

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: (505) 748-1283 Fax: (505) 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, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

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

Submit one copy to appropriate
District Office

☐ AMENDED REPORT
☒ AS DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35641	² Pool Code 19859	³ Pool Name Duffers Point -Gallup Dakota
⁴ Property Code 314190	⁵ Property Name CROW MESA 24-08 2	⁶ Well Number 4H
⁷ OGRID No. 162928	⁸ Operator Name ENERGEN RESOURCES CORPORATION	⁹ Elevation 7318'

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
I	2	24N	8W		1370'	SOUTH	507'	EAST	SAN JUAN

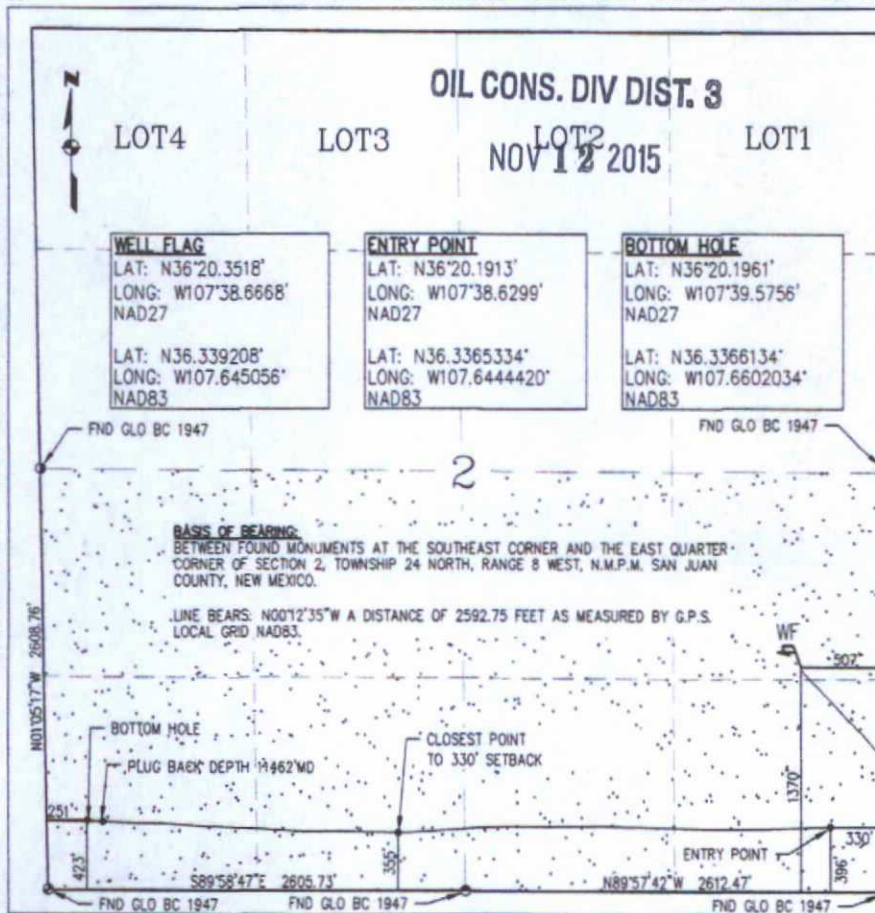
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	2	24N	8W		423'	SOUTH	251'	WEST	SAN JUAN

¹² Dedicated Acres S/2 SEC 2 320 ACRES	PROJECT AREA	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

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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.

Anna Stotts 11-11-15
Signature Date

ANNA STOTTS
Printed Name

astotts@energen.com
E-mail Address

SURVEYOR CERTIFICATION

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

November 10, 2015
Date of Survey

Signature and Seal of Professional Surveyor:



GLEN W. RUSSELL
Certificate Number 15703

Av

11



CONFIDENTIAL
TIGHT HOLE

D & D Services
P. O. Box 336
Flora Vista, NM 87415
505-215-4600 Fax: 505-334-9508
nowdrilling@yahoo.com

DEVIATION REPORT

OIL CONS. DIV DIST. 3

NOV 12 2015

CROW MESA

24-08-2 #4-H

S2-T24N-R8W

150' 1 1/8

345 1

To the best of my knowledge I believe these numbers to be true and accurate.

Glen Davis

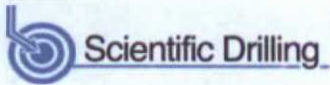
Sworn to and subscribed before me

this 19 day of August, 2015.

