

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210
District III – (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV – (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Record Clean Up
Form C-103
Revised July 18, 2013

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

WELL API NO. 30-045-25695
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Moore
8. Well Number 1E
9. OGRID Number 372171
10. Pool name or Wildcat Basin Dakota

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☐ Gas Well ☒ Other	
2. Name of Operator HILCORP ENERGY COMPANY	
3. Address of Operator 382 Road 3100, Aztec, NM 87410	
4. Well Location Unit Letter <u>J</u> : <u>1620'</u> feet from the <u>South</u> line and <u>1555'</u> feet from the <u>East</u> line Section <u>35</u> Township <u>32N</u> Range <u>12W</u> NMPM County <u>San Juan</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6350' GL	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐
CLOSED-LOOP SYSTEM ☐
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐
OTHER: ☒ RECORD CLEANUP

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Through file review it has been determined that a gyro survey was never ran to determine the correct BHL. Attached please find the Gyro Survey ran on 6/5/2019. Please update records to reflect this well as a **directional** with the following BHL: **UL J Sec. 35, T32N, R12W, 1647' FSL & 1439' FEL**

NMOCD

JUN 07 2019

DISTRICT III

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Amanda Walker

TITLE Operations/Regulatory Technician – Sr. DATE 6/6/19

Type or print name Amanda Walker E-mail address: mwalker@hilcorp.com PHONE: (505)324-5122

For State Use Only

APPROVED BY:

[Signature]

TITLE Data Comp. Manager DATE 6-11-19

Conditions of Approval (if any):

11



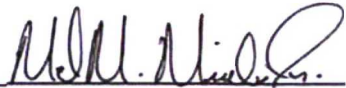
**Scientific
Drilling**

Gyro Survey Certification

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

HilCorp	Operator
Moore #1E	Well Name & No.
San Juan County, NM	County & State
OP.019016	SDI Job No.
30-045-25695	API No.

I, Mel Mireles Jr., having personal knowledge of all the facts, hereby certify that the attached Gyro survey run from a measured depth of 94.96 feet to a measured depth of 7511.34 feet is true and correct as determined from all available records.


Signature

05-Jun-19
Date

Mel Mireles Jr.

Grand Junction Assistant Well Planner
Scientific Drilling - Colorado District



Hilcorp Energy Corp.

San Juan, NM NAD27

Moore

Moore #1E

OH

Survey: Survey #1 - Gyro Survey

Standard Survey Report

05 June, 2019



Scientific Drilling

www.scientificdrilling.com





Scientific Drilling, Intl Survey Report

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Moore #1E
Project:	San Juan, NM NAD27	TVD Reference:	GL 6350' & RKB 12' @ 6362.00usft
Site:	Moore	MD Reference:	GL 6350' & RKB 12' @ 6362.00usft
Well:	Moore #1E	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Grand Junction District

Project	San Juan, NM NAD27		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		

Site	Moore, Site Center: Moore #1 E				
Site Position:		Northing:	2,161,191.28 usft	Latitude:	36.9391365
From:	Lat/Long	Easting:	433,450.14 usft	Longitude:	-108.0610504
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	-0.14 °

Well	Moore #1E, 1620' FSL 1555' FEL Sec 35 T32N R12W					
Well Position	+N/-S	0.00 usft	Northing:	2,161,191.28 usft	Latitude:	36.9391365
	+E/-W	0.00 usft	Easting:	433,450.14 usft	Longitude:	-108.0610504
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,350.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	6/3/2019	8.95	63.37	49,798

Design	OH				
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	76.963	

Survey Program	Date 6/5/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
94.96	7,511.34	Survey #1 - Gyro Survey (OH)	Standard Keeper 103	Standard Wireline Keeper ver 1.0.3

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	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
94.96	0.01	259.800	94.96	0.00	-0.01	-0.01	0.01	0.01	0.00
First SDI Gyro Survey									
100.00	0.04	198.010	100.00	0.00	-0.01	-0.01	0.72	0.60	-1,225.99
125.00	0.16	212.260	125.00	-0.04	-0.03	-0.04	0.49	0.48	57.00
150.00	0.24	233.250	150.00	-0.10	-0.09	-0.11	0.43	0.32	83.96
175.00	0.30	240.890	175.00	-0.17	-0.19	-0.22	0.28	0.24	30.56
200.00	0.31	229.140	200.00	-0.24	-0.30	-0.35	0.25	0.04	-47.00
225.00	0.41	209.130	225.00	-0.36	-0.39	-0.47	0.64	0.40	-80.04
250.00	0.47	201.980	250.00	-0.54	-0.48	-0.58	0.32	0.24	-28.60
275.00	0.45	200.190	275.00	-0.72	-0.55	-0.70	0.10	-0.08	-7.16



