to ongoing or completed remediation activities at the Carlsbad brine well. a. If OCD orders cessation pursuant to this provision, the initial period shall be for 45 days during which time OCD shall share information about the basis for its concern. b. If the OCD's concerns cannot be addressed during the initial 45-day period, OCD may extend any such cessation until the concerns requiring the cessation have been addressed to the OCD's satisfaction.

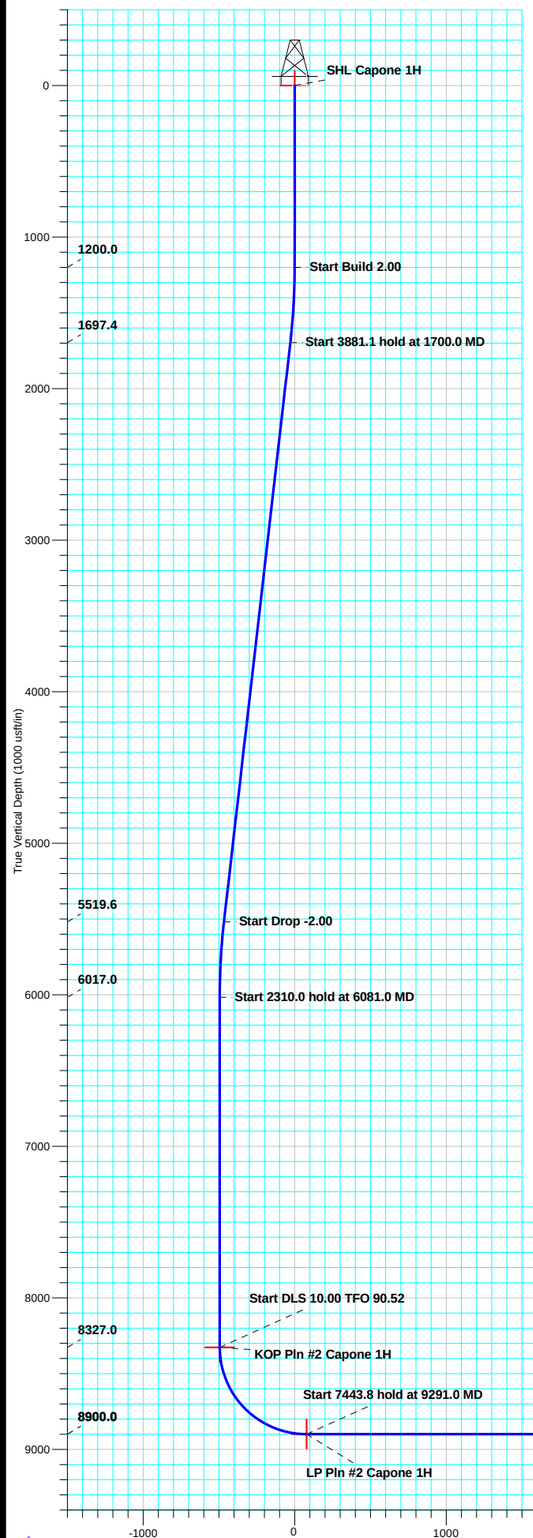
WELL DETAILS: 1H						
	+N/-S	+E/-W	Northing	3251.1 Easting	Latittude	Longitude
0.0		0.0	492361.19	560395.20	32° 21' 12.803 N	104° 16' 17.819 W