Kia Cordell

My commission expires: 4-10-17 *re*





Directional Survey Certification

2948 I-70 Business Loop
Grand Junction, CO 81504
(970)-245-9447 Fax (970)-245-9454

Operator	<u>Energen</u>
Well Name & No.	<u>Crow Mesa 24-08 2 #4H</u>
County & State	<u>San Juan County, NM</u>
SDI Job No.	<u>330915HEF311811</u>
Rig	<u>Key 881</u>

I, Janie Collins, having personal knowledge of all the facts, hereby
certify that the attached directional survey run from a measured depth of 399 feet to a
measured depth of 11,555 feet is true and correct as determined from all available records.

A handwritten signature in blue ink, appearing to read "Janie Collins", written over a horizontal line.

Signature

9-Oct-15

Date

Janie Collins

Colorado District Well Planner
Scientific Drilling International

ENERGEN

Energen Resources Corp.

San Juan County, NM (NAD83)

Crow Mesa

Crow Mesa 24-08 2 #4H

OH

Design: OH

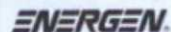
Standard Survey Report

09 October, 2015

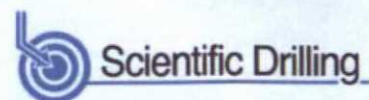


www.scientificdrilling.com





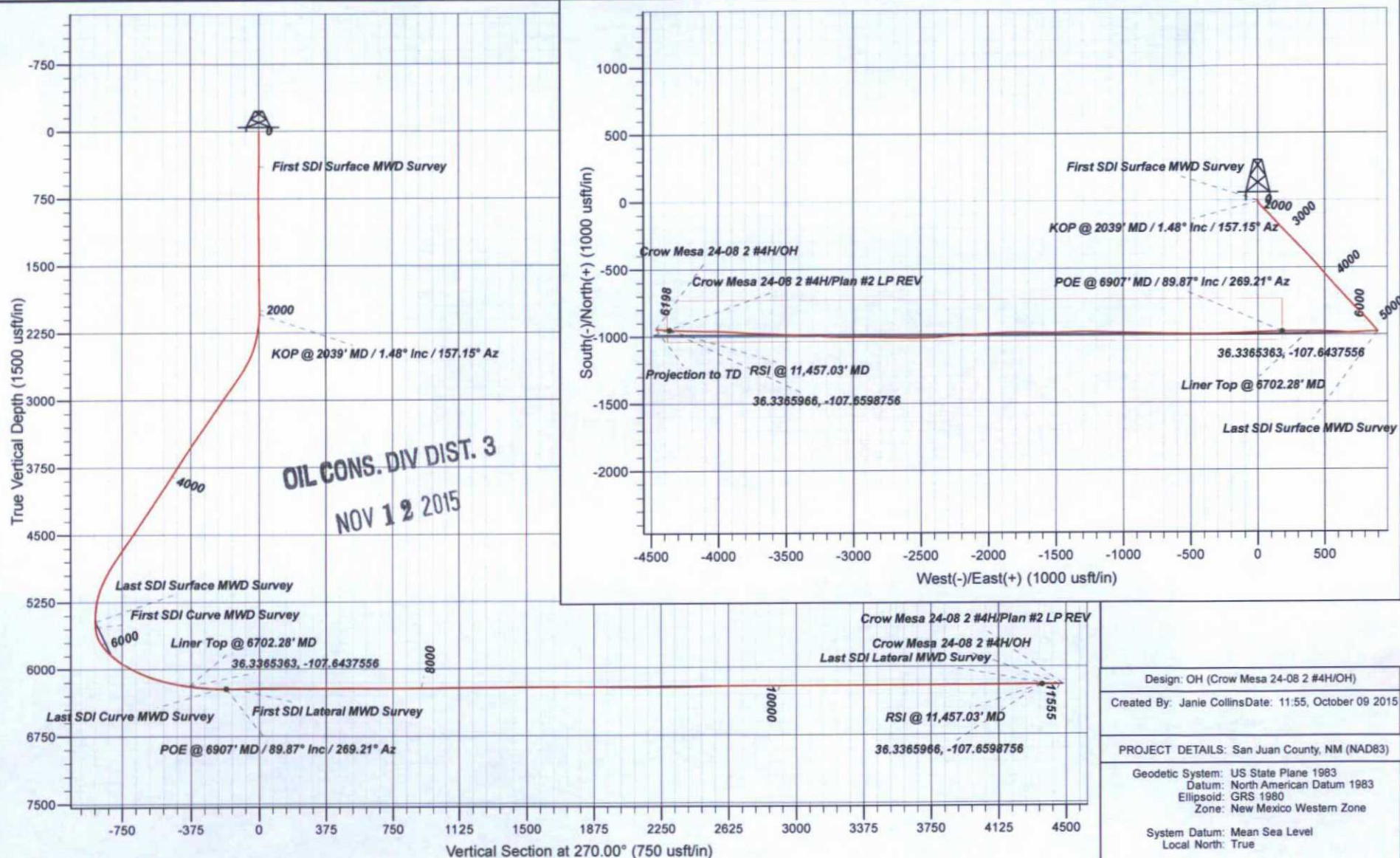
Company Name: Energen Resources Corp.
Project: San Juan County, NM (NAD83)
Site: Crow Mesa
Well: Crow Mesa 24-08 2 #4H



