

Well Name: WELCH B 28 FEDERAL	Well Location: T17S / R28E / SEC 27 / SWNW /	County or Parish/State:
Well Number: 10H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM048344	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001549245	Well Status: Approved Application for Permit to Drill	Operator: SPUR ENERGY PARTNERS LLC

Notice of Intent

Sundry ID: 2735562

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 06/13/2023	Time Sundry Submitted: 12:30
Date proposed operation will begin: 08/01/2023	

Procedure Description: Spur Energy Partners LLC requests to shift this wellbore 280' north. There will be no change in surface hole location or further disturbance. Current Calls: SHL: 1735' FNL 809' FWL Section 27 T7S R28E FTP: 2455' FNL 100' FEL Section 28 T17S R28E LTP: 2455 FNL 100' FWL Section 28 T17S R28E BHL: 2455 FNL 50' FWL Section 28 S17S R28E New Calls: SHL: 1735' FNL 809' FWL Section 27 T7S R28E FTP: 2175' FNL 100' FEL Section 28 T17S R28E LTP: 2175' FNL 100' FWL Section 28 T17S R28E BHL: 2175' FNL 50' FWL Section 28 S17S R28E

NOI Attachments

- Procedure Description
- WelchB28Fd10H_RevisedC102_20230613123046.pdf
 - WelchB28Fd10H_Supplemental_20230613123016.pdf
 - WelchB28Fd10H_FinalDirectional_20230613123016.pdf
 - WelchB28Fd10H_RevisedDrillPlan_20230613123016.pdf

Well Name: WELCH B 28 FEDERAL	Well Location: T17S / R28E / SEC 27 / SWNW /	County or Parish/State:
Well Number: 10H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM048344	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001549245	Well Status: Approved Application for Permit to Drill	Operator: SPUR ENERGY PARTNERS LLC

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: SARAH CHAPMAN	Signed on: JUN 13, 2023 12:30 PM
Name: SPUR ENERGY PARTNERS LLC	
Title: Regulatory Directory	
Street Address: 9655 KATY FREEWAY, SUITE 500	
City: Houston	State: TX
Phone: (832) 930-8613	
Email address: SCHAPMAN@SPUREPLLC.COM	

Field

Representative Name:		
Street Address:		
City:	State:	Zip:
Phone:		
Email address:		

BLM Point of Contact

BLM POC Name: CODY LAYTON	BLM POC Title: Assistant Field Manager Lands & Minerals
BLM POC Phone: 5752345959	BLM POC Email Address: clayton@blm.gov
Disposition: Approved	Disposition Date: 07/13/2023
Signature: Cody R. Layton	

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

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

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

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-49245		² Pool Code 96830	³ Pool Name ARTESIA; GLORIETA-YESO (O)
⁴ Property Code 332213	⁵ Property Name WELCH B 28 FED		⁶ Well Number 10H
⁷ OGRID NO. 328947	⁸ Operator Name SPUR ENERGY PARTNERS LLC.		⁹ Elevation 3659'

¹⁰ Surface Location

UL or lot no. E	Section 27	Township 17S	Range 28E	Lot Idn	Feet from the 1735	North/South line NORTH	Feet From the 809	East/West line WEST	County EDDY
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. E	Section 28	Township 17S	Range 28E	Lot Idn	Feet from the 2175	North/South line NORTH	Feet from the 50	East/West line WEST	County EDDY
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¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

¹⁶ <u>GEODETIC DATA</u> NAD 83 GRID — NM EAST <u>SURFACE LOCATION (SL)</u> N: 657726.2 — E: 591586.6 LAT: 32.8080119° N LONG: 104.1697828° W <u>FIRST TAKE POINT (FTP)</u> 2175' FNL & 100' FEL — SEC 28 N: 657280.3 — E: 590673.4 LAT: 32.8067903° N LONG: 104.1727571° W <u>LAST TAKE POINT (LTP)</u> 2175' FNL & 100' FWL — SEC 28 N: 657126.5 — E: 585677.8 LAT: 32.8063874° N LONG: 104.1890174° W <u>BOTTOM HOLE (BH)</u> N: 657125.0 — E: 585627.8 LAT: 32.8063834° N LONG: 104.1891800° W <u>CORNER DATA</u> NAD 83 GRID — NM EAST A: FOUND BRASS CAP "1941" N: 654104.0 — E: 585547.5 B: FOUND BRASS CAP "1941" N: 656702.1 — E: 585573.1 C: FOUND BRASS CAP "1941" N: 659297.8 — E: 585602.6 D: FOUND BRASS CAP "1941" N: 659377.1 — E: 588198.9 E: FOUND BRASS CAP "1941" N: 659457.7 — E: 590794.9 F: FOUND BRASS CAP "1941" N: 659466.8 — E: 593406.4 G: FOUND BRASS CAP "1941" N: 659475.1 — E: 596017.9 H: FOUND BRASS CAP "1941" N: 656886.5 — E: 595997.7 I: FOUND BRASS CAP "1941" N: 654298.0 — E: 595977.3 J: FOUND BRASS CAP "1941" N: 654266.7 — E: 593360.1 K: FOUND BRASS CAP "1941" N: 654235.0 — E: 590741.9 L: FOUND BRASS CAP "1941" N: 654169.8 — E: 588139.7 M: FOUND BRASS CAP "1941" N: 656846.0 — E: 590769.0	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. <i>Sarah Chapman</i> 06/08/2023 Signature Date SARAH CHAPMAN Printed Name SCHAPMAN@SPURENERGY.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. 10-31-2020 Date of Survey Signature and Seal of Professional Surveyor 19680 Certificate Number REV: FTP,LTP & BH CHANGE-5/18/23 LS20100590R
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Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

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

First Take Point (FTP)

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

Last Take Point (LTP)

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

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

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

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018



Project: EDDY COUNTY, NM (NAD 83 - NME)
Site: WELCH B 28 FED
Well: 10H
Wellbore: Wellbore #1
Design: PERMIT

WELL DETAILS: 10H

Rig Name:		AKITA 57		RKB = 20' @ 3679.00usft (AKITA 57)	
		Ground Level:		3659.00	
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	657726.20	591586.60	32.8080121	-104.1697828

PROJECT DETAILS: EDDY COUNTY, NM (NAD 83 - NME)

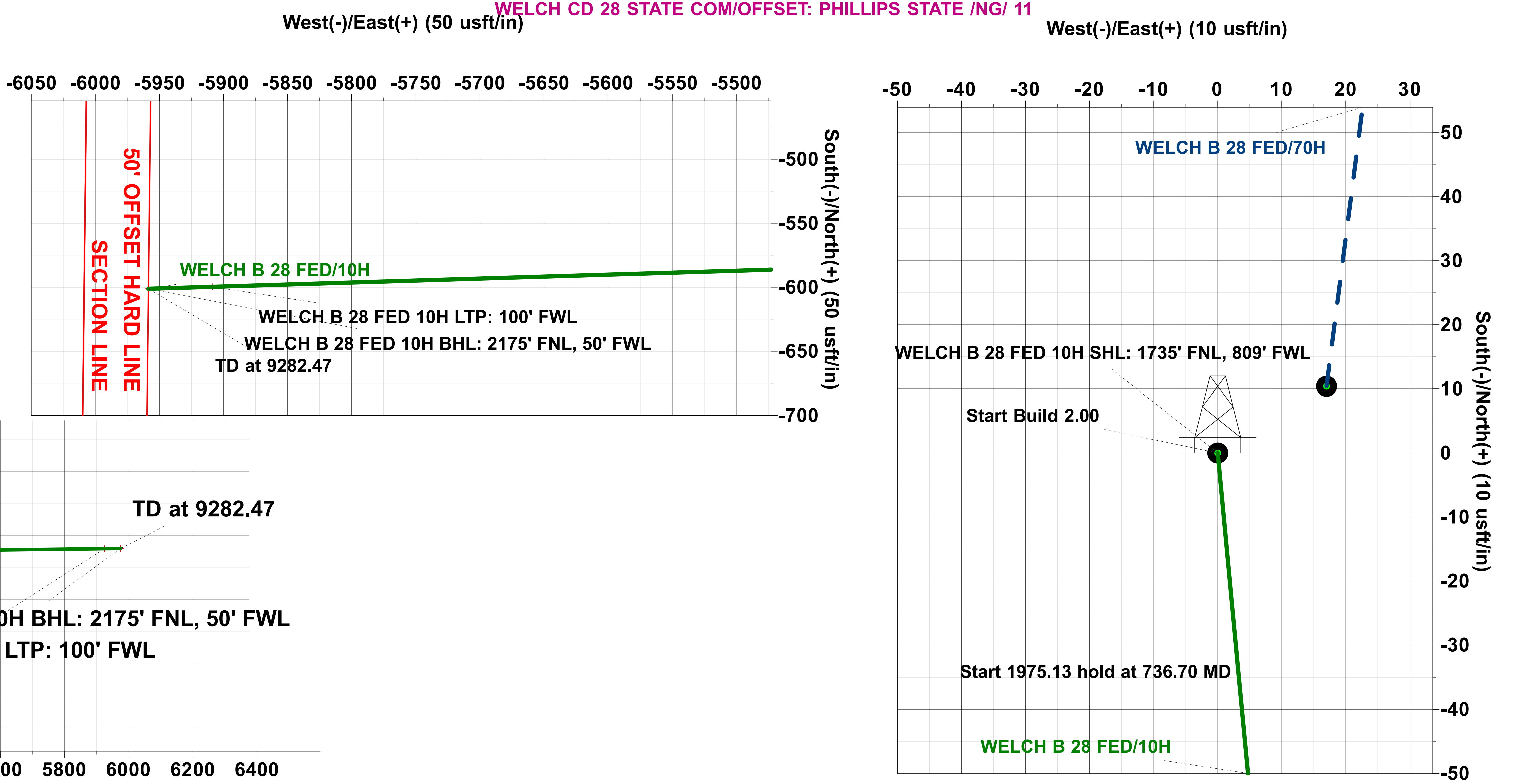
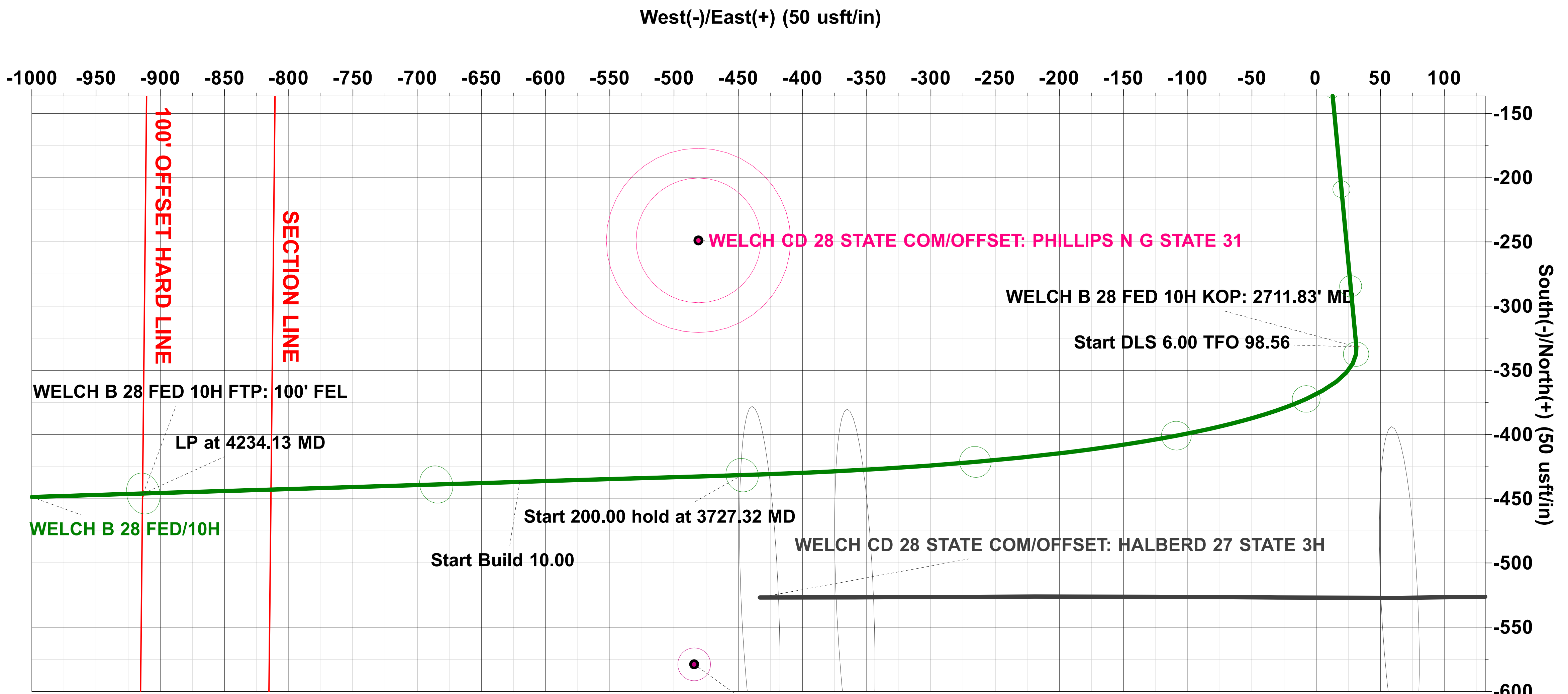
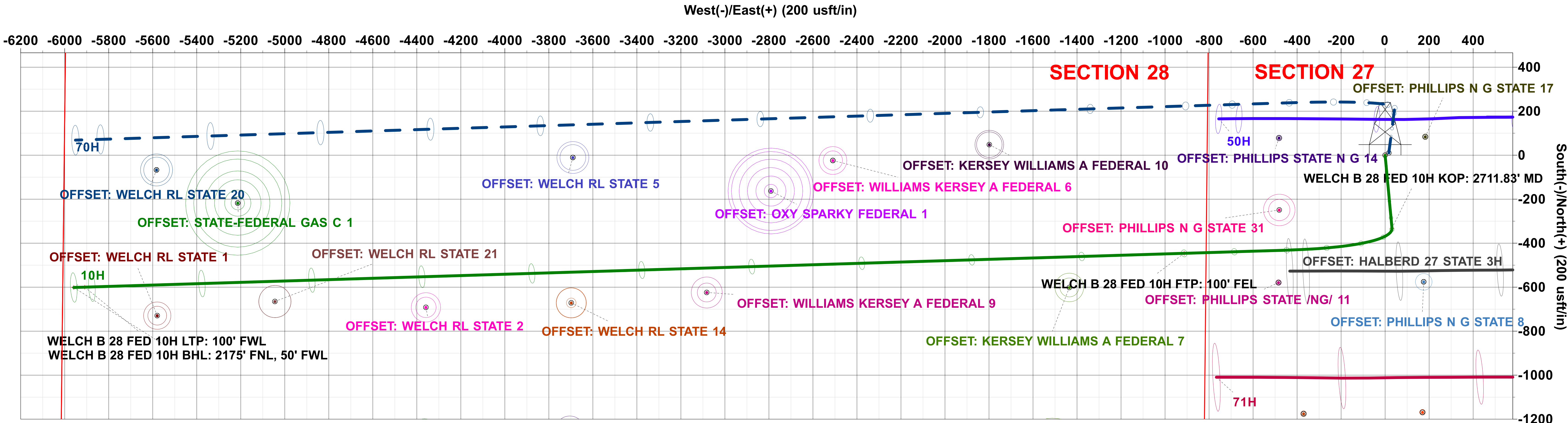
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

SECTION DETAILS

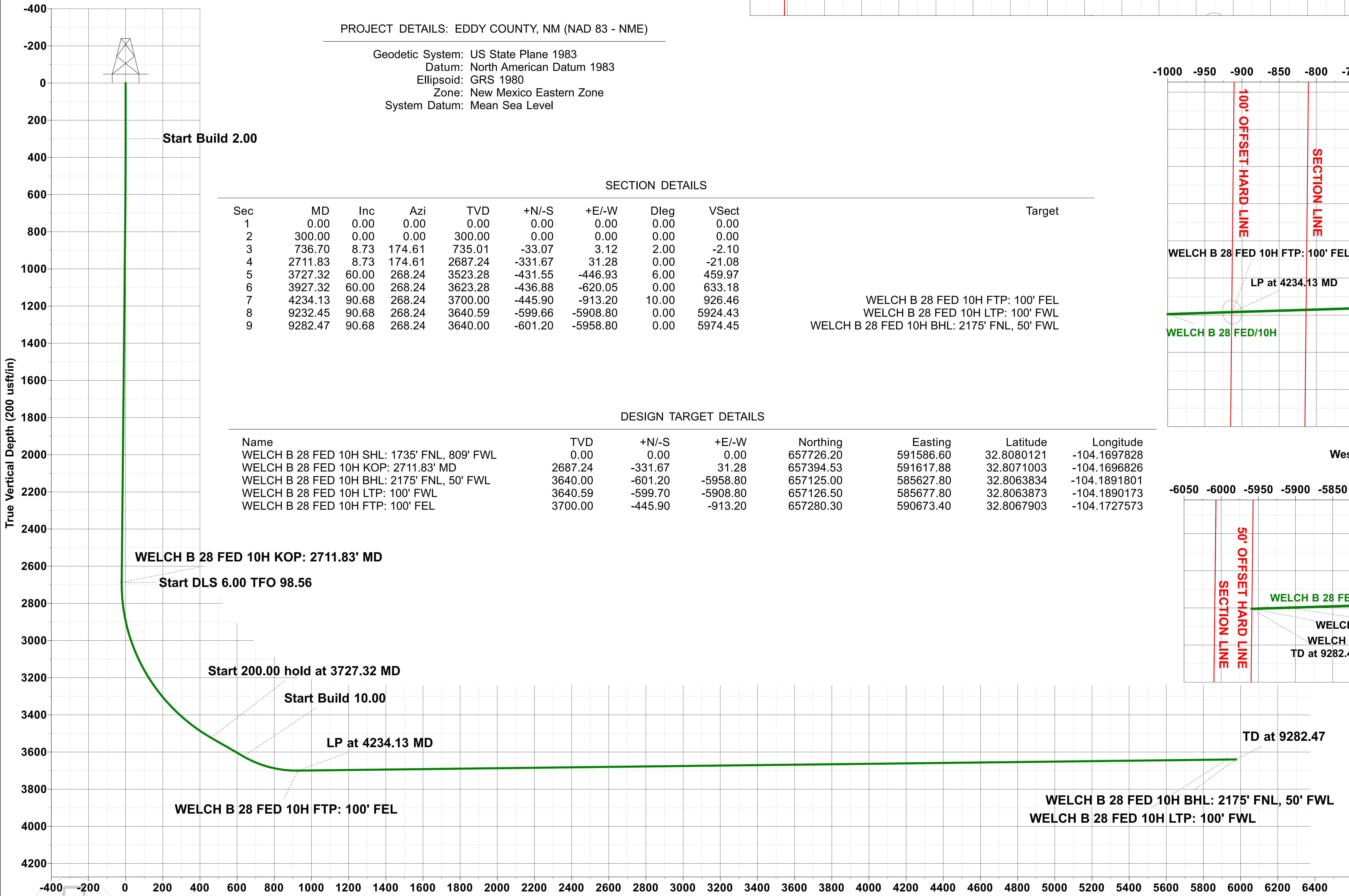
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	
3	736.70	8.73	174.61	735.01	-33.07	3.12	2.00	-2.10	
4	2711.83	8.73	174.61	2687.24	-331.67	31.28	0.00	-21.08	
5	3727.32	60.00	268.24	3523.28	-431.55	-446.93	6.00	459.97	
6	3927.32	60.00	268.24	3623.28	-436.88	-620.05	0.00	633.18	
7	4234.13	90.68	268.24	3700.00	-445.90	-913.20	10.00	926.46	
8	9232.45	90.68	268.24	3640.59	-599.66	-5908.80	0.00	5924.43	WELCH B 28 FED 10H FTP: 100' FEL WELCH B 28 FED 10H LTP: 100' FWL
9	9282.47	90.68	268.24	3640.00	-601.20	-5958.80	0.00	5974.45	WELCH B 28 FED 10H BHL: 2175' FNL, 50' FWL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
WELCH B 28 FED 10H SHL: 1735' FNL, 809' FWL	0.00	0.00	0.00	657726.20	591586.60	32.8080121	-104.1697828
WELCH B 28 FED 10H KOP: 2711.83' MD	2687.24	-331.67	31.28	657394.53	591617.88	32.8071003	-104.1696826
WELCH B 28 FED 10H BHL: 2175' FNL, 50' FWL	3640.00	-601.20	-5958.80	657125.00	585627.80	32.8063834	-104.1891801
WELCH B 28 FED 10H LTP: 100' FWL	3640.59	-599.66	-5908.80	657126.50	585677.80	32.8063873	-104.1890173
WELCH B 28 FED 10H FTP: 100' FEL	3700.00	-445.90	-913.20	657280.30	590673.40	32.8067903	-104.1727573



Vertical Section at 268.24° (200 usft/in)



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Plan: PERMIT (10H/Wellbore #1)

Created By: PROTOTYPE WELL PLANNING / Date: 9:20, June 09 2023



SPUR ENERGY PARTNERS, LLC

EDDY COUNTY, NM (NAD 83 - NME)

WELCH B 28 FED

10H

Wellbore #1

Plan: PERMIT

Standard Planning Report

09 June, 2023



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well 10H
Company:	SPUR ENERGY PARTNERS, LLC	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site:	WELCH B 28 FED	North Reference:	Grid
Well:	10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Project	EDDY 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		WELCH B 28 FED			
Site Position:		Northing:	657,726.20 usft	Latitude:	32.8080121
From:	Map	Easting:	591,586.60 usft	Longitude:	-104.1697828
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.09 °

Well	10H					
Well Position	+N/-S	0.00 usft	Northing:	657,726.20 usft	Latitude:	32.8080121
	+E/-W	0.00 usft	Easting:	591,586.60 usft	Longitude:	-104.1697828
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,659.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	03/16/23	6.66	60.28	47,593

Design	PERMIT			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	268.24

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
736.70	8.73	174.61	735.01	-33.07	3.12	2.00	2.00	0.00	174.61	
2,711.83	8.73	174.61	2,687.24	-331.67	31.28	0.00	0.00	0.00	0.00	
3,727.32	60.00	268.24	3,523.28	-431.55	-446.93	6.00	5.05	9.22	98.56	
3,927.32	60.00	268.24	3,623.28	-436.88	-620.05	0.00	0.00	0.00	0.00	
4,234.13	90.68	268.24	3,700.00	-445.90	-913.20	10.00	10.00	0.00	0.00	WELCH B 28 FED
9,232.45	90.68	268.24	3,640.59	-599.66	-5,908.80	0.00	0.00	0.00	0.00	WELCH B 28 FED
9,282.47	90.68	268.24	3,640.00	-601.20	-5,958.80	0.00	0.00	0.00	0.00	WELCH B 28 FED