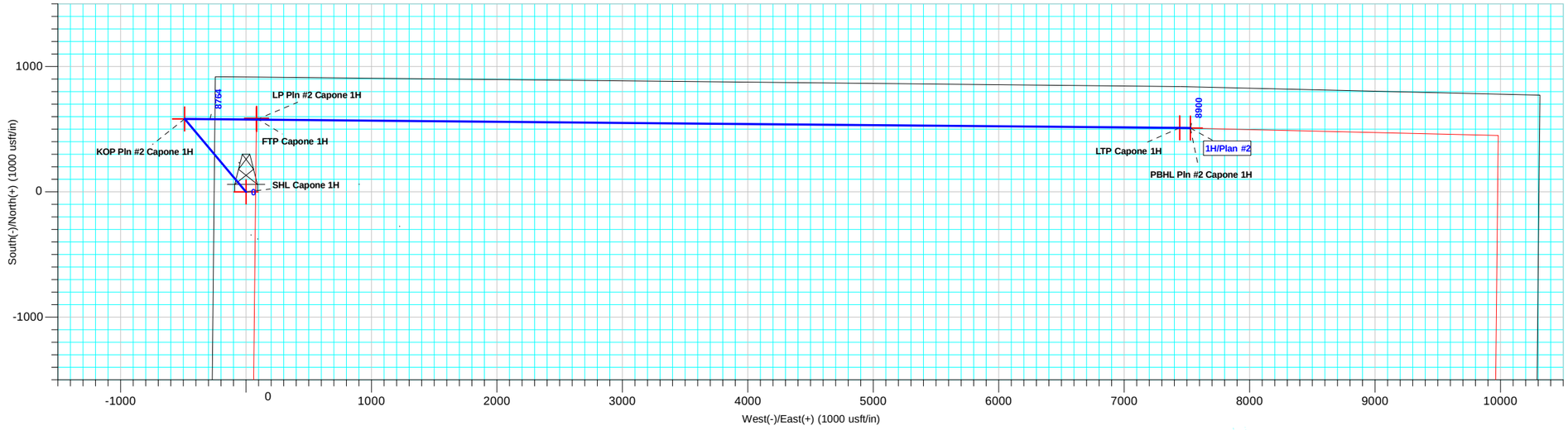
SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	DIeg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
1200.0	0.00	0.00	1200.0	0.0	0.0	0.00	0.00	0.0	
1700.0	10.00	319.98	1697.4	33.3	-28.0	2.00	319.98	-28.3	
5581.1	10.00	319.98	5519.6	549.4	-461.4	0.00	0.00	-466.3	
6081.0	0.00	0.00	6017.0	582.7	-489.4	2.00	180.00	-494.6	
8391.0	0.00	0.00	8327.0	582.7	-489.4	0.00	0.00	-494.6	
9291.0	90.00	90.52	8900.0	577.5	83.6	10.00	90.52	78.3	
16734.8	90.00	90.52	8900.0	509.7	7527.1	0.00	0.00	7522.1	

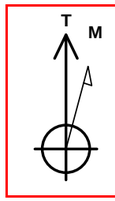
DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
FTP Capone 1H	0.0	587.3	83.5	492948.50	560478.39
LTP Capone 1H	0.0	511.7	7442.1	492877.18	567836.96
SHL Capone 1H	0.0	0.0	0.0	492361.19	560395.20
KOP Pln #2 Capone 1H	8327.0	582.7	-489.4	492943.61	559905.49
LP Pln #2 Capone 1H	8900.0	577.5	83.6	492938.72	560478.43
PBHL Pln #2 Capone 1H	8900.0	509.7	7527.1	492875.22	567921.97

PetroGulf
Project: Eddy County, NM
Site: Capone
Well: 1H
Wellbore: Wellbore #1
Design: Plan #2
Lat: 32° 21' 12.803 N
Long: 104° 16' 17.819 W
Pad GL: 3251.1
KB: 325.1+20 @ 3271.1usft (Est KB=20')

TIME / DATE / WEL PLANNER
13:51, April 29 2021 NEPHI SMITH







Azimuths to True North
Magnetic North: 6.89°

Magnetic Field
Strength: 47512.0nT
Dip Angle: 59.92°
Date: 4/29/2021
Model: IGRF2020

PetroGulf

Eddy County, NM
Capone
1H

Wellbore #1

Plan: Plan #2

Standard Planning Report

29 April, 2021

Microsoft
Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well 1H
Company:	PetroGulf	**TVD Reference:**	325.1+20 @ 3271.1usft (Est KB=20')
Project:	Eddy County, NM	**MD Reference:**	325.1+20 @ 3271.1usft (Est KB=20')
Site:	Capone	**North Reference:**	True
Well:	1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Project Eddy County, NM

