

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-8161 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, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, NM 87505

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

AS DRILLED PLAT

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35611	² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL LATERAL#1
⁴ Property Code 318864	⁵ Property Name ALLISON UNIT	⁶ Well Number 123H
⁷ OGRID No. 372171	⁸ Operator Name HILCORP ENERGY COMPANY	⁹ Elevation 6629'

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	9	32-N	7-W	10	1591	SOUTH	776	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
E	11	32-N	7-W	4	677	NORTH	663	WEST	SAN JUAN

¹² Dedicated Acres FC = 652.7 ACRES	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. NSP 2108
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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

16

239.19 214.5 199.01



SURFACE
LATITUDE: 36°59.6845' N
LONGITUDE: 107°33.9043' W
NAD27

LATITUDE: 36.994746° N
LONGITUDE: 107.565681° W
NAD83

FIRST TAKE
1902' FSL 299' FWL SEC. 10
LATITUDE: 36.995266 N
LONGITUDE: 107.561277 W
NAD27

LATITUDE: 36.995271 N
LONGITUDE: 107.561886 W
NAD83

LAST TAKE
677' FNL 663' FWL SEC. 11
LATITUDE: 36.998259 N
LONGITUDE: 107.5417448 W
NAD27

LATITUDE: 36.998264 N
LONGITUDE: 107.542353 W
NAD83

BASIS OF BEARING:

BETWEEN FOUND MONUMENTS AT THE SOUTHEAST CORNER AND THE SOUTH
QUARTER CORNER OF SECTION 9, TOWNSHIP 32 NORTH, RANGE 7 WEST,
N.M.P.M. SAN JUAN COUNTY, NEW MEXICO.

LINE BEARS: N 89°55'54" W A DISTANCE OF 2676.60 FEET AS MEASURED BY
G.P.S. LOCAL GRID NAD83.

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
a working interest, or to a voluntary pooling agreement
or a compulsory pooling order heretofore entered by the
division.

Signature *Priscilla Shorty* Date *7/13/18*
Printed Name
pshorty@hilcorp.com
E-mail Address

18 SURVEYOR CERTIFICATION

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

See original C-102 for
certification

NMOCD

JUL 14 2018

DISTRICT III

AV

27

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AS DRILLED PLAT

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35611	² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL LATERAL#2
⁴ Property Code	⁵ Property Name ALLISON UNIT	⁶ Well Number 123H
⁷ OGRID No. 372171	⁸ Operator Name HILCORP ENERGY COMPANY	⁹ Elevation 6629'

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	9	32-N	7-W	10	1591	SOUTH	776	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

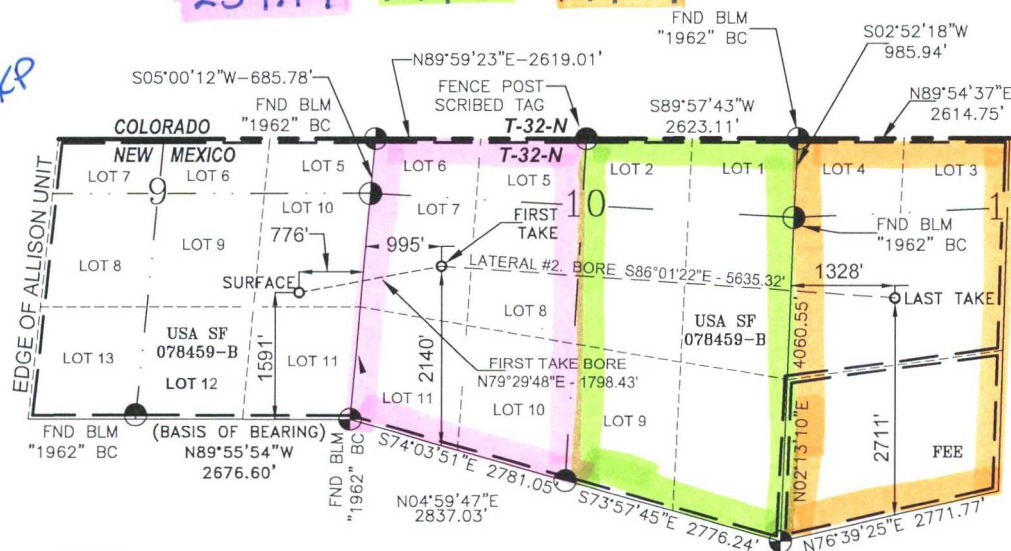
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	11	32-N	7-W		2711'	SOUTH	1328'	WEST	SAN JUAN

¹² Dedicated Acres FC = 652.7 ACRES	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. ASP 2108
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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

16

239.19 214.5 199.01



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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Priscilla Shorty 7/13/18
Signature _____ Date _____
Printed Name _____
pshorty@hilcorp.com
E-mail Address _____

¹⁸ SURVEYOR CERTIFICATION

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

See original C-102 for
certification

NMOC

JUL 14 2018

DISTRICT III

SURFACE
LATITUDE: 36°59.6845' N
LONGITUDE: 107°33.9043' W
NAD27

LATITUDE: 36.994746° N
LONGITUDE: 107.565681° W
NAD83

FIRST TAKE
2140' FSL 995' FWL SEC. 10
LATITUDE: 36.9953620 N
LONGITUDE: 107.5589156 W
NAD27

LATITUDE: 36.995366 N
LONGITUDE: 107.559524 W
NAD83

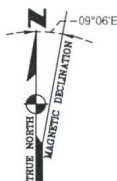
LAST TAKE
2711' FSL 1328' FWL SEC. 11
LATITUDE: 36.9946083 N
LONGITUDE: 107.5396563 W
NAD27

LATITUDE: 36.994613 N
LONGITUDE: 107.540264 W
NAD83

BASIS OF BEARING:

BETWEEN FOUND MONUMENTS AT THE SOUTHEAST CORNER AND THE SOUTH QUARTER CORNER OF SECTION 9, TOWNSHIP 32 NORTH, RANGE 7 WEST, N.M.P.M. SAN JUAN COUNTY, NEW MEXICO.

LINE BEARS: N 89°55'54" W A DISTANCE OF 2676.60 FEET AS MEASURED BY G.P.S. LOCAL GRID NAD83.



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Phone: (505) 478-3480 Fax: (505) 478-3482

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35611	² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL LATERAL#1
⁴ Property Code 313977	⁵ Property Name ALLISON UNIT HZFC	⁶ Well Number 123H
⁷ GRID No. 372171	⁸ Operator Name HILCORP ENERGY COMPANY	⁹ Elevation 6629'

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
1	9	32-N	7-W	10	1591	SOUTH	776	EAST	SAN JUAN

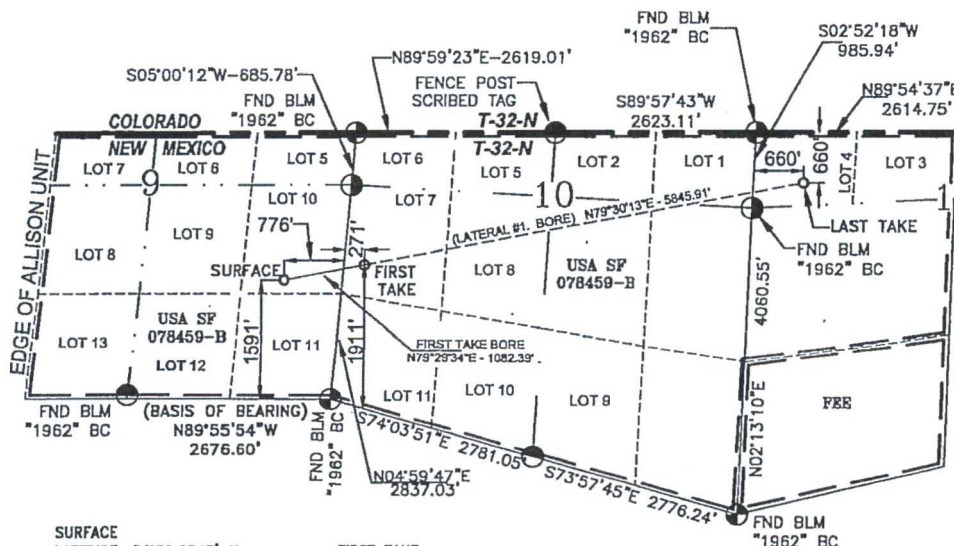
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	11	32-N	7-W	4	660	NORTH	660	WEST	SAN JUAN

¹² Dedicated Acres FC = 972.64 ACRES	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

18



SURFACE
LATITUDE: 36°59.6845' N
LONGITUDE: 107°33.9043' W
NAD27

LATITUDE: 36.994746° N
LONGITUDE: 107.565681° W
NAD83

FIRST TAKE
1911' FSL 271' FWL SEC. 10
LATITUDE: 36°59.7171' N
LONGITUDE: 107°33.6857' W
NAD27

LATITUDE: 36.995289° N
LONGITUDE: 107.562038° W
NAD83

LAST TAKE
660' FNL 660' FWL SEC. 11
LATITUDE: 36°59.8927' N
LONGITUDE: 107°32.5053' W
NAD27

LATITUDE: 36.998216° N
LONGITUDE: 107.542363° W
NAD83

BASIS OF BEARING:

BETWEEN FOUND MONUMENTS AT THE SOUTHEAST CORNER AND THE SOUTH QUARTER CORNER OF SECTION 9, TOWNSHIP 32 NORTH, RANGE 7 WEST, N.M.P.M. SAN JUAN COUNTY, NEW MEXICO.

LINE BEARS: N 89°55'54\" W A DISTANCE OF 2676.60 FEET AS MEASURED BY G.P.S. LOCAL GRID NAD83.



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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Priscilla Shorty 2/15/18
Signature Date
Priscilla Shorty
Printed Name
pshorty@hilcorp.com
E-mail Address

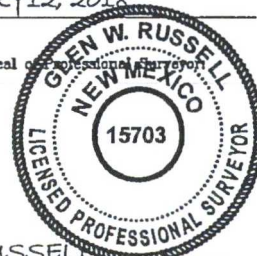
18 SURVEYOR CERTIFICATION

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

FEBRUARY 12, 2018

Date of Survey

Signature and Seal of Professional Surveyor



GLEN W. RUSSELL
Certificate Number

15703

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

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-8720

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35611		² Pool Code 71629	³ Pool Name BASIN FRUITLAND COAL LATERAL#2
⁴ Property Code 313977	⁵ Property Name ALLISON UNIT HZFC		⁶ Well Number 123H
⁷ OGRID No. 372171	⁸ Operator Name HILCORP ENERGY COMPANY		⁹ Elevation 6629'

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
1	9	32-N	7-W	10	1591	SOUTH	776	EAST	SAN JUAN

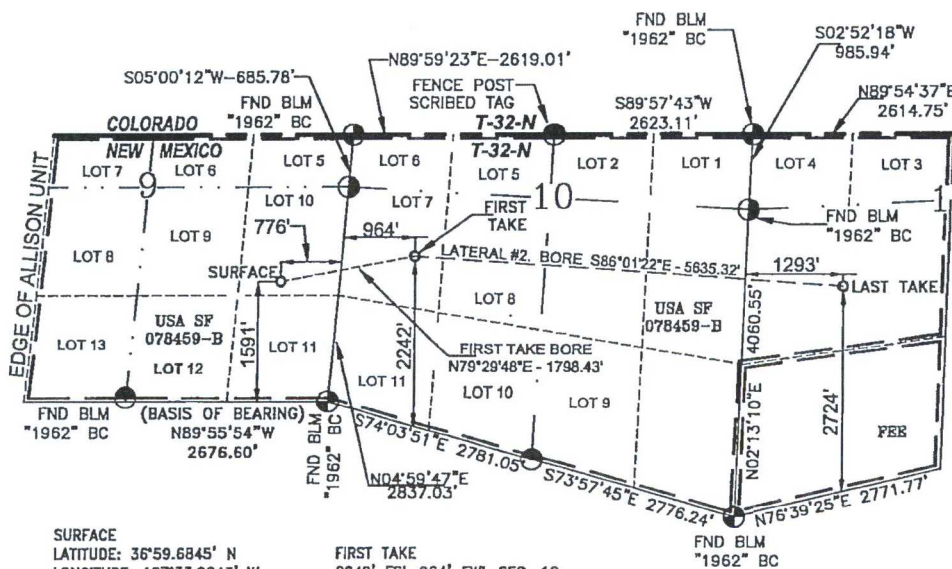
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	11	32-N	7-W		2724	SOUTH	1293	WEST	SAN JUAN

¹³ Dedicated Acres FC = 972.64 ACRES	¹⁵ Joint or Infill	¹⁴ Consolidation Code	¹⁶ Order No.
--	-------------------------------	----------------------------------	-------------------------

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16



SURFACE
LATITUDE: 36°59.6845' N
LONGITUDE: 107°33.9043' W
NAD27

LATITUDE: 36.994746° N
LONGITUDE: 107.565681° W
NAD83

FIRST TAKE
2242' FSL 964' FWL SEC. 10
LATITUDE: 36°59.7386' N
LONGITUDE: 107°33.5412' W
NAD27

LATITUDE: 36.995647° N
LONGITUDE: 107.569628° W
NAD83

FND BLM
"1962" BC
LAST TAKE
2724' FSL 1293' FWL SEC. 11
LATITUDE: 36°59.6744' N
LONGITUDE: 107°32.3866' W
NAD27

LATITUDE: 36.994577° N
LONGITUDE: 107.540385° W
NAD83



BASIS OF BEARING:

BETWEEN FOUND MONUMENTS AT THE SOUTHEAST CORNER AND THE SOUTH
QUARTER CORNER OF SECTION 9, TOWNSHIP 32 NORTH, RANGE 7 WEST,
N.M.P.M. SAN JUAN COUNTY, NEW MEXICO.

LINE BEARS: N 89°55'54" W A DISTANCE OF 2676.60 FEET AS MEASURED BY
G.P.S. LOCAL GRID NAD83.

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 unless 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 a working interest or a working interest or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Priscilla Shorty Date 2/15/18
 Printed Name Priscilla Shorty
 E-mail Address pshorty@hilcorp.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.

FEBRUARY 13, 2018

Date of Survey

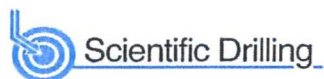
Signature and Seal of Professional Member



GLEN W. RUSSELL

Certificate Number

15703

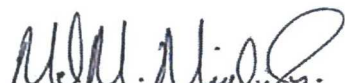


Directional Survey Certification

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

Operator	HilCorp Energy
Well Name & No.	Allison Unit HZFC 123H Lateral 1
County & State	San Juan, NM
SDI Job No.	OP.010503
Rig	Aztec 777

I, Mel Mireles Jr., having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 3664 feet to a measured depth of 9,647 feet is true and correct as determined from all available records.