Scientific Drilling, Intl

Survey Report

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Moore #1E
Project:	San Juan, NM NAD27	TVD Reference:	GL 6350' & RKB 12' @ 6362.00usft
Site:	Moore	MD Reference:	GL 6350' & RKB 12' @ 6362.00usft
Well:	Moore #1E	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)
300.00	0.38	219.260	300.00	-0.88	-0.63	-0.82	0.62	-0.28	76.28
325.00	0.55	217.010	325.00	-1.04	-0.76	-0.97	0.68	0.68	-9.00
350.00	0.59	214.200	349.99	-1.24	-0.90	-1.16	0.20	0.16	-11.24
375.00	0.58	218.270	374.99	-1.45	-1.05	-1.35	0.17	-0.04	16.28
400.00	0.54	221.050	399.99	-1.64	-1.21	-1.55	0.19	-0.16	11.12
425.00	0.48	210.550	424.99	-1.82	-1.34	-1.72	0.44	-0.24	-42.00
450.00	0.55	203.530	449.99	-2.02	-1.44	-1.86	0.38	0.28	-28.08
475.00	0.59	209.390	474.99	-2.24	-1.55	-2.02	0.28	0.16	23.44
500.00	0.60	216.800	499.99	-2.45	-1.69	-2.20	0.31	0.04	29.64
525.00	0.57	211.380	524.99	-2.67	-1.84	-2.39	0.25	-0.12	-21.68
550.00	0.51	205.130	549.98	-2.87	-1.95	-2.55	0.34	-0.24	-25.00
575.00	0.51	189.700	574.98	-3.08	-2.02	-2.66	0.55	0.00	-61.72
600.00	0.71	184.240	599.98	-3.35	-2.05	-2.75	0.83	0.80	-21.84
625.00	0.78	196.360	624.98	-3.67	-2.10	-2.88	0.69	0.28	48.48
650.00	0.74	201.410	649.98	-3.98	-2.21	-3.05	0.31	-0.16	20.20
675.00	0.70	195.620	674.98	-4.28	-2.31	-3.22	0.33	-0.16	-23.16
700.00	0.78	193.450	699.97	-4.59	-2.39	-3.37	0.34	0.32	-8.68
725.00	0.93	199.700	724.97	-4.95	-2.50	-3.55	0.71	0.60	25.00
750.00	0.90	209.000	749.97	-5.31	-2.66	-3.79	0.61	-0.12	37.20
775.00	0.80	209.740	774.97	-5.63	-2.85	-4.04	0.40	-0.40	2.96
800.00	0.69	209.990	799.96	-5.91	-3.01	-4.26	0.44	-0.44	1.00
825.00	0.69	223.430	824.96	-6.15	-3.19	-4.49	0.65	0.00	53.76
850.00	0.71	229.110	849.96	-6.36	-3.41	-4.75	0.29	0.08	22.72
875.00	0.70	241.410	874.96	-6.54	-3.66	-5.04	0.61	-0.04	49.20
900.00	0.78	241.000	899.96	-6.69	-3.94	-5.35	0.32	0.32	-1.64
925.00	0.93	239.920	924.95	-6.88	-4.27	-5.71	0.60	0.60	-4.32
950.00	0.91	248.730	949.95	-7.05	-4.63	-6.10	0.57	-0.08	35.24
975.00	0.78	257.920	974.95	-7.16	-4.98	-6.46	0.75	-0.52	36.76
1,000.00	0.79	249.280	999.94	-7.26	-5.30	-6.80	0.47	0.04	-34.56
1,025.00	0.86	246.000	1,024.94	-7.39	-5.64	-7.16	0.34	0.28	-13.12
1,050.00	0.90	254.090	1,049.94	-7.52	-6.00	-7.54	0.52	0.16	32.36
1,075.00	0.93	255.960	1,074.94	-7.63	-6.38	-7.94	0.17	0.12	7.48
1,100.00	0.73	266.650	1,099.93	-7.68	-6.74	-8.30	1.01	-0.80	42.76
1,125.00	0.60	271.250	1,124.93	-7.69	-7.03	-8.58	0.56	-0.52	18.40
1,150.00	0.61	270.370	1,149.93	-7.69	-7.29	-8.84	0.05	0.04	-3.52
1,175.00	0.70	280.540	1,174.93	-7.66	-7.58	-9.11	0.59	0.36	40.68
1,200.00	0.76	282.130	1,199.93	-7.60	-7.89	-9.40	0.25	0.24	6.36
1,225.00	0.73	280.880	1,224.92	-7.53	-8.21	-9.69	0.14	-0.12	-5.00
1,250.00	0.72	291.840	1,249.92	-7.44	-8.51	-9.97	0.56	-0.04	43.84
1,275.00	0.67	287.750	1,274.92	-7.34	-8.79	-10.22	0.28	-0.20	-16.36
1,300.00	0.62	281.280	1,299.92	-7.27	-9.07	-10.47	0.35	-0.20	-25.88
1,325.00	0.71	284.670	1,324.92	-7.20	-9.35	-10.73	0.39	0.36	13.56
1,350.00	0.77	285.060	1,349.92	-7.12	-9.66	-11.02	0.24	0.24	1.56



