

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

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, N.M. 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, N.M. 87505

JUL 20 2017

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

AS-DRILLED

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35637	² Pool Code 98102	³ Pool Name PINON UNIT HZ (OIL)
⁴ Property Code 314246 317 S65	⁵ Property Name PINON UNIT	⁶ Well Number 305H
⁷ GRID No. 371654	⁸ Operator Name JUNIPER RESOURCES EXPLORATION CO. LLC.	⁹ Elevation 6732

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	24 N	10 W		1277	SOUTH	288	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	28	24 N	10 W		1270	NORTH	345	EAST	SAN JUAN

¹² Dedicated PENETRATED SPACING UNITS: S/2 SEC. 16, ALL OF SEC. 21, N/2 SEC. 28, T24N, R10W, 1280 ACRES
8005.44 ACRES-W/2 SEC. 4, ALL SEC. 5-10, 15-18 & 21, N/2 SEC. 22 & 28, T24N, R10W - UNDIVIDED UNIT

¹³ Joint or Infill¹⁴ Consolidation Code¹⁵ Order No.**R-13857A (8005.44 ACRES)**

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16

LEGEND:

- = SURFACE LOCATION
- = BOTTOM HOLE LOCATION
- X = LANDING POINT
- ⊙ = FOUND 1932 U.S.G.L.O. BRASS CAP

SURFACE

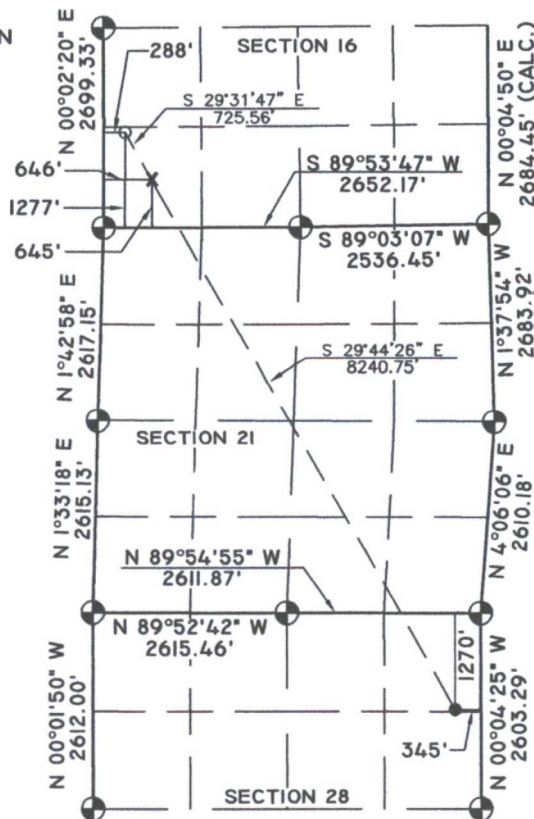
SEC. 16, T24N, R10W
1277' FSL, 288' FWL
LAT: 36.309413° N
LONG: 107.908842° W
NAD 83
LAT: 36.309402° N
LONG: 107.908223° W
NAD 27

LANDING POINT

SEC. 16, T24N, R10W
645' FSL, 646' FWL
LAT: 36.307668° N
LONG: 107.907008° W
NAD 83
LAT: 36.307668° N
LONG: 107.907008° W
NAD 27

BOTTOM HOLE

SEC. 28, T24N, R10W
1270' FNL, 345' FEL
LAT: 36.288031° N
LONG: 107.893737° W
NAD 83
LAT: 36.288020° N
LONG: 107.893119° W
NAD 27

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: *Matt Strickler* Date: **7/17/17**
Printed Name: **Matt Strickler**
E-mail Address: **matt.strickler@juniperresources.com**