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well 10H
Company:	SPUR ENERGY PARTNERS, LLC	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site:	WELCH B 28 FED	North Reference:	Grid
Well:	10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WELCH B 28 FED 10H SHL: 1735' FNL, 809' FWL									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	2.00	174.61	399.98	-1.74	0.16	-0.11	2.00	2.00	0.00
500.00	4.00	174.61	499.84	-6.95	0.66	-0.44	2.00	2.00	0.00
600.00	6.00	174.61	599.45	-15.62	1.47	-0.99	2.00	2.00	0.00
700.00	8.00	174.61	698.70	-27.76	2.62	-1.76	2.00	2.00	0.00
736.70	8.73	174.61	735.01	-33.07	3.12	-2.10	2.00	2.00	0.00
800.00	8.73	174.61	797.58	-42.64	4.02	-2.71	0.00	0.00	0.00
900.00	8.73	174.61	896.42	-57.76	5.45	-3.67	0.00	0.00	0.00
1,000.00	8.73	174.61	995.26	-72.88	6.87	-4.63	0.00	0.00	0.00
1,100.00	8.73	174.61	1,094.10	-88.00	8.30	-5.59	0.00	0.00	0.00
1,200.00	8.73	174.61	1,192.94	-103.11	9.73	-6.55	0.00	0.00	0.00
1,300.00	8.73	174.61	1,291.78	-118.23	11.15	-7.52	0.00	0.00	0.00
1,400.00	8.73	174.61	1,390.62	-133.35	12.58	-8.48	0.00	0.00	0.00
1,500.00	8.73	174.61	1,489.46	-148.47	14.00	-9.44	0.00	0.00	0.00
1,600.00	8.73	174.61	1,588.30	-163.58	15.43	-10.40	0.00	0.00	0.00
1,700.00	8.73	174.61	1,687.14	-178.70	16.86	-11.36	0.00	0.00	0.00
1,800.00	8.73	174.61	1,785.98	-193.82	18.28	-12.32	0.00	0.00	0.00
1,900.00	8.73	174.61	1,884.82	-208.94	19.71	-13.28	0.00	0.00	0.00
2,000.00	8.73	174.61	1,983.66	-224.05	21.13	-14.24	0.00	0.00	0.00
2,100.00	8.73	174.61	2,082.50	-239.17	22.56	-15.20	0.00	0.00	0.00
2,200.00	8.73	174.61	2,181.34	-254.29	23.99	-16.16	0.00	0.00	0.00
2,300.00	8.73	174.61	2,280.18	-269.41	25.41	-17.12	0.00	0.00	0.00
2,400.00	8.73	174.61	2,379.02	-284.53	26.84	-18.09	0.00	0.00	0.00
2,500.00	8.73	174.61	2,477.86	-299.64	28.26	-19.05	0.00	0.00	0.00
2,600.00	8.73	174.61	2,576.70	-314.76	29.69	-20.01	0.00	0.00	0.00
2,700.00	8.73	174.61	2,675.54	-329.88	31.11	-20.97	0.00	0.00	0.00
2,711.83	8.73	174.61	2,687.24	-331.67	31.28	-21.08	0.00	0.00	0.00
WELCH B 28 FED 10H KOP: 2711.83' MD									
2,750.00	8.69	189.77	2,724.97	-337.39	31.07	-20.69	6.00	-0.11	39.72
2,800.00	9.50	208.13	2,774.35	-344.76	28.48	-17.88	6.00	1.62	36.72
2,850.00	11.09	222.46	2,823.55	-351.95	23.28	-12.46	6.00	3.17	28.66
2,900.00	13.17	232.79	2,872.44	-358.94	15.50	-4.47	6.00	4.16	20.66
2,950.00	15.55	240.19	2,920.88	-365.72	5.15	6.09	6.00	4.76	14.79
3,000.00	18.11	245.60	2,968.74	-372.26	-7.75	19.18	6.00	5.12	10.82
3,050.00	20.79	249.68	3,015.88	-378.55	-23.15	34.77	6.00	5.35	8.17
3,100.00	23.54	252.86	3,062.18	-384.58	-41.02	52.81	6.00	5.50	6.36
3,150.00	26.34	255.40	3,107.52	-390.32	-61.29	73.25	6.00	5.61	5.08
3,200.00	29.18	257.49	3,151.76	-395.75	-83.93	96.05	6.00	5.68	4.16
3,250.00	32.05	259.23	3,194.79	-400.88	-108.87	121.13	6.00	5.73	3.48
3,300.00	34.93	260.71	3,236.48	-405.67	-136.04	148.43	6.00	5.77	2.96
3,350.00	37.84	261.99	3,276.73	-410.12	-165.35	177.87	6.00	5.80	2.56
3,400.00	40.75	263.12	3,315.43	-414.21	-196.75	209.38	6.00	5.83	2.25
3,450.00	43.67	264.11	3,352.46	-417.94	-230.13	242.86	6.00	5.85	2.00
3,500.00	46.61	265.01	3,387.72	-421.29	-265.41	278.22	6.00	5.86	1.79
3,550.00	49.54	265.83	3,421.13	-424.26	-302.49	315.37	6.00	5.88	1.63
3,600.00	52.49	266.57	3,452.58	-426.83	-341.26	354.21	6.00	5.89	1.49
3,650.00	55.43	267.26	3,481.99	-429.00	-381.63	394.62	6.00	5.90	1.38
3,700.00	58.39	267.90	3,509.29	-430.76	-423.48	436.51	6.00	5.90	1.28
3,727.32	60.00	268.24	3,523.28	-431.55	-446.93	459.97	6.00	5.91	1.22
3,800.00	60.00	268.24	3,559.62	-433.48	-509.84	522.91	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well 10H
Company:	SPUR ENERGY PARTNERS, LLC	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site:	WELCH B 28 FED	North Reference:	Grid
Well:	10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

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)
3,900.00	60.00	268.24	3,609.62	-436.15	-596.40	609.52	0.00	0.00	0.00
3,927.32	60.00	268.24	3,623.28	-436.88	-620.05	633.18	0.00	0.00	0.00
3,950.00	62.27	268.24	3,634.23	-437.49	-639.90	653.04	10.00	10.00	0.00
4,000.00	67.27	268.24	3,655.54	-438.88	-685.10	698.25	10.00	10.00	0.00
4,050.00	72.27	268.24	3,672.82	-440.32	-731.97	745.15	10.00	10.00	0.00
4,100.00	77.27	268.24	3,685.95	-441.81	-780.18	793.38	10.00	10.00	0.00
4,150.00	82.27	268.24	3,694.83	-443.32	-829.35	842.57	10.00	10.00	0.00
4,200.00	87.27	268.24	3,699.39	-444.85	-879.10	892.35	10.00	10.00	0.00
4,234.13	90.68	268.24	3,700.00	-445.90	-913.20	926.46	10.00	10.00	0.00
WELCH B 28 FED 10H FTP: 100' FEL									
4,300.00	90.68	268.24	3,699.22	-447.93	-979.04	992.33	0.00	0.00	0.00
4,400.00	90.68	268.24	3,698.03	-451.00	-1,078.98	1,092.32	0.00	0.00	0.00
4,500.00	90.68	268.24	3,696.84	-454.08	-1,178.93	1,192.32	0.00	0.00	0.00
4,600.00	90.68	268.24	3,695.65	-457.16	-1,278.87	1,292.31	0.00	0.00	0.00
4,700.00	90.68	268.24	3,694.46	-460.23	-1,378.82	1,392.30	0.00	0.00	0.00
4,800.00	90.68	268.24	3,693.27	-463.31	-1,478.76	1,492.30	0.00	0.00	0.00
4,900.00	90.68	268.24	3,692.09	-466.38	-1,578.71	1,592.29	0.00	0.00	0.00
5,000.00	90.68	268.24	3,690.90	-469.46	-1,678.65	1,692.28	0.00	0.00	0.00
5,100.00	90.68	268.24	3,689.71	-472.54	-1,778.60	1,792.27	0.00	0.00	0.00
5,200.00	90.68	268.24	3,688.52	-475.61	-1,878.55	1,892.27	0.00	0.00	0.00
5,300.00	90.68	268.24	3,687.33	-478.69	-1,978.49	1,992.26	0.00	0.00	0.00
5,400.00	90.68	268.24	3,686.14	-481.77	-2,078.44	2,092.25	0.00	0.00	0.00
5,500.00	90.68	268.24	3,684.96	-484.84	-2,178.38	2,192.25	0.00	0.00	0.00
5,600.00	90.68	268.24	3,683.77	-487.92	-2,278.33	2,292.24	0.00	0.00	0.00
5,700.00	90.68	268.24	3,682.58	-490.99	-2,378.27	2,392.23	0.00	0.00	0.00
5,800.00	90.68	268.24	3,681.39	-494.07	-2,478.22	2,492.23	0.00	0.00	0.00
5,900.00	90.68	268.24	3,680.20	-497.15	-2,578.17	2,592.22	0.00	0.00	0.00
6,000.00	90.68	268.24	3,679.01	-500.22	-2,678.11	2,692.21	0.00	0.00	0.00
6,100.00	90.68	268.24	3,677.82	-503.30	-2,778.06	2,792.20	0.00	0.00	0.00
6,200.00	90.68	268.24	3,676.64	-506.38	-2,878.00	2,892.20	0.00	0.00	0.00
6,300.00	90.68	268.24	3,675.45	-509.45	-2,977.95	2,992.19	0.00	0.00	0.00
6,400.00	90.68	268.24	3,674.26	-512.53	-3,077.89	3,092.18	0.00	0.00	0.00
6,500.00	90.68	268.24	3,673.07	-515.60	-3,177.84	3,192.18	0.00	0.00	0.00
6,600.00	90.68	268.24	3,671.88	-518.68	-3,277.78	3,292.17	0.00	0.00	0.00
6,700.00	90.68	268.24	3,670.69	-521.76	-3,377.73	3,392.16	0.00	0.00	0.00
6,800.00	90.68	268.24	3,669.50	-524.83	-3,477.68	3,492.15	0.00	0.00	0.00
6,900.00	90.68	268.24	3,668.32	-527.91	-3,577.62	3,592.15	0.00	0.00	0.00
7,000.00	90.68	268.24	3,667.13	-530.99	-3,677.57	3,692.14	0.00	0.00	0.00
7,100.00	90.68	268.24	3,665.94	-534.06	-3,777.51	3,792.13	0.00	0.00	0.00
7,200.00	90.68	268.24	3,664.75	-537.14	-3,877.46	3,892.13	0.00	0.00	0.00
7,300.00	90.68	268.24	3,663.56	-540.21	-3,977.40	3,992.12	0.00	0.00	0.00
7,400.00	90.68	268.24	3,662.37	-543.29	-4,077.35	4,092.11	0.00	0.00	0.00
7,500.00	90.68	268.24	3,661.18	-546.37	-4,177.30	4,192.10	0.00	0.00	0.00
7,600.00	90.68	268.24	3,660.00	-549.44	-4,277.24	4,292.10	0.00	0.00	0.00
7,700.00	90.68	268.24	3,658.81	-552.52	-4,377.19	4,392.09	0.00	0.00	0.00
7,800.00	90.68	268.24	3,657.62	-555.60	-4,477.13	4,492.08	0.00	0.00	0.00
7,900.00	90.68	268.24	3,656.43	-558.67	-4,577.08	4,592.08	0.00	0.00	0.00
8,000.00	90.68	268.24	3,655.24	-561.75	-4,677.02	4,692.07	0.00	0.00	0.00
8,100.00	90.68	268.24	3,654.05	-564.82	-4,776.97	4,792.06	0.00	0.00	0.00
8,200.00	90.68	268.24	3,652.87	-567.90	-4,876.91	4,892.06	0.00	0.00	0.00
8,300.00	90.68	268.24	3,651.68	-570.98	-4,976.86	4,992.05	0.00	0.00	0.00
8,400.00	90.68	268.24	3,650.49	-574.05	-5,076.81	5,092.04	0.00	0.00	0.00
8,500.00	90.68	268.24	3,649.30	-577.13	-5,176.75	5,192.03	0.00	0.00	0.00
8,600.00	90.68	268.24	3,648.11	-580.21	-5,276.70	5,292.03	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well 10H
Company:	SPUR ENERGY PARTNERS, LLC	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site:	WELCH B 28 FED	North Reference:	Grid
Well:	10H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

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)
8,700.00	90.68	268.24	3,646.92	-583.28	-5,376.64	5,392.02	0.00	0.00	0.00
8,800.00	90.68	268.24	3,645.73	-586.36	-5,476.59	5,492.01	0.00	0.00	0.00
8,900.00	90.68	268.24	3,644.55	-589.43	-5,576.53	5,592.01	0.00	0.00	0.00
9,000.00	90.68	268.24	3,643.36	-592.51	-5,676.48	5,692.00	0.00	0.00	0.00
9,100.00	90.68	268.24	3,642.17	-595.59	-5,776.42	5,791.99	0.00	0.00	0.00
9,200.00	90.68	268.24	3,640.98	-598.66	-5,876.37	5,891.98	0.00	0.00	0.00
9,232.45	90.68	268.24	3,640.59	-599.66	-5,908.80	5,924.43	0.00	0.00	0.00
WELCH B 28 FED 10H LTP: 100' FWL									
9,282.47	90.68	268.24	3,640.00	-601.20	-5,958.80	5,974.45	0.00	0.00	0.00
WELCH B 28 FED 10H BHL: 2175' FNL, 50' FWL									

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
WELCH B 28 FED 10 - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	657,726.20	591,586.60	32.8080121	-104.1697828
WELCH B 28 FED 10 - plan hits target center - Point	0.00	0.00	2,687.24	-331.67	31.28	657,394.54	591,617.89	32.8071003	-104.1696826
WELCH B 28 FED 10 - plan hits target center - Point	0.00	0.00	3,640.00	-601.20	-5,958.80	657,125.00	585,627.80	32.8063834	-104.1891801
WELCH B 28 FED 10 - plan misses target center by 0.04usft at 9232.45usft MD (3640.59 TVD, -599.66 N, -5908.80 E) - Point	0.00	0.00	3,640.59	-599.70	-5,908.80	657,126.50	585,677.80	32.8063874	-104.1890173
WELCH B 28 FED 10 - plan hits target center - Point	0.00	0.00	3,700.00	-445.90	-913.20	657,280.30	590,673.40	32.8067903	-104.1727573



SPUR ENERGY PARTNERS, LLC

**EDDY COUNTY, NM (NAD 83 - NME)
WELCH B 28 FED
10H**

**Wellbore #1
PERMIT**

Anticollision Report

09 June, 2023



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Reference	PERMIT
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD + Stations Interval 50.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum separation factor of 10.00
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic
Casing Method:	Not applied

Survey Tool Program		Date	06/09/23		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	9,282.47	PERMIT (Wellbore #1)	MWD+IFR1+SAG+FDIR	OWSG MWD + IFR1 + Sag + FDIR Correction	

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
HALBERD 27 STATE COM						
50H - Wellbore #1 - Wellbore #1						Out of range
51H - Wellbore #1 - Wellbore #1						Out of range
51H - Wellbore #1 - Wellbore #1						Out of range
71H - Wellbore #1 - Wellbore #1	4,100.00	10,063.00	910.08	796.00	7.977	SF
71H - Wellbore #1 - Wellbore #1	4,172.35	10,063.00	903.66	790.72	8.001	CC, ES
72H - Wellbore #1 - Wellbore #1						Out of range
72H - Wellbore #1 - Wellbore #1						Out of range
90H - Wellbore #1 - Wellbore #1						Out of range
90H - Wellbore #1 - Wellbore #1						Out of range
WELCH B 28 FED						
70H - Wellbore #1 - PERMIT	350.00	349.77	20.41	18.33	9.850	CC, ES
70H - Wellbore #1 - PERMIT	9,282.47	9,914.14	905.98	800.59	8.597	SF
WELCH CD 28 STATE COM						
OFFSET: COLLIER STATE 2 - Wellbore #1 - Wellbore #						Out of range
OFFSET: COLLIER STATE 2 - Wellbore #1 - Wellbore #						Out of range
OFFSET: COLLIER STATE 3 - Wellbore #1 - Wellbore #						Out of range
OFFSET: COLLIER STATE 3 - Wellbore #1 - Wellbore #						Out of range
OFFSET: COLLIER STATE 4 - Wellbore #1 - Wellbore #						Out of range
OFFSET: COLLIER STATE 4 - Wellbore #1 - Wellbore #						Out of range
OFFSET: COLLIER-STATE 1 - Wellbore #1 - Wellbore #						Out of range
OFFSET: COLLIER-STATE 1 - Wellbore #1 - Wellbore #						Out of range
OFFSET: DELHI 'B' STATE 4 - Wellbore #1 - Wellbore #						Out of range
OFFSET: DELHI 'B' STATE 4 - Wellbore #1 - Wellbore #						Out of range
OFFSET: DELHI B STATE 3 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: DELHI B STATE 3 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: DELHI-STATE B 2 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: DELHI-STATE B 2 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: DELHI-STATE B 2 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: ELK STATE 1 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: ELK STATE 1 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: GERONIMO '27' STATE COM 2 - Wellbore #1						Out of range
OFFSET: GERONIMO '27' STATE COM 2 - Wellbore #1						Out of range
OFFSET: GERONIMO '27' STATE COM 2 - Wellbore #1						Out of range
OFFSET: GERONIMO '28' STATE COM 1 - Wellbore #1						Out of range
OFFSET: GERONIMO '28' STATE COM 1 - Wellbore #1						Out of range

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
WELCH CD 28 STATE COM						
OFFSET: GERONIMO '28' STATE COM 1 - Wellbore #1						Out of range
OFFSET: GERONIMO 28 STATE SWD 2 - Wellbore #1 -	4,861.79	3,722.61	907.52	816.49	9.969	CC, ES
OFFSET: GERONIMO 28 STATE SWD 2 - Wellbore #1 -	4,950.00	3,721.56	911.80	820.01	9.933	SF
OFFSET: HALBERD 27 STATE 3H - Wellbore #1 - Wellb	3,850.91	8,462.00	254.35	181.04	3.469	CC, ES, SF
OFFSET: HALBERD 27 STATE COM 1H - Wellbore #1 -						Out of range
OFFSET: HALBERD 27 STATE COM 1H - Wellbore #1 -						Out of range
OFFSET: HALBERD 27 STATE COM 1H - Wellbore #1 -						Out of range
OFFSET: HANOVER STATE #3 14 - Wellbore #1 - Wellb						Out of range
OFFSET: HANOVER STATE #3 14 - Wellbore #1 - Wellb						Out of range
OFFSET: HANOVER STATE #3 14 - Wellbore #1 - Wellb						Out of range
OFFSET: KERSEY WILLIAMS A FEDERAL 10 - Wellbor	5,104.59	3,605.00	526.26	439.01	6.032	CC, ES
OFFSET: KERSEY WILLIAMS A FEDERAL 10 - Wellbor	5,150.00	3,605.00	528.21	440.55	6.025	SF
OFFSET: KERSEY WILLIAMS A FEDERAL 7 - Wellbore	4,761.76	3,570.00	187.51	122.96	2.905	CC, ES, SF
OFFSET: MALOOF STATE 1 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: MALOOF STATE 1 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: MALOOF STATE 1 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: OXY SPARKY FEDERAL 1 - Wellbore #1 - We	6,102.23	3,652.86	340.88	241.69	3.437	CC, ES, SF
OFFSET: PAN AMERICAN-TE B 1 - Wellbore #1 - Wellb						Out of range
OFFSET: PAN AMERICAN-TE B 1 - Wellbore #1 - Wellb						Out of range
OFFSET: PHILLIPS N G STATE 17 - Wellbore #1 - Wellb						Out of range
OFFSET: PHILLIPS N G STATE 17 - Wellbore #1 - Wellb						Out of range
OFFSET: PHILLIPS N G STATE 17 - Wellbore #1 - Wellb						Out of range
OFFSET: PHILLIPS N G STATE 31 - Wellbore #1 - Wellb	3,760.07	3,523.78	183.70	102.74	2.269	CC, ES, SF
OFFSET: PHILLIPS N G STATE 8 - Wellbore #1 - Wellbc	2,079.30	1,995.00	376.34	331.74	8.438	CC, ES
OFFSET: PHILLIPS N G STATE 8 - Wellbore #1 - Wellbc	2,100.00	1,995.00	376.91	332.23	8.436	SF
OFFSET: PHILLIPS STATE /NG/ 11 - Wellbore #1 - Well						Out of range
OFFSET: PHILLIPS STATE /NG/ 11 - Wellbore #1 - Well						Out of range
OFFSET: PHILLIPS STATE /NG/ 11 - Wellbore #1 - Well						Out of range
OFFSET: PHILLIPS STATE N G 14 - Wellbore #1 - Wellt						Out of range
OFFSET: PHILLIPS STATE N G 14 - Wellbore #1 - Wellt						Out of range
OFFSET: PHILLIPS STATE N G 14 - Wellbore #1 - Wellt						Out of range
OFFSET: RED LAKE 28 K STATE 1 - Wellbore #1 - Wel						Out of range
OFFSET: RED LAKE 28 K STATE 1 - Wellbore #1 - Wel						Out of range
OFFSET: Red Lake 28 K State 2 - Wellbore #1 - Wellbor	7,049.33	3,647.60	720.52	612.77	6.687	CC
OFFSET: Red Lake 28 K State 2 - Wellbore #1 - Wellbor	7,050.00	3,647.59	720.52	612.76	6.686	ES
OFFSET: Red Lake 28 K State 2 - Wellbore #1 - Wellbor	7,100.00	3,646.99	722.30	614.02	6.671	SF
OFFSET: RED LAKE 28 K STATE 3 - Wellbore #1 - Wel	7,709.98	3,633.75	716.92	602.31	6.255	CC, ES
OFFSET: RED LAKE 28 K STATE 3 - Wellbore #1 - Wel	7,750.00	3,633.27	718.04	603.01	6.242	SF
OFFSET: RED LAKE 28 K STATE 4 - Wellbore #1 - Wel						Out of range
OFFSET: RED LAKE 28 K STATE 4 - Wellbore #1 - Wel						Out of range
OFFSET: RED LAKE 28 K STATE 4 - Wellbore #1 - Wel						Out of range
OFFSET: RED LAKE 28 N STATE 1 - Wellbore #1 - Wel						Out of range
OFFSET: RED LAKE 28 N STATE 1 - Wellbore #1 - Wel						Out of range
OFFSET: RED LAKE 28 N STATE 1 - Wellbore #1 - Wel						Out of range
OFFSET: RED LAKE 28 N STATE 2 - Wellbore #1 - Wel						Out of range
OFFSET: RED LAKE 28 N STATE 2 - Wellbore #1 - Wel						Out of range
OFFSET: RED LAKE 28 N STATE 3 - Wellbore #1 - Wel						Out of range
OFFSET: RED LAKE 28 N STATE 3 - Wellbore #1 - Wel						Out of range
OFFSET: RED LAKE 28 N STATE 3 - Wellbore #1 - Wel						Out of range
OFFSET: RED LAKE 28 N STATE 4 - Wellbore #1 - Wel						Out of range
OFFSET: RED LAKE 28 N STATE 4 - Wellbore #1 - Wel						Out of range
OFFSET: RED LAKE 28 N STATE 4 - Wellbore #1 - Wel						Out of range
OFFSET: SAN JUAN-STATE 1 - Wellbore #1 - Wellbore						Out of range
OFFSET: SAN JUAN-STATE 1 - Wellbore #1 - Wellbore						Out of range