Scientific Drilling, Intl

Survey Report

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Moore #1E
Project:	San Juan, NM NAD27	TVD Reference:	GL 6350' & RKB 12' @ 6362.00usft
Site:	Moore	MD Reference:	GL 6350' & RKB 12' @ 6362.00usft
Well:	Moore #1E	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)
1,375.00	0.79	285.930	1,374.91	-7.03	-9.99	-11.32	0.09	0.08	3.48
1,400.00	0.82	287.750	1,399.91	-6.93	-10.32	-11.62	0.16	0.12	7.28
1,425.00	0.77	285.890	1,424.91	-6.83	-10.66	-11.92	0.23	-0.20	-7.44
1,450.00	0.75	282.450	1,449.91	-6.75	-10.98	-12.22	0.20	-0.08	-13.76
1,475.00	0.75	287.780	1,474.90	-6.66	-11.29	-12.50	0.28	0.00	21.32
1,500.00	0.74	290.820	1,499.90	-6.55	-11.60	-12.78	0.16	-0.04	12.16
1,525.00	0.72	288.140	1,524.90	-6.45	-11.90	-13.05	0.16	-0.08	-10.72
1,550.00	0.80	295.880	1,549.90	-6.32	-12.21	-13.32	0.52	0.32	30.96
1,575.00	0.85	297.500	1,574.89	-6.16	-12.53	-13.59	0.22	0.20	6.48
1,600.00	0.82	295.460	1,599.89	-6.00	-12.85	-13.88	0.17	-0.12	-8.16
1,625.00	0.79	293.030	1,624.89	-5.85	-13.17	-14.15	0.18	-0.12	-9.72
1,650.00	0.79	289.350	1,649.89	-5.73	-13.50	-14.44	0.20	0.00	-14.72
1,675.00	0.80	286.940	1,674.88	-5.62	-13.82	-14.74	0.14	0.04	-9.64
1,700.00	0.78	285.560	1,699.88	-5.52	-14.16	-15.04	0.11	-0.08	-5.52
1,725.00	0.82	276.090	1,724.88	-5.46	-14.50	-15.36	0.55	0.16	-37.88
1,750.00	0.87	269.850	1,749.88	-5.44	-14.87	-15.71	0.42	0.20	-24.96
1,775.00	0.83	265.110	1,774.87	-5.46	-15.24	-16.07	0.32	-0.16	-18.96
1,800.00	0.79	268.940	1,799.87	-5.48	-15.59	-16.42	0.27	-0.16	15.32
1,825.00	0.82	272.740	1,824.87	-5.47	-15.94	-16.76	0.24	0.12	15.20
1,850.00	0.85	272.160	1,849.87	-5.45	-16.30	-17.11	0.12	0.12	-2.32
1,875.00	0.86	268.650	1,874.86	-5.45	-16.68	-17.48	0.21	0.04	-14.04
1,900.00	0.84	267.410	1,899.86	-5.46	-17.05	-17.84	0.11	-0.08	-4.96
1,925.00	0.81	270.190	1,924.86	-5.47	-17.41	-18.19	0.20	-0.12	11.12
1,950.00	0.82	272.150	1,949.86	-5.46	-17.76	-18.54	0.12	0.04	7.84
1,975.00	0.80	274.580	1,974.85	-5.44	-18.11	-18.88	0.16	-0.08	9.72
2,000.00	0.71	267.100	1,999.85	-5.44	-18.44	-19.19	0.53	-0.36	-29.92
2,025.00	0.74	268.350	2,024.85	-5.45	-18.76	-19.51	0.14	0.12	5.00
2,050.00	0.78	265.330	2,049.85	-5.47	-19.09	-19.83	0.23	0.16	-12.08
2,075.00	0.78	266.110	2,074.85	-5.49	-19.43	-20.17	0.04	0.00	3.12
2,100.00	0.80	267.810	2,099.84	-5.51	-19.77	-20.51	0.12	0.08	6.80
2,125.00	0.73	262.670	2,124.84	-5.54	-20.11	-20.84	0.39	-0.28	-20.56
2,150.00	0.78	264.430	2,149.84	-5.58	-20.43	-21.16	0.22	0.20	7.04
2,175.00	0.79	267.330	2,174.84	-5.60	-20.77	-21.50	0.16	0.04	11.60
2,200.00	0.74	265.600	2,199.83	-5.62	-21.11	-21.83	0.22	-0.20	-6.92
2,225.00	0.68	271.000	2,224.83	-5.63	-21.42	-22.14	0.36	-0.24	21.60
2,250.00	0.61	279.490	2,249.83	-5.61	-21.70	-22.40	0.47	-0.28	33.96
2,275.00	0.55	285.150	2,274.83	-5.55	-21.94	-22.63	0.33	-0.24	22.64
2,300.00	0.59	291.300	2,299.83	-5.48	-22.18	-22.84	0.29	0.16	24.60
2,325.00	0.65	292.770	2,324.83	-5.37	-22.43	-23.06	0.25	0.24	5.88
2,350.00	0.64	301.130	2,349.82	-5.25	-22.68	-23.28	0.38	-0.04	33.44
2,375.00	0.64	307.320	2,374.82	-5.09	-22.91	-23.47	0.28	0.00	24.76
2,400.00	0.64	305.100	2,399.82	-4.92	-23.14	-23.65	0.10	0.00	-8.88
2,425.00	0.58	304.030	2,424.82	-4.77	-23.36	-23.83	0.24	-0.24	-4.28



