Santa Fe Main Office
Phone: (505) 476-3441
General Information
Phone: (505) 629-6116

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

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

Form C-101
Revised July 18, 2013

☐AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
Hilcorp Energy Company 382 Road 3100 Aztec, NM 87410	372171
	3. API Number 30-045-38411

4. Property Code	5. Property Name	6. Well No.
318864	Allison Unit	631H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
F	12	32N	07W	3	529’	N	1635’	W	Sam Juan

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
G	22	32N	06W		2001’	N	1775’	E	La Plata

9. Pool Information

Pool Name	Pool Code
Basin Mancos	97232

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	Gas		Private	6350’
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
No	17,825’ MD	Mancos		2025

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water

☒**We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Suf	17 1/2"	13 3/8”	54.5#	350’	352	0
Int	12 1/4"	9 5/8”	43.5#	6,550’	663 sx (381 sx lead/282 sx tail)	0
Prod	8 1/2"	5 1/2"	20.0#	17,825’	2,433 sx (277 sx lead/2,156 sx tail)	5,000’

Casing/Cement Program: Additional Comments

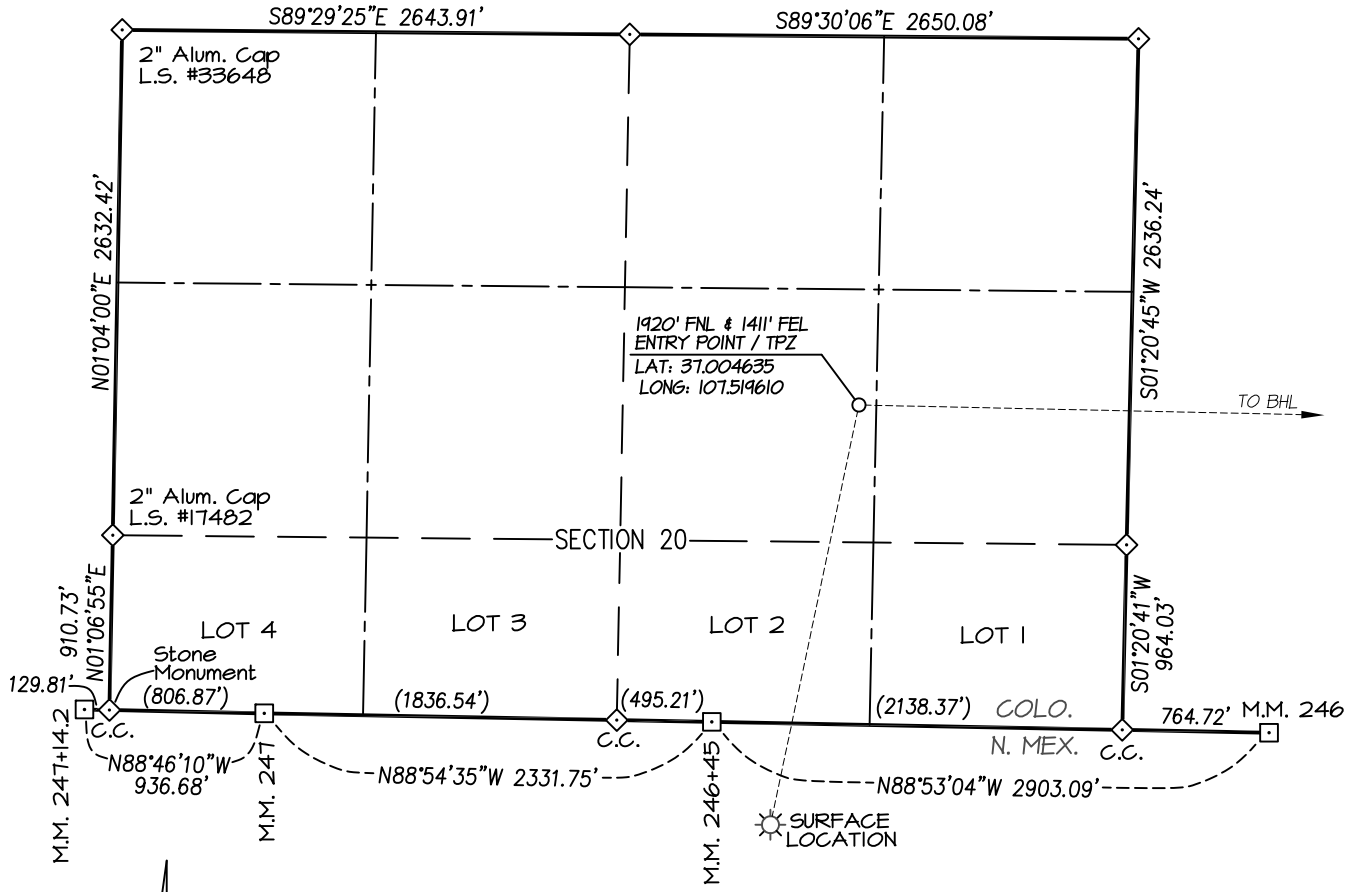
22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	4,200	5,000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.** Signature: AWalker	OIL CONSERVATION DIVISION Approved By:
Printed name: Amanda Walker	Title:
Title: Operations Regulatory Tech Sr.	Approved Date: / Expiration Date:
E-mail Address: mwalker@hilcorp.com	
Date:12/16/2024 / Phone: 346-237-2177	Conditions of Approval Attached

HILCORP ENERGY COMPANY: ALLISON UNIT #631H

SURFACE LOCATION: 529' FNL & 1635' FWL
SECTION 12, T-32-N, R-7-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO. ELEVATION: 6350'
BOTTOM HOLE LOCATION: 2001' FNL, 1775' FEL
SECTION 22, T-32-N, R-6-W, N.M.P.M., LA PLATA COUNTY, COLORADO.



⊡ denotes found 1925 Supreme Court Mile Marker Brass Tab

◇ denotes found 3-1/4" alum. cap L.S. #23894 unless otherwise noted.

N

GRAPHIC SCALE 1"=1000'

0 1000 2000

NOTE:

SEE SHEET 4 OF 4 FOR COORDINATE TABLE, SURVEY NOTES, AND SURVEYOR'S CERTIFICATE.

SHEET 1 OF 4

REVISED: 9/25/24
SURVEYED: 5/14/24
DRAWN: 8/5/24
JOB NO. HC005
DRAWN BY: K.R.
CHECKED BY: K.R.
FILE NO.: 631WP1

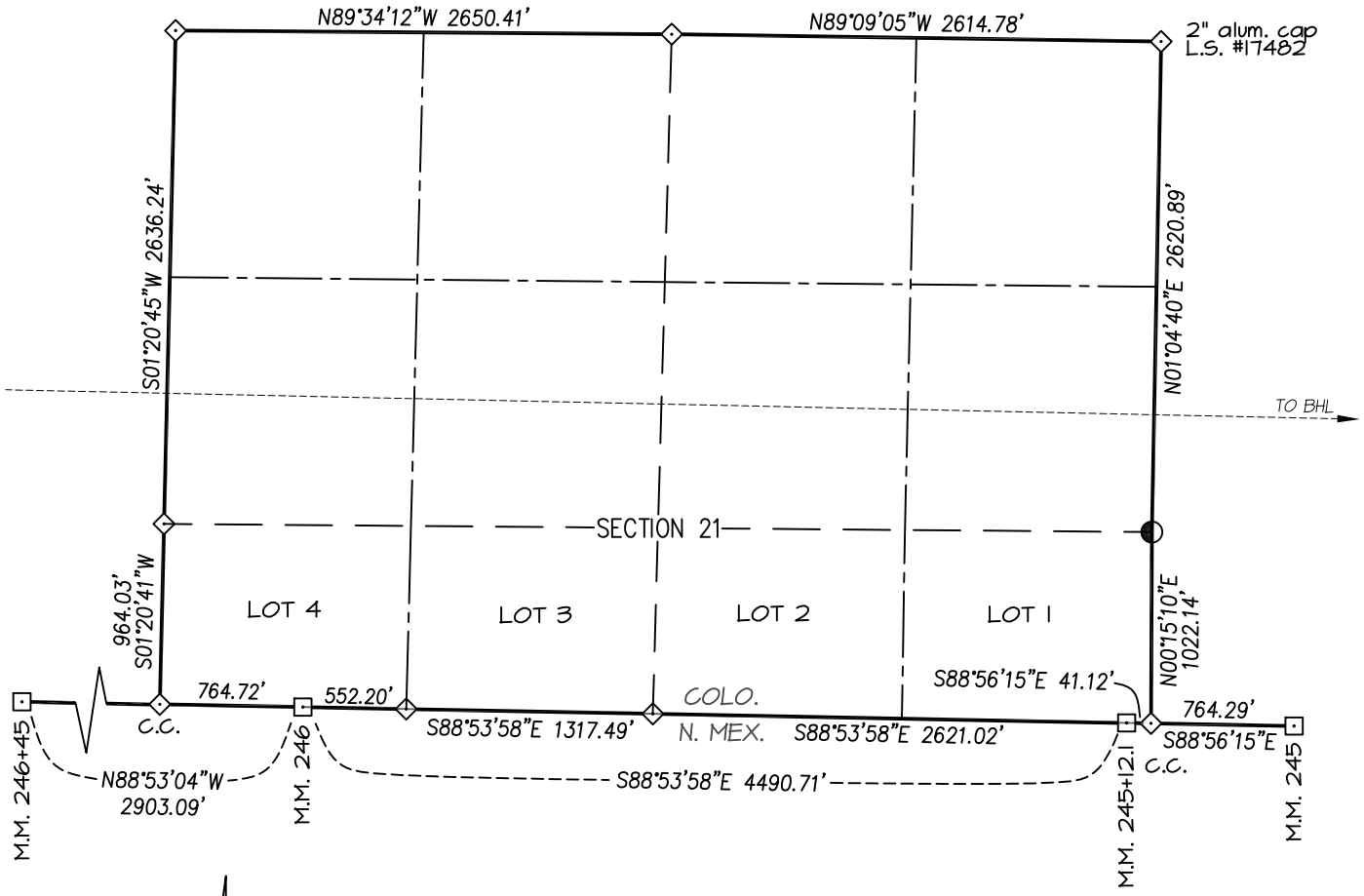
PREPARED FOR:

HILCORP ENERGY COMPANY

NORTHSTAR
SURVEYING & MAPPING, INC.
768 County Rd. 308
DURANGO, CO. 81303
(970) 385-0851

HILCORP ENERGY COMPANY: ALLISON UNIT #631H

SURFACE LOCATION: 529' FNL & 1635' FWL
SECTION 12, T-32-N, R-7-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO. ELEVATION: 6350'
BOTTOM HOLE LOCATION: 2001' FNL, 1775' FEL
SECTION 22, T-32-N, R-6-W, N.M.P.M., LA PLATA COUNTY, COLORADO.



◓ and ◒ denote found 3-1/4" B.L.M. Brass Cap unless otherwise noted.

⊡ denotes found 1925 Supreme Court Mile Marker Brass Tab

◇ denotes found 3-1/4" alum. cap L.S. #23894 unless otherwise noted.

GRAPHIC SCALE 1"=1000'

0 1000 2000

NOTE:

SEE SHEET 4 OF 4 FOR COORDINATE TABLE, SURVEY NOTES, AND SURVEYOR'S CERTIFICATE.

SHEET 2 OF 4

REVISED: 9/25/24
SURVEYED: 5/14/24
DRAWN: 8/5/24
JOB NO. HC005
DRAWN BY: K.R.
CHECKED BY: K.R.
FILE NO.: 631WP2

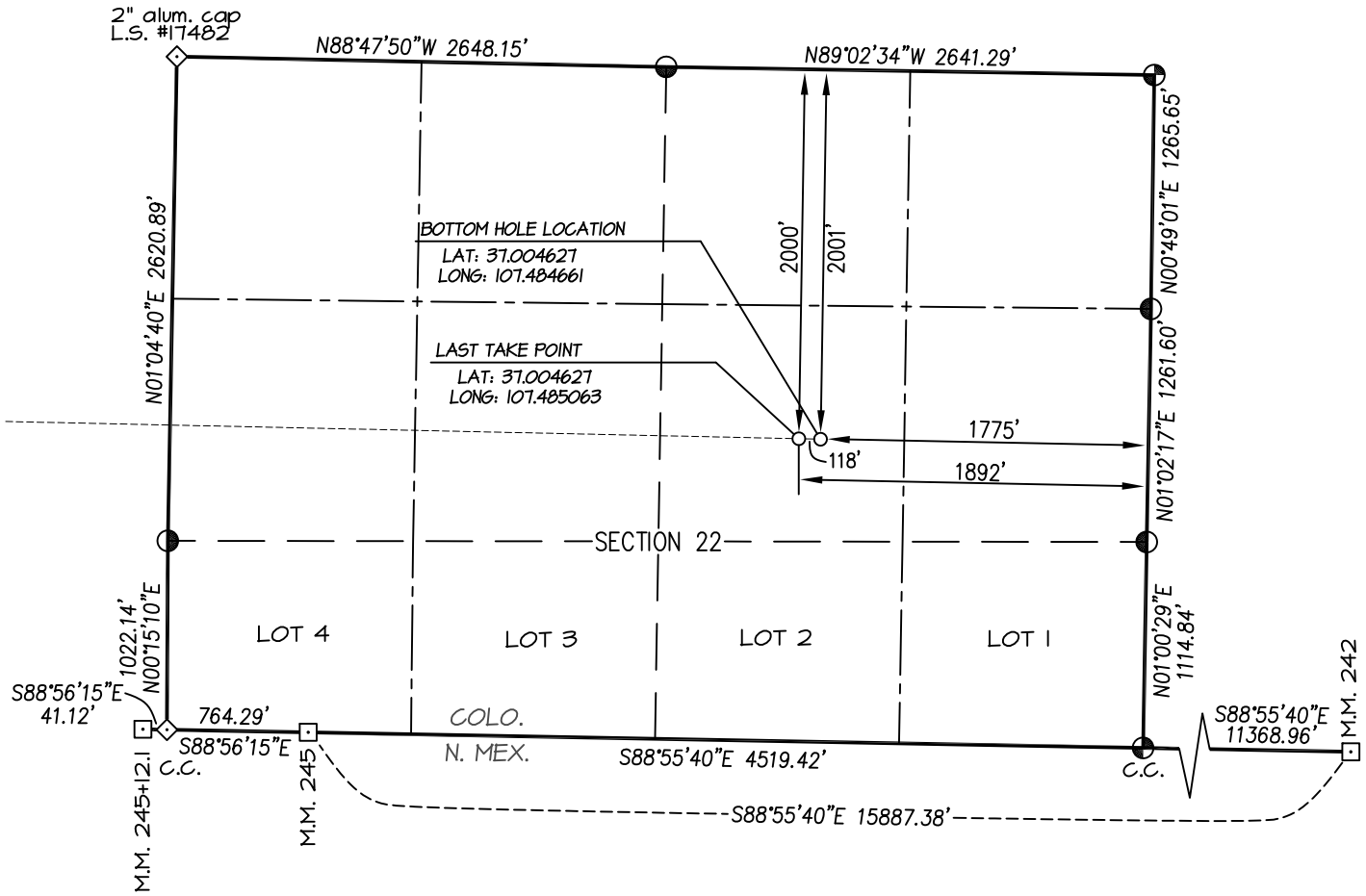
PREPARED FOR:

HILCORP ENERGY COMPANY

NORTHSTAR
SURVEYING & MAPPING, INC.
768 County Rd. 308
DURANGO, CO. 81303
(970) 385-0851

HILCORP ENERGY COMPANY: ALLISON UNIT #631H

SURFACE LOCATION: 529' FNL & 1635' FWL
SECTION 12, T-32-N, R-7-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO. ELEVATION: 6350'
BOTTOM HOLE LOCATION: 2001' FNL, 1775' FEL
SECTION 22, T-32-N, R-6-W, N.M.P.M., LA PLATA COUNTY, COLORADO.



◓ and ◒ denote found 3-1/4" B.L.M. Brass Cap unless otherwise noted.

⊡ denotes found 1925 Supreme Court Mile Marker Brass Tab

◇ denotes found 3-1/4" alum. cap L.S. #23894 unless otherwise noted.

GRAPHIC SCALE 1"=1000'

0 1000 2000

NOTE:

SEE SHEET 4 OF 4 FOR COORDINATE TABLE, SURVEY NOTES, AND SURVEYOR'S CERTIFICATE.

SHEET 3 OF 4

REVISED: 9/25/24
SURVEYED: 5/14/24
DRAWN: 8/5/24
JOB NO. HC005
DRAWN BY: K.R.
CHECKED BY: K.R.
FILE NO.: 631WP3

PREPARED FOR:

HILCORP ENERGY COMPANY

NORTHSTAR
SURVEYING & MAPPING, INC.
768 County Rd. 308
DURANGO, CO. 81303
(970) 385-0851

HILCORP ENERGY COMPANY: ALLISON UNIT #631H

SURFACE LOCATION: 529' FNL & 1635' FWL
SECTION 12, T-32-N, R-7-W, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO. ELEVATION: 6350'
BOTTOM HOLE LOCATION: 2001' FNL, 1775' FEL
SECTION 22, T-32-N, R-6-W, N.M.P.M., LA PLATA COUNTY, COLORADO.

ALLISON UNIT #631H	CSZ NAD '83	NAD '83	TIES	SEC/TWP/RNG
SURFACE HOLE LOCATION	N (Y) = 1,127,251.89' E (X) = 2,409,800.13'	LAT: 36.998605°N LONG: 107.521026°W	529' FNL 1635' FWL	SECTION 12 (N. MEX.) T-32-N, R-7-W
ENTRY POINT / TPZ	N (Y) = 1,129,438.14' E (X) = 2,410,261.06'	LAT: 37.004635°N LONG: 107.519610°W	1920' FNL 1411' FEL	SECTION 20 (COLO.) T-32-N, R-6-W
LAST TAKE POINT	N (Y) = 1,129,218.88' E (X) = 2,420,347.22'	LAT: 37.004627°N LONG: 107.485063°W	2000' FNL 1892' FEL	SECTION 22 (COLO.) T-32-N, R-6-W
BOTTOM HOLE LOCATION	N (Y) = 1,129,216.32' E (X) = 2,420,464.80'	LAT: 37.004627°N LONG: 107.484661°W	2001' FNL 1775' FEL	SECTION 22 (COLO.) T-32-N, R-6-W

NOTES:

1. WELL LOCATION FOOTAGE CALLS MEASURED PERPENDICULAR TO SECTION LINES.
2. WELL GPS OBSERVATION PERFORMED BY JASON EDWARDS ON 5/14/24 – PDOP VALUE = 1.8
3. BEARINGS & DISTANCE SHOWN ARE FIELD MEASURED UNLESS OTHERWISE NOTED.
4. ALL MEASURED DISTANCES SHOWN ARE GRID DISTANCE WITH NO SCALE FACTOR APPLIED.
5. BEARINGS ARE BASED ON THE NORTH AMERICAN DATUM OF 1983, COLORADO SOUTH STATE PLANE COORDINATE SYSTEM, ZONE 0503.
6. ELEVATION IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (GEOID18).

COLORADO REGISTERED
KENNETH E. REA
31941
9-25-24
PROFESSIONAL LAND SURVEYOR

I, KENNETH E. REA, A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THE WELL LOCATION SHOWN ON THIS PLAT IS ACCURATELY PLOTTED FROM FIELD NOTES OF ACTUAL SURVEYS MADE UNDER MY DIRECT SUPERVISION, AND THAT THIS PLAT IS NOT A LAND SURVEY PLAT OR IMPROVEMENT SURVEY PLAT, AND THAT IT IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OF FENCE, BUILDING, OR OTHER FUTURE IMPROVEMENT LINES.

REVISED: 9/25/24
SURVEYED: 5/14/24
DRAWN: 8/5/24
JOB NO. HC005
DRAWN BY: K.R.
CHECKED BY: K.R.
FILE NO.: 631WP4

SHEET 4 OF 4

PREPARED FOR:
HILCORP ENERGY COMPANY

NORTHSTAR
SURVEYING & MAPPING, INC.
768 County Rd. 308
DURANGO, CO. 81303
(970) 385-0851

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	Pool Code	Pool Name
30-045-38411	97232	BASIN MANCOS

Property Code	Property Name	Well Number
318864	ALLISON UNIT	631H

OGRID No.	Operator Name	Ground Level Elevation
372171	HILCORP ENERGY COMPANY	6350'

Surface Owner: ☐ State ☒ Fee ☐ Tribal ☐ Federal

Mineral Owner: ☐ State ☒ Fee ☐ Tribal ☐ Federal

Surface Location

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
F	12	32N	7W	3	529' NORTH	1635' WEST	36.998605 °N	-107.521026 °W	SAN JUAN (NM)

Bottom Hole Location

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
G	22	32N	6W		2001' NORTH	1775' EAST	37.004627 °N	-107.484661 °W	LA PLATA (CO)

Penetrated Spacing Unit:

Dedicated Acres		Infill or Defining Well	Defining Well API	Overlapping Spacing Unit	Consolidation Code
1143.60	Entire Section 20 & 21, T32N, R6W S/2 (aka LOTS 1-4), S/2 NW/4, SW/4 NE/4 - Section 22, T32N, R6W	Infill	Allison Unit 630H API TBD	☐ Yes ☒ No	Unit

Order Numbers

Well setbacks are under Common Ownership: ☐ Yes ☒ No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
F	12	32N	7W	3	529' NORTH	1635' WEST	36.998605 °N	-107.521026 °W	SAN JUAN (NM)

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
G	20	32N	6W		1920' NORTH	1411' EAST	37.004635 °N	-107.519610 °W	LA PLATA (CO)

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet from N/S Line	Feet from E/W Line	Latitude	Longitude	County
G	22	32N	6W		2000' NORTH	1892' EAST	37.004627 °N	-107.485063 °W	LA PLATA (CO)

Unitized Area or Area of Uniform Interest	Spacing Unit Type	Ground Floor Elevation
ALLISON UNIT	☒ Horizontal ☐ Vertical ☐ Directional	

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.

Signature

12/16/2024
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
NEW MEXICO
15269
12/12/2024
REGISTERED PROFESSIONAL SURVEYOR

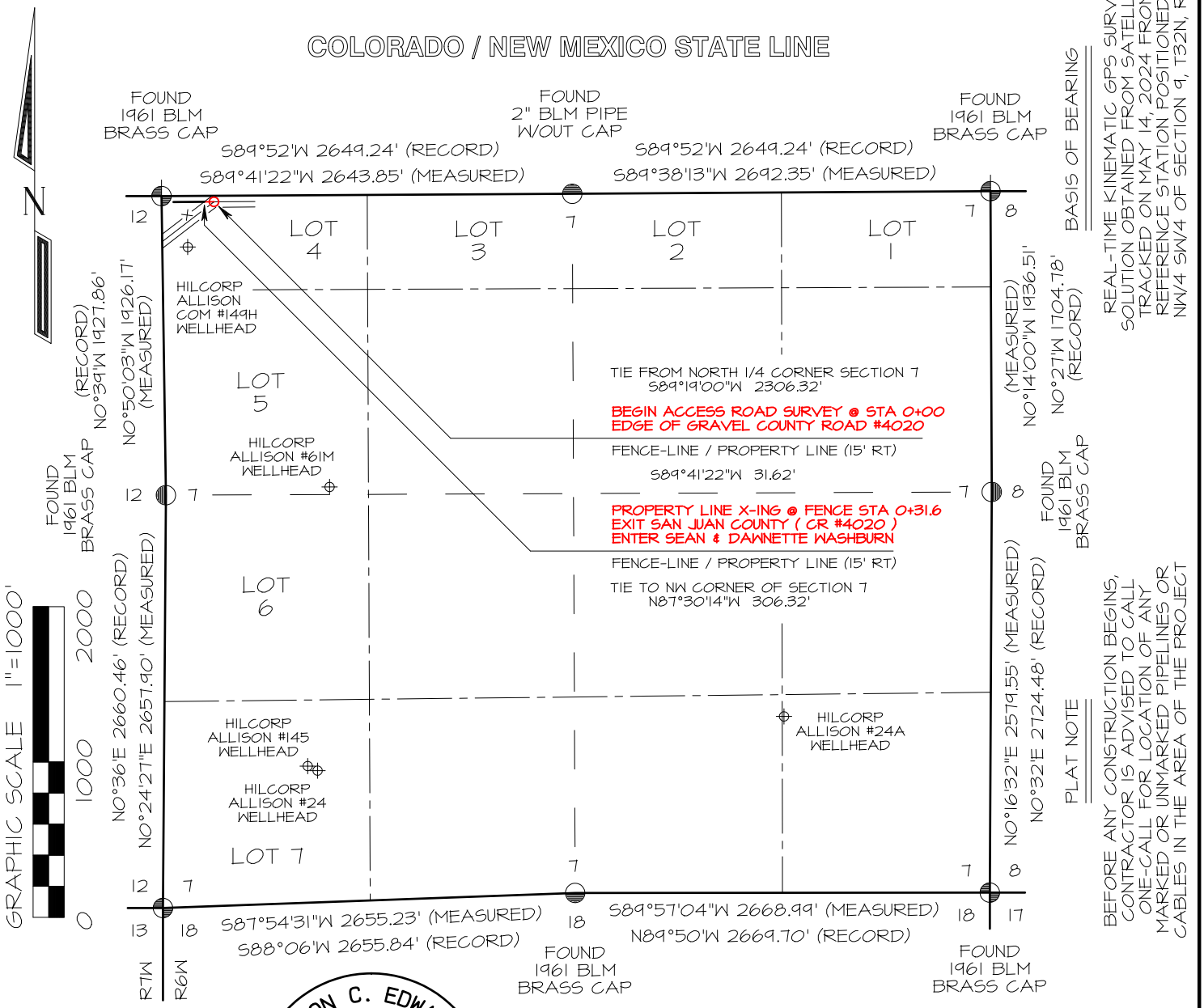
JASON C. EDWARDS

Signature and Seal of Professional Surveyor

Certificate Number	Date of Survey
15269	MAY 14, 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.