Azimuths to True North
Magnetic North: 9.08°
Magnetic Field
Strength: 49915.2snT
Dip Angle: 63.03°
Date: 9/19/2015
Model: HDGM

WELL DETAILS: Crow Mesa 24-08 2 #4H

+N/-S	+E/-W	GL 7318' & RKB 17' @ 7334.99usft (Key 881)	7317.99		
		Northing	Easting	Latitude	Longitude
0.00	0.00	1942826.50	2778542.29	36.3392080	-107.6450560



Design: OH (Crow Mesa 24-08 2 #4H/OH)
Created By: Janie Collins Date: 11:55, October 09 2015
PROJECT DETAILS: San Juan County, NM (NAD83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Western Zone
System Datum: Mean Sea Level
Local North: True

CONFIDENTIAL
TIGHT HOLE

Company:	Energen Resources Corp.	Local Co-ordinate Reference:	Well Crow Mesa 24-08 2 #4H
Project:	San Juan County, NM (NAD83)	TVD Reference:	GL 7318' & RKB 17' @ 7334.99usft (Key 881)
Site:	Crow Mesa	MD Reference:	GL 7318' & RKB 17' @ 7334.99usft (Key 881)
Well:	Crow Mesa 24-08 2 #4H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Project	San Juan County, NM (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Crow Mesa		
Site Position:		Northing:	1,942,876.38 usft
From:	Lat/Long	Easting:	2,778,544.55 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	36.3393450
		Longitude:	-107.6450480
		Grid Convergence:	0.11 °

Well	Crow Mesa 24-08 2 #4H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	36.3392080
		Longitude:	-107.6450560
		Ground Level:	7,317.99 usft

Wellbore	OH		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	9/19/2015	9.08	63.03	49,915

Design	OH		
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Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	270.00

Survey Program	From (usft)	To (usft)	Date	Survey (Wellbore)	Tool Name	Description
	399.00	5,747.00	10/9/2015	Survey #1 - Surface MWD Surveys (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1
	5,810.00	6,880.00		Survey #2 - Curve MWD Survey (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1
	6,949.00	11,555.00		Survey #3 - Lateral MWD Survey (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1

Survey	Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	399.00	0.24	109.45	399.00	-0.28	0.79	-0.79	0.06	0.06	0.00
First SDI Surface MWD Survey										
	462.00	0.40	93.96	462.00	-0.34	1.13	-1.13	0.29	0.25	-24.59
	525.00	0.37	77.82	525.00	-0.31	1.55	-1.55	0.18	-0.05	-25.62
	588.00	0.18	70.11	588.00	-0.23	1.84	-1.84	0.31	-0.30	-12.24
	651.00	0.23	43.99	651.00	-0.11	2.02	-2.02	0.17	0.08	-41.46
	714.00	0.05	83.90	714.00	-0.01	2.14	-2.14	0.31	-0.29	63.35
	777.00	0.03	31.15	777.00	0.00	2.17	-2.17	0.06	-0.03	-83.73