Scientific Drilling, Intl Survey Report

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Moore #1E
Project:	San Juan, NM NAD27	TVD Reference:	GL 6350' & RKB 12' @ 6362.00usft
Site:	Moore	MD Reference:	GL 6350' & RKB 12' @ 6362.00usft
Well:	Moore #1E	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)
2,450.00	0.55	305.870	2,449.82	-4.63	-23.56	-24.00	0.14	-0.12	7.36
2,475.00	0.51	299.550	2,474.82	-4.51	-23.75	-24.16	0.28	-0.16	-25.28
2,500.00	0.47	294.920	2,499.82	-4.41	-23.94	-24.32	0.23	-0.16	-18.52
2,525.00	0.47	283.170	2,524.82	-4.34	-24.13	-24.49	0.38	0.00	-47.00
2,550.00	0.57	279.530	2,549.82	-4.30	-24.36	-24.70	0.42	0.40	-14.56
2,575.00	0.68	290.090	2,574.81	-4.23	-24.62	-24.94	0.64	0.44	42.24
2,600.00	0.83	287.710	2,599.81	-4.12	-24.93	-25.22	0.61	0.60	-9.52
2,625.00	0.92	285.120	2,624.81	-4.01	-25.30	-25.55	0.39	0.36	-10.36
2,650.00	0.93	289.230	2,649.81	-3.89	-25.68	-25.90	0.27	0.04	16.44
2,675.00	1.03	292.960	2,674.80	-3.74	-26.08	-26.25	0.47	0.40	14.92
2,700.00	1.05	295.680	2,699.80	-3.55	-26.49	-26.61	0.21	0.08	10.88
2,725.00	1.03	292.830	2,724.79	-3.37	-26.91	-26.97	0.22	-0.08	-11.40
2,750.00	0.96	279.710	2,749.79	-3.24	-27.32	-27.35	0.95	-0.28	-52.48
2,775.00	0.90	282.320	2,774.79	-3.17	-27.72	-27.72	0.29	-0.24	10.44
2,800.00	0.89	276.950	2,799.78	-3.10	-28.10	-28.08	0.34	-0.04	-21.48
2,825.00	0.95	266.950	2,824.78	-3.09	-28.50	-28.47	0.68	0.24	-40.00
2,850.00	0.93	277.290	2,849.78	-3.07	-28.91	-28.86	0.68	-0.08	41.36
2,875.00	0.93	293.020	2,874.77	-2.97	-29.30	-29.21	1.02	0.00	62.92
2,900.00	0.93	290.530	2,899.77	-2.82	-29.68	-29.55	0.16	0.00	-9.96
2,925.00	0.92	289.220	2,924.77	-2.68	-30.06	-29.89	0.09	-0.04	-5.24
2,950.00	0.91	293.780	2,949.76	-2.54	-30.43	-30.21	0.29	-0.04	18.24
2,975.00	0.82	298.560	2,974.76	-2.37	-30.77	-30.51	0.46	-0.36	19.12
3,000.00	0.70	304.160	2,999.76	-2.20	-31.05	-30.75	0.56	-0.48	22.40
3,025.00	0.67	294.740	3,024.76	-2.05	-31.31	-30.96	0.47	-0.12	-37.68
3,050.00	0.79	295.480	3,049.76	-1.92	-31.60	-31.21	0.48	0.48	2.96
3,075.00	0.90	301.720	3,074.75	-1.74	-31.92	-31.49	0.57	0.44	24.96
3,100.00	0.88	307.170	3,099.75	-1.52	-32.24	-31.75	0.35	-0.08	21.80
3,125.00	0.86	302.810	3,124.75	-1.30	-32.55	-32.00	0.28	-0.08	-17.44
3,150.00	0.86	307.620	3,149.74	-1.09	-32.86	-32.25	0.29	0.00	19.24
3,175.00	0.86	317.420	3,174.74	-0.83	-33.13	-32.47	0.59	0.00	39.20
3,200.00	0.79	322.890	3,199.74	-0.56	-33.36	-32.63	0.42	-0.28	21.88
3,225.00	0.71	324.660	3,224.74	-0.29	-33.56	-32.76	0.33	-0.32	7.08
3,250.00	0.62	329.740	3,249.73	-0.05	-33.71	-32.86	0.43	-0.36	20.32
3,275.00	0.59	334.740	3,274.73	0.18	-33.84	-32.92	0.24	-0.12	20.00
3,300.00	0.60	338.550	3,299.73	0.42	-33.94	-32.97	0.16	0.04	15.24
3,325.00	0.59	331.920	3,324.73	0.66	-34.05	-33.02	0.28	-0.04	-26.52
3,350.00	0.56	322.400	3,349.73	0.87	-34.18	-33.11	0.40	-0.12	-38.08
3,375.00	0.53	328.940	3,374.73	1.06	-34.32	-33.19	0.28	-0.12	26.16
3,400.00	0.58	335.790	3,399.73	1.28	-34.43	-33.25	0.33	0.20	27.40
3,425.00	0.46	333.940	3,424.73	1.48	-34.53	-33.30	0.48	-0.48	-7.40
3,450.00	0.33	322.730	3,449.73	1.63	-34.61	-33.35	0.60	-0.52	-44.84
3,475.00	0.50	329.830	3,474.72	1.78	-34.71	-33.42	0.71	0.68	28.40
3,500.00	0.56	335.680	3,499.72	1.99	-34.82	-33.47	0.32	0.24	23.40
3,525.00	0.47	336.520	3,524.72	2.19	-34.91	-33.51	0.36	-0.36	3.36



