

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101

August 1, 2011

Permit 341765

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

1. Operator Name and Address STEWARD ENERGY II, LLC 2600 Dallas Parkway Frisco, TX 75034		2. OGRID Number 371682
		3. API Number 30-025-51641
4. Property Code 325646	5. Property Name SALAMANCA STATE	6. Well No. 002H

7. Surface Location

UL - Lot B	Section 34	Township 13S	Range 38E	Lot Idn B	Feet From 696	N/S Line N	Feet From 1864	E/W Line E	County Lea
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8. Proposed Bottom Hole Location

UL - Lot B	Section 27	Township 13S	Range 38E	Lot Idn B	Feet From 100	N/S Line N	Feet From 1430	E/W Line E	County Lea
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9. Pool Information

BRONCO;SAN ANDRES, SOUTH	7500
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type Private	15. Ground Level Elevation 3810
16. Multiple N	17. Proposed Depth 10908	18. Formation San Andres	19. Contractor	20. Spud Date 8/1/2023
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

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

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	12.25	9.625	36	2500	1000	0
Prod	8.75	7	29	5660	1000	0
Prod	8.75	5.5	20	10908	1000	0

Casing/Cement Program: Additional Comments

TAPERED PRODUCTION CASING

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	1500	SCHAFER
Annular	3000	1500	SCHAFER

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.

OIL CONSERVATION DIVISION

Signature:

Printed Name: Electronically filed by Scott Stedman

Title: Executive Vice President

Email Address: scott.stedman@stewardenergy.net

Date: 6/21/2023

Phone: 214-297-0514

Approved By: Paul F Kautz

Title: Geologist

Approved Date: 6/22/2023

Expiration Date: 6/22/2025

Conditions of Approval Attached

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 7500	Pool Name Bronco; San Andres, South
Property Code	Property Name SALAMANCA STATE	Well Number #2H
OGRID No. 371682	Operator Name STEWARD ENERGY II, LLC	Elevation 3810'

Surface Location

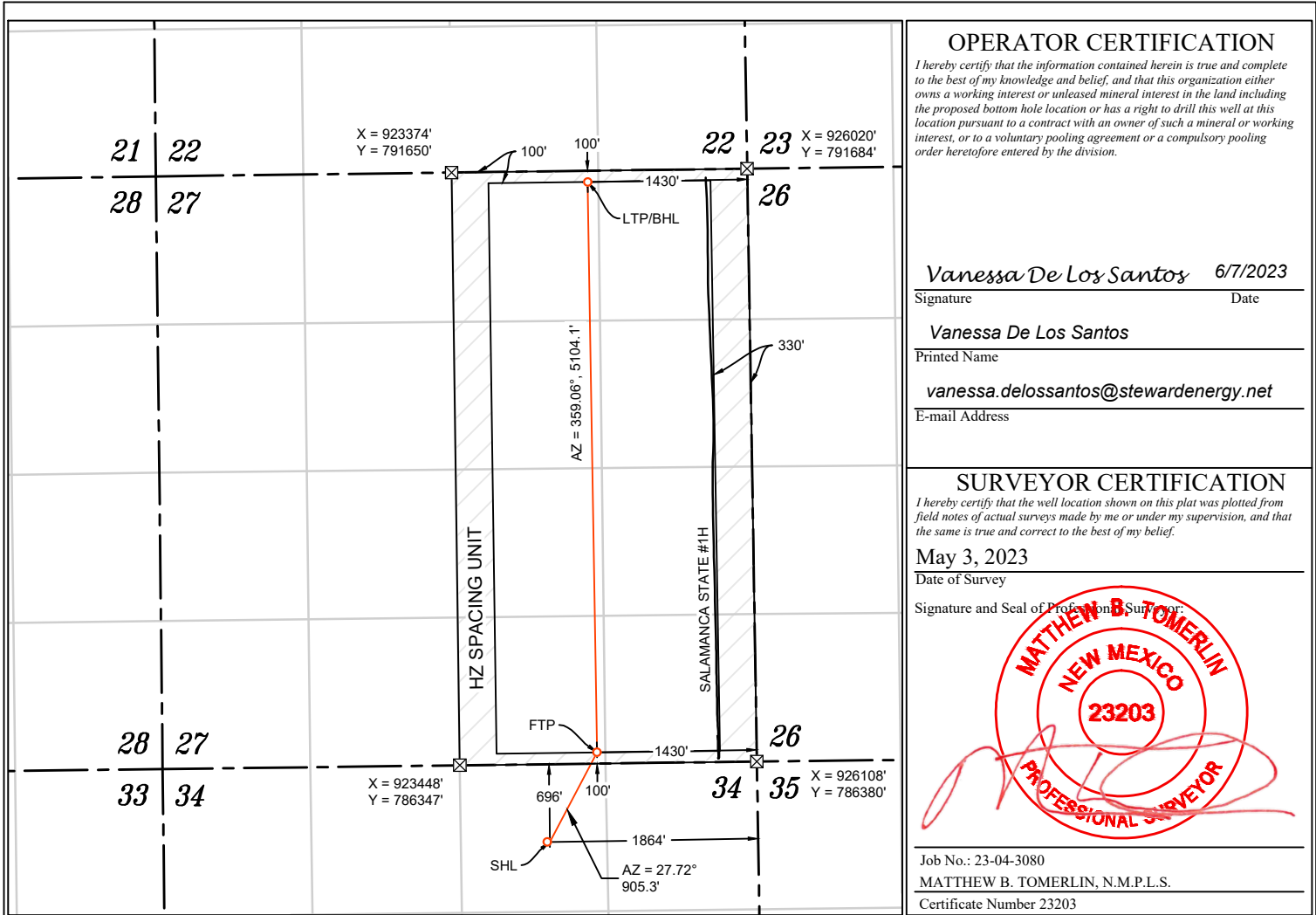
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	34	13 S	38 E		696	NORTH	1864	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	27	13 S	38 E		100	NORTH	1430	EAST	LEA

Dedicated Acres 320.0	Joint or Infill	Consolidation Code	Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



NAD 83 (SURFACE HOLE LOCATION) LATITUDE = 33.153472° LONGITUDE = -103.082192° NAD 27 (SURFACE HOLE LOCATION) LATITUDE = 33.153365° LONGITUDE = -103.081693° STATE PLANE NAD 83 (N.M. EAST) N: 785660.77° E: 924254.87° STATE PLANE NAD 27 (N.M. EAST) N: 785598.29° E: 883078.89°	NAD 83 (FTP) LATITUDE = 33.155660° LONGITUDE = -103.080785° NAD 27 (FTP) LATITUDE = 33.155553° LONGITUDE = -103.080286° STATE PLANE NAD 83 (N.M. EAST) N: 786462.22° E: 924675.97° STATE PLANE NAD 27 (N.M. EAST) N: 786399.74° E: 883499.99°	NAD 83 (LTP/BHL) LATITUDE = 33.169686° LONGITUDE = -103.080860° NAD 27 (LTP/BHL) LATITUDE = 33.169579° LONGITUDE = -103.080361° STATE PLANE NAD 83 (N.M. EAST) N: 791565.64° E: 924592.20° STATE PLANE NAD 27 (N.M. EAST) N: 791503.02° E: 883416.25°
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APPROXIMATE WELL BORE DISTANCE FROM FTP TO LTP	
SECTION 27	5104.11'
TOTAL	5104.11'

© FND. U.S.G.L.O. MON. UNLESS OTHERWISE NOTED
☒ CALC. CORNER
☒ SHL/ KOP/ PPP/ LP
☐ OIL & GAS LEASE
☐ HORIZONTAL SPACING UNIT

NOTES

1. ALL COORDINATES, BEARINGS, AND DISTANCES CONTAINED HEREIN ARE GRID, BASED UPON THE NEW MEXICO STATE PLANE COORDINATES SYSTEM, NORTH AMERICAN DATUM 83, NEW MEXICO EAST (3001), NAVD 88.
2. THIS DOCUMENT IS BASED UPON AN ON THE GROUND SURVEY PERFORMED DURING MAY, 2023. CERTIFICATION OF THIS DOCUMENT IS ONLY TO THE LOCATION OF THIS EASEMENT IN RELATION TO RECORDED MONUMENT OF DEEDS PROVIDED BY THE CLIENT.
3. ELEVATIONS MSL, DERIVED FROM G.N.S.S. OBSERVATION AND DERIVED FROM SAID ON-THE-GROUND SURVEY.

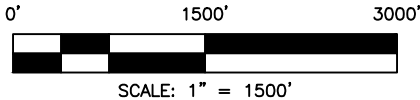


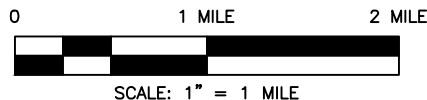
EXHIBIT 1 LOCATION & ELEVATION VERIFICATION MAP



LEASE NAME AND WELL NUMBER: SALAMANCA STATE #2H
 LATITUDE: N 33.153472 LONGITUDE: W 103.082192 ELEVATION: 3810'
 DESCRIPTION: 696' FNL & 1864' FEL



Situated in
 SECTION 34, TOWNSHIP 13 SOUTH, RANGE 38 EAST
 LEA COUNTY, NEW MEXICO



LEGEND

- S.H.L.
- F.T.P.; K.O.P.; P.P.P.; L.T.P.; B.H.L.
- PROPOSED WELL BORE
- SECTION LINE
- TOWNSHIP/RANGE LINE

DATAPOINT
 SURVEYING & MAPPING

12450 Network Blvd. - Suite 155
 San Antonio, TX 78249
 Phone: 726-777-4240
 Firm No. 10194585

DRAWN BY: JH

DATE : 05/02/2023

REV.

CHECKED BY: JW

DATE : 05/02/2023

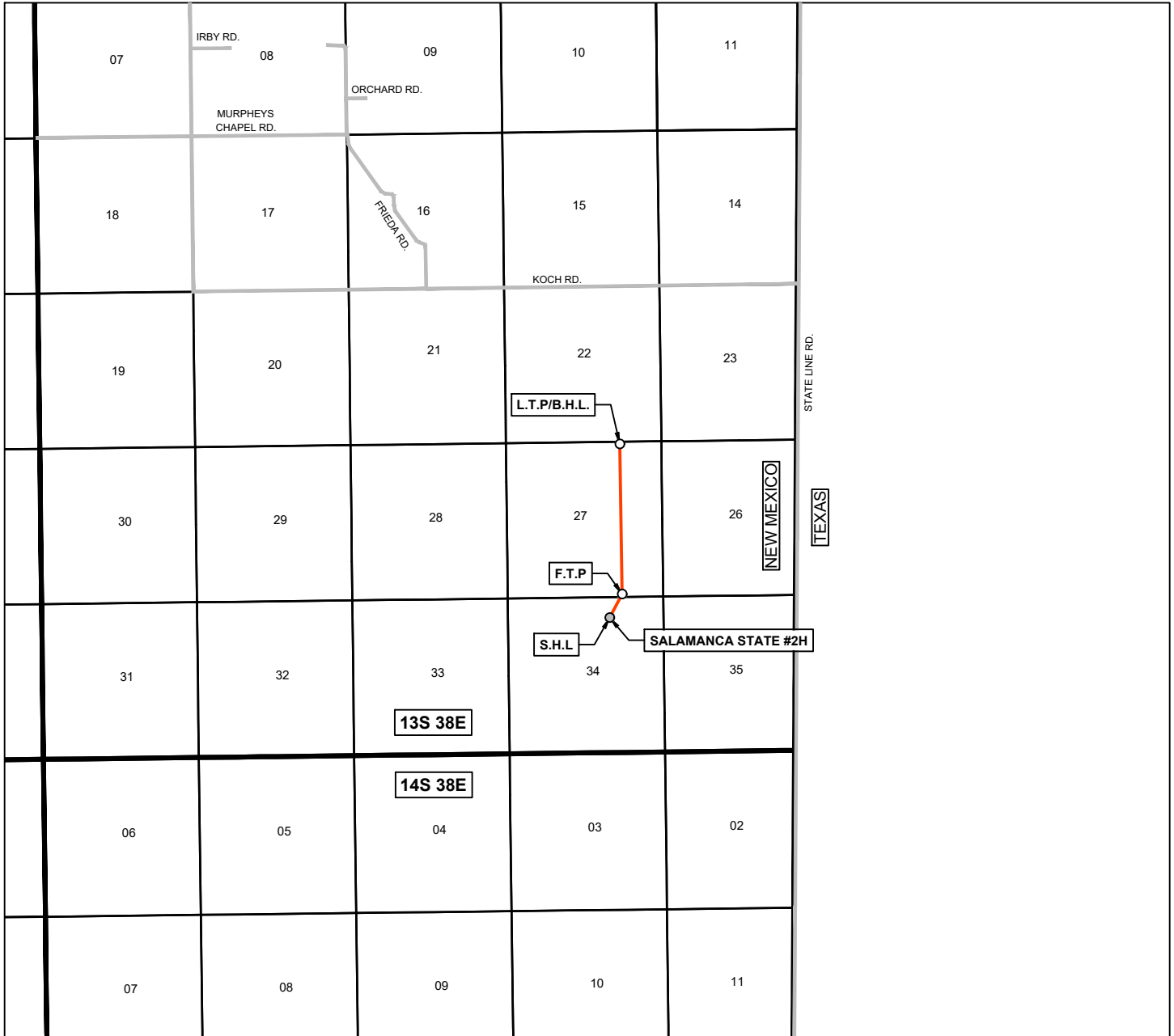
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AFE #

PROJECT ID: 23-04-3080

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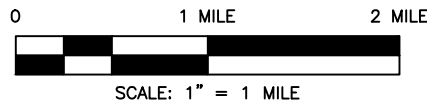
EXHIBIT 2 VICINITY MAP



LEASE NAME AND WELL NUMBER: SALAMANCA STATE #2H
 LATITUDE: N 33.153472 LONGITUDE: W 103.082192 ELEVATION: 3810'
 DESCRIPTION: 696' FNL & 1864' FEL



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 SECTION 34, TOWNSHIP 13 SOUTH, RANGE 38 EAST
 LEA COUNTY, NEW MEXICO



LEGEND

- S.H.L
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- PROPOSED WELL BORE
- SECTION LINE
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Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Comments

Permit 341765

PERMIT COMMENTS

Operator Name and Address: STEWARD ENERGY II, LLC [371682] 2600 Dallas Parkway Frisco, TX 75034		API Number: 30-025-51641
		Well: SALAMANCA STATE #002H

Created By	Comment	Comment Date
vlopez	TAPPERED PRODUCTION CASING	6/14/2023
pkautz	Fee Cancellation - Timed out before operator could make payment.	6/21/2023

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Energy, Minerals and Natural Resources
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Form APD Conditions

Permit 341765

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: STEWARD ENERGY II, LLC [371682] 2600 Dallas Parkway Frisco, TX 75034	API Number: 30-025-51641
	Well: SALAMANCA STATE #002H