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Capone

Site Position:		**Northing:**	492,361.19 usft	**Latitude:**	32° 21' 12.803 N
From:	Map	**Easting:**	560,395.20 usft	**Longitude:**	104° 16' 17.819 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.03 °

Well 1H

Well Position	**+N/-S**	0.0 usft	**Northing:**	492,361.19 usft	**Latitude:**	32° 21' 12.803 N
	+E/-W	0.0 usft	**Easting:**	560,395.20 usft	**Longitude:**	104° 16' 17.819 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,251.1 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	4/29/2021	6.89	59.92	47,511.98202725

Design Plan #2

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	90.52

Plan Survey Tool Program **Date** 4/29/2021

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	16,734.7	Plan #2 (Wellbore #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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,700.0	10.00	319.98	1,697.4	33.3	-28.0	2.00	2.00	0.00	319.98	
5,581.1	10.00	319.98	5,519.6	549.4	-461.4	0.00	0.00	0.00	0.00	
6,081.0	0.00	0.00	6,017.0	582.7	-489.4	2.00	-2.00	0.00	180.00	
8,391.0	0.00	0.00	8,327.0	582.7	-489.4	0.00	0.00	0.00	0.00	KOP Pln #2 Capon
9,291.0	90.00	90.52	8,900.0	577.5	83.6	10.00	10.00	10.06	90.52	
16,734.8	90.00	90.52	8,900.0	509.7	7,527.1	0.00	0.00	0.00	0.00	PBHL Pln #2 Capo

Microsoft

Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well 1H
Company:	PetroGulf	**TVD Reference:**	325.1+20 @ 3271.1usft (Est KB=20')
Project:	Eddy County, NM	**MD Reference:**	325.1+20 @ 3271.1usft (Est KB=20')
Site:	Capone	**North Reference:**	True
Well:	1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