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

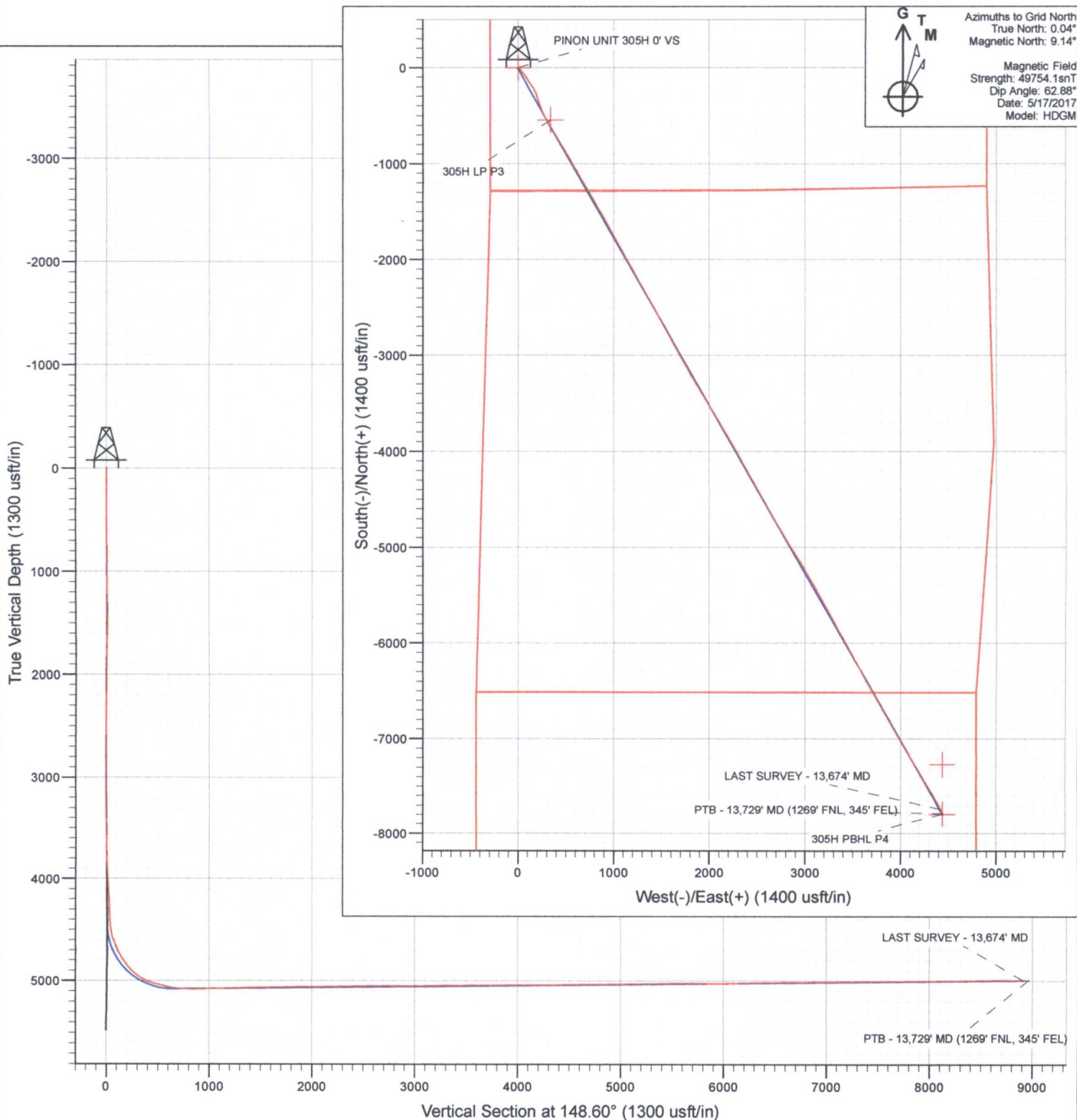
Date of Survey

Signature and Seal of Professional Surveyor

Marshall W. Lindeen
17078
7-15-17
PROFESSIONAL SURVEYOR

Certificate Number

PV



CATHEDRAL

WELL DETAILS: PINON UNIT 305H

+N/-S	+E/-W	Northing	Ground Level: Easting	Latitude	Longitude
0.00	0.00	1931934.98	2700844.73	36.309413	-107.908842



Cathedral Energy Services

Survey Report

OIL CONS. DIV DIST. 3

JUL 20 2017

Company: Juniper Resources Exploration CO
 Project: NEW MEXICO
 Site: S16-T24N-R10W
 Well: PINON UNIT 305H
 Wellbore: HZ
 Design: SURVEYS

Local Co-ordinate Reference: Well PINON UNIT 305H
 TVD Reference: KB @ 6746.00usft
 MD Reference: KB @ 6746.00usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: USA EDM 5000 Multi Users DB

Project NEW MEXICO

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

Site S16-T24N-R10W

Site Position: Northing: 1,931,934.99 usft Latitude: 36.309413
 From: Lat/Long Easting: 2,700,844.73 usft Longitude: -107.908842
 Position Uncertainty: 0.00 usft Slot Radius: 13-3/16" Grid Convergence: -0.04 °

Well PINON UNIT 305H

Well Position +N/-S 0.00 usft Northing: 1,931,934.98 usft Latitude: 36.309413
 +E/-W 0.00 usft Easting: 2,700,844.73 usft Longitude: -107.908842
 Position Uncertainty 0.00 usft Wellhead Elevation: 0.00 usft Ground Level: 6,732.00 usft

Wellbore HZ

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/17/2017	9.10	62.88	49,754.10000000

Design SURVEYS

Audit Notes:

Version: 1.0 Phase: ACTUAL Tie On Depth: 3,727.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	148.60

Survey Program Date 5/31/2017

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
366.00	3,727.00	Survey #1 (Pilot Hole)	MWD+HDGM	OWSG MWD + HDGM
3,811.00	13,729.00	Survey #1 (HZ)	MWD+HDGM	OWSG MWD + HDGM

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
366.00	0.79	227.76	365.99	-1.70	-1.87	0.47	0.22	0.22	
426.00	0.88	214.58	425.98	-2.35	-2.44	0.74	0.35	0.15	
487.00	1.01	225.65	486.97	-3.12	-3.09	1.05	0.37	0.21	
547.00	0.97	229.87	546.96	-3.81	-3.85	1.25	0.14	-0.07	
608.00	1.06	230.05	607.96	-4.51	-4.68	1.41	0.15	0.15	
668.00	1.36	244.20	667.94	-5.17	-5.75	1.42	0.70	0.50	
728.00	1.01	240.86	727.93	-5.74	-6.85	1.33	0.59	-0.58	
789.00	0.75	257.82	788.92	-6.09	-7.71	1.18	0.60	-0.43	
849.00	0.22	258.52	848.92	-6.19	-8.21	1.01	0.88	-0.88	
911.00	0.92	69.47	910.92	-6.04	-7.86	1.06	1.84	1.13	
972.00	0.88	96.19	971.91	-5.92	-6.93	1.44	0.68	-0.07	

Cathedral Energy Services

Survey Report

Company: Juniper Resources Exploration CO
Project: NEW MEXICO
Site: S16-T24N-R10W
Well: PINON UNIT 305H
Wellbore: HZ
Design: SURVEYS

Local Co-ordinate Reference: Well PINON UNIT 305H
TVD Reference: KB @ 6746.00usft
MD Reference: KB @ 6746.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
1,032.00	1.14	95.84	1,031.90	-6.03	-5.88	2.08	0.43	0.43	
1,092.00	0.92	104.36	1,091.89	-6.21	-4.82	2.79	0.45	-0.37	
1,153.00	0.97	98.65	1,152.88	-6.41	-3.83	3.47	0.17	0.08	
1,214.00	1.06	97.60	1,213.87	-6.56	-2.77	4.16	0.15	0.15	
1,275.00	1.19	106.12	1,274.86	-6.81	-1.60	4.98	0.35	0.21	
1,338.00	1.14	103.92	1,337.85	-7.15	-0.36	5.91	0.11	-0.08	
1,398.00	0.88	64.02	1,397.84	-7.09	0.63	6.38	1.22	-0.43	
1,459.00	1.67	42.93	1,458.82	-6.23	1.66	6.18	1.49	1.30	
1,519.00	1.49	24.56	1,518.80	-4.88	2.58	5.51	0.89	-0.30	
1,580.00	1.27	18.67	1,579.78	-3.52	3.13	4.63	0.43	-0.36	
1,640.00	1.36	2.15	1,639.77	-2.18	3.36	3.61	0.65	0.15	
1,700.00	1.58	4.87	1,699.75	-0.64	3.46	2.35	0.38	0.37	
1,760.00	1.32	3.90	1,759.73	0.87	3.58	1.12	0.44	-0.43	
1,820.00	1.41	8.74	1,819.71	2.29	3.74	-0.01	0.24	0.15	
1,881.00	1.67	13.92	1,880.69	3.89	4.07	-1.21	0.48	0.43	
1,942.00	1.23	10.15	1,941.67	5.40	4.40	-2.32	0.74	-0.72	
