

Santa Fe Main Office Phone: (505) 476-3441 Fax: (55) 476-3462 General Information Phone: (505) 629-6116 Online Phone Directory Visit: https://www.emnrd.nm.gov/ocd/contact-us/	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	C-104 Revised July 9, 2024 Submit Electronically Via OCD Permitting
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REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

Section 1 - Operator and Well Information

Submittal Type: ☒ Test Allowable (C-104RT) ☐ New Well (C-104NW) ☐ Recomplete (C-104RC) ☐ Pay Add (C-104RC) ☐ Amended	
Operator Name: Hilcorp Energy Company	OGRID: 372171
Property Name and Well Number: SAN JUAN 27-5 UNIT NP 330	Property Code: 318702
Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal	API Number: 30-039-25522
Pool Name: BLANCO MESAVERDE	Pool Code: 72319

Section 2 – Surface Location

UL M	Section 5	Township 027N	Range 005W	Lot	Ft. from N/S 790' South	Ft. from E/W 1136' West	Latitude 36. 598158	Longitude -107.387026	County RIO ARriba
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Section 3 – Completion Information

Producing Method	Ready Date ~11/16/2024	Perforations MD ~5,100' – 5,980'	Perforations TVD ~5,032' – 5,833'
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Section 4 – Action IDs for Submissions and Order Numbers

List Action IDs for Drilling Sundries	Was an Order required / needed (Y/N), if yes list Order number:
C-104 RT Action ID (if C-104NW): N/A	Communitization Agreement ☐ Yes ☒ No, Order No.
Surface Casing Action ID: Previous to system	Unit: ☒ Yes ☐ No, Order No.
Intermediate 1 Casing Action ID: Previous to system	Compulsory Pooling: ☐ Yes ☒ No, Order No.
Intermediate 2 Casing Action ID: N/A	Down Hole Commingling: ☐ Yes ☒ No, Order No.
Production Casing Action ID: 400000	Surface Commingling: ☐ Yes ☒ No, Order No.
All casing was pressure tested in accordance with NMAC ☒ Yes ☐ No	Non-standard Location: ☐ Yes ☒ No ☐ Common ownership Order No.
Liner 1 Action ID: N/A	Non-standard Proration: ☐ Yes ☒ No, Order No.
Casing was installed prior to OCD's Action ID system (Y/N): N	Simultaneous Dedication: ☐ Yes ☒ No, Order No.

Section 5 - Operator Signature and Certification

☒ I hereby certify that the required Water Use Report has been, or will be, submitted for this well's completion.	
☒ I hereby certify that the required Fracfocus disclosure has been, or will be, submitted for this well's completion.	
☒ I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.	
Name Cherylene Weston	
Title: Operations Regulatory Tech Sr.	Date: 11/7/2024

Cheryl Weston

From: Rikala, Ward, EMNRD <Ward.Rikala@emnrd.nm.gov>
Sent: Thursday, September 26, 2024 1:51 PM
To: Bennett Vaughn; Rennick, Kenneth G
Cc: Farmington Regulatory Techs; Ben Hampton; James Osborn; Ray Brandhurst; Scott Matthews; Matthew Esz; Greg Gandler; Marcus Hill; Blas Enriquez - (C)
Subject: RE: [EXTERNAL] San Juan 27-5 Unit NP 330 Cement Remediation (API 3003925522)

Follow Up Flag: Follow up
Flag Status: Flagged

CAUTION: External sender. DO NOT open links or attachments from UNKNOWN senders.

Bond looks a lot better. Good to go on the proposed interval.

Ward

From: Bennett Vaughn <Bennett.Vaughn@hilcorp.com>
Sent: Thursday, September 26, 2024 12:46 PM
To: Rikala, Ward, EMNRD <Ward.Rikala@emnrd.nm.gov>; Rennick, Kenneth G <krennick@blm.gov>
Cc: Farmington Regulatory Techs <FarmingtonRegulatoryTechs@hilcorp.com>; Ben Hampton <bhampton@hilcorp.com>; James Osborn <josborn@hilcorp.com>; Ray Brandhurst <rbrandhurst@hilcorp.com>; Scott Matthews <scmatthews@hilcorp.com>; Matthew Esz <Matthew.Esz@hilcorp.com>; Greg Gandler <Greg.Gandler@hilcorp.com>; Marcus Hill <Marcus.Hill@hilcorp.com>; Blas Enriquez - (C) <Blas.Enriquez@hilcorp.com>
Subject: [EXTERNAL] San Juan 27-5 Unit NP 330 Cement Remediation (API 3003925522)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Afternoon Ward and Kenny,

Attached is our new CBL on the San Juan 27-5 Unit NP 330 (API 3003925522) after pumping that cement remediation job.

We will continue forward with the previously agreed upon NOI depths of 5,100'-5,980'.

Let me know if you have any questions.

Thanks,

Bennett Vaughn

Ops Engineer

San Juan South Asset Team

Hilcorp Energy Company

o: (346) 237-2195 | c: (281) 409-5066

e: Bennett.Vaughn@hilcorp.com

Cheryl Weston

From: Rennick, Kenneth G <krennick@blm.gov>
Sent: Thursday, September 26, 2024 1:53 PM
To: Bennett Vaughn; Ward.Rikala@emnrd.nm.gov
Cc: Farmington Regulatory Techs; Ben Hampton; James Osborn; Ray Brandhurst; Scott Matthews; Matthew Esz; Greg Gandler; Marcus Hill; Blas Enriquez - (C)
Subject: Re: [EXTERNAL] San Juan 27-5 Unit NP 330 Cement Remediation (API 3003925522)

CAUTION: External sender. DO NOT open links or attachments from UNKNOWN senders.

The BLM finds the proposed perforations appropriate.