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

DrilTech, LLC



STEWART
ENERGY II

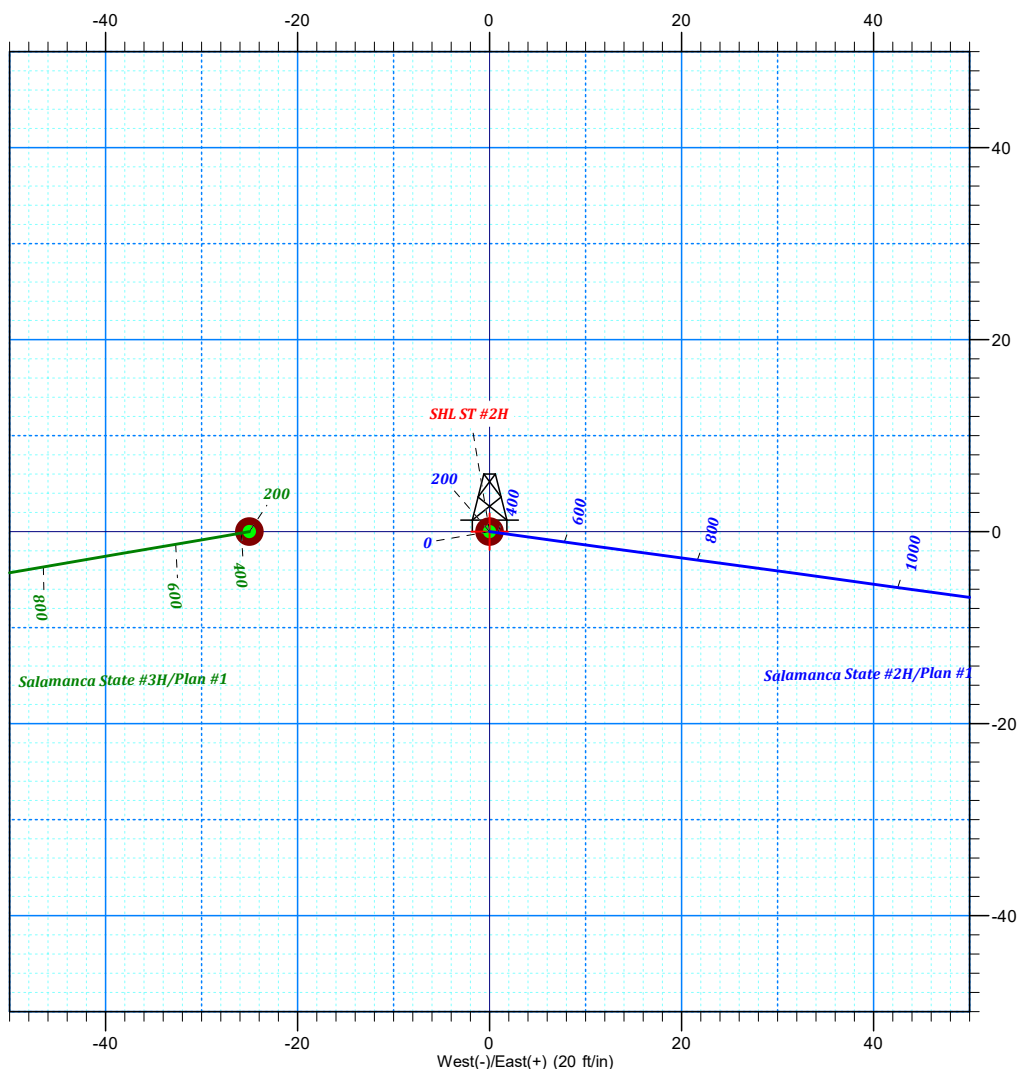
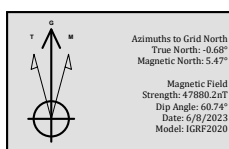


WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
SHL ST #2H	0.00	0.00	0.00	785660.77	924254.87
FTP ST #2H	5300.00	801.45	421.10	786462.22	924675.97
LTP/PBHL ST #2H	5300.00	5904.88	337.33	791565.64	924592.20

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect
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
1083.20	7.83	97.79	1080.77	-7.24	52.95	1.00	-8.11
3522.41	7.83	97.79	3497.22	-52.27	382.28	0.00	-58.54
4305.62	0.00	0.00	4277.99	-59.51	435.23	1.00	-66.65
4505.62	0.00	0.00	4477.99	-59.51	435.23	0.00	-66.65
5255.62	60.00	359.06	5098.24	298.54	429.36	8.00	291.45
5505.62	60.00	359.06	5223.24	515.01	425.81	0.00	507.96
5805.62	90.00	359.06	5300.00	801.45	421.11	10.00	794.44
10909.73	90.00	359.06	5300.00	5904.88	337.33	0.00	5898.55



Steward Energy II, LLC

Lea County, NM (NAD 83) NM East Zone

Salamanca State #2H

Salamanca State #2H

Wellbore #1

Plan #1

Anticollision Report

08 June, 2023

Anticollision Report

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Salamanca State #2H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Reference Site:	Salamanca State #2H	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	edmdb
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,000.00ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	6/8/2023		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	10,909.73	Plan #1 (Wellbore #1)	MWD	MWD - Standard	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Combo Fee #2H						
Combo Fee #2H - Wellbore #1 - Wellbore #1	10,910.48	11,006.00	158.52	95.86	2.530	CC, ES, SF
Combo Fee 1H						
Combo Fee 1H - Pilot - Pilot						Out of range
Combo Fee 1H - Sidetrack - Sidetrack						Out of range
Combo Fee 3H						
Combo Fee 3H - Wellbore #1 - Plan #1 Pre	10,845.70	5,561.89	865.54	745.44	7.207	CC
Combo Fee 3H - Wellbore #1 - Plan #1 Pre	10,910.48	5,621.71	865.84	744.21	7.119	ES, SF
Heisenberg State 3H						
Heisenberg State 3H - Heisenberg St.3H Lateral (STK) -	5,550.00	13,156.00	577.13	420.89	3.694	CC
Heisenberg State 3H - Heisenberg St.3H Lateral (STK) -	5,550.04	13,156.00	577.13	420.89	3.694	ES, SF
Heisenberg State 3H - Pilot Hole - Pilot Hole						Out of range
Heisenberg State Com						
Heisenberg State Com 1H - Wellbore #1 - Wellbore #1						Out of range
Heisenberg State Com 2H - Wellbore #1 - Wellbore #1	5,691.28	13,830.00	294.84	130.70	1.796	CC, ES, SF
Roof Pizza Fee 4H						
Roof Pizza Fee 4H - Wellbore #1 - Plan #1 PRE						Out of range
Salamanca State #3H						
Salamanca State #3H - Wellbore #1 - Plan #1	300.00	299.00	25.00	22.99	12.431	CC, ES
Salamanca State #3H - Wellbore #1 - Plan #1	10,910.48	10,906.30	880.00	678.96	4.377	SF
Salamanca State 1H						
Salamanca State 1H - Wellbore #1 - Wellbore #1						Out of range
Vamonos Fee 5H						
Vamonos Fee 5H - Wellbore #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:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Salamanca State #2H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Reference Site:	Salamanca State #2H	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	edmdb
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Combo Fee #2H - Combo Fee #2H - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 ft
Survey Program: 121-MWD														Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance		Warning							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
10,100.00	5,300.00	11,006.00	5,359.23	87.41	101.22	-160.87	6,048.46	312.70	956.11	913.87	42.24	22.634			
10,200.00	5,300.00	11,006.00	5,359.23	89.04	101.22	-160.87	6,048.46	312.70	856.39	813.89	42.50	20.150			
10,300.00	5,300.00	11,006.00	5,359.23	90.68	101.22	-160.87	6,048.46	312.70	756.75	713.91	42.84	17.666			
10,400.00	5,300.00	11,006.00	5,359.23	92.32	101.22	-160.87	6,048.46	312.70	657.22	613.92	43.30	15.179			
10,500.00	5,300.00	11,006.00	5,359.23	93.95	101.22	-160.87	6,048.46	312.70	557.85	513.88	43.97	12.686			
10,600.00	5,300.00	11,006.00	5,359.23	95.59	101.22	-160.87	6,048.46	312.70	458.76	413.72	45.04	10.186			
10,700.00	5,300.00	11,006.00	5,359.23	97.23	101.22	-160.87	6,048.46	312.70	360.16	313.24	46.92	7.676			
10,800.00	5,300.00	11,006.00	5,359.23	98.88	101.22	-160.87	6,048.46	312.70	262.64	211.84	50.80	5.170			
10,909.73	5,300.00	11,006.00	5,359.23	100.68	101.22	-160.87	6,048.46	312.70	159.20	96.68	62.53	2.546			
10,910.48	5,300.00	11,006.00	5,359.23	100.69	101.22	-160.87	6,048.46	312.70	158.52	95.86	62.67	2.530	CC, ES, SF		

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

Anticollision Report

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Reference Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	edmdb
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Combo Fee 3H - Combo Fee 3H - Wellbore #1 - Plan #1 Pre													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Semi Major Axis Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Distance Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
10,100.00	5,300.00	5,050.00	5,000.16	87.41	17.71	-71.36	5,407.47	-519.59	969.49	872.26	97.23	9.971		
10,200.00	5,300.00	5,100.00	5,036.58	89.04	17.90	-73.55	5,441.71	-520.20	938.86	837.80	101.06	9.290		
10,300.00	5,300.00	5,150.00	5,070.51	90.68	18.12	-75.64	5,478.41	-520.85	914.53	809.92	104.61	8.742		
10,348.68	5,300.00	5,172.66	5,085.03	91.48	18.22	-76.55	5,495.80	-521.16	904.88	798.68	106.19	8.521		
10,400.00	5,300.00	5,200.00	5,101.81	92.32	18.35	-77.60	5,517.39	-521.54	896.21	788.41	107.80	8.314		
10,445.88	5,300.00	5,231.31	5,119.99	93.07	18.51	-78.75	5,542.87	-521.99	889.67	780.44	109.24	8.145		
10,500.00	5,300.00	5,267.12	5,139.39	93.95	18.69	-80.00	5,572.96	-522.52	883.34	772.53	110.81	7.972		
10,544.12	5,300.00	5,301.01	5,156.52	94.68	18.88	-81.10	5,602.19	-523.04	879.15	767.07	112.08	7.844		
10,600.00	5,300.00	5,349.40	5,180.71	95.59	19.17	-82.67	5,644.10	-523.78	874.69	760.97	113.72	7.692		
10,643.66	5,300.00	5,387.21	5,199.62	96.31	19.40	-83.91	5,676.83	-524.36	871.80	756.86	114.94	7.585		
10,700.00	5,300.00	5,436.00	5,224.02	97.23	19.73	-85.51	5,719.08	-525.11	868.88	752.40	116.48	7.459		
10,744.24	5,300.00	5,474.32	5,243.17	97.96	20.00	-86.77	5,752.26	-525.70	867.22	749.58	117.64	7.372		
10,800.00	5,300.00	5,522.61	5,267.32	98.88	20.34	-88.37	5,794.07	-526.44	865.93	746.90	119.02	7.275		
10,845.70	5,300.00	5,561.89	5,286.39	99.63	20.65	-89.63	5,828.41	-527.05	865.54	745.44	120.10	7.207 CC		
10,909.73	5,300.00	5,620.99	5,310.69	100.68	21.12	-91.24	5,882.24	-528.01	865.83	744.22	121.61	7.120		
10,909.76	5,300.00	5,621.01	5,310.70	100.68	21.12	-91.24	5,882.26	-528.01	865.84	744.22	121.61	7.120		
10,910.48	5,300.00	5,621.71	5,310.96	100.69	21.13	-91.25	5,882.91	-528.02	865.84	744.21	121.63	7.119 ES, SF		

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

Anticollision Report

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Salamanca State #2H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Reference Site:	Salamanca State #2H	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	edmdb
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Heisenberg State 3H - Heisenberg State 3H - Heisenberg St.3H Lateral (STK) - Heisenberg St.3H Lateral (STK)												Offset Site Error:	0.00 ft
Survey Program: 98-CB_Film_GMS, 2435-MWD, 4351-MWD												Offset Well Error:	0.00 ft
Reference												Rule Assigned:	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Semi Major Axis	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	Toolface	+N/-S	+E/-W	Between	Between	Separation	Factor	
						(°)	(ft)	(ft)	Centres	Ellipses	(ft)		
4,550.00	4,522.34	12,589.97	5,306.85	17.65	126.84	-93.96	-58.70	-146.91	985.34	885.56	99.78	9.875	
4,600.00	4,572.10	12,595.47	5,306.86	17.80	126.93	-98.63	-53.21	-146.90	945.61	843.25	102.36	9.238	
4,650.00	4,621.40	12,604.60	5,306.86	17.95	127.08	-102.51	-44.07	-146.89	907.17	802.02	105.14	8.628	
4,700.00	4,670.00	12,617.19	5,306.83	18.09	127.28	-105.62	-31.49	-146.89	870.30	762.17	108.13	8.049	
4,750.00	4,717.66	12,633.04	5,306.73	18.23	127.54	-108.03	-15.63	-146.93	835.24	723.95	111.29	7.505	
4,800.00	4,764.15	12,651.99	5,306.54	18.37	127.85	-109.80	3.31	-147.03	802.24	687.63	114.61	7.000	
4,850.00	4,809.25	12,674.67	5,306.22	18.50	128.23	-110.95	25.99	-147.18	771.49	653.43	118.06	6.535	
4,900.00	4,852.74	12,700.57	5,305.80	18.63	128.65	-111.58	51.89	-147.31	743.14	621.55	121.59	6.112	
4,950.00	4,894.40	12,729.46	5,305.25	18.75	129.13	-111.77	80.77	-147.42	717.30	592.16	125.14	5.732	
5,000.00	4,934.04	12,760.65	5,304.57	18.86	129.64	-111.59	111.96	-147.49	694.04	565.38	128.66	5.394	
5,050.00	4,971.45	12,793.98	5,303.91	18.98	130.19	-111.13	145.28	-147.47	673.40	541.31	132.09	5.098	
5,100.00	5,006.45	12,830.17	5,303.29	19.10	130.78	-110.37	181.46	-147.32	655.33	519.97	135.36	4.841	
5,150.00	5,038.89	12,866.87	5,302.76	19.23	131.38	-109.51	218.16	-147.09	639.75	501.31	138.44	4.621	
5,200.00	5,068.59	12,904.94	5,302.26	19.38	132.01	-108.53	256.22	-146.94	626.62	485.31	141.31	4.434	
5,250.00	5,095.41	12,945.74	5,301.77	19.55	132.68	-107.39	297.03	-146.87	615.77	471.81	143.95	4.278	
5,255.62	5,098.24	12,950.74	5,301.71	19.58	132.76	-107.25	302.02	-146.86	614.68	470.44	144.24	4.262	
5,300.00	5,120.43	12,990.25	5,301.21	19.76	133.41	-105.42	341.53	-146.76	606.46	460.03	146.43	4.142	
5,400.00	5,170.43	13,075.59	5,299.96	20.30	134.81	-101.33	426.86	-146.42	590.58	439.50	151.07	3.909	
5,505.62	5,223.24	13,156.00	5,298.67	20.99	136.13	-97.33	507.26	-146.34	578.62	423.31	155.30	3.726	
5,550.00	5,243.92	13,156.00	5,298.67	21.32	136.13	-97.48	507.26	-146.34	577.13	420.89	156.24	3.694 CC	
5,550.04	5,243.93	13,156.00	5,298.67	21.32	136.13	-97.48	507.26	-146.34	577.13	420.89	156.24	3.694 ES, SF	
5,600.00	5,263.50	13,156.00	5,298.67	21.72	136.13	-97.18	507.26	-146.34	580.07	423.81	156.26	3.712	
5,650.00	5,278.99	13,156.00	5,298.67	22.13	136.13	-96.41	507.26	-146.34	587.81	432.58	155.23	3.787	
5,700.00	5,290.29	13,156.00	5,298.67	22.57	136.13	-95.15	507.26	-146.34	600.09	446.86	153.23	3.916	
5,750.00	5,297.30	13,156.00	5,298.67	23.03	136.13	-93.40	507.26	-146.34	616.55	466.10	150.45	4.098	
5,800.00	5,299.97	13,156.00	5,298.67	23.50	136.13	-91.20	507.26	-146.34	636.76	489.68	147.08	4.329	
5,805.62	5,300.00	13,156.00	5,298.67	23.55	136.13	-90.92	507.26	-146.34	639.24	492.57	146.67	4.358	
5,900.00	5,300.00	13,156.00	5,298.67	24.49	136.13	-90.92	507.26	-146.34	686.52	547.19	139.33	4.927	
6,000.00	5,300.00	13,156.00	5,298.67	25.55	136.13	-90.92	507.26	-146.34	746.43	615.28	131.15	5.692	
6,100.00	5,300.00	13,156.00	5,298.67	26.67	136.13	-90.92	507.26	-146.34	814.25	691.02	123.22	6.608	
6,200.00	5,300.00	13,156.00	5,298.67	27.84	136.13	-90.92	507.26	-146.34	888.17	772.26	115.90	7.663	
6,300.00	5,300.00	13,156.00	5,298.67	29.07	136.13	-90.92	507.26	-146.34	966.79	857.46	109.33	8.843	

