

Well Name: SAN JUAN 32 8 701 FEDERAL COM	Well Location: T32N / R08W / SEC 27 / SESW / 36.948761 / -107.663814	County or Parish/State: SAN JUAN / NM
Well Number: 605H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMSF079381	Unit or CA Name:	Unit or CA Number:
US Well Number:	Operator: HILCORP ENERGY COMPANY	

Notice of Intent

Sundry ID: 2876926

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 10/02/2025

Time Sundry Submitted: 01:08

Date proposed operation will begin: 11/01/2025

Procedure Description: Hilcorp Energy Company requests to revise the Approved APD on the above listed well. The wellheads will now be located in a single row spaced 20' apart, rather than split into two separate rows spaced at 25' feet apart with 40' between the two rows. The lateral will also be extended. Please see the attached revised plat, technical plans, and directional plans. **IMPORTANT NOTE:** Name change request filed separately

NOI Attachments

Procedure Description

San_Juan_32_8_703_Federal_Com_605H_Revised_Well_Plats_20251113080708.pdf

Additional_Attachment_32_8_20251113080540.pdf

San_Juan_32_8_703_Federal_Com_605H_Plan_6_20251002130829.pdf

San_Juan_32_8_703_Federal_Com_605H____Drilling_Technical_Plan____Rev_0_20251002130828.pdf

Well Name: SAN JUAN 32 8 701
FEDERAL COM

Well Location: T32N / R08W / SEC 27 /
SESW / 36.948761 / -107.663814

County or Parish/State: SAN
JUAN / NM

Well Number: 605H

Type of Well: CONVENTIONAL GAS
WELL

Allottee or Tribe Name:

Lease Number: NMSF079381

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: HILCORP ENERGY
COMPANY

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: AMANDA WALKER

Signed on: NOV 13, 2025 08:07 AM

Name: HILCORP ENERGY COMPANY

Title: Operations/Regulatory Technician

Street Address: 1111 TRAVIS ST

City: HOUSTON State: TX

Phone: (346) 237-2177

Email address: MWALKER@HILCORP.COM

Field

Representative Name:

Street Address:

City: State: Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: KENNETH G RENNICK

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647742

BLM POC Email Address: krennick@blm.gov

Disposition: Approved

Disposition Date: 11/25/2025

Signature: Kenneth Rennick

Form 3160-5
(October 2024)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0220
Expires: October 31, 2027

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.

5. Lease Serial No.
6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No.
2. Name of Operator		9. API Well No.
3a. Address	3b. Phone No. (include area code)	10. Field and Pool or Exploratory Area
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		11. Country or Parish, State

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recomplete 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 recompletion 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.)

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

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by		
	Title	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.	Office	

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.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: SESW / 481 FSL / 2198 FWL / TWSP: 32N / RANGE: 08W / SECTION: 27 / LAT: 36.948761 / LONG: -107.663814 (TVD: 0 feet, MD: 0 feet)
PPP: NESE / 0 FNL / 0 FWL / TWSP: 32N / RANGE: 08W / SECTION: 29 / LAT: 0.0 / LONG: 0.0 (TVD: 0 feet, MD: 0 feet)
PPP: NESW / 0 FNL / 0 FWL / TWSP: 32N / RANGE: 08W / SECTION: 28 / LAT: 0.0 / LONG: 0.0 (TVD: 0 feet, MD: 0 feet)
PPP: NESE / 0 FNL / 0 FWL / TWSP: 32N / RANGE: 08W / SECTION: 28 / LAT: 0.0 / LONG: 0.0 (TVD: 0 feet, MD: 0 feet)
PPP: NESW / 0 FNL / 0 FWL / TWSP: 32N / RANGE: 08W / SECTION: 27 / LAT: 0.0 / LONG: 0.0 (TVD: 0 feet, MD: 0 feet)
PPP: SENE / 1932 FNL / 0 FWL / TWSP: 32N / RANGE: 08W / SECTION: 32 / LAT: 36.942662 / LONG: -107.689208 (TVD: 7284 feet, MD: 8081 feet)
PPP: SENW / 1900 FNL / 2626 FWL / TWSP: 32N / RANGE: 08W / SECTION: 33 / LAT: 36.942478 / LONG: -107.680221 (TVD: 7284 feet, MD: 8081 feet)
PPP: SENE / 1914 FNL / 0 FEL / TWSP: 32N / RANGE: 08W / SECTION: 33 / LAT: 36.942229 / LONG: -107.666838 (TVD: 7284 feet, MD: 8081 feet)
PPP: SENW / 1914 FNL / 1606 FWL / TWSP: 32N / RANGE: 08W / SECTION: 34 / LAT: 36.942182 / LONG: -107.665784 (TVD: 7284 feet, MD: 8081 feet)
BHL: SWNW / 1925 FNL / 805 FWL / TWSP: 32N / RANGE: 08W / SECTION: 32 / LAT: 36.942972 / LONG: -107.704491 (TVD: 7288 feet, MD: 19396 feet)

CONFIDENTIAL

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 <input type="checkbox"/> Initial Submittal <input checked="" type="checkbox"/> Amended Report <input type="checkbox"/> As Drilled
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WELL LOCATION INFORMATION

API Number 30-045-38391	Pool Code 97232	Pool Name BASIN MANCOS
Property Code 336550	Property Name SAN JUAN 32 8 703 FEDERAL COM	Well Number 605H
OGRID No. 372171	Operator Name HILCORP ENERGY COMPANY	Ground Level Elevation 6703'
Surface Owner: <input type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

Surface Location

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
N	27	32N	8W		576' SOUTH	2198' WEST	36.949022 °N	-107.663821 °W	SAN JUAN

Bottom Hole Location

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
G	36	32N	9W		1843' NORTH	2377' EAST	36.943206 °N	-107.730652 °W	SAN JUAN

Dedicated Acres 1231.25	Penetrated Spacing Unit N/2 - Section 31, T32N, R8W N/2 - Section 32, T32N, R8W N/2 - Section 33, T32N, R8W NW/4 - Section 34, T32N, R8W NE/4 - Section 36, T32N, R9W	Infill or Defining Well Infill	Defining Well API 30-045-38390	Overlapping Spacing Unit <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Consolidation Code Com
Order Numbers R-235			Well setbacks are under Common Ownership <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
N	27	32N	8W		576' SOUTH	2198' WEST	36.949022 °N	-107.663821 °W	SAN JUAN

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
F	34	32N	8W		1744' NORTH	2544' WEST	36.942652 °N	-107.662575 °W	SAN JUAN

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
G	36	32N	9W		1843' NORTH	2309' EAST	36.943204 °N	-107.730418 °W	SAN JUAN

Unitized Area or Area of Uniform Interest	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical <input type="checkbox"/> Directional	Ground Floor Elevation
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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.

Amanda Walker

Signature

11/13/2025

Date

Amanda Walker

Printed Name

mwalker@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.



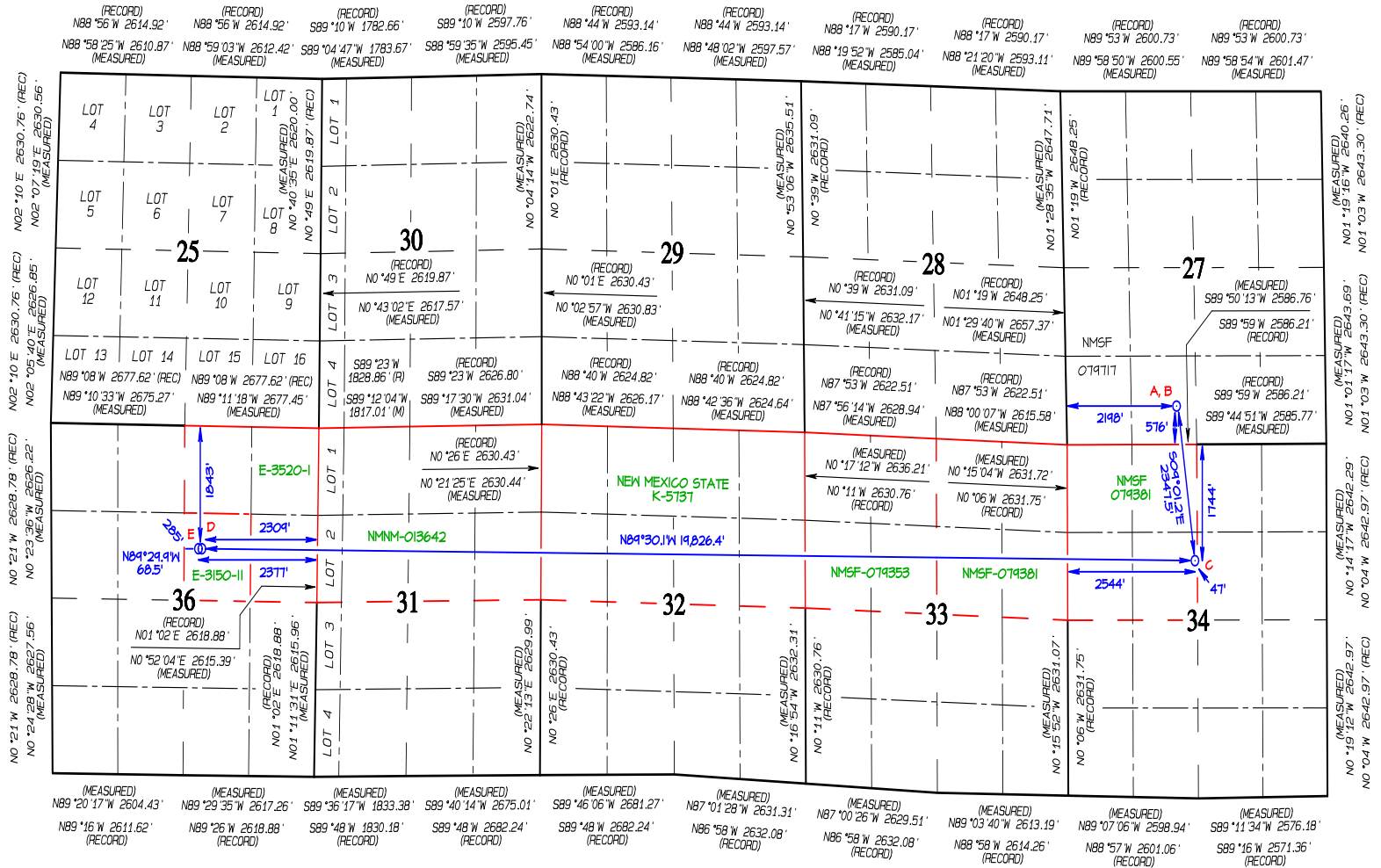
JASON C. EDWARDS

Signature and Seal of Professional Surveyor

Certificate Number 15269

Date of Survey SEPTEMBER 16, 2022

San Juan 32 & 703 Federal Com 605H



BOTTOM HOLE LOCATION (E)
 1843' FNL 2377' FEL
 SECTION 36, T32N, R9W
 LAT 36.943203°N
 LONG -107.730036°W
 DATUM: NAD1927