Kenneth (Kenny) Rennick

Petroleum Engineer

Bureau of Land Management
Farmington Field Office
6251 College Blvd
Farmington, NM 87402

Email: krennick@blm.gov
Mobile & Text: 505.497.0019

From: Bennett Vaughn <Bennett.Vaughn@hilcorp.com>
Sent: Thursday, September 26, 2024 12:45 PM
To: Ward.Rikala@emnrd.nm.gov <Ward.Rikala@emnrd.nm.gov>; Rennick, Kenneth G <krennick@blm.gov>
Cc: Farmington Regulatory Techs <FarmingtonRegulatoryTechs@hilcorp.com>; Ben Hampton <bhampton@hilcorp.com>; James Osborn <josborn@hilcorp.com>; Ray Brandhurst <rbrandhurst@hilcorp.com>; Scott Matthews <scmatthews@hilcorp.com>; Matthew Esz <Matthew.Esz@hilcorp.com>; Greg Gandler <Greg.Gandler@hilcorp.com>; Marcus Hill <Marcus.Hill@hilcorp.com>; Blas Enriquez - (C) <Blas.Enriquez@hilcorp.com>
Subject: [EXTERNAL] San Juan 27-5 Unit NP 330 Cement Remediation (API 3003925522)

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Afternoon Ward and Kenny,

Attached is our new CBL on the San Juan 27-5 Unit NP 330 (API 3003925522) after pumping that cement remediation job.

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Let me know if you have any questions.

Thanks,

Bennett Vaughn

Ops Engineer

San Juan South Asset Team

Hilcorp Energy Company

o: (346) 237-2195 | **c:** (281) 409-5066

e: Bennett.Vaughn@hilcorp.com

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C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION		Revised July 9, 2024	
	Submittal Type	☐ Initial Submittal		
		☐ Amended Report		
		☒ As Drilled		

WELL LOCATION INFORMATION

API Number 30-039-25522	Pool Code 72319	Pool Name BLANCO MESAVERDE
Property Code 318702	Property Name SAN JUAN 27-5 UNIT NP	Well Number 330
OGRID No. 372171	Operator Name HILCORP ENERGY COMPANY	Ground Level Elevation 6665'
Surface Owner: ☐ State ☒ Fee ☐ Tribal ☐ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL M	Section 5	Township 27N	Range 5W	Lot	Feet from N/S Line 790' SOUTH	Feet from E/W Line 1136' WEST	Latitude 36.598158 °N	Longitude -107.387026 °W	County RIO ARRIBA
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Bottom Hole Location

UL M	Section 5	Township 27N	Range 5W	Lot	Feet from N/S Line 1256' SOUTH	Feet from E/W Line 381' WEST	Latitude 36.599492 °N	Longitude -107.389583 °W	County RIO ARRIBA
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Dedicated Acres 319.81	Penetrated Spacing Unit: W/2 - Section 5, T27N, R5W	Infill or Defining Well Infill	Defining Well API 30-039-07158	Overlapping Spacing Unit ☐ Yes ☒ No	Consolidation Code Unit
Order Numbers		Well setbacks are under Common Ownership: ☐ Yes ☐ No			

Kick Off Point (KOP)

UL M	Section 5	Township 27N	Range 5W	Lot	Feet from N/S Line 775' SOUTH	Feet from E/W Line 1047' WEST	Latitude 36.598123 °N	Longitude -107.387331 °W	County RIO ARRIBA
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First Take Point (FTP)

UL M	Section 5	Township 27N	Range 5W	Lot	Feet from N/S Line 1011' SOUTH	Feet from E/W Line 732' WEST	Latitude 36.598794 °N	Longitude -107.388395 °W	County RIO ARRIBA
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Last Take Point (LTP)

UL M	Section 5	Township 27N	Range 5W	Lot	Feet from N/S Line 1212' SOUTH	Feet from E/W Line 428' WEST	Latitude 36.599366 °N	Longitude -107.389424 °W	County RIO ARRIBA
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Unutilized Area or Area of Uniform Interest Unutilized	Spacing Unit Type ☐ Horizontal ☐ Vertical ☒ Directional	Ground Floor Elevation 6665'
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OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Cherylene Weston

9/26/2024

Signature _____

Date _____

Cherylene Weston, Operations/Regulatory Tech-Sr.

Printed Name _____

cweston@hilcorp.com

E-mail Address

SURVEYOR CERTIFICATION

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



JASON C. EDWARDS

Signature and Seal of Professional Surveyor

Certificate Number	15269
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Date of Survey MAY 17, 2024

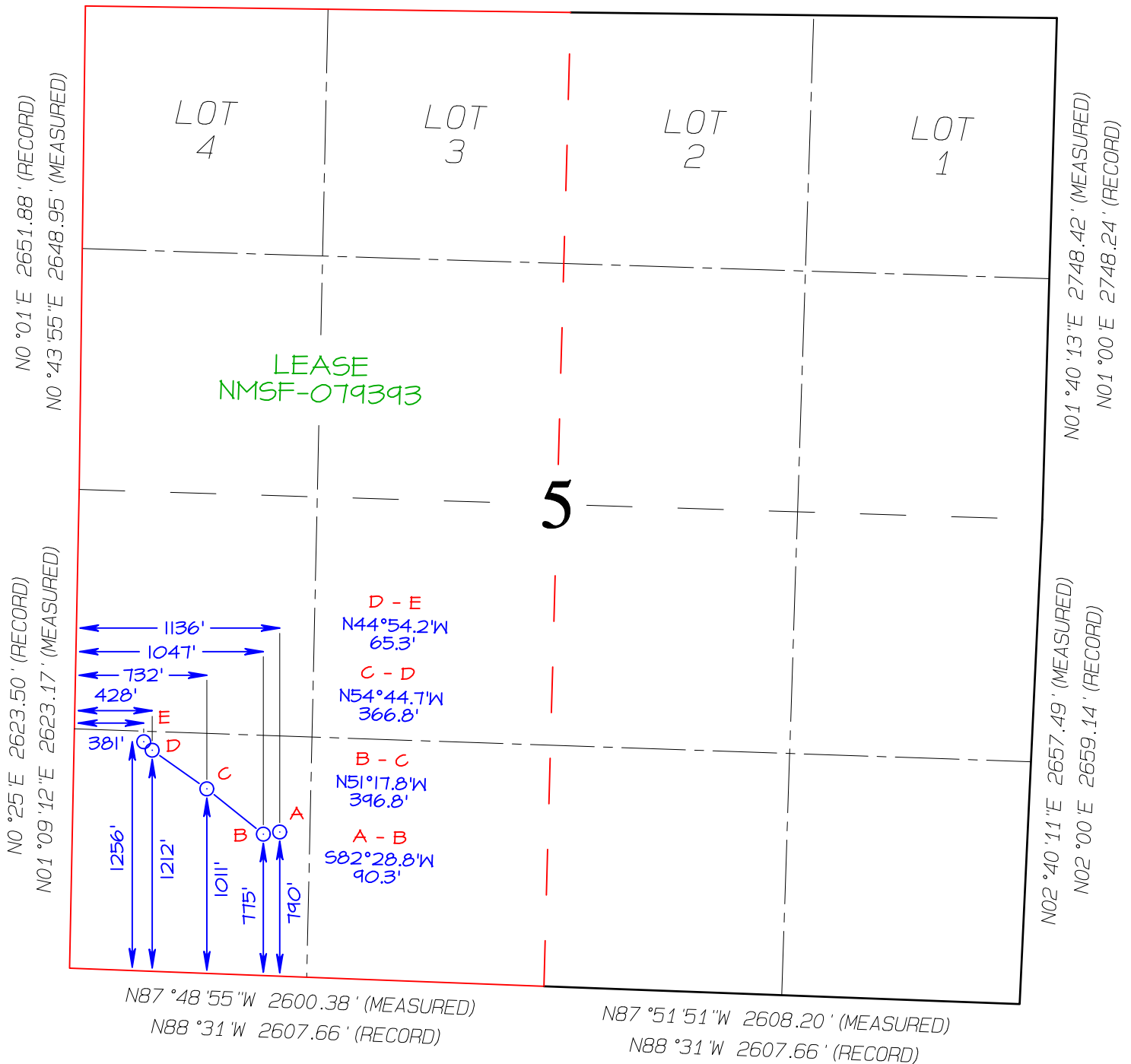
Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