Company:	Energen Resources Corp.	Local Co-ordinate Reference:	Well Crow Mesa 24-08 2 #4H
Project:	San Juan County, NM (NAD83)	TVD Reference:	GL 7318' & RKB 17' @ 7334.99usft (Key 881)
Site:	Crow Mesa	MD Reference:	GL 7318' & RKB 17' @ 7334.99usft (Key 881)
Well:	Crow Mesa 24-08 2 #4H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
840.00	0.24	175.12	839.99	-0.11	2.19	-2.19	0.42	0.33	228.52
901.00	0.47	190.58	900.99	-0.49	2.16	-2.16	0.41	0.38	25.34
962.00	0.58	200.22	961.99	-1.02	2.01	-2.01	0.23	0.18	15.80
1,023.00	0.89	203.54	1,022.99	-1.75	1.71	-1.71	0.51	0.51	5.44
1,084.00	0.50	198.59	1,083.98	-2.43	1.44	-1.44	0.65	-0.64	-8.11
1,145.00	0.38	196.03	1,144.98	-2.88	1.30	-1.30	0.20	-0.20	-4.20
1,207.00	0.34	228.01	1,206.98	-3.20	1.10	-1.10	0.33	-0.06	51.58
1,269.00	0.20	261.98	1,268.98	-3.34	0.86	-0.86	0.33	-0.23	54.79
1,330.00	0.39	243.39	1,329.98	-3.45	0.57	-0.57	0.34	0.31	-30.48
1,391.00	0.23	209.00	1,390.98	-3.65	0.32	-0.32	0.39	-0.26	-56.38
1,453.00	0.27	222.21	1,452.98	-3.86	0.16	-0.16	0.11	0.06	21.31
1,514.00	0.31	229.63	1,513.97	-4.08	-0.06	0.06	0.09	0.07	12.16
1,575.00	0.32	225.69	1,574.97	-4.30	-0.31	0.31	0.04	0.02	-6.46
1,636.00	0.34	214.80	1,635.97	-4.57	-0.53	0.53	0.11	0.03	-17.85
1,698.00	0.44	224.60	1,697.97	-4.89	-0.80	0.80	0.19	0.16	15.81
1,759.00	0.48	206.38	1,758.97	-5.29	-1.08	1.08	0.25	0.07	-29.87
1,853.00	0.65	218.96	1,852.96	-6.06	-1.59	1.59	0.22	0.18	13.38
1,915.00	0.59	205.63	1,914.96	-6.62	-1.95	1.95	0.25	-0.10	-21.50
1,977.00	0.62	228.61	1,976.96	-7.13	-2.34	2.34	0.39	0.05	37.06
2,039.00	1.48	157.15	2,038.95	-8.09	-2.28	2.28	2.28	1.39	-115.26
KOP @ 2039' MD / 1.48° Inc / 157.15° Az									
2,099.00	3.37	137.49	2,098.89	-10.10	-0.79	0.79	3.40	3.15	-32.77
2,162.00	5.03	141.53	2,161.72	-13.63	2.18	-2.18	2.67	2.63	6.41
2,225.00	6.90	143.87	2,224.38	-18.85	6.13	-6.13	2.99	2.97	3.71
2,288.00	8.93	142.59	2,286.77	-25.79	11.33	-11.33	3.23	3.22	-2.03
2,351.00	11.11	142.44	2,348.81	-34.48	18.00	-18.00	3.46	3.46	-0.24
2,414.00	12.64	138.97	2,410.46	-44.50	26.23	-26.23	2.68	2.43	-5.51
2,477.00	14.49	134.73	2,471.70	-55.24	36.36	-36.36	3.33	2.94	-6.73
2,540.00	17.28	134.78	2,532.29	-67.38	48.60	-48.60	4.43	4.43	0.08
2,603.00	20.37	134.49	2,591.91	-81.66	63.07	-63.07	4.91	4.90	-0.46
2,666.00	22.88	135.91	2,650.48	-98.15	79.41	-79.41	4.07	3.98	2.25
2,729.00	26.31	137.44	2,707.75	-117.23	97.38	-97.38	5.54	5.44	2.43
2,792.00	27.13	137.80	2,764.02	-138.16	116.47	-116.47	1.33	1.30	0.57
2,855.00	26.99	137.68	2,820.13	-159.37	135.75	-135.75	0.24	-0.22	-0.19
2,918.00	26.89	136.44	2,876.29	-180.26	155.19	-155.19	0.91	-0.16	-1.97
2,980.00	26.54	136.08	2,931.67	-200.40	174.46	-174.46	0.62	-0.56	-0.58
3,043.00	25.58	136.18	2,988.27	-220.35	193.64	-193.64	1.53	-1.52	0.16
3,106.00	24.90	135.45	3,045.25	-239.62	212.36	-212.36	1.19	-1.08	-1.16
3,168.00	25.73	135.40	3,101.30	-258.50	230.97	-230.97	1.34	1.34	-0.08
3,231.00	26.42	135.91	3,157.88	-278.31	250.32	-250.32	1.15	1.10	0.81
3,294.00	26.12	135.91	3,214.38	-298.33	269.72	-269.72	0.48	-0.48	0.00
3,357.00	26.01	134.62	3,270.97	-318.00	289.21	-289.21	0.92	-0.17	-2.05
3,419.00	25.56	135.42	3,326.80	-337.07	308.27	-308.27	0.92	-0.73	1.29