Signature

11-Jun-18

Date

Mel Mireles Jr.

Grand Junction Assistant Well Planner
Scientific Drilling - Colorado District

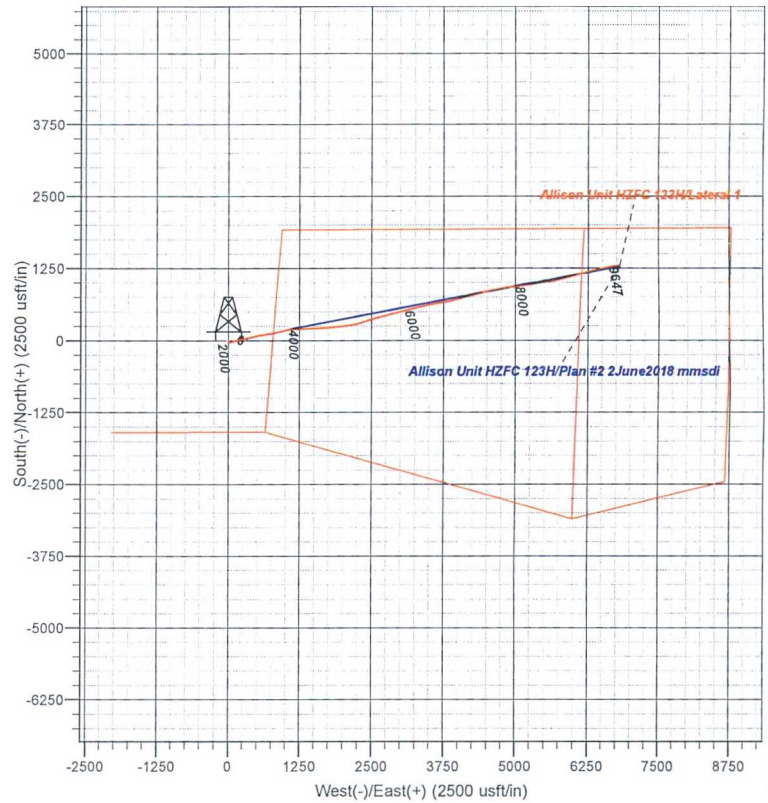
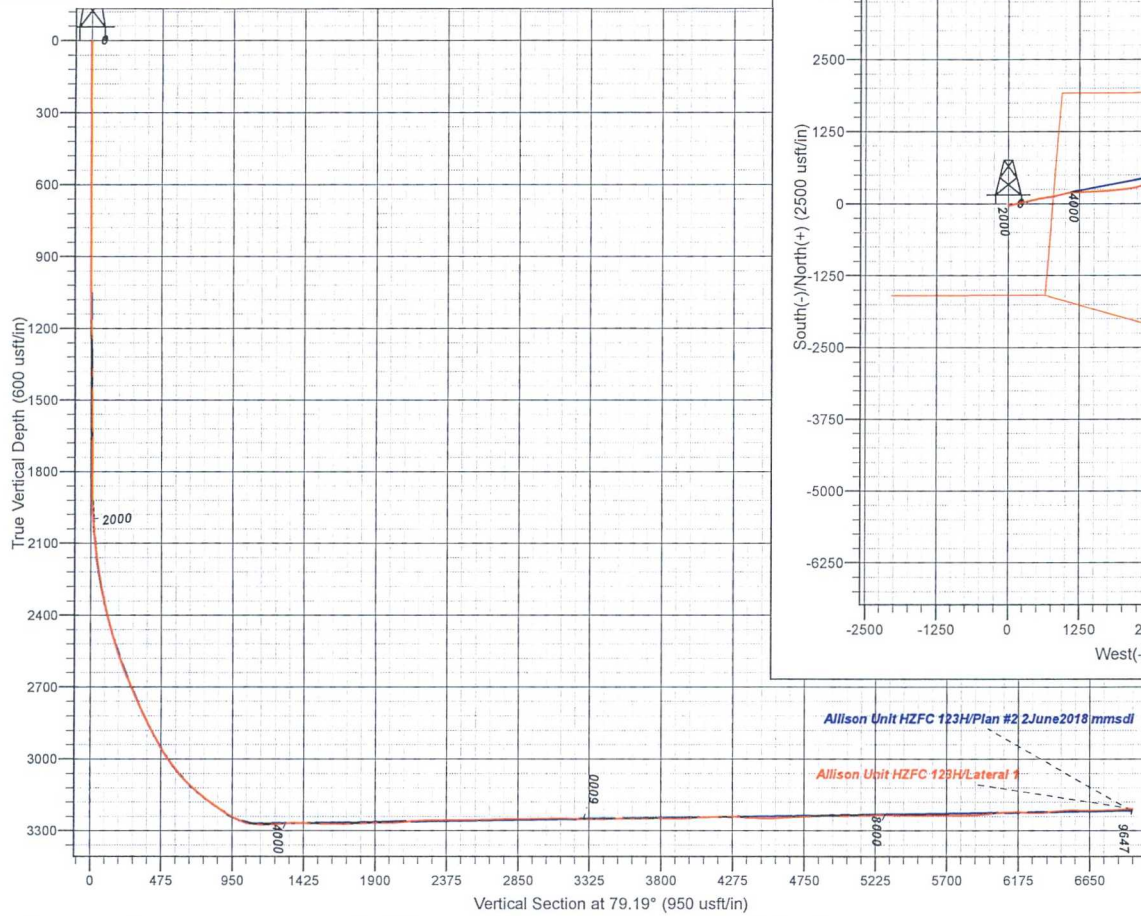


Company Name: Hilcorp Energy Corp.
Project: San Juan, NM NAD27
Site: Allison Unit HZFC 123H
Well: Allison Unit HZFC 123H
Wellbore: Lateral 1



WELL DETAILS: Allison Unit HZFC 123H

+N/-S	+E/-W	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777) 6629.00	Northings	Eastings	Latitude	Longitude
0.00	0.00		2181465.68	578341.97	36.9947417	-107.5650717



Design: Lateral 1 (Allison Unit HZFC 123H/Lateral 1)

Created By: Mel Mireles Jr./Date: 11:31, June 12 2018

PROJECT DETAILS: San Juan, NM NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico West 3003

System Datum: Mean Sea Level
Local North: Grid



Scientific Drilling, Intl

Survey Report - Geographic

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Allison Unit HZFC 123H
Project:	San Juan, NM NAD27	TVD Reference:	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
Site:	Allison Unit HZFC 123H	MD Reference:	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
Well:	Allison Unit HZFC 123H	North Reference:	Grid
Wellbore:	Lateral 1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1	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	Allison Unit HZFC 123H		
Site Position:	Map	Northing:	2,181,465.68 usft
From:		Easting:	578,341.97 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	36.9947416
		Longitude:	-107.5650717
		Grid Convergence:	0.16 °

Well	Allison Unit HZFC 123H		
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:	36.9947416
		Longitude:	-107.5650717
		Ground Level:	6,629.00 usft

Wellbore	Lateral 1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	HDGM	5/23/2018	9.03
			Dip Angle
			(°)
			63.53
			Field Strength
			(nT)
			49,958

Design	Lateral 1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	3,593.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			79.19

Survey Program	Date 6/11/2018		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
570.00	3,593.00	Survey #1 - MWD Survey (Pilot)	MWD+HDGM
3,664.00	9,647.00	Survey #1 - Lateral 1 MWD Survey (Lateral)	MWD+HDGM
			Description
			OWSG MWD + HDGM
			OWSG MWD + HDGM

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map	Latitude	Longitude
Depth	(°)	(°)	Depth	(usft)	(usft)	Northing	Easting		
(usft)			(usft)			(usft)	(usft)		
0.00	0.00	0.00	0.00	0.00	0.00	2,181,465.68	578,341.97	36.9947416	-107.5650717
570.00	5.66	167.70	569.07	-27.49	5.99	2,181,438.19	578,347.97	36.9946661	-107.5650514
601.00	5.99	166.52	599.91	-30.55	6.70	2,181,435.13	578,348.67	36.9946577	-107.5650491
662.00	4.67	163.33	660.65	-36.03	8.15	2,181,429.65	578,350.12	36.9946426	-107.5650441
725.00	3.51	175.56	723.49	-40.41	9.03	2,181,425.27	578,351.01	36.9946306	-107.5650412
788.00	1.47	187.41	786.43	-43.13	9.08	2,181,422.55	578,351.05	36.9946231	-107.5650410
851.00	0.10	76.46	849.42	-43.92	9.03	2,181,421.76	578,351.00	36.9946209	-107.5650412
914.00	0.57	23.88	912.42	-43.62	9.21	2,181,422.06	578,351.18	36.9946217	-107.5650406
977.00	0.89	34.57	975.41	-42.93	9.61	2,181,422.75	578,351.59	36.9946236	-107.5650392
1,039.00	0.83	46.86	1,037.41	-42.23	10.21	2,181,423.45	578,352.19	36.9946256	-107.5650371
1,102.00	0.81	54.58	1,100.40	-41.66	10.91	2,181,424.02	578,352.88	36.9946271	-107.5650347



Scientific Drilling, Intl

Survey Report - Geographic

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Allison Unit HZFC 123H
Project:	San Juan, NM NAD27	TVD Reference:	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
Site:	Allison Unit HZFC 123H	MD Reference:	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
Well:	Allison Unit HZFC 123H	North Reference:	Grid
Wellbore:	Lateral 1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1	Database:	Grand Junction District

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,165.00	1.11	53.82	1,163.39	-41.04	11.77	2,181,424.64	578,353.74	36.9946288	-107.5650318
1,228.00	1.35	53.43	1,226.38	-40.24	12.85	2,181,425.44	578,354.83	36.9946310	-107.5650281
1,290.00	1.40	45.04	1,288.36	-39.27	13.98	2,181,426.41	578,355.95	36.9946337	-107.5650242
1,353.00	1.37	40.94	1,351.34	-38.15	15.02	2,181,427.53	578,356.99	36.9946367	-107.5650207
1,416.00	1.38	36.09	1,414.32	-36.97	15.96	2,181,428.71	578,357.93	36.9946400	-107.5650174
1,479.00	0.95	11.34	1,477.31	-35.85	16.51	2,181,429.83	578,358.48	36.9946430	-107.5650155
1,542.00	1.24	359.69	1,540.30	-34.65	16.60	2,181,431.03	578,358.58	36.9946463	-107.5650152
1,605.00	1.25	358.10	1,603.28	-33.28	16.58	2,181,432.40	578,358.55	36.9946501	-107.5650153
1,667.00	1.69	351.74	1,665.26	-31.70	16.42	2,181,433.98	578,358.40	36.9946544	-107.5650158
1,729.00	1.90	345.47	1,727.23	-29.80	16.03	2,181,435.88	578,358.01	36.9946596	-107.5650171
1,790.00	1.41	335.02	1,788.21	-28.14	15.46	2,181,437.54	578,357.44	36.9946642	-107.5650190
1,851.00	0.41	77.08	1,849.20	-27.41	15.36	2,181,438.26	578,357.33	36.9946662	-107.5650194
1,913.00	1.91	96.51	1,911.19	-27.48	16.60	2,181,438.20	578,358.58	36.9946660	-107.5650151
1,974.00	3.83	85.04	1,972.11	-27.42	19.64	2,181,438.26	578,361.62	36.9946662	-107.5650047
2,035.00	6.28	82.40	2,032.86	-26.80	24.98	2,181,438.88	578,366.95	36.9946678	-107.5649864
2,096.00	9.06	79.54	2,093.31	-25.49	33.01	2,181,440.19	578,374.98	36.9946714	-107.5649589
2,158.00	11.47	79.79	2,154.32	-23.51	43.88	2,181,442.17	578,385.85	36.9946767	-107.5649217
2,219.00	13.92	81.54	2,213.82	-21.36	57.11	2,181,444.32	578,399.08	36.9946825	-107.5648764
2,280.00	16.69	79.09	2,272.65	-18.62	72.97	2,181,447.06	578,414.94	36.9946899	-107.5648220
2,342.00	18.74	76.63	2,331.71	-14.63	91.40	2,181,451.05	578,433.38	36.9947007	-107.5647589
2,403.00	20.97	76.20	2,389.08	-9.76	111.54	2,181,455.92	578,453.51	36.9947140	-107.5646899
2,464.00	23.51	77.84	2,445.54	-4.59	134.04	2,181,461.09	578,476.01	36.9947280	-107.5646128
2,526.00	26.13	77.58	2,501.81	0.95	159.47	2,181,466.63	578,501.44	36.9947430	-107.5645257
2,587.00	28.59	77.05	2,555.98	7.11	186.81	2,181,472.79	578,528.78	36.9947597	-107.5644320
2,650.00	31.20	77.98	2,610.59	13.89	217.47	2,181,479.57	578,559.44	36.9947781	-107.5643269
2,713.00	32.91	77.92	2,663.98	20.87	250.17	2,181,486.55	578,592.14	36.9947970	-107.5642149
2,776.00	34.06	77.83	2,716.53	28.17	284.15	2,181,493.85	578,626.12	36.9948168	-107.5640984
2,839.00	35.97	76.58	2,768.12	36.18	319.39	2,181,501.86	578,661.37	36.9948385	-107.5639777
2,902.00	37.89	76.14	2,818.48	45.11	356.18	2,181,510.79	578,698.15	36.9948628	-107.5638516
2,965.00	39.62	76.86	2,867.61	54.31	394.52	2,181,519.99	578,736.50	36.9948878	-107.5637202
3,028.00	41.30	76.43	2,915.54	63.76	434.30	2,181,529.44	578,776.27	36.9949134	-107.5635840
3,090.00	43.22	77.54	2,961.43	73.14	474.92	2,181,538.82	578,816.89	36.9949389	-107.5634448
3,153.00	47.28	79.16	3,005.77	82.15	518.73	2,181,547.83	578,860.70	36.9949633	-107.5632947
3,216.00	51.95	80.95	3,046.58	90.41	565.99	2,181,556.09	578,907.96	36.9949856	-107.5631328
3,279.00	56.63	81.79	3,083.34	98.07	616.55	2,181,563.75	578,958.52	36.9950062	-107.5629596
3,342.00	59.10	81.74	3,116.85	105.72	669.34	2,181,571.39	579,011.32	36.9950268	-107.5627787
3,405.00	61.92	79.73	3,147.86	114.56	723.45	2,181,580.23	579,065.43	36.9950507	-107.5625933
3,467.00	65.66	78.05	3,175.24	125.28	778.02	2,181,590.96	579,119.99	36.9950797	-107.5624064
3,530.00	66.57	77.37	3,200.75	137.55	834.30	2,181,603.23	579,176.28	36.9951130	-107.5622135
3,593.00	66.62	76.29	3,225.78	150.72	890.60	2,181,616.40	579,232.57	36.9951487	-107.5620206
3,664.00	73.56	76.91	3,249.94	166.17	955.50	2,181,631.85	579,297.47	36.9951906	-107.5617983
3,695.00	76.54	77.83	3,257.94	172.72	984.72	2,181,638.40	579,326.70	36.9952084	-107.5616981
3,727.00	79.45	78.33	3,264.59	179.18	1,015.34	2,181,644.86	579,357.32	36.9952259	-107.5615932
3,758.00	82.92	79.50	3,269.34	185.07	1,045.40	2,181,650.75	579,387.37	36.9952418	-107.5614902
3,790.00	85.83	81.64	3,272.48	190.29	1,076.81	2,181,655.96	579,418.79	36.9952559	-107.5613826
3,821.00	88.49	83.95	3,274.02	194.17	1,107.53	2,181,659.85	579,449.50	36.9952663	-107.5612774
3,853.00	90.03	85.03	3,274.43	197.24	1,139.37	2,181,662.92	579,481.35	36.9952745	-107.5611683
3,884.00	90.94	86.30	3,274.17	199.58	1,170.28	2,181,665.26	579,512.26	36.9952807	-107.5610625
3,915.00	91.92	87.31	3,273.39	201.31	1,201.22	2,181,666.99	579,543.20	36.9952852	-107.5609565
3,947.00	92.55	88.55	3,272.15	202.47	1,233.18	2,181,668.14	579,575.15	36.9952881	-107.5608471
3,978.00	93.56	88.79	3,270.49	203.18	1,264.13	2,181,668.86	579,606.10	36.9952899	-107.5607411
4,010.00	91.98	88.81	3,268.95	203.85	1,296.08	2,181,669.53	579,638.05	36.9952915	-107.5606317
4,041.00	92.19	88.30	3,267.82	204.63	1,327.05	2,181,670.31	579,669.02	36.9952934	-107.5605256
4,072.00	90.13	87.08	3,267.19	205.88	1,358.02	2,181,671.56	579,699.99	36.9952965	-107.5604196
4,104.00	88.76	87.52	3,267.50	207.39	1,389.98	2,181,673.07	579,731.95	36.9953004	-107.5603101