N89°57'W 2662.44' (RECORD)

N89°57'W 2662.44' (RECORD)

N89°14'29"W 2658.98' (MEASURED)

N89°20'27"W 2663.58' (MEASURED)



SURFACE LOCATION (A)
790' FSL 1136' FWL
LAT 36.598150 °N
LONG -107.386424 °W
DATUM: NAD1927

LAT 36.598158 °N
LONG -107.387026 °W
DATUM: NAD1983

KICK OFF POINT (B)
775' FSL 1047' FWL
LAT 36.598114 °N
LONG -107.386729 °W
DATUM: NAD1927

LAT 36.598123 °N
LONG -107.387331 °W
DATUM: NAD1983

FIRST TAKE POINT (C)
1011' FSL 732' FWL
LAT 36.598786 °N
LONG -107.387793 °W
DATUM: NAD1927

LAT 36.598794 °N
LONG -107.388395 °W
DATUM: NAD1983

LAST TAKE POINT (D)
1212' FSL 428' FWL
LAT 36.599357 °N
LONG -107.388822 °W
DATUM: NAD1927

LAT 36.599366 °N
LONG -107.389424 °W
DATUM: NAD1983

BOTTOM HOLE LOCATION (E)
1256' FSL 381' FWL
LAT 36.599483 °N
LONG -107.388981 °W
DATUM: NAD1927

LAT 36.599492 °N
LONG -107.389583 °W
DATUM: NAD1983



Survey Certification

7327 West Barton Road
Casper, WY 82604
(307)-472-6621

Operator	HilCorp Energy
Well Name & No.	San Juan 27-5 Unit NP 330 ST1
API #	30-039-25522
County & State	Rio Arriba County, NM
SDI Job #	OP.045961
Rig	Drake 3
Survey Date	8/13/2024 to 8/15/2024
GL & KB Elevation	GL 6666 & KB 17' = 6683'

I, Janie Collins, having personal knowledge of all the facts, hereby certify that the attached directional survey run from a measured depth of 100.64 feet to a measured depth of 6,264 feet is true and correct as determined from all available records.