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

Anticollision Report

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Salamanca State #2H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Reference Site:	Salamanca State #2H	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	edmdb
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Heisenberg State Com - Heisenberg State Com 2H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 ft
Survey Program: 118-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
4,505.62	4,477.99	13,107.07	5,372.86	17.51	136.30	87.40	-46.97	711.73	944.35	863.52	80.83	11.683		
4,550.00	4,522.34	13,107.77	5,372.85	17.65	136.31	99.41	-46.27	711.74	902.02	820.14	81.88	11.016		
4,600.00	4,572.10	13,112.26	5,372.77	17.80	136.39	109.74	-41.78	711.79	854.77	771.52	83.25	10.267		
4,650.00	4,621.40	13,117.94	5,372.68	17.95	136.48	118.08	-36.10	711.85	808.23	723.44	84.79	9.532		
4,700.00	4,670.00	13,127.30	5,372.55	18.09	136.63	124.22	-26.74	711.93	762.72	676.14	86.58	8.810		
4,750.00	4,717.66	13,139.82	5,372.42	18.23	136.84	128.70	-14.22	712.02	718.51	629.90	88.61	8.108		
4,800.00	4,764.15	13,155.54	5,372.33	18.37	137.10	131.88	1.49	712.09	675.92	584.99	90.92	7.434		
4,850.00	4,809.25	13,174.48	5,372.31	18.50	137.41	134.07	20.44	712.13	635.23	541.70	93.53	6.792		
4,900.00	4,852.74	13,196.65	5,372.43	18.63	137.77	135.48	42.61	712.10	596.73	500.29	96.44	6.187		
4,950.00	4,894.40	13,225.69	5,372.72	18.75	138.25	135.96	71.64	711.96	560.63	460.88	99.75	5.621		
5,000.00	4,934.04	13,259.79	5,372.93	18.86	138.81	135.81	105.75	711.66	526.90	423.48	103.42	5.095		
5,050.00	4,971.45	13,296.43	5,372.97	18.98	139.42	135.28	142.38	711.19	495.66	388.27	107.39	4.615		
5,100.00	5,006.45	13,333.98	5,372.85	19.10	140.04	134.55	179.92	710.57	467.06	355.48	111.58	4.186		
5,150.00	5,038.89	13,373.62	5,372.63	19.23	140.69	133.55	219.56	709.80	441.25	325.30	115.95	3.806		
5,200.00	5,068.59	13,416.08	5,372.21	19.38	141.40	132.28	262.00	708.88	418.24	297.79	120.45	3.472		
5,250.00	5,095.41	13,460.69	5,371.04	19.55	142.13	130.74	306.59	708.24	397.92	272.81	125.12	3.180		
5,255.62	5,098.24	13,465.76	5,370.85	19.58	142.22	130.55	311.66	708.19	395.81	270.16	125.64	3.150		
5,300.00	5,120.43	13,503.63	5,369.15	19.76	142.84	128.00	349.49	708.00	379.54	249.59	129.95	2.921		
5,400.00	5,170.43	13,581.52	5,367.07	20.30	144.13	122.36	427.35	707.57	347.05	207.19	139.86	2.481		
5,505.62	5,223.24	13,672.72	5,366.51	20.99	145.63	115.08	518.55	706.82	319.16	168.34	150.82	2.116		
5,550.00	5,243.92	13,712.48	5,366.14	21.32	146.29	112.71	558.30	706.48	310.02	154.87	155.15	1.998		
5,600.00	5,263.50	13,758.91	5,365.27	21.72	147.06	110.05	604.72	706.14	302.39	143.05	159.34	1.898		
5,650.00	5,278.99	13,806.20	5,364.02	22.13	147.84	107.64	651.99	705.85	297.18	134.39	162.79	1.826		
5,691.28	5,288.63	13,830.00	5,363.38	22.50	148.23	106.64	675.78	705.70	294.84	130.70	164.15	1.796 CC, ES, SF		
5,700.00	5,290.29	13,830.00	5,363.38	22.57	148.23	106.63	675.78	705.70	294.99	131.09	163.89	1.800		
5,700.05	5,290.30	13,830.00	5,363.38	22.57	148.23	106.63	675.78	705.70	294.99	131.10	163.89	1.800		
5,750.00	5,297.30	13,830.00	5,363.38	23.03	148.23	106.00	675.78	705.70	301.47	141.58	159.89	1.886		
5,800.00	5,299.97	13,830.00	5,363.38	23.50	148.23	104.42	675.78	705.70	316.94	164.63	152.31	2.081		
5,805.62	5,300.00	13,830.00	5,363.38	23.55	148.23	104.18	675.78	705.70	319.19	167.88	151.31	2.110		
5,900.00	5,300.00	13,830.00	5,363.38	24.49	148.23	104.18	675.78	705.70	367.96	235.07	132.89	2.769		
6,000.00	5,300.00	13,830.00	5,363.38	25.55	148.23	104.18	675.78	705.70	436.27	321.79	114.48	3.811		
6,100.00	5,300.00	13,830.00	5,363.38	26.67	148.23	104.18	675.78	705.70	515.05	415.42	99.63	5.169		
6,200.00	5,300.00	13,830.00	5,363.38	27.84	148.23	104.18	675.78	705.70	600.18	511.95	88.23	6.802		
6,300.00	5,300.00	13,830.00	5,363.38	29.07	148.23	104.18	675.78	705.70	689.32	609.77	79.54	8.666		
6,400.00	5,300.00	13,830.00	5,363.38	30.33	148.23	104.18	675.78	705.70	781.09	708.21	72.88	10.718		
6,500.00	5,300.00	13,830.00	5,363.38	31.64	148.23	104.18	675.78	705.70	874.67	806.96	67.71	12.918		
6,600.00	5,300.00	13,830.00	5,363.38	32.97	148.23	104.18	675.78	705.70	969.53	905.87	63.66	15.230		

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

Anticollision Report

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Salamanca State #2H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Reference Site:	Salamanca State #2H	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	edmdb
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Salamanca State #3H - Salamanca State #3H - Wellbore #1 - Plan #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD												Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference	Offset	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-90.00	0.00	-25.00	25.02				
100.00	100.00	99.00	99.00	0.29	0.29	-90.00	0.00	-25.00	25.00	24.42	0.58	43.266	
200.00	200.00	199.00	199.00	0.65	0.65	-90.00	0.00	-25.00	25.00	23.71	1.29	19.319	
300.00	300.00	299.00	299.00	1.01	1.00	-90.00	0.00	-25.00	25.00	22.99	2.01	12.431	CC, ES
400.00	399.99	398.55	398.54	1.36	1.35	172.16	-0.14	-25.84	26.70	23.99	2.71	9.857	
500.00	499.96	497.91	497.87	1.70	1.70	172.02	-0.57	-28.37	31.85	28.44	3.40	9.361	
600.00	599.86	596.93	596.80	2.06	2.05	171.85	-1.29	-32.58	40.42	36.31	4.10	9.853	
700.00	699.68	695.42	695.11	2.42	2.40	171.71	-2.29	-38.45	52.40	47.59	4.80	10.905	
800.00	799.37	793.22	792.61	2.78	2.76	171.60	-3.57	-45.91	67.76	62.26	5.51	12.306	
900.00	898.90	890.17	889.12	3.16	3.12	171.51	-5.11	-54.94	86.48	80.28	6.21	13.935	
1,000.00	998.26	986.09	984.46	3.54	3.49	171.44	-6.90	-65.45	108.52	101.62	6.90	15.723	
1,083.20	1,080.77	1,065.32	1,063.05	3.87	3.80	171.38	-8.58	-75.30	129.34	121.86	7.48	17.291	
1,100.00	1,097.41	1,081.53	1,079.12	3.93	3.86	171.38	-8.94	-77.39	133.74	126.14	7.60	17.596	
1,200.00	1,196.47	1,178.04	1,174.80	4.33	4.24	171.38	-11.06	-89.84	159.91	151.61	8.30	19.266	
1,300.00	1,295.54	1,274.56	1,270.48	4.74	4.63	171.38	-13.18	-102.29	186.09	177.08	9.01	20.664	
1,400.00	1,394.61	1,371.07	1,366.17	5.14	5.02	171.38	-15.31	-114.74	212.26	202.55	9.71	21.855	
1,500.00	1,493.68	1,467.58	1,461.85	5.55	5.41	171.38	-17.43	-127.20	238.44	228.02	10.42	22.880	
1,600.00	1,592.74	1,564.10	1,557.54	5.96	5.80	171.38	-19.56	-139.65	264.61	253.48	11.13	23.772	
1,700.00	1,691.81	1,660.61	1,653.22	6.38	6.20	171.38	-21.68	-152.10	290.79	278.94	11.84	24.553	
1,800.00	1,790.88	1,757.12	1,748.90	6.79	6.59	171.37	-23.80	-164.55	316.96	304.41	12.56	25.244	
1,900.00	1,889.94	1,853.64	1,844.59	7.20	6.99	171.37	-25.93	-177.01	343.14	329.87	13.27	25.859	
2,000.00	1,989.01	1,950.15	1,940.27	7.62	7.39	171.37	-28.05	-189.46	369.31	355.33	13.98	26.410	
2,100.00	2,088.08	2,046.67	2,035.95	8.04	7.79	171.37	-30.18	-201.91	395.49	380.79	14.70	26.906	
2,200.00	2,187.15	2,143.18	2,131.64	8.45	8.19	171.37	-32.30	-214.36	421.66	406.25	15.41	27.355	
2,300.00	2,286.21	2,239.69	2,227.32	8.87	8.58	171.37	-34.42	-226.81	447.83	431.70	16.13	27.763	
2,400.00	2,385.28	2,336.21	2,323.00	9.29	8.98	171.37	-36.55	-239.27	474.01	457.16	16.85	28.136	
2,500.00	2,484.35	2,432.72	2,418.69	9.71	9.38	171.37	-38.67	-251.72	500.18	482.62	17.56	28.478	
2,600.00	2,583.41	2,529.23	2,514.37	10.12	9.78	171.37	-40.80	-264.17	526.36	508.08	18.28	28.792	
2,700.00	2,682.48	2,625.75	2,610.05	10.54	10.18	171.37	-42.92	-276.62	552.53	533.54	19.00	29.082	
2,800.00	2,781.55	2,722.26	2,705.74	10.96	10.58	171.37	-45.04	-289.08	578.71	558.99	19.72	29.351	
2,900.00	2,880.62	2,818.77	2,801.42	11.38	10.98	171.37	-47.17	-301.53	604.88	584.45	20.43	29.600	
3,000.00	2,979.68	2,915.29	2,897.10	11.80	11.39	171.37	-49.29	-313.98	631.06	609.90	21.15	29.833	
3,100.00	3,078.75	3,011.80	2,992.79	12.22	11.79	171.37	-51.42	-326.43	657.23	635.36	21.87	30.049	
3,200.00	3,177.82	3,108.32	3,088.47	12.64	12.19	171.37	-53.54	-338.89	683.41	660.82	22.59	30.252	
3,300.00	3,276.88	3,204.83	3,184.15	13.06	12.59	171.37	-55.66	-351.34	709.58	686.27	23.31	30.441	
3,400.00	3,375.95	3,301.34	3,279.84	13.48	12.99	171.37	-57.79	-363.79	735.76	711.73	24.03	30.620	
3,500.00	3,475.02	3,397.86	3,375.52	13.90	13.39	171.37	-59.91	-376.24	761.93	737.18	24.75	30.787	
3,522.41	3,497.22	3,419.49	3,396.97	13.99	13.48	171.37	-60.39	-379.03	767.80	742.89	24.91	30.823	
3,600.00	3,574.16	3,494.50	3,471.34	14.32	13.80	171.40	-62.04	-388.71	787.60	762.14	25.47	30.926	
3,700.00	3,673.50	3,598.05	3,574.01	14.72	14.23	171.41	-64.29	-401.89	811.49	785.26	26.23	30.934	
3,800.00	3,773.03	3,712.05	3,687.28	15.11	14.68	171.41	-66.45	-414.59	832.12	805.05	27.06	30.749	
3,900.00	3,872.71	3,827.30	3,802.03	15.49	15.13	171.42	-68.26	-425.16	849.11	821.22	27.88	30.451	
4,000.00	3,972.52	3,943.57	3,917.98	15.85	15.57	171.42	-69.68	-433.52	862.42	833.72	28.70	30.053	
4,100.00	4,072.42	4,060.60	4,034.86	16.20	15.99	171.43	-70.72	-439.59	872.02	842.52	29.50	29.563	
4,200.00	4,172.38	4,178.17	4,152.36	16.54	16.39	171.43	-71.35	-443.32	877.88	847.60	30.28	28.989	
4,305.62	4,277.99	4,302.63	4,276.81	16.88	16.80	-90.79	-71.59	-444.68	880.00	848.92	31.08	28.315	
4,400.00	4,372.37	4,397.19	4,371.37	17.18	17.09	-90.79	-71.59	-444.68	880.00	848.29	31.70	27.756	
4,505.62	4,477.99	4,502.81	4,476.99	17.51	17.42	-90.79	-71.59	-444.68	880.00	847.59	32.41	27.154	
4,550.00	4,522.34	4,547.05	4,521.21	17.65	17.56	-89.85	-70.28	-444.70	880.00	847.30	32.70	26.911	
4,600.00	4,572.10	4,596.89	4,570.81	17.80	17.72	-89.86	-65.55	-444.78	880.00	846.97	33.02	26.647	
4,650.00	4,621.40	4,646.74	4,619.98	17.95	17.87	-89.86	-57.37	-444.92	880.00	846.66	33.34	26.393	
4,668.93	4,639.89	4,665.62	4,638.43	18.00	17.92	-89.86	-53.39	-444.98	880.00	846.54	33.46	26.300	