Company:	Energen Resources Corp.	Local Co-ordinate Reference:	Well Crow Mesa 24-08 2 #4H
Project:	San Juan County, NM (NAD83)	TVD Reference:	GL 7318' & RKB 17' @ 7334.99usft (Key 881)
Site:	Crow Mesa	MD Reference:	GL 7318' & RKB 17' @ 7334.99usft (Key 881)
Well:	Crow Mesa 24-08 2 #4H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,482.00	25.28	135.20	3,383.70	-356.30	327.29	-327.29	0.47	-0.44	-0.35
3,545.00	25.99	135.82	3,440.50	-375.74	346.39	-346.39	1.20	1.13	0.98
3,608.00	25.83	135.50	3,497.16	-395.43	365.63	-365.63	0.34	-0.25	-0.51
3,671.00	25.42	135.47	3,553.97	-414.86	384.73	-384.73	0.65	-0.65	-0.05
3,734.00	26.01	138.13	3,610.73	-434.79	403.43	-403.43	2.06	0.94	4.22
3,797.00	25.72	139.62	3,667.42	-455.49	421.51	-421.51	1.13	-0.46	2.37
3,860.00	25.21	139.27	3,724.30	-476.07	439.12	-439.12	0.84	-0.81	-0.56
3,922.00	24.60	137.98	3,780.53	-495.66	456.37	-456.37	1.32	-0.98	-2.08
3,984.00	25.45	139.68	3,836.71	-515.41	473.63	-473.63	1.80	1.37	2.74
4,048.00	25.75	140.01	3,894.43	-536.54	491.46	-491.46	0.52	0.47	0.52
4,111.00	26.54	138.54	3,950.99	-557.57	509.58	-509.58	1.62	1.25	-2.33
4,174.00	26.77	138.21	4,007.29	-578.70	528.35	-528.35	0.43	0.37	-0.52
4,237.00	26.27	138.19	4,063.66	-599.67	547.10	-547.10	0.79	-0.79	-0.03
4,300.00	25.87	138.15	4,120.25	-620.30	565.57	-565.57	0.64	-0.63	-0.06
4,363.00	25.46	137.72	4,177.04	-640.56	583.85	-583.85	0.71	-0.65	-0.68
4,426.00	26.04	138.30	4,233.78	-660.90	602.16	-602.16	1.00	0.92	0.92
4,489.00	26.46	138.87	4,290.28	-681.80	620.59	-620.59	0.78	0.67	0.90
4,552.00	25.92	137.75	4,346.81	-702.56	639.08	-639.08	1.16	-0.86	-1.78
4,615.00	25.45	135.24	4,403.59	-722.37	657.87	-657.87	1.88	-0.75	-3.98
4,678.00	25.74	136.25	4,460.41	-741.86	676.86	-676.86	0.83	0.46	1.60
4,741.00	26.25	137.67	4,517.04	-762.04	695.70	-695.70	1.28	0.81	2.25
4,803.00	26.45	135.58	4,572.59	-782.04	714.60	-714.60	1.53	0.32	-3.37
4,866.00	25.77	136.61	4,629.17	-802.02	733.83	-733.83	1.30	-1.08	1.63
4,930.00	25.09	135.23	4,686.97	-821.76	752.94	-752.94	1.41	-1.06	-2.16
4,992.00	25.04	133.62	4,743.13	-840.14	771.70	-771.70	1.10	-0.08	-2.60
5,055.00	24.96	135.92	4,800.23	-858.89	790.60	-790.60	1.55	-0.13	3.65
5,118.00	24.20	136.68	4,857.52	-877.83	808.70	-808.70	1.31	-1.21	1.21
5,181.00	22.04	137.26	4,915.45	-895.91	825.59	-825.59	3.45	-3.43	0.92
5,244.00	19.90	138.55	4,974.28	-912.63	840.71	-840.71	3.47	-3.40	2.05
5,306.00	18.48	139.59	5,032.83	-928.02	854.06	-854.06	2.36	-2.29	1.68
5,370.00	16.17	139.75	5,093.92	-942.55	866.40	-866.40	3.61	-3.61	0.25
5,432.00	12.77	138.55	5,153.95	-954.28	876.52	-876.52	5.50	-5.48	-1.94
5,495.00	9.68	141.30	5,215.74	-963.63	884.44	-884.44	4.98	-4.90	4.37
5,558.00	6.16	138.84	5,278.13	-970.31	889.98	-889.98	5.61	-5.59	-3.90
5,621.00	3.62	129.50	5,340.89	-974.12	893.74	-893.74	4.21	-4.03	-14.83
5,684.00	1.09	141.81	5,403.83	-975.86	895.64	-895.64	4.07	-4.02	19.54
5,747.00	0.64	231.27	5,466.83	-976.55	895.74	-895.74	2.00	-0.71	142.00
Last SDI Surface MWD Survey									
5,810.00	2.15	258.24	5,529.81	-977.01	894.31	-894.31	2.55	2.40	42.81
First SDI Curve MWD Survey									
5,873.00	6.62	269.68	5,592.61	-977.27	889.52	-889.52	7.19	7.10	18.16
5,937.00	13.26	272.10	5,655.61	-977.03	878.48	-878.48	10.39	10.38	3.78
6,000.00	18.20	271.96	5,716.24	-976.42	861.42	-861.42	7.84	7.84	-0.22
6,061.00	23.08	267.42	5,773.31	-976.64	839.94	-839.94	8.41	8.00	-7.44