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

Signature

16-Sep-2024

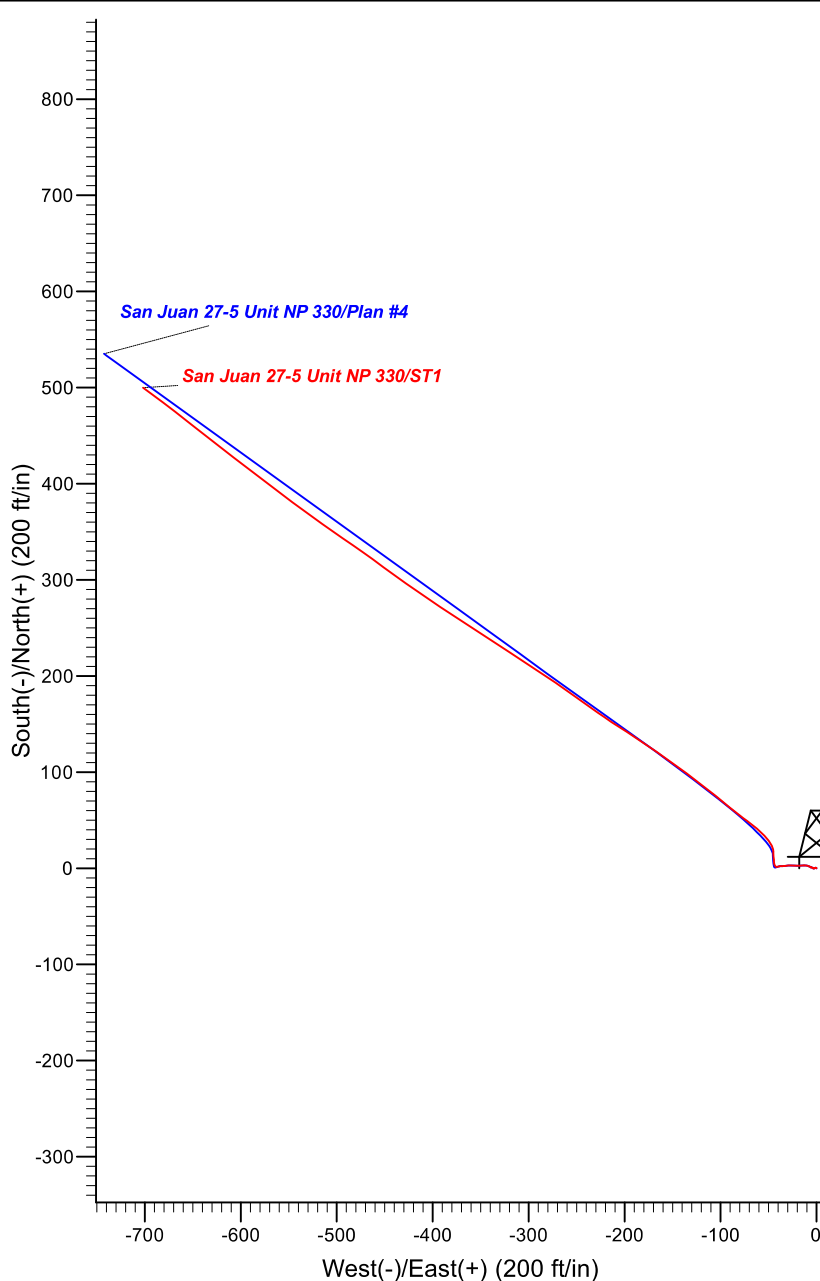
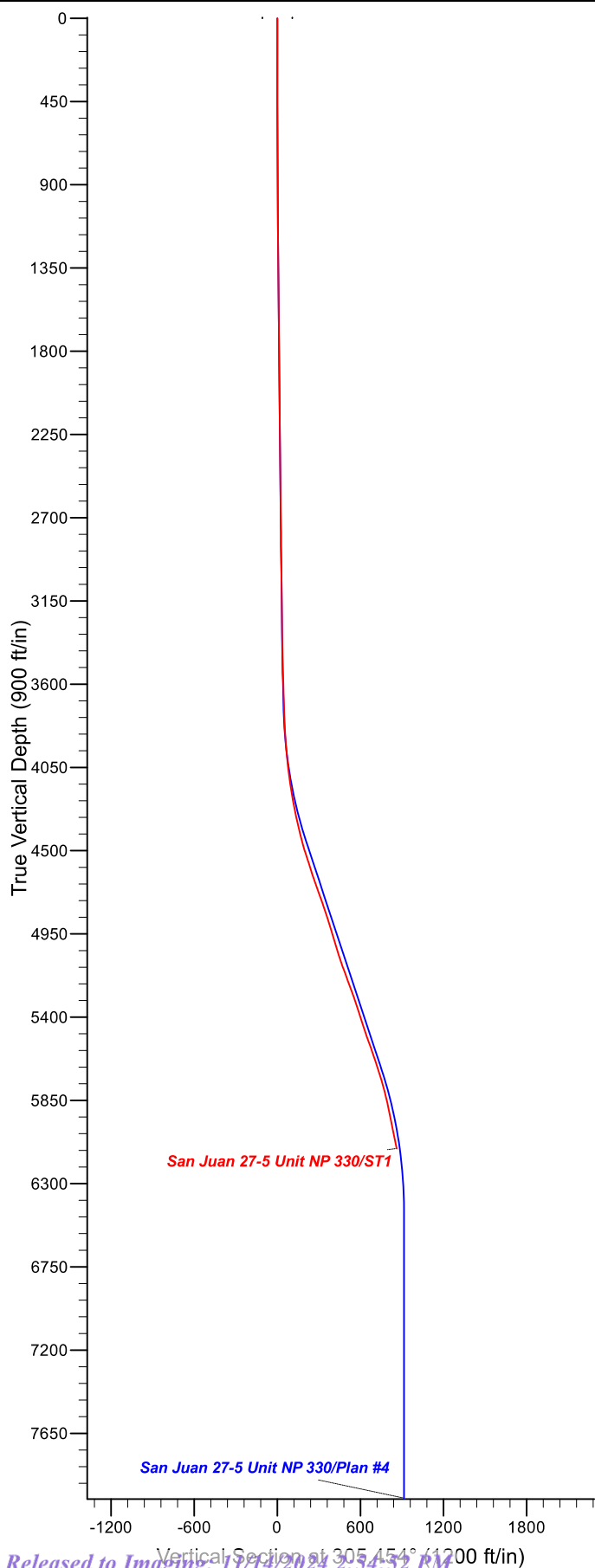
Date

Janie Collins

Rockies Region Well Planner
Scientific Drilling - Rocky Mountain District



Company: Hilcorp Energy - San Juan Basin
Project: Rio Arriba, NM NAD27
Site: San Juan 27-5 Unit NP 330
Well: San Juan 27-5 Unit NP 330
Wellbore: ST1
Design: ST1

**Well Details: San Juan 27-5 Unit NP 330**

TVD Reference: GL 6666' & RKB 17' @ 6683.00ft (Drake 3)						Slot
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	2037267.32	631139.59	36.5981100	-107.3865900	

PROJECT DETAILS: Rio Arriba, 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

Plan: ST1

16:22, September 16 2024
Created By: Janie Collins



Hilcorp Energy - San Juan Basin

Rio Arriba, NM NAD27

San Juan 27-5 Unit NP 330

San Juan 27-5 Unit NP 330

ST1

Design: ST1

Standard Survey Report

16 September, 2024



www.scientificdrilling.com





Scientific Drilling Survey Report



Company:	Hilcorp Energy - San Juan Basin	Local Co-ordinate Reference:	Well San Juan 27-5 Unit NP 330
Project:	Rio Arriba, NM NAD27	TVD Reference:	GL 6666' & RKB 17' @ 6683.00ft (Drake 3)
Site:	San Juan 27-5 Unit NP 330	MD Reference:	GL 6666' & RKB 17' @ 6683.00ft (Drake 3)
Well:	San Juan 27-5 Unit NP 330	North Reference:	True
Wellbore:	ST1	Survey Calculation Method:	Minimum Curvature
Design:	ST1	Database:	Grand Junction

Project	Rio Arriba, 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	San Juan 27-5 Unit NP 330				
Site Position:		Northing:	2,037,267.31 usft	Latitude:	36.5981100
From:	Lat/Long	Easting:	631,139.59 usft	Longitude:	-107.3865900
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in	Grid Convergence:	0.27 °