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

Anticollision Report

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Salamanca State #2H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Reference Site:	Salamanca State #2H	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	edmdb
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Salamanca State #3H - Salamanca State #3H - Wellbore #1 - Plan #1													Offset Site Error: 0.00 ft
Survey Program: 0-MWD													Offset Well Error: 0.00 ft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
4,700.00	4,670.00	4,696.60	4,668.46	18.09	18.01	-89.87	-45.80	-445.11	880.00	846.34	33.65	26.148	
4,715.45	4,684.83	4,712.00	4,683.26	18.14	18.06	-89.87	-41.54	-445.18	880.00	846.25	33.75	26.074	
4,750.00	4,717.66	4,746.46	4,716.03	18.23	18.15	-89.88	-30.88	-445.35	880.00	846.03	33.96	25.910	
4,764.31	4,731.10	4,760.74	4,729.44	18.27	18.19	-89.88	-26.00	-445.43	880.00	845.95	34.05	25.843	
4,800.00	4,764.15	4,796.33	4,762.45	18.37	18.29	-89.88	-12.68	-445.65	880.00	845.72	34.27	25.677	
4,813.94	4,776.87	4,810.24	4,775.15	18.41	18.33	-89.89	-7.04	-445.74	880.00	845.64	34.36	25.611	
4,850.00	4,809.25	4,846.22	4,807.50	18.50	18.42	-89.89	8.71	-446.00	880.00	845.41	34.58	25.445	
4,863.84	4,821.47	4,860.03	4,819.70	18.53	18.45	-89.90	15.18	-446.11	880.00	845.32	34.67	25.380	
4,900.00	4,852.74	4,896.11	4,850.96	18.63	18.55	-89.90	33.18	-446.40	880.00	845.09	34.91	25.211	
4,913.87	4,864.49	4,909.95	4,862.71	18.66	18.58	-89.91	40.50	-446.52	880.00	845.00	35.00	25.145	
4,950.00	4,894.40	4,946.01	4,892.62	18.75	18.67	-89.91	60.63	-446.85	880.00	844.76	35.24	24.973	
4,963.95	4,905.68	4,959.94	4,903.90	18.78	18.70	-89.92	68.80	-446.99	880.00	844.66	35.33	24.905	
5,000.00	4,934.04	4,995.92	4,932.28	18.86	18.79	-89.92	90.91	-447.35	880.00	844.41	35.59	24.728	
5,014.07	4,944.80	5,009.97	4,943.06	18.90	18.82	-89.93	99.93	-447.50	880.00	844.30	35.69	24.656	
5,050.00	4,971.45	5,045.84	4,969.74	18.98	18.91	-89.93	123.89	-447.89	880.00	844.04	35.96	24.472	
5,064.22	4,981.66	5,060.04	4,979.97	19.02	18.95	-89.94	133.74	-448.05	880.00	843.92	36.07	24.396	
5,100.00	5,006.45	5,095.77	5,004.82	19.10	19.04	-89.94	159.41	-448.47	880.00	843.64	36.36	24.203	
5,114.41	5,016.07	5,110.16	5,014.46	19.14	19.08	-89.95	170.09	-448.65	880.00	843.51	36.48	24.122	
5,150.00	5,038.89	5,145.72	5,037.35	19.23	19.18	-89.95	197.29	-449.09	880.00	843.21	36.79	23.920	
5,164.65	5,047.88	5,160.35	5,046.37	19.27	19.22	-89.96	208.81	-449.28	880.00	843.07	36.93	23.832	
5,200.00	5,068.59	5,195.68	5,067.16	19.38	19.33	-89.97	237.36	-449.75	880.00	842.74	37.26	23.620	
5,215.00	5,076.94	5,210.66	5,075.55	19.43	19.38	-89.97	249.78	-449.95	880.00	842.59	37.41	23.524	
5,250.00	5,095.41	5,245.65	5,094.11	19.55	19.51	-89.98	279.42	-450.44	880.00	842.23	37.76	23.302	
5,255.62	5,098.24	5,251.26	5,096.96	19.58	19.54	-89.98	284.26	-450.52	880.00	842.17	37.82	23.266	
5,258.46	5,099.66	5,254.11	5,098.38	19.59	19.55	-89.98	286.72	-450.56	880.00	842.14	37.85	23.247	
5,260.60	5,100.73	5,256.25	5,099.45	19.60	19.56	-89.98	288.58	-450.59	880.00	842.12	37.88	23.233	
5,290.64	5,115.75	5,286.28	5,114.47	19.72	19.69	-89.98	314.58	-451.02	880.00	841.78	38.21	23.030	
5,300.00	5,120.43	5,295.64	5,119.15	19.76	19.73	-89.98	322.69	-451.15	880.00	841.68	38.31	22.967	
5,378.87	5,159.86	5,374.51	5,158.59	20.17	20.15	-89.98	390.98	-452.27	880.00	840.71	39.29	22.397	
5,400.00	5,170.43	5,395.64	5,169.15	20.30	20.27	-89.98	409.28	-452.57	880.00	840.44	39.55	22.249	
5,505.62	5,223.24	5,501.26	5,221.96	20.99	20.97	-89.98	500.74	-454.07	880.00	838.96	41.04	21.444	
5,526.07	5,233.14	5,521.71	5,231.94	21.14	21.11	-89.98	518.58	-454.37	880.00	838.65	41.35	21.283	
5,550.00	5,243.92	5,545.63	5,242.80	21.32	21.29	-89.99	539.88	-454.71	880.00	838.28	41.71	21.096	
5,565.91	5,250.58	5,561.53	5,249.53	21.45	21.41	-90.00	554.29	-454.95	880.00	838.03	41.97	20.968	
5,600.00	5,263.50	5,595.62	5,262.59	21.72	21.68	-90.01	585.77	-455.47	880.00	837.48	42.52	20.698	
5,602.11	5,264.23	5,597.73	5,263.33	21.73	21.70	-90.01	587.74	-455.50	880.00	837.44	42.55	20.681	
5,650.00	5,278.99	5,645.64	5,278.30	22.13	22.10	-90.02	633.24	-456.25	880.00	836.63	43.36	20.294	
5,650.02	5,279.00	5,645.66	5,278.31	22.13	22.10	-90.02	633.25	-456.25	880.00	836.63	43.36	20.294	
5,700.00	5,290.29	5,695.68	5,289.82	22.57	22.54	-90.04	681.90	-457.05	880.00	835.75	44.25	19.889	
5,700.78	5,290.43	5,696.45	5,289.97	22.58	22.54	-90.04	682.67	-457.06	880.00	835.74	44.26	19.883	
5,750.00	5,297.30	5,745.73	5,297.06	23.03	22.99	-90.05	731.41	-457.86	880.00	834.83	45.16	19.486	
5,751.26	5,297.42	5,746.99	5,297.18	23.04	23.00	-90.05	732.67	-457.88	880.00	834.81	45.18	19.476	
5,800.00	5,299.97	5,795.81	5,299.94	23.50	23.46	-90.06	781.38	-458.68	880.00	833.89	46.10	19.087	
5,800.01	5,299.97	5,795.82	5,299.94	23.50	23.46	-90.06	781.39	-458.68	880.00	833.89	46.10	19.087	
5,805.62	5,300.00	5,801.43	5,299.99	23.55	23.51	-90.06	787.00	-458.77	880.00	833.79	46.21	19.043	
5,805.64	5,300.00	5,801.46	5,299.99	23.55	23.51	-90.06	787.03	-458.77	880.00	833.78	46.21	19.043	
5,900.00	5,300.00	5,895.82	5,300.00	24.49	24.45	-90.07	881.38	-460.32	880.00	831.91	48.08	18.301	
5,900.01	5,300.00	5,895.82	5,300.00	24.49	24.45	-90.07	881.39	-460.32	880.00	831.91	48.08	18.301	
6,000.00	5,300.00	5,995.82	5,300.00	25.55	25.50	-90.07	981.37	-461.96	880.00	829.79	50.21	17.527	
6,000.01	5,300.00	5,995.82	5,300.00	25.55	25.50	-90.07	981.37	-461.96	880.00	829.79	50.21	17.527	
6,100.00	5,300.00	6,095.82	5,300.00	26.67	26.62	-90.07	1,081.35	-463.60	880.00	827.53	52.46	16.774	
6,100.01	5,300.00	6,095.82	5,300.00	26.67	26.62	-90.07	1,081.36	-463.60	880.00	827.53	52.46	16.774	

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

Anticollision Report

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Salamanca State #2H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Reference Site:	Salamanca State #2H	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	edmdb
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Salamanca State #3H - Salamanca State #3H - Wellbore #1 - Plan #1													Offset Site Error: 0.00 ft
Survey Program: 0-MWD													Offset Well Error: 0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
6,200.00	5,300.00	6,195.82	5,300.00	27.84	27.80	-90.07	1,181.34	-465.24	880.00	825.17	54.83	16.050	
6,200.01	5,300.00	6,195.82	5,300.00	27.85	27.80	-90.07	1,181.34	-465.24	880.00	825.17	54.83	16.050	
6,300.00	5,300.00	6,295.82	5,300.00	29.07	29.02	-90.07	1,281.33	-466.89	880.00	822.70	57.29	15.360	
6,300.01	5,300.00	6,295.82	5,300.00	29.07	29.02	-90.07	1,281.33	-466.89	880.00	822.70	57.29	15.360	
6,400.00	5,300.00	6,395.82	5,300.00	30.33	30.28	-90.07	1,381.31	-468.53	880.00	820.15	59.84	14.705	
6,400.01	5,300.00	6,395.82	5,300.00	30.33	30.28	-90.07	1,381.32	-468.53	880.00	820.15	59.84	14.705	
6,500.00	5,300.00	6,495.82	5,300.00	31.64	31.58	-90.07	1,481.30	-470.17	880.00	817.53	62.47	14.087	
6,500.01	5,300.00	6,495.82	5,300.00	31.64	31.58	-90.07	1,481.30	-470.17	880.00	817.53	62.47	14.087	
6,600.00	5,300.00	6,595.82	5,300.00	32.97	32.92	-90.07	1,581.29	-471.81	880.00	814.84	65.16	13.505	
6,600.01	5,300.00	6,595.82	5,300.00	32.97	32.92	-90.07	1,581.29	-471.81	880.00	814.84	65.16	13.505	
6,700.00	5,300.00	6,695.82	5,300.00	34.34	34.28	-90.07	1,681.27	-473.45	880.00	812.08	67.91	12.958	
6,700.01	5,300.00	6,695.82	5,300.00	34.34	34.28	-90.07	1,681.28	-473.45	880.00	812.08	67.91	12.958	
6,800.00	5,300.00	6,795.82	5,300.00	35.73	35.67	-90.07	1,781.26	-475.09	880.00	809.28	70.72	12.444	
6,800.01	5,300.00	6,795.82	5,300.00	35.73	35.67	-90.07	1,781.26	-475.09	880.00	809.28	70.72	12.444	
6,900.00	5,300.00	6,895.82	5,300.00	37.15	37.09	-90.07	1,881.24	-476.73	880.00	806.43	73.56	11.962	
6,900.01	5,300.00	6,895.82	5,300.00	37.15	37.09	-90.07	1,881.25	-476.73	880.00	806.43	73.57	11.962	
7,000.00	5,300.00	6,995.82	5,300.00	38.58	38.52	-90.07	1,981.23	-478.38	880.00	803.54	76.45	11.510	
7,000.01	5,300.00	6,995.82	5,300.00	38.58	38.52	-90.07	1,981.24	-478.38	880.00	803.54	76.46	11.510	
7,100.00	5,300.00	7,095.82	5,300.00	40.04	39.98	-90.07	2,081.22	-480.02	880.00	800.62	79.38	11.086	
7,100.01	5,300.00	7,095.82	5,300.00	40.04	39.98	-90.07	2,081.22	-480.02	880.00	800.62	79.38	11.086	
7,200.00	5,300.00	7,195.82	5,300.00	41.51	41.45	-90.07	2,181.20	-481.66	880.00	797.66	82.34	10.687	
7,200.01	5,300.00	7,195.82	5,300.00	41.51	41.45	-90.07	2,181.21	-481.66	880.00	797.66	82.34	10.687	
7,300.00	5,300.00	7,295.82	5,300.00	42.99	42.93	-90.07	2,281.19	-483.30	880.00	794.67	85.33	10.313	
7,300.01	5,300.00	7,295.82	5,300.00	42.99	42.93	-90.07	2,281.20	-483.30	880.00	794.67	85.33	10.313	
7,400.00	5,300.00	7,395.82	5,300.00	44.49	44.43	-90.07	2,381.18	-484.94	880.00	791.66	88.34	9.961	
7,400.01	5,300.00	7,395.82	5,300.00	44.49	44.43	-90.07	2,381.18	-484.94	880.00	791.66	88.34	9.961	
7,500.00	5,300.00	7,495.82	5,300.00	46.00	45.94	-90.07	2,481.16	-486.58	880.00	788.62	91.38	9.630	
7,500.01	5,300.00	7,495.82	5,300.00	46.00	45.94	-90.07	2,481.17	-486.58	880.00	788.62	91.38	9.630	
7,600.00	5,300.00	7,595.82	5,300.00	47.52	47.46	-90.07	2,581.15	-488.22	880.00	785.56	94.44	9.318	
7,600.01	5,300.00	7,595.82	5,300.00	47.52	47.46	-90.07	2,581.16	-488.22	880.00	785.56	94.44	9.318	
7,700.00	5,300.00	7,695.82	5,300.00	49.05	48.99	-90.07	2,681.14	-489.87	880.00	782.48	97.52	9.024	
7,700.01	5,300.00	7,695.82	5,300.00	49.05	48.99	-90.07	2,681.14	-489.87	880.00	782.48	97.52	9.024	
7,800.00	5,300.00	7,795.82	5,300.00	50.59	50.53	-90.07	2,781.12	-491.51	880.00	779.39	100.61	8.746	
7,800.01	5,300.00	7,795.82	5,300.00	50.60	50.53	-90.07	2,781.13	-491.51	880.00	779.39	100.61	8.746	
7,900.00	5,300.00	7,895.82	5,300.00	52.14	52.08	-90.07	2,881.11	-493.15	880.00	776.27	103.72	8.484	
7,900.01	5,300.00	7,895.82	5,300.00	52.14	52.08	-90.07	2,881.12	-493.15	880.00	776.27	103.72	8.484	
8,000.00	5,300.00	7,995.82	5,300.00	53.70	53.64	-90.07	2,981.10	-494.79	880.00	773.15	106.85	8.236	
8,000.01	5,300.00	7,995.82	5,300.00	53.70	53.64	-90.07	2,981.10	-494.79	880.00	773.15	106.85	8.236	
8,100.00	5,300.00	8,095.82	5,300.00	55.26	55.20	-90.07	3,081.08	-496.43	880.00	770.01	109.99	8.001	
8,100.01	5,300.00	8,095.82	5,300.00	55.26	55.20	-90.07	3,081.09	-496.43	880.00	770.01	109.99	8.001	
8,200.00	5,300.00	8,195.82	5,300.00	56.83	56.77	-90.07	3,181.07	-498.07	880.00	766.86	113.14	7.778	
8,200.01	5,300.00	8,195.82	5,300.00	56.83	56.77	-90.07	3,181.08	-498.07	880.00	766.86	113.14	7.778	
8,300.00	5,300.00	8,295.82	5,300.00	58.41	58.35	-90.07	3,281.06	-499.71	880.00	763.70	116.30	7.566	
8,300.01	5,300.00	8,295.82	5,300.00	58.41	58.35	-90.07	3,281.06	-499.71	880.00	763.70	116.30	7.566	
8,400.00	5,300.00	8,395.82	5,300.00	59.99	59.93	-90.07	3,381.04	-501.36	880.00	760.52	119.48	7.365	
8,400.01	5,300.00	8,395.82	5,300.00	59.99	59.93	-90.07	3,381.05	-501.36	880.00	760.52	119.48	7.365	
8,500.00	5,300.00	8,495.82	5,300.00	61.58	61.51	-90.07	3,481.03	-503.00	880.00	757.34	122.66	7.174	
8,500.01	5,300.00	8,495.82	5,300.00	61.58	61.51	-90.07	3,481.04	-503.00	880.00	757.34	122.66	7.174	
8,600.00	5,300.00	8,595.82	5,300.00	63.17	63.10	-90.07	3,581.02	-504.64	880.00	754.15	125.85	6.992	
8,600.01	5,300.00	8,595.82	5,300.00	63.17	63.11	-90.07	3,581.02	-504.64	880.00	754.15	125.85	6.992	
8,700.00	5,300.00	8,695.82	5,300.00	64.76	64.70	-90.07	3,681.00	-506.28	880.00	750.95	129.05	6.819	
8,700.01	5,300.00	8,695.82	5,300.00	64.76	64.70	-90.07	3,681.01	-506.28	880.00	750.95	129.05	6.819	