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	2.00	319.98	1,300.0	1.3	-1.1	-1.1	2.00	2.00	0.00
1,400.0	4.00	319.98	1,399.8	5.3	-4.5	-4.5	2.00	2.00	0.00
1,500.0	6.00	319.98	1,499.5	12.0	-10.1	-10.2	2.00	2.00	0.00
1,600.0	8.00	319.98	1,598.7	21.3	-17.9	-18.1	2.00	2.00	0.00
1,700.0	10.00	319.98	1,697.4	33.3	-28.0	-28.3	2.00	2.00	0.00
1,800.0	10.00	319.98	1,795.9	46.6	-39.2	-39.6	0.00	0.00	0.00
1,900.0	10.00	319.98	1,894.4	59.9	-50.3	-50.9	0.00	0.00	0.00
2,000.0	10.00	319.98	1,992.9	73.2	-61.5	-62.2	0.00	0.00	0.00
2,100.0	10.00	319.98	2,091.4	86.5	-72.7	-73.4	0.00	0.00	0.00
2,200.0	10.00	319.98	2,189.9	99.8	-83.8	-84.7	0.00	0.00	0.00
2,300.0	10.00	319.98	2,288.4	113.1	-95.0	-96.0	0.00	0.00	0.00
2,400.0	10.00	319.98	2,386.8	126.4	-106.2	-107.3	0.00	0.00	0.00
2,500.0	10.00	319.98	2,485.3	139.7	-117.3	-118.6	0.00	0.00	0.00
2,600.0	10.00	319.98	2,583.8	153.0	-128.5	-129.9	0.00	0.00	0.00
2,700.0	10.00	319.98	2,682.3	166.3	-139.7	-141.2	0.00	0.00	0.00
2,800.0	10.00	319.98	2,780.8	179.6	-150.8	-152.4	0.00	0.00	0.00
2,900.0	10.00	319.98	2,879.2	192.9	-162.0	-163.7	0.00	0.00	0.00
3,000.0	10.00	319.98	2,977.7	206.2	-173.2	-175.0	0.00	0.00	0.00
3,100.0	10.00	319.98	3,076.2	219.5	-184.3	-186.3	0.00	0.00	0.00
3,200.0	10.00	319.98	3,174.7	232.8	-195.5	-197.6	0.00	0.00	0.00
3,300.0	10.00	319.98	3,273.2	246.1	-206.7	-208.9	0.00	0.00	0.00
3,400.0	10.00	319.98	3,371.6	259.4	-217.8	-220.2	0.00	0.00	0.00
3,500.0	10.00	319.98	3,470.1	272.7	-229.0	-231.5	0.00	0.00	0.00
3,600.0	10.00	319.98	3,568.6	286.0	-240.2	-242.7	0.00	0.00	0.00
3,700.0	10.00	319.98	3,667.1	299.3	-251.3	-254.0	0.00	0.00	0.00
3,800.0	10.00	319.98	3,765.6	312.6	-262.5	-265.3	0.00	0.00	0.00
3,900.0	10.00	319.98	3,864.0	325.9	-273.7	-276.6	0.00	0.00	0.00
4,000.0	10.00	319.98	3,962.5	339.2	-284.8	-287.9	0.00	0.00	0.00
4,100.0	10.00	319.98	4,061.0	352.4	-296.0	-299.2	0.00	0.00	0.00
4,200.0	10.00	319.98	4,159.5	365.7	-307.2	-310.5	0.00	0.00	0.00
4,300.0	10.00	319.98	4,258.0	379.0	-318.3	-321.8	0.00	0.00	0.00
4,400.0	10.00	319.98	4,356.5	392.3	-329.5	-333.0	0.00	0.00	0.00
4,500.0	10.00	319.98	4,454.9	405.6	-340.7	-344.3	0.00	0.00	0.00
4,600.0	10.00	319.98	4,553.4	418.9	-351.8	-355.6	0.00	0.00	0.00
4,700.0	10.00	319.98	4,651.9	432.2	-363.0	-366.9	0.00	0.00	0.00
4,800.0	10.00	319.98	4,750.4	445.5	-374.2	-378.2	0.00	0.00	0.00
4,900.0	10.00	319.98	4,848.9	458.8	-385.3	-389.5	0.00	0.00	0.00
5,000.0	10.00	319.98	4,947.3	472.1	-396.5	-400.8	0.00	0.00	0.00
5,100.0	10.00	319.98	5,045.8	485.4	-407.7	-412.1	0.00	0.00	0.00
5,200.0	10.00	319.98	5,144.3	498.7	-418.8	-423.3	0.00	0.00	0.00
5,300.0	10.00	319.98	5,242.8	512.0	-430.0	-434.6	0.00	0.00	0.00

Microsoft
Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well 1H
Company:	PetroGulf	**TVD Reference:**	325.1+20 @ 3271.1usft (Est KB=20')
Project:	Eddy County, NM	**MD Reference:**	325.1+20 @ 3271.1usft (Est KB=20')
Site:	Capone	**North Reference:**	True
Well:	1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