Well	San Juan 27-5 Unit NP 330					
Well Position	+N/-S	0.00 ft	Northing:	2,037,267.31 usft	Latitude:	36.5981100
	+E/-W	0.00 ft	Easting:	631,139.59 usft	Longitude:	-107.3865900
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,666.00 ft

Wellbore	ST1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2021_FILE	12/31/2021	8.52	63.08	49,434.10000000

Design	ST1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	3,271.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	305.454	

Survey Program	Date	9/16/2024			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.64	3,271.00	Survey #2 - Gyro Survey (OH)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4	
3,435.00	3,970.00	Survey #1 - MWD Survey (ST1)	MWD+HDGM	OWSG MWD + HDGM	
4,033.00	6,264.00	Survey #2 - Intermediate (ST1)	MWD+HDGM	OWSG MWD + HDGM	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	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	
100.64	0.29	308.210	100.64	0.16	-0.20	0.25	0.29	0.29	0.00	
126.06	0.20	302.160	126.06	0.22	-0.29	0.36	0.37	-0.35	-23.80	
150.70	0.11	303.410	150.70	0.26	-0.34	0.43	0.37	-0.37	5.07	
176.73	0.05	316.530	176.73	0.28	-0.37	0.47	0.24	-0.23	50.40	
202.10	0.06	283.410	202.10	0.29	-0.39	0.49	0.13	0.04	-130.55	
226.51	0.13	253.130	226.51	0.28	-0.43	0.52	0.34	0.29	-124.05	
251.39	0.15	292.990	251.39	0.29	-0.49	0.57	0.39	0.08	160.21	
276.26	0.12	305.000	276.26	0.32	-0.54	0.62	0.17	-0.12	48.29	



Scientific Drilling Survey Report



Company:	Hilcorp Energy - San Juan Basin	Local Co-ordinate Reference:	Well San Juan 27-5 Unit NP 330
Project:	Rio Arriba, NM NAD27	TVD Reference:	GL 6666' & RKB 17' @ 6683.00ft (Drake 3)
Site:	San Juan 27-5 Unit NP 330	MD Reference:	GL 6666' & RKB 17' @ 6683.00ft (Drake 3)
Well:	San Juan 27-5 Unit NP 330	North Reference:	True
Wellbore:	ST1	Survey Calculation Method:	Minimum Curvature
Design:	ST1	Database:	Grand Junction

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
301.08	0.23	314.940	301.08	0.37	-0.60	0.70	0.46	0.44	40.05	
326.64	0.14	293.890	326.64	0.42	-0.66	0.78	0.44	-0.35	-82.36	
351.04	0.30	295.390	351.04	0.46	-0.75	0.87	0.66	0.66	6.15	
377.04	0.26	278.780	377.04	0.49	-0.87	0.99	0.35	-0.15	-63.88	
401.48	0.34	256.280	401.48	0.48	-0.99	1.09	0.58	0.33	-92.06	
427.21	0.40	242.780	427.21	0.43	-1.15	1.18	0.41	0.23	-52.47	
451.86	0.40	237.970	451.86	0.34	-1.30	1.25	0.14	0.00	-19.51	
475.64	0.40	240.580	475.64	0.26	-1.44	1.32	0.08	0.00	10.98	
501.33	0.33	229.880	501.33	0.16	-1.57	1.38	0.38	-0.27	-41.65	
525.67	0.32	226.780	525.67	0.07	-1.68	1.41	0.08	-0.04	-12.74	
551.88	0.27	242.230	551.88	-0.01	-1.78	1.45	0.36	-0.19	58.95	
576.04	0.27	255.720	576.03	-0.05	-1.89	1.51	0.26	0.00	55.84	
600.95	0.32	266.300	600.94	-0.07	-2.02	1.60	0.30	0.20	42.47	
626.01	0.29	271.720	626.00	-0.07	-2.15	1.71	0.17	-0.12	21.63	
651.04	0.44	276.870	651.03	-0.06	-2.31	1.85	0.61	0.60	20.58	
676.17	0.44	278.770	676.16	-0.03	-2.50	2.02	0.06	0.00	7.56	
701.51	0.41	265.040	701.50	-0.02	-2.69	2.18	0.42	-0.12	-54.18	
726.61	0.37	258.690	726.60	-0.05	-2.85	2.30	0.23	-0.16	-25.30	
751.71	0.35	250.510	751.70	-0.09	-3.01	2.40	0.22	-0.08	-32.59	
776.74	0.21	245.960	776.73	-0.13	-3.12	2.47	0.57	-0.56	-18.18	
802.60	0.13	231.640	802.59	-0.17	-3.19	2.50	0.35	-0.31	-55.38	
825.91	0.09	287.930	825.90	-0.18	-3.22	2.52	0.47	-0.17	241.48	
852.70	0.08	292.110	852.69	-0.17	-3.26	2.56	0.04	-0.04	15.60	
877.71	0.18	323.870	877.70	-0.13	-3.30	2.62	0.48	0.40	126.99	
902.27	0.23	344.200	902.26	-0.05	-3.34	2.69	0.36	0.20	82.78	
926.88	0.53	335.820	926.87	0.10	-3.40	2.83	1.24	1.22	-34.05	
952.85	0.53	317.070	952.84	0.30	-3.53	3.05	0.66	0.00	-72.20	
976.52	0.55	305.320	976.51	0.45	-3.70	3.27	0.47	0.08	-49.64	
1,003.18	0.65	291.870	1,003.17	0.58	-3.94	3.54	0.65	0.38	-50.45	
1,026.83	0.73	283.130	1,026.81	0.66	-4.21	3.81	0.56	0.34	-36.96	
1,050.74	0.61	276.880	1,050.72	0.71	-4.49	4.07	0.59	-0.50	-26.14	
1,077.09	0.51	277.130	1,077.07	0.74	-4.74	4.29	0.38	-0.38	0.95	
1,100.95	0.47	279.930	1,100.93	0.77	-4.94	4.47	0.20	-0.17	11.74	
1,127.43	0.27	272.370	1,127.41	0.79	-5.11	4.63	0.78	-0.76	-28.55	
1,151.21	0.27	278.500	1,151.19	0.80	-5.22	4.72	0.12	0.00	25.78	
1,177.26	0.27	270.400	1,177.24	0.81	-5.35	4.83	0.15	0.00	-31.09	
1,200.97	0.30	283.920	1,200.95	0.83	-5.46	4.93	0.31	0.13	57.02	
1,227.01	0.42	297.260	1,226.99	0.89	-5.61	5.09	0.56	0.46	51.23	
1,250.66	0.51	295.870	1,250.64	0.97	-5.79	5.28	0.38	0.38	-5.88	
1,277.26	0.67	305.080	1,277.24	1.11	-6.02	5.55	0.70	0.60	34.62	
1,301.04	0.70	301.780	1,301.01	1.27	-6.26	5.83	0.21	0.13	-13.88	
1,327.01	0.62	300.320	1,326.98	1.43	-6.51	6.13	0.31	-0.31	-5.62	
1,350.76	0.62	296.860	1,350.73	1.55	-6.74	6.39	0.16	0.00	-14.57	