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
WELCH CD 28 STATE COM						
OFFSET: STATE /B/ 2 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: STATE /B/ 2 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: STATE /B/ 2 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: STATE 2 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: STATE 2 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: STATE-FEDERAL GAS C 1 - Wellbore #1 - We	8,525.66	3,611.16	360.56	231.76	2.799	CC, ES, SF
OFFSET: SUNRAY-STATE 1 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: SUNRAY-STATE 1 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: SUNRAY-STATE 1 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: TIGNER STATE 1 - Wellbore #1 - Wellbore #1	8,371.54	3,550.00	717.42	596.80	5.948	CC, ES
OFFSET: TIGNER STATE 1 - Wellbore #1 - Wellbore #1	8,400.00	3,550.00	717.99	597.06	5.937	SF
OFFSET: TIGNER STATE 2 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: TIGNER STATE 2 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: TIGNER STATE 3 - Wellbore #1 - Wellbore #1	9,031.27	3,613.40	709.70	575.37	5.283	CC, ES
OFFSET: TIGNER STATE 3 - Wellbore #1 - Wellbore #1	9,050.00	3,613.17	709.95	575.42	5.277	SF
OFFSET: TIGNER STATE 4 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: TIGNER STATE 4 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: TIGNER STATE 4 - Wellbore #1 - Wellbore #1						Out of range
OFFSET: WELCH RL STATE 1 - Wellbore #1 - Wellbore	8,908.35	3,505.00	172.02	68.13	1.656	CC, ES, SF
OFFSET: WELCH RL STATE 14 - Wellbore #1 - Wellbor	7,024.87	3,638.94	139.37	28.47	1.257	Level 3, CC, ES, SF
OFFSET: WELCH RL STATE 2 - Wellbore #1 - Wellbore	7,686.69	3,535.00	163.36	62.55	1.620	CC, ES, SF
OFFSET: WELCH RL STATE 20 - Wellbore #1 - Wellbor	8,889.82	3,618.80	522.49	387.57	3.873	CC
OFFSET: WELCH RL STATE 20 - Wellbore #1 - Wellbor	8,900.00	3,618.68	522.59	387.56	3.870	ES, SF
OFFSET: WELCH RL STATE 21 - Wellbore #1 - Wellbor	8,370.71	3,616.96	91.81	-38.00	0.707	Level 1, CC, ES, SF
OFFSET: WELCH RL STATE 5 - Wellbore #1 - Wellbore	6,997.11	3,623.00	520.83	406.19	4.543	CC
OFFSET: WELCH RL STATE 5 - Wellbore #1 - Wellbore	7,000.00	3,623.00	520.84	406.17	4.542	ES, SF
OFFSET: WILLIAMS KERSEY A FEDERAL 6 - Wellbore	5,817.84	3,575.00	482.58	391.68	5.309	CC, ES
OFFSET: WILLIAMS KERSEY A FEDERAL 6 - Wellbore	5,850.00	3,575.00	483.65	392.43	5.302	SF
OFFSET: WILLIAMS KERSEY A FEDERAL 9 - Wellbore	6,408.06	3,641.26	111.26	5.12	1.048	Level 2, CC, ES, SF

Offset Design												HALBERD 27 STATE COM - 71H - Wellbore #1 - Wellbore #1		Offset Site Error:		0.00 usft	
Survey Program: 148-, 1179-												Offset Well Error:		0.00 usft			
Reference		Offset		Semi Major Axis				Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning				
3,727.32	3,523.28	9,756.29	4,397.98	13.27	147.04	-142.09	-1,010.07	-460.03	1,048.79	942.92	105.87	9.907					
3,750.00	3,534.62	9,774.43	4,397.84	13.37	147.52	-141.78	-1,009.89	-478.17	1,038.78	931.94	106.84	9.723					
3,800.00	3,559.62	9,814.51	4,397.59	13.60	148.57	-141.08	-1,009.56	-518.25	1,016.92	907.88	109.04	9.327					
3,850.00	3,584.62	9,854.71	4,397.44	13.86	149.62	-140.34	-1,009.30	-558.44	995.35	884.04	111.31	8.942					
3,900.00	3,609.62	9,895.60	4,397.36	14.12	150.70	-139.56	-1,009.12	-599.33	974.08	860.39	113.69	8.568					
3,927.32	3,623.28	9,918.15	4,397.34	14.27	151.29	-139.12	-1,009.05	-621.88	962.58	847.54	115.04	8.367					
3,950.00	3,634.23	9,937.10	4,397.33	14.39	151.79	-139.42	-1,009.02	-640.83	953.40	838.62	114.78	8.306					
4,000.00	3,655.54	9,980.26	4,397.35	14.68	152.92	-139.94	-1,009.01	-683.99	935.59	821.17	114.42	8.177					
4,050.00	3,672.82	10,026.56	4,397.40	14.98	154.13	-140.32	-1,009.07	-730.30	921.14	806.78	114.36	8.055					
4,100.00	3,685.95	10,063.00	4,397.45	15.29	155.09	-140.69	-1,009.12	-766.73	910.08	796.00	114.08	7.977	SF				
4,150.00	3,694.83	10,063.00	4,397.45	15.60	155.09	-141.06	-1,009.12	-766.73	904.28	791.15	113.12	7.994					
4,172.35	3,697.41	10,063.00	4,397.45	15.73	155.09	-141.10	-1,009.12	-766.73	903.66	790.72	112.94	8.001	CC, ES				
4,200.00	3,699.39	10,063.00	4,397.45	15.91	155.09	-141.04	-1,009.12	-766.73	904.60	791.69	112.91	8.012					
4,234.13	3,700.00	10,063.00	4,397.45	16.12	155.09	-140.80	-1,009.12	-766.73	908.35	795.14	113.21	8.024					
4,250.00	3,699.81	10,063.00	4,397.45	16.22	155.09	-140.80	-1,009.12	-766.73	910.88	797.60	113.29	8.040					

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design HALBERD 27 STATE COM - 71H - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 148-, 1179-												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis			Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,300.00	3,699.22	10,063.00	4,397.45	16.54	155.09	-140.80	-1,009.12	-766.73	920.62	807.07	113.54	8.108	
4,350.00	3,698.62	10,063.00	4,397.45	16.89	155.09	-140.80	-1,009.12	-766.73	932.93	819.12	113.81	8.197	
4,400.00	3,698.03	10,063.00	4,397.45	17.23	155.09	-140.80	-1,009.12	-766.73	947.72	833.64	114.08	8.307	
4,450.00	3,697.43	10,063.00	4,397.45	17.60	155.09	-140.80	-1,009.12	-766.73	964.88	850.51	114.37	8.436	
4,500.00	3,696.84	10,063.00	4,397.45	17.96	155.09	-140.80	-1,009.12	-766.73	984.29	869.63	114.66	8.585	
4,550.00	3,696.25	10,063.00	4,397.45	18.35	155.09	-140.80	-1,009.12	-766.73	1,005.81	890.85	114.96	8.749	
4,600.00	3,695.65	10,063.00	4,397.45	18.73	155.09	-140.80	-1,009.12	-766.73	1,029.30	914.05	115.26	8.931	
4,650.00	3,695.06	10,063.00	4,397.45	19.14	155.09	-140.80	-1,009.12	-766.73	1,054.65	939.08	115.57	9.126	
4,700.00	3,694.46	10,063.00	4,397.45	19.54	155.09	-140.80	-1,009.12	-766.73	1,081.72	965.84	115.88	9.335	
4,750.00	3,693.87	10,063.00	4,397.45	19.96	155.09	-140.80	-1,009.12	-766.73	1,110.38	994.17	116.20	9.556	
4,800.00	3,693.27	10,063.00	4,397.45	20.37	155.09	-140.80	-1,009.12	-766.73	1,140.51	1,023.98	116.52	9.788	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design WELCH B 28 FED - 70H - Wellbore #1 - PERMIT													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+IFR1+SAG+FDIR													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
350.00	350.00	349.77	349.77	1.03	1.04	-118.10	10.83	17.06	20.41	18.33	2.07	9.850	CC, ES	
400.00	399.98	399.45	399.43	1.20	1.22	-123.63	12.11	17.22	21.98	19.55	2.43	9.061		
450.00	449.93	448.95	448.88	1.38	1.40	-131.13	14.24	17.50	24.98	22.19	2.78	8.972		
500.00	499.84	498.18	498.03	1.55	1.58	-138.88	17.20	17.88	29.71	26.57	3.15	9.442		
8,450.00	3,649.89	9,122.08	4,265.69	58.00	59.10	132.62	92.97	-5,159.57	909.53	818.40	91.13	9.980		
8,500.00	3,649.30	9,172.07	4,264.70	58.54	59.65	132.60	91.43	-5,209.53	909.27	817.26	92.00	9.883		
8,550.00	3,648.71	9,222.07	4,263.71	59.09	60.19	132.59	89.89	-5,259.50	909.00	816.12	92.88	9.787		
8,600.00	3,648.11	9,272.07	4,262.72	59.64	60.73	132.57	88.35	-5,309.46	908.73	814.98	93.75	9.693		
8,650.00	3,647.52	9,322.07	4,261.73	60.19	61.28	132.55	86.81	-5,359.43	908.46	813.83	94.63	9.601		
8,700.00	3,646.92	9,372.07	4,260.74	60.74	61.82	132.53	85.28	-5,409.39	908.19	812.69	95.50	9.510		
8,750.00	3,646.33	9,422.07	4,259.75	61.29	62.36	132.51	83.74	-5,459.36	907.92	811.55	96.38	9.421		
8,800.00	3,645.73	9,472.07	4,258.76	61.84	62.91	132.49	82.20	-5,509.32	907.66	810.40	97.25	9.333		
8,850.00	3,645.14	9,522.06	4,257.77	62.38	63.45	132.48	80.66	-5,559.29	907.39	809.26	98.13	9.247		
8,900.00	3,644.55	9,572.06	4,256.78	62.93	64.00	132.46	79.12	-5,609.25	907.12	808.11	99.01	9.162		
8,950.00	3,643.95	9,622.06	4,255.79	63.48	64.54	132.44	77.59	-5,659.22	906.85	806.96	99.89	9.079		
9,000.00	3,643.36	9,672.06	4,254.80	64.03	65.09	132.42	76.05	-5,709.18	906.58	805.82	100.77	8.997		
9,050.00	3,642.76	9,722.06	4,253.81	64.58	65.63	132.40	74.51	-5,759.15	906.32	804.67	101.65	8.916		
9,100.00	3,642.17	9,772.06	4,252.81	65.13	66.18	132.38	72.97	-5,809.11	906.05	803.52	102.53	8.837		
9,150.00	3,641.57	9,822.05	4,251.82	65.68	66.72	132.36	71.43	-5,859.08	905.78	802.37	103.41	8.759		
9,200.00	3,640.98	9,872.05	4,250.83	66.23	67.27	132.35	69.89	-5,909.04	905.52	801.22	104.29	8.682		
9,232.45	3,640.59	9,904.50	4,250.19	66.59	67.63	132.33	68.90	-5,941.47	905.34	800.48	104.87	8.633		
9,246.92	3,640.42	9,914.14	4,250.00	66.75	67.73	132.33	68.60	-5,951.10	905.28	800.20	105.08	8.615		
9,250.00	3,640.39	9,914.14	4,250.00	66.79	67.73	132.33	68.60	-5,951.10	905.28	800.18	105.11	8.613		
9,282.47	3,640.00	9,914.14	4,250.00	67.14	67.73	132.33	68.60	-5,951.10	905.98	800.59	105.38	8.597	SF	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design WELCH CD 28 STATE COM - OFFSET: GERONIMO 28 STATE SWD 2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 48-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,850.00	3,692.68	3,722.75	3,692.68	20.80	70.23	-90.01	-1,372.30	-1,512.60	907.60	816.66	90.93	9.981	
4,861.79	3,692.54	3,722.61	3,692.54	20.91	70.23	-90.00	-1,372.30	-1,512.60	907.52	816.49	91.03	9.969 CC, ES	
4,900.00	3,692.09	3,722.16	3,692.09	21.24	70.22	-89.97	-1,372.30	-1,512.60	908.33	816.97	91.36	9.943	
4,950.00	3,691.49	3,721.56	3,691.49	21.68	70.21	-89.93	-1,372.30	-1,512.60	911.80	820.01	91.79	9.933 SF	
5,000.00	3,690.90	3,720.97	3,690.90	22.12	70.19	-89.90	-1,372.30	-1,512.60	917.98	825.76	92.22	9.954	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design WELCH CD 28 STATE COM - OFFSET: HALBERD 27 STATE 3H - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF												Offset Well Error:	0.00 usft
Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
2,750.00	2,724.97	8,017.65	3,791.67	9.93	135.03	-24.98	-527.11	11.14	1,083.62	943.55	140.07	7.736	
3,350.00	3,276.73	8,196.17	3,790.27	11.95	140.62	-159.13	-526.17	-167.37	526.49	470.17	56.32	9.349	
3,400.00	3,315.43	8,227.29	3,790.16	12.10	141.60	-159.61	-526.12	-198.49	487.75	429.72	58.03	8.405	
3,450.00	3,352.46	8,259.95	3,790.05	12.25	142.62	-159.88	-526.12	-231.15	450.77	390.90	59.87	7.530	
3,500.00	3,387.72	8,293.80	3,790.00	12.41	143.68	-159.94	-526.21	-265.00	415.74	353.90	61.83	6.723	
3,550.00	3,421.13	8,329.56	3,790.05	12.58	144.80	-159.78	-526.43	-300.76	382.81	318.80	64.01	5.980	
3,600.00	3,452.58	8,371.48	3,790.06	12.75	146.11	-159.27	-526.72	-342.68	351.95	285.20	66.76	5.272	
3,650.00	3,481.99	8,413.48	3,789.66	12.94	147.43	-158.60	-526.81	-384.68	322.85	253.23	69.62	4.637	
3,700.00	3,509.29	8,455.05	3,789.22	13.15	148.73	-157.80	-526.88	-426.24	295.99	223.38	72.61	4.076	
3,727.32	3,523.28	8,462.00	3,789.15	13.27	148.95	-157.89	-526.90	-433.19	282.78	209.91	72.87	3.881	
3,750.00	3,534.62	8,462.00	3,789.15	13.37	148.95	-157.89	-526.90	-433.19	273.63	200.68	72.95	3.751	
3,800.00	3,559.62	8,462.00	3,789.15	13.60	148.95	-157.89	-526.90	-433.19	259.39	186.27	73.12	3.547	
3,850.00	3,584.62	8,462.00	3,789.15	13.86	148.95	-157.89	-526.90	-433.19	254.35	181.04	73.31	3.470	
3,850.91	3,585.07	8,462.00	3,789.15	13.86	148.95	-157.89	-526.90	-433.19	254.35	181.04	73.31	3.469 CC, ES, SF	
3,900.00	3,609.62	8,462.00	3,789.15	14.12	148.95	-157.89	-526.90	-433.19	259.04	185.55	73.49	3.525	
3,927.32	3,623.28	8,462.00	3,789.15	14.27	148.95	-157.89	-526.90	-433.19	265.58	191.98	73.60	3.609	
3,950.00	3,634.23	8,462.00	3,789.15	14.39	148.95	-157.58	-526.90	-433.19	273.36	199.15	74.20	3.684	
4,000.00	3,655.54	8,462.00	3,789.15	14.68	148.95	-156.44	-526.90	-433.19	298.42	222.01	76.41	3.906	
4,050.00	3,672.82	8,462.00	3,789.15	14.98	148.95	-154.53	-526.90	-433.19	332.11	251.96	80.15	4.144	
4,100.00	3,685.95	8,462.00	3,789.15	15.29	148.95	-151.53	-526.90	-433.19	371.87	285.68	86.19	4.314	
4,150.00	3,694.83	8,462.00	3,789.15	15.60	148.95	-146.82	-526.90	-433.19	415.71	319.86	95.86	4.337	
4,200.00	3,699.39	8,462.00	3,789.15	15.91	148.95	-139.17	-526.90	-433.19	462.19	350.92	111.27	4.154	
4,234.13	3,700.00	8,462.00	3,789.15	16.12	148.95	-131.09	-526.90	-433.19	494.89	368.58	126.31	3.918	
4,250.00	3,699.81	8,462.00	3,789.15	16.22	148.95	-131.09	-526.90	-433.19	510.24	383.85	126.39	4.037	
4,300.00	3,699.22	8,462.00	3,789.15	16.54	148.95	-131.09	-526.90	-433.19	558.81	432.14	126.67	4.412	
4,350.00	3,698.62	8,462.00	3,789.15	16.89	148.95	-131.09	-526.90	-433.19	607.61	480.64	126.96	4.786	
4,400.00	3,698.03	8,462.00	3,789.15	17.23	148.95	-131.09	-526.90	-433.19	656.59	529.33	127.26	5.159	
4,450.00	3,697.43	8,462.00	3,789.15	17.60	148.95	-131.09	-526.90	-433.19	705.71	578.14	127.57	5.532	
4,500.00	3,696.84	8,462.00	3,789.15	17.96	148.95	-131.09	-526.90	-433.19	754.94	627.06	127.88	5.903	
4,550.00	3,696.25	8,462.00	3,789.15	18.35	148.95	-131.09	-526.90	-433.19	804.28	676.06	128.21	6.273	
4,600.00	3,695.65	8,462.00	3,789.15	18.73	148.95	-131.09	-526.90	-433.19	853.69	725.14	128.54	6.641	
4,650.00	3,695.06	8,462.00	3,789.15	19.14	148.95	-131.09	-526.90	-433.19	903.16	774.28	128.88	7.008	
4,700.00	3,694.46	8,462.00	3,789.15	19.54	148.95	-131.09	-526.90	-433.19	952.69	823.46	129.22	7.372	
4,750.00	3,693.87	8,462.00	3,789.15	19.96	148.95	-131.09	-526.90	-433.19	1,002.26	872.69	129.58	7.735	
4,800.00	3,693.27	8,462.00	3,789.15	20.37	148.95	-131.09	-526.90	-433.19	1,051.88	921.95	129.93	8.096	
4,850.00	3,692.68	8,462.00	3,789.15	20.80	148.95	-131.09	-526.90	-433.19	1,101.53	971.23	130.30	8.454	
4,900.00	3,692.09	8,462.00	3,789.15	21.24	148.95	-131.09	-526.90	-433.19	1,151.21	1,020.55	130.66	8.811	
4,950.00	3,691.49	8,462.00	3,789.15	21.68	148.95	-131.09	-526.90	-433.19	1,200.92	1,069.89	131.03	9.165	
5,000.00	3,690.90	8,462.00	3,789.15	22.12	148.95	-131.09	-526.90	-433.19	1,250.65	1,119.24	131.41	9.517	
5,050.00	3,690.30	8,462.00	3,789.15	22.57	148.95	-131.09	-526.90	-433.19	1,300.40	1,168.61	131.79	9.867	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design										WELCH CD 28 STATE COM - OFFSET: KERSEY WILLIAMS A FEDERAL 10 - Wellbore #1 - Wellbore				Offset Site Error:		0.00 usft	
Survey Program: 476-INC-ONLY														Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Distance								Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
4,500.00	3,696.84	3,605.00	3,615.93	17.96	65.29	81.95	48.17	-1,798.34	801.54	719.42	82.12	9.760					
4,550.00	3,696.25	3,605.00	3,615.93	18.35	65.29	81.95	48.17	-1,798.34	764.54	682.03	82.51	9.266					
4,600.00	3,695.65	3,605.00	3,615.93	18.73	65.29	81.95	48.17	-1,798.34	729.08	646.18	82.90	8.795					
4,650.00	3,695.06	3,605.00	3,615.93	19.14	65.29	81.95	48.17	-1,798.34	695.41	612.11	83.30	8.348					
4,700.00	3,694.46	3,605.00	3,615.93	19.54	65.29	81.95	48.17	-1,798.34	663.81	580.10	83.70	7.930					
4,750.00	3,693.87	3,605.00	3,615.93	19.96	65.29	81.95	48.17	-1,798.34	634.57	550.45	84.12	7.543					
4,800.00	3,693.27	3,605.00	3,615.93	20.37	65.29	81.95	48.17	-1,798.34	608.05	523.50	84.54	7.192					
4,850.00	3,692.68	3,605.00	3,615.93	20.80	65.29	81.95	48.17	-1,798.34	584.60	499.63	84.98	6.880					
4,900.00	3,692.09	3,605.00	3,615.93	21.24	65.29	81.95	48.17	-1,798.34	564.63	479.22	85.41	6.611					
4,950.00	3,691.49	3,605.00	3,615.93	21.68	65.29	81.95	48.17	-1,798.34	548.49	462.64	85.85	6.389					
5,000.00	3,690.90	3,605.00	3,615.93	22.12	65.29	81.95	48.17	-1,798.34	536.55	450.26	86.29	6.218					
5,050.00	3,690.30	3,605.00	3,615.93	22.57	65.29	81.95	48.17	-1,798.34	529.08	442.33	86.75	6.099					
5,100.00	3,689.71	3,605.00	3,615.93	23.03	65.29	81.95	48.17	-1,798.34	526.28	439.08	87.20	6.035					
5,104.59	3,689.65	3,605.00	3,615.93	23.07	65.29	81.95	48.17	-1,798.34	526.26	439.01	87.25	6.032 CC, ES					
5,150.00	3,689.11	3,605.00	3,615.93	23.49	65.29	81.95	48.17	-1,798.34	528.21	440.55	87.67	6.025 SF					
5,200.00	3,688.52	3,605.00	3,615.93	23.95	65.29	81.95	48.17	-1,798.34	534.84	446.71	88.13	6.069					
5,250.00	3,687.93	3,605.00	3,615.93	24.42	65.29	81.95	48.17	-1,798.34	545.98	457.38	88.60	6.162					
5,300.00	3,687.33	3,605.00	3,615.93	24.89	65.29	81.95	48.17	-1,798.34	561.37	472.30	89.07	6.303					
5,350.00	3,686.74	3,605.00	3,615.93	25.37	65.29	81.95	48.17	-1,798.34	580.67	491.12	89.55	6.484					
5,400.00	3,686.14	3,605.00	3,615.93	25.85	65.29	81.95	48.17	-1,798.34	603.50	513.48	90.03	6.704					
5,450.00	3,685.55	3,605.00	3,615.93	26.34	65.29	81.95	48.17	-1,798.34	629.49	538.98	90.51	6.955					
5,500.00	3,684.96	3,605.00	3,615.93	26.82	65.29	81.95	48.17	-1,798.34	658.25	567.26	90.99	7.234					
5,550.00	3,684.36	3,605.00	3,615.93	27.31	65.29	81.95	48.17	-1,798.34	689.45	597.96	91.49	7.536					
5,600.00	3,683.77	3,605.00	3,615.93	27.80	65.29	81.95	48.17	-1,798.34	722.76	630.78	91.97	7.858					
5,650.00	3,683.17	3,605.00	3,615.93	28.30	65.29	81.95	48.17	-1,798.34	757.91	665.44	92.47	8.196					
5,700.00	3,682.58	3,605.00	3,615.93	28.79	65.29	81.95	48.17	-1,798.34	794.65	701.68	92.97	8.548					
5,750.00	3,681.98	3,605.00	3,615.93	29.29	65.29	81.95	48.17	-1,798.34	832.77	739.30	93.46	8.910					
5,800.00	3,681.39	3,605.00	3,615.93	29.79	65.29	81.95	48.17	-1,798.34	872.09	778.13	93.96	9.281					
5,850.00	3,680.80	3,605.00	3,615.93	30.30	65.29	81.95	48.17	-1,798.34	912.46	817.99	94.47	9.659					