Company:	Energen Resources Corp.	Local Co-ordinate Reference:	Well Crow Mesa 24-08 2 #4H
Project:	San Juan County, NM (NAD83)	TVD Reference:	GL 7318' & RKB 17' @ 7334.99usft (Key 881)
Site:	Crow Mesa	MD Reference:	GL 7318' & RKB 17' @ 7334.99usft (Key 881)
Well:	Crow Mesa 24-08 2 #4H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,124.00	28.90	266.44	5,829.91	-978.14	812.38	-812.38	9.26	9.24	-1.56
6,187.00	31.44	265.86	5,884.37	-980.27	780.80	-780.80	4.06	4.03	-0.92
6,251.00	35.45	267.04	5,937.76	-982.44	745.60	-745.60	6.35	6.27	1.84
6,313.00	39.92	269.85	5,986.82	-983.42	707.73	-707.73	7.72	7.21	4.53
6,377.00	47.19	272.22	6,033.18	-982.56	663.67	-663.67	11.64	11.36	3.70
6,440.00	51.99	273.48	6,074.00	-980.16	615.78	-615.78	7.77	7.62	2.00
6,503.00	57.07	273.63	6,110.55	-976.97	564.59	-564.59	8.07	8.06	0.24
6,564.00	62.60	272.43	6,141.19	-974.20	511.94	-511.94	9.22	9.07	-1.97
6,629.00	68.89	270.99	6,167.88	-972.45	452.74	-452.74	9.89	9.68	-2.22
6,691.00	74.57	269.13	6,187.31	-972.41	393.89	-393.89	9.59	9.16	-3.00
6,702.28	75.18	269.29	6,190.25	-972.56	383.00	-383.00	5.55	5.38	1.41
Liner Top @ 6702.28' MD - 36.3365363, -107.6437556									
6,754.00	77.96	270.01	6,202.27	-972.86	332.70	-332.70	5.55	5.38	1.39
6,817.00	80.16	269.93	6,214.22	-972.90	270.85	-270.85	3.49	3.49	-0.13
6,880.00	87.52	269.62	6,220.98	-973.14	208.26	-208.26	11.69	11.68	-0.49
Last SDI Curve MWD Survey									
6,907.00	89.84	269.22	6,221.60	-973.42	181.27	-181.27	8.71	8.58	-1.49
POE @ 6907' MD / 89.87° Inc / 269.21° Az									
6,949.00	93.44	268.59	6,220.40	-974.22	139.30	-139.30	8.71	8.58	-1.49
First SDI Lateral MWD Survey									
7,008.00	93.40	267.63	6,216.88	-976.16	80.44	-80.44	1.63	-0.07	-1.63
7,072.00	91.82	268.62	6,213.97	-978.25	16.54	-16.54	2.91	-2.47	1.55
7,133.00	89.43	267.03	6,213.30	-980.57	-44.40	44.40	4.71	-3.92	-2.61
7,194.00	89.73	268.78	6,213.75	-982.80	-105.36	105.36	2.91	0.49	2.87
7,255.00	89.26	267.62	6,214.29	-984.71	-166.33	166.33	2.05	-0.77	-1.90
7,317.00	89.50	268.23	6,214.96	-986.96	-228.28	228.28	1.06	0.39	0.98
7,377.00	89.83	269.31	6,215.31	-988.25	-288.26	288.26	1.88	0.55	1.80
7,438.00	89.90	269.29	6,215.45	-988.99	-349.26	349.26	0.12	0.11	-0.03
7,499.00	90.27	270.21	6,215.36	-989.26	-410.26	410.26	1.63	0.61	1.51
7,560.00	90.57	270.49	6,214.91	-988.89	-471.26	471.26	0.67	0.49	0.46
7,621.00	90.40	270.66	6,214.40	-988.27	-532.25	532.25	0.39	-0.28	0.28
7,682.00	89.90	271.32	6,214.24	-987.22	-593.24	593.24	1.36	-0.82	1.08
7,742.00	89.66	270.63	6,214.47	-986.20	-653.23	653.23	1.22	-0.40	-1.15
7,803.00	90.44	270.96	6,214.41	-985.35	-714.22	714.22	1.39	1.28	0.54
7,864.00	90.30	271.09	6,214.02	-984.26	-775.21	775.21	0.31	-0.23	0.21
7,925.00	89.36	271.78	6,214.20	-982.73	-836.19	836.19	1.91	-1.54	1.13
7,986.00	89.60	272.00	6,214.76	-980.72	-897.16	897.16	0.53	0.39	0.36
8,047.00	90.74	271.54	6,214.57	-978.84	-958.13	958.13	2.02	1.87	-0.75
8,108.00	90.77	270.15	6,213.77	-977.94	-1,019.11	1,019.11	2.28	0.05	-2.28
8,169.00	90.24	270.90	6,213.23	-977.38	-1,080.11	1,080.11	1.51	-0.87	1.23
8,231.00	90.27	272.72	6,212.96	-975.42	-1,142.07	1,142.07	2.94	0.05	2.94
8,292.00	90.27	271.18	6,212.67	-973.35	-1,203.04	1,203.04	2.52	0.00	-2.52
8,353.00	90.94	269.93	6,212.03	-972.76	-1,264.03	1,264.03	2.32	1.10	-2.05
8,413.00	90.67	269.65	6,211.18	-972.98	-1,324.02	1,324.02	0.65	-0.45	-0.47