Scientific Drilling Survey Report



Company:	Hilcorp Energy - San Juan Basin	Local Co-ordinate Reference:	Well San Juan 27-5 Unit NP 330
Project:	Rio Arriba, NM NAD27	TVD Reference:	GL 6666' & RKB 17' @ 6683.00ft (Drake 3)
Site:	San Juan 27-5 Unit NP 330	MD Reference:	GL 6666' & RKB 17' @ 6683.00ft (Drake 3)
Well:	San Juan 27-5 Unit NP 330	North Reference:	True
Wellbore:	ST1	Survey Calculation Method:	Minimum Curvature
Design:	ST1	Database:	Grand Junction

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,376.87	0.63	294.780	1,376.84	1.67	-6.99	6.67	0.09	0.04	-7.97
1,400.67	0.66	289.370	1,400.64	1.77	-7.24	6.93	0.29	0.13	-22.73
1,427.24	0.70	292.060	1,427.21	1.88	-7.54	7.23	0.19	0.15	10.12
1,451.10	0.68	289.820	1,451.07	1.99	-7.81	7.51	0.14	-0.08	-9.39
1,477.35	0.73	295.570	1,477.31	2.11	-8.10	7.83	0.33	0.19	21.90
1,501.14	0.77	298.550	1,501.10	2.25	-8.38	8.13	0.23	0.17	12.53
1,528.23	0.83	292.670	1,528.19	2.42	-8.72	8.51	0.38	0.22	-21.71
1,551.59	0.91	284.890	1,551.55	2.53	-9.06	8.84	0.61	0.34	-33.30
1,577.39	0.99	282.790	1,577.34	2.63	-9.47	9.24	0.34	0.31	-8.14
1,603.00	1.05	286.020	1,602.95	2.75	-9.91	9.67	0.32	0.23	12.61
1,626.39	1.11	284.880	1,626.33	2.86	-10.34	10.08	0.27	0.26	-4.87
1,653.02	1.15	277.310	1,652.96	2.96	-10.85	10.56	0.58	0.15	-28.43
1,676.32	1.27	273.820	1,676.25	3.01	-11.34	10.99	0.60	0.52	-14.98
1,702.05	1.18	272.040	1,701.98	3.04	-11.89	11.45	0.38	-0.35	-6.92
1,727.70	1.18	272.480	1,727.62	3.06	-12.42	11.89	0.04	0.00	1.72
1,751.14	1.23	271.910	1,751.06	3.08	-12.91	12.30	0.22	0.21	-2.43
1,776.91	1.21	263.940	1,776.82	3.06	-13.46	12.74	0.66	-0.08	-30.93
1,800.74	1.16	268.770	1,800.65	3.03	-13.95	13.12	0.47	-0.21	20.27
1,827.99	1.09	265.080	1,827.89	3.00	-14.48	13.54	0.37	-0.26	-13.54
1,853.10	1.07	264.370	1,853.00	2.96	-14.96	13.90	0.10	-0.08	-2.83
1,878.64	0.97	265.360	1,878.53	2.91	-15.41	14.24	0.40	-0.39	3.88
1,900.79	0.96	266.970	1,900.68	2.89	-15.78	14.53	0.13	-0.05	7.27
1,927.03	0.97	268.580	1,926.92	2.87	-16.22	14.88	0.11	0.04	6.14
1,951.21	1.00	259.000	1,951.09	2.83	-16.63	15.19	0.69	0.12	-39.62
1,977.97	0.95	259.570	1,977.85	2.74	-17.08	15.50	0.19	-0.19	2.13
2,002.23	0.97	261.200	2,002.10	2.67	-17.48	15.79	0.14	0.08	6.72
2,026.39	0.90	266.020	2,026.26	2.63	-17.87	16.08	0.44	-0.29	19.95
2,050.82	1.00	267.020	2,050.69	2.61	-18.28	16.40	0.41	0.41	4.09
2,077.79	1.09	268.420	2,077.65	2.59	-18.77	16.79	0.35	0.33	5.19
2,102.18	1.15	269.660	2,102.04	2.58	-19.25	17.17	0.27	0.25	5.08
2,126.65	1.09	273.210	2,126.50	2.59	-19.72	17.57	0.37	-0.25	14.51
2,150.75	1.10	275.550	2,150.60	2.63	-20.18	17.96	0.19	0.04	9.71
2,178.21	1.16	274.280	2,178.05	2.67	-20.72	18.43	0.24	0.22	-4.62
2,202.29	1.10	269.280	2,202.13	2.69	-21.20	18.82	0.48	-0.25	-20.76
2,226.69	1.07	270.050	2,226.53	2.68	-21.66	19.20	0.14	-0.12	3.16
2,250.82	0.96	269.600	2,250.65	2.68	-22.09	19.55	0.46	-0.46	-1.86
2,275.65	1.01	273.070	2,275.48	2.69	-22.51	19.90	0.31	0.20	13.98
2,302.63	0.99	270.510	2,302.45	2.71	-22.98	20.29	0.18	-0.07	-9.49
2,327.04	0.94	274.050	2,326.86	2.72	-23.39	20.64	0.32	-0.20	14.50
2,351.83	0.96	275.280	2,351.65	2.76	-23.80	20.99	0.12	0.08	4.96
2,376.51	0.95	279.310	2,376.32	2.81	-24.21	21.35	0.28	-0.04	16.33
2,401.43	0.87	274.960	2,401.24	2.86	-24.60	21.70	0.42	-0.32	-17.46
2,426.18	0.84	276.480	2,425.99	2.90	-24.97	22.02	0.15	-0.12	6.14