2,003.00	0.70	358.02	2,002.66	6.42	4.50	-3.13	0.93	-0.87	
2,063.00	0.53	343.87	2,062.66	7.05	4.41	-3.72	0.38	-0.28	
2,124.00	0.44	26.58	2,123.66	7.53	4.43	-4.12	0.60	-0.15	
2,243.00	0.75	227.59	2,242.65	7.42	4.06	-4.21	0.98	0.26	
2,364.00	1.36	232.42	2,363.63	6.01	2.34	-3.91	0.51	0.50	
2,485.00	1.76	219.32	2,484.59	3.69	0.03	-3.14	0.44	0.33	
2,605.00	0.62	277.24	2,604.56	2.35	-1.79	-2.94	1.27	-0.95	
2,727.00	1.01	250.44	2,726.55	2.07	-3.45	-3.57	0.44	0.32	
2,848.00	0.88	274.96	2,847.54	1.80	-5.38	-4.34	0.35	-0.11	
2,969.00	0.62	245.25	2,968.53	1.60	-6.91	-4.96	0.38	-0.21	
3,090.00	0.88	231.10	3,089.51	0.74	-8.22	-4.92	0.26	0.21	
3,216.00	0.57	136.18	3,215.51	-0.32	-8.54	-4.18	0.86	-0.25	
3,343.00	1.01	76.77	3,342.50	-0.52	-7.01	-3.22	0.69	0.35	
3,471.00	0.92	101.46	3,470.48	-0.46	-4.91	-2.16	0.33	-0.07	
3,598.00	0.88	93.11	3,597.46	-0.72	-2.94	-0.92	0.11	-0.03	
3,725.00	1.41	89.42	3,724.44	-0.75	-0.40	0.44	0.42	0.42	
3,727.00	1.41	89.68	3,726.44	-0.75	-0.35	0.46	0.37	-0.19	
3,811.00	1.23	102.08	3,810.42	-0.94	1.56	1.61	0.40	-0.21	
3,875.00	5.54	105.24	3,874.29	-1.89	5.22	4.33	6.74	6.73	
3,938.00	5.98	104.36	3,936.97	-3.51	11.33	8.90	0.71	0.70	
4,002.00	4.26	126.25	4,000.72	-5.74	16.48	13.48	4.02	-2.69	
4,065.00	4.09	129.01	4,063.55	-8.54	20.11	17.76	0.42	-0.27	
4,128.00	4.09	159.65	4,126.40	-12.06	22.64	22.09	3.43	0.00	
4,192.00	3.74	147.43	4,190.25	-15.96	24.55	26.41	1.41	-0.55	
4,255.00	2.42	184.52	4,253.16	-19.01	25.56	29.55	3.69	-2.10	
4,319.00	2.37	178.81	4,317.11	-21.68	25.48	31.78	0.38	-0.08	
4,383.00	1.93	168.08	4,381.06	-24.06	25.73	33.94	0.93	-0.69	
4,447.00	3.34	153.14	4,444.99	-26.78	26.79	36.82	2.43	2.20	
4,511.00	9.93	143.39	4,508.53	-32.88	30.93	44.18	10.41	10.30	
4,575.00	16.52	136.53	4,570.80	-43.93	40.49	58.59	10.57	10.30	
4,638.00	21.40	138.64	4,630.37	-59.06	54.26	78.68	7.82	7.75	
4,701.00	24.70	145.23	4,688.34	-78.51	69.36	103.15	6.64	5.24	
4,764.00	28.87	149.63	4,744.57	-102.46	84.57	131.52	7.33	6.62	
4,828.00	33.09	145.41	4,799.44	-130.19	102.31	164.43	7.41	6.59	
4,892.00	38.63	145.41	4,851.29	-161.04	123.58	201.85	8.66	8.66	
4,955.00	45.26	144.88	4,898.12	-195.57	147.65	243.85	10.54	10.52	
5,018.00	50.89	152.79	4,940.23	-235.67	171.74	290.64	12.92	8.94	