Company:	Energen Resources Corp.	Local Co-ordinate Reference:	Well Crow Mesa 24-08 2 #4H
Project:	San Juan County, NM (NAD83)	TVD Reference:	GL 7318' & RKB 17' @ 7334.99usft (Key 881)
Site:	Crow Mesa	MD Reference:	GL 7318' & RKB 17' @ 7334.99usft (Key 881)
Well:	Crow Mesa 24-08 2 #4H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,475.00	90.87	268.94	6,210.35	-973.74	-1,386.01	1,386.01	1.19	0.32	-1.15
8,536.00	90.60	268.41	6,209.57	-975.15	-1,446.99	1,446.99	0.98	-0.44	-0.87
8,599.00	90.47	269.39	6,208.98	-976.36	-1,509.97	1,509.97	1.57	-0.21	1.56
8,662.00	90.91	269.84	6,208.22	-976.78	-1,572.97	1,572.97	1.00	0.70	0.71
8,725.00	90.10	271.02	6,207.66	-976.31	-1,635.96	1,635.96	2.27	-1.29	1.87
8,788.00	89.02	270.90	6,208.15	-975.25	-1,698.95	1,698.95	1.72	-1.71	-0.19
8,851.00	87.78	270.19	6,209.91	-974.65	-1,761.92	1,761.92	2.27	-1.97	-1.13
8,914.00	87.45	268.96	6,212.53	-975.12	-1,824.86	1,824.86	2.02	-0.52	-1.95
8,977.00	88.22	267.91	6,214.91	-976.84	-1,887.79	1,887.79	2.07	1.22	-1.67
9,040.00	89.56	268.03	6,216.13	-979.07	-1,950.74	1,950.74	2.14	2.13	0.19
9,103.00	88.55	266.06	6,217.17	-982.32	-2,013.64	2,013.64	3.51	-1.60	-3.13
9,166.00	90.07	265.88	6,217.93	-986.74	-2,076.48	2,076.48	2.43	2.41	-0.29
9,229.00	91.25	266.88	6,217.20	-990.72	-2,139.35	2,139.35	2.46	1.87	1.59
9,292.00	90.47	265.55	6,216.26	-994.88	-2,202.20	2,202.20	2.45	-1.24	-2.11
9,355.00	90.77	266.75	6,215.57	-999.11	-2,265.06	2,265.06	1.96	0.48	1.90
9,418.00	90.20	265.51	6,215.04	-1,003.36	-2,327.91	2,327.91	2.17	-0.90	-1.97
9,480.00	89.46	265.12	6,215.22	-1,008.43	-2,389.70	2,389.70	1.35	-1.19	-0.63
9,543.00	92.39	268.16	6,214.21	-1,012.12	-2,452.57	2,452.57	6.70	4.65	4.83
9,606.00	93.35	270.35	6,211.05	-1,012.94	-2,515.48	2,515.48	3.79	1.52	3.48
9,669.00	92.42	270.81	6,207.88	-1,012.30	-2,578.40	2,578.40	1.65	-1.48	0.73
9,732.00	91.08	271.32	6,205.96	-1,011.13	-2,641.36	2,641.36	2.28	-2.13	0.81
9,795.00	89.53	270.44	6,205.62	-1,010.16	-2,704.35	2,704.35	2.83	-2.46	-1.40
9,859.00	89.93	271.63	6,205.92	-1,009.01	-2,768.33	2,768.33	1.96	0.63	1.86
9,922.00	90.77	272.15	6,205.54	-1,006.93	-2,831.30	2,831.30	1.57	1.33	0.83
9,986.00	90.30	270.29	6,204.94	-1,005.57	-2,895.28	2,895.28	3.00	-0.73	-2.91
10,049.00	90.54	269.86	6,204.48	-1,005.48	-2,958.27	2,958.27	0.78	0.38	-0.68
10,112.00	90.57	268.74	6,203.87	-1,006.25	-3,021.27	3,021.27	1.78	0.05	-1.78
10,174.00	90.74	270.77	6,203.16	-1,006.52	-3,083.26	3,083.26	3.29	0.27	3.27
10,237.00	90.44	273.80	6,202.51	-1,004.01	-3,146.20	3,146.20	4.83	-0.48	4.81
10,300.00	90.54	273.77	6,201.97	-999.85	-3,209.06	3,209.06	0.17	0.16	-0.05
10,363.00	89.73	272.90	6,201.82	-996.18	-3,271.95	3,271.95	1.89	-1.29	-1.38
10,426.00	89.09	272.53	6,202.47	-993.20	-3,334.88	3,334.88	1.17	-1.02	-0.59
10,489.00	89.83	272.61	6,203.07	-990.37	-3,397.81	3,397.81	1.18	1.17	0.13
10,551.00	91.08	273.50	6,202.58	-987.07	-3,459.72	3,459.72	2.47	2.02	1.44
10,613.00	90.00	273.20	6,201.99	-983.45	-3,521.61	3,521.61	1.81	-1.74	-0.48
10,676.00	89.23	272.15	6,202.41	-980.51	-3,584.54	3,584.54	2.07	-1.22	-1.67
10,739.00	89.63	271.66	6,203.04	-978.41	-3,647.50	3,647.50	1.00	0.63	-0.78
10,802.00	89.60	271.04	6,203.46	-976.93	-3,710.48	3,710.48	0.99	-0.05	-0.98
10,865.00	90.27	273.83	6,203.54	-974.25	-3,773.41	3,773.41	4.55	1.06	4.43
10,928.00	90.84	274.98	6,202.93	-969.41	-3,836.22	3,836.22	2.04	0.90	1.83
10,991.00	89.93	272.81	6,202.50	-965.13	-3,899.07	3,899.07	3.73	-1.44	-3.44
11,054.00	90.57	273.60	6,202.23	-961.61	-3,961.97	3,961.97	1.61	1.02	1.25
11,116.00	89.93	271.11	6,201.96	-959.07	-4,023.91	4,023.91	4.15	-1.03	-4.02