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

Anticollision Report

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Salamanca State #2H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Reference Site:	Salamanca State #2H	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	edmdb
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design: Salamanca State #3H - Salamanca State #3H - Wellbore #1 - Plan #1											Offset Site Error:	0.00 ft
Survey Program: 0-MWD											Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor
8,800.00	5,300.00	8,795.82	5,300.00	66.36	66.30	-90.07	3,780.99	-507.92	880.00	747.74	132.26	6.654
8,800.01	5,300.00	8,795.82	5,300.00	66.36	66.30	-90.07	3,780.99	-507.92	880.00	747.74	132.26	6.654
8,900.00	5,300.00	8,895.82	5,300.00	67.96	67.90	-90.07	3,880.98	-509.56	880.00	744.53	135.47	6.496
8,900.01	5,300.00	8,895.82	5,300.00	67.96	67.90	-90.07	3,880.98	-509.56	880.00	744.53	135.47	6.496
9,000.00	5,300.00	8,995.82	5,300.00	69.57	69.51	-90.07	3,980.96	-511.20	880.00	741.31	138.69	6.345
9,000.01	5,300.00	8,995.82	5,300.00	69.57	69.51	-90.07	3,980.97	-511.20	880.00	741.31	138.69	6.345
9,100.00	5,300.00	9,095.82	5,300.00	71.18	71.12	-90.07	4,080.95	-512.85	880.00	738.08	141.92	6.201
9,100.01	5,300.00	9,095.82	5,300.00	71.18	71.12	-90.07	4,080.95	-512.85	880.00	738.08	141.92	6.201
9,200.00	5,300.00	9,195.82	5,300.00	72.79	72.73	-90.07	4,180.94	-514.49	880.00	734.85	145.15	6.063
9,200.01	5,300.00	9,195.82	5,300.00	72.79	72.73	-90.07	4,180.94	-514.49	880.00	734.85	145.15	6.063
9,300.00	5,300.00	9,295.82	5,300.00	74.41	74.34	-90.07	4,280.92	-516.13	880.00	731.61	148.39	5.930
9,300.01	5,300.00	9,295.82	5,300.00	74.41	74.34	-90.07	4,280.93	-516.13	880.00	731.61	148.39	5.930
9,400.00	5,300.00	9,395.82	5,300.00	76.03	75.96	-90.07	4,380.91	-517.77	880.00	728.37	151.63	5.804
9,400.01	5,300.00	9,395.82	5,300.00	76.03	75.96	-90.07	4,380.91	-517.77	880.00	728.37	151.63	5.804
9,500.00	5,300.00	9,495.82	5,300.00	77.65	77.58	-90.07	4,480.89	-519.41	880.00	725.12	154.88	5.682
9,500.01	5,300.00	9,495.82	5,300.00	77.65	77.58	-90.07	4,480.90	-519.41	880.00	725.12	154.88	5.682
9,600.00	5,300.00	9,595.82	5,300.00	79.27	79.20	-90.07	4,580.88	-521.05	880.00	721.87	158.13	5.565
9,600.01	5,300.00	9,595.82	5,300.00	79.27	79.20	-90.07	4,580.89	-521.05	880.00	721.87	158.13	5.565
9,700.00	5,300.00	9,695.82	5,300.00	80.89	80.83	-90.07	4,680.87	-522.69	880.00	718.62	161.38	5.453
9,700.01	5,300.00	9,695.82	5,300.00	80.89	80.83	-90.07	4,680.87	-522.69	880.00	718.62	161.38	5.453
9,800.00	5,300.00	9,795.82	5,300.00	82.52	82.46	-90.07	4,780.85	-524.34	880.00	715.36	164.64	5.345
9,800.01	5,300.00	9,795.82	5,300.00	82.52	82.46	-90.07	4,780.86	-524.34	880.00	715.36	164.64	5.345
9,900.00	5,300.00	9,895.82	5,300.00	84.15	84.08	-90.07	4,880.84	-525.98	880.00	712.09	167.91	5.241
9,900.01	5,300.00	9,895.82	5,300.00	84.15	84.08	-90.07	4,880.85	-525.98	880.00	712.09	167.91	5.241
10,000.00	5,300.00	9,995.82	5,300.00	85.78	85.71	-90.07	4,980.83	-527.62	880.00	708.83	171.17	5.141
10,000.01	5,300.00	9,995.82	5,300.00	85.78	85.71	-90.07	4,980.83	-527.62	880.00	708.83	171.17	5.141
10,100.00	5,300.00	10,095.82	5,300.00	87.41	87.35	-90.07	5,080.81	-529.26	880.00	705.56	174.44	5.045
10,100.01	5,300.00	10,095.82	5,300.00	87.41	87.35	-90.07	5,080.82	-529.26	880.00	705.56	174.44	5.045
10,200.00	5,300.00	10,195.82	5,300.00	89.04	88.98	-90.07	5,180.80	-530.90	880.00	702.28	177.72	4.952
10,200.01	5,300.00	10,195.82	5,300.00	89.04	88.98	-90.07	5,180.81	-530.90	880.00	702.28	177.72	4.952
10,300.00	5,300.00	10,295.82	5,300.00	90.68	90.62	-90.07	5,280.79	-532.54	880.00	699.01	180.99	4.862
10,300.01	5,300.00	10,295.82	5,300.00	90.68	90.62	-90.07	5,280.79	-532.54	880.00	699.01	180.99	4.862
10,400.00	5,300.00	10,395.82	5,300.00	92.32	92.25	-90.07	5,380.77	-534.18	880.00	695.73	184.27	4.776
10,400.01	5,300.00	10,395.82	5,300.00	92.32	92.25	-90.07	5,380.78	-534.18	880.00	695.73	184.27	4.776
10,500.00	5,300.00	10,495.82	5,300.00	93.95	93.89	-90.07	5,480.76	-535.83	880.00	692.45	187.55	4.692
10,500.01	5,300.00	10,495.82	5,300.00	93.95	93.89	-90.07	5,480.77	-535.83	880.00	692.45	187.55	4.692
10,600.00	5,300.00	10,595.82	5,300.00	95.59	95.53	-90.07	5,580.75	-537.47	880.00	689.17	190.84	4.611
10,600.01	5,300.00	10,595.82	5,300.00	95.59	95.53	-90.07	5,580.75	-537.47	880.00	689.17	190.84	4.611
10,700.00	5,300.00	10,695.82	5,300.00	97.23	97.17	-90.07	5,680.73	-539.11	880.00	685.88	194.12	4.533
10,700.01	5,300.00	10,695.82	5,300.00	97.23	97.17	-90.07	5,680.74	-539.11	880.00	685.88	194.12	4.533
10,800.00	5,300.00	10,795.82	5,300.00	98.88	98.81	-90.07	5,780.72	-540.75	880.00	682.59	197.41	4.458
10,800.01	5,300.00	10,795.83	5,300.00	98.88	98.81	-90.07	5,780.73	-540.75	880.00	682.59	197.41	4.458
10,909.73	5,300.00	10,905.55	5,300.00	100.68	100.62	-90.07	5,890.44	-542.55	880.00	678.98	201.02	4.378
10,909.74	5,300.00	10,905.56	5,300.00	100.68	100.62	-90.07	5,890.45	-542.55	880.00	678.98	201.02	4.378
10,910.48	5,300.00	10,906.30	5,300.00	100.69	100.63	-90.07	5,891.19	-542.56	880.00	678.96	201.04	4.377 SF

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

Anticollision Report

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Salamanca State #2H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Reference Site:	Salamanca State #2H	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	edmdb
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 3810 + RKB 19 @ 3829.00ft (Nort

Coordinates are relative to: Salamanca State #2H

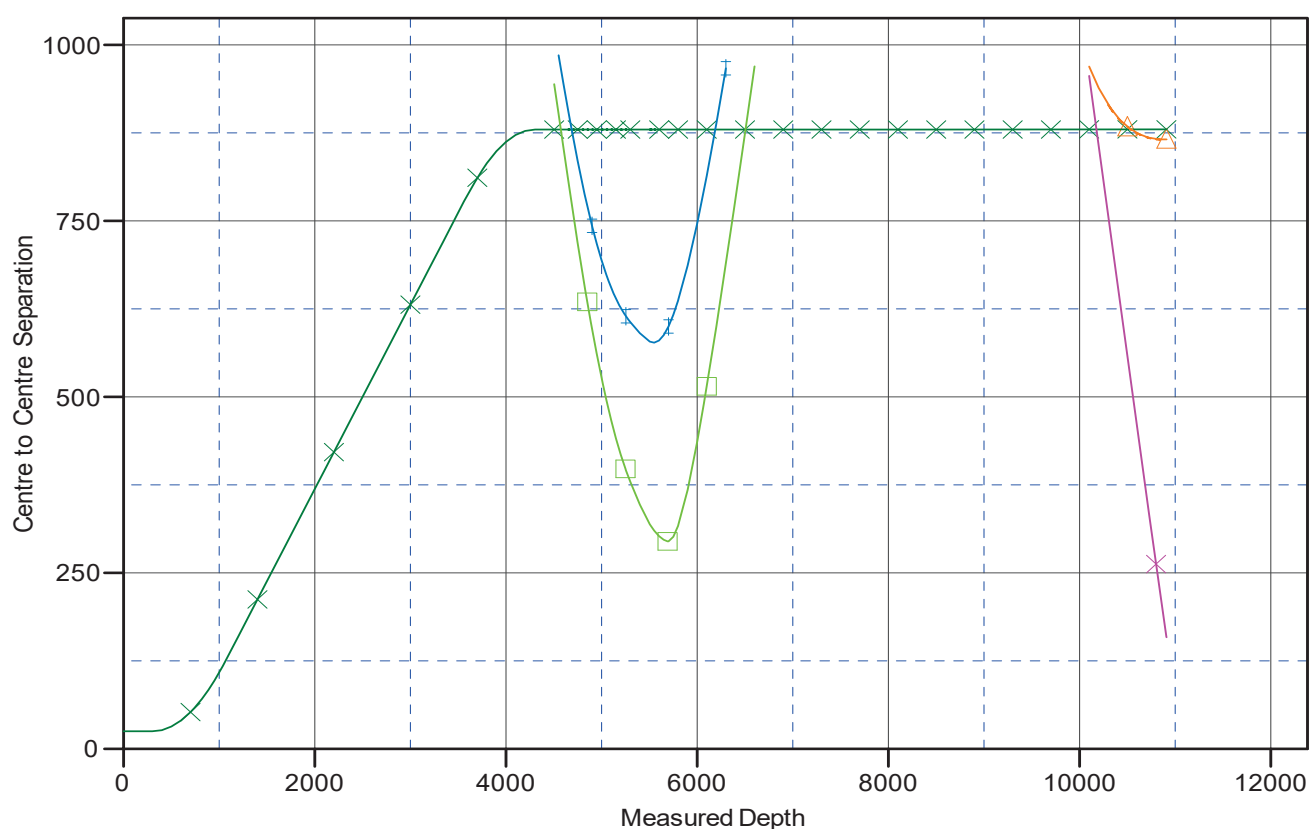
Offset Depths are relative to Offset Datum

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

Central Meridian is 104.333°W

Grid Convergence at Surface is: 0.68°

Ladder Plot



LEGEND

Salamanca State #3H, Wellbore #1, Plan #1 V0	Combo Fee 3H, Wellbore #1, Plan #1 PreV0	Heisenberg State Com 2H, Wellbore #1, Wellbore #1 V0
Combo Fee #2H, Wellbore #1, Wellbore #1 V0	Heisenberg State 3H, Heisenberg St3H Lateral (STK), Heisenberg St3H Lateral (STK) V0	

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

Anticollision Report

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Salamanca State #2H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Reference Site:	Salamanca State #2H	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	edmdb
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to GL 3810 + RKB 19 @ 3829.00ft (Nort

Offset Depths are relative to Offset Datum

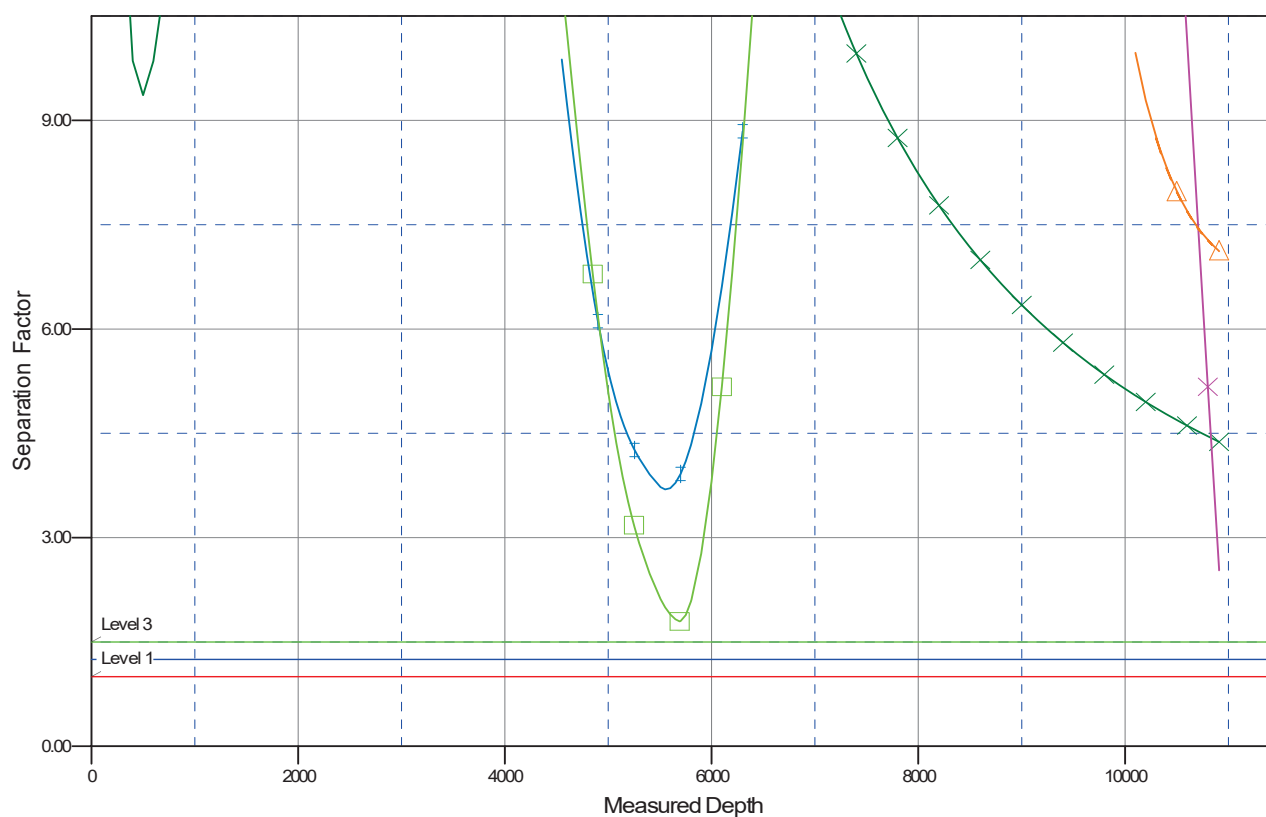
Central Meridian is 104.333°W

Coordinates are relative to: Salamanca State #2H

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

Grid Convergence at Surface is: 0.68°

Separation Factor Plot



LEGEND

Salamanca State #3H, Wellbore #1, Plan #1 V0	Combo Fee 3H, Wellbore #1, Plan #1 PreV0	Heisenberg State Com 2H, Wellbore #1, Wellbore #1 V0
Combo Fee #2H, Wellbore #1, Wellbore #1 V0	Heisenberg State 3H, Heisenberg St3H Lateral (STK), Heisenberg St3H Lateral (STK) V0	