HILCORP ENERGY ALLISON UNIT #631H ACCESS ROAD
SURVEY LOCATED IN NW/4 NW/4 (aka LOT 4) OF SECTION 7, T32N, R6W NMPM, SAN JUAN COUNTY, NEW MEXICO



JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

~ SURFACE OWNERSHIP ~ SAN JUAN COUNTY (CR #4020)	
0+00 TO 0+31.6	31.6 FT / 1.9 RODS

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS Date: August 5, 2024

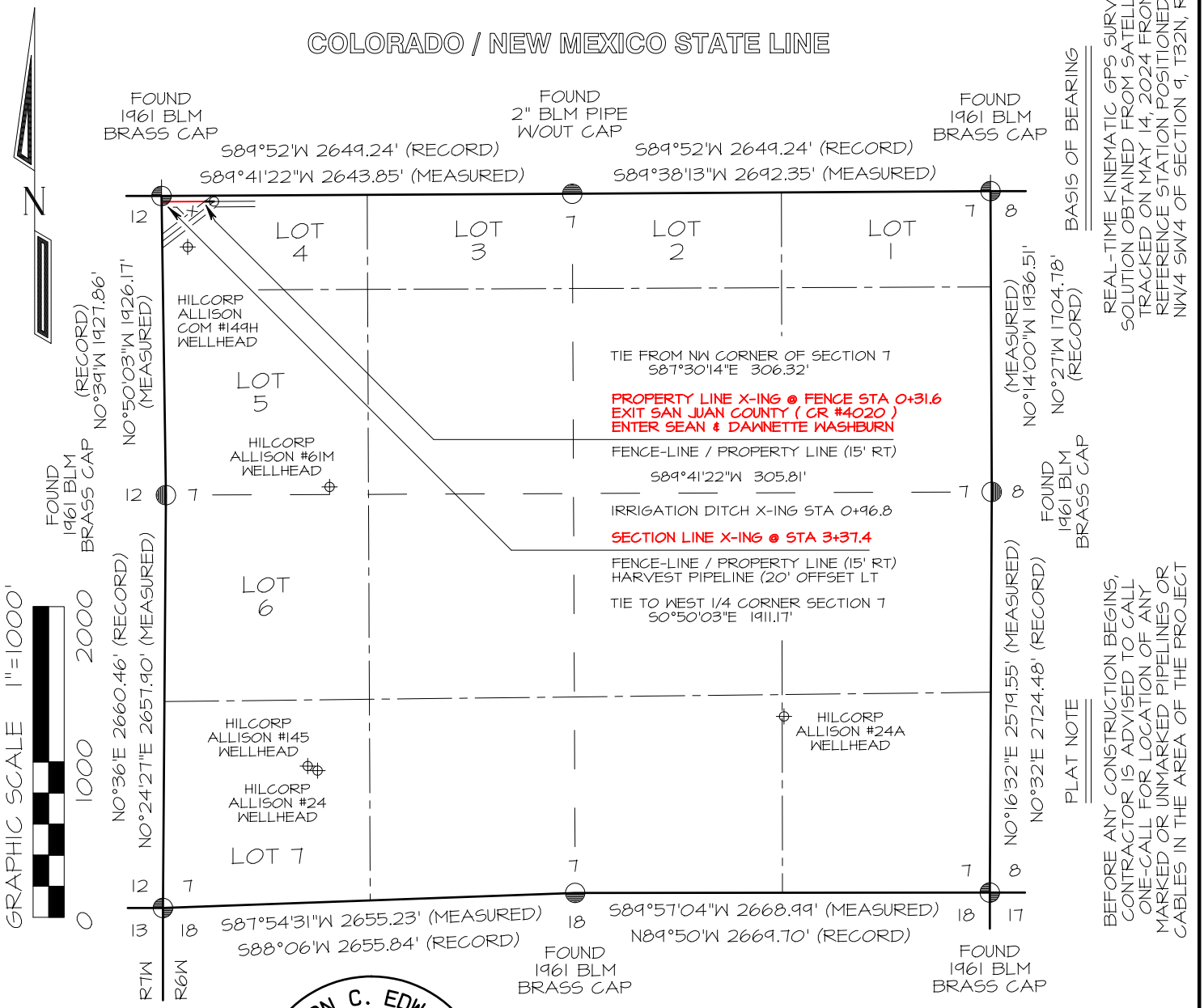
Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Prepared for:
HILCORP ENERGY COMPANY
P.O. BOX #61529
HOUSTON, TX 77208-1529

NCE SURVEYS, INC.
Land Surveyor: Jason C. Edwards
Mailing Address: Post Office Box 6612 Farmington, NM 87499
Business Address: 111 East Pinon Street Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 7 OF 14
FILENAME: 3267AP1

HILCORP ENERGY ALLISON UNIT #631H ACCESS ROAD
SURVEY LOCATED IN NW/4 NW/4 (aka LOT 4) OF SECTION 7, T32N, R6W NMPM, SAN JUAN COUNTY, NEW MEXICO



~ FEE SURFACE OWNERSHIP ~ Sean & Dawnette Washburn	
0+31.6 TO 3+37.4	305.8 FT / 18.5 RODS

JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS Date: August 5, 2024

Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Prepared for:
HILCORP ENERGY COMPANY
P.O. BOX #61529
HOUSTON, TX 77208-1529

Land Surveyor:
Jason C. Edwards
Mailing Address:
Post Office Box 6612
Farmington, NM 87499
Business Address:
111 East Pinon Street
Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 8 OF 14
FILENAME: 326TAP2

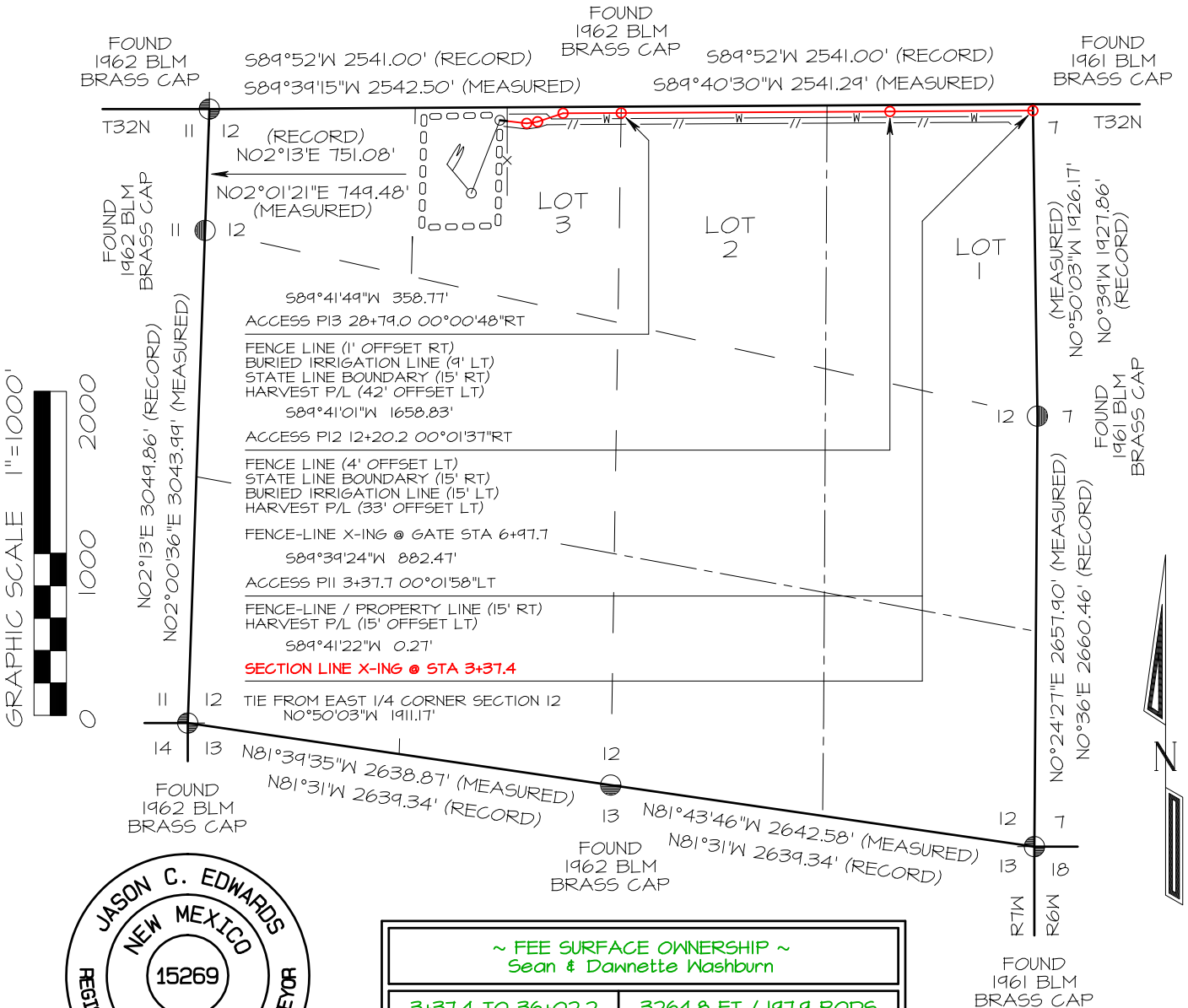
HILCORP ENERGY ALLISON UNIT #631H ACCESS ROAD SURVEY
LOCATED IN N/2 NE/4 & NE/4 NW/4 (aka LOTS 1 – 3) OF SECTION 12
T32N, R7W, NMPM, SAN JUAN COUNTY, NEW MEXICO

PLAT NOTE

BEFORE ANY CONSTRUCTION BEGINS, CONTRACTOR IS ADVISED TO CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED PIPELINES OR CABLES IN THE AREA OF THE PROJECT

BASIS OF BEARING

REAL-TIME KINEMATIC GPS SURVEY SOLUTION OBTAINED FROM SATELLITES TRACKED ON MAY 14, 2024 FROM A REFERENCE STATION POSITIONED IN NW/4 SW/4 OF SECTION 9, T32N, R6W



~ FEE SURFACE OWNERSHIP ~ Sean & Dawnette Washburn	
3+37.4 TO 36+02.2	3264.8 FT / 197.9 RODS

JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS Date: August 5, 2024

Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Prepared for:
HILCORP ENERGY COMPANY
P.O. BOX #61529
HOUSTON, TX 77208-1529

Land Surveyor:
Jason C. Edwards
Mailing Address:
Post Office Box 6612
Farmington, NM 87499
Business Address:
111 East Pinon Street
Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 9 OF 14
FILENAME: 32712AP3

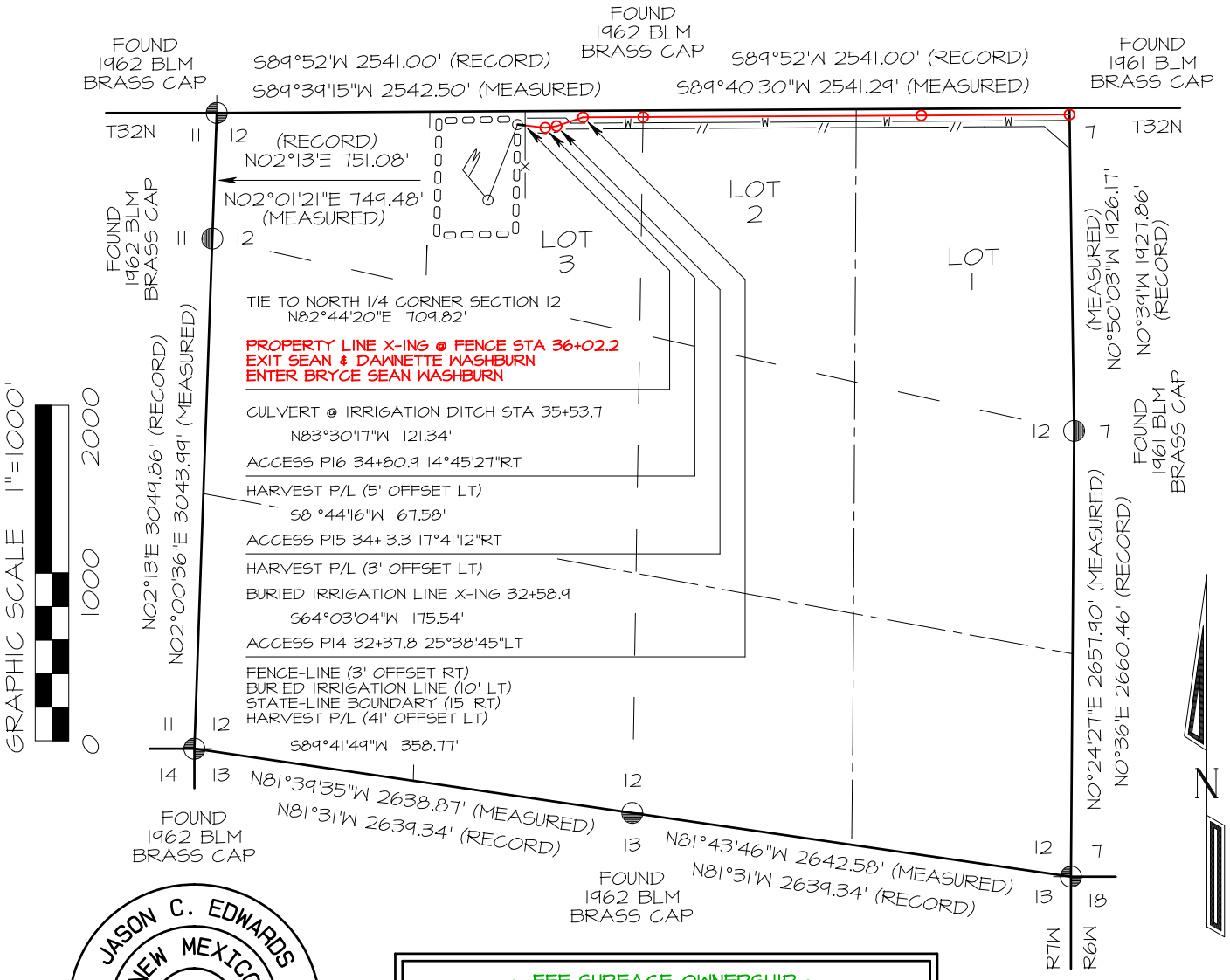
HILCORP ENERGY ALLISON UNIT #631H ACCESS ROAD SURVEY
LOCATED IN N/2 NE/4 & NE/4 NW/4 (aka LOTS 1 – 3) OF SECTION 12
T32N, R7W, NMPM, SAN JUAN COUNTY, NEW MEXICO