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)
5,400.0	10.00	319.98	5,341.3	525.3	-441.2	-445.9	0.00	0.00	0.00
5,500.0	10.00	319.98	5,439.7	538.6	-452.3	-457.2	0.00	0.00	0.00
5,581.1	10.00	319.98	5,519.6	549.4	-461.4	-466.3	0.00	0.00	0.00
5,600.0	9.62	319.98	5,538.2	551.9	-463.5	-468.4	2.00	-2.00	0.00
5,700.0	7.62	319.98	5,637.1	563.3	-473.1	-478.2	2.00	-2.00	0.00
5,800.0	5.62	319.98	5,736.4	572.2	-480.5	-485.7	2.00	-2.00	0.00
5,900.0	3.62	319.98	5,836.1	578.3	-485.7	-490.9	2.00	-2.00	0.00
6,000.0	1.62	319.98	5,936.0	581.8	-488.6	-493.9	2.00	-2.00	0.00
6,081.0	0.00	0.00	6,017.0	582.7	-489.4	-494.6	2.00	-2.00	0.00
6,100.0	0.00	0.00	6,036.0	582.7	-489.4	-494.6	0.00	0.00	0.00
6,200.0	0.00	0.00	6,136.0	582.7	-489.4	-494.6	0.00	0.00	0.00
6,300.0	0.00	0.00	6,236.0	582.7	-489.4	-494.6	0.00	0.00	0.00
6,400.0	0.00	0.00	6,336.0	582.7	-489.4	-494.6	0.00	0.00	0.00
6,500.0	0.00	0.00	6,436.0	582.7	-489.4	-494.6	0.00	0.00	0.00
6,600.0	0.00	0.00	6,536.0	582.7	-489.4	-494.6	0.00	0.00	0.00
6,700.0	0.00	0.00	6,636.0	582.7	-489.4	-494.6	0.00	0.00	0.00
6,800.0	0.00	0.00	6,736.0	582.7	-489.4	-494.6	0.00	0.00	0.00
6,900.0	0.00	0.00	6,836.0	582.7	-489.4	-494.6	0.00	0.00	0.00
7,000.0	0.00	0.00	6,936.0	582.7	-489.4	-494.6	0.00	0.00	0.00
7,100.0	0.00	0.00	7,036.0	582.7	-489.4	-494.6	0.00	0.00	0.00
7,200.0	0.00	0.00	7,136.0	582.7	-489.4	-494.6	0.00	0.00	0.00
7,300.0	0.00	0.00	7,236.0	582.7	-489.4	-494.6	0.00	0.00	0.00
7,400.0	0.00	0.00	7,336.0	582.7	-489.4	-494.6	0.00	0.00	0.00
7,500.0	0.00	0.00	7,436.0	582.7	-489.4	-494.6	0.00	0.00	0.00
7,600.0	0.00	0.00	7,536.0	582.7	-489.4	-494.6	0.00	0.00	0.00
7,700.0	0.00	0.00	7,636.0	582.7	-489.4	-494.6	0.00	0.00	0.00
7,800.0	0.00	0.00	7,736.0	582.7	-489.4	-494.6	0.00	0.00	0.00
7,900.0	0.00	0.00	7,836.0	582.7	-489.4	-494.6	0.00	0.00	0.00
8,000.0	0.00	0.00	7,936.0	582.7	-489.4	-494.6	0.00	0.00	0.00
8,100.0	0.00	0.00	8,036.0	582.7	-489.4	-494.6	0.00	0.00	0.00
8,200.0	0.00	0.00	8,136.0	582.7	-489.4	-494.6	0.00	0.00	0.00
8,300.0	0.00	0.00	8,236.0	582.7	-489.4	-494.6	0.00	0.00	0.00
8,391.0	0.00	0.00	8,327.0	582.7	-489.4	-494.6	0.00	0.00	0.00
8,400.0	0.90	90.52	8,336.0	582.7	-489.3	-494.6	10.00	10.00	0.00
8,450.0	5.90	90.52	8,385.9	582.7	-486.3	-491.6	10.00	10.00	0.00
8,500.0	10.90	90.52	8,435.3	582.6	-479.0	-484.3	10.00	10.00	0.00
8,550.0	15.90	90.52	8,483.9	582.5	-467.5	-472.7	10.00	10.00	0.00
8,600.0	20.90	90.52	8,531.4	582.4	-451.7	-456.9	10.00	10.00	0.00
8,650.0	25.90	90.52	8,577.2	582.2	-431.8	-437.1	10.00	10.00	0.00
8,700.0	30.90	90.52	8,621.2	582.0	-408.1	-413.3	10.00	10.00	0.00
8,750.0	35.90	90.52	8,662.9	581.7	-380.5	-385.8	10.00	10.00	0.00
8,800.0	40.90	90.52	8,702.1	581.4	-349.5	-354.8	10.00	10.00	0.00
8,850.0	45.90	90.52	8,738.4	581.1	-315.2	-320.4	10.00	10.00	0.00
8,900.0	50.90	90.52	8,771.6	580.8	-277.8	-283.0	10.00	10.00	0.00
8,950.0	55.90	90.52	8,801.4	580.4	-237.7	-242.9	10.00	10.00	0.00
9,000.0	60.90	90.52	8,827.6	580.0	-195.1	-200.4	10.00	10.00	0.00
9,050.0	65.90	90.52	8,850.0	579.6	-150.4	-155.7	10.00	10.00	0.00
9,100.0	70.90	90.52	8,868.4	579.2	-103.9	-109.2	10.00	10.00	0.00
9,150.0	75.90	90.52	8,882.7	578.8	-56.0	-61.3	10.00	10.00	0.00
9,200.0	80.90	90.52	8,892.7	578.3	-7.1	-12.3	10.00	10.00	0.00
9,250.0	85.90	90.52	8,898.5	577.9	42.6	37.3	10.00	10.00	0.00
9,291.0	90.00	90.52	8,900.0	577.5	83.6	78.3	10.00	10.00	0.00
9,300.0	90.00	90.52	8,900.0	577.4	92.5	87.3	0.00	0.00	0.00
9,400.0	90.00	90.52	8,900.0	576.5	192.5	187.3	0.00	0.00	0.00