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 499-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,234.13	3,700.00	3,570.00	3,567.92	16.12	65.06	-47.86	-601.05	-1,434.77	559.96	498.53	61.43	9.116	
4,250.00	3,699.81	3,570.00	3,567.92	16.22	65.06	-47.86	-601.05	-1,434.77	545.03	483.52	61.51	8.861	
4,300.00	3,699.22	3,570.00	3,567.92	16.54	65.06	-47.86	-601.05	-1,434.77	498.38	436.61	61.77	8.069	
4,350.00	3,698.62	3,570.00	3,567.92	16.89	65.06	-47.86	-601.05	-1,434.77	452.44	390.40	62.04	7.293	
4,400.00	3,698.03	3,570.00	3,567.92	17.23	65.06	-47.86	-601.05	-1,434.77	407.47	345.15	62.32	6.539	
4,450.00	3,697.43	3,570.00	3,567.92	17.60	65.06	-47.86	-601.05	-1,434.77	363.80	301.20	62.61	5.811	
4,500.00	3,696.84	3,570.00	3,567.92	17.96	65.06	-47.86	-601.05	-1,434.77	321.99	259.09	62.90	5.119	
4,550.00	3,696.25	3,570.00	3,567.92	18.35	65.06	-47.86	-601.05	-1,434.77	282.85	219.64	63.20	4.475	
4,600.00	3,695.65	3,570.00	3,567.92	18.73	65.06	-47.86	-601.05	-1,434.77	247.64	184.13	63.51	3.899	
4,650.00	3,695.06	3,570.00	3,567.92	19.14	65.06	-47.86	-601.05	-1,434.77	218.29	154.47	63.82	3.420	
4,700.00	3,694.46	3,570.00	3,567.92	19.54	65.06	-47.86	-601.05	-1,434.77	197.42	133.28	64.14	3.078	
4,750.00	3,693.87	3,570.00	3,567.92	19.96	65.06	-47.86	-601.05	-1,434.77	187.88	123.41	64.47	2.914	
4,761.76	3,693.73	3,570.00	3,567.92	20.05	65.06	-47.86	-601.05	-1,434.77	187.51	122.96	64.55	2.905 CC, ES, SF	
4,800.00	3,693.27	3,570.00	3,567.92	20.37	65.06	-47.86	-601.05	-1,434.77	191.37	126.57	64.80	2.953	
4,850.00	3,692.68	3,570.00	3,567.92	20.80	65.06	-47.86	-601.05	-1,434.77	207.24	142.10	65.14	3.181	
4,900.00	3,692.09	3,570.00	3,567.92	21.24	65.06	-47.86	-601.05	-1,434.77	232.96	167.48	65.48	3.558	
4,950.00	3,691.49	3,570.00	3,567.92	21.68	65.06	-47.86	-601.05	-1,434.77	265.70	199.87	65.83	4.036	
5,000.00	3,690.90	3,570.00	3,567.92	22.12	65.06	-47.86	-601.05	-1,434.77	303.18	237.01	66.17	4.582	
5,050.00	3,690.30	3,570.00	3,567.92	22.57	65.06	-47.86	-601.05	-1,434.77	343.87	277.34	66.53	5.169	
5,100.00	3,689.71	3,570.00	3,567.92	23.03	65.06	-47.86	-601.05	-1,434.77	386.74	319.86	66.89	5.782	
5,150.00	3,689.11	3,570.00	3,567.92	23.49	65.06	-47.86	-601.05	-1,434.77	431.15	363.90	67.25	6.411	
5,200.00	3,688.52	3,570.00	3,567.92	23.95	65.06	-47.86	-601.05	-1,434.77	476.67	409.06	67.61	7.050	
5,250.00	3,687.93	3,570.00	3,567.92	24.42	65.06	-47.86	-601.05	-1,434.77	523.01	455.03	67.98	7.694	
5,300.00	3,687.33	3,570.00	3,567.92	24.89	65.06	-47.86	-601.05	-1,434.77	569.97	501.62	68.35	8.339	
5,350.00	3,686.74	3,570.00	3,567.92	25.37	65.06	-47.86	-601.05	-1,434.77	617.41	548.68	68.72	8.984	
5,400.00	3,686.14	3,570.00	3,567.92	25.85	65.06	-47.86	-601.05	-1,434.77	665.22	596.12	69.10	9.627	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 225-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,300.00	3,687.33	3,662.40	3,687.33	24.89	66.55	91.60	-162.65	-2,790.77	871.59	780.23	91.37	9.540	
5,350.00	3,686.74	3,661.80	3,686.74	25.37	66.54	91.50	-162.65	-2,790.77	825.81	733.97	91.84	8.992	
5,400.00	3,686.14	3,661.21	3,686.14	25.85	66.53	91.40	-162.65	-2,790.77	780.55	688.24	92.31	8.456	
5,450.00	3,685.55	3,660.61	3,685.55	26.34	66.52	91.30	-162.65	-2,790.77	735.89	643.11	92.78	7.931	
5,500.00	3,684.96	3,660.02	3,684.96	26.82	66.51	91.20	-162.65	-2,790.77	691.97	598.71	93.26	7.420	
5,550.00	3,684.36	3,659.43	3,684.36	27.31	66.50	91.10	-162.65	-2,790.77	648.93	555.19	93.74	6.923	
5,600.00	3,683.77	3,658.83	3,683.77	27.80	66.49	91.00	-162.65	-2,790.77	606.96	512.73	94.22	6.442	
5,650.00	3,683.17	3,658.24	3,683.17	28.30	66.48	90.90	-162.65	-2,790.77	566.29	471.58	94.71	5.979	
5,700.00	3,682.58	3,657.64	3,682.58	28.79	66.47	90.80	-162.65	-2,790.77	527.22	432.03	95.20	5.538	
5,750.00	3,681.98	3,657.05	3,681.98	29.29	66.46	90.70	-162.65	-2,790.77	490.15	394.46	95.69	5.122	
5,800.00	3,681.39	3,656.45	3,681.39	29.79	66.44	90.60	-162.65	-2,790.77	455.55	359.37	96.18	4.737	
5,850.00	3,680.80	3,655.86	3,680.80	30.30	66.43	90.50	-162.65	-2,790.77	424.04	327.37	96.67	4.386	
5,900.00	3,680.20	3,655.27	3,680.20	30.80	66.42	90.40	-162.65	-2,790.77	396.34	299.18	97.17	4.079	
5,950.00	3,679.61	3,654.67	3,679.61	31.31	66.41	90.30	-162.65	-2,790.77	373.32	275.66	97.66	3.823	
6,000.00	3,679.01	3,654.08	3,679.01	31.82	66.40	90.20	-162.65	-2,790.77	355.88	257.71	98.16	3.625	
6,050.00	3,678.42	3,653.48	3,678.42	32.33	66.39	90.10	-162.65	-2,790.77	344.86	246.19	98.66	3.495	
6,100.00	3,677.82	3,652.89	3,677.82	32.84	66.38	90.00	-162.65	-2,790.77	340.89	241.72	99.16	3.438	
6,102.23	3,677.80	3,652.86	3,677.80	32.87	66.38	90.00	-162.65	-2,790.77	340.88	241.69	99.19	3.437	CC, ES, SF
6,150.00	3,677.23	3,652.29	3,677.23	33.36	66.37	89.90	-162.65	-2,790.77	344.21	244.54	99.67	3.454	
6,200.00	3,676.64	3,651.70	3,676.64	33.88	66.36	89.80	-162.65	-2,790.77	354.62	254.45	100.17	3.540	
6,250.00	3,676.04	3,651.11	3,676.04	34.39	66.35	89.70	-162.65	-2,790.77	371.53	270.85	100.68	3.690	
6,300.00	3,675.45	3,650.51	3,675.45	34.91	66.33	89.60	-162.65	-2,790.77	394.09	292.91	101.18	3.895	
6,350.00	3,674.85	3,649.92	3,674.85	35.43	66.32	89.51	-162.65	-2,790.77	421.40	319.71	101.69	4.144	
6,400.00	3,674.26	3,649.32	3,674.26	35.95	66.31	89.41	-162.65	-2,790.77	452.61	350.41	102.20	4.429	
6,450.00	3,673.66	3,648.73	3,673.66	36.48	66.30	89.31	-162.65	-2,790.77	486.96	384.25	102.71	4.741	
6,500.00	3,673.07	3,648.13	3,673.07	37.00	66.29	89.21	-162.65	-2,790.77	523.83	420.62	103.22	5.075	
6,550.00	3,672.48	3,647.54	3,672.48	37.53	66.28	89.11	-162.65	-2,790.77	562.73	459.01	103.73	5.425	
6,600.00	3,671.88	3,646.95	3,671.88	38.05	66.27	89.01	-162.65	-2,790.77	603.27	499.04	104.24	5.787	
6,650.00	3,671.29	3,646.35	3,671.29	38.58	66.26	88.91	-162.65	-2,790.77	645.14	540.39	104.75	6.159	
6,700.00	3,670.69	3,645.76	3,670.69	39.11	66.25	88.81	-162.65	-2,790.77	688.10	582.84	105.26	6.537	
6,750.00	3,670.10	3,645.16	3,670.10	39.64	66.24	88.71	-162.65	-2,790.77	731.95	626.17	105.78	6.920	
6,800.00	3,669.50	3,644.57	3,669.50	40.17	66.23	88.61	-162.65	-2,790.77	776.54	670.25	106.29	7.306	
6,850.00	3,668.91	3,643.97	3,668.91	40.70	66.21	88.51	-162.65	-2,790.77	821.76	714.95	106.81	7.694	
6,900.00	3,668.32	3,643.38	3,668.32	41.23	66.20	88.41	-162.65	-2,790.77	867.50	760.18	107.32	8.083	
6,950.00	3,667.72	3,642.79	3,667.72	41.76	66.19	88.31	-162.65	-2,790.77	913.68	805.85	107.84	8.473	
7,000.00	3,667.13	3,642.19	3,667.13	42.29	66.18	88.21	-162.65	-2,790.77	960.25	851.90	108.35	8.862	
7,050.00	3,666.53	3,641.60	3,666.53	42.83	66.17	88.11	-162.65	-2,790.77	1,007.15	898.28	108.87	9.251	
7,100.00	3,665.94	3,641.00	3,665.94	43.36	66.16	88.01	-162.65	-2,790.77	1,054.33	944.94	109.39	9.639	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design WELCH CD 28 STATE COM - OFFSET: PHILLIPS N G STATE 31 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 524-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis					Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
2,300.00	2,280.18	2,264.27	2,280.18	8.23	42.70	97.63	-248.81	-480.93	506.76	455.84	50.92	9.952	
2,350.00	2,329.60	2,313.69	2,329.60	8.42	43.67	98.47	-248.81	-480.93	507.84	455.76	52.07	9.752	
2,400.00	2,379.02	2,363.12	2,379.02	8.61	44.63	99.30	-248.81	-480.93	509.02	455.80	53.22	9.564	
2,450.00	2,428.44	2,412.54	2,428.44	8.80	45.60	100.14	-248.81	-480.93	510.32	455.94	54.38	9.385	
2,500.00	2,477.86	2,461.96	2,477.86	8.99	46.57	100.96	-248.81	-480.93	511.72	456.20	55.53	9.216	
2,550.00	2,527.28	2,511.38	2,527.28	9.18	47.53	101.79	-248.81	-480.93	513.24	456.56	56.68	9.056	
2,600.00	2,576.70	2,560.80	2,576.70	9.37	48.50	102.60	-248.81	-480.93	514.86	457.04	57.82	8.904	
2,650.00	2,626.12	2,610.23	2,626.12	9.56	49.46	103.42	-248.81	-480.93	516.59	457.61	58.98	8.759	
2,700.00	2,675.54	2,659.65	2,675.54	9.74	50.43	104.22	-248.81	-480.93	518.42	458.30	60.13	8.622	
2,711.83	2,687.24	2,671.34	2,687.24	9.79	50.66	104.42	-248.81	-480.93	518.87	458.47	60.40	8.591	
2,750.00	2,724.97	2,709.08	2,724.97	9.93	51.40	90.04	-248.81	-480.93	519.60	458.29	61.31	8.475	
2,800.00	2,774.35	2,758.46	2,774.35	10.12	52.37	72.76	-248.81	-480.93	518.37	456.00	62.37	8.311	
2,850.00	2,823.55	2,807.66	2,823.55	10.31	53.33	59.57	-248.81	-480.93	514.66	451.38	63.27	8.134	
2,900.00	2,872.44	2,856.55	2,872.44	10.49	54.29	50.46	-248.81	-480.93	508.50	444.49	64.01	7.945	
2,950.00	2,920.88	2,904.99	2,920.88	10.67	55.24	44.40	-248.81	-480.93	499.94	435.36	64.58	7.742	
3,000.00	2,968.74	2,952.84	2,968.74	10.84	56.18	40.45	-248.81	-480.93	489.02	424.03	64.99	7.525	
3,050.00	3,015.88	2,999.99	3,015.88	11.01	57.10	37.99	-248.81	-480.93	475.81	410.57	65.24	7.293	
3,100.00	3,062.18	3,046.29	3,062.18	11.18	58.01	36.64	-248.81	-480.93	460.39	395.02	65.37	7.043	
3,150.00	3,107.52	3,091.64	3,107.52	11.34	58.91	36.17	-248.81	-480.93	442.85	377.45	65.40	6.771	
3,200.00	3,151.76	3,135.88	3,151.76	11.50	59.82	36.46	-248.81	-480.93	423.32	357.93	65.39	6.474	
3,250.00	3,194.79	3,178.91	3,194.79	11.65	60.70	37.46	-248.81	-480.93	401.94	336.56	65.38	6.148	
3,300.00	3,236.48	3,220.61	3,236.48	11.80	61.55	39.18	-248.81	-480.93	378.89	313.43	65.46	5.788	
3,350.00	3,276.73	3,260.85	3,276.73	11.95	62.37	41.65	-248.81	-480.93	354.41	288.66	65.75	5.390	
3,400.00	3,315.43	3,299.55	3,315.43	12.10	63.16	44.94	-248.81	-480.93	328.81	262.42	66.39	4.953	
3,450.00	3,352.46	3,336.58	3,352.46	12.25	63.92	49.12	-248.81	-480.93	302.50	234.96	67.54	4.479	
3,500.00	3,387.72	3,371.84	3,387.72	12.41	64.64	54.25	-248.81	-480.93	276.04	206.73	69.31	3.983	
3,550.00	3,421.13	3,405.25	3,421.13	12.58	65.32	60.30	-248.81	-480.93	250.25	178.57	71.67	3.491	
3,600.00	3,452.58	3,436.70	3,452.58	12.75	65.97	67.15	-248.81	-480.93	226.27	151.85	74.41	3.041	
3,650.00	3,481.99	3,466.11	3,481.99	12.94	66.57	74.45	-248.81	-480.93	205.74	128.62	77.12	2.668	
3,700.00	3,509.29	3,493.41	3,509.29	13.15	67.13	81.77	-248.81	-480.93	190.80	111.48	79.33	2.405	
3,727.32	3,523.28	3,507.40	3,523.28	13.27	67.41	85.59	-248.81	-480.93	185.88	105.67	80.21	2.317	
3,750.00	3,534.62	3,518.74	3,534.62	13.37	67.64	88.64	-248.81	-480.93	183.91	103.14	80.76	2.277	
3,760.07	3,539.66	3,523.78	3,539.66	13.41	67.75	90.00	-248.81	-480.93	183.70	102.74	80.96	2.269 CC, ES, SF	
3,800.00	3,559.62	3,543.74	3,559.62	13.60	68.16	95.38	-248.81	-480.93	186.92	105.54	81.39	2.297	
3,850.00	3,584.62	3,568.74	3,584.62	13.86	68.67	101.97	-248.81	-480.93	199.53	118.30	81.23	2.456	
3,900.00	3,609.62	3,593.74	3,609.62	14.12	69.18	108.25	-248.81	-480.93	220.07	139.72	80.35	2.739	
3,927.32	3,623.28	3,607.40	3,623.28	14.27	69.46	111.52	-248.81	-480.93	233.93	154.29	79.64	2.937	
3,950.00	3,634.23	3,618.35	3,634.23	14.39	69.68	112.65	-248.81	-480.93	246.72	167.37	79.35	3.109	
4,000.00	3,655.54	3,639.66	3,655.54	14.68	70.12	113.82	-248.81	-480.93	278.94	199.86	79.09	3.527	
4,050.00	3,672.82	3,656.94	3,672.82	14.98	70.47	113.06	-248.81	-480.93	315.75	236.04	79.71	3.961	
4,100.00	3,685.95	3,670.07	3,685.95	15.29	70.74	110.10	-248.81	-480.93	356.09	274.65	81.43	4.373	
4,150.00	3,694.83	3,678.95	3,694.83	15.60	70.92	104.54	-248.81	-480.93	399.03	314.99	84.05	4.748	
4,200.00	3,699.39	3,683.51	3,699.39	15.91	71.01	95.98	-248.81	-480.93	443.81	357.34	86.47	5.132	
4,234.13	3,700.00	3,684.12	3,700.00	16.12	71.02	88.38	-248.81	-480.93	475.08	388.15	86.93	5.465	
4,250.00	3,699.81	3,683.93	3,699.81	16.22	71.02	88.32	-248.81	-480.93	489.76	402.73	87.03	5.628	
4,300.00	3,699.22	3,683.34	3,699.22	16.54	71.01	88.13	-248.81	-480.93	536.43	449.10	87.33	6.143	
4,350.00	3,698.62	3,682.74	3,698.62	16.89	71.00	87.95	-248.81	-480.93	583.65	496.01	87.65	6.659	
4,400.00	3,698.03	3,682.15	3,698.03	17.23	70.98	87.76	-248.81	-480.93	631.31	543.34	87.97	7.177	
4,450.00	3,697.43	3,681.56	3,697.43	17.60	70.97	87.58	-248.81	-480.93	679.29	590.99	88.31	7.692	
4,500.00	3,696.84	3,680.96	3,696.84	17.96	70.96	87.39	-248.81	-480.93	727.55	638.91	88.65	8.207	
4,550.00	3,696.25	3,680.37	3,696.25	18.35	70.95	87.21	-248.81	-480.93	776.03	687.03	89.01	8.719	
4,600.00	3,695.65	3,679.77	3,695.65	18.73	70.94	87.02	-248.81	-480.93	824.69	735.33	89.36	9.229	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												WELCH CD 28 STATE COM - OFFSET: PHILLIPS N G STATE 31 - Wellbore #1 - Wellbore #1		Offset Site Error:		0.00 usft	
Survey Program: 524-INC-ONLY														Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Distance											
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning				
4,650.00	3,695.06	3,679.18	3,695.06	19.14	70.92	86.84	-248.81	-480.93	873.51	783.77	89.74	9.734					