Scientific Drilling, Intl Survey Report

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Moore #1E
Project:	San Juan, NM NAD27	TVD Reference:	GL 6350' & RKB 12' @ 6362.00usft
Site:	Moore	MD Reference:	GL 6350' & RKB 12' @ 6362.00usft
Well:	Moore #1E	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)
3,550.00	0.37	336.560	3,549.72	2.36	-34.98	-33.55	0.40	-0.40	0.16
3,575.00	0.52	326.850	3,574.72	2.53	-35.07	-33.60	0.67	0.60	-38.84
3,600.00	0.50	338.070	3,599.72	2.73	-35.18	-33.66	0.41	-0.08	44.88
3,625.00	0.39	344.930	3,624.72	2.91	-35.24	-33.68	0.49	-0.44	27.44
3,650.00	0.30	340.580	3,649.72	3.05	-35.28	-33.69	0.37	-0.36	-17.40
3,675.00	0.29	336.820	3,674.72	3.17	-35.33	-33.70	0.09	-0.04	-15.04
3,700.00	0.42	344.590	3,699.72	3.32	-35.38	-33.72	0.55	0.52	31.08
3,725.00	0.51	350.140	3,724.72	3.52	-35.42	-33.72	0.40	0.36	22.20
3,750.00	0.40	357.080	3,749.72	3.71	-35.45	-33.70	0.49	-0.44	27.76
3,775.00	0.34	351.850	3,774.72	3.87	-35.46	-33.67	0.28	-0.24	-20.92
3,800.00	0.40	342.790	3,799.72	4.03	-35.50	-33.67	0.33	0.24	-36.24
3,825.00	0.33	350.040	3,824.71	4.19	-35.54	-33.68	0.33	-0.28	29.00
3,850.00	0.18	8.430	3,849.71	4.30	-35.54	-33.66	0.68	-0.60	73.56
3,875.00	0.14	341.900	3,874.71	4.36	-35.55	-33.65	0.33	-0.16	-106.12
3,900.00	0.22	345.680	3,899.71	4.44	-35.57	-33.65	0.32	0.32	15.12
3,925.00	0.19	4.920	3,924.71	4.53	-35.58	-33.64	0.30	-0.12	76.96
3,950.00	0.13	54.340	3,949.71	4.58	-35.55	-33.60	0.58	-0.24	197.68
3,975.00	0.03	232.970	3,974.71	4.60	-35.53	-33.58	0.64	-0.40	714.52
4,000.00	0.14	290.660	3,999.71	4.60	-35.57	-33.61	0.51	0.44	230.76
4,025.00	0.12	312.050	4,024.71	4.63	-35.61	-33.65	0.21	-0.08	85.56
4,050.00	0.08	251.830	4,049.71	4.64	-35.65	-33.68	0.42	-0.16	-240.88
4,075.00	0.30	252.980	4,074.71	4.62	-35.73	-33.77	0.88	0.88	4.60
4,100.00	0.34	255.060	4,099.71	4.58	-35.86	-33.91	0.17	0.16	8.32
4,125.00	0.19	252.490	4,124.71	4.55	-35.98	-34.02	0.60	-0.60	-10.28
4,150.00	0.14	232.040	4,149.71	4.52	-36.04	-34.09	0.31	-0.20	-81.80
4,175.00	0.19	248.990	4,174.71	4.48	-36.10	-34.16	0.28	0.20	67.80
4,200.00	0.26	280.310	4,199.71	4.48	-36.20	-34.25	0.56	0.28	125.28
4,225.00	0.22	269.110	4,224.71	4.49	-36.30	-34.35	0.25	-0.16	-44.80
4,250.00	0.23	234.120	4,249.71	4.46	-36.39	-34.44	0.54	0.04	-139.96
4,275.00	0.24	227.270	4,274.71	4.39	-36.47	-34.54	0.12	0.04	-27.40
4,300.00	0.02	268.640	4,299.71	4.36	-36.51	-34.59	0.90	-0.88	165.48
4,325.00	0.00	127.840	4,324.71	4.36	-36.51	-34.59	0.08	-0.08	0.00
4,350.00	0.16	233.520	4,349.71	4.34	-36.54	-34.62	0.64	0.64	0.00
4,375.00	0.15	263.500	4,374.71	4.31	-36.60	-34.69	0.32	-0.04	119.92
4,400.00	0.18	246.270	4,399.71	4.29	-36.67	-34.76	0.23	0.12	-68.92
4,425.00	0.24	220.900	4,424.71	4.24	-36.74	-34.84	0.44	0.24	-101.48
4,450.00	0.31	219.690	4,449.71	4.15	-36.82	-34.93	0.28	0.28	-4.84
4,475.00	0.33	233.580	4,474.71	4.05	-36.92	-35.05	0.32	0.08	55.56
4,500.00	0.33	217.620	4,499.71	3.95	-37.02	-35.18	0.37	0.00	-63.84
4,525.00	0.46	185.410	4,524.71	3.80	-37.08	-35.26	1.01	0.52	-128.84
4,550.00	0.57	171.530	4,549.71	3.57	-37.07	-35.31	0.66	0.44	-55.52
4,575.00	0.72	178.150	4,574.71	3.29	-37.04	-35.35	0.67	0.60	26.48
4,600.00	0.77	188.810	4,599.71	2.97	-37.06	-35.44	0.59	0.20	42.64