Scientific Drilling Survey Report



Company:	Hilcorp Energy - San Juan Basin	Local Co-ordinate Reference:	Well San Juan 27-5 Unit NP 330
Project:	Rio Arriba, NM NAD27	TVD Reference:	GL 6666' & RKB 17' @ 6683.00ft (Drake 3)
Site:	San Juan 27-5 Unit NP 330	MD Reference:	GL 6666' & RKB 17' @ 6683.00ft (Drake 3)
Well:	San Juan 27-5 Unit NP 330	North Reference:	True
Wellbore:	ST1	Survey Calculation Method:	Minimum Curvature
Design:	ST1	Database:	Grand Junction

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
2,451.06	0.73	269.940	2,450.87	2.92	-25.31	22.31	0.57	-0.44	-26.29
2,475.70	0.74	276.360	2,475.50	2.93	-25.63	22.58	0.34	0.04	26.06
2,503.10	0.77	279.000	2,502.90	2.98	-25.98	22.90	0.17	0.11	9.64
2,528.26	0.80	277.320	2,528.06	3.03	-26.32	23.20	0.15	0.12	-6.68
2,552.96	0.76	265.470	2,552.76	3.04	-26.66	23.48	0.67	-0.16	-47.98
2,576.92	0.80	271.720	2,576.71	3.03	-26.98	23.74	0.39	0.17	26.09
2,601.54	0.83	269.090	2,601.33	3.03	-27.33	24.03	0.19	0.12	-10.68
2,627.49	0.92	266.750	2,627.28	3.02	-27.73	24.34	0.37	0.35	-9.02
2,651.10	0.96	267.720	2,650.89	3.00	-28.12	24.64	0.18	0.17	4.11
2,676.79	0.88	271.310	2,676.57	3.00	-28.53	24.98	0.38	-0.31	13.97
2,703.61	1.12	267.670	2,703.39	2.99	-29.00	25.36	0.93	0.89	-13.57
2,725.79	1.14	260.820	2,725.56	2.95	-29.43	25.68	0.62	0.09	-30.88
2,753.37	1.11	258.840	2,753.14	2.85	-29.96	26.06	0.18	-0.11	-7.18
2,778.28	1.06	259.810	2,778.04	2.76	-30.43	26.39	0.21	-0.20	3.89
2,803.09	0.91	257.140	2,802.85	2.68	-30.85	26.68	0.63	-0.60	-10.76
2,827.95	1.17	259.510	2,827.71	2.59	-31.29	26.99	1.06	1.05	9.53
2,852.70	1.21	263.350	2,852.45	2.51	-31.80	27.36	0.36	0.16	15.52
2,877.38	1.20	264.030	2,877.13	2.46	-32.31	27.75	0.07	-0.04	2.76
2,902.12	1.24	265.580	2,901.86	2.41	-32.84	28.15	0.21	0.16	6.27
2,926.76	1.23	264.440	2,926.49	2.36	-33.37	28.55	0.11	-0.04	-4.63
2,951.26	1.33	267.640	2,950.99	2.33	-33.91	28.97	0.50	0.41	13.06
2,978.06	1.15	266.270	2,977.78	2.30	-34.49	29.43	0.68	-0.67	-5.11
3,002.34	1.17	266.980	3,002.06	2.27	-34.98	29.81	0.10	0.08	2.92
3,026.38	1.17	269.000	3,026.09	2.25	-35.47	30.20	0.17	0.00	8.40
3,053.16	1.18	271.480	3,052.87	2.25	-36.02	30.65	0.19	0.04	9.26
3,077.41	1.28	271.490	3,077.11	2.27	-36.54	31.08	0.41	0.41	0.04
3,101.51	1.33	268.970	3,101.20	2.27	-37.09	31.53	0.32	0.21	-10.46
3,128.35	1.36	264.420	3,128.04	2.23	-37.72	32.02	0.41	0.11	-16.95
3,152.34	1.23	261.170	3,152.02	2.16	-38.26	32.42	0.62	-0.54	-13.55
3,176.58	1.24	258.660	3,176.26	2.07	-38.77	32.78	0.23	0.04	-10.35
3,203.31	1.29	255.670	3,202.98	1.94	-39.35	33.18	0.31	0.19	-11.19
3,227.47	1.37	251.650	3,227.13	1.78	-39.88	33.52	0.51	0.33	-16.64
3,251.62	1.40	252.110	3,251.28	1.60	-40.44	33.87	0.13	0.12	1.90
3,271.00	1.24	248.360	3,270.65	1.45	-40.86	34.12	0.92	-0.80	-19.35
3,435.00	2.25	337.960	3,434.59	3.78	-43.72	37.81	1.56	0.61	54.63
3,467.00	2.86	348.190	3,466.56	5.14	-44.12	38.92	2.37	1.91	31.97
3,498.00	3.44	356.750	3,497.52	6.83	-44.33	40.07	2.40	1.87	27.61
3,530.00	3.46	356.830	3,529.46	8.75	-44.44	41.28	0.06	0.06	0.25
3,593.00	3.28	354.910	3,592.35	12.44	-44.71	43.63	0.34	-0.29	-3.05
3,655.00	3.09	357.070	3,654.25	15.88	-44.95	45.82	0.36	-0.31	3.48
3,718.00	2.94	356.540	3,717.17	19.19	-45.13	47.89	0.24	-0.24	-0.84
3,781.00	4.25	333.540	3,780.04	22.89	-46.27	50.97	3.05	2.08	-36.51
3,844.00	4.86	323.800	3,842.85	27.13	-48.89	55.56	1.56	0.97	-15.46
3,907.00	5.21	319.480	3,905.60	31.46	-52.32	60.87	0.82	0.56	-6.86