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design WELCH CD 28 STATE COM - OFFSET: PHILLIPS N G STATE 8 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 524-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,900.00	1,884.82	1,871.89	1,884.82	6.72	35.16	-17.84	-575.47	175.53	398.28	356.92	41.36	9.629	
1,950.00	1,934.24	1,921.31	1,934.24	6.91	36.21	-18.18	-575.47	175.53	391.05	348.47	42.58	9.183	
2,000.00	1,983.66	1,970.73	1,983.66	7.10	37.26	-18.53	-575.47	175.53	383.84	340.03	43.80	8.763	
2,050.00	2,033.08	1,995.00	2,007.91	7.29	37.78	-18.71	-575.47	175.53	377.48	332.98	44.50	8.483	
2,079.30	2,062.04	1,995.00	2,007.91	7.40	37.78	-18.71	-575.47	175.53	376.34	331.74	44.60	8.438 CC, ES	
2,100.00	2,082.50	1,995.00	2,007.91	7.48	37.78	-18.71	-575.47	175.53	376.91	332.23	44.68	8.436 SF	
2,150.00	2,131.92	1,995.00	2,007.91	7.66	37.78	-18.71	-575.47	175.53	382.92	338.07	44.86	8.536	
2,200.00	2,181.34	1,995.00	2,007.91	7.85	37.78	-18.71	-575.47	175.53	395.22	350.18	45.04	8.775	
2,250.00	2,230.76	1,995.00	2,007.91	8.04	37.78	-18.71	-575.47	175.53	413.24	368.02	45.22	9.138	
2,300.00	2,280.18	1,995.00	2,007.91	8.23	37.78	-18.71	-575.47	175.53	436.28	390.88	45.40	9.609	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 420-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,350.00	3,674.85	3,655.91	3,674.85	35.43	65.14	-90.66	-1,252.68	-3,704.70	1,004.06	903.56	100.50	9.991	
6,400.00	3,674.26	3,655.31	3,674.26	35.95	65.13	-90.61	-1,252.68	-3,704.70	969.90	868.89	101.01	9.602	
6,450.00	3,673.66	3,654.72	3,673.66	36.48	65.12	-90.57	-1,252.68	-3,704.70	937.17	835.65	101.52	9.231	
6,500.00	3,673.07	3,654.13	3,673.07	37.00	65.10	-90.52	-1,252.68	-3,704.70	906.02	803.98	102.04	8.879	
6,550.00	3,672.48	3,653.53	3,672.48	37.53	65.09	-90.47	-1,252.68	-3,704.70	876.61	774.05	102.55	8.548	
6,600.00	3,671.88	3,652.94	3,671.88	38.05	65.08	-90.42	-1,252.68	-3,704.70	849.12	746.05	103.07	8.238	
6,650.00	3,671.29	3,652.34	3,671.29	38.58	65.07	-90.38	-1,252.68	-3,704.70	823.76	720.17	103.59	7.952	
6,700.00	3,670.69	3,651.75	3,670.69	39.11	65.06	-90.33	-1,252.68	-3,704.70	800.72	696.62	104.11	7.691	
6,750.00	3,670.10	3,651.15	3,670.10	39.64	65.05	-90.28	-1,252.68	-3,704.70	780.21	675.59	104.63	7.457	
6,800.00	3,669.50	3,650.56	3,669.50	40.17	65.03	-90.24	-1,252.68	-3,704.70	762.43	657.29	105.15	7.251	
6,850.00	3,668.91	3,649.97	3,668.91	40.70	65.02	-90.19	-1,252.68	-3,704.70	747.58	641.91	105.67	7.075	
6,900.00	3,668.32	3,649.37	3,668.32	41.23	65.01	-90.14	-1,252.68	-3,704.70	735.83	629.64	106.19	6.929	
6,950.00	3,667.72	3,648.78	3,667.72	41.76	65.00	-90.09	-1,252.68	-3,704.70	727.33	620.62	106.71	6.816	
7,000.00	3,667.13	3,648.18	3,667.13	42.29	64.99	-90.05	-1,252.68	-3,704.70	722.20	614.97	107.23	6.735	
7,049.33	3,666.54	3,647.60	3,666.54	42.82	64.98	-90.00	-1,252.68	-3,704.70	720.52	612.77	107.75	6.687 CC	
7,050.00	3,666.53	3,647.59	3,666.53	42.83	64.98	-90.00	-1,252.68	-3,704.70	720.52	612.76	107.76	6.686 ES	
7,100.00	3,665.94	3,646.99	3,665.94	43.36	64.96	-89.95	-1,252.68	-3,704.70	722.30	614.02	108.28	6.671 SF	
7,150.00	3,665.34	3,646.40	3,665.34	43.90	64.95	-89.90	-1,252.68	-3,704.70	727.52	618.71	108.81	6.686	
7,200.00	3,664.75	3,645.81	3,664.75	44.43	64.94	-89.86	-1,252.68	-3,704.70	736.10	626.77	109.33	6.733	
7,250.00	3,664.16	3,645.21	3,664.16	44.97	64.93	-89.81	-1,252.68	-3,704.70	747.94	638.08	109.86	6.808	
7,300.00	3,663.56	3,644.62	3,663.56	45.51	64.92	-89.76	-1,252.68	-3,704.70	762.87	652.49	110.38	6.911	
7,350.00	3,662.97	3,644.02	3,662.97	46.05	64.91	-89.72	-1,252.68	-3,704.70	780.73	669.82	110.91	7.039	
7,400.00	3,662.37	3,643.43	3,662.37	46.58	64.89	-89.67	-1,252.68	-3,704.70	801.31	689.87	111.44	7.191	
7,450.00	3,661.78	3,642.83	3,661.78	47.12	64.88	-89.62	-1,252.68	-3,704.70	824.42	712.45	111.97	7.363	
7,500.00	3,661.18	3,642.24	3,661.18	47.66	64.87	-89.57	-1,252.68	-3,704.70	849.84	737.34	112.50	7.554	
7,550.00	3,660.59	3,641.65	3,660.59	48.20	64.86	-89.53	-1,252.68	-3,704.70	877.37	764.35	113.02	7.763	
7,600.00	3,660.00	3,641.05	3,660.00	48.74	64.85	-89.48	-1,252.68	-3,704.70	906.83	793.28	113.55	7.986	
7,650.00	3,659.40	3,640.46	3,659.40	49.29	64.84	-89.43	-1,252.68	-3,704.70	938.03	823.95	114.08	8.222	
7,700.00	3,658.81	3,639.86	3,658.81	49.83	64.82	-89.39	-1,252.68	-3,704.70	970.81	856.19	114.61	8.470	
7,750.00	3,658.21	3,639.27	3,658.21	50.37	64.81	-89.34	-1,252.68	-3,704.70	1,005.00	889.85	115.14	8.728	
7,800.00	3,657.62	3,638.68	3,657.62	50.91	64.80	-89.29	-1,252.68	-3,704.70	1,040.47	924.80	115.67	8.995	
7,850.00	3,657.03	3,638.08	3,657.03	51.45	64.79	-89.24	-1,252.68	-3,704.70	1,077.10	960.89	116.20	9.269	
7,900.00	3,656.43	3,637.49	3,656.43	52.00	64.78	-89.20	-1,252.68	-3,704.70	1,114.76	998.02	116.74	9.549	
7,950.00	3,655.84	3,636.89	3,655.84	52.54	64.77	-89.15	-1,252.68	-3,704.70	1,153.36	1,036.10	117.27	9.835	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 420-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
6,950.00	3,667.72	3,642.78	3,667.72	41.76	64.89	-90.72	-1,269.41	-4,365.10	1,044.73	938.14	106.59	9.802	
7,000.00	3,667.13	3,642.18	3,667.13	42.29	64.88	-90.67	-1,269.41	-4,365.10	1,008.95	901.84	107.11	9.420	
7,050.00	3,666.53	3,641.59	3,666.53	42.83	64.87	-90.63	-1,269.41	-4,365.10	974.42	866.78	107.63	9.053	
7,100.00	3,665.94	3,640.99	3,665.94	43.36	64.86	-90.58	-1,269.41	-4,365.10	941.27	833.11	108.16	8.703	
7,150.00	3,665.34	3,640.40	3,665.34	43.90	64.84	-90.53	-1,269.41	-4,365.10	909.67	800.99	108.69	8.370	
7,200.00	3,664.75	3,639.81	3,664.75	44.43	64.83	-90.48	-1,269.41	-4,365.10	879.78	770.57	109.21	8.056	
7,250.00	3,664.16	3,639.21	3,664.16	44.97	64.82	-90.44	-1,269.41	-4,365.10	851.78	742.04	109.74	7.762	
7,300.00	3,663.56	3,638.62	3,663.56	45.51	64.81	-90.39	-1,269.41	-4,365.10	825.85	715.59	110.27	7.490	
7,350.00	3,662.97	3,638.02	3,662.97	46.05	64.80	-90.34	-1,269.41	-4,365.10	802.21	691.42	110.79	7.241	
7,400.00	3,662.37	3,637.43	3,662.37	46.58	64.79	-90.29	-1,269.41	-4,365.10	781.06	669.73	111.32	7.016	
7,450.00	3,661.78	3,636.83	3,661.78	47.12	64.77	-90.25	-1,269.41	-4,365.10	762.60	650.75	111.85	6.818	
7,500.00	3,661.18	3,636.24	3,661.18	47.66	64.76	-90.20	-1,269.41	-4,365.10	747.04	634.65	112.38	6.647	
7,550.00	3,660.59	3,635.65	3,660.59	48.20	64.75	-90.15	-1,269.41	-4,365.10	734.55	621.64	112.91	6.506	
7,600.00	3,660.00	3,635.05	3,660.00	48.74	64.74	-90.10	-1,269.41	-4,365.10	725.31	611.87	113.44	6.394	
7,650.00	3,659.40	3,634.46	3,659.40	49.29	64.73	-90.06	-1,269.41	-4,365.10	719.43	605.46	113.97	6.312	
7,700.00	3,658.81	3,633.86	3,658.81	49.83	64.72	-90.01	-1,269.41	-4,365.10	716.99	602.49	114.50	6.262	
7,709.98	3,658.69	3,633.75	3,658.69	49.93	64.71	-90.00	-1,269.41	-4,365.10	716.92	602.31	114.61	6.255 CC, ES	
7,750.00	3,658.21	3,633.27	3,658.21	50.37	64.70	-89.96	-1,269.41	-4,365.10	718.04	603.01	115.03	6.242 SF	
7,800.00	3,657.62	3,632.68	3,657.62	50.91	64.69	-89.91	-1,269.41	-4,365.10	722.55	606.99	115.57	6.252	
7,850.00	3,657.03	3,632.08	3,657.03	51.45	64.68	-89.87	-1,269.41	-4,365.10	730.47	614.37	116.10	6.292	
7,900.00	3,656.43	3,631.49	3,656.43	52.00	64.67	-89.82	-1,269.41	-4,365.10	741.68	625.05	116.63	6.359	
7,950.00	3,655.84	3,630.89	3,655.84	52.54	64.66	-89.77	-1,269.41	-4,365.10	756.03	638.87	117.16	6.453	
8,000.00	3,655.24	3,630.30	3,655.24	53.08	64.65	-89.72	-1,269.41	-4,365.10	773.36	655.66	117.70	6.571	
8,050.00	3,654.65	3,629.70	3,654.65	53.63	64.63	-89.68	-1,269.41	-4,365.10	793.46	675.23	118.23	6.711	
8,100.00	3,654.05	3,629.11	3,654.05	54.17	64.62	-89.63	-1,269.41	-4,365.10	816.14	697.37	118.76	6.872	
8,150.00	3,653.46	3,628.52	3,653.46	54.72	64.61	-89.58	-1,269.41	-4,365.10	841.17	721.88	119.30	7.051	
8,200.00	3,652.87	3,627.92	3,652.87	55.27	64.60	-89.53	-1,269.41	-4,365.10	868.37	748.54	119.83	7.247	
8,250.00	3,652.27	3,627.33	3,652.27	55.81	64.59	-89.49	-1,269.41	-4,365.10	897.53	777.17	120.36	7.457	
8,300.00	3,651.68	3,626.73	3,651.68	56.36	64.58	-89.44	-1,269.41	-4,365.10	928.47	807.57	120.90	7.680	
8,350.00	3,651.08	3,626.14	3,651.08	56.90	64.56	-89.39	-1,269.41	-4,365.10	961.02	839.58	121.43	7.914	
8,400.00	3,650.49	3,625.54	3,650.49	57.45	64.55	-89.34	-1,269.41	-4,365.10	995.01	873.04	121.97	8.158	
8,450.00	3,649.89	3,624.95	3,649.89	58.00	64.54	-89.30	-1,269.41	-4,365.10	1,030.31	907.81	122.50	8.410	
8,500.00	3,649.30	3,624.36	3,649.30	58.54	64.53	-89.25	-1,269.41	-4,365.10	1,066.79	943.75	123.04	8.670	
8,550.00	3,648.71	3,623.76	3,648.71	59.09	64.52	-89.20	-1,269.41	-4,365.10	1,104.32	980.75	123.57	8.936	
8,600.00	3,648.11	3,623.17	3,648.11	59.64	64.51	-89.15	-1,269.41	-4,365.10	1,142.81	1,018.70	124.11	9.208	
8,650.00	3,647.52	3,622.57	3,647.52	60.19	64.49	-89.11	-1,269.41	-4,365.10	1,182.16	1,057.51	124.65	9.484	
8,700.00	3,646.92	3,621.98	3,646.92	60.74	64.48	-89.06	-1,269.41	-4,365.10	1,222.29	1,097.11	125.18	9.764	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design		WELCH CD 28 STATE COM - OFFSET: STATE-FEDERAL GAS C 1 - Wellbore #1 - Wellbore #1										Offset Site Error:	0.00 usft
Survey Program:		449-INC-ONLY										Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis					Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,450.00	3,661.78	3,623.94	3,661.78	47.12	70.31	92.03	-217.53	-5,213.49	1,134.41	1,017.06	117.35	9.667	
7,500.00	3,661.18	3,623.35	3,661.18	47.66	70.29	91.94	-217.53	-5,213.49	1,087.12	969.25	117.88	9.223	
7,550.00	3,660.59	3,622.76	3,660.59	48.20	70.28	91.84	-217.53	-5,213.49	1,040.09	921.68	118.41	8.784	
7,600.00	3,660.00	3,622.16	3,660.00	48.74	70.26	91.75	-217.53	-5,213.49	993.34	874.41	118.94	8.352	
7,650.00	3,659.40	3,621.57	3,659.40	49.29	70.25	91.65	-217.53	-5,213.49	946.93	827.46	119.47	7.926	
7,700.00	3,658.81	3,620.97	3,658.81	49.83	70.24	91.56	-217.53	-5,213.49	900.90	780.90	120.00	7.508	
7,750.00	3,658.21	3,620.38	3,658.21	50.37	70.22	91.46	-217.53	-5,213.49	855.32	734.79	120.53	7.096	
7,800.00	3,657.62	3,619.78	3,657.62	50.91	70.21	91.37	-217.53	-5,213.49	810.25	689.19	121.06	6.693	
7,850.00	3,657.03	3,619.19	3,657.03	51.45	70.19	91.28	-217.53	-5,213.49	765.80	644.21	121.60	6.298	
7,900.00	3,656.43	3,618.60	3,656.43	52.00	70.18	91.18	-217.53	-5,213.49	722.08	599.95	122.13	5.912	
7,950.00	3,655.84	3,618.00	3,655.84	52.54	70.16	91.09	-217.53	-5,213.49	679.22	556.56	122.66	5.537	
8,000.00	3,655.24	3,617.41	3,655.24	53.08	70.15	90.99	-217.53	-5,213.49	637.40	514.21	123.19	5.174	
8,050.00	3,654.65	3,616.81	3,654.65	53.63	70.14	90.90	-217.53	-5,213.49	596.84	473.12	123.73	4.824	
8,100.00	3,654.05	3,616.22	3,654.05	54.17	70.12	90.80	-217.53	-5,213.49	557.82	433.56	124.26	4.489	
8,150.00	3,653.46	3,615.62	3,653.46	54.72	70.11	90.71	-217.53	-5,213.49	520.68	395.89	124.79	4.172	
8,200.00	3,652.87	3,615.03	3,652.87	55.27	70.09	90.61	-217.53	-5,213.49	485.84	360.52	125.32	3.877	
8,250.00	3,652.27	3,614.44	3,652.27	55.81	70.08	90.52	-217.53	-5,213.49	453.85	327.99	125.86	3.606	
8,300.00	3,651.68	3,613.84	3,651.68	56.36	70.07	90.43	-217.53	-5,213.49	425.34	298.96	126.39	3.365	
8,350.00	3,651.08	3,613.25	3,651.08	56.90	70.05	90.33	-217.53	-5,213.49	401.07	274.14	126.92	3.160	
8,400.00	3,650.49	3,612.65	3,650.49	57.45	70.04	90.24	-217.53	-5,213.49	381.83	254.37	127.46	2.996	
8,450.00	3,649.89	3,612.06	3,649.89	58.00	70.02	90.14	-217.53	-5,213.49	368.41	240.42	127.99	2.878	
8,500.00	3,649.30	3,611.46	3,649.30	58.54	70.01	90.05	-217.53	-5,213.49	361.47	232.95	128.52	2.813	
8,525.66	3,648.99	3,611.16	3,648.99	58.83	70.00	90.00	-217.53	-5,213.49	360.56	231.76	128.79	2.799 CC, ES, SF	
8,550.00	3,648.71	3,610.87	3,648.71	59.09	70.00	89.95	-217.53	-5,213.49	361.38	232.33	129.05	2.800	
8,600.00	3,648.11	3,610.28	3,648.11	59.64	69.98	89.86	-217.53	-5,213.49	368.14	238.55	129.59	2.841	
8,650.00	3,647.52	3,609.68	3,647.52	60.19	69.97	89.77	-217.53	-5,213.49	381.39	251.27	130.12	2.931	
8,700.00	3,646.92	3,609.09	3,646.92	60.74	69.95	89.67	-217.53	-5,213.49	400.49	269.84	130.65	3.065	
8,750.00	3,646.33	3,608.49	3,646.33	61.29	69.94	89.58	-217.53	-5,213.49	424.65	293.46	131.19	3.237	
8,800.00	3,645.73	3,607.90	3,645.73	61.84	69.92	89.48	-217.53	-5,213.49	453.05	321.33	131.72	3.440	
8,850.00	3,645.14	3,607.30	3,645.14	62.38	69.91	89.39	-217.53	-5,213.49	484.96	352.71	132.25	3.667	
8,900.00	3,644.55	3,606.71	3,644.55	62.93	69.90	89.29	-217.53	-5,213.49	519.72	386.94	132.78	3.914	
8,950.00	3,643.95	3,606.12	3,643.95	63.48	69.88	89.20	-217.53	-5,213.49	556.81	423.50	133.32	4.177	
9,000.00	3,643.36	3,605.52	3,643.36	64.03	69.87	89.10	-217.53	-5,213.49	595.79	461.94	133.85	4.451	
9,050.00	3,642.76	3,604.93	3,642.76	64.58	69.85	89.01	-217.53	-5,213.49	636.31	501.93	134.38	4.735	
9,100.00	3,642.17	3,604.33	3,642.17	65.13	69.84	88.92	-217.53	-5,213.49	678.10	543.19	134.91	5.026	
9,150.00	3,641.57	3,603.74	3,641.57	65.68	69.83	88.82	-217.53	-5,213.49	720.94	585.49	135.44	5.323	
9,200.00	3,640.98	3,603.15	3,640.98	66.23	69.81	88.73	-217.53	-5,213.49	764.64	628.66	135.98	5.623	
9,232.45	3,640.59	3,602.76	3,640.59	66.59	69.80	88.67	-217.53	-5,213.49	793.40	657.08	136.32	5.820	
9,250.00	3,640.39	3,602.55	3,640.39	66.79	69.80	88.63	-217.53	-5,213.49	809.07	672.57	136.51	5.927	
9,282.47	3,640.00	3,602.16	3,640.00	67.14	69.79	88.57	-217.53	-5,213.49	838.27	701.41	136.85	6.125	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design WELCH CD 28 STATE COM - OFFSET: TIGNER STATE 1 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 511-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
7,550.00	3,660.59	3,550.00	3,573.92	48.20	64.10	-83.85	-1,286.10	-5,025.50	1,090.70	978.96	111.74	9.761	
7,600.00	3,660.00	3,550.00	3,573.92	48.74	64.10	-83.85	-1,286.10	-5,025.50	1,053.55	941.27	112.28	9.384	
7,650.00	3,659.40	3,550.00	3,573.92	49.29	64.10	-83.85	-1,286.10	-5,025.50	1,017.50	904.69	112.81	9.019	
7,700.00	3,658.81	3,550.00	3,573.92	49.83	64.10	-83.85	-1,286.10	-5,025.50	982.68	869.33	113.35	8.669	
7,750.00	3,658.21	3,550.00	3,573.92	50.37	64.10	-83.85	-1,286.10	-5,025.50	949.21	835.32	113.89	8.334	
7,800.00	3,657.62	3,550.00	3,573.92	50.91	64.10	-83.85	-1,286.10	-5,025.50	917.25	802.82	114.43	8.016	
7,850.00	3,657.03	3,550.00	3,573.92	51.45	64.10	-83.85	-1,286.10	-5,025.50	886.96	771.99	114.97	7.715	
7,900.00	3,656.43	3,550.00	3,573.92	52.00	64.10	-83.85	-1,286.10	-5,025.50	858.51	743.00	115.51	7.432	
7,950.00	3,655.84	3,550.00	3,573.92	52.54	64.10	-83.85	-1,286.10	-5,025.50	832.10	716.05	116.05	7.170	
8,000.00	3,655.24	3,550.00	3,573.92	53.08	64.10	-83.85	-1,286.10	-5,025.50	807.92	691.33	116.59	6.929	
8,050.00	3,654.65	3,550.00	3,573.92	53.63	64.10	-83.85	-1,286.10	-5,025.50	786.18	669.05	117.13	6.712	
8,100.00	3,654.05	3,550.00	3,573.92	54.17	64.10	-83.85	-1,286.10	-5,025.50	767.09	649.42	117.67	6.519	
8,150.00	3,653.46	3,550.00	3,573.92	54.72	64.10	-83.85	-1,286.10	-5,025.50	750.85	632.63	118.22	6.351	
8,200.00	3,652.87	3,550.00	3,573.92	55.27	64.10	-83.85	-1,286.10	-5,025.50	737.65	618.89	118.76	6.211	
8,250.00	3,652.27	3,550.00	3,573.92	55.81	64.10	-83.85	-1,286.10	-5,025.50	727.64	608.34	119.30	6.099	
8,300.00	3,651.68	3,550.00	3,573.92	56.36	64.10	-83.85	-1,286.10	-5,025.50	720.98	601.14	119.85	6.016	
8,350.00	3,651.08	3,550.00	3,573.92	56.90	64.10	-83.85	-1,286.10	-5,025.50	717.75	597.36	120.39	5.962	
8,371.54	3,650.83	3,550.00	3,573.92	57.14	64.10	-83.85	-1,286.10	-5,025.50	717.42	596.80	120.62	5.948 CC, ES	
8,400.00	3,650.49	3,550.00	3,573.92	57.45	64.10	-83.85	-1,286.10	-5,025.50	717.99	597.06	120.93	5.937 SF	
8,450.00	3,649.89	3,550.00	3,573.92	58.00	64.10	-83.85	-1,286.10	-5,025.50	721.70	600.22	121.48	5.941	
8,500.00	3,649.30	3,550.00	3,573.92	58.54	64.10	-83.85	-1,286.10	-5,025.50	728.83	606.81	122.02	5.973	
8,550.00	3,648.71	3,550.00	3,573.92	59.09	64.10	-83.85	-1,286.10	-5,025.50	739.29	616.72	122.57	6.032	
8,600.00	3,648.11	3,550.00	3,573.92	59.64	64.10	-83.85	-1,286.10	-5,025.50	752.92	629.81	123.11	6.116	
8,650.00	3,647.52	3,550.00	3,573.92	60.19	64.10	-83.85	-1,286.10	-5,025.50	769.57	645.91	123.66	6.224	
8,700.00	3,646.92	3,550.00	3,573.92	60.74	64.10	-83.85	-1,286.10	-5,025.50	789.04	664.84	124.20	6.353	
8,750.00	3,646.33	3,550.00	3,573.92	61.29	64.10	-83.85	-1,286.10	-5,025.50	811.13	686.38	124.75	6.502	
8,800.00	3,645.73	3,550.00	3,573.92	61.84	64.10	-83.85	-1,286.10	-5,025.50	835.63	710.34	125.29	6.669	
8,850.00	3,645.14	3,550.00	3,573.92	62.38	64.10	-83.85	-1,286.10	-5,025.50	862.34	736.50	125.84	6.853	
8,900.00	3,644.55	3,550.00	3,573.92	62.93	64.10	-83.85	-1,286.10	-5,025.50	891.05	764.67	126.38	7.050	
8,950.00	3,643.95	3,550.00	3,573.92	63.48	64.10	-83.85	-1,286.10	-5,025.50	921.58	794.65	126.93	7.261	
9,000.00	3,643.36	3,550.00	3,573.92	64.03	64.10	-83.85	-1,286.10	-5,025.50	953.76	826.28	127.48	7.482	
9,050.00	3,642.76	3,550.00	3,573.92	64.58	64.10	-83.85	-1,286.10	-5,025.50	987.42	859.40	128.02	7.713	
9,100.00	3,642.17	3,550.00	3,573.92	65.13	64.10	-83.85	-1,286.10	-5,025.50	1,022.43	893.85	128.57	7.952	
9,150.00	3,641.57	3,550.00	3,573.92	65.68	64.10	-83.85	-1,286.10	-5,025.50	1,058.63	929.51	129.12	8.199	
9,200.00	3,640.98	3,550.00	3,573.92	66.23	64.10	-83.85	-1,286.10	-5,025.50	1,095.92	966.26	129.67	8.452	
9,232.45	3,640.59	3,550.00	3,573.92	66.59	64.10	-83.85	-1,286.10	-5,025.50	1,120.65	990.63	130.02	8.619	
9,250.00	3,640.39	3,550.00	3,573.92	66.79	64.10	-83.85	-1,286.10	-5,025.50	1,134.19	1,003.98	130.21	8.710	
9,282.47	3,640.00	3,550.00	3,573.92	67.14	64.10	-83.85	-1,286.10	-5,025.50	1,159.53	1,028.96	130.57	8.881	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 380-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,050.00	3,654.65	3,625.06	3,654.65	53.63	70.27	-90.94	-1,302.84	-5,685.90	1,210.97	1,087.13	123.83	9.779	
8,100.00	3,654.05	3,624.47	3,654.05	54.17	70.25	-90.89	-1,302.84	-5,685.90	1,170.82	1,046.45	124.37	9.414	
8,150.00	3,653.46	3,623.87	3,653.46	54.72	70.24	-90.85	-1,302.84	-5,685.90	1,131.46	1,006.56	124.90	9.059	
8,200.00	3,652.87	3,623.28	3,652.87	55.27	70.22	-90.80	-1,302.84	-5,685.90	1,092.97	967.54	125.43	8.714	
8,250.00	3,652.27	3,622.68	3,652.27	55.81	70.21	-90.75	-1,302.84	-5,685.90	1,055.45	929.48	125.97	8.379	
8,300.00	3,651.68	3,622.09	3,651.68	56.36	70.20	-90.70	-1,302.84	-5,685.90	1,019.00	892.50	126.50	8.055	
8,350.00	3,651.08	3,621.49	3,651.08	56.90	70.18	-90.65	-1,302.84	-5,685.90	983.74	856.70	127.04	7.744	
8,400.00	3,650.49	3,620.90	3,650.49	57.45	70.17	-90.61	-1,302.84	-5,685.90	949.80	822.23	127.57	7.445	
8,450.00	3,649.89	3,620.31	3,649.89	58.00	70.15	-90.56	-1,302.84	-5,685.90	917.34	789.23	128.10	7.161	
8,500.00	3,649.30	3,619.71	3,649.30	58.54	70.14	-90.51	-1,302.84	-5,685.90	886.50	757.86	128.64	6.891	
8,550.00	3,648.71	3,619.12	3,648.71	59.09	70.12	-90.46	-1,302.84	-5,685.90	857.48	728.30	129.17	6.638	
8,600.00	3,648.11	3,618.52	3,648.11	59.64	70.11	-90.41	-1,302.84	-5,685.90	830.45	700.74	129.71	6.402	
8,650.00	3,647.52	3,617.93	3,647.52	60.19	70.09	-90.37	-1,302.84	-5,685.90	805.62	675.38	130.24	6.185	
8,700.00	3,646.92	3,617.33	3,646.92	60.74	70.08	-90.32	-1,302.84	-5,685.90	783.20	652.42	130.78	5.989	
8,750.00	3,646.33	3,616.74	3,646.33	61.29	70.07	-90.27	-1,302.84	-5,685.90	763.40	632.09	131.32	5.813	
8,800.00	3,645.73	3,616.15	3,645.73	61.84	70.05	-90.22	-1,302.84	-5,685.90	746.43	614.58	131.85	5.661	
8,850.00	3,645.14	3,615.55	3,645.14	62.38	70.04	-90.17	-1,302.84	-5,685.90	732.48	600.10	132.39	5.533	
8,900.00	3,644.55	3,614.96	3,644.55	62.93	70.02	-90.13	-1,302.84	-5,685.90	721.74	588.82	132.92	5.430	
8,950.00	3,643.95	3,614.36	3,643.95	63.48	70.01	-90.08	-1,302.84	-5,685.90	714.34	580.88	133.46	5.353	
9,000.00	3,643.36	3,613.77	3,643.36	64.03	69.99	-90.03	-1,302.84	-5,685.90	710.39	576.40	134.00	5.302	
9,031.27	3,642.99	3,613.40	3,642.99	64.38	69.98	-90.00	-1,302.84	-5,685.90	709.70	575.37	134.33	5.283 CC, ES	
9,050.00	3,642.76	3,613.17	3,642.76	64.58	69.98	-89.98	-1,302.84	-5,685.90	709.95	575.42	134.53	5.277 SF	
9,100.00	3,642.17	3,612.58	3,642.17	65.13	69.96	-89.93	-1,302.84	-5,685.90	713.02	577.95	135.07	5.279	
9,150.00	3,641.57	3,611.99	3,641.57	65.68	69.95	-89.89	-1,302.84	-5,685.90	719.56	583.96	135.60	5.306	
9,200.00	3,640.98	3,611.39	3,640.98	66.23	69.93	-89.84	-1,302.84	-5,685.90	729.48	593.34	136.14	5.358	
9,232.45	3,640.59	3,611.01	3,640.59	66.59	69.93	-89.81	-1,302.84	-5,685.90	737.66	601.17	136.49	5.405	
9,250.00	3,640.39	3,610.80	3,640.39	66.79	69.92	-89.79	-1,302.84	-5,685.90	742.64	605.96	136.68	5.434	
9,282.47	3,640.00	3,610.41	3,640.00	67.14	69.91	-89.76	-1,302.84	-5,685.90	752.84	615.82	137.03	5.494	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 460-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
8,000.00	3,655.24	3,505.00	3,543.94	53.08	62.16	-54.24	-729.19	-5,579.39	924.50	828.94	95.56	9.675	
8,050.00	3,654.65	3,505.00	3,543.94	53.63	62.16	-54.24	-729.19	-5,579.39	875.42	779.40	96.02	9.117	
8,100.00	3,654.05	3,505.00	3,543.94	54.17	62.16	-54.24	-729.19	-5,579.39	826.45	729.98	96.47	8.567	
8,150.00	3,653.46	3,505.00	3,543.94	54.72	62.16	-54.24	-729.19	-5,579.39	777.62	680.69	96.93	8.022	
8,200.00	3,652.87	3,505.00	3,543.94	55.27	62.16	-54.24	-729.19	-5,579.39	728.94	631.55	97.39	7.485	
8,250.00	3,652.27	3,505.00	3,543.94	55.81	62.16	-54.24	-729.19	-5,579.39	680.45	582.61	97.85	6.954	
8,300.00	3,651.68	3,505.00	3,543.94	56.36	62.16	-54.24	-729.19	-5,579.39	632.20	533.90	98.30	6.431	
8,350.00	3,651.08	3,505.00	3,543.94	56.90	62.16	-54.24	-729.19	-5,579.39	584.25	485.49	98.76	5.916	
8,400.00	3,650.49	3,505.00	3,543.94	57.45	62.16	-54.24	-729.19	-5,579.39	536.67	437.45	99.22	5.409	
8,450.00	3,649.89	3,505.00	3,543.94	58.00	62.16	-54.24	-729.19	-5,579.39	489.57	389.89	99.68	4.911	
8,500.00	3,649.30	3,505.00	3,543.94	58.54	62.16	-54.24	-729.19	-5,579.39	443.11	342.97	100.14	4.425	
8,550.00	3,648.71	3,505.00	3,543.94	59.09	62.16	-54.24	-729.19	-5,579.39	397.50	296.90	100.60	3.951	
8,600.00	3,648.11	3,505.00	3,543.94	59.64	62.16	-54.24	-729.19	-5,579.39	353.09	252.03	101.06	3.494	
8,650.00	3,647.52	3,505.00	3,543.94	60.19	62.16	-54.24	-729.19	-5,579.39	310.38	208.86	101.52	3.057	
8,700.00	3,646.92	3,505.00	3,543.94	60.74	62.16	-54.24	-729.19	-5,579.39	270.19	168.21	101.98	2.649	
8,750.00	3,646.33	3,505.00	3,543.94	61.29	62.16	-54.24	-729.19	-5,579.39	233.81	131.37	102.44	2.282	
8,800.00	3,645.73	3,505.00	3,543.94	61.84	62.16	-54.24	-729.19	-5,579.39	203.30	100.40	102.90	1.976	
8,850.00	3,645.14	3,505.00	3,543.94	62.38	62.16	-54.24	-729.19	-5,579.39	181.65	78.29	103.36	1.757	
8,900.00	3,644.55	3,505.00	3,543.94	62.93	62.16	-54.24	-729.19	-5,579.39	172.23	68.40	103.82	1.659	
8,908.35	3,644.45	3,505.00	3,543.94	63.03	62.16	-54.24	-729.19	-5,579.39	172.02	68.13	103.90	1.656 CC, ES, SF	
8,950.00	3,643.95	3,505.00	3,543.94	63.48	62.16	-54.24	-729.19	-5,579.39	176.99	72.71	104.28	1.697	
9,000.00	3,643.36	3,505.00	3,543.94	64.03	62.16	-54.24	-729.19	-5,579.39	194.92	90.17	104.75	1.861	
9,050.00	3,642.76	3,505.00	3,543.94	64.58	62.16	-54.24	-729.19	-5,579.39	222.84	117.63	105.21	2.118	
9,100.00	3,642.17	3,505.00	3,543.94	65.13	62.16	-54.24	-729.19	-5,579.39	257.53	151.86	105.67	2.437	
9,150.00	3,641.57	3,505.00	3,543.94	65.68	62.16	-54.24	-729.19	-5,579.39	296.63	190.50	106.13	2.795	
9,200.00	3,640.98	3,505.00	3,543.94	66.23	62.16	-54.24	-729.19	-5,579.39	338.60	232.01	106.59	3.177	
9,232.45	3,640.59	3,505.00	3,543.94	66.59	62.16	-54.24	-729.19	-5,579.39	366.92	260.03	106.89	3.433	
9,250.00	3,640.39	3,505.00	3,543.94	66.79	62.16	-54.24	-729.19	-5,579.39	382.51	275.46	107.05	3.573	
9,282.47	3,640.00	3,505.00	3,543.94	67.14	62.16	-54.24	-729.19	-5,579.39	411.78	304.42	107.35	3.836	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design WELCH CD 28 STATE COM - OFFSET: WELCH RL STATE 14 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 193-INC-ONLY												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,050.00	3,678.42	3,650.52	3,678.42	32.33	68.61	-94.75	-671.05	-3,698.14	984.72	884.25	100.46	9.802	
6,100.00	3,677.82	3,649.93	3,677.82	32.84	68.60	-94.51	-671.05	-3,698.14	935.25	834.25	101.00	9.260	
6,150.00	3,677.23	3,649.34	3,677.23	33.36	68.59	-94.27	-671.05	-3,698.14	885.84	784.30	101.54	8.724	
6,200.00	3,676.64	3,648.74	3,676.64	33.88	68.58	-94.02	-671.05	-3,698.14	836.51	734.42	102.08	8.194	
6,250.00	3,676.04	3,648.15	3,676.04	34.39	68.56	-93.78	-671.05	-3,698.14	787.25	684.63	102.62	7.671	
6,300.00	3,675.45	3,647.55	3,675.45	34.91	68.55	-93.54	-671.05	-3,698.14	738.10	634.94	103.16	7.155	
6,350.00	3,674.85	3,646.96	3,674.85	35.43	68.54	-93.29	-671.05	-3,698.14	689.07	585.37	103.70	6.645	
6,400.00	3,674.26	3,646.36	3,674.26	35.95	68.53	-93.05	-671.05	-3,698.14	640.18	535.95	104.24	6.142	
6,450.00	3,673.66	3,645.77	3,673.66	36.48	68.52	-92.81	-671.05	-3,698.14	591.49	486.71	104.78	5.645	
6,500.00	3,673.07	3,645.18	3,673.07	37.00	68.51	-92.56	-671.05	-3,698.14	543.03	437.71	105.31	5.156	
6,550.00	3,672.48	3,644.58	3,672.48	37.53	68.50	-92.32	-671.05	-3,698.14	494.87	389.02	105.85	4.675	
6,600.00	3,671.88	3,643.99	3,671.88	38.05	68.48	-92.07	-671.05	-3,698.14	447.12	340.73	106.38	4.203	
6,650.00	3,671.29	3,643.39	3,671.29	38.58	68.47	-91.83	-671.05	-3,698.14	399.92	293.00	106.92	3.740	
6,700.00	3,670.69	3,642.80	3,670.69	39.11	68.46	-91.59	-671.05	-3,698.14	353.48	246.03	107.45	3.290	
6,750.00	3,670.10	3,642.20	3,670.10	39.64	68.45	-91.34	-671.05	-3,698.14	308.17	200.18	107.99	2.854	
6,800.00	3,669.50	3,641.61	3,669.50	40.17	68.44	-91.10	-671.05	-3,698.14	264.54	156.03	108.52	2.438	
6,850.00	3,668.91	3,641.02	3,668.91	40.70	68.43	-90.85	-671.05	-3,698.14	223.61	114.56	109.05	2.050	
6,900.00	3,668.32	3,640.42	3,668.32	41.23	68.41	-90.61	-671.05	-3,698.14	187.12	77.54	109.58	1.708	
6,950.00	3,667.72	3,639.83	3,667.72	41.76	68.40	-90.37	-671.05	-3,698.14	158.20	48.09	110.11	1.437	Level 3
7,000.00	3,667.13	3,639.23	3,667.13	42.29	68.39	-90.12	-671.05	-3,698.14	141.57	30.93	110.64	1.280	Level 3
7,024.87	3,666.83	3,638.94	3,666.83	42.56	68.39	-90.00	-671.05	-3,698.14	139.37	28.47	110.90	1.257	Level 3, CC, ES, SF
7,050.00	3,666.53	3,638.64	3,666.53	42.83	68.38	-89.88	-671.05	-3,698.14	141.61	30.45	111.16	1.274	Level 3
7,100.00	3,665.94	3,638.04	3,665.94	43.36	68.37	-89.63	-671.05	-3,698.14	158.32	46.63	111.69	1.418	Level 3
7,150.00	3,665.34	3,637.45	3,665.34	43.90	68.36	-89.39	-671.05	-3,698.14	187.29	75.08	112.21	1.669	
7,200.00	3,664.75	3,636.86	3,664.75	44.43	68.35	-89.14	-671.05	-3,698.14	223.80	111.07	112.74	1.985	
7,250.00	3,664.16	3,636.26	3,664.16	44.97	68.33	-88.90	-671.05	-3,698.14	264.76	151.50	113.26	2.338	
7,300.00	3,663.56	3,635.67	3,663.56	45.51	68.32	-88.66	-671.05	-3,698.14	308.39	194.62	113.78	2.711	
7,350.00	3,662.97	3,635.07	3,662.97	46.05	68.31	-88.41	-671.05	-3,698.14	353.72	239.42	114.29	3.095	
7,400.00	3,662.37	3,634.48	3,662.37	46.58	68.30	-88.17	-671.05	-3,698.14	400.15	285.34	114.81	3.485	
7,450.00	3,661.78	3,633.89	3,661.78	47.12	68.29	-87.92	-671.05	-3,698.14	447.36	332.03	115.33	3.879	