LAT 36.943206°N
 LONG -107.730652°W
 DATUM: NAD1983

LAST TAKE POINT (D)
 1843' FNL 2309' FEL
 SECTION 36, T32N, R9W
 LAT 36.943201°N
 LONG -107.729801°W
 DATUM: NAD1927

LAT 36.943204°N
 LONG -107.730417°W
 DATUM: NAD1983

FIRST TAKE POINT (C)
 1744' FNL 2544' FWL
 SECTION 34, T32N, R9W
 LAT 36.942648°N
 LONG -107.661962°W
 DATUM: NAD1927

LAT 36.942652°N
 LONG -107.662575°W
 DATUM: NAD1983

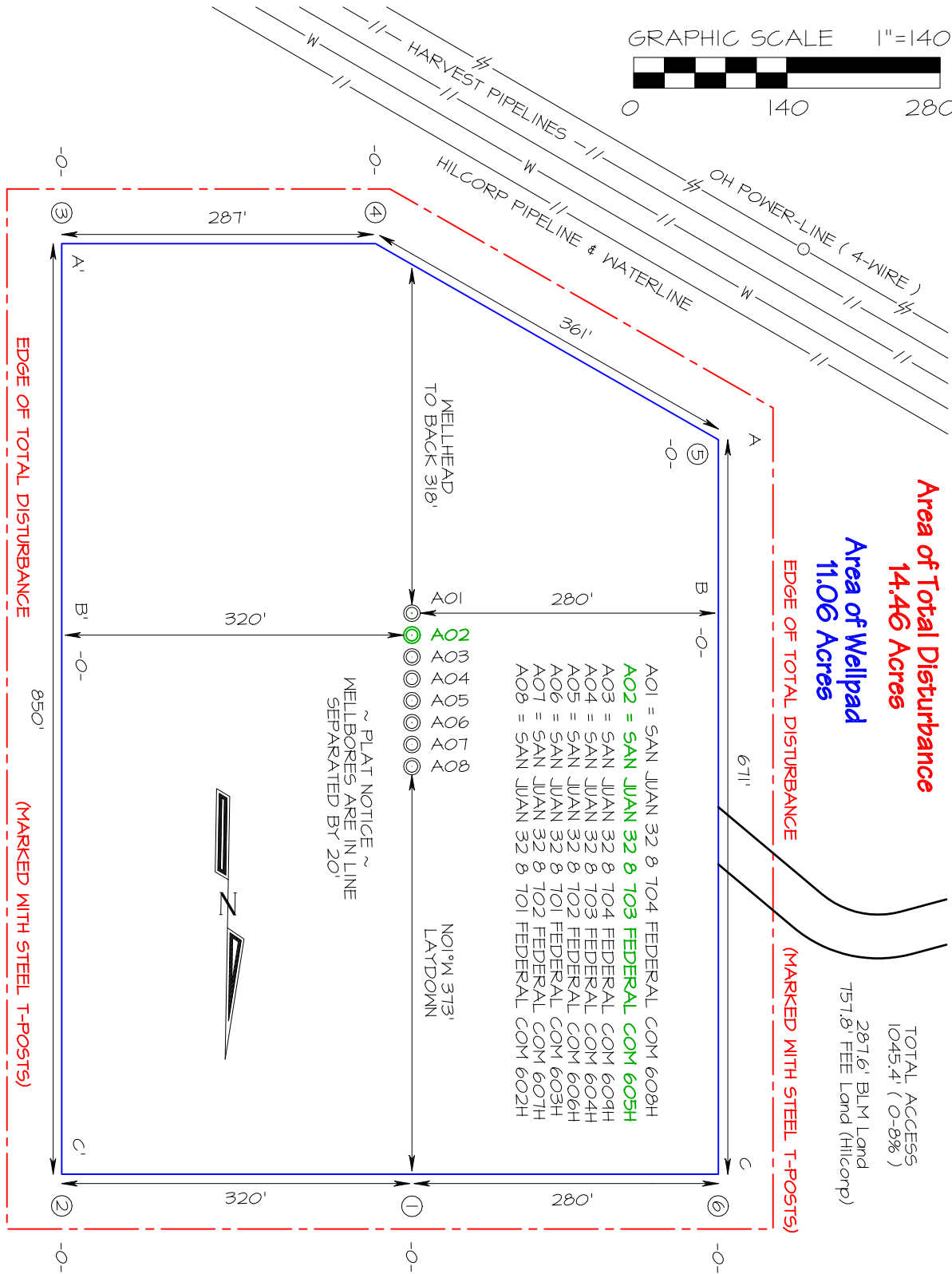
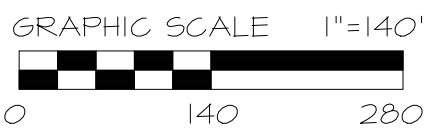
KICK OFF POINT (B)
 576' FSL 2198' FWL
 SECTION 27, T32N, R9W
 LAT 36.949018°N
 LONG -107.663207°W
 DATUM: NAD1927

LAT 36.949022°N
 LONG -107.663821°W
 DATUM: NAD1983

SURFACE LOCATION (A)
 576' FSL 2198' FWL
 SECTION 27, T32N, R9W
 LAT 36.949018°N
 LONG -107.663207°W
 DATUM: NAD1927

LAT 36.949022°N
 LONG -107.663821°W
 DATUM: NAD1983

HILCORP ENERGY SAN JUAN 32 & 703 FEDERAL COM 605H
576' FSL & 2198' FWL, SECTION 27, T32N, R8W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6703'
LAT 36.9490229°N LONG -107.663821°W DATUM: NAD1983



Area of Total Disturbance
14.46 Acres

Area of Wellpad
11.06 Acres

EDGE OF TOTAL DISTURBANCE

(MARKED WITH STEEL T-POSTS)

- A01 = SAN JUAN 32 & T04 FEDERAL COM 608H
- A02 = **SAN JUAN 32 & T03 FEDERAL COM 605H**
- A03 = SAN JUAN 32 & T04 FEDERAL COM 609H
- A04 = SAN JUAN 32 & T03 FEDERAL COM 604H
- A05 = SAN JUAN 32 & T02 FEDERAL COM 606H
- A06 = SAN JUAN 32 & T01 FEDERAL COM 603H
- A07 = SAN JUAN 32 & T02 FEDERAL COM 607H
- A08 = SAN JUAN 32 & T01 FEDERAL COM 602H

~ PLAT NOTICE ~
WELLBORES ARE IN LINE
SEPARATED BY 20'



TOTAL ACCESS
1045.4' (0-8%)
287.6' BLM Land
757.8' FEE Land (Hilcorp)

~ FEE SURFACE OWNER ~
Hilcorp San Juan, LP

EDGE OF TOTAL DISTURBANCE

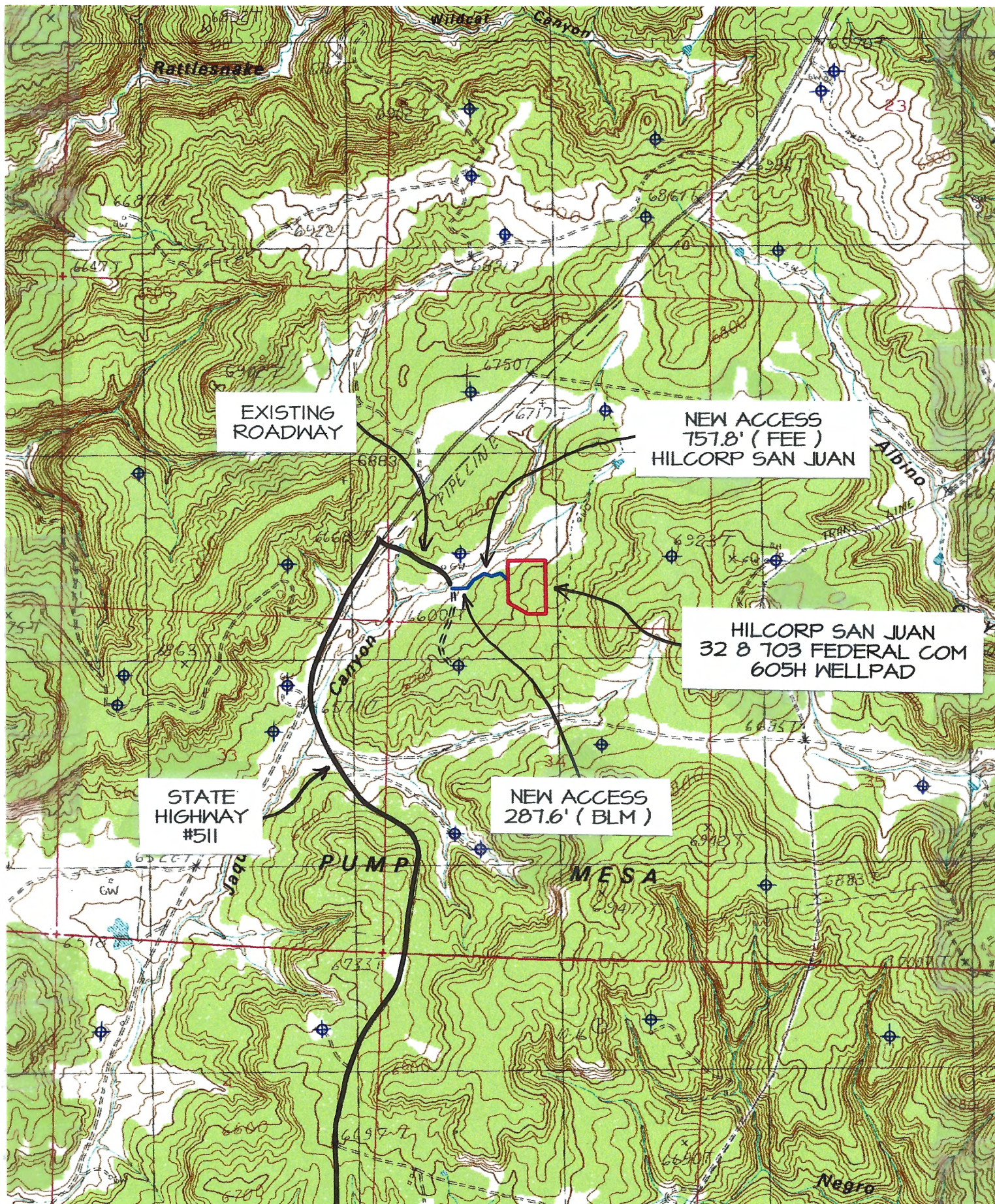
(MARKED WITH STEEL T-POSTS)

~ 1/4 SECTION LINE ~ OWNERSHIP CHANGE ~

Steel T-Posts have been set to define the Edge of Disturbance limits which are 50' offset from the edge of the staked wellpad.

HILCORP ENERGY COMPANY SAN JUAN 32 8 703 FEDERAL COM 605H

576' FSL & 2198' FWL, SECTION 27, T32N, R8W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO



EXISTING ROADWAY

NEW ACCESS
751.8' (FEE)
HILCORP SAN JUAN

HILCORP SAN JUAN
32 8 703 FEDERAL COM
605H WELLPAD

STATE
HIGHWAY
#511

NEW ACCESS
287.6' (BLM)

TOPO NAME: ANASTACIO SPRING

⊕ PRODUCING WELL

⊗ PLUGGED & ABANDONED WELL

Directions from the Intersection of US Hwy 550 & State Hwy 173
in Aztec, NM to Hilcorp Energy San Juan 32 8 703 Federal Com 605H
576' FSL & 2198' FWL, Section 27, T32N, R8W, N.M.P.M., San Juan County, NM

Latitude: 36.949022°N Longitude: -107.663821°W Datum: NAD1983

From the intersection of US Hwy 550 & State Hwy 173 in Aztec, NM, travel Easterly on State Hwy 173 for 1.0 miles to fork in roadway;

Go Left (Easterly) remaining on State Hwy 173 for 17.0 miles to T-intersection;

Go Left (North-Easterly) exiting State Hwy 173 onto State Hwy 511 for 17.7 miles to existing roadway on right-hand side of State Hwy 511 @ Mile Marker 25.8;

Go Right (South-Easterly) exiting State Hwy 511 along existing roadway for 0.3 miles to new access on left-hand side which continues for 1045.4' to Hilcorp San Juan 32 8 703 Federal Com 605H proposed wellpad

This is an example calculation for the San Juan 32-8 701 Federal Com 602H well. These same calculations are computed for every well permitted, the tech plan is a summary.

Governing Equations:

$$\text{Casing Burst Safety Factor} = \frac{\text{Casing Burst Rating (psi)}}{\text{Maximum Mud Weight (ppg)} \times \text{TVD (ft)} \times 0.052}$$

$$\text{Casing Collapse Safety Factor} = \text{Hydrostatic of Mud Weight in Annulus (psi)} - \left[\text{TVD of Casing Shoe (ft)} \times 0.10 \frac{\text{psi}}{\text{ft}} \right]$$

$$\text{Tensile Safety Factor} = \frac{\text{Tensile Rating of Casing String (lbs)}}{\text{Measured Depth of Casing (ft)} \times \text{Casing Weight} \frac{\text{lb}}{\text{ft}} \times \text{Drilling Fluid Bouyancy Factor}}$$

Buoyancy Factor Calculation:

$$(\text{Density of Steel (ppg)} - \text{Mud Weight (ppg)}) / \text{Density of Steel (ppg)}$$

$$\text{Example: for 9.0 ppg mud weight} - (65.5 \text{ ppg} - 9.0 \text{ ppg}) / (65.5 \text{ ppg}) = 0.863$$

Acceptable Casing Load Safety Factors:

- Minimum Acceptable Burst Load Safety Factor: 1.15
- Minimum Acceptable Collapse Load Safety Factor: 1.15
- Minimum Acceptable Tensile Load Safety Factor: 1.50

20" Surface Casing:

- Casing Properties:
 - Casing Description: 20" 94# J55 BTC
 - Burst Rating: 2,110 psi
 - Collapse Rating: 520 psi
 - Tensile Rating: 1,402,000 lbs
- Wellbore Conditions:
 - Casing set depth: 350 ft MD/TVD
 - Mud weight: 9.0 ppg
 - Buoyancy Factor: 0.863
- Design Load Descriptions:
 - Burst Load: Inside of casing is full of 9.0 ppg drilling fluid. Annulus has been completely evacuated.
 - Collapse Load: Inside of casing has been evacuated leaving only gas gradient at 0.1 psi/ft inside of the casing. Annulus is full of 9.0 ppg drilling fluid.
 - Tensile Load: Weight of the casing in air multiplied by the buoyancy factor of the drilling fluid.
- Design Load and Safety Factor Calculations:
 - Burst Load Calculation: $9.0 \text{ ppg} \times 350 \text{ ft TVD} \times 0.052 = 164 \text{ psi}$
 - Burst Load Safety Factor Calculation: $2,110 \text{ psi} / 164 \text{ psi} = \mathbf{12.9 \text{ safety factor}}$
 - Collapse Load Calculation: $(9.0 \text{ ppg} \times 350 \text{ ft TVD} \times 0.052) - (0.1 \text{ psi/ft} * 350 \text{ ft TVD}) = 129 \text{ psi}$
 - Collapse Load Safety Factor Calculation: $520 \text{ psi} / 129 \text{ psi} = \mathbf{4.0 \text{ safety factor}}$
 - Tensile Load Calculation: $(94.0 \text{ lbs/ft} * 350 \text{ ft MD}) * 0.863 = 28,393 \text{ lbs}$
 - Tensile Load Safety Factor Calculation: $1,402,000 \text{ lbs} / 28,393 \text{ lbs} = \mathbf{49.4 \text{ safety factor}}$

13-3/8" Intermediate Casing:

- Casing Properties:
 - Casing Description: 13-3/8" 61# L80 BTC
 - Burst Rating: 4,500 psi
 - Collapse Rating: 1,670 psi
 - Tensile Rating: 1,389,000 lbs
- Wellbore Conditions:
 - Casing set depth: 4,003 ft MD / 3,800' TVD
 - Mud weight: 9.0 ppg
 - Buoyancy Factor: 0.863
- Design Load Descriptions:
 - Burst Load: Inside of casing is full of 9.0 ppg drilling fluid. Annulus has been completely evacuated.
 - Collapse Load: Inside of casing has been evacuated leaving only gas gradient at 0.1 psi/ft inside of the casing. Annulus is full of 9.0 ppg drilling fluid.
 - Tensile Load: Weight of the casing in air multiplied by the buoyancy factor of the drilling fluid.
- Design Load and Safety Factor Calculations:
 - Burst Load Calculation: $9.0 \text{ ppg} \times 3,800 \text{ ft TVD} \times 0.052 = 1,778 \text{ psi}$
 - Burst Load Safety Factor Calculation: $4,500 \text{ psi} / 1,778 \text{ psi} = \mathbf{2.5 \text{ safety factor}}$
 - Collapse Load Calculation: $(9.0 \text{ ppg} \times 3,800 \text{ ft TVD} \times 0.052) - (0.1 \text{ psi/ft} \times 3,800 \text{ ft TVD}) = 1,398 \text{ psi}$
 - Collapse Load Safety Factor Calculation: $1,670 \text{ psi} / 1,398 \text{ psi} = \mathbf{1.2 \text{ safety factor}}$
 - Tensile Load Calculation: $(61.0 \text{ lbs/ft} \times 4,003 \text{ ft MD}) \times 0.863 = 210,730 \text{ lbs}$
 - Tensile Load Safety Factor Calculation: $1,389,000 \text{ lbs} / 210,730 \text{ lbs} = \mathbf{6.6 \text{ safety factor}}$

9-5/8" Intermediate Casing:

- Casing Properties:
 - Casing Description: 9-5/8" 40# P110 BTC
 - Burst Rating: 7,900 psi
 - Collapse Rating: 3,470 psi
 - Tensile Rating: 1,260,000 lbs
- Wellbore Conditions:
 - Casing set depth: 6,908 ft MD / 6,600' TVD
 - Mud weight: 9.5 ppg
 - Buoyancy Factor: 0.855
- Design Load Descriptions:
 - Burst Load: Inside of casing is full of 9.5 ppg drilling fluid. Annulus has been completely evacuated.
 - Collapse Load: Inside of casing has been evacuated leaving only gas gradient at 0.1 psi/ft inside of the casing. Annulus is full of 9.5 ppg drilling fluid.
 - Tensile Load: Weight of the casing in air multiplied by the buoyancy factor of the drilling fluid.
- Design Load and Safety Factor Calculations:
 - Burst Load Calculation: $9.5 \text{ ppg} \times 6,600 \text{ ft TVD} \times 0.052 = 3,260 \text{ psi}$

- Burst Load Safety Factor Calculation: $7,900 \text{ psi} / 3,260 \text{ psi} = \mathbf{2.4 \text{ safety factor}}$
- Collapse Load Calculation: $(9.5 \text{ ppg} \times 6,600 \text{ ft TVD} \times 0.052) - (0.1 \text{ psi/ft} \times 6,600 \text{ ft TVD}) = 2,600 \text{ psi}$
- Collapse Load Safety Factor Calculation: $3,470 \text{ psi} / 2,600 \text{ psi} = \mathbf{1.3 \text{ safety factor}}$
- Tensile Load Calculation: $(40.0 \text{ lbs/ft} \times 6,908 \text{ ft MD}) \times 0.855 = 236,254 \text{ lbs}$
- Tensile Load Safety Factor Calculation: $1,260,000 \text{ lbs} / 236,254 \text{ lbs} = \mathbf{5.3 \text{ safety factor}}$

5-1/2" Production Casing:

- Casing Properties:
 - Casing Description: 5-1/2" 20# P110 BTC
 - Burst Rating: 12,640 psi
 - Collapse Rating: 11,100 psi
 - Tensile Rating: 667,000 lbs
- Wellbore Conditions:
 - Casing set depth: 27,657 ft MD / 7,243' TVD
 - Mud weight: 12.0 ppg
 - Buoyancy Factor: 0.817
- Design Load Descriptions:
 - Burst Load: Inside of casing is full of 12.0 ppg drilling fluid. Annulus has been completely evacuated.
 - Collapse Load: Inside of casing has been evacuated leaving only gas gradient at 0.1 psi/ft inside of the casing. Annulus is full of 12.0 ppg drilling fluid.
 - Tensile Load: Weight of the casing in air multiplied by the buoyancy factor of the drilling fluid.
 - ***Note: This calculation is conservative due to the weight of the casing in the lateral section being supported by the wellbore. Estimated hookload while running is 118,350 lbs, estimated hookload for pickup is 240,834 lbs (assuming 0.30 friction factor).***
- Design Load and Safety Factor Calculations:
 - Burst Load Calculation: $12.0 \text{ ppg} \times 7,243 \text{ ft TVD} \times 0.052 = 4,520 \text{ psi}$
 - Burst Load Safety Factor Calculation: $12,640 \text{ psi} / 4,520 \text{ psi} = \mathbf{2.8 \text{ safety factor}}$
 - Collapse Load Calculation: $(12.0 \text{ ppg} \times 7,243 \text{ ft TVD} \times 0.052) - (0.1 \text{ psi/ft} \times 7,243 \text{ ft TVD}) = 3,796 \text{ psi}$
 - Collapse Load Safety Factor Calculation: $11,100 \text{ psi} / 3,796 \text{ psi} = \mathbf{2.9 \text{ safety factor}}$
 - Worst Case Tensile Load Calculation: $(20.0 \text{ lbs/ft} \times 27,657 \text{ ft MD}) \times 0.817 = 451,915 \text{ lbs}$
 - Worst Case Tensile Load Safety Factor Calculation: $667,000 \text{ lbs} / 451,915 \text{ lbs} = \mathbf{1.5 \text{ safety factor}}$
 - Most Likely Case Tensile Load Calculation: 240,834 lbs
 - Most Likely Case Tensile Load Safety Factor Calculation: $667,000 \text{ lbs} / 240,834 \text{ lbs} = \mathbf{2.8 \text{ safety factor}}$



San Juan 32-8 703 Federal Com 605H
OH
Plan #6

PROJECT DETAILS: San Juan, NM NAD27

GL 6703' & RKB 25.1' @ 6728.10ft (Nabors B29)
Northing 2164753.59 Easting 549712.65 Latitude 36.949018 Longitude -107.663207

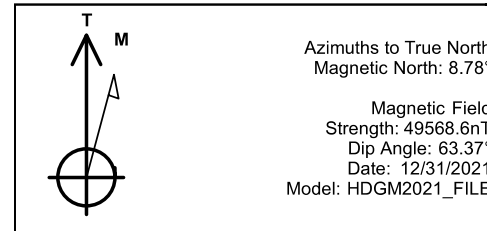
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico West 3003
System Datum: Mean Sea Level



PLAN DETAILS

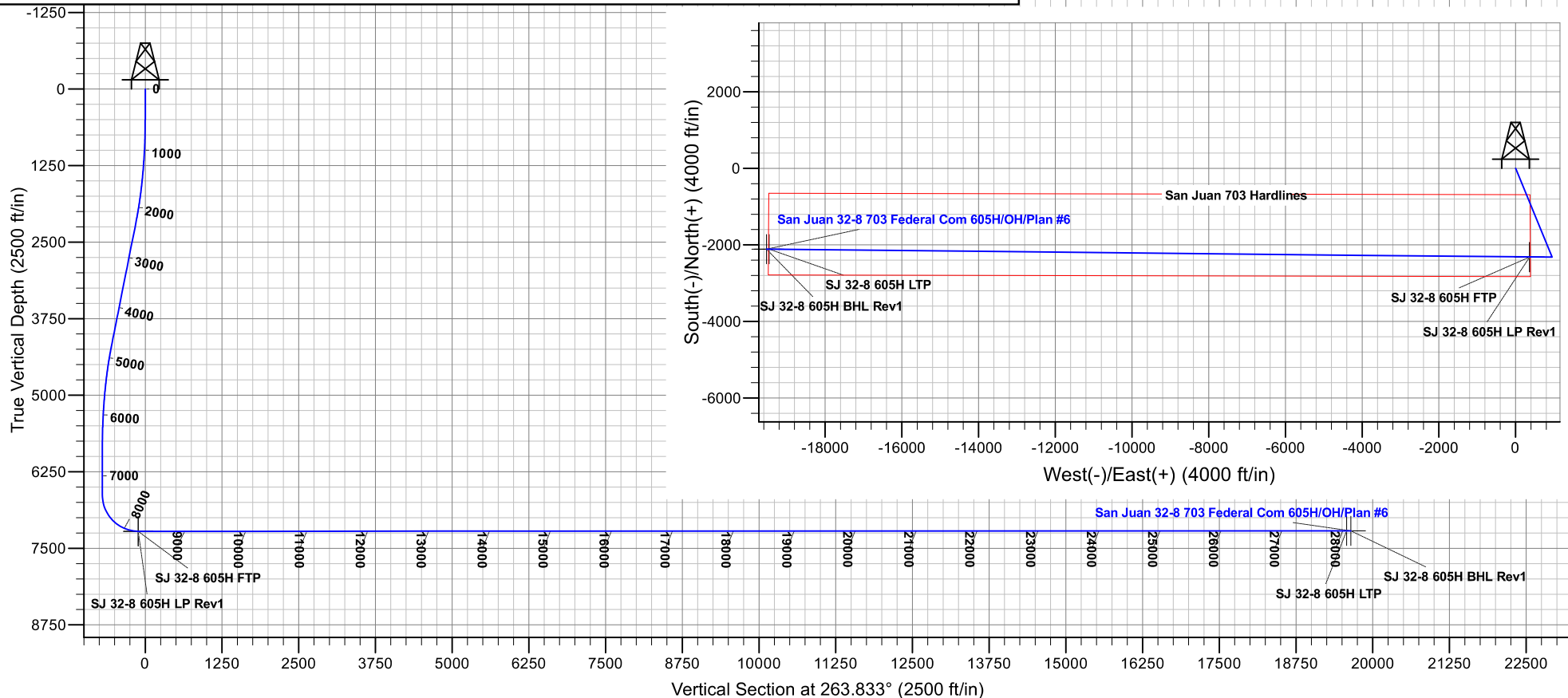
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	Annotation
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	Start Build 2.00
2267.57	35.35	157.663	2157.54	-488.58	200.75	2.00	-147.10	Start 2507.20 hold at 2267.57 MD
4774.77	35.35	157.663	4202.46	-1830.37	752.05	0.00	-551.08	Start Drop -2.00
6542.34	0.00	0.000	5860.00	-2318.95	952.80	2.00	-698.18	Start 767.00 hold at 6542.34 MD
7309.34	0.00	0.000	6627.00	-2318.95	952.80	0.00	-698.18	Start DLS 9.63 TFO 270.00
8237.18	89.34	270.000	7222.00	-2318.95	364.61	9.63	-113.39	Start DLS 2.00 TFO 41.49
8282.62	90.02	270.602	7222.25	-2318.71	319.18	2.00	-68.24	Start 19849.86 hold at 8282.62 MD
28132.48	90.02	270.602	7215.00	-2110.14	-19529.59	0.00	19643.25	TD at 28132.48