Microsoft
Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well 1H
Company:	PetroGulf	**TVD Reference:**	325.1+20 @ 3271.1usft (Est KB=20')
Project:	Eddy County, NM	**MD Reference:**	325.1+20 @ 3271.1usft (Est KB=20')
Site:	Capone	**North Reference:**	True
Well:	1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

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)
9,500.0	90.00	90.52	8,900.0	575.6	292.5	287.3	0.00	0.00	0.00
9,600.0	90.00	90.52	8,900.0	574.7	392.5	387.3	0.00	0.00	0.00
9,700.0	90.00	90.52	8,900.0	573.8	492.5	487.3	0.00	0.00	0.00
9,800.0	90.00	90.52	8,900.0	572.9	592.5	587.3	0.00	0.00	0.00
9,900.0	90.00	90.52	8,900.0	571.9	692.5	687.3	0.00	0.00	0.00
10,000.0	90.00	90.52	8,900.0	571.0	792.5	787.3	0.00	0.00	0.00
10,100.0	90.00	90.52	8,900.0	570.1	892.5	887.3	0.00	0.00	0.00
10,200.0	90.00	90.52	8,900.0	569.2	992.5	987.3	0.00	0.00	0.00
10,300.0	90.00	90.52	8,900.0	568.3	1,092.5	1,087.3	0.00	0.00	0.00
10,400.0	90.00	90.52	8,900.0	567.4	1,192.5	1,187.3	0.00	0.00	0.00
10,500.0	90.00	90.52	8,900.0	566.5	1,292.5	1,287.3	0.00	0.00	0.00
10,600.0	90.00	90.52	8,900.0	565.6	1,392.5	1,387.3	0.00	0.00	0.00
10,700.0	90.00	90.52	8,900.0	564.7	1,492.5	1,487.3	0.00	0.00	0.00
10,800.0	90.00	90.52	8,900.0	563.7	1,592.5	1,587.3	0.00	0.00	0.00
10,900.0	90.00	90.52	8,900.0	562.8	1,692.5	1,687.3	0.00	0.00	0.00
11,000.0	90.00	90.52	8,900.0	561.9	1,792.5	1,787.3	0.00	0.00	0.00
11,100.0	90.00	90.52	8,900.0	561.0	1,892.5	1,887.3	0.00	0.00	0.00
11,200.0	90.00	90.52	8,900.0	560.1	1,992.5	1,987.3	0.00	0.00	0.00
11,300.0	90.00	90.52	8,900.0	559.2	2,092.5	2,087.3	0.00	0.00	0.00
11,400.0	90.00	90.52	8,900.0	558.3	2,192.5	2,187.3	0.00	0.00	0.00
11,500.0	90.00	90.52	8,900.0	557.4	2,292.4	2,287.3	0.00	0.00	0.00
11,600.0	90.00	90.52	8,900.0	556.5	2,392.4	2,387.3	0.00	0.00	0.00
11,700.0	90.00	90.52	8,900.0	555.5	2,492.4	2,487.3	0.00	0.00	0.00
11,800.0	90.00	90.52	8,900.0	554.6	2,592.4	2,587.3	0.00	0.00	0.00