PLAT NOTE

BEFORE ANY CONSTRUCTION BEGINS, CONTRACTOR IS ADVISED TO CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED PIPELINES OR CABLES IN THE AREA OF THE PROJECT

BASIS OF BEARING

REAL-TIME KINEMATIC GPS SURVEY SOLUTION OBTAINED FROM SATELLITES TRACKED ON MAY 14, 2024 FROM A REFERENCE STATION POSITIONED IN NW/4 SW/4 OF SECTION 9, T32N, R6W



~ FEE SURFACE OWNERSHIP ~ Sean & Dawnette Washburn	
3+37.4 TO 36+02.2	3264.8 FT / 197.9 RODS

JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS Date: August 5, 2024

Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Prepared for:
HILCORP ENERGY COMPANY
P.O. BOX #61529
HOUSTON, TX 77208-1529

Land Surveyor:
Jason C. Edwards
Mailing Address:
Post Office Box 6612
Farmington, NM 87499
Business Address:
111 East Pinon Street
Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 10 OF 14
FILENAME: 32712AP4

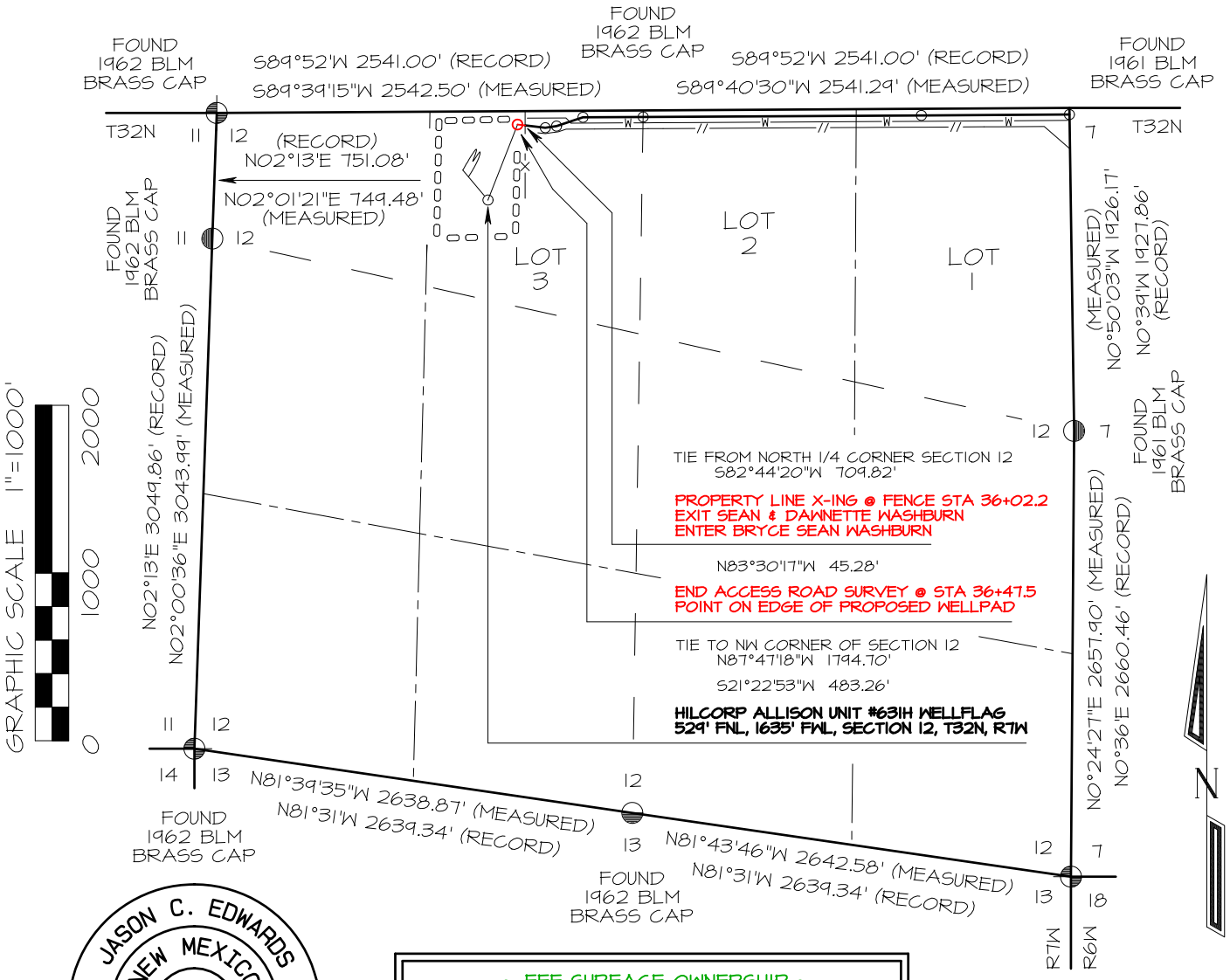
HILCORP ENERGY ALLISON UNIT #631H ACCESS ROAD SURVEY LOCATED IN NE/4 NW/4 (aka LOT 3) OF SECTION 12, T32N, R7W NMPM, SAN JUAN COUNTY, NEW MEXICO

PLAT NOTE

BEFORE ANY CONSTRUCTION BEGINS, CONTRACTOR IS ADVISED TO CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED PIPELINES OR CABLES IN THE AREA OF THE PROJECT

BASIS OF BEARING

REAL-TIME KINEMATIC GPS SURVEY SOLUTION OBTAINED FROM SATELLITES TRACKED ON MAY 14, 2024 FROM A REFERENCE STATION POSITIONED IN NW/4 SW/4 OF SECTION 9, T32N, R6W



~ FEE SURFACE OWNERSHIP ~ Bryce Sean Washburn	
36+02.2 TO 36+47.5	45.3 FT / 2.7 RODS

JASON C. EDWARDS NEW MEXICO 15269 REGISTERED PROFESSIONAL SURVEYOR

I, Jason C. Edwards, a registered Professional Surveyor under the laws of the State of New Mexico, hereby certify that this plat was prepared from field notes of an actual survey meeting the minimum requirements of the standards for easement surveys and is true and correct to the best of my knowledge and belief.

JASON C. EDWARDS Date: August 5, 2024

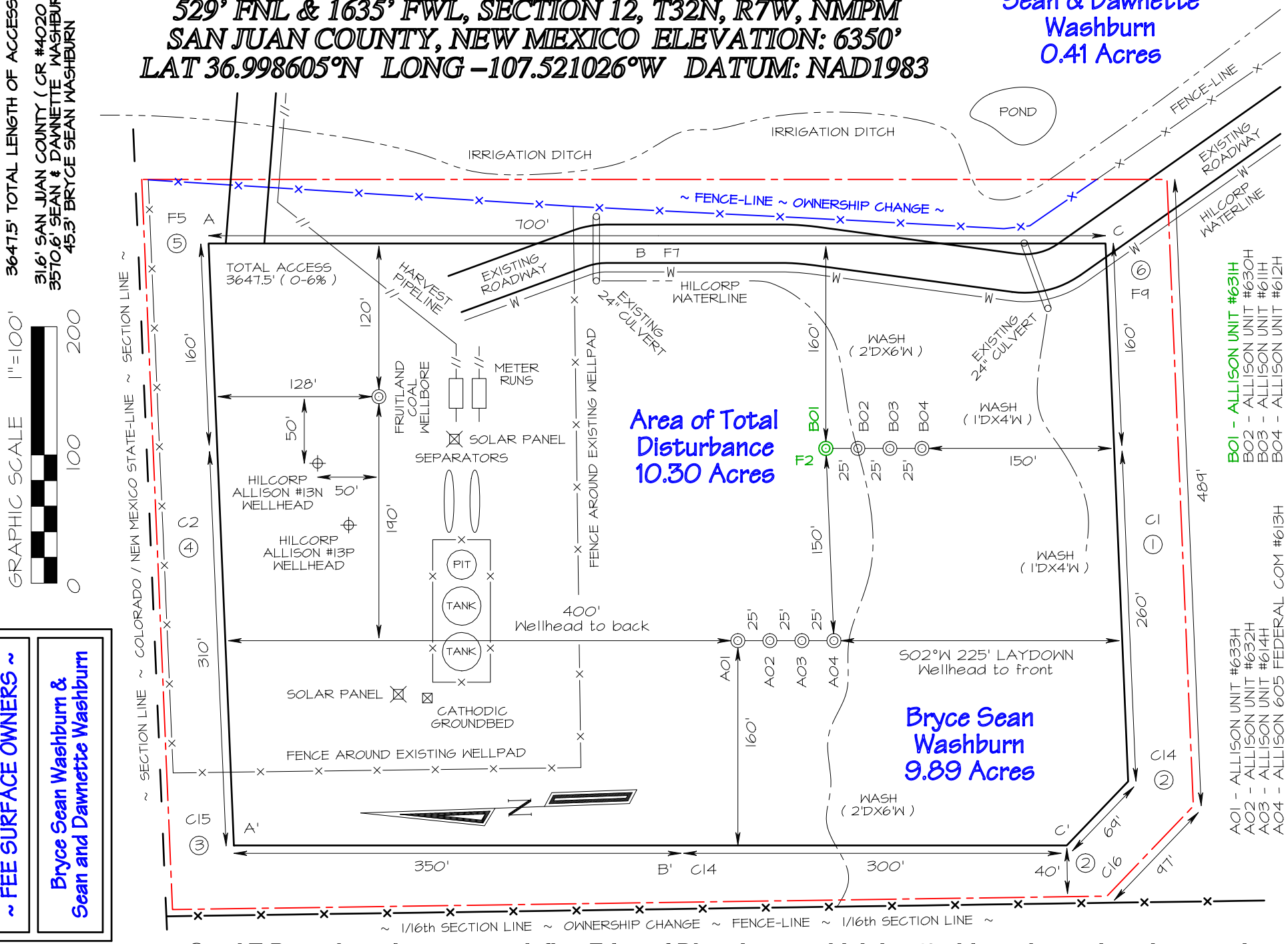
Jason C. Edwards, P.L.S.
New Mexico L.S. #15269

Prepared for:
HILCORP ENERGY COMPANY
P.O. BOX #61529
HOUSTON, TX 77208-1529

Land Surveyor:
Jason C. Edwards
Mailing Address:
Post Office Box 6612
Farmington, NM 87499
Business Address:
111 East Pinon Street
Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net
NCE SURVEYS, INC.

CHECKED BY: JCE
DRAWN BY: EDO
SHEET 11 OF 14
FILENAME: 327I2AP5

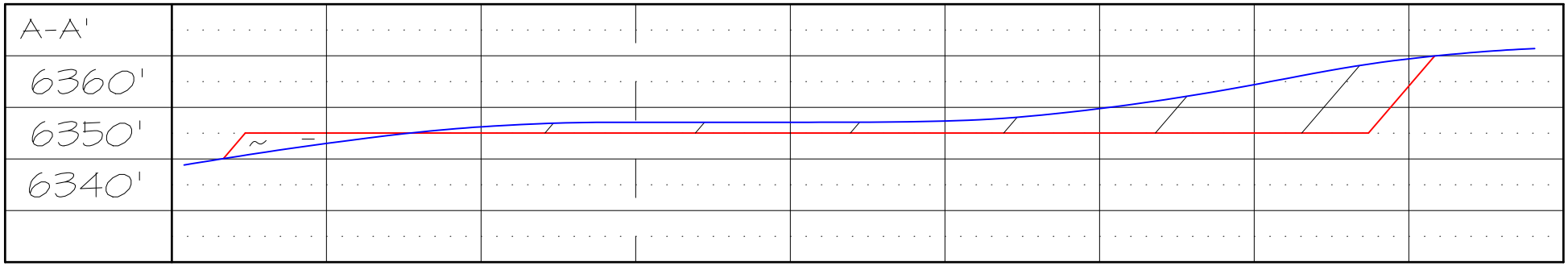
HILCORP ENERGY COMPANY ALLISON UNIT #631H
529' FNL & 1635' FWL, SECTION 12, T32N, R7W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6350'
LAT 36.998605°N LONG –107.521026°W DATUM: NAD1983

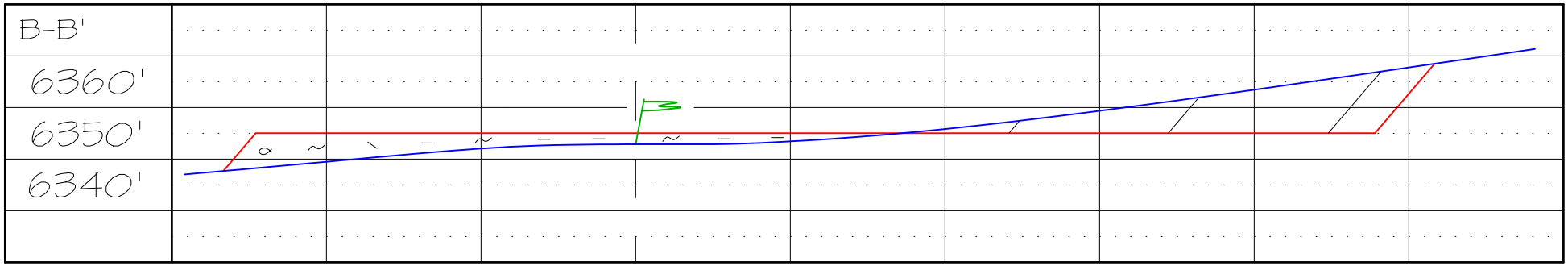


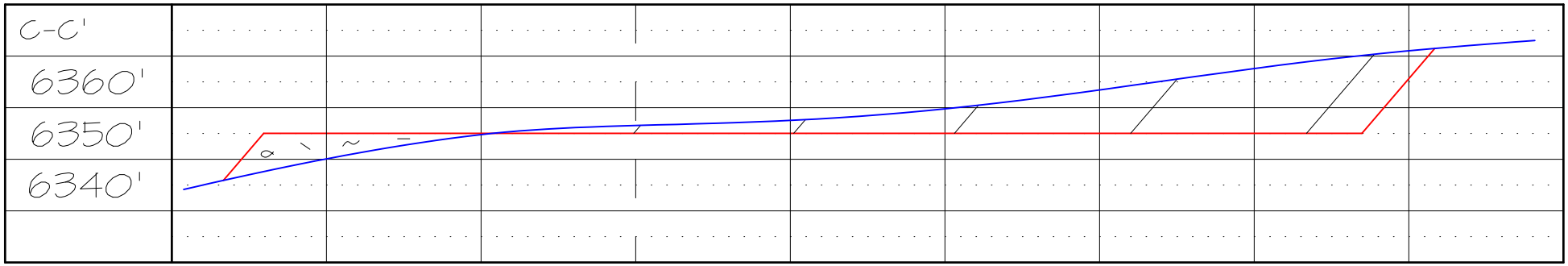
Steel T-Posts have been set to define Edge of Disturbance which is 50' wide, unless otherwise noted.