Plan: Plan #6 (San Juan 32-8 703 Federal Com 605H/OH)
Created By: Janie Collins Date: 13:08, September 29 2025



DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SJ 32-8 605H LP Rev1	7222.00	-2318.95	364.61	2162435.30	550081.40	36.942648	-107.661959
SJ 32-8 605H BHL Rev1	7215.00	-2110.14	-19529.59	2162608.60	530186.90	36.943203	-107.730036
SJ 32-8 605H FTP	7222.00	-2318.95	363.77	2162435.30	550080.56	36.942648	-107.661962
SJ 32-8 605H LTP	7215.00	-2110.86	-19461.11	2162608.00	530255.38	36.943201	-107.729801





Hilcorp Energy - San Juan Basin

San Juan, NM NAD27

San Juan 32-8 Pad

San Juan 32-8 703 Federal Com 605H

OH

Plan: Plan #6

Standard Planning Report

29 September, 2025



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Scientific Drilling
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well San Juan 32-8 703 Federal Com 605H
Company:	Hilcorp Energy - San Juan Basin	TVD Reference:	GL 6703' & RKB 25.1' @ 6728.10ft (Nabors B29)
Project:	San Juan, NM NAD27	MD Reference:	GL 6703' & RKB 25.1' @ 6728.10ft (Nabors B29)
Site:	San Juan 32-8 Pad	North Reference:	True
Well:	San Juan 32-8 703 Federal Com 605H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #6		

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	San Juan 32-8 Pad				
Site Position:		Northing:	2,164,873.73 usft	Latitude:	36.949348
From:	Lat/Long	Easting:	549,709.81 usft	Longitude:	-107.663216
Position Uncertainty:	0.00 ft	Slot Radius:	13.20 in	Grid Convergence:	0.10 °

Well	San Juan 32-8 703 Federal Com 605H					
Well Position	+N/-S	-120.14 ft	Northing:	2,164,753.59 usft	Latitude:	36.949018
	+E/-W	2.63 ft	Easting:	549,712.65 usft	Longitude:	-107.663207
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	6,703.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2021_FILE	12/31/2021	8.78	63.37	49,568.60000000

Design	Plan #6			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	263.833

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,267.57	35.35	157.663	2,157.54	-488.58	200.75	2.00	2.00	0.00	157.66	
4,774.77	35.35	157.663	4,202.46	-1,830.37	752.05	0.00	0.00	0.00	0.00	
6,542.35	0.00	0.000	5,860.00	-2,318.95	952.80	2.00	-2.00	0.00	180.00	
7,309.35	0.00	0.000	6,627.00	-2,318.95	952.80	0.00	0.00	0.00	0.00	
8,237.18	89.34	270.000	7,222.00	-2,318.95	364.61	9.63	9.63	-9.70	270.00	SJ 32-8 605H LP Rev
8,282.62	90.02	270.602	7,222.25	-2,318.71	319.18	2.00	1.50	1.32	41.49	
28,132.48	90.02	270.602	7,215.00	-2,110.14	-19,529.59	0.00	0.00	0.00	0.00	SJ 32-8 605H BHL R



Scientific Drilling
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well San Juan 32-8 703 Federal Com 605H
Company:	Hilcorp Energy - San Juan Basin	TVD Reference:	GL 6703' & RKB 25.1' @ 6728.10ft (Nabors B29)
Project:	San Juan, NM NAD27	MD Reference:	GL 6703' & RKB 25.1' @ 6728.10ft (Nabors B29)
Site:	San Juan 32-8 Pad	North Reference:	True
Well:	San Juan 32-8 703 Federal Com 605H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #6		

Planned 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	
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	2.00	157.663	599.98	-1.61	0.66	-0.49	2.00	2.00	0.00	
700.00	4.00	157.663	699.84	-6.45	2.65	-1.94	2.00	2.00	0.00	
800.00	6.00	157.663	799.45	-14.52	5.96	-4.37	2.00	2.00	0.00	
900.00	8.00	157.663	898.70	-25.79	10.60	-7.76	2.00	2.00	0.00	
1,000.00	10.00	157.663	997.47	-40.26	16.54	-12.12	2.00	2.00	0.00	
1,100.00	12.00	157.663	1,095.62	-57.91	23.79	-17.43	2.00	2.00	0.00	
1,200.00	14.00	157.663	1,193.06	-78.71	32.34	-23.70	2.00	2.00	0.00	
1,300.00	16.00	157.663	1,289.64	-102.65	42.18	-30.91	2.00	2.00	0.00	
1,400.00	18.00	157.663	1,385.27	-129.69	53.29	-39.05	2.00	2.00	0.00	
1,500.00	20.00	157.663	1,479.82	-159.80	65.66	-48.11	2.00	2.00	0.00	
1,600.00	22.00	157.663	1,573.17	-192.95	79.28	-58.09	2.00	2.00	0.00	
1,700.00	24.00	157.663	1,665.21	-229.09	94.13	-68.97	2.00	2.00	0.00	
1,800.00	26.00	157.663	1,755.84	-268.18	110.19	-80.74	2.00	2.00	0.00	
1,900.00	28.00	157.663	1,844.94	-310.17	127.44	-93.38	2.00	2.00	0.00	
2,000.00	30.00	157.663	1,932.39	-355.01	145.86	-106.88	2.00	2.00	0.00	
2,100.00	32.00	157.663	2,018.11	-402.65	165.44	-121.23	2.00	2.00	0.00	
2,200.00	34.00	157.663	2,101.97	-453.02	186.14	-136.39	2.00	2.00	0.00	
2,267.57	35.35	157.663	2,157.54	-488.58	200.75	-147.10	2.00	2.00	0.00	
2,300.00	35.35	157.663	2,183.99	-505.93	207.88	-152.32	0.00	0.00	0.00	
2,400.00	35.35	157.663	2,265.55	-559.45	229.86	-168.44	0.00	0.00	0.00	
2,500.00	35.35	157.663	2,347.11	-612.97	251.85	-184.55	0.00	0.00	0.00	
2,600.00	35.35	157.663	2,428.67	-666.49	273.84	-200.66	0.00	0.00	0.00	
2,700.00	35.35	157.663	2,510.24	-720.01	295.83	-216.77	0.00	0.00	0.00	
2,800.00	35.35	157.663	2,591.80	-773.52	317.82	-232.89	0.00	0.00	0.00	
2,900.00	35.35	157.663	2,673.36	-827.04	339.81	-249.00	0.00	0.00	0.00	
3,000.00	35.35	157.663	2,754.92	-880.56	361.80	-265.11	0.00	0.00	0.00	
3,100.00	35.35	157.663	2,836.48	-934.08	383.79	-281.23	0.00	0.00	0.00	
3,200.00	35.35	157.663	2,918.05	-987.59	405.78	-297.34	0.00	0.00	0.00	
3,300.00	35.35	157.663	2,999.61	-1,041.11	427.77	-313.45	0.00	0.00	0.00	
3,400.00	35.35	157.663	3,081.17	-1,094.63	449.76	-329.56	0.00	0.00	0.00	
3,500.00	35.35	157.663	3,162.73	-1,148.15	471.74	-345.68	0.00	0.00	0.00	
3,600.00	35.35	157.663	3,244.29	-1,201.66	493.73	-361.79	0.00	0.00	0.00	
3,700.00	35.35	157.663	3,325.86	-1,255.18	515.72	-377.90	0.00	0.00	0.00	
3,800.00	35.35	157.663	3,407.42	-1,308.70	537.71	-394.02	0.00	0.00	0.00	
3,900.00	35.35	157.663	3,488.98	-1,362.22	559.70	-410.13	0.00	0.00	0.00	
4,000.00	35.35	157.663	3,570.54	-1,415.73	581.69	-426.24	0.00	0.00	0.00	
4,100.00	35.35	157.663	3,652.10	-1,469.25	603.68	-442.35	0.00	0.00	0.00	
4,200.00	35.35	157.663	3,733.67	-1,522.77	625.67	-458.47	0.00	0.00	0.00	
4,300.00	35.35	157.663	3,815.23	-1,576.29	647.66	-474.58	0.00	0.00	0.00	
4,400.00	35.35	157.663	3,896.79	-1,629.80	669.65	-490.69	0.00	0.00	0.00	
4,500.00	35.35	157.663	3,978.35	-1,683.32	691.63	-506.80	0.00	0.00	0.00	
4,600.00	35.35	157.663	4,059.91	-1,736.84	713.62	-522.92	0.00	0.00	0.00	
4,700.00	35.35	157.663	4,141.47	-1,790.36	735.61	-539.03	0.00	0.00	0.00	
4,774.77	35.35	157.663	4,202.46	-1,830.37	752.05	-551.08	0.00	0.00	0.00	
4,800.00	34.85	157.663	4,223.10	-1,843.79	757.57	-555.12	2.00	-2.00	0.00	
4,900.00	32.85	157.663	4,306.15	-1,895.31	778.73	-570.63	2.00	-2.00	0.00	



Scientific Drilling
Planning Report



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Well:	San Juan 32-8 703 Federal Com 605H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #6		

Planned 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)	
5,000.00	30.85	157.663	4,391.09	-1,944.11	798.79	-585.32	2.00	-2.00	0.00	
5,100.00	28.85	157.663	4,477.82	-1,990.14	817.70	-599.18	2.00	-2.00	0.00	
5,200.00	26.85	157.663	4,566.24	-2,033.35	835.45	-612.19	2.00	-2.00	0.00	
5,300.00	24.85	157.663	4,656.23	-2,073.67	852.02	-624.33	2.00	-2.00	0.00	
5,400.00	22.85	157.663	4,747.69	-2,111.06	867.38	-635.59	2.00	-2.00	0.00	
5,500.00	20.85	157.663	4,840.50	-2,145.48	881.52	-645.95	2.00	-2.00	0.00	
5,600.00	18.85	157.663	4,934.56	-2,176.88	894.43	-655.40	2.00	-2.00	0.00	
5,700.00	16.85	157.663	5,029.74	-2,205.23	906.07	-663.94	2.00	-2.00	0.00	
5,800.00	14.85	157.663	5,125.93	-2,230.49	916.45	-671.54	2.00	-2.00	0.00	
5,900.00	12.85	157.663	5,223.02	-2,252.62	925.55	-678.21	2.00	-2.00	0.00	
6,000.00	10.85	157.663	5,320.89	-2,271.61	933.35	-683.92	2.00	-2.00	0.00	
6,100.00	8.85	157.663	5,419.41	-2,287.43	939.85	-688.69	2.00	-2.00	0.00	
6,200.00	6.85	157.663	5,518.47	-2,300.06	945.04	-692.49	2.00	-2.00	0.00	
6,300.00	4.85	157.663	5,617.94	-2,309.48	948.91	-695.32	2.00	-2.00	0.00	
6,400.00	2.85	157.663	5,717.71	-2,315.68	951.46	-697.19	2.00	-2.00	0.00	
6,500.00	0.85	157.663	5,817.66	-2,318.66	952.68	-698.09	2.00	-2.00	0.00	
6,542.35	0.00	0.000	5,860.00	-2,318.95	952.80	-698.18	2.00	-2.00	0.00	
6,600.00	0.00	0.000	5,917.66	-2,318.95	952.80	-698.18	0.00	0.00	0.00	
6,700.00	0.00	0.000	6,017.66	-2,318.95	952.80	-698.18	0.00	0.00	0.00	
6,800.00	0.00	0.000	6,117.66	-2,318.95	952.80	-698.18	0.00	0.00	0.00	
6,900.00	0.00	0.000	6,217.66	-2,318.95	952.80	-698.18	0.00	0.00	0.00	
7,000.00	0.00	0.000	6,317.66	-2,318.95	952.80	-698.18	0.00	0.00	0.00	
7,100.00	0.00	0.000	6,417.66	-2,318.95	952.80	-698.18	0.00	0.00	0.00	
7,200.00	0.00	0.000	6,517.66	-2,318.95	952.80	-698.18	0.00	0.00	0.00	
7,300.00	0.00	0.000	6,617.66	-2,318.95	952.80	-698.18	0.00	0.00	0.00	
7,309.35	0.00	0.000	6,627.00	-2,318.95	952.80	-698.18	0.00	0.00	0.00	
7,400.00	8.73	270.000	6,717.30	-2,318.95	945.91	-691.32	9.63	9.63	0.00	
7,500.00	18.36	270.000	6,814.41	-2,318.95	922.52	-668.07	9.63	9.63	0.00	
7,600.00	27.99	270.000	6,906.23	-2,318.95	883.21	-628.99	9.63	9.63	0.00	
7,700.00	37.62	270.000	6,990.19	-2,318.95	829.10	-575.20	9.63	9.63	0.00	
7,800.00	47.24	270.000	7,063.91	-2,318.95	761.71	-508.20	9.63	9.63	0.00	
7,900.00	56.87	270.000	7,125.33	-2,318.95	682.94	-429.88	9.63	9.63	0.00	
8,000.00	66.50	270.000	7,172.70	-2,318.95	595.01	-342.46	9.63	9.63	0.00	
8,100.00	76.13	270.000	7,204.69	-2,318.95	500.39	-248.38	9.63	9.63	0.00	
8,200.00	85.76	270.000	7,220.41	-2,318.95	401.75	-150.32	9.63	9.63	0.00	
8,237.18	89.34	270.000	7,222.00	-2,318.95	364.61	-113.39	9.63	9.63	0.00	
8,282.62	90.02	270.602	7,222.25	-2,318.71	319.18	-68.24	2.00	1.50	1.32	
8,300.00	90.02	270.602	7,222.25	-2,318.53	301.79	-50.98	0.00	0.00	0.00	
8,400.00	90.02	270.602	7,222.21	-2,317.48	201.80	48.32	0.00	0.00	0.00	
8,500.00	90.02	270.602	7,222.17	-2,316.43	101.80	147.62	0.00	0.00	0.00	
8,600.00	90.02	270.602	7,222.14	-2,315.38	1.81	246.93	0.00	0.00	0.00	
8,700.00	90.02	270.602	7,222.10	-2,314.33	-98.18	346.23	0.00	0.00	0.00	
8,800.00	90.02	270.602	7,222.06	-2,313.28	-198.18	445.53	0.00	0.00	0.00	
8,900.00	90.02	270.602	7,222.03	-2,312.23	-298.17	544.83	0.00	0.00	0.00	
9,000.00	90.02	270.602	7,221.99	-2,311.18	-398.17	644.14	0.00	0.00	0.00	
9,100.00	90.02	270.602	7,221.95	-2,310.13	-498.16	743.44	0.00	0.00	0.00	
9,200.00	90.02	270.602	7,221.92	-2,309.08	-598.16	842.74	0.00	0.00	0.00	
9,300.00	90.02	270.602	7,221.88	-2,308.02	-698.15	942.05	0.00	0.00	0.00	
9,400.00	90.02	270.602	7,221.85	-2,306.97	-798.15	1,041.35	0.00	0.00	0.00	
9,500.00	90.02	270.602	7,221.81	-2,305.92	-898.14	1,140.65	0.00	0.00	0.00	
9,600.00	90.02	270.602	7,221.77	-2,304.87	-998.13	1,239.96	0.00	0.00	0.00	
9,700.00	90.02	270.602	7,221.74	-2,303.82	-1,098.13	1,339.26	0.00	0.00	0.00	