11,900.0	90.00	90.52	8,900.0	553.7	2,692.4	2,687.3	0.00	0.00	0.00
12,000.0	90.00	90.52	8,900.0	552.8	2,792.4	2,787.3	0.00	0.00	0.00
12,100.0	90.00	90.52	8,900.0	551.9	2,892.4	2,887.3	0.00	0.00	0.00
12,200.0	90.00	90.52	8,900.0	551.0	2,992.4	2,987.3	0.00	0.00	0.00
12,300.0	90.00	90.52	8,900.0	550.1	3,092.4	3,087.3	0.00	0.00	0.00
12,400.0	90.00	90.52	8,900.0	549.2	3,192.4	3,187.3	0.00	0.00	0.00
12,500.0	90.00	90.52	8,900.0	548.3	3,292.4	3,287.3	0.00	0.00	0.00
12,600.0	90.00	90.52	8,900.0	547.3	3,392.4	3,387.3	0.00	0.00	0.00
12,700.0	90.00	90.52	8,900.0	546.4	3,492.4	3,487.3	0.00	0.00	0.00
12,800.0	90.00	90.52	8,900.0	545.5	3,592.4	3,587.3	0.00	0.00	0.00
12,900.0	90.00	90.52	8,900.0	544.6	3,692.4	3,687.3	0.00	0.00	0.00
13,000.0	90.00	90.52	8,900.0	543.7	3,792.4	3,787.3	0.00	0.00	0.00
13,100.0	90.00	90.52	8,900.0	542.8	3,892.4	3,887.3	0.00	0.00	0.00
13,200.0	90.00	90.52	8,900.0	541.9	3,992.4	3,987.3	0.00	0.00	0.00
13,300.0	90.00	90.52	8,900.0	541.0	4,092.4	4,087.3	0.00	0.00	0.00
13,400.0	90.00	90.52	8,900.0	540.1	4,192.4	4,187.3	0.00	0.00	0.00
13,500.0	90.00	90.52	8,900.0	539.2	4,292.4	4,287.3	0.00	0.00	0.00
13,600.0	90.00	90.52	8,900.0	538.2	4,392.4	4,387.3	0.00	0.00	0.00
13,700.0	90.00	90.52	8,900.0	537.3	4,492.4	4,487.3	0.00	0.00	0.00
13,800.0	90.00	90.52	8,900.0	536.4	4,592.4	4,587.3	0.00	0.00	0.00
13,900.0	90.00	90.52	8,900.0	535.5	4,692.3	4,687.3	0.00	0.00	0.00
14,000.0	90.00	90.52	8,900.0	534.6	4,792.3	4,787.3	0.00	0.00	0.00
14,100.0	90.00	90.52	8,900.0	533.7	4,892.3	4,887.3	0.00	0.00	0.00
14,200.0	90.00	90.52	8,900.0	532.8	4,992.3	4,987.3	0.00	0.00	0.00
14,300.0	90.00	90.52	8,900.0	531.9	5,092.3	5,087.3	0.00	0.00	0.00
14,400.0	90.00	90.52	8,900.0	531.0	5,192.3	5,187.3	0.00	0.00	0.00
14,500.0	90.00	90.52	8,900.0	530.0	5,292.3	5,287.3	0.00	0.00	0.00
14,600.0	90.00	90.52	8,900.0	529.1	5,392.3	5,387.3	0.00	0.00	0.00
14,700.0	90.00	90.52	8,900.0	528.2	5,492.3	5,487.3	0.00	0.00	0.00
14,800.0	90.00	90.52	8,900.0	527.3	5,592.3	5,587.3	0.00	0.00	0.00