Company:	Energen Resources Corp.	Local Co-ordinate Reference:	Well Crow Mesa 24-08 2 #4H
Project:	San Juan County, NM (NAD83)	TVD Reference:	GL 7318' & RKB 17' @ 7334.99usft (Key 881)
Site:	Crow Mesa	MD Reference:	GL 7318' & RKB 17' @ 7334.99usft (Key 881)
Well:	Crow Mesa 24-08 2 #4H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,179.00	90.54	270.10	6,201.70	-958.40	-4,086.91	4,086.91	1.87	0.97	-1.60
11,242.00	90.71	271.72	6,201.01	-957.40	-4,149.90	4,149.90	2.59	0.27	2.57
11,305.00	90.23	271.46	6,200.49	-955.65	-4,212.87	4,212.87	0.87	-0.76	-0.41
11,369.00	90.67	271.71	6,199.99	-953.88	-4,276.84	4,276.84	0.79	0.69	0.39
11,431.00	90.34	272.50	6,199.45	-951.60	-4,338.80	4,338.80	1.38	-0.53	1.27
11,457.00	90.52	273.30	6,199.25	-950.29	-4,364.76	4,364.76	3.16	0.70	3.08
36.3365966, -107.6598756									
11,457.03	90.52	273.30	6,199.25	-950.29	-4,364.79	4,364.79	3.16	0.70	3.08
RSI @ 11,457.03' MD									
11,494.00	90.78	274.44	6,198.83	-947.79	-4,401.68	4,401.68	3.16	0.70	3.08
Last SDI Lateral MWD Survey									
11,555.00	90.78	274.44	6,198.00	-943.07	-4,462.49	4,462.49	0.00	0.00	0.00
Projection to TD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
399.00	399.00	-0.28	0.79	First SDI Surface MWD Survey
2,039.00	2,038.95	-8.09	-2.28	KOP @ 2039' MD / 1.48° Inc / 157.15° Az
5,747.00	5,466.83	-976.55	895.74	Last SDI Surface MWD Survey
5,810.00	5,529.81	-977.01	894.31	First SDI Curve MWD Survey
6,702.28	6,190.25	-972.56	383.00	Liner Top @ 6702.28' MD
6,702.28	6,190.25	-972.56	383.00	36.3365363, -107.6437556
6,880.00	6,220.98	-973.14	208.26	Last SDI Curve MWD Survey
6,907.00	6,221.60	-973.42	181.27	POE @ 6907' MD / 89.87° Inc / 269.21° Az
6,949.00	6,220.40	-974.22	139.30	First SDI Lateral MWD Survey
11,457.00	6,199.25	-950.29	-4,364.76	36.3365966, -107.6598756
11,457.03	6,199.25	-950.29	-4,364.79	RSI @ 11,457.03' MD
11,494.00	6,198.83	-947.79	-4,401.68	Last SDI Lateral MWD Survey
11,555.00	6,198.00	-943.07	-4,462.49	Projection to TD

Checked By: _____ Approved By: _____ Date: _____