Scientific Drilling
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well San Juan 32-8 703 Federal Com 605H
Company:	Hilcorp Energy - San Juan Basin	TVD Reference:	GL 6703' & RKB 25.1' @ 6728.10ft (Nabors B29)
Project:	San Juan, NM NAD27	MD Reference:	GL 6703' & RKB 25.1' @ 6728.10ft (Nabors B29)
Site:	San Juan 32-8 Pad	North Reference:	True
Well:	San Juan 32-8 703 Federal Com 605H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #6		

Planned 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)	
9,800.00	90.02	270.602	7,221.70	-2,302.77	-1,198.12	1,438.56	0.00	0.00	0.00	
9,900.00	90.02	270.602	7,221.66	-2,301.72	-1,298.12	1,537.86	0.00	0.00	0.00	
10,000.00	90.02	270.602	7,221.63	-2,300.67	-1,398.11	1,637.17	0.00	0.00	0.00	
10,100.00	90.02	270.602	7,221.59	-2,299.62	-1,498.11	1,736.47	0.00	0.00	0.00	
10,200.00	90.02	270.602	7,221.55	-2,298.57	-1,598.10	1,835.77	0.00	0.00	0.00	
10,300.00	90.02	270.602	7,221.52	-2,297.52	-1,698.10	1,935.08	0.00	0.00	0.00	
10,400.00	90.02	270.602	7,221.48	-2,296.47	-1,798.09	2,034.38	0.00	0.00	0.00	
10,500.00	90.02	270.602	7,221.44	-2,295.42	-1,898.08	2,133.68	0.00	0.00	0.00	
10,600.00	90.02	270.602	7,221.41	-2,294.36	-1,998.08	2,232.99	0.00	0.00	0.00	
10,700.00	90.02	270.602	7,221.37	-2,293.31	-2,098.07	2,332.29	0.00	0.00	0.00	
10,800.00	90.02	270.602	7,221.33	-2,292.26	-2,198.07	2,431.59	0.00	0.00	0.00	
10,900.00	90.02	270.602	7,221.30	-2,291.21	-2,298.06	2,530.89	0.00	0.00	0.00	
11,000.00	90.02	270.602	7,221.26	-2,290.16	-2,398.06	2,630.20	0.00	0.00	0.00	
11,100.00	90.02	270.602	7,221.22	-2,289.11	-2,498.05	2,729.50	0.00	0.00	0.00	
11,200.00	90.02	270.602	7,221.19	-2,288.06	-2,598.05	2,828.80	0.00	0.00	0.00	
11,300.00	90.02	270.602	7,221.15	-2,287.01	-2,698.04	2,928.11	0.00	0.00	0.00	
11,400.00	90.02	270.602	7,221.11	-2,285.96	-2,798.03	3,027.41	0.00	0.00	0.00	
11,500.00	90.02	270.602	7,221.08	-2,284.91	-2,898.03	3,126.71	0.00	0.00	0.00	
11,600.00	90.02	270.602	7,221.04	-2,283.86	-2,998.02	3,226.01	0.00	0.00	0.00	
11,700.00	90.02	270.602	7,221.00	-2,282.81	-3,098.02	3,325.32	0.00	0.00	0.00	
11,800.00	90.02	270.602	7,220.97	-2,281.76	-3,198.01	3,424.62	0.00	0.00	0.00	
11,900.00	90.02	270.602	7,220.93	-2,280.71	-3,298.01	3,523.92	0.00	0.00	0.00	
12,000.00	90.02	270.602	7,220.90	-2,279.65	-3,398.00	3,623.23	0.00	0.00	0.00	
12,100.00	90.02	270.602	7,220.86	-2,278.60	-3,498.00	3,722.53	0.00	0.00	0.00	
12,200.00	90.02	270.602	7,220.82	-2,277.55	-3,597.99	3,821.83	0.00	0.00	0.00	
12,300.00	90.02	270.602	7,220.79	-2,276.50	-3,697.99	3,921.14	0.00	0.00	0.00	
12,400.00	90.02	270.602	7,220.75	-2,275.45	-3,797.98	4,020.44	0.00	0.00	0.00	
12,500.00	90.02	270.602	7,220.71	-2,274.40	-3,897.97	4,119.74	0.00	0.00	0.00	
12,600.00	90.02	270.602	7,220.68	-2,273.35	-3,997.97	4,219.04	0.00	0.00	0.00	
12,700.00	90.02	270.602	7,220.64	-2,272.30	-4,097.96	4,318.35	0.00	0.00	0.00	
12,800.00	90.02	270.602	7,220.60	-2,271.25	-4,197.96	4,417.65	0.00	0.00	0.00	
12,900.00	90.02	270.602	7,220.57	-2,270.20	-4,297.95	4,516.95	0.00	0.00	0.00	
13,000.00	90.02	270.602	7,220.53	-2,269.15	-4,397.95	4,616.26	0.00	0.00	0.00	
13,100.00	90.02	270.602	7,220.49	-2,268.10	-4,497.94	4,715.56	0.00	0.00	0.00	
13,200.00	90.02	270.602	7,220.46	-2,267.05	-4,597.94	4,814.86	0.00	0.00	0.00	
13,300.00	90.02	270.602	7,220.42	-2,265.99	-4,697.93	4,914.17	0.00	0.00	0.00	
13,400.00	90.02	270.602	7,220.38	-2,264.94	-4,797.92	5,013.47	0.00	0.00	0.00	
13,500.00	90.02	270.602	7,220.35	-2,263.89	-4,897.92	5,112.77	0.00	0.00	0.00	
13,600.00	90.02	270.602	7,220.31	-2,262.84	-4,997.91	5,212.07	0.00	0.00	0.00	
13,700.00	90.02	270.602	7,220.27	-2,261.79	-5,097.91	5,311.38	0.00	0.00	0.00	
13,800.00	90.02	270.602	7,220.24	-2,260.74	-5,197.90	5,410.68	0.00	0.00	0.00	
13,900.00	90.02	270.602	7,220.20	-2,259.69	-5,297.90	5,509.98	0.00	0.00	0.00	
14,000.00	90.02	270.602	7,220.16	-2,258.64	-5,397.89	5,609.29	0.00	0.00	0.00	
14,100.00	90.02	270.602	7,220.13	-2,257.59	-5,497.89	5,708.59	0.00	0.00	0.00	
14,200.00	90.02	270.602	7,220.09	-2,256.54	-5,597.88	5,807.89	0.00	0.00	0.00	
14,300.00	90.02	270.602	7,220.05	-2,255.49	-5,697.87	5,907.19	0.00	0.00	0.00	
14,400.00	90.02	270.602	7,220.02	-2,254.44	-5,797.87	6,006.50	0.00	0.00	0.00	
14,500.00	90.02	270.602	7,219.98	-2,253.39	-5,897.86	6,105.80	0.00	0.00	0.00	
14,600.00	90.02	270.602	7,219.95	-2,252.33	-5,997.86	6,205.10	0.00	0.00	0.00	
14,700.00	90.02	270.602	7,219.91	-2,251.28	-6,097.85	6,304.41	0.00	0.00	0.00	
14,800.00	90.02	270.602	7,219.87	-2,250.23	-6,197.85	6,403.71	0.00	0.00	0.00	
14,900.00	90.02	270.602	7,219.84	-2,249.18	-6,297.84	6,503.01	0.00	0.00	0.00	



Scientific Drilling
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well San Juan 32-8 703 Federal Com 605H
Company:	Hilcorp Energy - San Juan Basin	TVD Reference:	GL 6703' & RKB 25.1' @ 6728.10ft (Nabors B29)
Project:	San Juan, NM NAD27	MD Reference:	GL 6703' & RKB 25.1' @ 6728.10ft (Nabors B29)
Site:	San Juan 32-8 Pad	North Reference:	True
Well:	San Juan 32-8 703 Federal Com 605H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #6		