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

Steward Energy II, LLC

DrilTech, LLC

Steward Energy II, LLC
Salamanca State #2H
Wellbore #1
Plan #1
Norton 8



SURFACE LOCATION

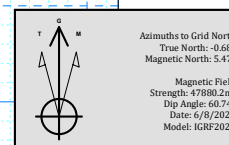
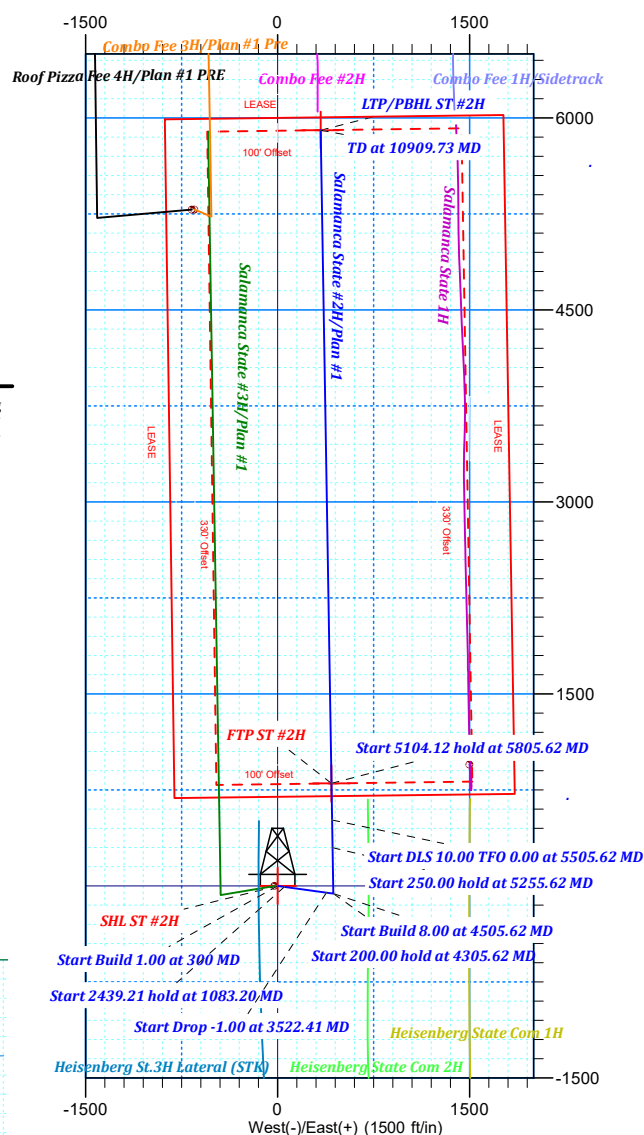
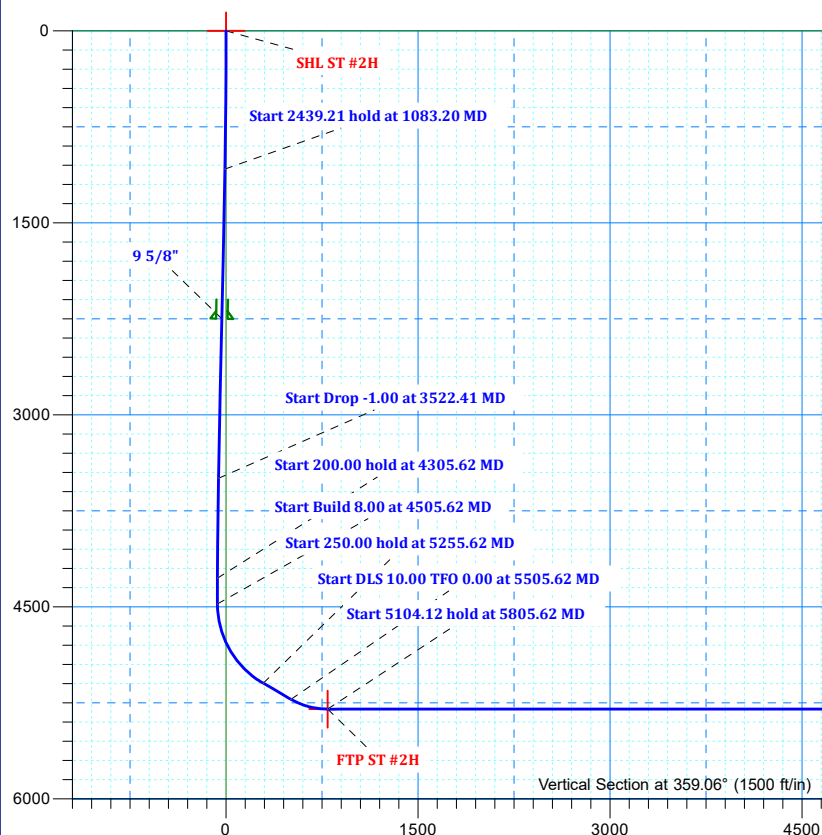
US State Plane 1983
New Mexico Eastern Zone
Elevation: GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Northing 785660.77 Easting 924254.87 Latitude 33.153°N Longitude 103.082°W

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
SHL ST #2H	0.00	0.00	0.00	785660.77	924254.87
FTP ST #2H	5300.00	801.45	421.10	786462.22	924675.97
LTP/PBHL ST #2H	5300.00	5904.88	337.33	791565.64	924592.20

LATERAL SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect
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
1083.20	7.83	97.79	1080.77	-7.24	52.95	1.00	-8.11
3522.41	7.83	97.79	3497.22	-52.27	382.28	0.00	-58.54
4305.62	0.00	0.00	4277.99	-59.51	435.23	1.00	-66.65
4505.62	0.00	0.00	4477.99	-59.51	435.23	0.00	-66.65
5255.62	60.00	359.06	5098.24	298.54	429.36	8.00	291.45
5505.62	60.00	359.06	5223.24	515.01	425.81	0.00	507.96
5805.62	90.00	359.06	5300.00	801.45	421.11	10.00	794.44
10909.73	90.00	359.06	5300.00	5904.88	337.33	0.00	5898.55



Steward Energy II, LLC

Lea County, NM (NAD 83) NM East Zone

Salamanca State #2H

Salamanca State #2H

Wellbore #1

Plan: Plan #1

Standard Planning Report

08 June, 2023

Planning Report

Database:	edmdb	Local Co-ordinate Reference:	Well Salamanca State #2H
Company:	Steward Energy II, LLC	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Project:	Lea County, NM (NAD 83) NM East Zone	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site:	Salamanca State #2H	North Reference:	Grid
Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

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

Site	Salamanca State #2H			
Site Position:		Northing:	785,660.77 usft	Latitude: 33.153°N
From:	Map	Easting:	924,254.87 usft	Longitude: 103.082°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	

Well	Salamanca State #2H			
Well Position	+N/-S	0.00 ft	Northing:	785,660.77 usft
	+E/-W	0.00 ft	Easting:	924,254.87 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft
Grid Convergence:		0.68 °	Ground Level:	3,810.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	6/8/2023	6.15	60.74	47,880.19563084

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	359.06

Plan Survey Tool Program	Date	6/8/2023		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	10,909.73	Plan #1 (Wellbore #1)	MWD
			MWD - Standard	

Planning Report

Database:	edmdb	Local Co-ordinate Reference:	Well Salamanca State #2H
Company:	Steward Energy II, LLC	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Project:	Lea County, NM (NAD 83) NM East Zone	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site:	Salamanca State #2H	North Reference:	Grid
Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
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	
1,083.20	7.83	97.79	1,080.77	-7.24	52.95	1.00	1.00	0.00	97.79	
3,522.41	7.83	97.79	3,497.22	-52.27	382.28	0.00	0.00	0.00	0.00	
4,305.62	0.00	0.00	4,277.99	-59.51	435.23	1.00	-1.00	0.00	180.00	
4,505.62	0.00	0.00	4,477.99	-59.51	435.23	0.00	0.00	0.00	0.00	
5,255.62	60.00	359.06	5,098.24	298.54	429.36	8.00	8.00	0.00	359.06	
5,505.62	60.00	359.06	5,223.24	515.01	425.81	0.00	0.00	0.00	0.00	
5,805.62	90.00	359.06	5,300.00	801.45	421.11	10.00	10.00	0.00	0.00	
10,909.73	90.00	359.06	5,300.00	5,904.88	337.33	0.00	0.00	0.00	0.00	LTP/PBHL ST #2H

Planning Report

Database:	edmdb	Local Co-ordinate Reference:	Well Salamanca State #2H
Company:	Steward Energy II, LLC	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Project:	Lea County, NM (NAD 83) NM East Zone	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site:	Salamanca State #2H	North Reference:	Grid
Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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
Start Build 1.00 at 300 MD									
400.00	1.00	97.79	399.99	-0.12	0.86	-0.13	1.00	1.00	0.00
500.00	2.00	97.79	499.96	-0.47	3.46	-0.53	1.00	1.00	0.00
600.00	3.00	97.79	599.86	-1.06	7.78	-1.19	1.00	1.00	0.00
700.00	4.00	97.79	699.68	-1.89	13.83	-2.12	1.00	1.00	0.00
800.00	5.00	97.79	799.37	-2.95	21.60	-3.31	1.00	1.00	0.00
900.00	6.00	97.79	898.90	-4.25	31.10	-4.76	1.00	1.00	0.00
1,000.00	7.00	97.79	998.26	-5.79	42.31	-6.48	1.00	1.00	0.00
1,083.20	7.83	97.79	1,080.77	-7.24	52.95	-8.11	1.00	1.00	0.00
Start 2439.21 hold at 1083.20 MD									
1,100.00	7.83	97.79	1,097.41	-7.55	55.22	-8.46	0.00	0.00	0.00
1,200.00	7.83	97.79	1,196.47	-9.40	68.72	-10.52	0.00	0.00	0.00
1,300.00	7.83	97.79	1,295.54	-11.24	82.22	-12.59	0.00	0.00	0.00
1,400.00	7.83	97.79	1,394.61	-13.09	95.73	-14.66	0.00	0.00	0.00
1,500.00	7.83	97.79	1,493.68	-14.94	109.23	-16.73	0.00	0.00	0.00
1,600.00	7.83	97.79	1,592.74	-16.78	122.73	-18.79	0.00	0.00	0.00
1,700.00	7.83	97.79	1,691.81	-18.63	136.23	-20.86	0.00	0.00	0.00
1,800.00	7.83	97.79	1,790.88	-20.47	149.73	-22.93	0.00	0.00	0.00
1,900.00	7.83	97.79	1,889.94	-22.32	163.23	-25.00	0.00	0.00	0.00
2,000.00	7.83	97.79	1,989.01	-24.17	176.73	-27.06	0.00	0.00	0.00
2,100.00	7.83	97.79	2,088.08	-26.01	190.23	-29.13	0.00	0.00	0.00
2,200.00	7.83	97.79	2,187.15	-27.86	203.74	-31.20	0.00	0.00	0.00
2,263.45	7.83	97.79	2,250.00	-29.03	212.30	-32.51	0.00	0.00	0.00
9 5/8"									
2,300.00	7.83	97.79	2,286.21	-29.71	217.24	-33.27	0.00	0.00	0.00
2,400.00	7.83	97.79	2,385.28	-31.55	230.74	-35.33	0.00	0.00	0.00
2,500.00	7.83	97.79	2,484.35	-33.40	244.24	-37.40	0.00	0.00	0.00
2,600.00	7.83	97.79	2,583.41	-35.24	257.74	-39.47	0.00	0.00	0.00
2,700.00	7.83	97.79	2,682.48	-37.09	271.24	-41.53	0.00	0.00	0.00
2,800.00	7.83	97.79	2,781.55	-38.94	284.74	-43.60	0.00	0.00	0.00
2,900.00	7.83	97.79	2,880.62	-40.78	298.25	-45.67	0.00	0.00	0.00
3,000.00	7.83	97.79	2,979.68	-42.63	311.75	-47.74	0.00	0.00	0.00
3,100.00	7.83	97.79	3,078.75	-44.47	325.25	-49.80	0.00	0.00	0.00
3,200.00	7.83	97.79	3,177.82	-46.32	338.75	-51.87	0.00	0.00	0.00
3,300.00	7.83	97.79	3,276.88	-48.17	352.25	-53.94	0.00	0.00	0.00
3,400.00	7.83	97.79	3,375.95	-50.01	365.75	-56.01	0.00	0.00	0.00
3,500.00	7.83	97.79	3,475.02	-51.86	379.25	-58.07	0.00	0.00	0.00
3,522.41	7.83	97.79	3,497.22	-52.27	382.28	-58.54	0.00	0.00	0.00
Start Drop -1.00 at 3522.41 MD									
3,600.00	7.06	97.79	3,574.16	-53.64	392.24	-60.06	1.00	-1.00	0.00
3,700.00	6.06	97.79	3,673.50	-55.18	403.55	-61.79	1.00	-1.00	0.00
3,800.00	5.06	97.79	3,773.03	-56.49	413.14	-63.26	1.00	-1.00	0.00
3,900.00	4.06	97.79	3,872.71	-57.57	421.01	-64.47	1.00	-1.00	0.00
4,000.00	3.06	97.79	3,972.52	-58.41	427.16	-65.41	1.00	-1.00	0.00
4,100.00	2.06	97.79	4,072.42	-59.01	431.58	-66.09	1.00	-1.00	0.00
4,200.00	1.06	97.79	4,172.38	-59.38	434.27	-66.50	1.00	-1.00	0.00
4,300.00	0.06	97.79	4,272.37	-59.51	435.23	-66.65	1.00	-1.00	0.00
4,305.62	0.00	0.00	4,277.99	-59.51	435.23	-66.65	1.00	-1.00	0.00
Start 200.00 hold at 4305.62 MD									
4,400.00	0.00	0.00	4,372.37	-59.51	435.23	-66.65	0.00	0.00	0.00