Scientific Drilling, Intl

Survey Report - Geographic

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Allison Unit HZFC 123H
Project:	San Juan, NM NAD27	TVD Reference:	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
Site:	Allison Unit HZFC 123H	MD Reference:	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
Well:	Allison Unit HZFC 123H	North Reference:	Grid
Wellbore:	Lateral 1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,135.00	88.08	86.80	3,268.36	208.93	1,420.93	2,181,674.61	579,762.90	36.9953044	-107.5602041
4,167.00	88.69	86.34	3,269.26	210.84	1,452.86	2,181,676.52	579,794.83	36.9953094	-107.5600948
4,198.00	90.13	87.82	3,269.58	212.42	1,483.81	2,181,678.10	579,825.79	36.9953135	-107.5599887
4,261.00	89.23	85.55	3,269.93	216.06	1,546.70	2,181,681.74	579,888.68	36.9953230	-107.5597734
4,324.00	89.40	88.19	3,270.68	219.50	1,609.60	2,181,685.18	579,951.57	36.9953320	-107.5595579
4,387.00	88.82	86.87	3,271.66	222.22	1,672.53	2,181,687.89	580,014.50	36.9953389	-107.5593424
4,450.00	91.78	85.87	3,271.33	226.20	1,735.40	2,181,691.88	580,077.37	36.9953494	-107.5591271
4,512.00	92.88	85.32	3,268.81	230.96	1,797.16	2,181,696.64	580,139.13	36.9953620	-107.5589156
4,575.00	90.27	84.09	3,267.08	236.77	1,859.86	2,181,702.45	580,201.83	36.9953774	-107.5587008
4,638.00	89.30	83.61	3,267.32	243.52	1,922.50	2,181,709.20	580,264.47	36.9953955	-107.5584863
4,701.00	91.07	84.50	3,267.11	250.05	1,985.15	2,181,715.73	580,327.13	36.9954129	-107.5582717
4,764.00	92.48	85.29	3,265.16	255.65	2,047.87	2,181,721.33	580,389.85	36.9954278	-107.5580568
4,827.00	92.48	83.48	3,262.43	261.81	2,110.51	2,181,727.49	580,452.48	36.9954442	-107.5578423
4,889.00	92.78	80.59	3,259.59	270.39	2,171.84	2,181,736.07	580,513.81	36.9954673	-107.5576322
4,952.00	91.21	75.23	3,257.39	283.57	2,233.38	2,181,749.25	580,575.35	36.9955030	-107.5574213
5,015.00	90.94	72.34	3,256.21	301.16	2,293.86	2,181,766.84	580,635.83	36.9955508	-107.5572141
5,078.00	88.73	70.93	3,256.39	321.01	2,353.64	2,181,786.69	580,695.62	36.9956049	-107.5570092
5,141.00	90.97	70.39	3,256.56	341.87	2,413.08	2,181,807.55	580,755.06	36.9956617	-107.5568054
5,204.00	90.23	72.33	3,255.90	362.00	2,472.77	2,181,827.68	580,814.75	36.9957165	-107.5566008
5,267.00	89.46	73.57	3,256.07	380.48	2,533.00	2,181,846.15	580,874.97	36.9957668	-107.5563944
5,330.00	90.30	74.29	3,256.20	397.91	2,593.54	2,181,863.59	580,935.51	36.9958142	-107.5561869
5,393.00	91.58	75.23	3,255.17	414.47	2,654.31	2,181,880.15	580,996.29	36.9958592	-107.5559787
5,456.00	91.31	76.17	3,253.58	430.03	2,715.34	2,181,895.71	581,057.31	36.9959014	-107.5557695
5,518.00	89.93	76.29	3,252.91	444.78	2,775.55	2,181,910.46	581,117.53	36.9959415	-107.5555632
5,581.00	90.87	75.84	3,252.47	459.96	2,836.70	2,181,925.63	581,178.67	36.9959827	-107.5553537
5,644.00	90.97	76.36	3,251.46	475.09	2,897.84	2,181,940.77	581,239.82	36.9960237	-107.5551441
5,707.00	90.44	75.60	3,250.68	490.35	2,958.96	2,181,956.03	581,300.94	36.9960652	-107.5549347
5,770.00	90.20	76.09	3,250.33	505.75	3,020.05	2,181,971.43	581,362.02	36.9961070	-107.5547254
5,833.00	90.34	76.52	3,250.03	520.67	3,081.26	2,181,986.35	581,423.23	36.9961475	-107.5545156
5,895.00	89.26	76.09	3,250.25	535.35	3,141.49	2,182,001.03	581,483.47	36.9961873	-107.5543092
5,958.00	88.52	74.93	3,251.47	551.11	3,202.48	2,182,016.79	581,544.45	36.9962301	-107.5541002
6,021.00	89.46	76.07	3,252.58	566.88	3,263.46	2,182,032.56	581,605.43	36.9962729	-107.5538913
6,084.00	90.77	78.24	3,252.45	580.88	3,324.88	2,182,046.56	581,666.85	36.9963109	-107.5536808
6,147.00	92.11	79.11	3,250.87	593.25	3,386.63	2,182,058.93	581,728.60	36.9963444	-107.5534692
6,210.00	91.31	78.49	3,248.99	605.48	3,448.40	2,182,071.16	581,790.37	36.9963775	-107.5532576
6,273.00	89.77	78.72	3,248.40	617.93	3,510.15	2,182,083.61	581,852.13	36.9964112	-107.5530460
6,336.00	89.36	79.23	3,248.87	629.98	3,571.99	2,182,095.65	581,913.96	36.9964438	-107.5528341
6,398.00	90.54	79.21	3,248.93	641.57	3,632.89	2,182,107.25	581,974.87	36.9964751	-107.5526255
6,461.00	90.00	79.35	3,248.63	653.29	3,694.79	2,182,118.97	582,036.77	36.9965068	-107.5524134
6,524.00	90.07	80.31	3,248.59	664.41	3,756.80	2,182,130.09	582,098.78	36.9965369	-107.5522009
6,587.00	89.13	81.15	3,249.03	674.56	3,818.98	2,182,140.24	582,160.95	36.9965642	-107.5519879
6,648.00	90.67	79.16	3,249.14	684.99	3,879.07	2,182,150.67	582,221.05	36.9965924	-107.5517820
6,709.00	92.79	76.98	3,247.30	697.59	3,938.72	2,182,163.27	582,280.69	36.9966265	-107.5515777
6,771.00	91.85	74.45	3,244.79	712.88	3,998.75	2,182,178.56	582,340.72	36.9966680	-107.5513719
6,832.00	90.70	73.38	3,243.43	729.77	4,057.35	2,182,195.45	582,399.32	36.9967139	-107.5511711
6,893.00	91.95	74.37	3,242.02	746.71	4,115.93	2,182,212.39	582,457.90	36.9967600	-107.5509703
6,955.00	89.90	74.30	3,241.02	763.45	4,175.61	2,182,229.13	582,517.59	36.9968055	-107.5507658
7,016.00	87.48	73.99	3,242.41	780.11	4,234.27	2,182,245.79	582,576.25	36.9968508	-107.5505648
7,077.00	86.95	73.96	3,245.38	796.93	4,292.83	2,182,262.61	582,634.81	36.9968965	-107.5503641
7,139.00	88.05	75.21	3,248.08	813.39	4,352.54	2,182,279.07	582,694.52	36.9969412	-107.5501594
7,200.00	89.93	75.95	3,249.16	828.58	4,411.61	2,182,294.26	582,753.58	36.9969824	-107.5499570
7,261.00	91.58	76.45	3,248.35	843.13	4,470.84	2,182,308.81	582,812.82	36.9970219	-107.5497540
7,322.00	93.02	77.93	3,245.91	856.64	4,530.27	2,182,322.32	582,872.25	36.9970586	-107.5495504
7,384.00	90.74	77.06	3,243.87	870.06	4,590.77	2,182,335.74	582,932.74	36.9970949	-107.5493431
7,445.00	91.74	77.95	3,242.55	883.25	4,650.30	2,182,348.93	582,992.28	36.9971307	-107.5491391



Scientific Drilling, Intl

Survey Report - Geographic

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Allison Unit HZFC 123H
Project:	San Juan, NM NAD27	TVD Reference:	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
Site:	Allison Unit HZFC 123H	MD Reference:	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
Well:	Allison Unit HZFC 123H	North Reference:	Grid
Wellbore:	Lateral 1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
7,507.00	92.32	78.61	3,240.36	895.84	4,710.97	2,182,361.52	583,052.95	36.9971647	-107.5489312
7,568.00	89.36	81.02	3,239.46	906.62	4,770.99	2,182,372.30	583,112.97	36.9971939	-107.5487256
7,629.00	90.44	83.27	3,239.57	914.96	4,831.42	2,182,380.64	583,173.39	36.9972163	-107.5485186
7,690.00	91.27	83.57	3,238.66	921.95	4,892.01	2,182,387.63	583,233.98	36.9972350	-107.5483110
7,752.00	89.50	83.48	3,238.24	928.94	4,953.61	2,182,394.62	583,295.58	36.9972537	-107.5481000
7,813.00	90.44	83.43	3,238.27	935.89	5,014.21	2,182,401.57	583,356.18	36.9972723	-107.5478924
7,874.00	91.95	83.66	3,237.00	942.75	5,074.81	2,182,408.43	583,416.78	36.9972906	-107.5476848
7,936.00	90.37	82.08	3,235.75	950.44	5,136.31	2,182,416.12	583,478.29	36.9973112	-107.5474742
7,997.00	90.37	82.47	3,235.35	958.64	5,196.76	2,182,424.32	583,538.73	36.9973332	-107.5472671
8,058.00	89.36	81.03	3,235.50	967.39	5,257.12	2,182,433.07	583,599.10	36.9973568	-107.5470603
8,120.00	88.79	79.63	3,236.50	977.81	5,318.23	2,182,443.48	583,660.21	36.9973849	-107.5468509
8,181.00	89.73	81.49	3,237.28	987.81	5,378.40	2,182,453.49	583,720.37	36.9974119	-107.5466448
8,242.00	90.50	82.74	3,237.16	996.18	5,438.82	2,182,461.86	583,780.79	36.9974343	-107.5464378
8,304.00	90.17	80.59	3,236.80	1,005.16	5,500.16	2,182,470.84	583,842.13	36.9974585	-107.5462277
8,365.00	90.57	82.03	3,236.41	1,014.38	5,560.46	2,182,480.06	583,902.43	36.9974833	-107.5460211
8,426.00	89.36	78.06	3,236.44	1,024.92	5,620.53	2,182,490.60	583,962.50	36.9975118	-107.5458153
8,487.00	89.77	75.12	3,236.91	1,039.07	5,679.86	2,182,504.75	584,021.83	36.9975502	-107.5456120
8,549.00	90.67	75.66	3,236.67	1,054.71	5,739.85	2,182,520.38	584,081.82	36.9975926	-107.5454064
8,610.00	93.09	76.38	3,234.67	1,069.43	5,799.01	2,182,535.11	584,140.98	36.9976326	-107.5452037
8,672.00	93.69	76.58	3,231.00	1,083.90	5,859.18	2,182,549.58	584,201.15	36.9976718	-107.5449974
8,733.00	93.79	76.09	3,227.02	1,098.28	5,918.33	2,182,563.96	584,260.30	36.9977108	-107.5447948
8,794.00	90.74	74.99	3,224.61	1,113.50	5,977.34	2,182,579.18	584,319.31	36.9977521	-107.5445925
8,855.00	91.51	75.19	3,223.41	1,129.19	6,036.28	2,182,594.87	584,378.25	36.9977948	-107.5443905
8,917.00	87.78	73.58	3,223.80	1,145.88	6,095.97	2,182,611.56	584,437.95	36.9978401	-107.5441859
8,978.00	89.06	73.89	3,225.48	1,162.96	6,154.51	2,182,628.64	584,496.48	36.9978865	-107.5439853
9,039.00	91.78	75.46	3,225.03	1,179.08	6,213.33	2,182,644.76	584,555.30	36.9979303	-107.5437837
9,100.00	93.16	76.37	3,222.40	1,193.91	6,272.44	2,182,659.59	584,614.41	36.9979705	-107.5435812
9,162.00	93.83	76.62	3,218.62	1,208.36	6,332.61	2,182,674.04	584,674.59	36.9980097	-107.5433750
9,223.00	91.88	77.09	3,215.59	1,222.21	6,391.94	2,182,687.89	584,733.91	36.9980473	-107.5431717
9,284.00	88.32	77.65	3,215.48	1,235.55	6,451.45	2,182,701.23	584,793.43	36.9980834	-107.5429677
9,345.00	89.66	78.31	3,216.55	1,248.25	6,511.10	2,182,713.93	584,853.08	36.9981178	-107.5427633
9,406.00	90.74	80.10	3,216.34	1,259.67	6,571.02	2,182,725.35	584,912.99	36.9981487	-107.5425580
9,468.00	91.51	80.28	3,215.12	1,270.24	6,632.10	2,182,735.91	584,974.08	36.9981772	-107.5423488
9,529.00	91.91	79.91	3,213.30	1,280.72	6,692.17	2,182,746.40	585,034.14	36.9982055	-107.5421430
9,580.00	92.62	80.42	3,211.29	1,289.43	6,742.38	2,182,755.11	585,084.35	36.9982290	-107.5419709
9,647.00	92.62	80.42	3,208.23	1,300.57	6,808.37	2,182,766.25	585,150.35	36.9982590	-107.5417448

Checked By: _____ Approved By: _____ Date: _____



Directional Survey Certification

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

Operator	HilCorp Energy
Well Name & No.	Allison Unit HZFC 123H Lateral 1 ST1
County & State	San Juan, NM
SDI Job No.	OP.01503
Rig	Aztec 777

I, Mel Mireles Jr., having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 4514 feet to a measured depth of 10,150 feet is true and correct as determined from all available records.