Planned 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)	
15,000.00	90.02	270.602	7,219.80	-2,248.13	-6,397.84	6,602.32	0.00	0.00	0.00	
15,100.00	90.02	270.602	7,219.76	-2,247.08	-6,497.83	6,701.62	0.00	0.00	0.00	
15,200.00	90.02	270.602	7,219.73	-2,246.03	-6,597.82	6,800.92	0.00	0.00	0.00	
15,300.00	90.02	270.602	7,219.69	-2,244.98	-6,697.82	6,900.22	0.00	0.00	0.00	
15,400.00	90.02	270.602	7,219.65	-2,243.93	-6,797.81	6,999.53	0.00	0.00	0.00	
15,500.00	90.02	270.602	7,219.62	-2,242.88	-6,897.81	7,098.83	0.00	0.00	0.00	
15,600.00	90.02	270.602	7,219.58	-2,241.83	-6,997.80	7,198.13	0.00	0.00	0.00	
15,700.00	90.02	270.602	7,219.54	-2,240.78	-7,097.80	7,297.44	0.00	0.00	0.00	
15,800.00	90.02	270.602	7,219.51	-2,239.73	-7,197.79	7,396.74	0.00	0.00	0.00	
15,900.00	90.02	270.602	7,219.47	-2,238.68	-7,297.79	7,496.04	0.00	0.00	0.00	
16,000.00	90.02	270.602	7,219.43	-2,237.62	-7,397.78	7,595.35	0.00	0.00	0.00	
16,100.00	90.02	270.602	7,219.40	-2,236.57	-7,497.78	7,694.65	0.00	0.00	0.00	
16,200.00	90.02	270.602	7,219.36	-2,235.52	-7,597.77	7,793.95	0.00	0.00	0.00	
16,300.00	90.02	270.602	7,219.32	-2,234.47	-7,697.76	7,893.25	0.00	0.00	0.00	
16,400.00	90.02	270.602	7,219.29	-2,233.42	-7,797.76	7,992.56	0.00	0.00	0.00	
16,500.00	90.02	270.602	7,219.25	-2,232.37	-7,897.75	8,091.86	0.00	0.00	0.00	
16,600.00	90.02	270.602	7,219.21	-2,231.32	-7,997.75	8,191.16	0.00	0.00	0.00	
16,700.00	90.02	270.602	7,219.18	-2,230.27	-8,097.74	8,290.47	0.00	0.00	0.00	
16,800.00	90.02	270.602	7,219.14	-2,229.22	-8,197.74	8,389.77	0.00	0.00	0.00	
16,900.00	90.02	270.602	7,219.10	-2,228.17	-8,297.73	8,489.07	0.00	0.00	0.00	
17,000.00	90.02	270.602	7,219.07	-2,227.12	-8,397.73	8,588.38	0.00	0.00	0.00	
17,100.00	90.02	270.602	7,219.03	-2,226.07	-8,497.72	8,687.68	0.00	0.00	0.00	
17,200.00	90.02	270.602	7,218.99	-2,225.02	-8,597.71	8,786.98	0.00	0.00	0.00	
17,300.00	90.02	270.602	7,218.96	-2,223.96	-8,697.71	8,886.28	0.00	0.00	0.00	
17,400.00	90.02	270.602	7,218.92	-2,222.91	-8,797.70	8,985.59	0.00	0.00	0.00	
17,500.00	90.02	270.602	7,218.89	-2,221.86	-8,897.70	9,084.89	0.00	0.00	0.00	
17,600.00	90.02	270.602	7,218.85	-2,220.81	-8,997.69	9,184.19	0.00	0.00	0.00	
17,700.00	90.02	270.602	7,218.81	-2,219.76	-9,097.69	9,283.50	0.00	0.00	0.00	
17,800.00	90.02	270.602	7,218.78	-2,218.71	-9,197.68	9,382.80	0.00	0.00	0.00	
17,900.00	90.02	270.602	7,218.74	-2,217.66	-9,297.68	9,482.10	0.00	0.00	0.00	
18,000.00	90.02	270.602	7,218.70	-2,216.61	-9,397.67	9,581.40	0.00	0.00	0.00	
18,100.00	90.02	270.602	7,218.67	-2,215.56	-9,497.66	9,680.71	0.00	0.00	0.00	
18,200.00	90.02	270.602	7,218.63	-2,214.51	-9,597.66	9,780.01	0.00	0.00	0.00	
18,300.00	90.02	270.602	7,218.59	-2,213.46	-9,697.65	9,879.31	0.00	0.00	0.00	
18,400.00	90.02	270.602	7,218.56	-2,212.41	-9,797.65	9,978.62	0.00	0.00	0.00	
18,500.00	90.02	270.602	7,218.52	-2,211.36	-9,897.64	10,077.92	0.00	0.00	0.00	
18,600.00	90.02	270.602	7,218.48	-2,210.30	-9,997.64	10,177.22	0.00	0.00	0.00	
18,700.00	90.02	270.602	7,218.45	-2,209.25	-10,097.63	10,276.53	0.00	0.00	0.00	
18,800.00	90.02	270.602	7,218.41	-2,208.20	-10,197.63	10,375.83	0.00	0.00	0.00	
18,900.00	90.02	270.602	7,218.37	-2,207.15	-10,297.62	10,475.13	0.00	0.00	0.00	
19,000.00	90.02	270.602	7,218.34	-2,206.10	-10,397.61	10,574.43	0.00	0.00	0.00	
19,100.00	90.02	270.602	7,218.30	-2,205.05	-10,497.61	10,673.74	0.00	0.00	0.00	
19,200.00	90.02	270.602	7,218.26	-2,204.00	-10,597.60	10,773.04	0.00	0.00	0.00	
19,300.00	90.02	270.602	7,218.23	-2,202.95	-10,697.60	10,872.34	0.00	0.00	0.00	
19,400.00	90.02	270.602	7,218.19	-2,201.90	-10,797.59	10,971.65	0.00	0.00	0.00	
19,500.00	90.02	270.602	7,218.15	-2,200.85	-10,897.59	11,070.95	0.00	0.00	0.00	
19,600.00	90.02	270.602	7,218.12	-2,199.80	-10,997.58	11,170.25	0.00	0.00	0.00	
19,700.00	90.02	270.602	7,218.08	-2,198.75	-11,097.58	11,269.56	0.00	0.00	0.00	
19,800.00	90.02	270.602	7,218.04	-2,197.70	-11,197.57	11,368.86	0.00	0.00	0.00	
19,900.00	90.02	270.602	7,218.01	-2,196.65	-11,297.57	11,468.16	0.00	0.00	0.00	
20,000.00	90.02	270.602	7,217.97	-2,195.59	-11,397.56	11,567.46	0.00	0.00	0.00	
20,100.00	90.02	270.602	7,217.94	-2,194.54	-11,497.55	11,666.77	0.00	0.00	0.00	



Scientific Drilling
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well San Juan 32-8 703 Federal Com 605H
Company:	Hilcorp Energy - San Juan Basin	TVD Reference:	GL 6703' & RKB 25.1' @ 6728.10ft (Nabors B29)
Project:	San Juan, NM NAD27	MD Reference:	GL 6703' & RKB 25.1' @ 6728.10ft (Nabors B29)
Site:	San Juan 32-8 Pad	North Reference:	True
Well:	San Juan 32-8 703 Federal Com 605H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #6		

Planned 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)
20,200.00	90.02	270.602	7,217.90	-2,193.49	-11,597.55	11,766.07	0.00	0.00	0.00
20,300.00	90.02	270.602	7,217.86	-2,192.44	-11,697.54	11,865.37	0.00	0.00	0.00
20,400.00	90.02	270.602	7,217.83	-2,191.39	-11,797.54	11,964.68	0.00	0.00	0.00
20,500.00	90.02	270.602	7,217.79	-2,190.34	-11,897.53	12,063.98	0.00	0.00	0.00
20,600.00	90.02	270.602	7,217.75	-2,189.29	-11,997.53	12,163.28	0.00	0.00	0.00
20,700.00	90.02	270.602	7,217.72	-2,188.24	-12,097.52	12,262.58	0.00	0.00	0.00
20,800.00	90.02	270.602	7,217.68	-2,187.19	-12,197.52	12,361.89	0.00	0.00	0.00
20,900.00	90.02	270.602	7,217.64	-2,186.14	-12,297.51	12,461.19	0.00	0.00	0.00
21,000.00	90.02	270.602	7,217.61	-2,185.09	-12,397.50	12,560.49	0.00	0.00	0.00
21,100.00	90.02	270.602	7,217.57	-2,184.04	-12,497.50	12,659.80	0.00	0.00	0.00
21,200.00	90.02	270.602	7,217.53	-2,182.99	-12,597.49	12,759.10	0.00	0.00	0.00
21,300.00	90.02	270.602	7,217.50	-2,181.93	-12,697.49	12,858.40	0.00	0.00	0.00
21,400.00	90.02	270.602	7,217.46	-2,180.88	-12,797.48	12,957.71	0.00	0.00	0.00
21,500.00	90.02	270.602	7,217.42	-2,179.83	-12,897.48	13,057.01	0.00	0.00	0.00
21,600.00	90.02	270.602	7,217.39	-2,178.78	-12,997.47	13,156.31	0.00	0.00	0.00
21,700.00	90.02	270.602	7,217.35	-2,177.73	-13,097.47	13,255.61	0.00	0.00	0.00
21,800.00	90.02	270.602	7,217.31	-2,176.68	-13,197.46	13,354.92	0.00	0.00	0.00
21,900.00	90.02	270.602	7,217.28	-2,175.63	-13,297.45	13,454.22	0.00	0.00	0.00
22,000.00	90.02	270.602	7,217.24	-2,174.58	-13,397.45	13,553.52	0.00	0.00	0.00
22,100.00	90.02	270.602	7,217.20	-2,173.53	-13,497.44	13,652.83	0.00	0.00	0.00
22,200.00	90.02	270.602	7,217.17	-2,172.48	-13,597.44	13,752.13	0.00	0.00	0.00
22,300.00	90.02	270.602	7,217.13	-2,171.43	-13,697.43	13,851.43	0.00	0.00	0.00
22,400.00	90.02	270.602	7,217.09	-2,170.38	-13,797.43	13,950.74	0.00	0.00	0.00
22,500.00	90.02	270.602	7,217.06	-2,169.33	-13,897.42	14,050.04	0.00	0.00	0.00
22,600.00	90.02	270.602	7,217.02	-2,168.27	-13,997.42	14,149.34	0.00	0.00	0.00
22,700.00	90.02	270.602	7,216.99	-2,167.22	-14,097.41	14,248.64	0.00	0.00	0.00
22,800.00	90.02	270.602	7,216.95	-2,166.17	-14,197.40	14,347.95	0.00	0.00	0.00
22,900.00	90.02	270.602	7,216.91	-2,165.12	-14,297.40	14,447.25	0.00	0.00	0.00
23,000.00	90.02	270.602	7,216.88	-2,164.07	-14,397.39	14,546.55	0.00	0.00	0.00
23,100.00	90.02	270.602	7,216.84	-2,163.02	-14,497.39	14,645.86	0.00	0.00	0.00
23,200.00	90.02	270.602	7,216.80	-2,161.97	-14,597.38	14,745.16	0.00	0.00	0.00
23,300.00	90.02	270.602	7,216.77	-2,160.92	-14,697.38	14,844.46	0.00	0.00	0.00
23,400.00	90.02	270.602	7,216.73	-2,159.87	-14,797.37	14,943.77	0.00	0.00	0.00
23,500.00	90.02	270.602	7,216.69	-2,158.82	-14,897.37	15,043.07	0.00	0.00	0.00
23,600.00	90.02	270.602	7,216.66	-2,157.77	-14,997.36	15,142.37	0.00	0.00	0.00
23,700.00	90.02	270.602	7,216.62	-2,156.72	-15,097.36	15,241.67	0.00	0.00	0.00
23,800.00	90.02	270.602	7,216.58	-2,155.67	-15,197.35	15,340.98	0.00	0.00	0.00
23,900.00	90.02	270.602	7,216.55	-2,154.62	-15,297.34	15,440.28	0.00	0.00	0.00
24,000.00	90.02	270.602	7,216.51	-2,153.56	-15,397.34	15,539.58	0.00	0.00	0.00
24,100.00	90.02	270.602	7,216.47	-2,152.51	-15,497.33	15,638.89	0.00	0.00	0.00
24,200.00	90.02	270.602	7,216.44	-2,151.46	-15,597.33	15,738.19	0.00	0.00	0.00
24,300.00	90.02	270.602	7,216.40	-2,150.41	-15,697.32	15,837.49	0.00	0.00	0.00
24,400.00	90.02	270.602	7,216.36	-2,149.36	-15,797.32	15,936.79	0.00	0.00	0.00
24,500.00	90.02	270.602	7,216.33	-2,148.31	-15,897.31	16,036.10	0.00	0.00	0.00
24,600.00	90.02	270.602	7,216.29	-2,147.26	-15,997.31	16,135.40	0.00	0.00	0.00
24,700.00	90.02	270.602	7,216.25	-2,146.21	-16,097.30	16,234.70	0.00	0.00	0.00
24,800.00	90.02	270.602	7,216.22	-2,145.16	-16,197.29	16,334.01	0.00	0.00	0.00
24,900.00	90.02	270.602	7,216.18	-2,144.11	-16,297.29	16,433.31	0.00	0.00	0.00
25,000.00	90.02	270.602	7,216.14	-2,143.06	-16,397.28	16,532.61	0.00	0.00	0.00
25,100.00	90.02	270.602	7,216.11	-2,142.01	-16,497.28	16,631.92	0.00	0.00	0.00
25,200.00	90.02	270.602	7,216.07	-2,140.96	-16,597.27	16,731.22	0.00	0.00	0.00
25,300.00	90.02	270.602	7,216.04	-2,139.90	-16,697.27	16,830.52	0.00	0.00	0.00



Scientific Drilling
Planning Report



Database:	Grand Junction	Local Co-ordinate Reference:	Well San Juan 32-8 703 Federal Com 605H
Company:	Hilcorp Energy - San Juan Basin	TVD Reference:	GL 6703' & RKB 25.1' @ 6728.10ft (Nabors B29)
Project:	San Juan, NM NAD27	MD Reference:	GL 6703' & RKB 25.1' @ 6728.10ft (Nabors B29)
Site:	San Juan 32-8 Pad	North Reference:	True
Well:	San Juan 32-8 703 Federal Com 605H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #6		