Scientific Drilling, Intl

Survey Report

Company: Hilcorp Energy Corp.
Project: San Juan, NM NAD27
Site: Moore
Well: Moore #1E
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well Moore #1E
TVD Reference: GL 6350' & RKB 12' @ 6362.00usft
MD Reference: GL 6350' & RKB 12' @ 6362.00usft
North Reference: True
Survey Calculation Method: Minimum Curvature
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)
4,625.00	0.66	194.040	4,624.70	2.66	-37.12	-35.57	0.51	-0.44	20.92
4,650.00	0.59	189.480	4,649.70	2.40	-37.18	-35.68	0.34	-0.28	-18.24
4,675.00	0.57	192.230	4,674.70	2.15	-37.23	-35.78	0.14	-0.08	11.00
4,700.00	0.49	202.700	4,699.70	1.93	-37.30	-35.90	0.50	-0.32	41.88
4,725.00	0.50	218.790	4,724.70	1.75	-37.41	-36.05	0.56	0.04	64.36
4,750.00	0.62	228.040	4,749.70	1.57	-37.57	-36.25	0.60	0.48	37.00
4,775.00	0.68	239.520	4,774.70	1.40	-37.80	-36.51	0.57	0.24	45.92
4,800.00	0.71	248.080	4,799.69	1.27	-38.07	-36.81	0.43	0.12	34.24
4,825.00	0.74	244.630	4,824.69	1.14	-38.36	-37.12	0.21	0.12	-13.80
4,850.00	0.84	238.600	4,849.69	0.98	-38.67	-37.45	0.52	0.40	-24.12
4,875.00	0.87	232.830	4,874.69	0.77	-38.97	-37.80	0.36	0.12	-23.08
4,900.00	0.73	231.650	4,899.68	0.56	-39.25	-38.11	0.56	-0.56	-4.72
4,925.00	0.77	225.290	4,924.68	0.34	-39.49	-38.40	0.37	0.16	-25.44
4,950.00	0.82	220.080	4,949.68	0.08	-39.73	-38.69	0.35	0.20	-20.84
4,975.00	0.83	214.330	4,974.68	-0.20	-39.95	-38.96	0.33	0.04	-23.00
5,000.00	0.93	210.620	4,999.67	-0.53	-40.15	-39.24	0.46	0.40	-14.84
5,025.00	0.85	210.190	5,024.67	-0.86	-40.35	-39.50	0.32	-0.32	-1.72
5,050.00	0.86	207.700	5,049.67	-1.19	-40.53	-39.75	0.15	0.04	-9.96
5,075.00	0.87	209.810	5,074.67	-1.52	-40.71	-40.00	0.13	0.04	8.44
5,100.00	0.14	99.620	5,099.66	-1.69	-40.77	-40.10	3.71	-2.92	-440.76
5,125.00	1.63	47.470	5,124.66	-1.45	-40.48	-39.77	6.19	5.96	-208.60
5,150.00	2.29	42.560	5,149.65	-0.85	-39.88	-39.05	2.72	2.64	-19.64
5,175.00	2.30	36.000	5,174.63	-0.07	-39.25	-38.25	1.05	0.04	-26.24
5,200.00	2.37	33.350	5,199.61	0.77	-38.67	-37.50	0.51	0.28	-10.60
5,225.00	2.40	30.610	5,224.58	1.65	-38.12	-36.77	0.47	0.12	-10.96
5,250.00	2.55	29.510	5,249.56	2.58	-37.58	-36.03	0.63	0.60	-4.40
5,275.00	2.45	34.480	5,274.54	3.51	-37.00	-35.26	0.95	-0.40	19.88
5,300.00	2.41	40.960	5,299.51	4.34	-36.36	-34.44	1.11	-0.16	25.92
5,325.00	2.33	45.190	5,324.49	5.10	-35.65	-33.58	0.77	-0.32	16.92
5,350.00	2.24	47.190	5,349.47	5.79	-34.93	-32.73	0.48	-0.36	8.00
5,375.00	2.12	47.170	5,374.46	6.44	-34.23	-31.90	0.48	-0.48	-0.08
5,400.00	2.05	45.450	5,399.44	7.06	-33.58	-31.12	0.38	-0.28	-6.88
5,425.00	1.93	43.250	5,424.42	7.68	-32.97	-30.39	0.57	-0.48	-8.80
5,450.00	1.72	41.790	5,449.41	8.27	-32.43	-29.73	0.86	-0.84	-5.84
5,475.00	1.48	39.430	5,474.40	8.80	-31.98	-29.17	1.00	-0.96	-9.44
5,500.00	1.34	36.110	5,499.39	9.29	-31.60	-28.69	0.65	-0.56	-13.28
5,525.00	1.20	37.170	5,524.39	9.73	-31.27	-28.27	0.57	-0.56	4.24
5,550.00	1.16	38.180	5,549.38	10.14	-30.95	-27.87	0.18	-0.16	4.04
5,575.00	1.22	37.780	5,574.38	10.55	-30.63	-27.47	0.24	0.24	-1.60
5,600.00	1.17	37.110	5,599.37	10.96	-30.32	-27.06	0.21	-0.20	-2.68
5,625.00	1.11	35.590	5,624.37	11.36	-30.02	-26.69	0.27	-0.24	-6.08
5,650.00	1.19	35.060	5,649.36	11.77	-29.73	-26.31	0.32	0.32	-2.12
5,675.00	1.24	34.580	5,674.36	12.21	-29.43	-25.92	0.20	0.20	-1.92