Cathedral Energy Services

Survey Report

Company: Juniper Resources Exploration CO
Project: NEW MEXICO
Site: S16-T24N-R10W
Well: PINON UNIT 305H
Wellbore: HZ
Design: SURVEYS

Local Co-ordinate Reference: Well PINON UNIT 305H
TVD Reference: KB @ 6746.00usft
MD Reference: KB @ 6746.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
5,082.00	58.10	159.56	4,977.41	-283.31	192.62	342.18	14.17	11.27	
5,145.00	67.07	163.78	5,006.40	-336.35	210.10	396.56	15.43	14.24	
5,208.00	75.94	161.84	5,026.36	-393.36	227.77	454.42	14.38	14.08	
5,271.00	77.83	156.40	5,040.67	-450.66	249.64	514.72	8.93	3.00	
5,334.00	77.39	152.62	5,054.19	-506.19	276.11	575.92	5.90	-0.70	
5,397.00	77.34	148.57	5,067.98	-559.74	306.29	637.34	6.27	-0.08	
5,418.00	78.93	148.92	5,072.29	-577.30	316.95	657.89	7.75	7.57	
5,482.00	88.02	149.19	5,079.56	-631.78	349.61	721.41	14.21	14.20	
5,546.00	89.30	148.84	5,081.05	-686.63	382.55	785.39	2.07	2.00	
5,609.00	90.04	148.84	5,081.42	-740.54	415.15	848.38	1.17	1.17	
5,673.00	90.66	148.13	5,081.03	-795.10	448.60	912.38	1.47	0.97	
5,736.00	91.14	148.40	5,080.04	-848.68	481.73	975.37	0.87	0.76	
5,799.00	91.19	150.86	5,078.76	-903.02	513.58	1,038.34	3.90	0.08	
5,863.00	91.71	150.59	5,077.14	-958.82	544.86	1,102.28	0.92	0.81	
5,927.00	92.33	151.47	5,074.88	-1,014.78	575.84	1,166.18	1.68	0.97	
5,991.00	91.80	149.72	5,072.57	-1,070.50	607.24	1,230.10	2.86	-0.83	
6,054.00	92.02	149.72	5,070.47	-1,124.87	638.99	1,293.05	0.35	0.35	
6,117.00	91.32	148.05	5,068.64	-1,178.78	671.53	1,356.02	2.87	-1.11	
6,181.00	91.93	149.10	5,066.82	-1,233.37	704.89	1,419.99	1.90	0.95	
6,245.00	91.14	149.80	5,065.11	-1,288.47	737.40	1,483.96	1.65	-1.23	
6,309.00	91.27	149.10	5,063.76	-1,343.57	769.93	1,547.94	1.11	0.20	
6,373.00	90.35	149.28	5,062.86	-1,398.53	802.70	1,611.93	1.46	-1.44	
6,437.00	90.26	151.30	5,062.52	-1,454.11	834.42	1,675.90	3.16	-0.14	
6,501.00	90.53	149.63	5,062.08	-1,509.79	865.97	1,739.86	2.64	0.42	
6,564.00	90.13	150.59	5,061.71	-1,564.41	897.36	1,802.84	1.65	-0.63	
6,627.00	90.13	152.18	5,061.57	-1,619.72	927.53	1,865.76	2.52	0.00	
6,690.00	90.57	153.06	5,061.19	-1,675.66	956.50	1,928.60	1.56	0.70	
6,753.00	90.00	150.42	5,060.87	-1,731.14	986.33	1,991.50	4.29	-0.90	
6,815.00	90.00	149.98	5,060.87	-1,784.94	1,017.14	2,053.48	0.71	0.00	
6,878.00	90.22	150.51	5,060.75	-1,839.64	1,048.41	2,116.45	0.91	0.35	
6,942.00	90.75	150.51	5,060.21	-1,895.34	1,079.91	2,180.41	0.83	0.83	
7,005.00	91.85	150.07	5,058.78	-1,950.05	1,111.13	2,243.37	1.88	1.75	
7,068.00	91.19	150.77	5,057.11	-2,004.82	1,142.22	2,306.31	1.53	-1.05	
7,132.00	90.35	151.74	5,056.25	-2,060.92	1,172.99	2,370.24	2.00	-1.31	
7,195.00	90.57	151.12	5,055.74	-2,116.25	1,203.12	2,433.16	1.04	0.35	
7,258.00	91.45	152.09	5,054.63	-2,171.66	1,233.07	2,496.06	2.08	1.40	
7,321.00	91.71	150.07	5,052.90	-2,226.78	1,263.53	2,558.97	3.23	0.41	
7,384.00	91.58	149.72	5,051.09	-2,281.26	1,295.11	2,621.93	0.59	-0.21	
7,447.00	91.14	150.59	5,049.59	-2,335.89	1,326.46	2,684.89	1.55	-0.70	
7,511.00	89.82	149.98	5,049.06	-2,391.47	1,358.18	2,748.86	2.27	-2.06	
7,574.00	89.52	150.77	5,049.42	-2,446.23	1,389.32	2,811.82	1.34	-0.48	
7,637.00	89.17	151.12	5,050.14	-2,501.30	1,419.91	2,874.77	0.79	-0.56	
7,700.00	89.43	150.15	5,050.91	-2,556.20	1,450.80	2,937.72	1.59	0.41	
7,763.00	90.57	151.03	5,050.91	-2,611.08	1,481.74	3,000.68	2.29	1.81	
7,826.00	90.84	151.74	5,050.13	-2,666.38	1,511.91	3,063.60	1.21	0.43	
7,890.00	91.27	152.18	5,048.95	-2,722.86	1,541.99	3,127.48	0.96	0.67	
7,953.00	90.62	151.74	5,047.92	-2,778.45	1,571.60	3,190.36	1.25	-1.03	
8,016.00	90.35	151.21	5,047.38	-2,833.80	1,601.68	3,253.28	0.94	-0.43	
8,080.00	90.79	152.00	5,046.75	-2,890.10	1,632.12	3,317.19	1.41	0.69	
8,143.00	91.58	151.30	5,045.44	-2,945.53	1,662.03	3,380.08	1.68	1.25	
8,206.00	90.53	151.82	5,044.28	-3,000.92	1,692.02	3,442.99	1.86	-1.67	
8,270.00	89.78	151.03	5,044.11	-3,057.12	1,722.63	3,506.91	1.70	-1.17	
8,333.00	89.17	149.63	5,044.69	-3,111.86	1,753.82	3,569.87	2.42	-0.97	