HILCORP ENERGY COMPANY ALLISON UNIT #631H
529' FNL & 1635' FWL, SECTION 12, T32N, R7W, NMPM
SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6350'

HORIZONTAL SCALE 1"=60' VERTICAL SCALE 1"=30'





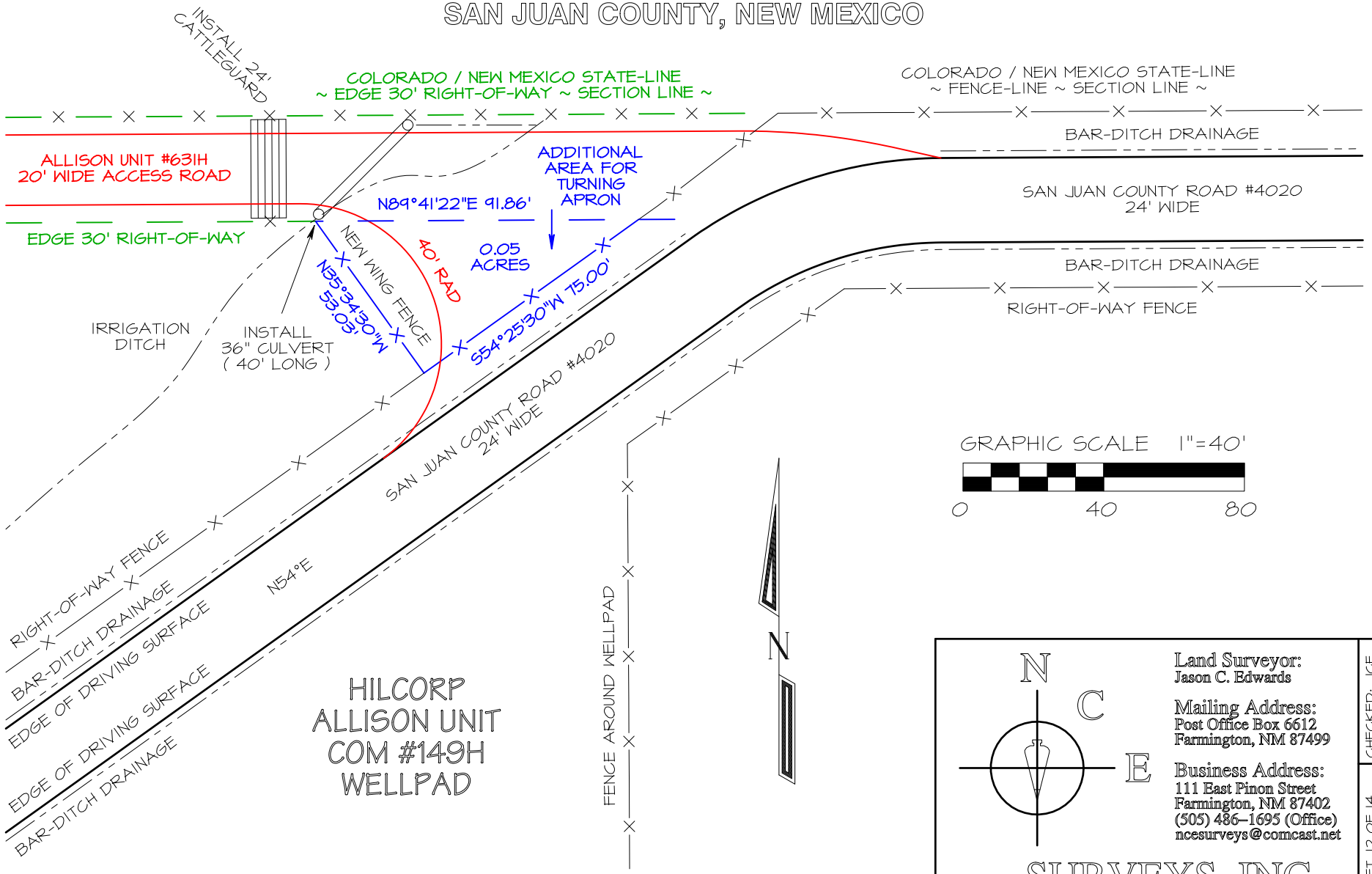


EDWARDS SURVEYING, INC. IS NOT LIABLE FOR LOCATION OF UNDERGROUND UTILITIES OR PIPELINES.

CONTRACTOR SHOULD CONTACT ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED UNDERGROUND UTILITIES OR PIPELINES ON WELLPAD AND/OR ACCESS ROAD AT LEAST TWO WORKING DAYS PRIOR TO CONSTRUCTION.

HILCORP ENERGY COMPANY

COUNTY ROAD #4020 DRIVE-WAY PERMIT SKETCH FOR HILCORP ALLISON UNIT #631H WELL LOCATION LOCATED IN NW/4 NW/4 (aka LOT 4) SECTION 7, T32N, R6W, NMPM SAN JUAN COUNTY, NEW MEXICO



N C E SURVEYS, INC.

Land Surveyor:
Jason C. Edwards

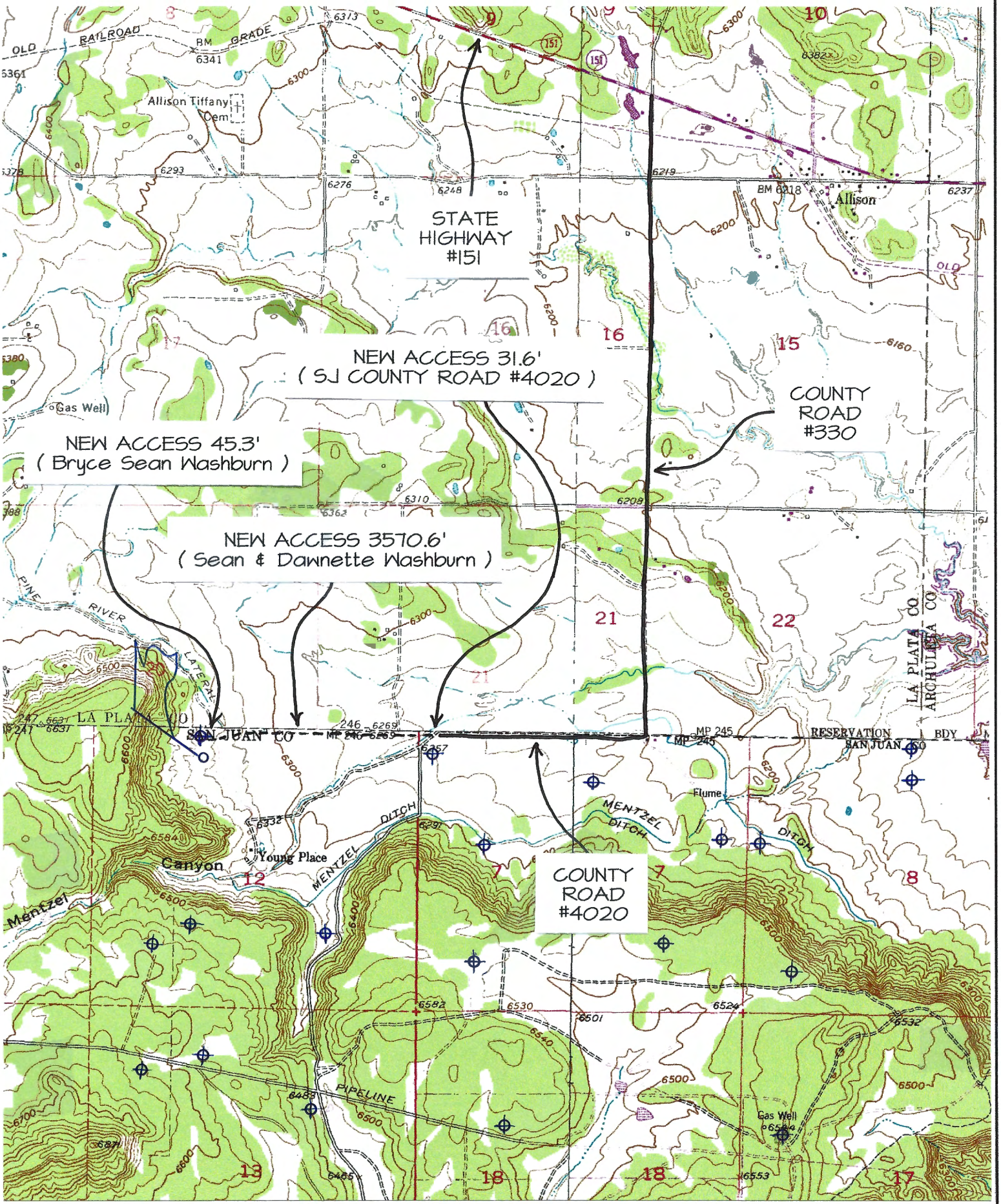
Mailing Address:
Post Office Box 6612
Farmington, NM 87499

Business Address:
111 East Pinon Street
Farmington, NM 87402
(505) 486-1695 (Office)
ncesurveys@comcast.net

CHECKED: JCE
DRAWN BY: EDO
SHEET 12 OF 14
FILENAME: 3267DZ1

HILCORP ENERGY COMPANY ALLISON UNIT #631H

529' FNL & 1635' FWL, SECTION 12, T32N, R7W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO



TOPO NAME : BURNT MESA ⊕ PRODUCING WELL ⊗ PLUGGED & ABANDONED WELL

Directions from Intersection of State Hwy 172 & State Hwy 151 in Ignacio, CO

to Hilcorp Energy Company Allison Unit #631H

529' FNL & 1635' FWL, Section 12, T32N, R7W, N.M.P.M., San Juan County, NM

Latitude 36.998605°N Longitude -107.521026°W Datum: NAD1983

From the intersection of State Hwy 172 & State Hwy 151 in Ignacio, CO, travel Easterly on State Hwy 151 for 12.0 miles to County Road #330:

Go Right (Southerly) on County Road #330 for 1.9 miles to County Road #4020;

Go Right (Westerly) on County Road #4020 for 0.6 miles to new access on right-hand side which continues for 3647.5' to Hilcorp Allison Unit #631H staked location which overlaps an existing wellpad.

La Plata County, CO Allison Unit 631H

Hilcorp

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:	November 7, 2024	Pool:	Basin Mancos
Well Name:	Allison Unit 631H	Ground Elevation (ft. MSL):	6,350’
Surface Hole Location:	36.9986000° N, -107.5204190° W	Total Measured Depth (ft.)	17,825’
Bottom Hole Location:	37.0046216° N, -107.4840550° W	County, State:	La Plata County, CO

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	2,084	Possible Water
Kirtland	2,150	Gas & Water
Fruitland	2,581	Gas & Water
Pictured Cliffs	2,950	Possible Gas
Lewis Shale	3,467	None
Cliffhouse	4,900	Possible Gas & Water
Menefee	5,274	None
Point Lookout	5,455	Gas
Mancos	5,974	Gas

3. Pressure Control Equipment

A. BOP Equipment

See Appendix A for BOP equipment and choke manifold diagram.

- BOP equipment will be nippled 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.