Scientific Drilling, Intl Survey Report

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Moore #1E
Project:	San Juan, NM NAD27	TVD Reference:	GL 6350' & RKB 12' @ 6362.00usft
Site:	Moore	MD Reference:	GL 6350' & RKB 12' @ 6362.00usft
Well:	Moore #1E	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)
5,700.00	1.39	37.290	5,699.35	12.67	-29.09	-25.48	0.65	0.60	10.84
5,725.00	1.53	40.070	5,724.34	13.17	-28.69	-24.98	0.63	0.56	11.12
5,750.00	1.57	40.050	5,749.33	13.68	-28.26	-24.44	0.16	0.16	-0.08
5,775.00	1.62	39.640	5,774.32	14.22	-27.81	-23.89	0.21	0.20	-1.64
5,800.00	1.67	37.780	5,799.31	14.78	-27.36	-23.33	0.29	0.20	-7.44
5,825.00	1.70	37.960	5,824.30	15.36	-26.91	-22.75	0.12	0.12	0.72
5,850.00	1.83	38.280	5,849.29	15.96	-26.44	-22.16	0.52	0.52	1.28
5,875.00	2.01	38.270	5,874.28	16.62	-25.92	-21.50	0.72	0.72	-0.04
5,900.00	2.15	40.180	5,899.26	17.32	-25.34	-20.78	0.62	0.56	7.64
5,925.00	2.14	43.070	5,924.24	18.02	-24.72	-20.02	0.43	-0.04	11.56
5,950.00	2.17	46.030	5,949.22	18.69	-24.06	-19.23	0.46	0.12	11.84
5,975.00	2.29	47.160	5,974.20	19.36	-23.36	-18.39	0.51	0.48	4.52
6,000.00	2.30	48.460	5,999.18	20.03	-22.62	-17.51	0.21	0.04	5.20
6,025.00	2.33	50.350	6,024.16	20.69	-21.85	-16.62	0.33	0.12	7.56
6,050.00	2.40	51.720	6,049.14	21.34	-21.05	-15.69	0.36	0.28	5.48
6,075.00	2.57	52.910	6,074.12	22.00	-20.19	-14.71	0.71	0.68	4.76
6,100.00	2.97	53.020	6,099.09	22.73	-19.22	-13.60	1.60	1.60	0.44
6,125.00	3.52	53.440	6,124.05	23.58	-18.09	-12.31	2.20	2.20	1.68
6,150.00	3.99	54.860	6,149.00	24.53	-16.76	-10.80	1.92	1.88	5.68
6,175.00	4.32	56.310	6,173.93	25.56	-15.27	-9.11	1.39	1.32	5.80
6,200.00	4.63	56.640	6,198.85	26.63	-13.64	-7.28	1.24	1.24	1.32
6,225.00	4.76	57.820	6,223.77	27.74	-11.92	-5.36	0.65	0.52	4.72
6,250.00	4.86	59.800	6,248.68	28.83	-10.13	-3.36	0.78	0.40	7.92
6,275.00	4.96	61.300	6,273.59	29.88	-8.26	-1.31	0.65	0.40	6.00
6,300.00	5.09	63.310	6,298.49	30.90	-6.33	0.81	0.88	0.52	8.04
6,325.00	5.22	65.690	6,323.39	31.86	-4.30	3.00	1.00	0.52	9.52
6,350.00	5.29	68.340	6,348.29	32.76	-2.19	5.25	1.01	0.28	10.60
6,375.00	5.37	70.410	6,373.18	33.57	-0.02	7.56	0.83	0.32	8.28
6,400.00	5.50	71.430	6,398.07	34.35	2.22	9.91	0.65	0.52	4.08
6,425.00	5.72	72.340	6,422.95	35.11	4.54	12.34	0.95	0.88	3.64
6,450.00	5.95	74.490	6,447.82	35.83	6.98	14.88	1.27	0.92	8.60
6,475.00	6.10	75.470	6,472.68	36.51	9.51	17.50	0.73	0.60	3.92
6,500.00	6.15	75.910	6,497.54	37.17	12.10	20.17	0.27	0.20	1.76
6,525.00	6.25	77.050	6,522.39	37.80	14.72	22.87	0.63	0.40	4.56
6,550.00	6.33	77.970	6,547.24	38.39	17.40	25.61	0.51	0.32	3.68
6,575.00	6.39	78.940	6,572.09	38.95	20.11	28.38	0.49	0.24	3.88
6,600.00	6.52	80.660	6,596.93	39.44	22.88	31.18	0.93	0.52	6.88
6,625.00	6.61	82.780	6,621.76	39.86	25.70	34.03	1.03	0.36	8.48
6,650.00	6.63	84.200	6,646.60	40.18	28.57	36.90	0.66	0.08	5.68
6,675.00	6.65	85.540	6,671.43	40.44	31.45	39.76	0.62	0.08	5.36
6,700.00	6.58	86.310	6,696.26	40.65	34.32	42.60	0.45	-0.28	3.08
6,725.00	6.52	86.330	6,721.10	40.83	37.16	45.42	0.24	-0.24	0.08
6,750.00	6.50	86.810	6,745.94	41.00	39.99	48.21	0.23	-0.08	1.92
6,775.00	6.47	86.800	6,770.78	41.16	42.81	50.99	0.12	-0.12	-0.04