Cathedral Energy Services

Survey Report

Company: Juniper Resources Exploration CO
Project: NEW MEXICO
Site: S16-T24N-R10W
Well: PINON UNIT 305H
Wellbore: HZ
Design: SURVEYS

Local Co-ordinate Reference: Well PINON UNIT 305H
TVD Reference: KB @ 6746.00usft
MD Reference: KB @ 6746.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
8,396.00	89.43	150.51	5,045.46	-3,166.45	1,785.25	3,632.85	1.46	0.41	
8,460.00	89.43	149.10	5,046.09	-3,221.76	1,817.43	3,696.83	2.20	0.00	
8,523.00	90.26	149.36	5,046.26	-3,275.89	1,849.66	3,759.82	1.38	1.32	
8,586.00	90.97	149.80	5,045.59	-3,330.22	1,881.56	3,822.81	1.33	1.13	
8,649.00	92.07	148.31	5,043.92	-3,384.23	1,913.94	3,885.78	2.94	1.75	
8,713.00	90.97	148.57	5,042.22	-3,438.74	1,947.43	3,949.76	1.77	-1.72	
8,777.00	90.40	149.19	5,041.45	-3,493.53	1,980.50	4,013.75	1.32	-0.89	
8,840.00	90.40	148.22	5,041.01	-3,547.36	2,013.23	4,076.75	1.54	0.00	
8,901.00	89.87	149.28	5,040.87	-3,599.51	2,044.87	4,137.75	1.94	-0.87	
8,962.00	89.43	149.10	5,041.24	-3,651.90	2,076.11	4,198.75	0.78	-0.72	
9,022.00	89.74	149.80	5,041.68	-3,703.57	2,106.61	4,258.74	1.28	0.52	
9,082.00	90.09	148.40	5,041.77	-3,755.05	2,137.42	4,318.73	2.41	0.58	
9,173.00	91.32	149.45	5,040.65	-3,832.98	2,184.39	4,409.72	1.78	1.35	
9,234.00	90.92	149.36	5,039.45	-3,885.48	2,215.43	4,470.70	0.67	-0.66	
9,294.00	90.48	149.72	5,038.72	-3,937.20	2,245.84	4,530.69	0.95	-0.73	
9,355.00	90.31	150.51	5,038.30	-3,990.08	2,276.24	4,591.67	1.32	-0.28	
9,415.00	90.18	152.00	5,038.04	-4,042.69	2,305.09	4,651.60	2.49	-0.22	
9,475.00	90.48	150.86	5,037.70	-4,095.38	2,333.78	4,711.53	1.96	0.50	
9,536.00	90.70	151.56	5,037.07	-4,148.84	2,363.16	4,772.46	1.20	0.36	
9,596.00	91.10	150.86	5,036.13	-4,201.41	2,392.05	4,832.39	1.34	0.67	
9,658.00	91.76	150.33	5,034.58	-4,255.41	2,422.48	4,894.33	1.37	1.06	
9,719.00	91.23	149.89	5,032.99	-4,308.28	2,452.87	4,955.29	1.13	-0.87	
9,809.00	91.01	151.21	5,031.23	-4,386.63	2,497.11	5,045.22	1.49	-0.24	
9,869.00	90.18	150.42	5,030.61	-4,439.01	2,526.37	5,105.17	1.91	-1.38	
9,930.00	89.74	150.86	5,030.65	-4,492.17	2,556.27	5,166.13	1.02	-0.72	
9,992.00	90.62	149.45	5,030.45	-4,545.95	2,587.13	5,228.10	2.68	1.42	
10,054.00	91.49	150.51	5,029.31	-4,599.62	2,618.14	5,290.07	2.21	1.40	
10,115.00	91.19	150.33	5,027.89	-4,652.66	2,648.24	5,351.02	0.57	-0.49	
10,176.00	90.62	151.03	5,026.92	-4,705.83	2,678.11	5,411.98	1.48	-0.93	
10,236.00	91.36	150.51	5,025.89	-4,758.19	2,707.40	5,471.92	1.51	1.23	
10,296.00	90.75	149.80	5,024.78	-4,810.22	2,737.26	5,531.89	1.56	-1.02	
10,356.00	89.17	149.28	5,024.82	-4,861.94	2,767.67	5,591.88	2.77	-2.63	
10,417.00	89.30	148.40	5,025.64	-4,914.13	2,799.23	5,652.87	1.46	0.21	
10,477.00	89.87	147.87	5,026.07	-4,965.09	2,830.91	5,712.87	1.30	0.95	
10,537.00	89.60	148.92	5,026.35	-5,016.19	2,862.35	5,772.87	1.81	-0.45	
10,598.00	89.43	148.05	5,026.87	-5,068.19	2,894.24	5,833.86	1.45	-0.28	
10,659.00	90.22	146.99	5,027.05	-5,119.64	2,926.99	5,894.85	2.17	1.30	
10,719.00	90.44	147.96	5,026.71	-5,170.23	2,959.25	5,954.84	1.66	0.37	
10,780.00	90.57	149.54	5,026.17	-5,222.38	2,990.89	6,015.83	2.60	0.21	
10,840.00	90.84	148.84	5,025.43	-5,273.91	3,021.62	6,075.83	1.25	0.45	
10,900.00	91.27	150.07	5,024.33	-5,325.57	3,052.11	6,135.81	2.17	0.72	
10,960.00	90.75	151.65	5,023.27	-5,377.97	3,081.32	6,195.75	2.77	-0.87	
11,020.00	91.32	151.91	5,022.19	-5,430.82	3,109.69	6,255.65	1.04	0.95	
11,081.00	91.71	151.30	5,020.57	-5,484.47	3,138.69	6,316.54	1.19	0.64	
11,141.00	90.92	150.59	5,019.20	-5,536.90	3,167.82	6,376.47	1.77	-1.32	
11,201.00	90.18	151.21	5,018.62	-5,589.32	3,196.99	6,436.42	1.61	-1.23	
11,262.00	90.79	150.95	5,018.10	-5,642.72	3,226.49	6,497.36	1.09	1.00	
11,322.00	91.67	152.62	5,016.82	-5,695.57	3,254.85	6,557.25	3.15	1.47	
11,383.00	90.70	151.03	5,015.55	-5,749.33	3,283.65	6,618.14	3.05	-1.59	
11,443.00	89.52	151.30	5,015.44	-5,801.89	3,312.58	6,678.08	2.02	-1.97	
11,504.00	90.04	152.18	5,015.67	-5,855.62	3,341.46	6,738.99	1.68	0.85	
11,565.00	90.44	152.70	5,015.42	-5,909.69	3,369.69	6,799.85	1.08	0.66	
11,625.00	90.79	151.82	5,014.77	-5,962.80	3,397.61	6,859.72	1.58	0.58	