7,500.00	3,661.18	3,633.29	3,661.18	47.66	68.28	-87.68	-671.05	-3,698.14	495.11	379.27	115.84	4.274	
7,550.00	3,660.59	3,632.70	3,660.59	48.20	68.26	-87.44	-671.05	-3,698.14	543.27	426.92	116.35	4.669	
7,600.00	3,660.00	3,632.10	3,660.00	48.74	68.25	-87.19	-671.05	-3,698.14	591.73	474.87	116.86	5.064	
7,650.00	3,659.40	3,631.51	3,659.40	49.29	68.24	-86.95	-671.05	-3,698.14	640.43	523.06	117.37	5.457	
7,700.00	3,658.81	3,630.91	3,658.81	49.83	68.23	-86.71	-671.05	-3,698.14	689.31	571.44	117.88	5.848	
7,750.00	3,658.21	3,630.32	3,658.21	50.37	68.22	-86.46	-671.05	-3,698.14	738.35	619.97	118.38	6.237	
7,800.00	3,657.62	3,629.73	3,657.62	50.91	68.21	-86.22	-671.05	-3,698.14	787.50	668.62	118.88	6.624	
7,850.00	3,657.03	3,629.13	3,657.03	51.45	68.20	-85.98	-671.05	-3,698.14	836.76	717.37	119.38	7.009	
7,900.00	3,656.43	3,628.54	3,656.43	52.00	68.18	-85.73	-671.05	-3,698.14	886.09	766.21	119.88	7.391	
7,950.00	3,655.84	3,627.94	3,655.84	52.54	68.17	-85.49	-671.05	-3,698.14	935.50	815.12	120.38	7.771	
8,000.00	3,655.24	3,627.35	3,655.24	53.08	68.16	-85.25	-671.05	-3,698.14	984.97	864.09	120.87	8.149	
8,050.00	3,654.65	3,626.75	3,654.65	53.63	68.15	-85.00	-671.05	-3,698.14	1,034.48	913.12	121.37	8.524	
8,100.00	3,654.05	3,626.16	3,654.05	54.17	68.14	-84.76	-671.05	-3,698.14	1,084.05	962.19	121.86	8.896	
8,150.00	3,653.46	3,625.57	3,653.46	54.72	68.13	-84.52	-671.05	-3,698.14	1,133.65	1,011.30	122.35	9.266	
8,200.00	3,652.87	3,624.97	3,652.87	55.27	68.11	-84.28	-671.05	-3,698.14	1,183.28	1,060.44	122.83	9.633	
8,250.00	3,652.27	3,624.38	3,652.27	55.81	68.10	-84.04	-671.05	-3,698.14	1,232.94	1,109.62	123.32	9.998	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design WELCH CD 28 STATE COM - OFFSET: WELCH RL STATE 2 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 517-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis			Distance								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,800.00	3,669.50	3,535.00	3,573.87	40.17	66.65	-58.61	-691.46	-4,358.58	901.61	809.10	92.51	9.746	
6,850.00	3,668.91	3,535.00	3,573.87	40.70	66.65	-58.61	-691.46	-4,358.58	852.49	759.51	92.97	9.169	
6,900.00	3,668.32	3,535.00	3,573.87	41.23	66.65	-58.61	-691.46	-4,358.58	803.47	710.03	93.44	8.599	
6,950.00	3,667.72	3,535.00	3,573.87	41.76	66.65	-58.61	-691.46	-4,358.58	754.58	660.68	93.90	8.036	
7,000.00	3,667.13	3,535.00	3,573.87	42.29	66.65	-58.61	-691.46	-4,358.58	705.85	611.48	94.37	7.480	
7,050.00	3,666.53	3,535.00	3,573.87	42.83	66.65	-58.61	-691.46	-4,358.58	657.31	562.48	94.83	6.931	
7,100.00	3,665.94	3,535.00	3,573.87	43.36	66.65	-58.61	-691.46	-4,358.58	609.01	513.71	95.30	6.390	
7,150.00	3,665.34	3,535.00	3,573.87	43.90	66.65	-58.61	-691.46	-4,358.58	561.00	465.23	95.77	5.858	
7,200.00	3,664.75	3,535.00	3,573.87	44.43	66.65	-58.61	-691.46	-4,358.58	513.37	417.14	96.24	5.335	
7,250.00	3,664.16	3,535.00	3,573.87	44.97	66.65	-58.61	-691.46	-4,358.58	466.24	369.54	96.71	4.821	
7,300.00	3,663.56	3,535.00	3,573.87	45.51	66.65	-58.61	-691.46	-4,358.58	419.78	322.61	97.17	4.320	
7,350.00	3,662.97	3,535.00	3,573.87	46.05	66.65	-58.61	-691.46	-4,358.58	374.23	276.58	97.64	3.833	
7,400.00	3,662.37	3,535.00	3,573.87	46.58	66.65	-58.61	-691.46	-4,358.58	329.97	231.85	98.11	3.363	
7,450.00	3,661.78	3,535.00	3,573.87	47.12	66.65	-58.61	-691.46	-4,358.58	287.59	189.01	98.58	2.917	
7,500.00	3,661.18	3,535.00	3,573.87	47.66	66.65	-58.61	-691.46	-4,358.58	248.07	149.02	99.06	2.504	
7,550.00	3,660.59	3,535.00	3,573.87	48.20	66.65	-58.61	-691.46	-4,358.58	213.01	113.48	99.53	2.140	
7,600.00	3,660.00	3,535.00	3,573.87	48.74	66.65	-58.61	-691.46	-4,358.58	184.94	84.94	100.00	1.849	
7,650.00	3,659.40	3,535.00	3,573.87	49.29	66.65	-58.61	-691.46	-4,358.58	167.43	66.96	100.47	1.666	
7,686.69	3,658.97	3,535.00	3,573.87	49.68	66.65	-58.61	-691.46	-4,358.58	163.36	62.55	100.82	1.620	CC, ES, SF
7,700.00	3,658.81	3,535.00	3,573.87	49.83	66.65	-58.61	-691.46	-4,358.58	163.91	62.96	100.95	1.624	
7,750.00	3,658.21	3,535.00	3,573.87	50.37	66.65	-58.61	-691.46	-4,358.58	175.20	73.79	101.42	1.728	
7,800.00	3,657.62	3,535.00	3,573.87	50.91	66.65	-58.61	-691.46	-4,358.58	198.82	96.92	101.89	1.951	
7,850.00	3,657.03	3,535.00	3,573.87	51.45	66.65	-58.61	-691.46	-4,358.58	231.00	128.63	102.37	2.257	
7,900.00	3,656.43	3,535.00	3,573.87	52.00	66.65	-58.61	-691.46	-4,358.58	268.68	165.84	102.84	2.613	
7,950.00	3,655.84	3,535.00	3,573.87	52.54	66.65	-58.61	-691.46	-4,358.58	309.87	206.56	103.32	2.999	
8,000.00	3,655.24	3,535.00	3,573.87	53.08	66.65	-58.61	-691.46	-4,358.58	353.34	249.55	103.79	3.404	
8,050.00	3,654.65	3,535.00	3,573.87	53.63	66.65	-58.61	-691.46	-4,358.58	398.35	294.09	104.27	3.821	
8,100.00	3,654.05	3,535.00	3,573.87	54.17	66.65	-58.61	-691.46	-4,358.58	444.43	339.68	104.74	4.243	
8,150.00	3,653.46	3,535.00	3,573.87	54.72	66.65	-58.61	-691.46	-4,358.58	491.27	386.05	105.22	4.669	
8,200.00	3,652.87	3,535.00	3,573.87	55.27	66.65	-58.61	-691.46	-4,358.58	538.68	432.99	105.69	5.097	
8,250.00	3,652.27	3,535.00	3,573.87	55.81	66.65	-58.61	-691.46	-4,358.58	586.52	480.35	106.17	5.524	
8,300.00	3,651.68	3,535.00	3,573.87	56.36	66.65	-58.61	-691.46	-4,358.58	634.70	528.05	106.65	5.951	
8,350.00	3,651.08	3,535.00	3,573.87	56.90	66.65	-58.61	-691.46	-4,358.58	683.13	576.01	107.13	6.377	
8,400.00	3,650.49	3,535.00	3,573.87	57.45	66.65	-58.61	-691.46	-4,358.58	731.78	624.18	107.60	6.801	
8,450.00	3,649.89	3,535.00	3,573.87	58.00	66.65	-58.61	-691.46	-4,358.58	780.60	672.52	108.08	7.222	
8,500.00	3,649.30	3,535.00	3,573.87	58.54	66.65	-58.61	-691.46	-4,358.58	829.56	721.00	108.56	7.641	
8,550.00	3,648.71	3,535.00	3,573.87	59.09	66.65	-58.61	-691.46	-4,358.58	878.63	769.59	109.04	8.058	
8,600.00	3,648.11	3,535.00	3,573.87	59.64	66.65	-58.61	-691.46	-4,358.58	927.81	818.29	109.52	8.472	
8,650.00	3,647.52	3,535.00	3,573.87	60.19	66.65	-58.61	-691.46	-4,358.58	977.07	867.07	110.00	8.883	
8,700.00	3,646.92	3,535.00	3,573.87	60.74	66.65	-58.61	-691.46	-4,358.58	1,026.40	915.92	110.48	9.291	
8,750.00	3,646.33	3,535.00	3,573.87	61.29	66.65	-58.61	-691.46	-4,358.58	1,075.79	964.83	110.95	9.696	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 385-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,800.00	3,657.62	3,623.00	3,648.84	50.91	72.22	90.46	-66.88	-5,582.43	1,208.55	1,085.46	123.10	9.818	
7,850.00	3,657.03	3,623.00	3,648.84	51.45	72.22	90.46	-66.88	-5,582.43	1,163.67	1,040.03	123.64	9.412	
7,900.00	3,656.43	3,623.00	3,648.84	52.00	72.22	90.46	-66.88	-5,582.43	1,119.22	995.03	124.18	9.013	
7,950.00	3,655.84	3,623.00	3,648.84	52.54	72.22	90.46	-66.88	-5,582.43	1,075.26	950.53	124.73	8.621	
8,000.00	3,655.24	3,623.00	3,648.84	53.08	72.22	90.46	-66.88	-5,582.43	1,031.84	906.57	125.27	8.237	
8,050.00	3,654.65	3,623.00	3,648.84	53.63	72.22	90.46	-66.88	-5,582.43	989.05	863.23	125.82	7.861	
8,100.00	3,654.05	3,623.00	3,648.84	54.17	72.22	90.46	-66.88	-5,582.43	946.97	820.60	126.36	7.494	
8,150.00	3,653.46	3,623.00	3,648.84	54.72	72.22	90.46	-66.88	-5,582.43	905.69	778.78	126.91	7.137	
8,200.00	3,652.87	3,623.00	3,648.84	55.27	72.22	90.46	-66.88	-5,582.43	865.33	737.87	127.45	6.789	
8,250.00	3,652.27	3,623.00	3,648.84	55.81	72.22	90.46	-66.88	-5,582.43	826.02	698.02	128.00	6.453	
8,300.00	3,651.68	3,623.00	3,648.84	56.36	72.22	90.46	-66.88	-5,582.43	787.93	659.39	128.55	6.130	
8,350.00	3,651.08	3,623.00	3,648.84	56.90	72.22	90.46	-66.88	-5,582.43	751.24	622.15	129.09	5.819	
8,400.00	3,650.49	3,623.00	3,648.84	57.45	72.22	90.46	-66.88	-5,582.43	716.16	586.52	129.64	5.524	
8,450.00	3,649.89	3,623.00	3,648.84	58.00	72.22	90.46	-66.88	-5,582.43	682.94	552.75	130.19	5.246	
8,500.00	3,649.30	3,623.00	3,648.84	58.54	72.22	90.46	-66.88	-5,582.43	651.87	521.13	130.74	4.986	
8,550.00	3,648.71	3,622.84	3,648.71	59.09	72.22	90.44	-66.88	-5,582.43	623.26	491.98	131.28	4.748	
8,600.00	3,648.11	3,622.24	3,648.11	59.64	72.21	90.38	-66.88	-5,582.43	597.47	465.66	131.81	4.533	
8,650.00	3,647.52	3,621.65	3,647.52	60.19	72.19	90.31	-66.88	-5,582.43	574.89	442.54	132.35	4.344	
8,700.00	3,646.92	3,621.06	3,646.92	60.74	72.18	90.25	-66.88	-5,582.43	555.89	423.01	132.88	4.183	
8,750.00	3,646.33	3,620.46	3,646.33	61.29	72.16	90.18	-66.88	-5,582.43	540.87	407.45	133.42	4.054	
8,800.00	3,645.73	3,619.87	3,645.73	61.84	72.15	90.12	-66.88	-5,582.43	530.15	396.20	133.96	3.958	
8,850.00	3,645.14	3,619.27	3,645.14	62.38	72.14	90.05	-66.88	-5,582.43	524.00	389.51	134.49	3.896	
8,889.82	3,644.67	3,618.80	3,644.67	62.82	72.13	90.00	-66.88	-5,582.43	522.49	387.57	134.92	3.873 CC	
8,900.00	3,644.55	3,618.68	3,644.55	62.93	72.12	89.99	-66.88	-5,582.43	522.59	387.56	135.03	3.870 ES, SF	
8,950.00	3,643.95	3,618.08	3,643.95	63.48	72.11	89.92	-66.88	-5,582.43	525.94	390.38	135.56	3.880	
9,000.00	3,643.36	3,617.49	3,643.36	64.03	72.10	89.86	-66.88	-5,582.43	533.98	397.88	136.10	3.923	
9,050.00	3,642.76	3,616.90	3,642.76	64.58	72.08	89.79	-66.88	-5,582.43	546.49	409.85	136.63	4.000	
9,100.00	3,642.17	3,616.30	3,642.17	65.13	72.07	89.73	-66.88	-5,582.43	563.17	426.00	137.17	4.106	
9,150.00	3,641.57	3,615.71	3,641.57	65.68	72.06	89.66	-66.88	-5,582.43	583.68	445.97	137.71	4.239	
9,200.00	3,640.98	3,615.11	3,640.98	66.23	72.04	89.60	-66.88	-5,582.43	607.61	469.37	138.24	4.395	
9,232.45	3,640.59	3,614.73	3,640.59	66.59	72.03	89.55	-66.88	-5,582.43	624.80	486.21	138.59	4.508	
9,250.00	3,640.39	3,614.52	3,640.39	66.79	72.03	89.53	-66.88	-5,582.43	634.59	495.82	138.78	4.573	
9,282.47	3,640.00	3,614.13	3,640.00	67.14	72.02	89.49	-66.88	-5,582.43	653.57	514.44	139.12	4.698	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design WELCH CD 28 STATE COM - OFFSET: WELCH RL STATE 21 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 385-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,250.00	3,664.16	3,630.31	3,664.16	44.97	73.03	-98.25	-664.92	-5,044.71	1,124.39	1,007.69	116.70	9.635	
7,300.00	3,663.56	3,629.72	3,663.56	45.51	73.02	-97.89	-664.92	-5,044.71	1,074.57	957.25	117.32	9.159	
7,350.00	3,662.97	3,629.12	3,662.97	46.05	73.00	-97.53	-664.92	-5,044.71	1,024.76	906.82	117.94	8.689	
7,400.00	3,662.37	3,628.53	3,662.37	46.58	72.99	-97.16	-664.92	-5,044.71	974.98	856.42	118.56	8.223	
7,450.00	3,661.78	3,627.93	3,661.78	47.12	72.98	-96.80	-664.92	-5,044.71	925.21	806.04	119.18	7.763	
7,500.00	3,661.18	3,627.34	3,661.18	47.66	72.96	-96.43	-664.92	-5,044.71	875.48	755.69	119.79	7.309	
7,550.00	3,660.59	3,626.75	3,660.59	48.20	72.95	-96.06	-664.92	-5,044.71	825.78	705.38	120.40	6.859	
7,600.00	3,660.00	3,626.15	3,660.00	48.74	72.93	-95.70	-664.92	-5,044.71	776.11	655.11	121.00	6.414	
7,650.00	3,659.40	3,625.56	3,659.40	49.29	72.92	-95.33	-664.92	-5,044.71	726.49	604.89	121.60	5.974	
7,700.00	3,658.81	3,624.96	3,658.81	49.83	72.90	-94.96	-664.92	-5,044.71	676.92	554.72	122.20	5.540	
7,750.00	3,658.21	3,624.37	3,658.21	50.37	72.89	-94.59	-664.92	-5,044.71	627.42	504.63	122.79	5.110	
7,800.00	3,657.62	3,623.77	3,657.62	50.91	72.87	-94.22	-664.92	-5,044.71	578.01	454.63	123.38	4.685	
7,850.00	3,657.03	3,623.18	3,657.03	51.45	72.86	-93.86	-664.92	-5,044.71	528.71	404.74	123.96	4.265	
7,900.00	3,656.43	3,623.00	3,656.43	52.00	72.85	-93.74	-664.92	-5,044.71	479.55	355.03	124.52	3.851	
7,950.00	3,655.84	3,623.00	3,655.84	52.54	72.85	-93.74	-664.92	-5,044.71	430.59	305.52	125.06	3.443	
8,000.00	3,655.24	3,623.00	3,655.85	53.08	72.85	-93.74	-664.92	-5,044.71	381.89	256.28	125.61	3.040	
8,050.00	3,654.65	3,623.00	3,656.85	53.63	72.85	-93.74	-664.92	-5,044.71	333.58	207.43	126.15	2.644	
8,100.00	3,654.05	3,620.18	3,654.05	54.17	72.79	-92.01	-664.92	-5,044.71	285.84	159.01	126.83	2.254	
8,150.00	3,653.46	3,619.58	3,653.46	54.72	72.77	-91.64	-664.92	-5,044.71	239.03	111.64	127.39	1.876	
8,200.00	3,652.87	3,618.99	3,652.87	55.27	72.76	-91.27	-664.92	-5,044.71	193.83	65.88	127.95	1.515	
8,250.00	3,652.27	3,618.40	3,652.27	55.81	72.75	-90.90	-664.92	-5,044.71	151.65	23.16	128.50	1.180	Level 2
8,300.00	3,651.68	3,617.80	3,651.68	56.36	72.73	-90.52	-664.92	-5,044.71	115.88	-13.16	129.05	0.898	Level 1
8,350.00	3,651.08	3,617.21	3,651.08	56.90	72.72	-90.15	-664.92	-5,044.71	94.12	-35.47	129.59	0.726	Level 1
8,370.71	3,650.84	3,616.96	3,650.84	57.13	72.71	-90.00	-664.92	-5,044.71	91.81	-38.00	129.81	0.707	Level 1, CC, ES, SF
8,400.00	3,650.49	3,616.61	3,650.49	57.45	72.71	-89.78	-664.92	-5,044.71	96.37	-33.76	130.12	0.741	Level 1
8,450.00	3,649.89	3,616.02	3,649.89	58.00	72.69	-89.41	-664.92	-5,044.71	121.30	-9.35	130.66	0.928	Level 1
8,500.00	3,649.30	3,615.42	3,649.30	58.54	72.68	-89.04	-664.92	-5,044.71	158.56	27.38	131.18	1.209	Level 2
8,550.00	3,648.71	3,614.83	3,648.71	59.09	72.67	-88.67	-664.92	-5,044.71	201.42	69.71	131.70	1.529	
8,600.00	3,648.11	3,614.24	3,648.11	59.64	72.65	-88.30	-664.92	-5,044.71	246.97	114.75	132.22	1.868	
8,650.00	3,647.52	3,613.64	3,647.52	60.19	72.64	-87.93	-664.92	-5,044.71	293.97	161.24	132.73	2.215	
8,700.00	3,646.92	3,613.05	3,646.92	60.74	72.62	-87.56	-664.92	-5,044.71	341.82	208.58	133.24	2.565	
8,750.00	3,646.33	3,612.45	3,646.33	61.29	72.61	-87.19	-664.92	-5,044.71	390.21	256.47	133.74	2.918	
8,800.00	3,645.73	3,611.86	3,645.73	61.84	72.60	-86.82	-664.92	-5,044.71	438.97	304.73	134.24	3.270	
8,850.00	3,645.14	3,611.26	3,645.14	62.38	72.58	-86.45	-664.92	-5,044.71	487.97	353.24	134.73	3.622	
8,900.00	3,644.55	3,610.67	3,644.55	62.93	72.57	-86.08	-664.92	-5,044.71	537.15	401.94	135.21	3.973	
8,950.00	3,643.95	3,610.08	3,643.95	63.48	72.56	-85.71	-664.92	-5,044.71	586.48	450.78	135.69	4.322	
9,000.00	3,643.36	3,609.48	3,643.36	64.03	72.54	-85.34	-664.92	-5,044.71	635.91	499.74	136.17	4.670	
9,050.00	3,642.76	3,608.89	3,642.76	64.58	72.53	-84.98	-664.92	-5,044.71	685.42	548.78	136.64	5.016	
9,100.00	3,642.17	3,608.29	3,642.17	65.13	72.51	-84.61	-664.92	-5,044.71	734.99	597.89	137.10	5.361	
9,150.00	3,641.57	3,607.70	3,641.57	65.68	72.50	-84.24	-664.92	-5,044.71	784.62	647.06	137.56	5.704	
9,200.00	3,640.98	3,607.10	3,640.98	66.23	72.49	-83.87	-664.92	-5,044.71	834.30	696.28	138.01	6.045	
9,232.45	3,640.59	3,606.72	3,640.59	66.59	72.48	-83.64	-664.92	-5,044.71	866.55	728.25	138.30	6.266	
9,250.00	3,640.39	3,606.51	3,640.39	66.79	72.47	-83.51	-664.92	-5,044.71	884.01	745.55	138.46	6.385	
9,282.47	3,640.00	3,606.12	3,640.00	67.14	72.46	-83.27	-664.92	-5,044.71	916.31	777.57	138.74	6.604	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 385-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
6,100.00	3,677.82	3,629.00	3,670.84	32.84	72.57	90.40	-10.32	-3,690.67	1,037.28	931.91	105.36	9.845	
6,150.00	3,677.23	3,629.00	3,670.84	33.36	72.57	90.40	-10.32	-3,690.67	994.35	888.47	105.88	9.391	
6,200.00	3,676.64	3,629.00	3,670.84	33.88	72.57	90.40	-10.32	-3,690.67	952.12	845.73	106.39	8.949	
6,250.00	3,676.04	3,629.00	3,670.84	34.39	72.57	90.40	-10.32	-3,690.67	910.68	803.76	106.91	8.518	
6,300.00	3,675.45	3,629.00	3,670.84	34.91	72.57	90.40	-10.32	-3,690.67	870.13	762.70	107.43	8.099	
6,350.00	3,674.85	3,629.00	3,670.84	35.43	72.57	90.40	-10.32	-3,690.67	830.62	722.66	107.95	7.694	
6,400.00	3,674.26	3,629.00	3,670.84	35.95	72.57	90.40	-10.32	-3,690.67	792.29	683.81	108.48	7.304	
6,450.00	3,673.66	3,629.00	3,670.84	36.48	72.57	90.40	-10.32	-3,690.67	755.33	646.33	109.00	6.930	
6,500.00	3,673.07	3,629.00	3,670.84	37.00	72.57	90.40	-10.32	-3,690.67	719.94	610.42	109.52	6.573	
6,550.00	3,672.48	3,629.00	3,670.84	37.53	72.57	90.40	-10.32	-3,690.67	686.37	576.32	110.05	6.237	
6,600.00	3,671.88	3,629.00	3,670.84	38.05	72.57	90.40	-10.32	-3,690.67	654.91	544.33	110.58	5.923	
6,650.00	3,671.29	3,629.00	3,670.84	38.58	72.57	90.40	-10.32	-3,690.67	625.86	514.76	111.10	5.633	
6,700.00	3,670.69	3,628.86	3,670.69	39.11	72.57	90.39	-10.32	-3,690.67	599.58	487.95	111.63	5.371	
6,750.00	3,670.10	3,628.26	3,670.10	39.64	72.56	90.32	-10.32	-3,690.67	576.45	464.31	112.14	5.140	
6,800.00	3,669.50	3,627.67	3,669.50	40.17	72.54	90.26	-10.32	-3,690.67	556.86	444.20	112.66	4.943	
6,850.00	3,668.91	3,627.07	3,668.91	40.70	72.53	90.19	-10.32	-3,690.67	541.19	428.01	113.18	4.782	
6,900.00	3,668.32	3,626.48	3,668.32	41.23	72.51	90.13	-10.32	-3,690.67	529.79	416.10	113.69	4.660	
6,950.00	3,667.72	3,623.00	3,664.84	41.76	72.43	89.74	-10.32	-3,690.67	522.95	408.82	114.13	4.582	
6,997.11	3,667.16	3,623.00	3,664.84	42.26	72.43	89.74	-10.32	-3,690.67	520.83	406.19	114.64	4.543 CC	
7,000.00	3,667.13	3,623.00	3,664.84	42.29	72.43	89.74	-10.32	-3,690.67	520.84	406.17	114.67	4.542 ES, SF	
7,050.00	3,666.53	3,623.00	3,664.84	42.83	72.43	89.74	-10.32	-3,690.67	523.51	408.30	115.20	4.544	
7,100.00	3,665.94	3,623.00	3,664.84	43.36	72.43	89.74	-10.32	-3,690.67	530.89	415.16	115.74	4.587	
7,150.00	3,665.34	3,623.00	3,664.84	43.90	72.43	89.74	-10.32	-3,690.67	542.81	426.53	116.27	4.668	
7,200.00	3,664.75	3,622.88	3,664.75	44.43	72.42	89.73	-10.32	-3,690.67	558.95	442.14	116.81	4.785	
7,250.00	3,664.16	3,622.29	3,664.16	44.97	72.41	89.67	-10.32	-3,690.67	578.98	461.65	117.33	4.935	
7,300.00	3,663.56	3,621.69	3,663.56	45.51	72.40	89.60	-10.32	-3,690.67	602.50	484.65	117.85	5.112	
7,350.00	3,662.97	3,621.10	3,662.97	46.05	72.38	89.54	-10.32	-3,690.67	629.12	510.74	118.38	5.315	
7,400.00	3,662.37	3,620.51	3,662.37	46.58	72.37	89.47	-10.32	-3,690.67	658.47	539.57	118.90	5.538	
7,450.00	3,661.78	3,619.91	3,661.78	47.12	72.35	89.41	-10.32	-3,690.67	690.19	570.77	119.42	5.779	
7,500.00	3,661.18	3,619.32	3,661.18	47.66	72.34	89.34	-10.32	-3,690.67	723.98	604.04	119.95	6.036	
7,550.00	3,660.59	3,618.72	3,660.59	48.20	72.33	89.28	-10.32	-3,690.67	759.56	639.09	120.47	6.305	
7,600.00	3,660.00	3,618.13	3,660.00	48.74	72.31	89.21	-10.32	-3,690.67	796.69	675.70	121.00	6.584	
7,650.00	3,659.40	3,617.53	3,659.40	49.29	72.30	89.15	-10.32	-3,690.67	835.17	713.64	121.52	6.873	
7,700.00	3,658.81	3,616.94	3,658.81	49.83	72.29	89.08	-10.32	-3,690.67	874.81	752.76	122.05	7.168	
7,750.00	3,658.21	3,616.35	3,658.21	50.37	72.27	89.02	-10.32	-3,690.67	915.46	792.89	122.57	7.469	
7,800.00	3,657.62	3,615.75	3,657.62	50.91	72.26	88.95	-10.32	-3,690.67	957.00	833.90	123.10	7.774	
7,850.00	3,657.03	3,615.16	3,657.03	51.45	72.25	88.89	-10.32	-3,690.67	999.31	875.69	123.63	8.083	
7,900.00	3,656.43	3,614.56	3,656.43	52.00	72.23	88.82	-10.32	-3,690.67	1,042.31	918.16	124.15	8.395	
7,950.00	3,655.84	3,613.97	3,655.84	52.54	72.22	88.75	-10.32	-3,690.67	1,085.90	961.22	124.68	8.710	
8,000.00	3,655.24	3,613.37	3,655.24	53.08	72.20	88.69	-10.32	-3,690.67	1,130.03	1,004.82	125.21	9.025	
8,050.00	3,654.65	3,612.78	3,654.65	53.63	72.19	88.62	-10.32	-3,690.67	1,174.62	1,048.89	125.73	9.342	
8,100.00	3,654.05	3,612.19	3,654.05	54.17	72.18	88.56	-10.32	-3,690.67	1,219.64	1,093.38	126.26	9.660	
8,150.00	3,653.46	3,611.59	3,653.46	54.72	72.16	88.49	-10.32	-3,690.67	1,265.03	1,138.24	126.79	9.977	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 465-INC-ONLY												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,150.00	3,689.11	3,575.00	3,575.94	23.49	63.37	77.40	-23.84	-2,509.29	823.95	739.47	84.48	9.754	
5,200.00	3,688.52	3,575.00	3,575.94	23.95	63.37	77.40	-23.84	-2,509.29	783.97	699.04	84.94	9.230	
5,250.00	3,687.93	3,575.00	3,575.94	24.42	63.37	77.40	-23.84	-2,509.29	745.20	659.80	85.40	8.726	
5,300.00	3,687.33	3,575.00	3,575.94	24.89	63.37	77.40	-23.84	-2,509.29	707.84	621.98	85.87	8.243	
5,350.00	3,686.74	3,575.00	3,575.94	25.37	63.37	77.40	-23.84	-2,509.29	672.13	585.79	86.34	7.784	
5,400.00	3,686.14	3,575.00	3,575.94	25.85	63.37	77.40	-23.84	-2,509.29	638.34	551.52	86.82	7.353	
5,450.00	3,685.55	3,575.00	3,575.94	26.34	63.37	77.40	-23.84	-2,509.29	606.79	519.49	87.30	6.951	
5,500.00	3,684.96	3,575.00	3,575.94	26.82	63.37	77.40	-23.84	-2,509.29	577.85	490.07	87.78	6.583	
5,550.00	3,684.36	3,575.00	3,575.94	27.31	63.37	77.40	-23.84	-2,509.29	551.93	463.66	88.26	6.253	
5,600.00	3,683.77	3,575.00	3,575.94	27.80	63.37	77.40	-23.84	-2,509.29	529.47	440.72	88.75	5.966	
5,650.00	3,683.17	3,575.00	3,575.94	28.30	63.37	77.40	-23.84	-2,509.29	510.94	421.70	89.24	5.726	
5,700.00	3,682.58	3,575.00	3,575.94	28.79	63.37	77.40	-23.84	-2,509.29	496.76	407.03	89.73	5.536	
5,750.00	3,681.98	3,575.00	3,575.94	29.29	63.37	77.40	-23.84	-2,509.29	487.33	397.10	90.22	5.401	
5,800.00	3,681.39	3,575.00	3,575.94	29.79	63.37	77.40	-23.84	-2,509.29	482.91	392.19	90.72	5.323	
5,817.84	3,681.18	3,575.00	3,575.94	29.97	63.37	77.40	-23.84	-2,509.29	482.58	391.68	90.90	5.309 CC, ES	
5,850.00	3,680.80	3,575.00	3,575.94	30.30	63.37	77.40	-23.84	-2,509.29	483.65	392.43	91.22	5.302 SF	
5,900.00	3,680.20	3,575.00	3,575.94	30.80	63.37	77.40	-23.84	-2,509.29	489.52	397.81	91.72	5.337	
5,950.00	3,679.61	3,575.00	3,575.94	31.31	63.37	77.40	-23.84	-2,509.29	500.35	408.13	92.22	5.426	
6,000.00	3,679.01	3,575.00	3,575.94	31.82	63.37	77.40	-23.84	-2,509.29	515.82	423.09	92.72	5.563	
6,050.00	3,678.42	3,575.00	3,575.94	32.33	63.37	77.40	-23.84	-2,509.29	535.52	442.29	93.23	5.744	
6,100.00	3,677.82	3,575.00	3,575.94	32.84	63.37	77.40	-23.84	-2,509.29	559.01	465.28	93.73	5.964	
6,150.00	3,677.23	3,575.00	3,575.94	33.36	63.37	77.40	-23.84	-2,509.29	585.84	491.60	94.24	6.216	
6,200.00	3,676.64	3,575.00	3,575.94	33.88	63.37	77.40	-23.84	-2,509.29	615.57	520.82	94.75	6.497	
6,250.00	3,676.04	3,575.00	3,575.94	34.39	63.37	77.40	-23.84	-2,509.29	647.80	552.54	95.26	6.800	
6,300.00	3,675.45	3,575.00	3,575.94	34.91	63.37	77.40	-23.84	-2,509.29	682.17	586.40	95.77	7.123	
6,350.00	3,674.85	3,575.00	3,575.94	35.43	63.37	77.40	-23.84	-2,509.29	718.38	622.10	96.29	7.461	
6,400.00	3,674.26	3,575.00	3,575.94	35.95	63.37	77.40	-23.84	-2,509.29	756.17	659.37	96.80	7.812	
6,450.00	3,673.66	3,575.00	3,575.94	36.48	63.37	77.40	-23.84	-2,509.29	795.30	697.99	97.32	8.172	
6,500.00	3,673.07	3,575.00	3,575.94	37.00	63.37	77.40	-23.84	-2,509.29	835.60	737.76	97.83	8.541	
6,550.00	3,672.48	3,575.00	3,575.94	37.53	63.37	77.40	-23.84	-2,509.29	876.89	778.54	98.35	8.916	
6,600.00	3,671.88	3,575.00	3,575.94	38.05	63.37	77.40	-23.84	-2,509.29	919.05	820.18	98.87	9.295	
6,650.00	3,671.29	3,575.00	3,575.94	38.58	63.37	77.40	-23.84	-2,509.29	961.96	862.57	99.39	9.679	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Offset Design WELCH CD 28 STATE COM - OFFSET: WILLIAMS KERSEY A FEDERAL 9 - Wellbore #1 - Wellbore #												Offset Site Error:	0.00 usft
Survey Program: 450-INC-ONLY												Offset Well Error:	0.00 usft
Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toelface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,500.00	3,684.96	3,652.05	3,684.96	26.82	70.42	-95.54	-623.98	-3,082.53	914.79	818.18	96.61	9.469	
5,550.00	3,684.36	3,651.46	3,684.36	27.31	70.40	-95.24	-623.98	-3,082.53	865.19	768.05	97.14	8.906	
5,600.00	3,683.77	3,650.87	3,683.77	27.80	70.39	-94.93	-623.98	-3,082.53	815.63	717.96	97.67	8.351	
5,650.00	3,683.17	3,650.27	3,683.17	28.30	70.38	-94.63	-623.98	-3,082.53	766.13	667.93	98.20	7.802	
5,700.00	3,682.58	3,649.68	3,682.58	28.79	70.36	-94.33	-623.98	-3,082.53	716.70	617.98	98.73	7.259	
5,750.00	3,681.98	3,649.08	3,681.98	29.29	70.35	-94.02	-623.98	-3,082.53	667.36	568.10	99.26	6.724	
5,800.00	3,681.39	3,648.49	3,681.39	29.79	70.33	-93.72	-623.98	-3,082.53	618.12	518.33	99.78	6.195	
5,850.00	3,680.80	3,647.90	3,680.80	30.30	70.32	-93.41	-623.98	-3,082.53	569.01	468.69	100.31	5.672	
5,900.00	3,680.20	3,647.30	3,680.20	30.80	70.30	-93.11	-623.98	-3,082.53	520.07	419.23	100.84	5.157	
5,950.00	3,679.61	3,646.71	3,679.61	31.31	70.29	-92.80	-623.98	-3,082.53	471.35	369.98	101.37	4.650	
6,000.00	3,679.01	3,646.11	3,679.01	31.82	70.27	-92.50	-623.98	-3,082.53	422.93	321.04	101.89	4.151	
6,050.00	3,678.42	3,645.52	3,678.42	32.33	70.26	-92.19	-623.98	-3,082.53	374.93	272.51	102.42	3.661	
6,100.00	3,677.82	3,644.92	3,677.82	32.84	70.24	-91.88	-623.98	-3,082.53	327.52	224.58	102.94	3.182	
6,150.00	3,677.23	3,644.33	3,677.23	33.36	70.23	-91.58	-623.98	-3,082.53	281.01	177.54	103.46	2.716	
6,200.00	3,676.64	3,643.74	3,676.64	33.88	70.22	-91.27	-623.98	-3,082.53	235.93	131.94	103.99	2.269	
6,250.00	3,676.04	3,643.14	3,676.04	34.39	70.20	-90.97	-623.98	-3,082.53	193.28	88.78	104.51	1.850	
6,300.00	3,675.45	3,642.55	3,675.45	34.91	70.19	-90.66	-623.98	-3,082.53	155.09	50.07	105.02	1.477	Level 3
6,350.00	3,674.85	3,641.95	3,674.85	35.43	70.17	-90.36	-623.98	-3,082.53	125.50	19.95	105.54	1.189	Level 2
6,400.00	3,674.26	3,641.36	3,674.26	35.95	70.16	-90.05	-623.98	-3,082.53	111.55	5.49	106.06	1.052	Level 2
6,408.06	3,674.16	3,641.26	3,674.16	36.04	70.16	-90.00	-623.98	-3,082.53	111.26	5.12	106.14	1.048	Level 2, CC, ES, SF
6,450.00	3,673.66	3,640.76	3,673.66	36.48	70.14	-89.74	-623.98	-3,082.53	118.90	12.33	106.57	1.116	Level 2
6,500.00	3,673.07	3,640.17	3,673.07	37.00	70.13	-89.44	-623.98	-3,082.53	144.32	37.24	107.08	1.348	Level 3
6,550.00	3,672.48	3,639.58	3,672.48	37.53	70.11	-89.13	-623.98	-3,082.53	180.34	72.75	107.59	1.676	
6,600.00	3,671.88	3,638.98	3,671.88	38.05	70.10	-88.83	-623.98	-3,082.53	221.84	113.74	108.10	2.052	
6,650.00	3,671.29	3,638.39	3,671.29	38.58	70.09	-88.52	-623.98	-3,082.53	266.28	157.67	108.60	2.452	
6,700.00	3,670.69	3,637.79	3,670.69	39.11	70.07	-88.21	-623.98	-3,082.53	312.40	203.29	109.10	2.863	
6,750.00	3,670.10	3,637.20	3,670.10	39.64	70.06	-87.91	-623.98	-3,082.53	359.56	249.95	109.61	3.280	
6,800.00	3,669.50	3,636.60	3,669.50	40.17	70.04	-87.60	-623.98	-3,082.53	407.39	297.29	110.10	3.700	
6,850.00	3,668.91	3,636.01	3,668.91	40.70	70.03	-87.30	-623.98	-3,082.53	455.70	345.10	110.60	4.120	
6,900.00	3,668.32	3,635.42	3,668.32	41.23	70.01	-86.99	-623.98	-3,082.53	504.33	393.23	111.09	4.540	
6,950.00	3,667.72	3,634.82	3,667.72	41.76	70.00	-86.69	-623.98	-3,082.53	553.20	441.62	111.58	4.958	
7,000.00	3,667.13	3,634.23	3,667.13	42.29	69.98	-86.38	-623.98	-3,082.53	602.26	490.19	112.07	5.374	
7,050.00	3,666.53	3,633.63	3,666.53	42.83	69.97	-86.08	-623.98	-3,082.53	651.46	538.90	112.56	5.788	
7,100.00	3,665.94	3,633.04	3,665.94	43.36	69.95	-85.77	-623.98	-3,082.53	700.78	587.73	113.04	6.199	
7,150.00	3,665.34	3,632.44	3,665.34	43.90	69.94	-85.47	-623.98	-3,082.53	750.18	636.66	113.52	6.608	
7,200.00	3,664.75	3,631.85	3,664.75	44.43	69.93	-85.16	-623.98	-3,082.53	799.66	685.66	114.00	7.015	
7,250.00	3,664.16	3,631.26	3,664.16	44.97	69.91	-84.86	-623.98	-3,082.53	849.20	734.72	114.47	7.418	
7,300.00	3,663.56	3,630.66	3,663.56	45.51	69.90	-84.56	-623.98	-3,082.53	898.79	783.84	114.95	7.819	
7,350.00	3,662.97	3,630.07	3,662.97	46.05	69.88	-84.25	-623.98	-3,082.53	948.42	833.00	115.42	8.217	
7,400.00	3,662.37	3,629.47	3,662.37	46.58	69.87	-83.95	-623.98	-3,082.53	998.09	882.21	115.88	8.613	
7,450.00	3,661.78	3,628.88	3,661.78	47.12	69.85	-83.65	-623.98	-3,082.53	1,047.79	931.44	116.34	9.006	
7,500.00	3,661.18	3,628.28	3,661.18	47.66	69.84	-83.35	-623.98	-3,082.53	1,097.51	980.71	116.80	9.396	
7,550.00	3,660.59	3,627.69	3,660.59	48.20	69.82	-83.05	-623.98	-3,082.53	1,147.26	1,030.00	117.26	9.784	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