A handwritten signature in black ink, appearing to read 'Mel Mireles Jr.', written over a horizontal line.

Signature

12-Jun-18

Date

Mel Mireles Jr.

Grand Junction Assistant Well Planner
Scientific Drilling - Colorado District

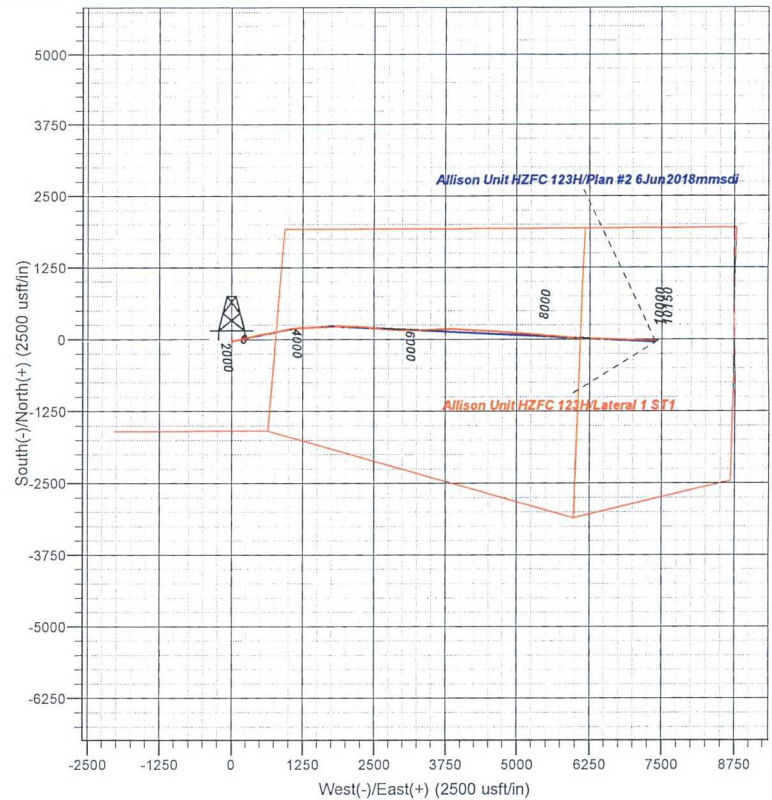
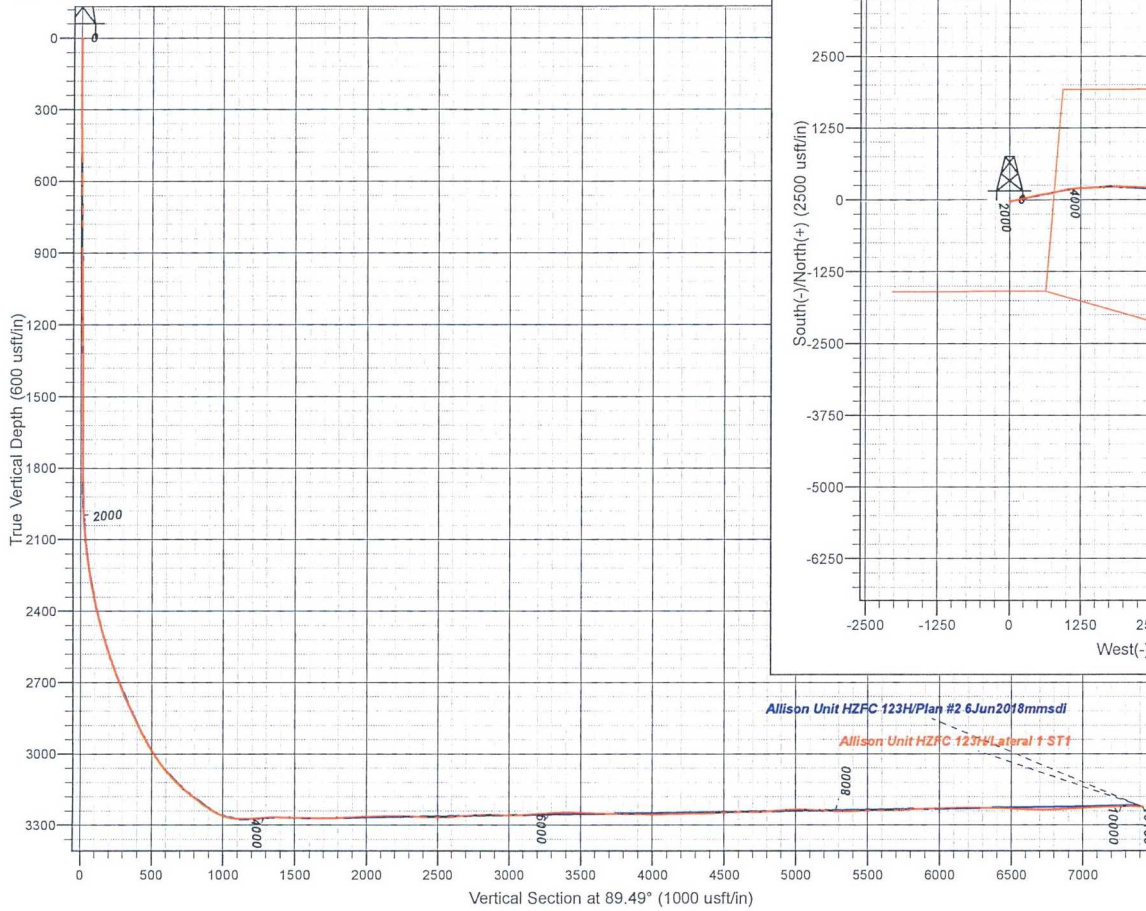


Company Name: Hilcorp Energy Corp.
Project: San Juan, NM NAD27
Site: Allison Unit HZFC 123H
Well: Allison Unit HZFC 123H
Wellbore: Lateral 1 ST1



WELL DETAILS: Allison Unit HZFC 123H

+N/-S	+E/-W	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777) 6629.00	Northings	Easting	Latitude	Longitude
0.00	0.00		2181465.68	578341.97	36.9947417	-107.5650717



Design: Lateral 1 ST1 (Allison Unit HZFC 123H/Lateral 1 ST1)

Created By: Mel Mireles Jr.Date: 12:16, June 12 2018

PROJECT DETAILS: San Juan, NM NAD27

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico West 3003

System Datum: Mean Sea Level
Local North: Grid



Scientific Drilling, Intl

Survey Report - Geographic

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Allison Unit HZFC 123H
Project:	San Juan, NM NAD27	TVD Reference:	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
Site:	Allison Unit HZFC 123H	MD Reference:	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
Well:	Allison Unit HZFC 123H	North Reference:	Grid
Wellbore:	Lateral 1 ST1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1 ST1	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		Allison Unit HZFC 123H			
Site Position:		Northing:	2,181,465.68 usft	Latitude:	36.9947416
From:	Map	Easting:	578,341.97 usft	Longitude:	-107.5650717
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	0.16 °

Well	Allison Unit HZFC 123H					
Well Position	+N/-S	0.00 usft	Northing:	2,181,465.68 usft	Latitude:	36.9947416
	+E/-W	0.00 usft	Easting:	578,341.97 usft	Longitude:	-107.5650717
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	6,629.00 usft

Wellbore	Lateral 1 ST1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	6/6/2018	9.02	63.53	49,953

Design	Lateral 1 ST1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	4,450.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	89.49	

Survey Program	Date 6/12/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
570.00	3,593.00	Survey #1 - MWD Survey (Pilot)	MWD+HDGM	OWSG MWD + HDGM
3,664.00	4,450.00	Survey #1 - Lateral 1 MWD Survey (Lateral 1 ST1)	MWD+HDGM	OWSG MWD + HDGM
4,514.00	10,150.00	Survey #1 - Lateral 1 ST1 MWD Survey (Lateral 1 ST1)	MWD+HDGM	OWSG MWD + HDGM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	2,181,465.68	578,341.97	36.9947416	-107.5650717
570.00	5.66	167.70	569.07	-27.49	5.99	2,181,438.19	578,347.97	36.9946661	-107.5650514
601.00	5.99	166.52	599.91	-30.55	6.70	2,181,435.13	578,348.67	36.9946577	-107.5650491
662.00	4.67	163.33	660.65	-36.03	8.15	2,181,429.65	578,350.12	36.9946426	-107.5650441
725.00	3.51	175.56	723.49	-40.41	9.03	2,181,425.27	578,351.01	36.9946306	-107.5650412
788.00	1.47	187.41	786.43	-43.13	9.08	2,181,422.55	578,351.05	36.9946231	-107.5650410
851.00	0.10	76.46	849.42	-43.92	9.03	2,181,421.76	578,351.00	36.9946209	-107.5650412
914.00	0.57	23.88	912.42	-43.62	9.21	2,181,422.06	578,351.18	36.9946217	-107.5650406
977.00	0.89	34.57	975.41	-42.93	9.61	2,181,422.75	578,351.59	36.9946236	-107.5650392
1,039.00	0.83	46.86	1,037.41	-42.23	10.21	2,181,423.45	578,352.19	36.9946256	-107.5650371