La Plata County, CO Allison Unit 631H

Hilcorp

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	17-1/2"	13-3/8"-54.5#-J55 (or equiv)-LTC/BTC	0'	350'/350'	1,130 psi	2,730 psi	514 klbs
Intermediate	12-1/4"	9-5/8"-43.5#-L80 (or equiv)-LTC/BTC	0'	6,550'/6,193'	3,810 psi	6,330 psi	737 klbs
Production	8-1/2"	5-1/2"-20.0#-P110 (or equiv)-LTC/BTC	0'	17,825'/6,798'	11,080 psi	12,360 psi	548 klbs

Proposed Casing Design Safety Factors				
Casing String	Burst Design SF	Collapse Design SF	Joint Tensile Design SF	Connection Tensile Design SF
Surface	16.7	8.8	51.8	55.2
Intermediate	1.7	1.2	4.3	3.5
Production	3.0	3.1	2.2	1.9

B. Casing Design Parameters & Calculations:

- Designed for full wellbore evacuation.
- Mud Weights used for calculations:
  - Surface = 9.0 ppg
  - Intermediate = 11.5 ppg
  - Production = 12.0 ppg
- Minimum Acceptable Safety Factors:
  - Burst: 1.15
  - Collapse: 1.15
  - Tensile: 1.50
- Casing Safety Factor Calculations:

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

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

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

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.

La Plata County, CO Allison Unit 631H

Hilcorp

5. Proposed Centralizer Program:

Proposed Centralizer Program	
Casing String	Centralizers & Placement
Surface Casing	1 centralizer per joint on bottom 3 joints.
Intermediate Casing	1 centralizer per joint in shoe track. 1 centralizer every 3rd 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	486 ft^3	352	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	6,550’	Lead	1,947 ft^3	381	25%	ASTM Type IL Yield: 5.12 ft^3/sk	9.5	Surface
		Slurry Additives: FL-24 (0.5%), FL-66 (0.5%), IntegraGuard GW-86 (0.2%), IntegraSeal PHENO (2.0 lb/sk), IntegraSeal POLI (0.25 lb/sk), LW-5E (50.0%), R-3 (0.4%), S-8 Silica Flour (35.0%), XCem-311 (0.3%)						
		Tail	607 ft^3	282	25%	ASTM Type IL Yield: 2.15 ft^3/sk	12.5	5,000’
		Slurry Additives: A-10 (5.0%), A-2 (1.0 lb/sk), IntegraSeal PHENO (1.0 lb/sk), IntegraSeal POLI (0.5 lb/sk), R-7C (0.3%), StaticFree (0.01%), XCem-311 (0.3%)						
Production	17,825’	Lead	435 ft^3	277	25%	ASTM Type IL Yield: 1.57 ft^3/sk	12.0	5,000’
		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), KCl (3.0%), R-3 (0.55%), STATIC FREE (0.01 lb/sk), XCem-311 (0.3%)						
		Tail	3,190 ft^3	2,156	25%	Class G Yield: 1.48 ft^3/sk	14.0	6,700’
		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)						

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 nippled 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	Fluid Loss	Invert Ratio	Depth
		(ppg)	(mL/30 min)	(%Diesel / %Brine)	(ft. MD)
Surface	Water/Gel	8.3 – 9.2	NC	N/A	0' – 350'
Intermediate	LSND / Gel	8.4 – 10.0	<6	N/A	350' – 6,550'
Production	Oil Base Mud	10.0 – 12.0	6 – 8	70/30 – 75/25	6,550' – 17,825'

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 $CaCl_2$ 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: 1,799 bbls (10,101 ft^3).

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.

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

- The 9-5/8" intermediate casing will be cemented to surface to protect water bearing zones. If cement is not circulated to surface on the intermediate cement job, 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.

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.

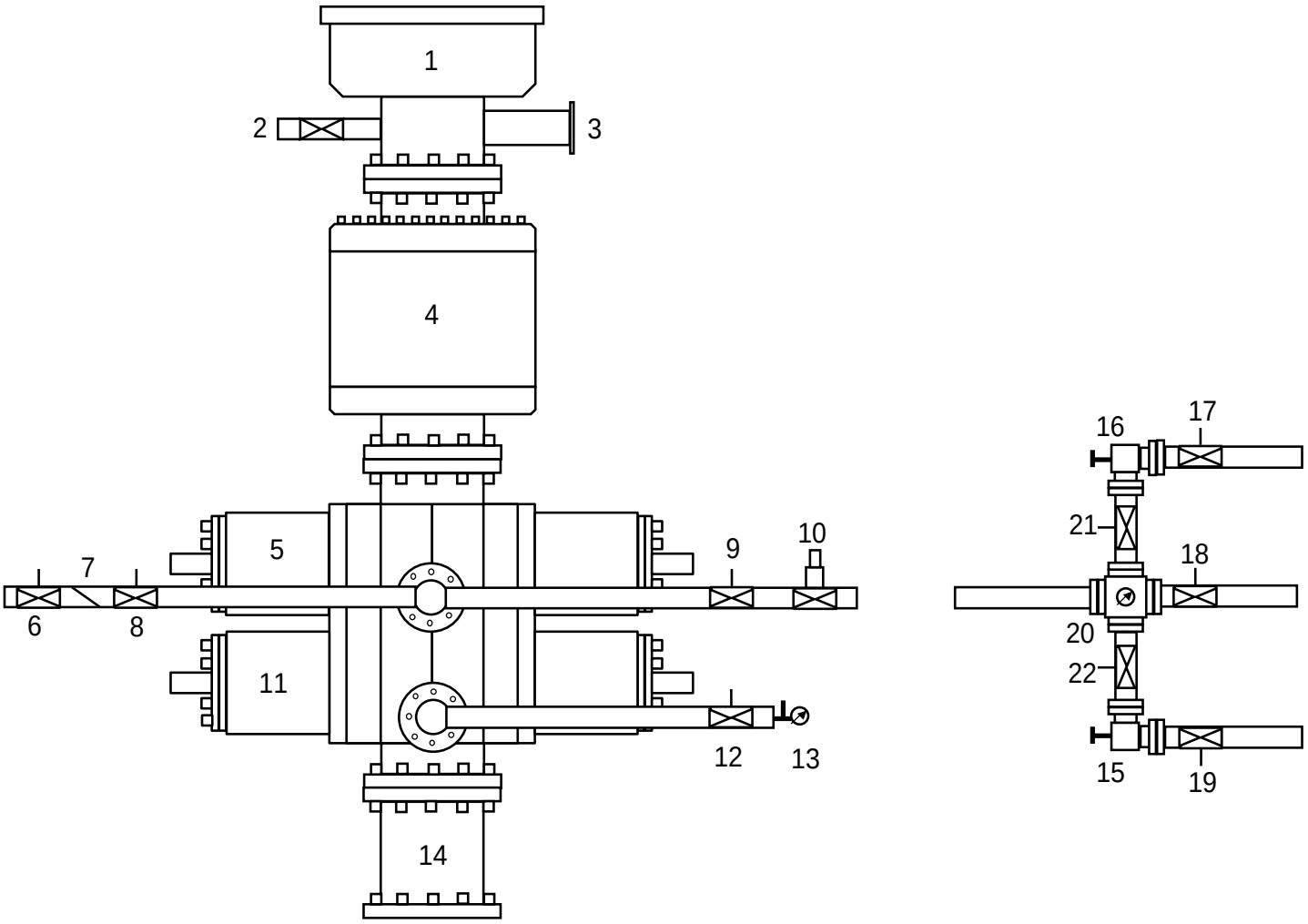
B. Stimulation

- 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.

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	Hydraulicly 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

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Hilcorp Energy Company **OGRID:** 372171 **Date:** 12/9/2024

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Allison Unit 612H		F, Sec 12, T32N, R07W	604' FNL & 1635' FWL	0	16,000	300
Allison Unit 630H		F, Sec 12, T32N, R07W	554' FNL & 1635' FWL	0	16,000	300
Allison Unit 631H		F, Sec 12, T32N, R07W	529' FNL & 1635' FWL	0	16,000	300
Allison Unit 632H		F, Sec 12, T32N, R07W	479' FNL & 1485' FWL	0	16,000	300
Allison Unit 633H		F, Sec 12, T32N, R07W	454' FNL & 1485' FWL	0	16,000	300
Allison Unit 614H		F, Sec 12, T32N, R07W	504' FNL & 1485' FWL	0	16,000	300
Allison 605 Federal Com 613H		F, Sec 12, T32N, R07W	529' FNL & 1485' FWL	0	16,000	300

IV. Central Delivery Point Name: Milagro/Ignacio Gas Plant [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Allison Unit 612H		**2025**				
Allison Unit 630H		**2025**				
Allison Unit 631H		**2025**				
Allison Unit 632H		**2025**				
Allison Unit 633H		**2025**				
Allison Unit 614H		**2025**				
Allison 605 Federal Com 613H		**2025**				

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: 
Printed Name: Amanda Walker
Title: Operations Regulatory Tech Sr.
E-mail Address: mwalker@hilcorp.com
Date: 12/9/2024
Phone: 346-237-2177

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

Hilcorp

Allison Unit 631H
Plan #1

GL 6350' & RKB 25.1' @ 6375.10ft (Nabors B29)

Northing	Easting	Latitude	Longitude
2182910.15	591377.56	36.9986000	-107.5204190

PROJECT DETAILS: San Juan, NM NAD27

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

LONESTAR CONSULTING

Plan: Plan #1 (Allison Unit 631H/OH)

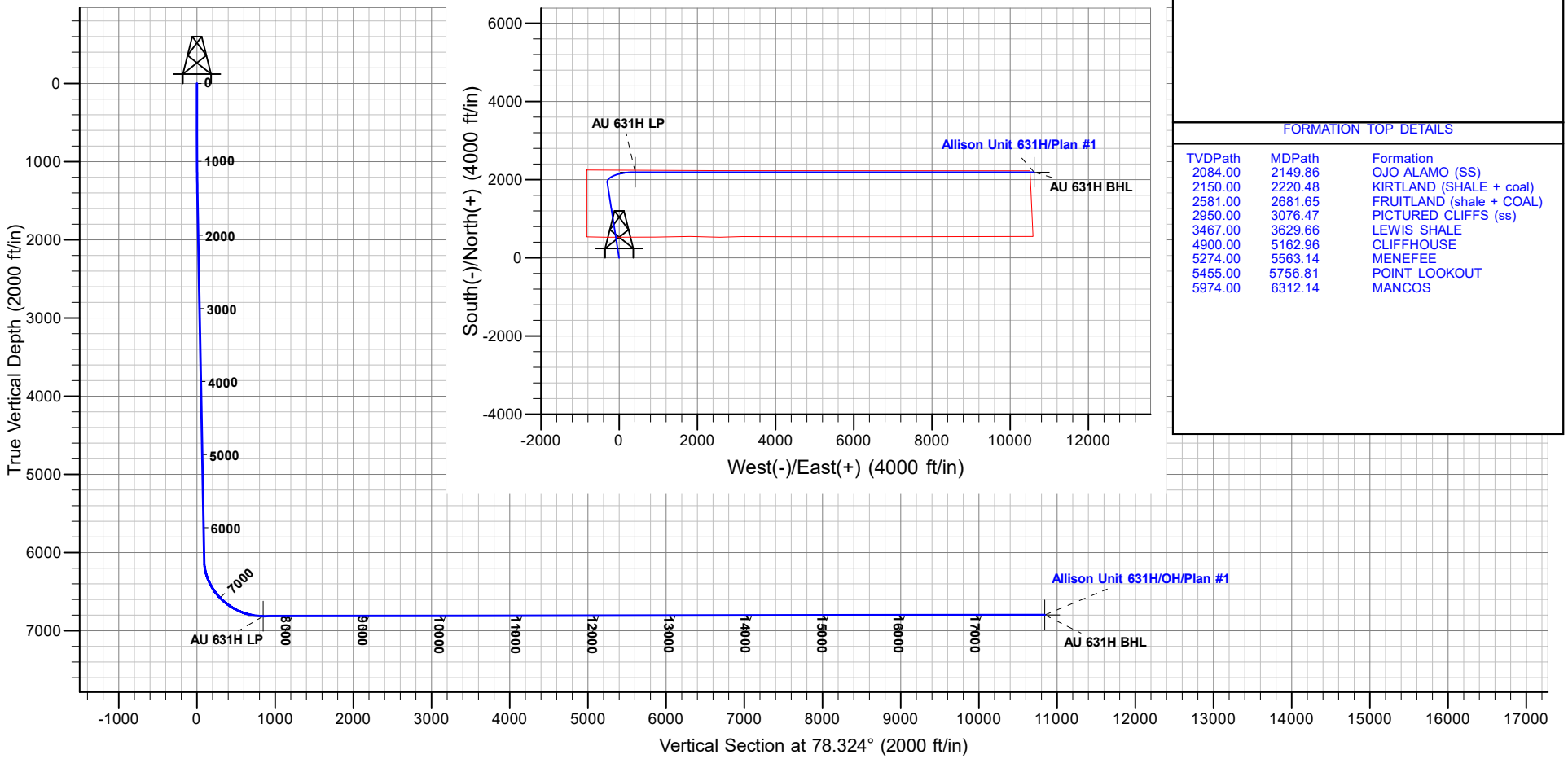
Created By: Janie Collins Date: 11:34, June 27 2024

PLAN DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00
450.00	0.00	0.000	450.00	0.00	0.00	0.00	0.00
1491.95	20.84	351.084	1469.13	185.14	-29.04	2.00	9.02
6454.23	20.84	351.084	6106.79	1929.11	-302.62	0.00	94.04
7619.81	90.09	90.006	6814.00	2195.41	413.56	8.00	849.30
17824.60	90.09	90.006	6798.00	2194.27	10618.34	0.00	10842.69

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
AU 631H BHL	6798.00	2194.27	10618.34	2185139.30	601988.60	37.0046216	-107.4840550
AU 631H LP	6814.00	2195.41	413.56	2185106.90	591783.90	37.0046303	-107.5190027



Azimuths to True North
Magnetic North: 8.58°

Magnetic Field
Strength: 49353.9nT
Dip Angle: 63.33°
Date: 5/30/2024
Model: HDGM2024