Scientific Drilling Survey Report



Company:	Hilcorp Energy - San Juan Basin	Local Co-ordinate Reference:	Well San Juan 27-5 Unit NP 330
Project:	Rio Arriba, NM NAD27	TVD Reference:	GL 6666' & RKB 17' @ 6683.00ft (Drake 3)
Site:	San Juan 27-5 Unit NP 330	MD Reference:	GL 6666' & RKB 17' @ 6683.00ft (Drake 3)
Well:	San Juan 27-5 Unit NP 330	North Reference:	True
Wellbore:	ST1	Survey Calculation Method:	Minimum Curvature
Design:	ST1	Database:	Grand Junction

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,970.00	6.31	316.140	3,968.28	36.13	-56.58	67.05	1.82	1.75	-5.30
4,033.00	8.15	310.370	4,030.78	41.52	-62.38	74.90	3.14	2.92	-9.16
4,096.00	9.53	306.190	4,093.03	47.49	-69.99	84.56	2.41	2.19	-6.63
4,159.00	12.03	307.670	4,154.92	54.59	-79.40	96.34	3.99	3.97	2.35
4,221.00	13.49	307.930	4,215.38	62.98	-90.22	110.02	2.36	2.35	0.42
4,284.00	15.51	308.640	4,276.37	72.76	-102.59	125.78	3.22	3.21	1.13
4,347.00	16.16	309.270	4,336.98	83.57	-115.96	142.93	1.07	1.03	1.00
4,410.00	17.82	307.960	4,397.23	95.05	-130.35	161.31	2.70	2.63	-2.08
4,473.00	19.91	305.300	4,456.84	107.18	-146.71	181.67	3.59	3.32	-4.22
4,535.00	22.64	303.910	4,514.61	119.94	-165.23	204.16	4.48	4.40	-2.24
4,598.00	24.38	303.620	4,572.38	133.90	-186.12	229.28	2.77	2.76	-0.46
4,661.00	22.71	303.070	4,630.13	147.74	-207.14	254.43	2.67	-2.65	-0.87
4,723.00	25.14	305.240	4,686.80	161.87	-227.93	279.56	4.17	3.92	3.50
4,786.00	26.61	305.440	4,743.49	177.78	-250.36	307.06	2.34	2.33	0.32
4,849.00	23.67	304.920	4,800.51	193.20	-272.23	333.82	4.68	-4.67	-0.83
4,912.00	22.78	303.270	4,858.41	207.13	-292.80	358.65	1.75	-1.41	-2.62
4,974.00	23.74	302.380	4,915.37	220.40	-313.37	383.11	1.65	1.55	-1.44
5,037.00	21.37	302.010	4,973.55	233.28	-333.82	407.23	3.77	-3.76	-0.59
5,100.00	21.78	304.130	5,032.13	245.92	-353.23	430.38	1.40	0.65	3.37
5,162.00	24.30	303.340	5,089.18	259.38	-373.41	454.63	4.09	4.06	-1.27
5,225.00	26.98	304.490	5,145.97	274.60	-396.02	481.87	4.33	4.25	1.83
5,288.00	25.47	303.980	5,202.49	290.27	-419.03	509.71	2.42	-2.40	-0.81
5,350.00	26.25	306.220	5,258.28	305.82	-441.15	536.74	2.02	1.26	3.61
5,413.00	23.95	306.250	5,315.33	321.62	-462.70	563.46	3.65	-3.65	0.05
5,476.00	22.41	305.030	5,373.24	336.07	-482.85	588.26	2.56	-2.44	-1.94
5,538.00	23.74	304.090	5,430.28	349.85	-502.87	612.56	2.23	2.15	-1.52
5,601.00	25.14	305.760	5,487.63	364.78	-524.23	638.62	2.48	2.22	2.65
5,663.00	26.13	306.570	5,543.53	380.61	-545.88	665.44	1.69	1.60	1.31
5,726.00	23.81	305.920	5,600.64	396.34	-567.32	692.03	3.71	-3.68	-1.03
5,789.00	23.85	308.200	5,658.27	411.68	-587.63	717.47	1.46	0.06	3.62
5,852.00	22.31	308.210	5,716.22	426.95	-607.04	742.14	2.44	-2.44	0.02
5,915.00	20.53	308.450	5,774.87	441.22	-625.09	765.11	2.83	-2.83	0.38
5,977.00	17.18	306.830	5,833.53	453.47	-640.94	785.13	5.47	-5.40	-2.61
6,040.00	15.82	308.120	5,893.94	464.35	-655.14	803.01	2.24	-2.16	2.05
6,104.00	15.16	308.380	5,955.61	474.93	-668.56	820.08	1.04	-1.03	0.41
6,166.00	15.00	306.330	6,015.48	484.72	-681.38	836.20	0.90	-0.26	-3.31
6,264.00	15.00	306.330	6,110.14	499.75	-701.82	861.56	0.00	0.00	0.00

Scientific Drilling
Survey Report



Company:	Hilcorp Energy - San Juan Basin	Local Co-ordinate Reference:	Well San Juan 27-5 Unit NP 330
Project:	Rio Arriba, NM NAD27	TVD Reference:	GL 6666' & RKB 17' @ 6683.00ft (Drake 3)
Site:	San Juan 27-5 Unit NP 330	MD Reference:	GL 6666' & RKB 17' @ 6683.00ft (Drake 3)
Well:	San Juan 27-5 Unit NP 330	North Reference:	True
Wellbore:	ST1	Survey Calculation Method:	Minimum Curvature
Design:	ST1	Database:	Grand Junction

Checked By: _____

Approved By: _____

Date: _____

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

ACKNOWLEDGMENTS

Action 403438

ACKNOWLEDGMENTS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 403438
	Action Type: [C-104] Completion Packet - Test Allowable (C-104RT)

ACKNOWLEDGMENTS

☒	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
☒	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.
☒	I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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

CONDITIONS

Action 403438

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 403438
	Action Type: [C-104] Completion Packet - Test Allowable (C-104RT)

CONDITIONS

Created By	Condition	Condition Date
smcgrath	RT C-104 Expires 90 days from ready date for a Horizontal well.	11/14/2024