Scientific Drilling, Intl Survey Report - Geographic

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Allison Unit HZFC 123H
Project:	San Juan, NM NAD27	TVD Reference:	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
Site:	Allison Unit HZFC 123H	MD Reference:	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
Well:	Allison Unit HZFC 123H	North Reference:	Grid
Wellbore:	Lateral 1 ST1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1 ST1	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,102.00	0.81	54.58	1,100.40	-41.66	10.91	2,181,424.02	578,352.88	36.9946271	-107.5650347
1,165.00	1.11	53.82	1,163.39	-41.04	11.77	2,181,424.64	578,353.74	36.9946288	-107.5650318
1,228.00	1.35	53.43	1,226.38	-40.24	12.85	2,181,425.44	578,354.83	36.9946310	-107.5650281
1,290.00	1.40	45.04	1,288.36	-39.27	13.98	2,181,426.41	578,355.95	36.9946337	-107.5650242
1,353.00	1.37	40.94	1,351.34	-38.15	15.02	2,181,427.53	578,356.99	36.9946367	-107.5650207
1,416.00	1.38	36.09	1,414.32	-36.97	15.96	2,181,428.71	578,357.93	36.9946400	-107.5650174
1,479.00	0.95	11.34	1,477.31	-35.85	16.51	2,181,429.83	578,358.48	36.9946430	-107.5650155
1,542.00	1.24	359.69	1,540.30	-34.65	16.60	2,181,431.03	578,358.58	36.9946463	-107.5650152
1,605.00	1.25	358.10	1,603.28	-33.28	16.58	2,181,432.40	578,358.55	36.9946501	-107.5650153
1,667.00	1.69	351.74	1,665.26	-31.70	16.42	2,181,433.98	578,358.40	36.9946544	-107.5650158
1,729.00	1.90	345.47	1,727.23	-29.80	16.03	2,181,435.88	578,358.01	36.9946596	-107.5650171
1,790.00	1.41	335.02	1,788.21	-28.14	15.46	2,181,437.54	578,357.44	36.9946642	-107.5650190
1,851.00	0.41	77.08	1,849.20	-27.41	15.36	2,181,438.26	578,357.33	36.9946662	-107.5650194
1,913.00	1.91	96.51	1,911.19	-27.48	16.60	2,181,438.20	578,358.58	36.9946660	-107.5650151
1,974.00	3.83	85.04	1,972.11	-27.42	19.64	2,181,438.26	578,361.62	36.9946662	-107.5650047
2,035.00	6.28	82.40	2,032.86	-26.80	24.98	2,181,438.88	578,366.95	36.9946678	-107.5649864
2,096.00	9.06	79.54	2,093.31	-25.49	33.01	2,181,440.19	578,374.98	36.9946714	-107.5649589
2,158.00	11.47	79.79	2,154.32	-23.51	43.88	2,181,442.17	578,385.85	36.9946767	-107.5649217
2,219.00	13.92	81.54	2,213.82	-21.36	57.11	2,181,444.32	578,399.08	36.9946825	-107.5648764
2,280.00	16.69	79.09	2,272.65	-18.62	72.97	2,181,447.06	578,414.94	36.9946899	-107.5648220
2,342.00	18.74	76.63	2,331.71	-14.63	91.40	2,181,451.05	578,433.38	36.9947007	-107.5647589
2,403.00	20.97	76.20	2,389.08	-9.76	111.54	2,181,455.92	578,453.51	36.9947140	-107.5646899
2,464.00	23.51	77.84	2,445.54	-4.59	134.04	2,181,461.09	578,476.01	36.9947280	-107.5646128
2,526.00	26.13	77.58	2,501.81	0.95	159.47	2,181,466.63	578,501.44	36.9947430	-107.5645257
2,587.00	28.59	77.05	2,555.98	7.11	186.81	2,181,472.79	578,528.78	36.9947597	-107.5644320
2,650.00	31.20	77.98	2,610.59	13.89	217.47	2,181,479.57	578,559.44	36.9947781	-107.5643269
2,713.00	32.91	77.92	2,663.98	20.87	250.17	2,181,486.55	578,592.14	36.9947970	-107.5642149
2,776.00	34.06	77.83	2,716.53	28.17	284.15	2,181,493.85	578,626.12	36.9948168	-107.5640984
2,839.00	35.97	76.58	2,768.12	36.18	319.39	2,181,501.86	578,661.37	36.9948385	-107.5639777
2,902.00	37.89	76.14	2,818.48	45.11	356.18	2,181,510.79	578,698.15	36.9948628	-107.5638516
2,965.00	39.62	76.86	2,867.61	54.31	394.52	2,181,519.99	578,736.50	36.9948878	-107.5637202
3,028.00	41.30	76.43	2,915.54	63.76	434.30	2,181,529.44	578,776.27	36.9949134	-107.5635840
3,090.00	43.22	77.54	2,961.43	73.14	474.92	2,181,538.82	578,816.89	36.9949389	-107.5634448
3,153.00	47.28	79.16	3,005.77	82.15	518.73	2,181,547.83	578,860.70	36.9949633	-107.5632947
3,216.00	51.95	80.95	3,046.58	90.41	565.99	2,181,556.09	578,907.96	36.9949856	-107.5631328
3,279.00	56.63	81.79	3,083.34	98.07	616.55	2,181,563.75	578,958.52	36.9950062	-107.5629596
3,342.00	59.10	81.74	3,116.85	105.72	669.34	2,181,571.39	579,011.32	36.9950268	-107.5627787
3,405.00	61.92	79.73	3,147.86	114.56	723.45	2,181,580.23	579,065.43	36.9950507	-107.5625933
3,467.00	65.66	78.05	3,175.24	125.28	778.02	2,181,590.96	579,119.99	36.9950797	-107.5624064
3,530.00	66.57	77.37	3,200.75	137.55	834.30	2,181,603.23	579,176.28	36.9951130	-107.5622135
3,593.00	66.62	76.29	3,225.78	150.72	890.60	2,181,616.40	579,232.57	36.9951487	-107.5620206
3,664.00	73.56	76.91	3,249.94	166.17	955.50	2,181,631.85	579,297.47	36.9951906	-107.5617983
3,695.00	76.54	77.83	3,257.94	172.72	984.72	2,181,638.40	579,326.70	36.9952084	-107.5616981
3,727.00	79.45	78.33	3,264.59	179.18	1,015.34	2,181,644.86	579,357.32	36.9952259	-107.5615932
3,758.00	82.92	79.50	3,269.34	185.07	1,045.40	2,181,650.75	579,387.37	36.9952418	-107.5614902
3,790.00	85.83	81.64	3,272.48	190.29	1,076.81	2,181,655.96	579,418.79	36.9952559	-107.5613826
3,821.00	88.49	83.95	3,274.02	194.17	1,107.53	2,181,659.85	579,449.50	36.9952663	-107.5612774
3,853.00	90.03	85.03	3,274.43	197.24	1,139.37	2,181,662.92	579,481.35	36.9952745	-107.5611683
3,884.00	90.94	86.30	3,274.17	199.58	1,170.28	2,181,665.26	579,512.26	36.9952807	-107.5610625
3,915.00	91.92	87.31	3,273.39	201.31	1,201.22	2,181,666.99	579,543.20	36.9952852	-107.5609565
3,947.00	92.55	88.55	3,272.15	202.47	1,233.18	2,181,668.14	579,575.15	36.9952881	-107.5608471
3,978.00	93.56	88.79	3,270.49	203.18	1,264.13	2,181,668.86	579,606.10	36.9952899	-107.5607411
4,010.00	91.98	88.81	3,268.95	203.85	1,296.08	2,181,669.53	579,638.05	36.9952915	-107.5606317
4,041.00	92.19	88.30	3,267.82	204.63	1,327.05	2,181,670.31	579,669.02	36.9952934	-107.5605256
4,072.00	90.13	87.08	3,267.19	205.88	1,358.02	2,181,671.56	579,699.99	36.9952965	-107.5604196



Scientific Drilling, Intl

Survey Report - Geographic

Company:	Hilcorp Energy Corp.	Local Co-ordinate Reference:	Well Allison Unit HZFC 123H
Project:	San Juan, NM NAD27	TVD Reference:	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
Site:	Allison Unit HZFC 123H	MD Reference:	GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
Well:	Allison Unit HZFC 123H	North Reference:	Grid
Wellbore:	Lateral 1 ST1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral 1 ST1	Database:	Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,104.00	88.76	87.52	3,267.50	207.39	1,389.98	2,181,673.07	579,731.95	36.9953004	-107.5603101
4,135.00	88.08	86.80	3,268.36	208.93	1,420.93	2,181,674.61	579,762.90	36.9953044	-107.5602041
4,167.00	88.69	86.34	3,269.26	210.84	1,452.86	2,181,676.52	579,794.83	36.9953094	-107.5600948
4,198.00	90.13	87.82	3,269.58	212.42	1,483.81	2,181,678.10	579,825.79	36.9953135	-107.5599887
4,261.00	89.23	85.55	3,269.93	216.06	1,546.70	2,181,681.74	579,888.68	36.9953230	-107.5597734
4,324.00	89.40	88.19	3,270.68	219.50	1,609.60	2,181,685.18	579,951.57	36.9953320	-107.5595579
4,387.00	88.82	86.87	3,271.66	222.22	1,672.53	2,181,687.89	580,014.50	36.9953389	-107.5593424
4,450.00	91.78	85.87	3,271.33	226.20	1,735.40	2,181,691.88	580,077.37	36.9953494	-107.5591271
4,514.00	90.81	91.64	3,269.88	227.59	1,799.34	2,181,693.27	580,141.31	36.9953527	-107.5589082
4,577.00	91.85	92.41	3,268.42	225.37	1,862.28	2,181,691.05	580,204.25	36.9953461	-107.5586927
4,640.00	92.58	92.50	3,265.99	222.67	1,925.17	2,181,688.35	580,267.15	36.9953382	-107.5584773
4,703.00	91.00	92.05	3,264.02	220.17	1,988.09	2,181,685.85	580,330.06	36.9953308	-107.5582619
4,766.00	91.17	90.38	3,262.83	218.84	2,051.06	2,181,684.51	580,393.04	36.9953266	-107.5580463
4,829.00	89.97	90.34	3,262.20	218.44	2,114.06	2,181,684.12	580,456.03	36.9953251	-107.5578306
4,891.00	90.47	90.43	3,261.96	218.02	2,176.06	2,181,683.70	580,518.03	36.9953234	-107.5576183
4,954.00	90.37	92.29	3,261.50	216.53	2,239.03	2,181,682.21	580,581.01	36.9953188	-107.5574026
5,017.00	88.05	92.53	3,262.37	213.88	2,301.97	2,181,679.56	580,643.94	36.9953110	-107.5571872
5,080.00	88.86	94.10	3,264.07	210.24	2,364.84	2,181,675.92	580,706.81	36.9953005	-107.5569719
5,143.00	87.75	95.01	3,265.93	205.24	2,427.61	2,181,670.92	580,769.58	36.9952863	-107.5567570
5,206.00	89.03	95.29	3,267.70	199.58	2,490.33	2,181,665.26	580,832.30	36.9952703	-107.5565423
5,269.00	92.08	97.17	3,267.09	192.75	2,552.94	2,181,658.43	580,894.92	36.9952510	-107.5563280
5,332.00	93.49	98.25	3,264.03	184.31	2,615.30	2,181,649.99	580,957.27	36.9952273	-107.5561146
5,395.00	92.04	94.51	3,260.99	177.32	2,677.82	2,181,643.00	581,019.79	36.9952076	-107.5559005
5,458.00	92.38	92.54	3,258.56	173.45	2,740.65	2,181,639.13	581,082.63	36.9951965	-107.5556854
5,520.00	91.88	92.74	3,256.25	170.59	2,802.54	2,181,636.27	581,144.52	36.9951881	-107.5554735
5,583.00	89.33	92.15	3,255.59	167.91	2,865.48	2,181,633.59	581,207.45	36.9951803	-107.5552580
5,646.00	87.92	91.45	3,257.10	165.93	2,928.43	2,181,631.61	581,270.40	36.9951743	-107.5550425
5,709.00	89.36	91.53	3,258.60	164.29	2,991.39	2,181,629.97	581,333.36	36.9951693	-107.5548269
5,772.00	91.11	92.27	3,258.34	162.20	3,054.35	2,181,627.88	581,396.32	36.9951631	-107.5546114
5,835.00	92.32	91.69	3,256.45	160.03	3,117.28	2,181,625.71	581,459.25	36.9951566	-107.5543959
5,898.00	93.73	91.71	3,253.13	158.16	3,180.16	2,181,623.84	581,522.14	36.9951510	-107.5541806
5,960.00	92.02	89.78	3,250.02	157.36	3,242.07	2,181,623.03	581,584.05	36.9951482	-107.5539686
6,023.00	91.01	88.36	3,248.35	158.38	3,305.04	2,181,624.06	581,647.01	36.9951505	-107.5537530
6,086.00	91.54	88.10	3,246.95	160.32	3,368.00	2,181,626.00	581,709.97	36.9951554	-107.5535374
6,149.00	89.56	87.33	3,246.35	162.84	3,430.94	2,181,628.51	581,772.91	36.9951618	-107.5533218
6,212.00	88.12	86.71	3,247.62	166.11	3,493.84	2,181,631.79	581,835.81	36.9951703	-107.5531064
6,275.00	89.56	86.82	3,248.90	169.66	3,556.72	2,181,635.34	581,898.70	36.9951795	-107.5528910
6,338.00	88.05	88.54	3,250.21	172.21	3,619.65	2,181,637.89	581,961.63	36.9951860	-107.5526755
6,400.00	89.33	87.82	3,251.63	174.18	3,681.61	2,181,639.86	582,023.58	36.9951909	-107.5524634
6,463.00	89.66	85.61	3,252.18	177.79	3,744.50	2,181,643.47	582,086.47	36.9952003	-107.5522480
6,526.00	89.26	87.04	3,252.78	181.83	3,807.36	2,181,647.51	582,149.33	36.9952109	-107.5520327
6,589.00	89.60	89.73	3,253.40	183.61	3,870.33	2,181,649.28	582,212.30	36.9952153	-107.5518171
6,635.00	88.56	92.35	3,254.14	182.77	3,916.31	2,181,648.45	582,258.28	36.9952126	-107.5516596
6,696.00	89.63	95.50	3,255.11	178.60	3,977.15	2,181,644.27	582,319.12	36.9952006	-107.5514513
6,757.00	90.87	94.61	3,254.84	173.22	4,037.91	2,181,638.90	582,379.88	36.9951854	-107.5512433
6,819.00	91.78	93.34	3,253.41	168.92	4,099.74	2,181,634.60	582,441.72	36.9951731	-107.5510316
6,880.00	90.07	92.59	3,252.42	165.77	4,160.65	2,181,631.45	582,502.62	36.9951639	-107.5508231
6,941.00	91.11	93.03	3,251.79	162.78	4,221.57	2,181,628.46	582,563.55	36.9951552	-107.5506145
7,003.00	89.66	94.60	3,251.38	158.65	4,283.43	2,181,624.33	582,625.40	36.9951434	-107.5504028
7,064.00	90.57	94.12	3,251.25	154.02	4,344.25	2,181,619.70	582,686.23	36.9951301	-107.5501945
7,125.00	91.65	92.49	3,250.07	150.50	4,405.14	2,181,616.18	582,747.11	36.9951200	-107.5499861
7,186.00	92.85	92.41	3,247.68	147.90	4,466.03	2,181,613.57	582,808.01	36.9951123	-107.5497776
7,248.00	91.38	92.96	3,245.39	144.99	4,527.92	2,181,610.67	582,869.89	36.9951038	-107.5495657
7,309.00	90.34	92.44	3,244.47	142.12	4,588.85	2,181,607.80	582,930.82	36.9950955	-107.5493571
7,370.00	89.70	94.97	3,244.45	138.18	4,649.71	2,181,603.86	582,991.69	36.9950841	-107.5491487



Scientific Drilling, Intl Survey Report - Geographic

Company: Hilcorp Energy Corp.
Project: San Juan, NM NAD27
Site: Allison Unit HZFC 123H
Well: Allison Unit HZFC 123H
Wellbore: Lateral 1 ST1
Design: Lateral 1 ST1