Microsoft
Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well 1H
Company:	PetroGulf	**TVD Reference:**	325.1+20 @ 3271.1usft (Est KB=20')
Project:	Eddy County, NM	**MD Reference:**	325.1+20 @ 3271.1usft (Est KB=20')
Site:	Capone	**North Reference:**	True
Well:	1H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

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)
14,900.0	90.00	90.52	8,900.0	526.4	5,692.3	5,687.3	0.00	0.00	0.00
15,000.0	90.00	90.52	8,900.0	525.5	5,792.3	5,787.3	0.00	0.00	0.00
15,100.0	90.00	90.52	8,900.0	524.6	5,892.3	5,887.3	0.00	0.00	0.00
15,200.0	90.00	90.52	8,900.0	523.7	5,992.3	5,987.3	0.00	0.00	0.00
15,300.0	90.00	90.52	8,900.0	522.8	6,092.3	6,087.3	0.00	0.00	0.00
15,400.0	90.00	90.52	8,900.0	521.8	6,192.3	6,187.3	0.00	0.00	0.00
15,500.0	90.00	90.52	8,900.0	520.9	6,292.3	6,287.3	0.00	0.00	0.00
15,600.0	90.00	90.52	8,900.0	520.0	6,392.3	6,387.3	0.00	0.00	0.00
15,700.0	90.00	90.52	8,900.0	519.1	6,492.3	6,487.3	0.00	0.00	0.00
15,800.0	90.00	90.52	8,900.0	518.2	6,592.3	6,587.3	0.00	0.00	0.00
15,900.0	90.00	90.52	8,900.0	517.3	6,692.3	6,687.3	0.00	0.00	0.00
16,000.0	90.00	90.52	8,900.0	516.4	6,792.3	6,787.3	0.00	0.00	0.00
16,100.0	90.00	90.52	8,900.0	515.5	6,892.3	6,887.3	0.00	0.00	0.00
16,200.0	90.00	90.52	8,900.0	514.6	6,992.3	6,987.3	0.00	0.00	0.00
16,300.0	90.00	90.52	8,900.0	513.7	7,092.2	7,087.3	0.00	0.00	0.00
16,400.0	90.00	90.52	8,900.0	512.7	7,192.2	7,187.3	0.00	0.00	0.00
16,500.0	90.00	90.52	8,900.0	511.8	7,292.2	7,287.3	0.00	0.00	0.00
16,600.0	90.00	90.52	8,900.0	510.9	7,392.2	7,387.3	0.00	0.00	0.00
16,700.0	90.00	90.52	8,900.0	510.0	7,492.2	7,487.3	0.00	0.00	0.00
16,734.8	90.00	90.52	8,900.0	509.7	7,527.1	7,522.1	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL Capone 1H - plan hits target center - Point	0.00	0.00	0.0	0.0	0.0	492,361.19	560,395.20	32° 21' 12.803 N	104° 16' 17.819 W
FTP Capone 1H - plan misses target center by 593.2usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E) - Point	0.00	0.00	0.0	587.3	83.5	492,948.50	560,478.39	32° 21' 18.615 N	104° 16' 16.846 W
LTP Capone 1H - plan misses target center by 7459.6usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E) - Point	0.00	0.00	0.0	511.7	7,442.1	492,877.18	567,836.96	32° 21' 17.859 N	104° 14' 51.056 W
KOP Pln #2 Capone 1 - plan hits target center - Point	0.00	0.00	8,327.0	582.7	-489.4	492,943.61	559,905.50	32° 21' 18.570 N	104° 16' 23.525 W
LP Pln #2 Capone 1H - plan hits target center - Point	0.00	0.00	8,900.0	577.5	83.6	492,938.73	560,478.43	32° 21' 18.518 N	104° 16' 16.845 W
PBHL Pln #2 Capone - plan hits target center - Point	0.00	0.00	8,900.0	509.7	7,527.1	492,875.22	567,921.97	32° 21' 17.839 N	104° 14' 50.065 W