CASING DETAILS

No casing data is available

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2084.00	2149.86	OJO ALAMO (SS)
2150.00	2220.48	KIRTLAND (SHALE + coal)
2581.00	2681.65	FRUITLAND (shale + COAL)
2950.00	3076.47	PICTURED CLIFFS (ss)
3467.00	3629.66	LEWIS SHALE
4900.00	5162.96	CLIFFHOUSE
5274.00	5563.14	MENEFEE
5455.00	5756.81	POINT LOOKOUT
5974.00	6312.14	MANCOS

HilCorp

San Juan, NM NAD27
Allison 611 Pad
Allison Unit 631H

OH

Plan: Plan #1

Standard Planning Report

27 June, 2024

Hilcorp

Lonestar Consulting, LLC

Planning Report

LONESTAR CONSULTING

Database:	EDMDB	**Local Co-ordinate Reference:**	Well Allison Unit 631H
Company:	HilCorp	**TVD Reference:**	GL 6350' & RKB 25.1' @ 6375.10ft (Nabors B29)
Project:	San Juan, NM NAD27	**MD Reference:**	GL 6350' & RKB 25.1' @ 6375.10ft (Nabors B29)
Site:	Allison 611 Pad	**North Reference:**	True
Well:	Allison Unit 631H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project San Juan, NM NAD27

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		

Site Allison 611 Pad

Site Position:		**Northing:**	2,182,860.26 usft	**Latitude:**	36.9984630
From:	Lat/Long	**Easting:**	591,375.68 usft	**Longitude:**	-107.5204260
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "		

Well Allison Unit 631H

Well Position	**+N/-S**	0.00 ft	**Northing:**	2,182,910.15 usft	**Latitude:**	36.9986000
	+E/-W	0.00 ft	**Easting:**	591,377.56 usft	**Longitude:**	-107.5204190
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	6,350.00 ft
Grid Convergence:		0.19 °				

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2024	5/30/2024	8.58	63.33	49,353.90000000

Design Plan #1

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	78.324

Plan Survey Tool Program **Date** 6/25/2024

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,824.60	Plan #1 (OH)	MWD+HDGM	
				OWSG MWD + HDGM	

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	
450.00	0.00	0.000	450.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,491.95	20.84	351.084	1,469.13	185.14	-29.04	2.00	2.00	0.00	351.08	
6,454.23	20.84	351.084	6,106.79	1,929.11	-302.62	0.00	0.00	0.00	0.00	
7,619.81	90.09	90.006	6,814.00	2,195.41	413.56	8.00	5.94	8.49	98.32	AU 631H LP
17,824.60	90.09	90.006	6,798.00	2,194.27	10,618.34	0.00	0.00	0.00	0.00	AU 631H BHL

Hilcorp

Lonestar Consulting, LLC

Planning Report

LONESTAR CONSULTING

Database:	EDMDB	**Local Co-ordinate Reference:**	Well Allison Unit 631H
Company:	HilCorp	**TVD Reference:**	GL 6350' & RKB 25.1' @ 6375.10ft (Nabors B29)
Project:	San Juan, NM NAD27	**MD Reference:**	GL 6350' & RKB 25.1' @ 6375.10ft (Nabors B29)
Site:	Allison 611 Pad	**North Reference:**	True
Well:	Allison Unit 631H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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
450.00	0.00	0.000	450.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	1.00	351.084	500.00	0.43	-0.07	0.02	2.00	2.00	0.00
600.00	3.00	351.084	599.93	3.88	-0.61	0.19	2.00	2.00	0.00
700.00	5.00	351.084	699.68	10.77	-1.69	0.52	2.00	2.00	0.00
800.00	7.00	351.084	799.13	21.10	-3.31	1.03	2.00	2.00	0.00
900.00	9.00	351.084	898.15	34.84	-5.47	1.70	2.00	2.00	0.00
1,000.00	11.00	351.084	996.63	52.00	-8.16	2.53	2.00	2.00	0.00
1,100.00	13.00	351.084	1,094.44	72.54	-11.38	3.54	2.00	2.00	0.00
1,200.00	15.00	351.084	1,191.46	96.44	-15.13	4.70	2.00	2.00	0.00
1,300.00	17.00	351.084	1,287.58	123.67	-19.40	6.03	2.00	2.00	0.00
1,400.00	19.00	351.084	1,382.68	154.19	-24.19	7.52	2.00	2.00	0.00
1,491.95	20.84	351.084	1,469.13	185.14	-29.04	9.02	2.00	2.00	0.00
1,500.00	20.84	351.084	1,476.65	187.97	-29.49	9.16	0.00	0.00	0.00
1,600.00	20.84	351.084	1,570.11	223.11	-35.00	10.88	0.00	0.00	0.00
1,700.00	20.84	351.084	1,663.57	258.26	-40.51	12.59	0.00	0.00	0.00
1,800.00	20.84	351.084	1,757.03	293.40	-46.03	14.30	0.00	0.00	0.00
1,900.00	20.84	351.084	1,850.49	328.55	-51.54	16.02	0.00	0.00	0.00
2,000.00	20.84	351.084	1,943.94	363.69	-57.05	17.73	0.00	0.00	0.00
2,100.00	20.84	351.084	2,037.40	398.84	-62.57	19.44	0.00	0.00	0.00
2,200.00	20.84	351.084	2,130.86	433.98	-68.08	21.15	0.00	0.00	0.00
2,300.00	20.84	351.084	2,224.32	469.12	-73.59	22.87	0.00	0.00	0.00
2,400.00	20.84	351.084	2,317.78	504.27	-79.11	24.58	0.00	0.00	0.00
2,500.00	20.84	351.084	2,411.24	539.41	-84.62	26.29	0.00	0.00	0.00
2,600.00	20.84	351.084	2,504.69	574.56	-90.13	28.01	0.00	0.00	0.00
2,700.00	20.84	351.084	2,598.15	609.70	-95.65	29.72	0.00	0.00	0.00
2,800.00	20.84	351.084	2,691.61	644.85	-101.16	31.43	0.00	0.00	0.00
2,900.00	20.84	351.084	2,785.07	679.99	-106.67	33.15	0.00	0.00	0.00
3,000.00	20.84	351.084	2,878.53	715.14	-112.19	34.86	0.00	0.00	0.00
3,100.00	20.84	351.084	2,971.99	750.28	-117.70	36.57	0.00	0.00	0.00
3,200.00	20.84	351.084	3,065.45	785.42	-123.21	38.29	0.00	0.00	0.00
3,300.00	20.84	351.084	3,158.90	820.57	-128.73	40.00	0.00	0.00	0.00
3,400.00	20.84	351.084	3,252.36	855.71	-134.24	41.71	0.00	0.00	0.00
3,500.00	20.84	351.084	3,345.82	890.86	-139.75	43.43	0.00	0.00	0.00
3,600.00	20.84	351.084	3,439.28	926.00	-145.26	45.14	0.00	0.00	0.00
3,700.00	20.84	351.084	3,532.74	961.15	-150.78	46.85	0.00	0.00	0.00
3,800.00	20.84	351.084	3,626.20	996.29	-156.29	48.56	0.00	0.00	0.00
3,900.00	20.84	351.084	3,719.65	1,031.44	-161.80	50.28	0.00	0.00	0.00
4,000.00	20.84	351.084	3,813.11	1,066.58	-167.32	51.99	0.00	0.00	0.00
4,100.00	20.84	351.084	3,906.57	1,101.72	-172.83	53.70	0.00	0.00	0.00
4,200.00	20.84	351.084	4,000.03	1,136.87	-178.34	55.42	0.00	0.00	0.00
4,300.00	20.84	351.084	4,093.49	1,172.01	-183.86	57.13	0.00	0.00	0.00
4,400.00	20.84	351.084	4,186.95	1,207.16	-189.37	58.84	0.00	0.00	0.00
4,500.00	20.84	351.084	4,280.40	1,242.30	-194.88	60.56	0.00	0.00	0.00
4,600.00	20.84	351.084	4,373.86	1,277.45	-200.40	62.27	0.00	0.00	0.00
4,700.00	20.84	351.084	4,467.32	1,312.59	-205.91	63.98	0.00	0.00	0.00
4,800.00	20.84	351.084	4,560.78	1,347.74	-211.42	65.70	0.00	0.00	0.00
4,900.00	20.84	351.084	4,654.24	1,382.88	-216.94	67.41	0.00	0.00	0.00

Hilcorp

Lonestar Consulting, LLC

Planning Report

LONESTAR CONSULTING

Database:	EDMDB	**Local Co-ordinate Reference:**	Well Allison Unit 631H
Company:	HilCorp	**TVD Reference:**	GL 6350' & RKB 25.1' @ 6375.10ft (Nabors B29)
Project:	San Juan, NM NAD27	**MD Reference:**	GL 6350' & RKB 25.1' @ 6375.10ft (Nabors B29)
Site:	Allison 611 Pad	**North Reference:**	True
Well:	Allison Unit 631H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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	20.84	351.084	4,747.70	1,418.02	-222.45	69.12	0.00	0.00	0.00
5,100.00	20.84	351.084	4,841.15	1,453.17	-227.96	70.84	0.00	0.00	0.00
5,200.00	20.84	351.084	4,934.61	1,488.31	-233.48	72.55	0.00	0.00	0.00
5,300.00	20.84	351.084	5,028.07	1,523.46	-238.99	74.26	0.00	0.00	0.00
5,400.00	20.84	351.084	5,121.53	1,558.60	-244.50	75.98	0.00	0.00	0.00
5,500.00	20.84	351.084	5,214.99	1,593.75	-250.02	77.69	0.00	0.00	0.00
5,600.00	20.84	351.084	5,308.45	1,628.89	-255.53	79.40	0.00	0.00	0.00
5,700.00	20.84	351.084	5,401.91	1,664.04	-261.04	81.11	0.00	0.00	0.00
5,800.00	20.84	351.084	5,495.36	1,699.18	-266.56	82.83	0.00	0.00	0.00
5,900.00	20.84	351.084	5,588.82	1,734.33	-272.07	84.54	0.00	0.00	0.00
6,000.00	20.84	351.084	5,682.28	1,769.47	-277.58	86.25	0.00	0.00	0.00
6,100.00	20.84	351.084	5,775.74	1,804.61	-283.10	87.97	0.00	0.00	0.00
6,200.00	20.84	351.084	5,869.20	1,839.76	-288.61	89.68	0.00	0.00	0.00
6,300.00	20.84	351.084	5,962.66	1,874.90	-294.12	91.39	0.00	0.00	0.00
6,400.00	20.84	351.084	6,056.11	1,910.05	-299.64	93.11	0.00	0.00	0.00
6,454.23	20.84	351.084	6,106.79	1,929.11	-302.62	94.04	0.00	0.00	0.00
6,500.00	20.62	1.424	6,149.62	1,945.21	-303.69	96.25	8.00	-0.49	22.59
6,600.00	22.23	23.004	6,242.85	1,980.28	-295.84	111.03	8.00	1.61	21.58
6,700.00	26.18	40.073	6,334.16	2,014.62	-274.22	139.16	8.00	3.95	17.07
6,800.00	31.61	52.304	6,421.75	2,047.58	-239.22	180.10	8.00	5.43	12.23
6,900.00	37.88	61.061	6,503.93	2,078.51	-191.54	233.06	8.00	6.27	8.76
7,000.00	44.63	67.582	6,579.10	2,106.81	-132.11	296.99	8.00	6.75	6.52
7,100.00	51.68	72.681	6,645.80	2,131.92	-62.07	370.66	8.00	7.05	5.10
7,200.00	58.90	76.863	6,702.71	2,153.37	17.20	452.63	8.00	7.23	4.18
7,300.00	66.25	80.446	6,748.75	2,170.72	104.17	541.31	8.00	7.34	3.58
7,400.00	73.66	83.644	6,783.01	2,183.65	197.13	634.97	8.00	7.42	3.20
7,500.00	81.12	86.605	6,804.83	2,191.90	294.29	731.78	8.00	7.46	2.96
7,600.00	88.61	89.448	6,813.77	2,195.31	393.75	829.88	8.00	7.48	2.84
7,619.81	90.09	90.006	6,814.00	2,195.41	413.56	849.30	8.00	7.49	2.82
7,700.00	90.09	90.006	6,813.87	2,195.40	493.75	927.82	0.00	0.00	0.00
7,800.00	90.09	90.006	6,813.72	2,195.39	593.75	1,025.75	0.00	0.00	0.00
7,900.00	90.09	90.006	6,813.56	2,195.38	693.75	1,123.68	0.00	0.00	0.00
8,000.00	90.09	90.006	6,813.40	2,195.37	793.75	1,221.61	0.00	0.00	0.00
8,100.00	90.09	90.006	6,813.25	2,195.35	893.75	1,319.54	0.00	0.00	0.00
8,200.00	90.09	90.006	6,813.09	2,195.34	993.75	1,417.46	0.00	0.00	0.00
8,300.00	90.09	90.006	6,812.93	2,195.33	1,093.75	1,515.39	0.00	0.00	0.00
8,400.00	90.09	90.006	6,812.78	2,195.32	1,193.75	1,613.32	0.00	0.00	0.00
8,500.00	90.09	90.006	6,812.62	2,195.31	1,293.75	1,711.25	0.00	0.00	0.00
8,600.00	90.09	90.006	6,812.46	2,195.30	1,393.75	1,809.18	0.00	0.00	0.00
8,700.00	90.09	90.006	6,812.31	2,195.29	1,493.75	1,907.11	0.00	0.00	0.00
8,800.00	90.09	90.006	6,812.15	2,195.28	1,593.75	2,005.04	0.00	0.00	0.00
8,900.00	90.09	90.006	6,811.99	2,195.27	1,693.75	2,102.96	0.00	0.00	0.00
9,000.00	90.09	90.006	6,811.84	2,195.25	1,793.75	2,200.89	0.00	0.00	0.00
9,100.00	90.09	90.006	6,811.68	2,195.24	1,893.75	2,298.82	0.00	0.00	0.00
9,200.00	90.09	90.006	6,811.52	2,195.23	1,993.75	2,396.75	0.00	0.00	0.00
9,300.00	90.09	90.006	6,811.37	2,195.22	2,093.75	2,494.68	0.00	0.00	0.00
9,400.00	90.09	90.006	6,811.21	2,195.21	2,193.75	2,592.61	0.00	0.00	0.00
9,500.00	90.09	90.006	6,811.05	2,195.20	2,293.75	2,690.53	0.00	0.00	0.00
9,600.00	90.09	90.006	6,810.90	2,195.19	2,393.75	2,788.46	0.00	0.00	0.00
9,700.00	90.09	90.006	6,810.74	2,195.18	2,493.75	2,886.39	0.00	0.00	0.00
9,800.00	90.09	90.006	6,810.58	2,195.16	2,593.75	2,984.32	0.00	0.00	0.00
9,900.00	90.09	90.006	6,810.43	2,195.15	2,693.75	3,082.25	0.00	0.00	0.00