Local Co-ordinate Reference: Well Allison Unit HZFC 123H
TVD Reference: GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
MD Reference: GL 6629' & RKB 15' @ 6644.00usft (Aztec 777)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Grand Junction District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
7,432.00	90.34	94.32	3,244.43	133.16	4,711.51	2,181,598.84	583,053.48	36.9950698	-107.5489372
7,493.00	91.71	94.23	3,243.34	128.61	4,772.33	2,181,594.29	583,114.30	36.9950568	-107.5487290
7,554.00	92.99	94.31	3,240.84	124.07	4,833.11	2,181,589.75	583,175.08	36.9950439	-107.5485209
7,616.00	93.66	94.66	3,237.24	119.23	4,894.81	2,181,584.91	583,236.78	36.9950301	-107.5483097
7,677.00	91.51	95.93	3,234.49	113.61	4,955.48	2,181,579.29	583,297.46	36.9950141	-107.5481020
7,738.00	89.56	94.68	3,233.92	107.97	5,016.22	2,181,573.65	583,358.19	36.9949981	-107.5478941
7,800.00	87.92	92.38	3,235.29	104.15	5,078.08	2,181,569.83	583,420.05	36.9949871	-107.5476823
7,861.00	89.26	92.80	3,236.79	101.40	5,139.00	2,181,567.08	583,480.97	36.9949791	-107.5474737
7,922.00	87.62	94.26	3,238.45	97.64	5,199.85	2,181,563.32	583,541.83	36.9949683	-107.5472654
7,984.00	88.59	95.20	3,240.50	92.53	5,261.61	2,181,558.21	583,603.58	36.9949537	-107.5470539
8,045.00	89.36	94.88	3,241.59	87.18	5,322.36	2,181,552.86	583,664.33	36.9949385	-107.5468460
8,106.00	91.07	95.98	3,241.36	81.40	5,383.08	2,181,547.08	583,725.06	36.9949221	-107.5466381
8,168.00	92.32	96.26	3,239.53	74.80	5,444.70	2,181,540.48	583,786.67	36.9949035	-107.5464272
8,229.00	91.18	95.11	3,237.66	68.76	5,505.37	2,181,534.44	583,847.34	36.9948864	-107.5462195
8,290.00	89.43	93.74	3,237.34	64.05	5,566.18	2,181,529.73	583,908.16	36.9948730	-107.5460113
8,351.00	90.30	94.01	3,237.48	59.93	5,627.04	2,181,525.61	583,969.02	36.9948611	-107.5458029
8,413.00	91.51	94.08	3,236.50	55.56	5,688.88	2,181,521.24	584,030.85	36.9948486	-107.5455913
8,474.00	91.71	94.37	3,234.79	51.07	5,749.69	2,181,516.74	584,091.66	36.9948358	-107.5453831
8,551.00	90.87	95.44	3,233.06	44.48	5,826.39	2,181,510.16	584,168.36	36.9948171	-107.5451205
8,612.00	92.42	96.27	3,231.30	38.26	5,887.04	2,181,503.94	584,229.02	36.9947995	-107.5449129
8,674.00	90.80	95.88	3,229.56	31.70	5,948.67	2,181,497.38	584,290.64	36.9947809	-107.5447019
8,735.00	89.90	95.80	3,229.19	25.50	6,009.35	2,181,491.18	584,351.32	36.9947634	-107.5444942
8,796.00	91.31	95.29	3,228.55	19.60	6,070.06	2,181,485.28	584,412.03	36.9947467	-107.5442864
8,857.00	93.02	95.04	3,226.24	14.12	6,130.77	2,181,479.80	584,472.74	36.9947311	-107.5440786
8,919.00	89.06	91.88	3,225.12	10.38	6,192.62	2,181,476.06	584,534.60	36.9947203	-107.5438668
8,980.00	88.09	89.97	3,226.63	9.39	6,253.59	2,181,475.07	584,595.56	36.9947171	-107.5436580
9,041.00	89.53	90.08	3,227.90	9.37	6,314.58	2,181,475.05	584,656.55	36.9947165	-107.5434492
9,102.00	90.67	90.75	3,227.79	8.93	6,375.57	2,181,474.60	584,717.55	36.9947148	-107.5432404
9,164.00	88.29	91.35	3,228.36	7.79	6,437.56	2,181,473.47	584,779.53	36.9947112	-107.5430281
9,225.00	87.55	91.01	3,230.57	6.53	6,498.50	2,181,472.21	584,840.48	36.9947072	-107.5428195
9,286.00	88.79	91.57	3,232.52	5.16	6,559.45	2,181,470.84	584,901.43	36.9947029	-107.5426108
9,347.00	88.15	93.05	3,234.15	2.70	6,620.38	2,181,468.38	584,962.35	36.9946957	-107.5424022
9,408.00	89.83	94.04	3,235.22	-1.07	6,681.25	2,181,464.61	585,023.23	36.9946848	-107.5421938
9,470.00	90.54	92.34	3,235.02	-4.52	6,743.15	2,181,461.16	585,085.13	36.9946748	-107.5419818
9,531.00	91.54	91.59	3,233.91	-6.61	6,804.11	2,181,459.07	585,146.08	36.9946685	-107.5417731
9,592.00	92.45	91.03	3,231.79	-8.00	6,865.05	2,181,457.68	585,207.03	36.9946642	-107.5415645
9,655.00	91.04	91.51	3,229.87	-9.40	6,928.01	2,181,456.28	585,269.98	36.9946598	-107.5413489
9,718.00	92.35	91.84	3,228.01	-11.24	6,990.95	2,181,454.44	585,332.92	36.9946542	-107.5411334
9,781.00	91.61	94.06	3,225.83	-14.48	7,053.82	2,181,451.20	585,395.80	36.9946448	-107.5409181
9,843.00	93.39	93.59	3,223.13	-18.61	7,115.62	2,181,447.07	585,457.60	36.9946329	-107.5407066
9,906.00	90.81	91.13	3,220.82	-21.20	7,178.52	2,181,444.48	585,520.49	36.9946253	-107.5404912
9,969.00	89.80	91.79	3,220.48	-22.81	7,241.50	2,181,442.87	585,583.47	36.9946204	-107.5402756
10,032.00	91.27	92.01	3,219.90	-24.90	7,304.46	2,181,440.78	585,646.43	36.9946141	-107.5400600
10,083.00	87.48	90.52	3,220.45	-26.02	7,355.43	2,181,439.66	585,697.40	36.9946106	-107.5398555
10,150.00	87.48	90.52	3,223.40	-26.63	7,422.36	2,181,439.05	585,764.34	36.9946083	-107.5396563

Checked By: _____ Approved By: _____ Date: _____

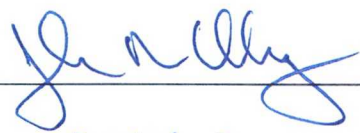
Well Name: ALLISON UNIT HZFC #123H

Operator HILCORP SAN JUAN, L.P.	Legal WellName ALLISON UNIT HZFC #123H	API / UWI 3004535611	County San Juan	State/Province New Mexico
Surface Legal Location 009-032N-007W-I	North/South Distance (ft) 1,591.0	N/S Ref FSL	East/West Distance (ft) 776.0	E/W Ref FEL

Date 6/12/2018	Description DIRECTIONAL SURVEY
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Survey Data					
Date	MD (RKB)	Incl (")	Azm (")	Method	Survey Company
6/12/2018	0.00	0.00	0.00	IncAzi-MWD	Scientific Drilling
6/12/2018	570.00	5.66	167.70	IncAzi-MWD	Scientific Drilling
6/12/2018	601.00	5.99	166.52	IncAzi-MWD	Scientific Drilling
6/12/2018	662.00	4.67	163.33	IncAzi-MWD	Scientific Drilling
6/12/2018	725.00	3.51	175.56	IncAzi-MWD	Scientific Drilling
6/12/2018	788.00	1.47	187.41	IncAzi-MWD	Scientific Drilling
6/12/2018	851.00	0.10	76.46	IncAzi-MWD	Scientific Drilling
6/12/2018	914.00	0.57	23.88	IncAzi-MWD	Scientific Drilling
6/12/2018	977.00	0.89	34.57	IncAzi-MWD	Scientific Drilling
6/12/2018	1,039.00	0.83	46.86	IncAzi-MWD	Scientific Drilling
6/12/2018	1,102.00	0.81	54.58	IncAzi-MWD	Scientific Drilling
6/12/2018	1,165.00	1.11	53.82	IncAzi-MWD	Scientific Drilling
6/12/2018	1,228.00	1.35	53.43	IncAzi-MWD	Scientific Drilling
6/12/2018	1,290.00	1.40	45.04	IncAzi-MWD	Scientific Drilling
6/12/2018	1,353.00	1.37	40.94	IncAzi-MWD	Scientific Drilling
6/12/2018	1,416.00	1.38	36.09	IncAzi-MWD	Scientific Drilling
6/12/2018	1,479.00	0.95	11.34	IncAzi-MWD	Scientific Drilling
6/12/2018	1,542.00	1.24	359.69	IncAzi-MWD	Scientific Drilling
6/12/2018	1,605.00	1.25	358.10	IncAzi-MWD	Scientific Drilling
6/12/2018	1,667.00	1.69	351.74	IncAzi-MWD	Scientific Drilling
6/12/2018	1,729.00	1.90	345.47	IncAzi-MWD	Scientific Drilling
6/12/2018	1,790.00	1.41	335.02	IncAzi-MWD	Scientific Drilling
6/12/2018	1,851.00	0.41	77.08	IncAzi-MWD	Scientific Drilling
6/12/2018	1,913.00	1.91	96.51	IncAzi-MWD	Scientific Drilling
6/12/2018	1,974.00	3.83	85.04	IncAzi-MWD	Scientific Drilling
6/12/2018	2,035.00	6.28	82.40	IncAzi-MWD	Scientific Drilling
6/12/2018	2,096.00	9.06	79.54	IncAzi-MWD	Scientific Drilling
6/12/2018	2,158.00	11.47	79.79	IncAzi-MWD	Scientific Drilling
6/12/2018	2,219.00	13.92	81.54	IncAzi-MWD	Scientific Drilling
6/12/2018	2,280.00	16.69	79.09	IncAzi-MWD	Scientific Drilling
6/12/2018	2,342.00	18.74	76.63	IncAzi-MWD	Scientific Drilling
6/12/2018	2,403.00	20.97	76.20	IncAzi-MWD	Scientific Drilling
6/12/2018	2,464.00	23.51	77.84	IncAzi-MWD	Scientific Drilling

I, the undersigned, certify that I acting in my capacity as OPERATIONS ENGINEER for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

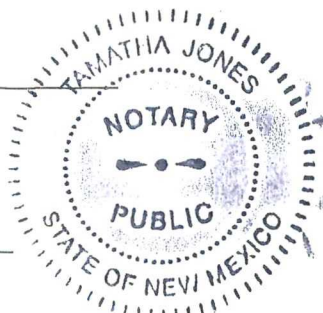

JOSEPH R COLLEY

Subscribed and sworn to me this 13th of June, 2018



Notary Public in and for San Juan County, New Mexico

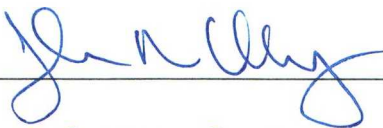
My Commission expires March 12, 2022



Well Name: ALLISON UNIT HZFC #123H

Survey Data						
Date	MD (ftKB)	Incl (*)	Azm (*)	Method	Survey Company	
6/12/2018	2,526.00	26.13	77.58	IncAzi-MWD	Scientific Drilling	
6/12/2018	2,587.00	28.59	77.05	IncAzi-MWD	Scientific Drilling	
6/12/2018	2,650.00	31.20	77.98	IncAzi-MWD	Scientific Drilling	
6/12/2018	2,713.00	32.91	77.92	IncAzi-MWD	Scientific Drilling	
6/12/2018	2,776.00	34.06	77.83	IncAzi-MWD	Scientific Drilling	
6/12/2018	2,839.00	35.97	76.58	IncAzi-MWD	Scientific Drilling	
6/12/2018	2,902.00	37.89	76.14	IncAzi-MWD	Scientific Drilling	
6/12/2018	2,965.00	39.62	76.86	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,028.00	41.30	76.43	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,090.00	43.22	77.54	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,153.00	47.28	79.16	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,216.00	51.95	80.95	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,279.00	56.63	81.79	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,342.00	59.10	81.74	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,405.00	61.92	79.73	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,467.00	65.66	78.05	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,530.00	66.57	77.37	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,593.00	66.62	76.29	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,664.00	73.56	76.91	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,695.00	76.54	77.83	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,727.00	79.45	78.33	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,758.00	82.92	79.50	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,790.00	85.83	81.64	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,821.00	88.49	83.95	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,853.00	90.03	85.03	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,884.00	90.94	86.30	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,915.00	91.92	87.31	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,947.00	92.55	88.55	IncAzi-MWD	Scientific Drilling	
6/12/2018	3,978.00	93.56	88.79	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,010.00	91.98	88.81	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,041.00	92.19	88.30	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,072.00	90.13	87.08	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,104.00	88.76	87.52	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,135.00	88.08	86.80	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,167.00	88.69	86.34	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,198.00	90.13	87.82	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,261.00	89.23	85.55	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,324.00	89.40	88.19	IncAzi-MWD	Scientific Drilling	

I, the undersigned, certify that I acting in my capacity as OPERATIONS ENGINEER for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

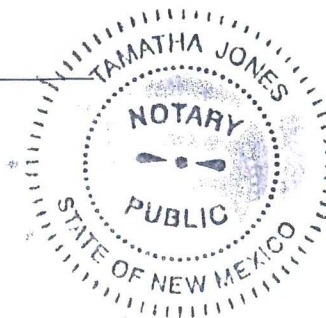

 JOSEPH R COLLEY

Subscribed and sworn to me this 13th of June, 2018

Tamatha Jones

Notary Public in and for San Juan County, New Mexico

My Commission expires March 12, 2022



Well Name: ALLISON UNIT HZFC #123H

Survey Data						
Date	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company	
6/12/2018	4,387.00	88.82	86.87	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,450.00	91.78	85.87	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,514.00	90.81	91.64	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,577.00	91.85	92.41	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,640.00	92.58	92.50	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,703.00	91.00	92.05	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,766.00	91.17	90.38	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,829.00	89.97	90.34	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,891.00	90.47	90.43	IncAzi-MWD	Scientific Drilling	
6/12/2018	4,954.00	90.37	92.29	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,017.00	88.05	92.53	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,080.00	88.86	94.10	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,143.00	87.75	95.01	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,206.00	89.03	95.29	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,269.00	92.08	97.17	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,332.00	93.49	98.25	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,395.00	92.04	94.51	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,458.00	92.38	92.54	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,520.00	91.88	92.74	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,583.00	89.33	92.15	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,646.00	87.92	91.45	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,709.00	89.36	91.53	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,772.00	91.11	92.27	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,835.00	92.32	91.69	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,898.00	93.73	91.71	IncAzi-MWD	Scientific Drilling	
6/12/2018	5,960.00	92.02	89.78	IncAzi-MWD	Scientific Drilling	
6/12/2018	6,023.00	91.01	88.36	IncAzi-MWD	Scientific Drilling	
6/12/2018	6,086.00	91.54	88.10	IncAzi-MWD	Scientific Drilling	
6/12/2018	6,149.00	89.56	87.33	IncAzi-MWD	Scientific Drilling	
6/12/2018	6,212.00	88.12	86.71	IncAzi-MWD	Scientific Drilling	
6/12/2018	6,275.00	89.56	86.82	IncAzi-MWD	Scientific Drilling	
6/12/2018	6,338.00	88.05	88.54	IncAzi-MWD	Scientific Drilling	
6/12/2018	6,400.00	89.33	87.82	IncAzi-MWD	Scientific Drilling	
6/12/2018	6,463.00	89.66	85.61	IncAzi-MWD	Scientific Drilling	
6/12/2018	6,526.00	89.26	87.04	IncAzi-MWD	Scientific Drilling	
6/12/2018	6,589.00	89.60	89.73	IncAzi-MWD	Scientific Drilling	
6/12/2018	6,635.00	88.56	92.35	IncAzi-MWD	Scientific Drilling	
6/12/2018	6,696.00	89.63	95.50	IncAzi-MWD	Scientific Drilling	

I, the undersigned, certify that I acting in my capacity as OPERATIONS ENGINEER for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