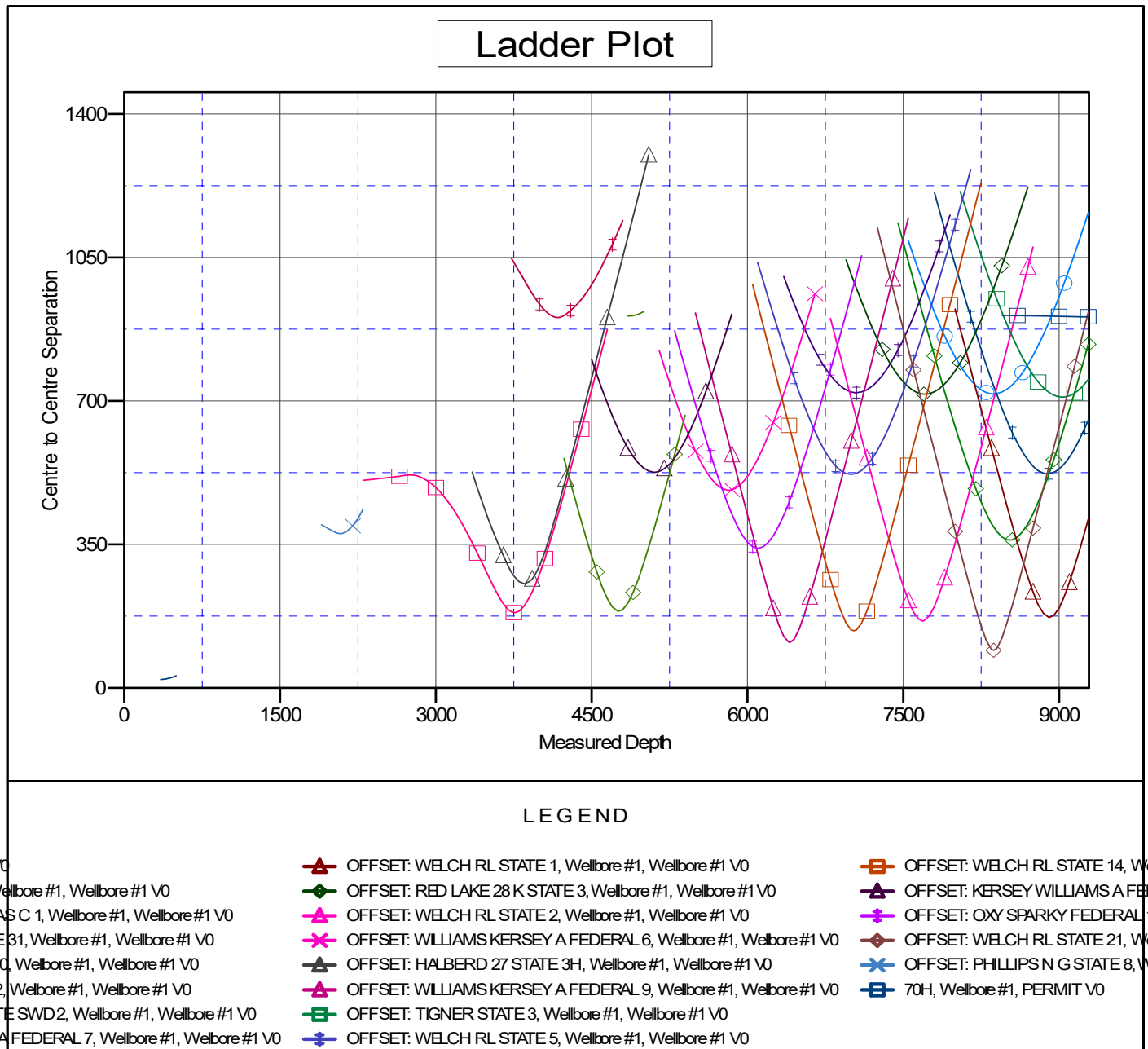
Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Reference Site:	WELCH B 28 FED	MD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	10H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Reference Depths are relative to RKB = 20' @ 3679.00usft (AKITA 57) Coordinates are relative to: 10H

Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Central Meridian is -104.3333333 Grid Convergence at Surface is: 0.09°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 10H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3679.00usft (AKITA 57)
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Reference Design:	PERMIT	Offset TVD Reference:	Reference Datum

Reference Depths are relative to RKB = 20' @ 3679.00usft (AKITA 57) Coordinates are relative to: 10H

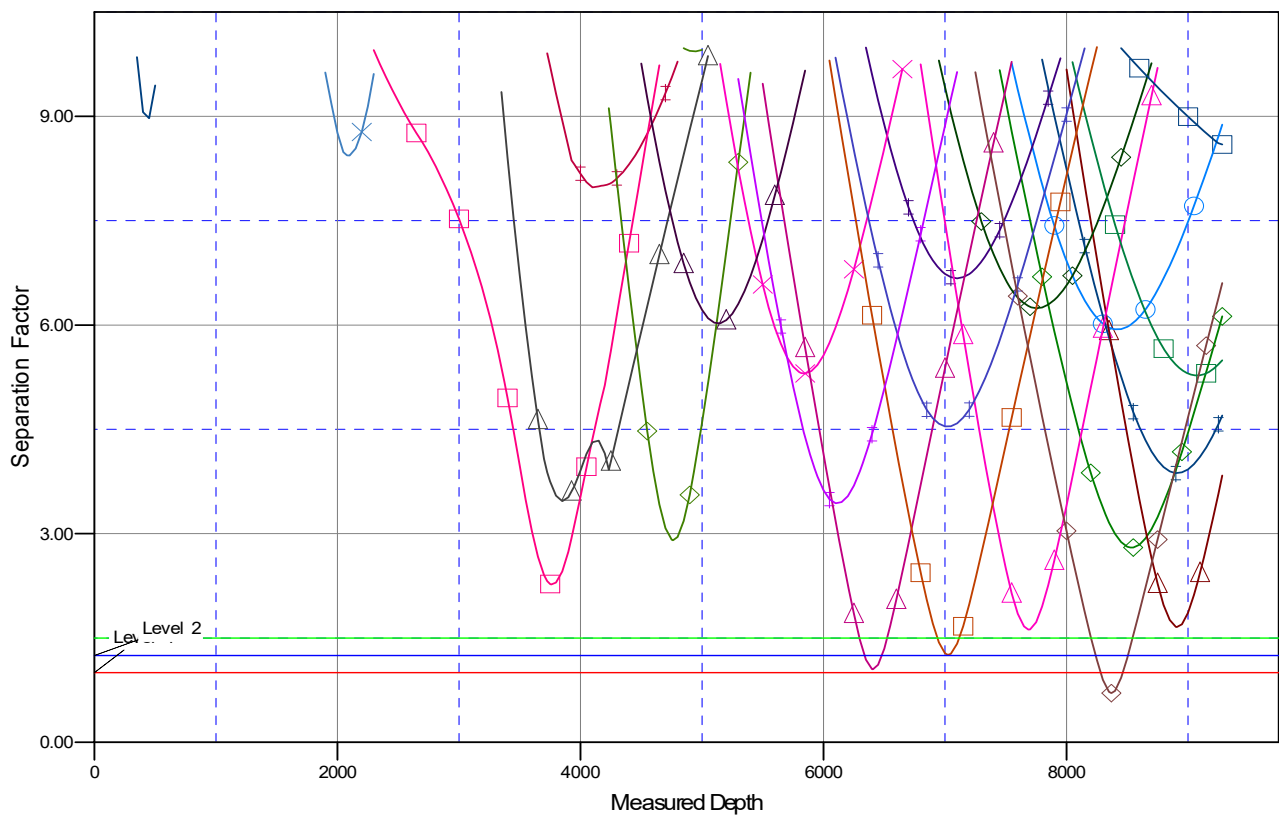
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Central Meridian is -104.3333333

Grid Convergence at Surface is: 0.09°

Separation Factor Plot



LEGEND

Wellbore #1, Wellbore #1 V0	OFFSET: WELCH RL STATE 1, Wellbore #1, Wellbore #1 V0	OFFSET: WELCH RL STATE 14, Wellbore #1, Wellbore #1 V0
WAS C 1, Wellbore #1, Wellbore #1 V0	OFFSET: RED LAKE 28 K STATE 3, Wellbore #1, Wellbore #1 V0	OFFSET: KERSEY WILLIAMS A FEDERAL 1, Wellbore #1, Wellbore #1 V0
TE 31, Wellbore #1, Wellbore #1 V0	OFFSET: WELCH RL STATE 2, Wellbore #1, Wellbore #1 V0	OFFSET: OXY SPARKY FEDERAL 1, Wellbore #1, Wellbore #1 V0
20, Wellbore #1, Wellbore #1 V0	OFFSET: WILLIAMS KERSEY A FEDERAL 6, Wellbore #1, Wellbore #1 V0	OFFSET: WELCH RL STATE 21, Wellbore #1, Wellbore #1 V0
2, Wellbore #1, Wellbore #1 V0	OFFSET: HALBERD 27 STATE 3H, Wellbore #1, Wellbore #1 V0	OFFSET: PHILLIPS N G STATE 8, Wellbore #1, Wellbore #1 V0
STE SWD2, Wellbore #1, Wellbore #1 V0	OFFSET: WILLIAMS KERSEY A FEDERAL 9, Wellbore #1, Wellbore #1 V0	70H, Wellbore #1, PERMIT V0
WAS A FEDERAL 7, Wellbore #1, Wellbore #1 V0	OFFSET: TIGNER STATE 3, Wellbore #1, Wellbore #1 V0	
	OFFSET: WELCH RL STATE 5, Wellbore #1, Wellbore #1 V0	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

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 239629

CONDITIONS

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID: 328947
	Action Number: 239629
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Original COA's still apply.	10/25/2023