Planned 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)	
25,400.00	90.02	270.602	7,216.00	-2,138.85	-16,797.26	16,929.82	0.00	0.00	0.00	
25,500.00	90.02	270.602	7,215.96	-2,137.80	-16,897.26	17,029.13	0.00	0.00	0.00	
25,600.00	90.02	270.602	7,215.93	-2,136.75	-16,997.25	17,128.43	0.00	0.00	0.00	
25,700.00	90.02	270.602	7,215.89	-2,135.70	-17,097.24	17,227.73	0.00	0.00	0.00	
25,800.00	90.02	270.602	7,215.85	-2,134.65	-17,197.24	17,327.04	0.00	0.00	0.00	
25,900.00	90.02	270.602	7,215.82	-2,133.60	-17,297.23	17,426.34	0.00	0.00	0.00	
26,000.00	90.02	270.602	7,215.78	-2,132.55	-17,397.23	17,525.64	0.00	0.00	0.00	
26,100.00	90.02	270.602	7,215.74	-2,131.50	-17,497.22	17,624.95	0.00	0.00	0.00	
26,200.00	90.02	270.602	7,215.71	-2,130.45	-17,597.22	17,724.25	0.00	0.00	0.00	
26,300.00	90.02	270.602	7,215.67	-2,129.40	-17,697.21	17,823.55	0.00	0.00	0.00	
26,400.00	90.02	270.602	7,215.63	-2,128.35	-17,797.21	17,922.85	0.00	0.00	0.00	
26,500.00	90.02	270.602	7,215.60	-2,127.30	-17,897.20	18,022.16	0.00	0.00	0.00	
26,600.00	90.02	270.602	7,215.56	-2,126.24	-17,997.19	18,121.46	0.00	0.00	0.00	
26,700.00	90.02	270.602	7,215.52	-2,125.19	-18,097.19	18,220.76	0.00	0.00	0.00	
26,800.00	90.02	270.602	7,215.49	-2,124.14	-18,197.18	18,320.07	0.00	0.00	0.00	
26,900.00	90.02	270.602	7,215.45	-2,123.09	-18,297.18	18,419.37	0.00	0.00	0.00	
27,000.00	90.02	270.602	7,215.41	-2,122.04	-18,397.17	18,518.67	0.00	0.00	0.00	
27,100.00	90.02	270.602	7,215.38	-2,120.99	-18,497.17	18,617.98	0.00	0.00	0.00	
27,200.00	90.02	270.602	7,215.34	-2,119.94	-18,597.16	18,717.28	0.00	0.00	0.00	
27,300.00	90.02	270.602	7,215.30	-2,118.89	-18,697.16	18,816.58	0.00	0.00	0.00	
27,400.00	90.02	270.602	7,215.27	-2,117.84	-18,797.15	18,915.88	0.00	0.00	0.00	
27,500.00	90.02	270.602	7,215.23	-2,116.79	-18,897.15	19,015.19	0.00	0.00	0.00	
27,600.00	90.02	270.602	7,215.19	-2,115.74	-18,997.14	19,114.49	0.00	0.00	0.00	
27,700.00	90.02	270.602	7,215.16	-2,114.69	-19,097.13	19,213.79	0.00	0.00	0.00	
27,800.00	90.02	270.602	7,215.12	-2,113.64	-19,197.13	19,313.10	0.00	0.00	0.00	
27,900.00	90.02	270.602	7,215.09	-2,112.59	-19,297.12	19,412.40	0.00	0.00	0.00	
28,000.00	90.02	270.602	7,215.05	-2,111.53	-19,397.12	19,511.70	0.00	0.00	0.00	
28,100.00	90.02	270.602	7,215.01	-2,110.48	-19,497.11	19,611.00	0.00	0.00	0.00	
28,132.48	90.02	270.602	7,215.00	-2,110.14	-19,529.59	19,643.25	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SJ 32-8 605H BHL Rev1 - hit/miss target - Shape - Point	0.00	0.000	7,215.00	-2,110.14	-19,529.59	2,162,608.60	530,186.90	36.943203	-107.730036	
SJ 32-8 605H LTP - plan misses target center by 0.03ft at 28064.00ft MD (7215.03 TVD, -2110.86 N, -19461.11 E) - Point	0.00	0.000	7,215.00	-2,110.86	-19,461.11	2,162,608.00	530,255.38	36.943201	-107.729802	
SJ 32-8 605H LP Rev1 - plan hits target center - Point	0.00	0.000	7,222.00	-2,318.95	364.61	2,162,435.30	550,081.40	36.942648	-107.661960	
SJ 32-8 605H FTP - plan misses target center by 0.01ft at 8238.02ft MD (7222.01 TVD, -2318.95 N, 363.77 E) - Point	0.00	0.000	7,222.00	-2,318.95	363.77	2,162,435.30	550,080.56	36.942648	-107.661962	



Scientific Drilling
Planning Report



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Company:	Hilcorp Energy - San Juan Basin	TVD Reference:	GL 6703' & RKB 25.1' @ 6728.10ft (Nabors B29)
Project:	San Juan, NM NAD27	MD Reference:	GL 6703' & RKB 25.1' @ 6728.10ft (Nabors B29)
Site:	San Juan 32-8 Pad	North Reference:	True
Well:	San Juan 32-8 703 Federal Com 605H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #6		

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,251.01	2,144.00	Ojo Alamo		0.00	0.000
2,529.29	2,371.00	Kirtland		0.00	0.000
3,510.14	3,171.00	Fruitland		0.00	0.000
4,037.34	3,601.00	Pictured Cliffs		0.00	0.000
4,432.14	3,923.00	Lewis		0.00	0.000
5,923.54	5,246.00	Cliffhouse		0.00	0.000
6,330.15	5,648.00	Menefee		0.00	0.000
6,592.35	5,910.00	Point Lookout		0.00	0.000
7,048.35	6,366.00	Mancos		0.00	0.000

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
500.00	500.00	0.00	0.00	Start Build 2.00	
2,267.57	2,157.54	-488.58	200.75	Start 2507.20 hold at 2267.57 MD	
4,774.77	4,202.46	-1,830.37	752.05	Start Drop -2.00	
6,542.35	5,860.00	-2,318.95	952.80	Start 767.00 hold at 6542.34 MD	
7,309.35	6,627.00	-2,318.95	952.80	Start DLS 9.63 TFO 270.00	
8,237.18	7,222.00	-2,318.95	364.61	Start DLS 2.00 TFO 41.49	
8,282.62	7,222.25	-2,318.71	319.18	Start 19849.86 hold at 8282.62 MD	
28,132.48	7,215.00	-2,110.14	-19,529.59	TD at 28132.48	

San Juan County, NM

San Juan 32-8 703 Federal Com 605H



Technical Drilling Plan (Rev. 0)

Hilcorp Energy Company proposes to drill and complete the referenced horizontal well targeting the Mancos formation.

Note: This technical drilling plan will be adjusted based upon actual conditions.

1. Location

Date:	September 30, 2025	Pool:	Basin Mancos
Well Name:	San Juan 32-8 703 Federal Com 605H	Ground Elevation (ft. MSL):	6,703'
Surface Hole Location:	36.949018° N, 107.663207° W	Total Measured Depth (ft.)	28,132'
Bottom Hole Location:	36.943203° N, 107.730036° W	County, State:	San Juan County, NM

Note: All geographic coordinates on the drilling tech plan and the directional drilling plan refer to NAD 27 geodetic coordinate system. All depths on the drilling tech plan and the directional drilling plan are referenced from an estimated RKB datum of 25' above ground level.

2. Geological Markers

Anticipated formation tops with comments of any possible water, gas or oil shows are indicated below:

Formation	Depth (ft. TVD RKB)	Remarks
Ojo Alamo	2,144	Possible Water
Kirtland	2,371	Gas & Water
Fruitland	3,171	Gas & Water
Pictured Cliffs	3,601	Possible Gas
Lewis Shale	3,923	None
Cliffhouse	5,246	Possible Gas & Water
Menefee	5,648	None
Point Lookout	5,910	Gas
Mancos	6,366	Gas

San Juan County, NM

San Juan 32-8 703 Federal Com 605H



3. Pressure Control Equipment

A. BOP Equipment

See Appendix A for BOP equipment and choke manifold diagram.

- BOP equipment will be nipped up on top of the wellhead after surface casing is set and cemented.
- Pressure control configurations will be designed to meet the minimum 5M standards.
- All equipment will have 5M pressure rating at a minimum.
- A rotating head will be installed on top of the annular as seen in the attached diagram.

B. BOP Pressure Testing

- For all BOP pressure testing, a BOP test unit with a chart recorder and a BOP test plug will be utilized.
- All tests and inspections will be recorded and logged with time and results.
- A full BOP pressure test will be conducted when initially installed for the first well on the pad or if a seal subject to test pressure is broken, following related repairs, and at a minimum in 30-day intervals.
- A BOPE shell pressure test only will be conducted for subsequent wells on the pad when seals subject to pressure have not been broken, repaired, and fall within the 30-day interval of the first full test.
- The New Mexico Oil & Gas Conservation Division and the BLM will be notified 24 hours in advance of pressure testing BOPE.
- The BOPE will be tested to 250 psi (Low) for 5 minutes and 5,000 psi (High) for 10 minutes.

C. BOP Function Testing

- Annular preventors will be functionally tested at least once per week.
- Pipe and blind rams will be function tested each trip.

D. Casing Pressure Testing

- Surface casing will be pressure tested to 600 psi for 30 minutes.
- Intermediate casing will be pressure tested to 1,500 psi for 30 minutes.

San Juan County, NM

San Juan 32-8 703 Federal Com 605H



4. Casing Program

A. Proposed Casing Program:

Proposed Casing Design							
Casing String	Hole Size	Casing (size/weight/grade)	Top Depth (MD/TVD)	Shoe Depth (MD/TVD)	Collapse	Burst	Tensile
Surface	26"	20"-94#-J55 (or equiv)-LTC/BTC	0'	350'/350'	520 psi	2,110 psi	1,402 klbs
Intermediate 1	17-1/2"	13-3/8"-61#-L80 (or equiv)-LTC/BTC	0'	4,285'/3,800'	1,670 psi	4,500 psi	1,389 klbs
Intermediate 2	12-1/4"	9-5/8"-40#-P110 (or equiv)-LTC/BTC	0'	7,283'/6,600'	3,470 psi	7,900 psi	1,260 klbs
Production	8-1/2"	5-1/2"-20.0#-P110 (or equiv)-LTC/BTC	0'	28,132'/7,215'	11,100 psi	12,640 psi	641 klbs

Proposed Casing Design Safety Factors				
Casing String	Burst Design SF	Collapse Design SF	Joint Tensile Design SF	Connection Tensile Design SF
Surface	12.9	4.0	52.2	49.4
Intermediate 1	2.5	1.2	6.2	6.2
Intermediate 2	2.4	1.3	5.1	5.1
Production	2.8	2.9	1.4	1.5

B. Casing Design Parameters & Calculations:

- Designed for full wellbore evacuation.
- Mud Weights used for calculations:
 - Surface = 9.0 ppg
 - Intermediate 1 = 9.0 ppg
 - Intermediate 2 = 9.5 ppg
 - Production = 12.0 ppg
- Minimum Acceptable Safety Factors:
 - Burst: 1.15
 - Collapse: 1.15
 - Tensile: 1.50
- Casing Safety Factor Calculations:

$$\text{Casing Burst Safety Factor} = \frac{\text{Casing Burst Rating (psi)}}{\text{Maximum Mud Weight (ppg)} \times \text{TVD (ft)} \times 0.052}$$

$$\text{Casing Collapse Safety Factor} = \text{Hydrostatic of Mud Weight in Annulus (psi)} - \left[\text{TVD of Casing Shoe (ft)} \times 0.10 \frac{\text{psi}}{\text{ft}} \right]$$

$$\text{Tensile Safety Factor} = \frac{\text{Tensile Rating of Casing String (lbs)}}{\text{Measured Depth of Casing (ft)} \times \text{Casing Weight} \frac{\text{lb}}{\text{ft}} \times \text{Drilling Fluid Bouyancy Factor}}$$

San Juan County, NM

San Juan 32-8 703 Federal Com 605H



Production Casing Notes:

- Production casing will be run from surface to TD.
- If the 8-1/2" hole is not drilled to the planned measured depth, casing setting depth will be adjusted accordingly.
- A toe initiation sliding sleeve will be installed at the toe of the production casing.

5. Proposed Centralizer Program:

Proposed Centralizer Program	
Casing String	Centralizers & Placement
Surface Casing	1 centralizer per joint on bottom 3 joints.
Intermediate 1 Casing	1 centralizer per joint in shoe track. 1 centralizer every 3 rd joint to surface.
Intermediate 2 Casing	1 centralizer per joint in shoe track. 1 centralizer every 3 rd joint to surface.
Production Casing	Centralizers determined by hole conditions from TD to top of cement.