Planning Report

Database:	edmdb	Local Co-ordinate Reference:	Well Salamanca State #2H
Company:	Steward Energy II, LLC	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Project:	Lea County, NM (NAD 83) NM East Zone	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site:	Salamanca State #2H	North Reference:	Grid
Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,500.00	0.00	0.00	4,472.37	-59.51	435.23	-66.65	0.00	0.00	0.00
4,505.62	0.00	0.00	4,477.99	-59.51	435.23	-66.65	0.00	0.00	0.00
Start Build 8.00 at 4505.62 MD									
4,600.00	7.55	359.06	4,572.10	-53.30	435.13	-60.44	8.00	8.00	0.00
4,700.00	15.55	359.06	4,670.00	-33.30	434.80	-40.43	8.00	8.00	0.00
4,800.00	23.55	359.06	4,764.15	0.13	434.25	-6.99	8.00	8.00	0.00
4,900.00	31.55	359.06	4,852.74	46.34	433.50	39.22	8.00	8.00	0.00
5,000.00	39.55	359.06	4,934.04	104.43	432.54	97.32	8.00	8.00	0.00
5,100.00	47.55	359.06	5,006.45	173.26	431.41	166.16	8.00	8.00	0.00
5,200.00	55.55	359.06	5,068.59	251.50	430.13	244.41	8.00	8.00	0.00
5,255.62	60.00	359.06	5,098.24	298.54	429.36	291.45	8.00	8.00	0.00
Start 250.00 hold at 5255.62 MD									
5,300.00	60.00	359.06	5,120.43	336.97	428.73	329.89	0.00	0.00	0.00
5,400.00	60.00	359.06	5,170.43	423.56	427.31	416.49	0.00	0.00	0.00
5,500.00	60.00	359.06	5,220.43	510.15	425.89	503.09	0.00	0.00	0.00
5,505.62	60.00	359.06	5,223.24	515.01	425.81	507.96	0.00	0.00	0.00
Start DLS 10.00 TFO 0.00 at 5505.62 MD									
5,600.00	69.44	359.06	5,263.50	600.25	424.41	593.21	10.00	10.00	0.00
5,700.00	79.44	359.06	5,290.29	696.45	422.83	689.42	10.00	10.00	0.00
5,800.00	89.44	359.06	5,299.97	795.84	421.20	788.82	10.00	10.00	0.00
5,805.62	90.00	359.06	5,300.00	801.45	421.11	794.44	10.00	10.00	0.00
Start 5104.12 hold at 5805.62 MD									
5,900.00	90.00	359.06	5,300.00	895.82	419.56	888.82	0.00	0.00	0.00
6,000.00	90.00	359.06	5,300.00	995.81	417.92	988.82	0.00	0.00	0.00
6,100.00	90.00	359.06	5,300.00	1,095.80	416.27	1,088.82	0.00	0.00	0.00
6,200.00	90.00	359.06	5,300.00	1,195.78	414.63	1,188.82	0.00	0.00	0.00
6,300.00	90.00	359.06	5,300.00	1,295.77	412.99	1,288.82	0.00	0.00	0.00
6,400.00	90.00	359.06	5,300.00	1,395.76	411.35	1,388.82	0.00	0.00	0.00
6,500.00	90.00	359.06	5,300.00	1,495.74	409.71	1,488.82	0.00	0.00	0.00
6,600.00	90.00	359.06	5,300.00	1,595.73	408.07	1,588.82	0.00	0.00	0.00
6,700.00	90.00	359.06	5,300.00	1,695.72	406.43	1,688.82	0.00	0.00	0.00
6,800.00	90.00	359.06	5,300.00	1,795.70	404.78	1,788.82	0.00	0.00	0.00
6,900.00	90.00	359.06	5,300.00	1,895.69	403.14	1,888.82	0.00	0.00	0.00
7,000.00	90.00	359.06	5,300.00	1,995.68	401.50	1,988.82	0.00	0.00	0.00
7,100.00	90.00	359.06	5,300.00	2,095.66	399.86	2,088.82	0.00	0.00	0.00
7,200.00	90.00	359.06	5,300.00	2,195.65	398.22	2,188.82	0.00	0.00	0.00
7,300.00	90.00	359.06	5,300.00	2,295.64	396.58	2,288.82	0.00	0.00	0.00
7,400.00	90.00	359.06	5,300.00	2,395.62	394.94	2,388.82	0.00	0.00	0.00
7,500.00	90.00	359.06	5,300.00	2,495.61	393.30	2,488.82	0.00	0.00	0.00
7,600.00	90.00	359.06	5,300.00	2,595.60	391.65	2,588.82	0.00	0.00	0.00
7,700.00	90.00	359.06	5,300.00	2,695.58	390.01	2,688.82	0.00	0.00	0.00
7,800.00	90.00	359.06	5,300.00	2,795.57	388.37	2,788.82	0.00	0.00	0.00
7,900.00	90.00	359.06	5,300.00	2,895.55	386.73	2,888.82	0.00	0.00	0.00
8,000.00	90.00	359.06	5,300.00	2,995.54	385.09	2,988.82	0.00	0.00	0.00
8,100.00	90.00	359.06	5,300.00	3,095.53	383.45	3,088.82	0.00	0.00	0.00
8,200.00	90.00	359.06	5,300.00	3,195.51	381.81	3,188.82	0.00	0.00	0.00
8,300.00	90.00	359.06	5,300.00	3,295.50	380.16	3,288.82	0.00	0.00	0.00
8,400.00	90.00	359.06	5,300.00	3,395.49	378.52	3,388.82	0.00	0.00	0.00
8,500.00	90.00	359.06	5,300.00	3,495.47	376.88	3,488.82	0.00	0.00	0.00
8,600.00	90.00	359.06	5,300.00	3,595.46	375.24	3,588.82	0.00	0.00	0.00
8,700.00	90.00	359.06	5,300.00	3,695.45	373.60	3,688.82	0.00	0.00	0.00
8,800.00	90.00	359.06	5,300.00	3,795.43	371.96	3,788.82	0.00	0.00	0.00
8,900.00	90.00	359.06	5,300.00	3,895.42	370.32	3,888.82	0.00	0.00	0.00

Planning Report

Database:	edmdb	Local Co-ordinate Reference:	Well Salamanca State #2H
Company:	Steward Energy II, LLC	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Project:	Lea County, NM (NAD 83) NM East Zone	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site:	Salamanca State #2H	North Reference:	Grid
Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,000.00	90.00	359.06	5,300.00	3,995.41	368.68	3,988.82	0.00	0.00	0.00	
9,100.00	90.00	359.06	5,300.00	4,095.39	367.03	4,088.82	0.00	0.00	0.00	
9,200.00	90.00	359.06	5,300.00	4,195.38	365.39	4,188.82	0.00	0.00	0.00	
9,300.00	90.00	359.06	5,300.00	4,295.37	363.75	4,288.82	0.00	0.00	0.00	
9,400.00	90.00	359.06	5,300.00	4,395.35	362.11	4,388.82	0.00	0.00	0.00	
9,500.00	90.00	359.06	5,300.00	4,495.34	360.47	4,488.82	0.00	0.00	0.00	
9,600.00	90.00	359.06	5,300.00	4,595.33	358.83	4,588.82	0.00	0.00	0.00	
9,700.00	90.00	359.06	5,300.00	4,695.31	357.19	4,688.82	0.00	0.00	0.00	
9,800.00	90.00	359.06	5,300.00	4,795.30	355.54	4,788.82	0.00	0.00	0.00	
9,900.00	90.00	359.06	5,300.00	4,895.29	353.90	4,888.82	0.00	0.00	0.00	
10,000.00	90.00	359.06	5,300.00	4,995.27	352.26	4,988.82	0.00	0.00	0.00	
10,100.00	90.00	359.06	5,300.00	5,095.26	350.62	5,088.82	0.00	0.00	0.00	
10,200.00	90.00	359.06	5,300.00	5,195.24	348.98	5,188.82	0.00	0.00	0.00	
10,300.00	90.00	359.06	5,300.00	5,295.23	347.34	5,288.82	0.00	0.00	0.00	
10,400.00	90.00	359.06	5,300.00	5,395.22	345.70	5,388.82	0.00	0.00	0.00	
10,500.00	90.00	359.06	5,300.00	5,495.20	344.06	5,488.82	0.00	0.00	0.00	
10,600.00	90.00	359.06	5,300.00	5,595.19	342.41	5,588.82	0.00	0.00	0.00	
10,700.00	90.00	359.06	5,300.00	5,695.18	340.77	5,688.82	0.00	0.00	0.00	
10,800.00	90.00	359.06	5,300.00	5,795.16	339.13	5,788.82	0.00	0.00	0.00	
10,900.00	90.00	359.06	5,300.00	5,895.15	337.49	5,888.82	0.00	0.00	0.00	
10,909.73	90.00	359.06	5,300.00	5,904.88	337.33	5,898.55	0.00	0.00	0.00	
TD at 10909.73 MD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
SHL ST #2H	0.00	0.00	0.00	0.00	0.00	785,660.77	924,254.87	33.153°N	103.082°W	
- plan hits target center										
- Point										
FTP ST #2H	0.00	0.00	5,300.00	801.45	421.10	786,462.22	924,675.97	33.156°N	103.081°W	
- plan misses target center by 0.01ft at 5805.61ft MD (5300.00 TVD, 801.45 N, 421.11 E)										
- Point										
LTP/PBHL ST #2H	0.00	0.00	5,300.00	5,904.88	337.33	791,565.64	924,592.20	33.170°N	103.081°W	
- plan hits target center										
- Point										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,263.45	2,250.00	9 5/8"	9.625	12.250	

Planning Report

Database:	edmdb	Local Co-ordinate Reference:	Well Salamanca State #2H
Company:	Steward Energy II, LLC	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Project:	Lea County, NM (NAD 83) NM East Zone	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site:	Salamanca State #2H	North Reference:	Grid
Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
300.00	300.00	0.00	0.00	Start Build 1.00 at 300 MD	
1,083.20	1,080.77	-7.24	52.95	Start 2439.21 hold at 1083.20 MD	
3,522.41	3,497.22	-52.27	382.28	Start Drop -1.00 at 3522.41 MD	
4,305.62	4,277.99	-59.51	435.23	Start 200.00 hold at 4305.62 MD	
4,505.62	4,477.99	-59.51	435.23	Start Build 8.00 at 4505.62 MD	
5,255.62	5,098.24	298.54	429.36	Start 250.00 hold at 5255.62 MD	
5,505.62	5,223.24	515.01	425.81	Start DLS 10.00 TFO 0.00 at 5505.62 MD	
5,805.62	5,300.00	801.45	421.11	Start 5104.12 hold at 5805.62 MD	
10,909.73	5,300.00	5,904.88	337.33	TD at 10909.73 MD	

Steward Energy II, LLC

Lea County, NM (NAD 83) NM East Zone

Salamanca State #2H

Salamanca State #2H

Wellbore #1

Plan: Plan #1

Standard Planning Report - Geographic

08 June, 2023

Planning Report - Geographic

Database:	edmdb	Local Co-ordinate Reference:	Well Salamanca State #2H
Company:	Steward Energy II, LLC	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Project:	Lea County, NM (NAD 83) NM East Zone	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site:	Salamanca State #2H	North Reference:	Grid
Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

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

Site	Salamanca State #2H			
Site Position:		Northing:	785,660.77 usft	Latitude: 33.153°N
From: Map		Easting:	924,254.87 usft	Longitude: 103.082°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	

Well	Salamanca State #2H			
Well Position	+N/-S	0.00 ft	Northing:	785,660.77 usft
	+E/-W	0.00 ft	Easting:	924,254.87 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft
Grid Convergence:		0.68 °	Ground Level:	3,810.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	6/8/2023	6.15	60.74	47,880.19563084

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	359.06

Plan Survey Tool Program	Date	6/8/2023		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	10,909.73 Plan #1 (Wellbore #1)	MWD	
			MWD - Standard	

Planning Report - Geographic

Database:	edmdb	Local Co-ordinate Reference:	Well Salamanca State #2H
Company:	Steward Energy II, LLC	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Project:	Lea County, NM (NAD 83) NM East Zone	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site:	Salamanca State #2H	North Reference:	Grid
Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
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	
1,083.20	7.83	97.79	1,080.77	-7.24	52.95	1.00	1.00	0.00	97.79	
3,522.41	7.83	97.79	3,497.22	-52.27	382.28	0.00	0.00	0.00	0.00	
4,305.62	0.00	0.00	4,277.99	-59.51	435.23	1.00	-1.00	0.00	180.00	
4,505.62	0.00	0.00	4,477.99	-59.51	435.23	0.00	0.00	0.00	0.00	
5,255.62	60.00	359.06	5,098.24	298.54	429.36	8.00	8.00	0.00	359.06	
5,505.62	60.00	359.06	5,223.24	515.01	425.81	0.00	0.00	0.00	0.00	
5,805.62	90.00	359.06	5,300.00	801.45	421.11	10.00	10.00	0.00	0.00	
10,909.73	90.00	359.06	5,300.00	5,904.88	337.33	0.00	0.00	0.00	0.00	LTP/PBHL ST #2H

Planning Report - Geographic

Database:	edmdb	Local Co-ordinate Reference:	Well Salamanca State #2H
Company:	Steward Energy II, LLC	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Project:	Lea County, NM (NAD 83) NM East Zone	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site:	Salamanca State #2H	North Reference:	Grid
Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	785,660.77	924,254.87	33.153°N	103.082°W
100.00	0.00	0.00	100.00	0.00	0.00	785,660.77	924,254.87	33.153°N	103.082°W
200.00	0.00	0.00	200.00	0.00	0.00	785,660.77	924,254.87	33.153°N	103.082°W
300.00	0.00	0.00	300.00	0.00	0.00	785,660.77	924,254.87	33.153°N	103.082°W
Start Build 1.00 at 300 MD									
400.00	1.00	97.79	399.99	-0.12	0.86	785,660.65	924,255.74	33.153°N	103.082°W
500.00	2.00	97.79	499.96	-0.47	3.46	785,660.29	924,258.33	33.153°N	103.082°W
600.00	3.00	97.79	599.86	-1.06	7.78	785,659.70	924,262.65	33.153°N	103.082°W
700.00	4.00	97.79	699.68	-1.89	13.83	785,658.88	924,268.70	33.153°N	103.082°W
800.00	5.00	97.79	799.37	-2.95	21.60	785,657.81	924,276.47	33.153°N	103.082°W
900.00	6.00	97.79	898.90	-4.25	31.10	785,656.52	924,285.97	33.153°N	103.082°W
1,000.00	7.00	97.79	998.26	-5.79	42.31	785,654.98	924,297.18	33.153°N	103.082°W
1,083.20	7.83	97.79	1,080.77	-7.24	52.95	785,653.53	924,307.82	33.153°N	103.082°W
Start 2439.21 hold at 1083.20 MD									
1,100.00	7.83	97.79	1,097.41	-7.55	55.22	785,653.22	924,310.09	33.153°N	103.082°W
1,200.00	7.83	97.79	1,196.47	-9.40	68.72	785,651.37	924,323.59	33.153°N	103.082°W
1,300.00	7.83	97.79	1,295.54	-11.24	82.22	785,649.52	924,337.09	33.153°N	103.082°W
1,400.00	7.83	97.79	1,394.61	-13.09	95.73	785,647.68	924,350.60	33.153°N	103.082°W
1,500.00	7.83	97.79	1,493.68	-14.94	109.23	785,645.83	924,364.10	33.153°N	103.082°W
1,600.00	7.83	97.79	1,592.74	-16.78	122.73	785,643.99	924,377.60	33.153°N	103.082°W
1,700.00	7.83	97.79	1,691.81	-18.63	136.23	785,642.14	924,391.10	33.153°N	103.082°W
1,800.00	7.83	97.79	1,790.88	-20.47	149.73	785,640.29	924,404.60	33.153°N	103.082°W
1,900.00	7.83	97.79	1,889.94	-22.32	163.23	785,638.45	924,418.10	33.153°N	103.082°W
2,000.00	7.83	97.79	1,989.01	-24.17	176.73	785,636.60	924,431.60	33.153°N	103.082°W
2,100.00	7.83	97.79	2,088.08	-26.01	190.23	785,634.75	924,445.11	33.153°N	103.082°W
2,200.00	7.83	97.79	2,187.15	-27.86	203.74	785,632.91	924,458.61	33.153°N	103.082°W
2,263.45	7.83	97.79	2,250.00	-29.03	212.30	785,631.74	924,467.17	33.153°N	103.081°W
9 5/8"									
2,300.00	7.83	97.79	2,286.21	-29.71	217.24	785,631.06	924,472.11	33.153°N	103.081°W
2,400.00	7.83	97.79	2,385.28	-31.55	230.74	785,629.22	924,485.61	33.153°N	103.081°W
2,500.00	7.83	97.79	2,484.35	-33.40	244.24	785,627.37	924,499.11	33.153°N	103.081°W
2,600.00	7.83	97.79	2,583.41	-35.24	257.74	785,625.52	924,512.61	33.153°N	103.081°W
2,700.00	7.83	97.79	2,682.48	-37.09	271.24	785,623.68	924,526.11	33.153°N	103.081°W
2,800.00	7.83	97.79	2,781.55	-38.94	284.74	785,621.83	924,539.61	33.153°N	103.081°W
2,900.00	7.83	97.79	2,880.62	-40.78	298.25	785,619.99	924,553.12	33.153°N	103.081°W
3,000.00	7.83	97.79	2,979.68	-42.63	311.75	785,618.14	924,566.62	33.153°N	103.081°W
3,100.00	7.83	97.79	3,078.75	-44.47	325.25	785,616.29	924,580.12	33.153°N	103.081°W
3,200.00	7.83	97.79	3,177.82	-46.32	338.75	785,614.45	924,593.62	33.153°N	103.081°W
3,300.00	7.83	97.79	3,276.88	-48.17	352.25	785,612.60	924,607.12	33.153°N	103.081°W
3,400.00	7.83	97.79	3,375.95	-50.01	365.75	785,610.75	924,620.62	33.153°N	103.081°W
3,500.00	7.83	97.79	3,475.02	-51.86	379.25	785,608.91	924,634.12	33.153°N	103.081°W
3,522.41	7.83	97.79	3,497.22	-52.27	382.28	785,608.49	924,637.15	33.153°N	103.081°W
Start Drop -1.00 at 3522.41 MD									
3,600.00	7.06	97.79	3,574.16	-53.64	392.24	785,607.13	924,647.11	33.153°N	103.081°W
3,700.00	6.06	97.79	3,673.50	-55.18	403.55	785,605.59	924,658.42	33.153°N	103.081°W
3,800.00	5.06	97.79	3,773.03	-56.49	413.14	785,604.27	924,668.01	33.153°N	103.081°W
3,900.00	4.06	97.79	3,872.71	-57.57	421.01	785,603.20	924,675.88	33.153°N	103.081°W
4,000.00	3.06	97.79	3,972.52	-58.41	427.16	785,602.36	924,682.03	33.153°N	103.081°W
4,100.00	2.06	97.79	4,072.42	-59.01	431.58	785,601.75	924,686.45	33.153°N	103.081°W
4,200.00	1.06	97.79	4,172.38	-59.38	434.27	785,601.39	924,689.14	33.153°N	103.081°W
4,300.00	0.06	97.79	4,272.37	-59.51	435.23	785,601.25	924,690.10	33.153°N	103.081°W
4,305.62	0.00	0.00	4,277.99	-59.51	435.23	785,601.25	924,690.10	33.153°N	103.081°W
Start 200.00 hold at 4305.62 MD									
4,400.00	0.00	0.00	4,372.37	-59.51	435.23	785,601.25	924,690.10	33.153°N	103.081°W