Scientific Drilling, Intl Survey Report

Company: Hilcorp Energy Corp.
Project: San Juan, NM NAD27
Site: Moore
Well: Moore #1E
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well Moore #1E
TVD Reference: GL 6350' & RKB 12' @ 6362.00usft
MD Reference: GL 6350' & RKB 12' @ 6362.00usft
North Reference: True
Survey Calculation Method: Minimum Curvature
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)
6,800.00	6.50	86.530	6,795.62	41.32	45.63	53.78	0.17	0.12	-1.08
6,825.00	6.56	86.090	6,820.46	41.50	48.47	56.58	0.31	0.24	-1.76
6,850.00	6.63	86.530	6,845.29	41.69	51.33	59.42	0.35	0.28	1.76
6,875.00	6.63	87.440	6,870.12	41.84	54.22	62.26	0.42	0.00	3.64
6,900.00	6.55	88.270	6,894.96	41.95	57.08	65.07	0.50	-0.32	3.32
6,925.00	6.55	89.830	6,919.80	41.99	59.94	67.86	0.71	0.00	6.24
6,950.00	6.47	91.680	6,944.64	41.96	62.77	70.62	0.90	-0.32	7.40
6,975.00	6.35	92.640	6,969.48	41.85	65.56	73.31	0.64	-0.48	3.84
7,000.00	6.42	94.770	6,994.32	41.67	68.33	75.97	0.99	0.28	8.52
7,025.00	6.34	97.200	7,019.17	41.38	71.09	78.60	1.13	-0.32	9.72
7,050.00	6.20	100.260	7,044.02	40.97	73.79	81.13	1.45	-0.56	12.24
7,075.00	6.20	101.540	7,068.87	40.46	76.44	83.60	0.55	0.00	5.12
7,100.00	6.14	102.560	7,093.73	39.90	79.07	86.03	0.50	-0.24	4.08
7,125.00	6.19	104.020	7,118.58	39.28	81.68	88.44	0.66	0.20	5.84
7,150.00	6.01	105.190	7,143.44	38.61	84.25	90.79	0.88	-0.72	4.68
7,175.00	5.97	106.410	7,168.31	37.90	86.76	93.08	0.53	-0.16	4.88
7,200.00	6.01	107.440	7,193.17	37.14	89.26	95.34	0.46	0.16	4.12
7,225.00	5.98	107.950	7,218.03	36.35	91.75	97.58	0.24	-0.12	2.04
7,250.00	5.67	108.800	7,242.90	35.55	94.16	99.75	1.29	-1.24	3.40
7,275.00	5.46	109.110	7,267.79	34.76	96.45	101.80	0.85	-0.84	1.24
7,300.00	5.34	110.210	7,292.68	33.97	98.66	103.78	0.63	-0.48	4.40
7,325.00	5.29	110.130	7,317.57	33.17	100.84	105.72	0.20	-0.20	-0.32
7,350.00	5.15	111.110	7,342.46	32.37	102.97	107.61	0.66	-0.56	3.92
7,375.00	5.00	113.150	7,367.37	31.54	105.02	109.42	0.94	-0.60	8.16
7,400.00	5.01	113.560	7,392.27	30.67	107.02	111.18	0.15	0.04	1.64
7,425.00	4.95	113.300	7,417.18	29.81	109.01	112.92	0.26	-0.24	-1.04
7,450.00	4.91	111.790	7,442.08	28.99	110.99	114.67	0.54	-0.16	-6.04
7,475.00	5.01	113.220	7,466.99	28.16	112.99	116.43	0.64	0.40	5.72
7,500.00	5.12	114.690	7,491.89	27.26	115.01	118.19	0.68	0.44	5.88
7,511.34	5.17	114.040	7,503.19	26.84	115.93	119.00	0.68	0.44	-5.73

Last SDI Gyro Survey

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
94.96	94.96	0.00	-0.01	First SDI Gyro Survey
7,511.34	7,503.19	26.84	115.93	Last SDI Gyro Survey

Checked By: _____ Approved By: _____ Date: _____