Cathedral Energy Services

Survey Report

Company:	Juniper Resources Exploration CO	Local Co-ordinate Reference:	Well PINON UNIT 305H
Project:	NEW MEXICO	TVD Reference:	KB @ 6746.00usft
Site:	S16-T24N-R10W	MD Reference:	KB @ 6746.00usft
Well:	PINON UNIT 305H	North Reference:	Grid
Wellbore:	HZ	Survey Calculation Method:	Minimum Curvature
Design:	SURVEYS	Database:	USA EDM 5000 Multi Users DB

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usf)	Build Rate (°/100u)	Formations / Comments
11,685.00	90.40	150.86	5,014.15	-6,015.44	3,426.39	6,919.65	1.73	-0.65	
11,746.00	89.87	150.33	5,014.01	-6,068.58	3,456.34	6,980.61	1.23	-0.87	
11,806.00	90.31	150.42	5,013.91	-6,120.74	3,486.00	7,040.58	0.75	0.73	
11,870.00	91.27	151.74	5,013.03	-6,176.75	3,516.94	7,104.51	2.55	1.50	
11,933.00	91.23	149.89	5,011.66	-6,231.74	3,547.65	7,167.45	2.94	-0.06	
11,996.00	90.18	151.30	5,010.88	-6,286.61	3,578.58	7,230.40	2.79	-1.67	
12,059.00	91.14	150.59	5,010.15	-6,341.68	3,609.18	7,293.34	1.90	1.52	
12,121.00	91.01	151.12	5,008.99	-6,395.82	3,639.37	7,355.28	0.88	-0.21	
12,184.00	90.75	149.98	5,008.02	-6,450.67	3,670.34	7,418.24	1.86	-0.41	
12,247.00	90.62	151.12	5,007.27	-6,505.53	3,701.31	7,481.20	1.82	-0.21	
12,310.00	90.18	150.68	5,006.83	-6,560.57	3,731.95	7,544.14	0.99	-0.70	
12,374.00	90.70	149.89	5,006.34	-6,616.16	3,763.67	7,608.11	1.48	0.81	
12,437.00	91.19	150.42	5,005.30	-6,670.79	3,795.02	7,671.08	1.15	0.78	
12,500.00	91.36	149.54	5,003.90	-6,725.33	3,826.53	7,734.05	1.42	0.27	
12,563.00	90.66	150.51	5,002.79	-6,779.89	3,858.00	7,797.02	1.90	-1.11	
12,626.00	90.57	151.03	5,002.11	-6,834.87	3,888.76	7,859.97	0.84	-0.14	
12,689.00	90.35	150.86	5,001.61	-6,889.94	3,919.36	7,922.91	0.44	-0.35	
12,752.00	89.60	150.24	5,001.63	-6,944.79	3,950.33	7,985.87	1.54	-1.19	
12,814.00	89.74	149.80	5,001.99	-6,998.50	3,981.31	8,047.85	0.74	0.23	
12,877.00	90.53	149.45	5,001.84	-7,052.85	4,013.17	8,110.84	1.37	1.25	
12,939.00	91.06	148.49	5,000.98	-7,105.97	4,045.12	8,172.83	1.77	0.85	
13,003.00	90.35	148.92	5,000.19	-7,160.65	4,078.36	8,236.83	1.30	-1.11	
13,066.00	89.78	149.01	5,000.12	-7,214.64	4,110.85	8,299.83	0.92	-0.90	
13,128.00	91.71	148.84	4,999.32	-7,267.73	4,142.84	8,361.82	3.12	3.11	
13,192.00	92.29	148.75	4,997.08	-7,322.44	4,175.98	8,425.78	0.92	0.91	
13,255.00	91.27	149.45	4,995.13	-7,376.47	4,208.32	8,488.74	1.96	-1.62	
13,317.00	90.35	149.54	4,994.25	-7,429.88	4,239.79	8,550.73	1.49	-1.48	