Planning Report - Geographic

Database:	edmdb	Local Co-ordinate Reference:	Well Salamanca State #2H
Company:	Steward Energy II, LLC	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Project:	Lea County, NM (NAD 83) NM East Zone	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site:	Salamanca State #2H	North Reference:	Grid
Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,500.00	0.00	0.00	4,472.37	-59.51	435.23	785,601.25	924,690.10	33.153°N	103.081°W
4,505.62	0.00	0.00	4,477.99	-59.51	435.23	785,601.25	924,690.10	33.153°N	103.081°W
Start Build 8.00 at 4505.62 MD									
4,600.00	7.55	359.06	4,572.10	-53.30	435.13	785,607.46	924,690.00	33.153°N	103.081°W
4,700.00	15.55	359.06	4,670.00	-33.30	434.80	785,627.47	924,689.67	33.153°N	103.081°W
4,800.00	23.55	359.06	4,764.15	0.13	434.25	785,660.90	924,689.12	33.153°N	103.081°W
4,900.00	31.55	359.06	4,852.74	46.34	433.50	785,707.11	924,688.37	33.154°N	103.081°W
5,000.00	39.55	359.06	4,934.04	104.43	432.54	785,765.20	924,687.41	33.154°N	103.081°W
5,100.00	47.55	359.06	5,006.45	173.26	431.41	785,834.03	924,686.28	33.154°N	103.081°W
5,200.00	55.55	359.06	5,068.59	251.50	430.13	785,912.27	924,685.00	33.154°N	103.081°W
5,255.62	60.00	359.06	5,098.24	298.54	429.36	785,959.30	924,684.23	33.154°N	103.081°W
Start 250.00 hold at 5255.62 MD									
5,300.00	60.00	359.06	5,120.43	336.97	428.73	785,997.73	924,683.60	33.154°N	103.081°W
5,400.00	60.00	359.06	5,170.43	423.56	427.31	786,084.33	924,682.18	33.155°N	103.081°W
5,500.00	60.00	359.06	5,220.43	510.15	425.89	786,170.92	924,680.76	33.155°N	103.081°W
5,505.62	60.00	359.06	5,223.24	515.01	425.81	786,175.78	924,680.68	33.155°N	103.081°W
Start DLS 10.00 TFO 0.00 at 5505.62 MD									
5,600.00	69.44	359.06	5,263.50	600.25	424.41	786,261.02	924,679.28	33.155°N	103.081°W
5,700.00	79.44	359.06	5,290.29	696.45	422.83	786,357.21	924,677.70	33.155°N	103.081°W
5,800.00	89.44	359.06	5,299.97	795.84	421.20	786,456.60	924,676.07	33.156°N	103.081°W
5,805.62	90.00	359.06	5,300.00	801.45	421.11	786,462.22	924,675.98	33.156°N	103.081°W
Start 5104.12 hold at 5805.62 MD									
5,900.00	90.00	359.06	5,300.00	895.82	419.56	786,556.59	924,674.43	33.156°N	103.081°W
6,000.00	90.00	359.06	5,300.00	995.81	417.92	786,656.58	924,672.78	33.156°N	103.081°W
6,100.00	90.00	359.06	5,300.00	1,095.80	416.27	786,756.56	924,671.14	33.156°N	103.081°W
6,200.00	90.00	359.06	5,300.00	1,195.78	414.63	786,856.55	924,669.50	33.157°N	103.081°W
6,300.00	90.00	359.06	5,300.00	1,295.77	412.99	786,956.54	924,667.86	33.157°N	103.081°W
6,400.00	90.00	359.06	5,300.00	1,395.76	411.35	787,056.52	924,666.22	33.157°N	103.081°W
6,500.00	90.00	359.06	5,300.00	1,495.74	409.71	787,156.51	924,664.58	33.158°N	103.081°W
6,600.00	90.00	359.06	5,300.00	1,595.73	408.07	787,256.49	924,662.94	33.158°N	103.081°W
6,700.00	90.00	359.06	5,300.00	1,695.72	406.43	787,356.48	924,661.30	33.158°N	103.081°W
6,800.00	90.00	359.06	5,300.00	1,795.70	404.78	787,456.47	924,659.65	33.158°N	103.081°W
6,900.00	90.00	359.06	5,300.00	1,895.69	403.14	787,556.45	924,658.01	33.159°N	103.081°W
7,000.00	90.00	359.06	5,300.00	1,995.68	401.50	787,656.44	924,656.37	33.159°N	103.081°W
7,100.00	90.00	359.06	5,300.00	2,095.66	399.86	787,756.43	924,654.73	33.159°N	103.081°W
7,200.00	90.00	359.06	5,300.00	2,195.65	398.22	787,856.41	924,653.09	33.159°N	103.081°W
7,300.00	90.00	359.06	5,300.00	2,295.64	396.58	787,956.40	924,651.45	33.160°N	103.081°W
7,400.00	90.00	359.06	5,300.00	2,395.62	394.94	788,056.38	924,649.81	33.160°N	103.081°W
7,500.00	90.00	359.06	5,300.00	2,495.61	393.30	788,156.37	924,648.17	33.160°N	103.081°W
7,600.00	90.00	359.06	5,300.00	2,595.60	391.65	788,256.36	924,646.52	33.161°N	103.081°W
7,700.00	90.00	359.06	5,300.00	2,695.58	390.01	788,356.34	924,644.88	33.161°N	103.081°W
7,800.00	90.00	359.06	5,300.00	2,795.57	388.37	788,456.33	924,643.24	33.161°N	103.081°W
7,900.00	90.00	359.06	5,300.00	2,895.55	386.73	788,556.32	924,641.60	33.161°N	103.081°W
8,000.00	90.00	359.06	5,300.00	2,995.54	385.09	788,656.30	924,639.96	33.162°N	103.081°W
8,100.00	90.00	359.06	5,300.00	3,095.53	383.45	788,756.29	924,638.32	33.162°N	103.081°W
8,200.00	90.00	359.06	5,300.00	3,195.51	381.81	788,856.28	924,636.68	33.162°N	103.081°W
8,300.00	90.00	359.06	5,300.00	3,295.50	380.16	788,956.26	924,635.03	33.163°N	103.081°W
8,400.00	90.00	359.06	5,300.00	3,395.49	378.52	789,056.25	924,633.39	33.163°N	103.081°W
8,500.00	90.00	359.06	5,300.00	3,495.47	376.88	789,156.23	924,631.75	33.163°N	103.081°W
8,600.00	90.00	359.06	5,300.00	3,595.46	375.24	789,256.22	924,630.11	33.163°N	103.081°W
8,700.00	90.00	359.06	5,300.00	3,695.45	373.60	789,356.21	924,628.47	33.164°N	103.081°W
8,800.00	90.00	359.06	5,300.00	3,795.43	371.96	789,456.19	924,626.83	33.164°N	103.081°W
8,900.00	90.00	359.06	5,300.00	3,895.42	370.32	789,556.18	924,625.19	33.164°N	103.081°W
9,000.00	90.00	359.06	5,300.00	3,995.41	368.68	789,656.17	924,623.55	33.164°N	103.081°W

Planning Report - Geographic

Database:	edmdb	Local Co-ordinate Reference:	Well Salamanca State #2H
Company:	Steward Energy II, LLC	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Project:	Lea County, NM (NAD 83) NM East Zone	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site:	Salamanca State #2H	North Reference:	Grid
Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,100.00	90.00	359.06	5,300.00	4,095.39	367.03	789,756.15	924,621.90	33.165°N	103.081°W
9,200.00	90.00	359.06	5,300.00	4,195.38	365.39	789,856.14	924,620.26	33.165°N	103.081°W
9,300.00	90.00	359.06	5,300.00	4,295.37	363.75	789,956.13	924,618.62	33.165°N	103.081°W
9,400.00	90.00	359.06	5,300.00	4,395.35	362.11	790,056.11	924,616.98	33.166°N	103.081°W
9,500.00	90.00	359.06	5,300.00	4,495.34	360.47	790,156.10	924,615.34	33.166°N	103.081°W
9,600.00	90.00	359.06	5,300.00	4,595.33	358.83	790,256.08	924,613.70	33.166°N	103.081°W
9,700.00	90.00	359.06	5,300.00	4,695.31	357.19	790,356.07	924,612.06	33.166°N	103.081°W
9,800.00	90.00	359.06	5,300.00	4,795.30	355.54	790,456.06	924,610.41	33.167°N	103.081°W
9,900.00	90.00	359.06	5,300.00	4,895.29	353.90	790,556.04	924,608.77	33.167°N	103.081°W
10,000.00	90.00	359.06	5,300.00	4,995.27	352.26	790,656.03	924,607.13	33.167°N	103.081°W
10,100.00	90.00	359.06	5,300.00	5,095.26	350.62	790,756.02	924,605.49	33.167°N	103.081°W
10,200.00	90.00	359.06	5,300.00	5,195.24	348.98	790,856.00	924,603.85	33.168°N	103.081°W
10,300.00	90.00	359.06	5,300.00	5,295.23	347.34	790,955.99	924,602.21	33.168°N	103.081°W
10,400.00	90.00	359.06	5,300.00	5,395.22	345.70	791,055.97	924,600.57	33.168°N	103.081°W
10,500.00	90.00	359.06	5,300.00	5,495.20	344.06	791,155.96	924,598.93	33.169°N	103.081°W
10,600.00	90.00	359.06	5,300.00	5,595.19	342.41	791,255.95	924,597.28	33.169°N	103.081°W
10,700.00	90.00	359.06	5,300.00	5,695.18	340.77	791,355.93	924,595.64	33.169°N	103.081°W
10,800.00	90.00	359.06	5,300.00	5,795.16	339.13	791,455.92	924,594.00	33.169°N	103.081°W
10,900.00	90.00	359.06	5,300.00	5,895.15	337.49	791,555.91	924,592.36	33.170°N	103.081°W
10,909.73	90.00	359.06	5,300.00	5,904.88	337.33	791,565.64	924,592.20	33.170°N	103.081°W
TD at 10909.73 MD									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL ST #2H - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	785,660.77	924,254.87	33.153°N	103.082°W
FTP ST #2H - plan misses target center by 0.01ft at 5805.61ft MD (5300.00 TVD, 801.45 N, 421.11 E) - Point	0.00	0.00	5,300.00	801.45	421.10	786,462.22	924,675.97	33.156°N	103.081°W
LTP/PBHL ST #2H - plan hits target center - Point	0.00	0.00	5,300.00	5,904.88	337.33	791,565.64	924,592.20	33.170°N	103.081°W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (in)	Hole Diameter (in)
2,263.45	2,250.00	9 5/8"		9.625	12.250

Planning Report - Geographic

Database:	edmdb	Local Co-ordinate Reference:	Well Salamanca State #2H
Company:	Steward Energy II, LLC	TVD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Project:	Lea County, NM (NAD 83) NM East Zone	MD Reference:	GL 3810 + RKB 19 @ 3829.00ft (Norton 8)
Site:	Salamanca State #2H	North Reference:	Grid
Well:	Salamanca State #2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
300.00	300.00	0.00	0.00	Start Build 1.00 at 300 MD	
1,083.20	1,080.77	-7.24	52.95	Start 2439.21 hold at 1083.20 MD	
3,522.41	3,497.22	-52.27	382.28	Start Drop -1.00 at 3522.41 MD	
4,305.62	4,277.99	-59.51	435.23	Start 200.00 hold at 4305.62 MD	
4,505.62	4,477.99	-59.51	435.23	Start Build 8.00 at 4505.62 MD	
5,255.62	5,098.24	298.54	429.36	Start 250.00 hold at 5255.62 MD	
5,505.62	5,223.24	515.01	425.81	Start DLS 10.00 TFO 0.00 at 5505.62 MD	
5,805.62	5,300.00	801.45	421.11	Start 5104.12 hold at 5805.62 MD	
10,909.73	5,300.00	5,904.88	337.33	TD at 10909.73 MD	

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description **Effective May 25, 2021**

I. Operator: Steward Energy II LLC **OGRID:** 371682 **Date:** 6/21/2023

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Salamanca State #2H		B-34-13S-38E	696' FNL	500	100	350
			1864' FEL			

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

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Salamanca State #2H		8/1/2023	8/15/2023	9/1/2023	n/a (no flowback)	9/2/2023

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature: <i>Vanessa De Los Santos</i>
Printed Name: Vanessa De Los Santos
Title: Senior Regulatory Analyst
E-mail Address: vanessa.delossantos@stewardenergy.net
Date: 6/21/2023
Phone: 214-297-0500
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

Natural Gas Management Plan - Attachment

- VI. Separation equipment will be sized by engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing modelling software to ensure adequate capacity for anticipated production volumes and conditions.
- VII. Steward Energy II, LLC (SEII) will take the following actions to comply with the regulations listed in 19.15.27.8:
 - A. SEII will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. SEII will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.
 - B. All drilling operations will be equipped with a rig flare located at least 100' from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.
 - C. During completion, SEII does not allow the well to flow during CO so there will be nothing to flare. Immediately following the finish of completion operations. Produced natural gas from separation equipment will be sent to sales. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, SEII will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. SEII will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will be analyzed twice per week and the gas will be routed into a gathering system as soon as pipeline specifications are met.
 - D. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(I) through (4). If there is no adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and reported appropriately.
 - E. SEII will comply with the performance standards requirements and provisions listed in 19.15.27.8 E.(I) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs to minimize the waste. Production storage tanks constructed after May 25, 2021, will be equipped with automatic gauging system. Flares constructed after May 25, 2021, will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the

well and storage tanks unless otherwise approved by the division. SEII will conduct AVO (LDAR) inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.

- F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared, or beneficially used during production operations, will be measured, or estimated. SEII will install equipment to measure the volume of natural gas flared from existing process piping, or a flowline piped from equipment such as high-pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021, that has an average daily production greater than 60 Mcf/day. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, SEII will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

- VIII. For maintenance activities involving production equipment and compression, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut in to eliminate venting. For maintenance of VRUs all gas normally routed to the VRU will be routed to flare to eliminate venting.