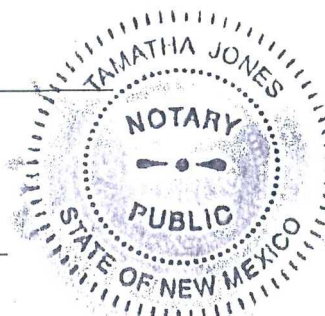

JOSEPH R. COLE

Subscribed and sworn to me this 13th of June, 2018



Notary Public in and for San Juan County, New Mexico

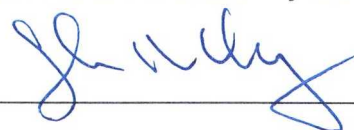
My Commission expires March 12, 2022



Well Name: ALLISON UNIT HZFC #123H

Survey Data					
Date	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
6/12/2018	6,757.00	90.87	94.61	IncAzi-MWD	Scientific Drilling
6/12/2018	6,819.00	91.78	93.34	IncAzi-MWD	Scientific Drilling
6/12/2018	6,880.00	90.07	92.59	IncAzi-MWD	Scientific Drilling
6/12/2018	6,941.00	91.11	93.03	IncAzi-MWD	Scientific Drilling
6/12/2018	7,003.00	89.66	94.60	IncAzi-MWD	Scientific Drilling
6/12/2018	7,064.00	90.57	94.12	IncAzi-MWD	Scientific Drilling
6/12/2018	7,125.00	91.65	92.49	IncAzi-MWD	Scientific Drilling
6/12/2018	7,186.00	92.85	92.41	IncAzi-MWD	Scientific Drilling
6/12/2018	7,248.00	91.38	92.96	IncAzi-MWD	Scientific Drilling
6/12/2018	7,309.00	90.34	92.44	IncAzi-MWD	Scientific Drilling
6/12/2018	7,370.00	89.70	94.97	IncAzi-MWD	Scientific Drilling
6/12/2018	7,432.00	90.34	94.32	IncAzi-MWD	Scientific Drilling
6/12/2018	7,493.00	91.71	94.23	IncAzi-MWD	Scientific Drilling
6/12/2018	7,554.00	92.99	94.31	IncAzi-MWD	Scientific Drilling
6/12/2018	7,616.00	93.66	94.66	IncAzi-MWD	Scientific Drilling
6/12/2018	7,677.00	91.51	95.93	IncAzi-MWD	Scientific Drilling
6/12/2018	7,738.00	89.56	94.68	IncAzi-MWD	Scientific Drilling
6/12/2018	7,800.00	87.92	92.38	IncAzi-MWD	Scientific Drilling
6/12/2018	7,861.00	89.26	92.80	IncAzi-MWD	Scientific Drilling
6/12/2018	7,922.00	87.62	94.26	IncAzi-MWD	Scientific Drilling
6/12/2018	7,984.00	88.59	95.20	IncAzi-MWD	Scientific Drilling
6/12/2018	8,045.00	89.36	94.88	IncAzi-MWD	Scientific Drilling
6/12/2018	8,106.00	91.07	95.98	IncAzi-MWD	Scientific Drilling
6/12/2018	8,168.00	92.32	96.26	IncAzi-MWD	Scientific Drilling
6/12/2018	8,229.00	91.18	95.11	IncAzi-MWD	Scientific Drilling
6/12/2018	8,290.00	89.43	93.74	IncAzi-MWD	Scientific Drilling
6/12/2018	8,351.00	90.30	94.01	IncAzi-MWD	Scientific Drilling
6/12/2018	8,413.00	91.51	94.08	IncAzi-MWD	Scientific Drilling
6/12/2018	8,474.00	91.71	94.37	IncAzi-MWD	Scientific Drilling
6/12/2018	8,551.00	90.87	95.44	IncAzi-MWD	Scientific Drilling
6/12/2018	8,612.00	92.42	96.27	IncAzi-MWD	Scientific Drilling
6/12/2018	8,674.00	90.80	95.88	IncAzi-MWD	Scientific Drilling
6/12/2018	8,735.00	89.90	95.80	IncAzi-MWD	Scientific Drilling
6/12/2018	8,796.00	91.31	95.29	IncAzi-MWD	Scientific Drilling
6/12/2018	8,857.00	93.02	95.04	IncAzi-MWD	Scientific Drilling
6/12/2018	8,919.00	89.06	91.88	IncAzi-MWD	Scientific Drilling
6/12/2018	8,980.00	88.09	89.97	IncAzi-MWD	Scientific Drilling
6/12/2018	9,041.00	89.53	90.08	IncAzi-MWD	Scientific Drilling

I, the undersigned, certify that I acting in my capacity as OPERATIONS ENGINEER for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

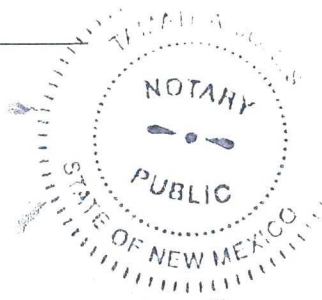

Joseph R. Colley

Subscribed and sworn to me this 13th of June, 2018



Notary Public in and for San Juan County, New Mexico

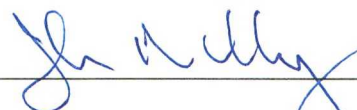
My Commission expires March 12, 2022



Well Name: ALLISON UNIT HZFC #123H

Survey Data					
Date	MD (ftKB)	Incl (")	Azm (")	Method	Survey Company
6/12/2018	9,102.00	90.67	90.75	IncAzi-MWD	Scientific Drilling
6/12/2018	9,164.00	88.29	91.35	IncAzi-MWD	Scientific Drilling
6/12/2018	9,225.00	87.55	91.01	IncAzi-MWD	Scientific Drilling
6/12/2018	9,286.00	88.79	91.57	IncAzi-MWD	Scientific Drilling
6/12/2018	9,347.00	88.15	93.05	IncAzi-MWD	Scientific Drilling
6/12/2018	9,408.00	89.83	94.04	IncAzi-MWD	Scientific Drilling
6/12/2018	9,470.00	90.54	92.34	IncAzi-MWD	Scientific Drilling
6/12/2018	9,531.00	91.54	91.59	IncAzi-MWD	Scientific Drilling
6/12/2018	9,592.00	92.45	91.03	IncAzi-MWD	Scientific Drilling
6/12/2018	9,655.00	91.04	91.51	IncAzi-MWD	Scientific Drilling
6/12/2018	9,718.00	92.35	91.84	IncAzi-MWD	Scientific Drilling
6/12/2018	9,781.00	91.61	94.06	IncAzi-MWD	Scientific Drilling
6/12/2018	9,843.00	93.39	93.59	IncAzi-MWD	Scientific Drilling
6/12/2018	9,906.00	90.81	91.13	IncAzi-MWD	Scientific Drilling
6/12/2018	9,969.00	89.80	91.79	IncAzi-MWD	Scientific Drilling
6/12/2018	10,032.00	91.27	92.01	IncAzi-MWD	Scientific Drilling
6/12/2018	10,083.00	87.48	90.52	IncAzi-MWD	Scientific Drilling
6/12/2018	10,150.00	87.48	90.52	IncAzi-MWD	Scientific Drilling

I, the undersigned, certify that I acting in my capacity as OPERATIONS ENGINEER for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

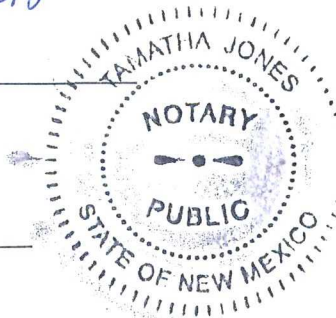

Joseph R. Colley

Subscribed and sworn to me this 13th of June, 2018



Notary Public in and for San Juan County, New Mexico

My Commission expires March 12, 2022



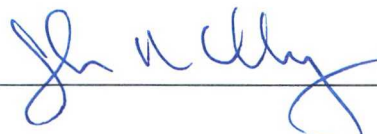
Well Name: ALLISON UNIT HZFC #123H

Operator HILCORP SAN JUAN, L.P.	Legal WellName ALLISON UNIT HZFC #123H	API / UWI 3004535611	County San Juan	State/Province New Mexico
Surface Legal Location 009-032N-007W-I	North/South Distance (ft) 1,591.0	N/S Ref FSL	East/West Distance (ft) 776.0	E/W Ref FEL

Date 6/11/2018	Description DIRECTIONAL SURVEY
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Survey Data					
Date	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
6/11/2018	0.00	0.00	0.00	IncAzi-MWD	Scientific Drilling
6/11/2018	570.00	5.66	167.70	IncAzi-MWD	Scientific Drilling
6/11/2018	601.00	5.99	166.52	IncAzi-MWD	Scientific Drilling
6/11/2018	662.00	4.67	163.33	IncAzi-MWD	Scientific Drilling
6/11/2018	725.00	3.51	175.56	IncAzi-MWD	Scientific Drilling
6/11/2018	788.00	1.47	187.41	IncAzi-MWD	Scientific Drilling
6/11/2018	851.00	0.10	76.46	IncAzi-MWD	Scientific Drilling
6/11/2018	914.00	0.57	23.88	IncAzi-MWD	Scientific Drilling
6/11/2018	977.00	0.89	34.57	IncAzi-MWD	Scientific Drilling
6/11/2018	1,039.00	0.83	46.86	IncAzi-MWD	Scientific Drilling
6/11/2018	1,102.00	0.81	54.58	IncAzi-MWD	Scientific Drilling
6/11/2018	1,165.00	1.11	53.82	IncAzi-MWD	Scientific Drilling
6/11/2018	1,228.00	1.35	53.43	IncAzi-MWD	Scientific Drilling
6/11/2018	1,290.00	1.40	45.04	IncAzi-MWD	Scientific Drilling
6/11/2018	1,353.00	1.37	40.94	IncAzi-MWD	Scientific Drilling
6/11/2018	1,416.00	1.38	36.09	IncAzi-MWD	Scientific Drilling
6/11/2018	1,479.00	0.95	11.34	IncAzi-MWD	Scientific Drilling
6/11/2018	1,542.00	1.24	359.69	IncAzi-MWD	Scientific Drilling
6/11/2018	1,605.00	1.25	358.10	IncAzi-MWD	Scientific Drilling
6/11/2018	1,667.00	1.69	351.74	IncAzi-MWD	Scientific Drilling
6/11/2018	1,729.00	1.90	345.47	IncAzi-MWD	Scientific Drilling
6/11/2018	1,790.00	1.41	335.02	IncAzi-MWD	Scientific Drilling
6/11/2018	1,851.00	0.41	77.08	IncAzi-MWD	Scientific Drilling
6/11/2018	1,913.00	1.91	96.51	IncAzi-MWD	Scientific Drilling
6/11/2018	1,974.00	3.83	85.04	IncAzi-MWD	Scientific Drilling
6/11/2018	2,035.00	6.28	82.40	IncAzi-MWD	Scientific Drilling
6/11/2018	2,096.00	9.06	79.54	IncAzi-MWD	Scientific Drilling
6/11/2018	2,158.00	11.47	79.79	IncAzi-MWD	Scientific Drilling
6/11/2018	2,219.00	13.92	81.54	IncAzi-MWD	Scientific Drilling
6/11/2018	2,280.00	16.69	79.09	IncAzi-MWD	Scientific Drilling
6/11/2018	2,342.00	18.74	76.63	IncAzi-MWD	Scientific Drilling
6/11/2018	2,403.00	20.97	76.20	IncAzi-MWD	Scientific Drilling
6/11/2018	2,464.00	23.51	77.84	IncAzi-MWD	Scientific Drilling

I, the undersigned, certify that I acting in my capacity as OPERATIONS ENGINEER for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

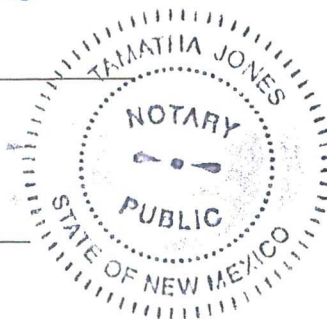

JOSEPH R COLLEY

Subscribed and sworn to me this 13th of June, 2018



Notary Public in and for San Juan County, New Mexico

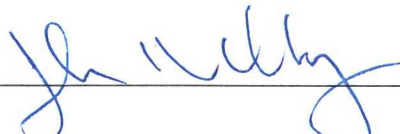
My Commission expires March 12, 2022



Well Name: ALLISON UNIT HZFC #123H

Survey Data					
Date	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
6/11/2018	2,526.00	26.13	77.58	IncAzi-MWD	Scientific Drilling
6/11/2018	2,587.00	28.59	77.05	IncAzi-MWD	Scientific Drilling
6/11/2018	2,650.00	31.20	77.98	IncAzi-MWD	Scientific Drilling
6/11/2018	2,713.00	32.91	77.92	IncAzi-MWD	Scientific Drilling
6/11/2018	2,776.00	34.06	77.83	IncAzi-MWD	Scientific Drilling
6/11/2018	2,839.00	35.97	76.58	IncAzi-MWD	Scientific Drilling
6/11/2018	2,902.00	37.89	76.14	IncAzi-MWD	Scientific Drilling
6/11/2018	2,965.00	39.62	76.86	IncAzi-MWD	Scientific Drilling
6/11/2018	3,028.00	41.30	76.43	IncAzi-MWD	Scientific Drilling
6/11/2018	3,090.00	43.22	77.54	IncAzi-MWD	Scientific Drilling
6/11/2018	3,153.00	47.28	79.16	IncAzi-MWD	Scientific Drilling
6/11/2018	3,216.00	51.95	80.95	IncAzi-MWD	Scientific Drilling
6/11/2018	3,279.00	56.63	81.79	IncAzi-MWD	Scientific Drilling
6/11/2018	3,342.00	59.10	81.74	IncAzi-MWD	Scientific Drilling
6/11/2018	3,405.00	61.92	79.73	IncAzi-MWD	Scientific Drilling
6/11/2018	3,467.00	65.66	78.05	IncAzi-MWD	Scientific Drilling
6/11/2018	3,530.00	66.57	77.37	IncAzi-MWD	Scientific Drilling
6/11/2018	3,593.00	66.62	76.29	IncAzi-MWD	Scientific Drilling
6/11/2018	3,664.00	73.56	76.91	IncAzi-MWD	Scientific Drilling
6/11/2018	3,695.00	76.54	77.83	IncAzi-MWD	Scientific Drilling
6/11/2018	3,727.00	79.45	78.33	IncAzi-MWD	Scientific Drilling
6/11/2018	3,758.00	82.92	79.50	IncAzi-MWD	Scientific Drilling
6/11/2018	3,790.00	85.83	81.64	IncAzi-MWD	Scientific Drilling
6/11/2018	3,821.00	88.49	83.95	IncAzi-MWD	Scientific Drilling
6/11/2018	3,853.00	90.03	85.03	IncAzi-MWD	Scientific Drilling
6/11/2018	3,884.00	90.94	86.30	IncAzi-MWD	Scientific Drilling
6/11/2018	3,915.00	91.92	87.31	IncAzi-MWD	Scientific Drilling
6/11/2018	3,947.00	92.55	88.55	IncAzi-MWD	Scientific Drilling
6/11/2018	3,978.00	93.56	88.79	IncAzi-MWD	Scientific Drilling
6/11/2018	4,010.00	91.98	88.81	IncAzi-MWD	Scientific Drilling
6/11/2018	4,041.00	92.19	88.30	IncAzi-MWD	Scientific Drilling
6/11/2018	4,072.00	90.13	87.08	IncAzi-MWD	Scientific Drilling
6/11/2018	4,104.00	88.76	87.52	IncAzi-MWD	Scientific Drilling
6/11/2018	4,135.00	88.08	86.80	IncAzi-MWD	Scientific Drilling
6/11/2018	4,167.00	88.69	86.34	IncAzi-MWD	Scientific Drilling
6/11/2018	4,198.00	90.13	87.82	IncAzi-MWD	Scientific Drilling
6/11/2018	4,261.00	89.23	85.55	IncAzi-MWD	Scientific Drilling
6/11/2018	4,324.00	89.40	88.19	IncAzi-MWD	Scientific Drilling