6. Proposed Cement Program:

Proposed Cement Design								
Interval	Depth (ft. MD)	Lead/Tail	Volume (ft ³)	Sacks	Excess (%)	Slurry	Density (ppg)	Planned TOC
Surface	350'	Lead	1,054 ft ³	764	100%	Class G Cement Yield: 1.38 ft ³ /sk	14.6	Surface
		Slurry Additives: CaCl (1%), Cello Flake (0.25 lb/sk), CD-2 (0.2%)						
Intermediate 1	4,285'	Lead	3,339 ft ³	1,084	25%	ASTM Type II Yield: 3.08 ft ³ /sk	11.5	Surface
		Slurry Additives: A-10 (5.0%), A-2 (2.0 lb/sk), A-7P (0.5 lb/sk), FL-24 (0.3%), IntegraSeal PHENO (1.0 lb/sk), IntegraSeal POLI (0.25 lb/sk), R-7C (0.5%), STATIC FREE (0.01 lb/sk), XCem-1018 (7.0 lb/sk), XCem-1204 (5.0 lb/sk), XCem-311 (0.3%)						
		Tail	434 ft ³	198	25%	ASTM Type II Yield: 2.19 ft ³ /sk	12.5	3,785'
		Slurry Additives: A-10 (5.0%), A-2 (2.0 lb/sk), IntegraSeal PHENO (1.0 lb/sk), IntegraSeal POLI (0.5 lb/sk), R-7C (0.4%), STATIC FREE (0.01 lb/sk), XCem-1204 (3.0 lb/sk), XCem-311 (0.3%)						
Intermediate 2	7,283'	Lead	2,473 ft ³	483	25%	ASTM Type II Yield: 3.08 ft ³ /sk	11.5	Surface
		Slurry Additives: A-10 (5.0%), A-2 (2.0 lb/sk), A-7P (0.5 lb/sk), FL-24 (0.3%), IntegraSeal PHENO (1.0 lb/sk), IntegraSeal POLI (0.25 lb/sk), R-7C (0.5%), STATIC FREE (0.01 lb/sk), XCem-1018 (7.0 lb/sk), XCem-1204 (5.0 lb/sk), XCem-311 (0.3%)						
		Tail	196 ft ³	91	25%	ASTM Type II Yield: 2.19 ft ³ /sk	12.5	6,783'
		Slurry Additives: A-10 (5.0%), A-2 (2.0 lb/sk), IntegraSeal PHENO (1.0 lb/sk), IntegraSeal POLI (0.5 lb/sk), R-7C (0.4%), STATIC FREE (0.01 lb/sk), XCem-1204 (3.0 lb/sk), XCem-311 (0.3%)						
Production	28,132'	Lead	472 ft ³	301	25%	ASTM Type II Yield: 1.57 ft ³ /sk	12.0	6,000'
		Slurry Additives: AEXT-1012 (60.0%), FL-66 (0.3%), GW-86 (0.2%), IntegraSeal PHENO (2.0 lb/sk), IntegraSeal Poli (0.25 lb/sk), KCI (3.0%), R-3 (0.55%), STATIC FREE (0.01 lb/sk), XCem-311 (0.3%)						
		Tail	5,839 ft ³	3,945	25%	Class G Yield: 1.48 ft ³ /sk	14.0	7,800'
		Slurry Additives: Fly Ash (20.0%), Bentonite (4.0%), FL-66 (0.3%), GW-86 (0.1%), IntegraSeal PHENO (1.0 lb/sk), IntegraSeal POLI (0.25 lb/sk), R-3 (0.25%), StaticFree (0.01 lb/sk)						

San Juan County, NM

San Juan 32-8 703 Federal Com 605H



Cement Program Notes:

- The cement slurry additives may be adjusted to accommodate required pump and compressive test times.
- Actual cement volumes will be determined and may be adjusted onsite based on well conditions.
- For the intermediate hole section, a 2-stage or 3-stage cement job may be performed if hole conditions dictate. If needed, the stage tool will be placed appropriately as conditions indicate.
- Cement will be circulated to surface on surface and intermediate casing sections to protect water bearing zones.
- A minimum of 8 hours of wait on cement time will be observed on each hole section to allow adequate time for cement to achieve a minimum of 500 psi of compressive strength. The BOP will not be nipped down, the wellhead will not be installed, the casing will not be tested and the prior casing shoe will not be drilled out until adequate wait on cement time has been observed (8 hours or time to reach 500 psi compressive strength).

7. Drilling Fluids Program

A. Proposed Drilling Fluids Program:

Proposed Drilling Fluids Program					
Interval	Fluid Type	Density (ppg)	Fluid Loss (mL/30 min)	Invert Ratio (%Diesel / %Brine)	Depth (ft. MD)
Surface	Water/Gel	8.3 – 9.2	NC	N/A	0' – 350'
Intermediate 1	LSND/Gel	8.4 – 9.5	<6	N/A	350' – 4,285'
Intermediate 2	LSND/Gel	8.4 – 9.5	<6	N/A	4,285' – 7,283'
Production	Oil Base Mud	10.0 – 12.0	6 – 8	70/30 – 75/25	7,283' – 28,132'

Drilling Fluids Notes:

- In the 8-1/2" production section, oil base mud will be utilized which will be an invert mud. The base fluid will be diesel. Brine fluid will be CaCl₂ or KCl.
- Lost circulation material may be added to the mud systems to manage fluid losses as hole conditions dictate.
- The well will be drilled utilizing a closed-loop circulating system. Drill cuttings for all hole sections will be transported to an approved disposal site.
- Estimated total volume of drill cuttings for disposal: 2,704 bbls (15,179 ft³).

San Juan County, NM

San Juan 32-8 703 Federal Com 605H



8. Estimated Pressures & Drilling Hazards

A. Estimated Pressures

- Estimated Reservoir Pressure of Mancos Shale target: 4,000 – 4,200 psi
- No over-pressured intervals expected (aside from Mancos Shale target).
- There is production from the Fruitland Coal, Mesa Verde and Pictured Cliffs formations in offset wells in the area, which could result in these formations being depleted.

B. Water Flows

- Water flows are possible in the intermediate section. Water flows will be mitigated with increased mud weight.

C. Lost Circulation

- Lost circulation is possible in the intermediate section. Losses will be mitigated by utilizing LCM in the mud system.

D. Hydrogen Sulfide

- No hydrogen sulfide is expected to be encountered based on nearby well production.

9. Pilot Hole

- No pilot hole is planned for this wellbore.

San Juan County, NM

San Juan 32-8 703 Federal Com 605H



10. Testing, Logging, Coring

A. Mud Logging

- Mud loggers will collect formation samples every 30'-90' from intermediate casing shoe to TD of the well.

B. MWD

- Measurement while drilling tools will be utilized on all sections of the well to measure and record inclination and azimuth.

C. LWD

- Logging while drilling tools (gamma ray) will be utilized while drilling the production section from the intermediate casing shoe to the production hole section TD to assist in staying in the desired production formation interval while drilling the horizontal section.

D. Open Hole Logging

- None

E. Coring

- None

F. Cased Hole Logging

- Intermediate casing strings will be cemented to surface to protect water bearing zones. If cement is not circulated to surface on the intermediate cement jobs, a cement bod log will be run to verify top of cement.

11. Directional Drilling Plan

- The directional drilling plan and plot are attached.
- The directional plan is built from geologic targets from offset wells and lease boundaries. The production hole section will be landed and drilled horizontally within the target formation utilizing LWD tools to steer the wellbore. On-site adjustments to the directional plan will be made as formation and wellbore dictate.

San Juan County, NM

San Juan 32-8 703 Federal Com 605H



12. Completion

A. Pressure Testing

- A pressure test of the 5-1/2" production casing will be conducted to the maximum anticipated frac pressure for 30 minutes.
- Pressure will be cycled to shift the toe sleeve open.

B. Stimulation

- The well will be stimulated with sand and water. The number of stages and amount of proppant used will be adjusted based on actual lateral length and real-time pumping conditions during the stimulation.
- Individual stages will be perforated on wireline and isolated using frac plugs or dissolvable frac plugs.
- Upon completion of the stimulation operation, frac plugs will be drilled out and the stimulation fluid will be flowed back.

*NOTE: Although this horizontal well may be drilled past the applicable setbacks, an unorthodox location application is not required because the completed interval in this well, as defined by 19.15.16.7 8(1) NMAC, will be entirely within the applicable setbacks. This approach complies with all applicable rules, including 19.15.16.14 A(3) NMAC, 19.15.16.14 8(2) NMAC, 19.15.16.15 8(2)NMAC, and 19.15.16.15 8(4) NMAC.

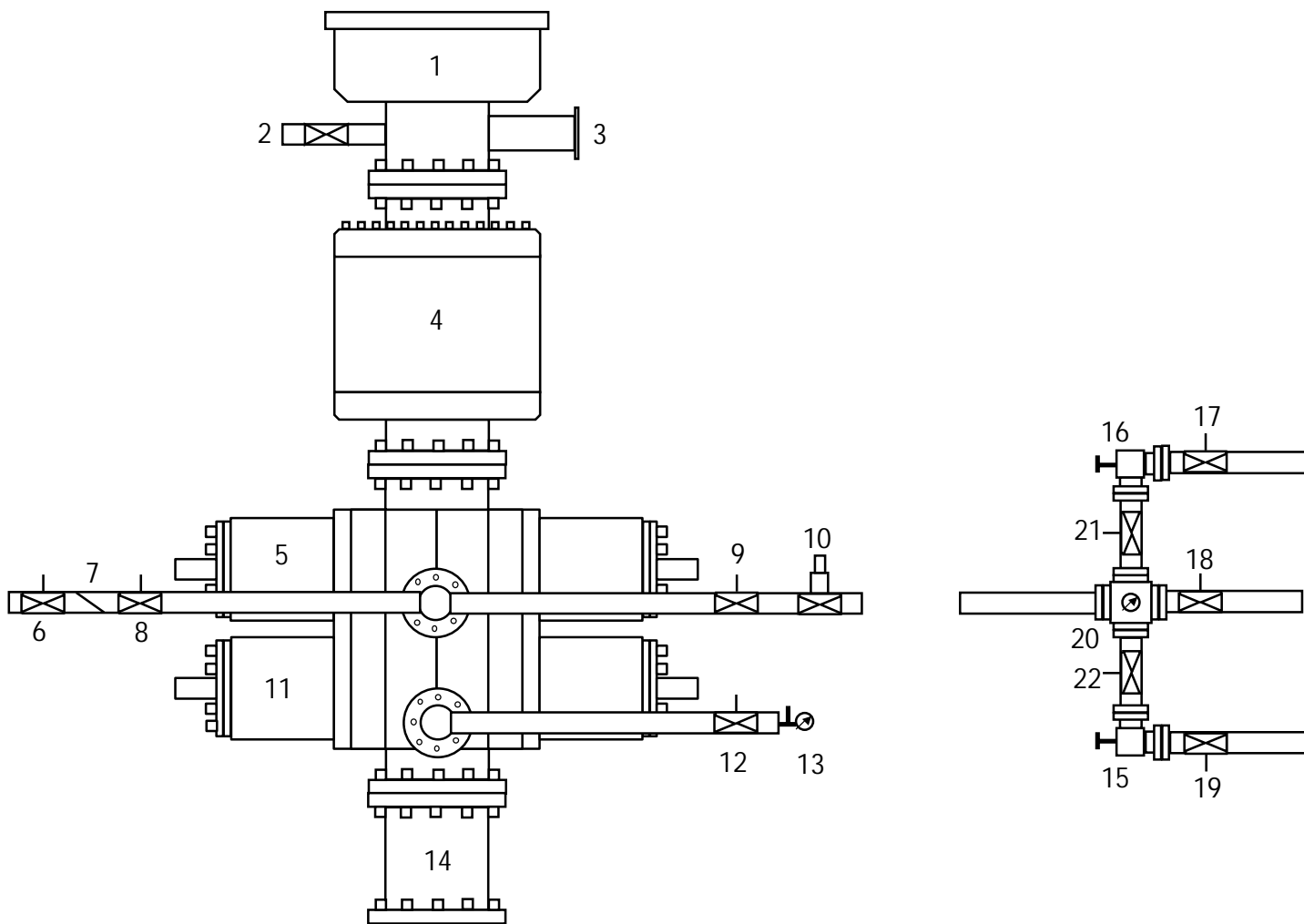
San Juan County, NM

San Juan 32-8 703 Federal Com 605H



Appendix A

13-5/8" 5M BOP & 5M Choke Manifold Configuration



1	Rotating Head	12	Manual Isolation Valve
2	Fill-Up Line	13	Needle Valve & Pressure Gauge
3	Flow Line	14	Spacer Spool (if needed)
4	5M Annular Preventer	15	Manual Choke
5	5M Pipe Rams	16	Hydraulically Operated Choke
6	Manual Isolation Valve	17	Manual Isolation Valve
7	Check Valve	18	Manual Isolation Valve
8	Manual Isolation Valve	19	Manual Isolation Valve
9	Manual Isolation Valve	20	Valve Block & Pressure Gauge
10	High Closing Ratio Valve	21	Manual Isolation Valve
11	5M Blind Rams	22	Manual Isolation Valve

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Energy, Minerals and Natural Resources
Oil Conservation Division
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Santa Fe, NM 87505

CONDITIONS

Action 530850

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 530850
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	3/4/2026