13,381.00	90.50	150.00	4,993.77	-7,485.18	4,272.01	8,614.71	0.76	0.23	
13,444.00	89.52	148.22	4,993.76	-7,539.24	4,304.35	8,677.71	3.23	-1.56	
13,507.00	88.81	149.01	4,994.68	-7,593.01	4,337.16	8,740.70	1.69	-1.13	
13,570.00	90.00	148.92	4,995.34	-7,646.99	4,369.63	8,803.69	1.89	1.89	
13,633.00	90.40	151.91	4,995.12	-7,701.77	4,400.73	8,866.66	4.79	0.63	
13,674.00	90.56	152.26	4,994.77	-7,738.00	4,419.93	8,907.58	0.94	0.39	LAST SURVEY - 13,674' MD
13,729.00	90.56	152.26	4,994.24	-7,786.68	4,445.53	8,962.46	0.00	0.00	PTB - 13,729' MD

Cathedral Energy Services

Survey Report

Company: Juniper Resources Exploration CO
Project: NEW MEXICO
Site: S16-T24N-R10W
Well: PINON UNIT 305H
Wellbore: HZ
Design: SURVEYS

Local Co-ordinate Reference: Well PINON UNIT 305H
TVD Reference: KB @ 6746.00usft
MD Reference: KB @ 6746.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: USA EDM 5000 Multi Users DB

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
305H LP P3 - actual wellpath misses target center by 91.82usft at 5381.82usft MD (5064.65 TVD, -547.03 N, 298.67 E) - Point	0.00	360.00	4,983.00	-544.43	340.58	1,931,390.54	2,701,185.31	36.307918	-107.907685
305H PBHL P3 - actual wellpath misses target center by 14.04usft at 13729.00usft MD (4994.24 TVD, -7786.68 N, 4445.53 E) - Point	0.00	360.00	4,983.00	-7,793.59	4,440.71	1,924,141.39	2,705,285.44	36.288012	-107.893753
PINON UNIT 305H 0' VS - actual wellpath misses target center by 306.99usft at 4931.06usft MD (4880.90 TVD, -181.95 N, 138.10 E) - Point	0.00	360.00	5,086.00	0.00	0.00	1,931,934.98	2,700,844.73	36.309413	-107.908842
305H PBHL P4 - actual wellpath misses target center by 8.46usft at 13729.00usft MD (4994.24 TVD, -7786.68 N, 4445.53 E) - Point	0.00	360.00	4,995.00	-7,793.59	4,440.71	1,924,141.39	2,705,285.44	36.288012	-107.893753
305H PBHL P2 - actual wellpath misses target center by 252.38usft at 13278.64usft MD (4994.67 TVD, -7396.83 N, 4220.33 E) - Point	0.00	360.00	4,989.80	-7,268.68	4,437.70	1,924,666.29	2,705,282.43	36.289454	-107.893765
305H PBHL - actual wellpath misses target center by 262.22usft at 13277.57usft MD (4994.69 TVD, -7395.90 N, 4219.78 E) - Point	0.00	360.00	5,066.00	-7,268.68	4,437.70	1,924,666.29	2,705,282.43	36.289454	-107.893765

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
13,674.00	4,994.77	-7,738.00	4,419.93	LAST SURVEY - 13,674' MD
13,729.00	4,994.24	-7,786.68	4,445.53	PTB - 13,729' MD

Checked By: _____ Approved By: _____ Date: _____