I, the undersigned, certify that I acting in my capacity as OPERATIONS ENGINEER for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

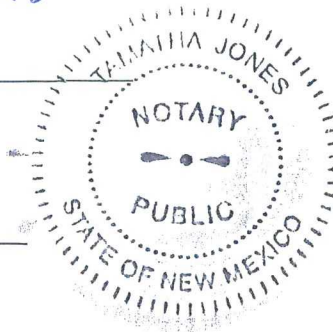

Joseph R. Colley

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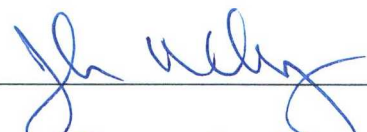
My Commission expires March 12, 2022



Well Name: ALLISON UNIT HZFC #123H

Survey Data					
Date	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
6/11/2018	4,387.00	88.82	86.87	IncAzi-MWD	Scientific Drilling
6/11/2018	4,450.00	91.78	85.87	IncAzi-MWD	Scientific Drilling
6/11/2018	4,512.00	92.88	85.32	IncAzi-MWD	Scientific Drilling
6/11/2018	4,575.00	90.27	84.09	IncAzi-MWD	Scientific Drilling
6/11/2018	4,638.00	89.30	83.61	IncAzi-MWD	Scientific Drilling
6/11/2018	4,701.00	91.07	84.50	IncAzi-MWD	Scientific Drilling
6/11/2018	4,764.00	92.48	85.29	IncAzi-MWD	Scientific Drilling
6/11/2018	4,827.00	92.48	83.48	IncAzi-MWD	Scientific Drilling
6/11/2018	4,889.00	92.78	80.59	IncAzi-MWD	Scientific Drilling
6/11/2018	4,952.00	91.21	75.23	IncAzi-MWD	Scientific Drilling
6/11/2018	5,015.00	90.94	72.34	IncAzi-MWD	Scientific Drilling
6/11/2018	5,078.00	88.73	70.93	IncAzi-MWD	Scientific Drilling
6/11/2018	5,141.00	90.97	70.39	IncAzi-MWD	Scientific Drilling
6/11/2018	5,204.00	90.23	72.33	IncAzi-MWD	Scientific Drilling
6/11/2018	5,267.00	89.46	73.57	IncAzi-MWD	Scientific Drilling
6/11/2018	5,330.00	90.30	74.29	IncAzi-MWD	Scientific Drilling
6/11/2018	5,393.00	91.58	75.23	IncAzi-MWD	Scientific Drilling
6/11/2018	5,456.00	91.31	76.17	IncAzi-MWD	Scientific Drilling
6/11/2018	5,518.00	89.93	76.29	IncAzi-MWD	Scientific Drilling
6/11/2018	5,581.00	90.87	75.84	IncAzi-MWD	Scientific Drilling
6/11/2018	5,644.00	90.97	76.36	IncAzi-MWD	Scientific Drilling
6/11/2018	5,707.00	90.44	75.60	IncAzi-MWD	Scientific Drilling
6/11/2018	5,770.00	90.20	76.09	IncAzi-MWD	Scientific Drilling
6/11/2018	5,833.00	90.34	76.52	IncAzi-MWD	Scientific Drilling
6/11/2018	5,895.00	89.26	76.09	IncAzi-MWD	Scientific Drilling
6/11/2018	5,958.00	88.52	74.93	IncAzi-MWD	Scientific Drilling
6/11/2018	6,021.00	89.46	76.07	IncAzi-MWD	Scientific Drilling
6/11/2018	6,084.00	90.77	78.24	IncAzi-MWD	Scientific Drilling
6/11/2018	6,147.00	92.11	79.11	IncAzi-MWD	Scientific Drilling
6/11/2018	6,210.00	91.31	78.49	IncAzi-MWD	Scientific Drilling
6/11/2018	6,273.00	89.77	78.72	IncAzi-MWD	Scientific Drilling
6/11/2018	6,336.00	89.36	79.23	IncAzi-MWD	Scientific Drilling
6/11/2018	6,398.00	90.54	79.21	IncAzi-MWD	Scientific Drilling
6/11/2018	6,461.00	90.00	79.35	IncAzi-MWD	Scientific Drilling
6/11/2018	6,524.00	90.07	80.31	IncAzi-MWD	Scientific Drilling
6/11/2018	6,587.00	89.13	81.15	IncAzi-MWD	Scientific Drilling
6/11/2018	6,648.00	90.67	79.16	IncAzi-MWD	Scientific Drilling
6/11/2018	6,709.00	92.79	76.98	IncAzi-MWD	Scientific Drilling

I, the undersigned, certify that I acting in my capacity as OPERATIONS ENGINEER for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

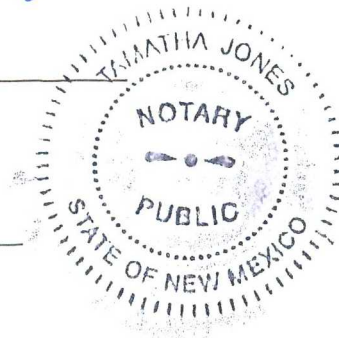

Joseph R. Colley

Subscribed and sworn to me this 13th of June, 2018



Notary Public in and for San Juan County, New Mexico

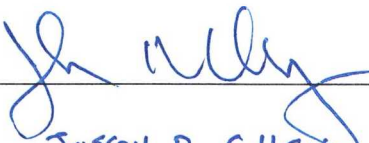
My Commission expires March 12, 2022



Well Name: ALLISON UNIT HZFC #123H

Survey Data					
Date	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
6/11/2018	6,771.00	91.85	74.45	IncAzi-MWD	Scientific Drilling
6/11/2018	6,832.00	90.70	73.38	IncAzi-MWD	Scientific Drilling
6/11/2018	6,893.00	91.95	74.37	IncAzi-MWD	Scientific Drilling
6/11/2018	6,955.00	89.90	74.30	IncAzi-MWD	Scientific Drilling
6/11/2018	7,016.00	87.48	73.99	IncAzi-MWD	Scientific Drilling
6/11/2018	7,077.00	86.95	73.96	IncAzi-MWD	Scientific Drilling
6/11/2018	7,139.00	88.05	75.21	IncAzi-MWD	Scientific Drilling
6/11/2018	7,200.00	89.93	75.95	IncAzi-MWD	Scientific Drilling
6/11/2018	7,261.00	91.58	76.45	IncAzi-MWD	Scientific Drilling
6/11/2018	7,322.00	93.02	77.93	IncAzi-MWD	Scientific Drilling
6/11/2018	7,384.00	90.74	77.06	IncAzi-MWD	Scientific Drilling
6/11/2018	7,445.00	91.74	77.95	IncAzi-MWD	Scientific Drilling
6/11/2018	7,507.00	92.32	78.61	IncAzi-MWD	Scientific Drilling
6/11/2018	7,568.00	89.36	81.02	IncAzi-MWD	Scientific Drilling
6/11/2018	7,629.00	90.44	83.27	IncAzi-MWD	Scientific Drilling
6/11/2018	7,690.00	91.27	83.57	IncAzi-MWD	Scientific Drilling
6/11/2018	7,752.00	89.50	83.48	IncAzi-MWD	Scientific Drilling
6/11/2018	7,813.00	90.44	83.43	IncAzi-MWD	Scientific Drilling
6/11/2018	7,874.00	91.95	83.66	IncAzi-MWD	Scientific Drilling
6/11/2018	7,936.00	90.37	82.08	IncAzi-MWD	Scientific Drilling
6/11/2018	7,997.00	90.37	82.47	IncAzi-MWD	Scientific Drilling
6/11/2018	8,058.00	89.36	81.03	IncAzi-MWD	Scientific Drilling
6/11/2018	8,120.00	88.79	79.63	IncAzi-MWD	Scientific Drilling
6/11/2018	8,181.00	89.73	81.49	IncAzi-MWD	Scientific Drilling
6/11/2018	8,242.00	90.50	82.74	IncAzi-MWD	Scientific Drilling
6/11/2018	8,304.00	90.17	80.59	IncAzi-MWD	Scientific Drilling
6/11/2018	8,365.00	90.57	82.03	IncAzi-MWD	Scientific Drilling
6/11/2018	8,426.00	89.36	78.06	IncAzi-MWD	Scientific Drilling
6/11/2018	8,487.00	89.77	75.12	IncAzi-MWD	Scientific Drilling
6/11/2018	8,549.00	90.67	75.66	IncAzi-MWD	Scientific Drilling
6/11/2018	8,610.00	93.09	76.38	IncAzi-MWD	Scientific Drilling
6/11/2018	8,672.00	93.69	76.58	IncAzi-MWD	Scientific Drilling
6/11/2018	8,733.00	93.79	76.09	IncAzi-MWD	Scientific Drilling
6/11/2018	8,794.00	90.74	74.99	IncAzi-MWD	Scientific Drilling
6/11/2018	8,855.00	91.51	75.19	IncAzi-MWD	Scientific Drilling
6/11/2018	8,917.00	87.78	73.58	IncAzi-MWD	Scientific Drilling
6/11/2018	8,978.00	89.06	73.89	IncAzi-MWD	Scientific Drilling
6/11/2018	9,039.00	91.78	75.46	IncAzi-MWD	Scientific Drilling

I, the undersigned, certify that I acting in my capacity as OPERATIONS ENGINEER for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.

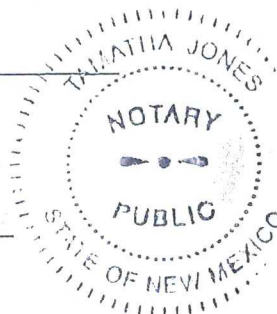

JOSEPH R COLLEY

Subscribed and sworn to me this 13th of June, 2018



Notary Public in and for San Juan County, New Mexico

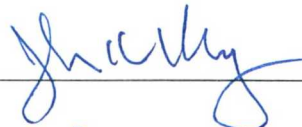
My Commission expires March 12, 2022



Well Name: ALLISON UNIT HZFC #123H

Survey Data					
Date	MD (ftKB)	Incl (°)	Azm (°)	Method	Survey Company
6/11/2018	9,100.00	93.16	76.37	IncAzi-MWD	Scientific Drilling
6/11/2018	9,162.00	93.83	76.62	IncAzi-MWD	Scientific Drilling
6/11/2018	9,223.00	91.88	77.09	IncAzi-MWD	Scientific Drilling
6/11/2018	9,284.00	88.32	77.65	IncAzi-MWD	Scientific Drilling
6/11/2018	9,345.00	89.66	78.31	IncAzi-MWD	Scientific Drilling
6/11/2018	9,406.00	90.74	80.10	IncAzi-MWD	Scientific Drilling
6/11/2018	9,468.00	91.51	80.28	IncAzi-MWD	Scientific Drilling
6/11/2018	9,529.00	91.91	79.91	IncAzi-MWD	Scientific Drilling
6/11/2018	9,580.00	92.62	80.42	IncAzi-MWD	Scientific Drilling
6/11/2018	9,647.00	92.62	80.42	IncAzi-MWD	Scientific Drilling

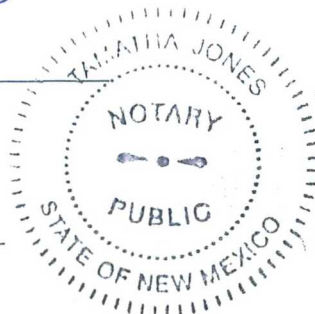
I, the undersigned, certify that I acting in my capacity as OPERATIONS ENGINEER for Hilcorp Energy Company, am authorized by said Company to make this report; and that said report was prepared under my supervision and directions, and that the facts stated herein are true to the best of my knowledge and belief.



JOSEPH R COLLEY

Subscribed and sworn to me this 13th of June, 2018


Notary Public in and for San Juan County, New Mexico

My Commission expires March 12, 2022


UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

JUN 13 2013

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well

☐ Oil Well

☒ Gas Well

☐ Other

2. Name of Operator

Hilcorp Energy Company

3a. Address

382 Road 3100 Aztec, NM 87410

3b. Phone No. (include area code)

505-599-3400

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Surface Unit I (NESE) 1591' FSL & 776' FEL, Sec. 9, T32N, R07W
Bottomhole (Lat 1) Unit E (SWNW) 677' FNL & 663 FWL, Sec. 11, T32N, R07W
Bottomhole (Lat 2) Unit L (NWSW) 2711' FSL & 1328' FWL, Sec. 11, T32N, R07W

5. Lease Serial No.

SF-078459-B

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.

Allison Unit

8. Well Name and No.

Allison Unit HZFC 123H

9. API Well No.

30-045-35611

10. Field and Pool or Exploratory Area

Basin Fruitland Coal

11. Country or Parish, State

San Juan, New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	As Drilled Plats
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once Testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Hilcorp Energy Company is submitting the As Drilled Plats and drilling surveys for the mentioned well.

NMOCD

JUN 19 2018

DISTRICT III

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Priscilla Shorty

Title Operations/Regulatory Technician - Sr.

Signature

Date

6/13/18

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Office

JUN 18 2018

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instruction on page 2)

NMOCD