Hilcorp

Lonestar Consulting, LLC

Planning Report

LONESTAR CONSULTING

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Company:	HilCorp	**TVD Reference:**	GL 6350' & RKB 25.1' @ 6375.10ft (Nabors B29)
Project:	San Juan, NM NAD27	**MD Reference:**	GL 6350' & RKB 25.1' @ 6375.10ft (Nabors B29)
Site:	Allison 611 Pad	**North Reference:**	True
Well:	Allison Unit 631H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
10,000.00	90.09	90.006	6,810.27	2,195.14	2,793.75	3,180.18	0.00	0.00	0.00
10,100.00	90.09	90.006	6,810.11	2,195.13	2,893.75	3,278.11	0.00	0.00	0.00
10,200.00	90.09	90.006	6,809.95	2,195.12	2,993.75	3,376.03	0.00	0.00	0.00
10,300.00	90.09	90.006	6,809.80	2,195.11	3,093.75	3,473.96	0.00	0.00	0.00
10,400.00	90.09	90.006	6,809.64	2,195.10	3,193.75	3,571.89	0.00	0.00	0.00
10,500.00	90.09	90.006	6,809.48	2,195.09	3,293.75	3,669.82	0.00	0.00	0.00
10,600.00	90.09	90.006	6,809.33	2,195.08	3,393.75	3,767.75	0.00	0.00	0.00
10,700.00	90.09	90.006	6,809.17	2,195.06	3,493.75	3,865.68	0.00	0.00	0.00
10,800.00	90.09	90.006	6,809.01	2,195.05	3,593.75	3,963.60	0.00	0.00	0.00
10,900.00	90.09	90.006	6,808.86	2,195.04	3,693.74	4,061.53	0.00	0.00	0.00
11,000.00	90.09	90.006	6,808.70	2,195.03	3,793.74	4,159.46	0.00	0.00	0.00
11,100.00	90.09	90.006	6,808.54	2,195.02	3,893.74	4,257.39	0.00	0.00	0.00
11,200.00	90.09	90.006	6,808.39	2,195.01	3,993.74	4,355.32	0.00	0.00	0.00
11,300.00	90.09	90.006	6,808.23	2,195.00	4,093.74	4,453.25	0.00	0.00	0.00
11,400.00	90.09	90.006	6,808.07	2,194.99	4,193.74	4,551.18	0.00	0.00	0.00
11,500.00	90.09	90.006	6,807.92	2,194.97	4,293.74	4,649.10	0.00	0.00	0.00
11,600.00	90.09	90.006	6,807.76	2,194.96	4,393.74	4,747.03	0.00	0.00	0.00
11,700.00	90.09	90.006	6,807.60	2,194.95	4,493.74	4,844.96	0.00	0.00	0.00
11,800.00	90.09	90.006	6,807.45	2,194.94	4,593.74	4,942.89	0.00	0.00	0.00
11,900.00	90.09	90.006	6,807.29	2,194.93	4,693.74	5,040.82	0.00	0.00	0.00
12,000.00	90.09	90.006	6,807.13	2,194.92	4,793.74	5,138.75	0.00	0.00	0.00
12,100.00	90.09	90.006	6,806.98	2,194.91	4,893.74	5,236.67	0.00	0.00	0.00
12,200.00	90.09	90.006	6,806.82	2,194.90	4,993.74	5,334.60	0.00	0.00	0.00
12,300.00	90.09	90.006	6,806.66	2,194.88	5,093.74	5,432.53	0.00	0.00	0.00
12,400.00	90.09	90.006	6,806.51	2,194.87	5,193.74	5,530.46	0.00	0.00	0.00
12,500.00	90.09	90.006	6,806.35	2,194.86	5,293.74	5,628.39	0.00	0.00	0.00
12,600.00	90.09	90.006	6,806.19	2,194.85	5,393.74	5,726.32	0.00	0.00	0.00
12,700.00	90.09	90.006	6,806.03	2,194.84	5,493.74	5,824.25	0.00	0.00	0.00
12,800.00	90.09	90.006	6,805.88	2,194.83	5,593.74	5,922.17	0.00	0.00	0.00
12,900.00	90.09	90.006	6,805.72	2,194.82	5,693.74	6,020.10	0.00	0.00	0.00
13,000.00	90.09	90.006	6,805.56	2,194.81	5,793.74	6,118.03	0.00	0.00	0.00
13,100.00	90.09	90.006	6,805.41	2,194.80	5,893.74	6,215.96	0.00	0.00	0.00
13,200.00	90.09	90.006	6,805.25	2,194.78	5,993.74	6,313.89	0.00	0.00	0.00
13,300.00	90.09	90.006	6,805.09	2,194.77	6,093.74	6,411.82	0.00	0.00	0.00
13,400.00	90.09	90.006	6,804.94	2,194.76	6,193.74	6,509.74	0.00	0.00	0.00
13,500.00	90.09	90.006	6,804.78	2,194.75	6,293.74	6,607.67	0.00	0.00	0.00
13,600.00	90.09	90.006	6,804.62	2,194.74	6,393.74	6,705.60	0.00	0.00	0.00
13,700.00	90.09	90.006	6,804.47	2,194.73	6,493.74	6,803.53	0.00	0.00	0.00
13,800.00	90.09	90.006	6,804.31	2,194.72	6,593.74	6,901.46	0.00	0.00	0.00
13,900.00	90.09	90.006	6,804.15	2,194.71	6,693.74	6,999.39	0.00	0.00	0.00
14,000.00	90.09	90.006	6,804.00	2,194.69	6,793.74	7,097.32	0.00	0.00	0.00
14,100.00	90.09	90.006	6,803.84	2,194.68	6,893.74	7,195.24	0.00	0.00	0.00
14,200.00	90.09	90.006	6,803.68	2,194.67	6,993.74	7,293.17	0.00	0.00	0.00
14,300.00	90.09	90.006	6,803.53	2,194.66	7,093.74	7,391.10	0.00	0.00	0.00
14,400.00	90.09	90.006	6,803.37	2,194.65	7,193.74	7,489.03	0.00	0.00	0.00
14,500.00	90.09	90.006	6,803.21	2,194.64	7,293.74	7,586.96	0.00	0.00	0.00
14,600.00	90.09	90.006	6,803.06	2,194.63	7,393.74	7,684.89	0.00	0.00	0.00
14,700.00	90.09	90.006	6,802.90	2,194.62	7,493.74	7,782.81	0.00	0.00	0.00
14,800.00	90.09	90.006	6,802.74	2,194.61	7,593.74	7,880.74	0.00	0.00	0.00
14,900.00	90.09	90.006	6,802.59	2,194.59	7,693.74	7,978.67	0.00	0.00	0.00
15,000.00	90.09	90.006	6,802.43	2,194.58	7,793.74	8,076.60	0.00	0.00	0.00
15,100.00	90.09	90.006	6,802.27	2,194.57	7,893.74	8,174.53	0.00	0.00	0.00

Hilcorp

Lonestar Consulting, LLC
Planning Report

LONESTAR CONSULTING

Database:	EDMDB	**Local Co-ordinate Reference:**	Well Allison Unit 631H
Company:	HilCorp	**TVD Reference:**	GL 6350' & RKB 25.1' @ 6375.10ft (Nabors B29)
Project:	San Juan, NM NAD27	**MD Reference:**	GL 6350' & RKB 25.1' @ 6375.10ft (Nabors B29)
Site:	Allison 611 Pad	**North Reference:**	True
Well:	Allison Unit 631H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
15,200.00	90.09	90.006	6,802.12	2,194.56	7,993.74	8,272.46	0.00	0.00	0.00
15,300.00	90.09	90.006	6,801.96	2,194.55	8,093.74	8,370.39	0.00	0.00	0.00
15,400.00	90.09	90.006	6,801.80	2,194.54	8,193.74	8,468.31	0.00	0.00	0.00
15,500.00	90.09	90.006	6,801.64	2,194.53	8,293.74	8,566.24	0.00	0.00	0.00
15,600.00	90.09	90.006	6,801.49	2,194.52	8,393.74	8,664.17	0.00	0.00	0.00
15,700.00	90.09	90.006	6,801.33	2,194.50	8,493.74	8,762.10	0.00	0.00	0.00
15,800.00	90.09	90.006	6,801.17	2,194.49	8,593.74	8,860.03	0.00	0.00	0.00
15,900.00	90.09	90.006	6,801.02	2,194.48	8,693.74	8,957.96	0.00	0.00	0.00
16,000.00	90.09	90.006	6,800.86	2,194.47	8,793.74	9,055.88	0.00	0.00	0.00
16,100.00	90.09	90.006	6,800.70	2,194.46	8,893.74	9,153.81	0.00	0.00	0.00
16,200.00	90.09	90.006	6,800.55	2,194.45	8,993.74	9,251.74	0.00	0.00	0.00
16,300.00	90.09	90.006	6,800.39	2,194.44	9,093.74	9,349.67	0.00	0.00	0.00
16,400.00	90.09	90.006	6,800.23	2,194.43	9,193.74	9,447.60	0.00	0.00	0.00
16,500.00	90.09	90.006	6,800.08	2,194.41	9,293.74	9,545.53	0.00	0.00	0.00
16,600.00	90.09	90.006	6,799.92	2,194.40	9,393.74	9,643.46	0.00	0.00	0.00
16,700.00	90.09	90.006	6,799.76	2,194.39	9,493.74	9,741.38	0.00	0.00	0.00
16,800.00	90.09	90.006	6,799.61	2,194.38	9,593.74	9,839.31	0.00	0.00	0.00
16,900.00	90.09	90.006	6,799.45	2,194.37	9,693.74	9,937.24	0.00	0.00	0.00
17,000.00	90.09	90.006	6,799.29	2,194.36	9,793.74	10,035.17	0.00	0.00	0.00
17,100.00	90.09	90.006	6,799.14	2,194.35	9,893.74	10,133.10	0.00	0.00	0.00
17,200.00	90.09	90.006	6,798.98	2,194.34	9,993.74	10,231.03	0.00	0.00	0.00
17,300.00	90.09	90.006	6,798.82	2,194.33	10,093.74	10,328.96	0.00	0.00	0.00
17,400.00	90.09	90.006	6,798.67	2,194.31	10,193.74	10,426.88	0.00	0.00	0.00
17,500.00	90.09	90.006	6,798.51	2,194.30	10,293.74	10,524.81	0.00	0.00	0.00
17,600.00	90.09	90.006	6,798.35	2,194.29	10,393.74	10,622.74	0.00	0.00	0.00
17,700.00	90.09	90.006	6,798.20	2,194.28	10,493.74	10,720.67	0.00	0.00	0.00
17,800.00	90.09	90.006	6,798.04	2,194.27	10,593.74	10,818.60	0.00	0.00	0.00
17,824.60	90.09	90.006	6,798.00	2,194.27	10,618.34	10,842.69	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
AU 631H BHL - plan hits target center - Point	0.00	0.000	6,798.00	2,194.27	10,618.34	2,185,139.30	601,988.60	37.0046215	-107.4840550
AU 631H LP - plan hits target center - Point	0.00	0.000	6,814.00	2,195.41	413.56	2,185,106.90	591,783.90	37.0046302	-107.5190027

Hilcorp

Lonestar Consulting, LLC
Planning Report

LONESTAR CONSULTING

Database:	EDMDB	**Local Co-ordinate Reference:**	Well Allison Unit 631H
Company:	HilCorp	**TVD Reference:**	GL 6350' & RKB 25.1' @ 6375.10ft (Nabors B29)
Project:	San Juan, NM NAD27	**MD Reference:**	GL 6350' & RKB 25.1' @ 6375.10ft (Nabors B29)
Site:	Allison 611 Pad	**North Reference:**	True
Well:	Allison Unit 631H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,149.86	2,084.00	OJO ALAMO (SS)		0.00	0.000
2,220.48	2,150.00	KIRTLAND (SHALE + coal)		0.00	0.000
2,681.65	2,581.00	FRUITLAND (shale + COAL)		0.00	0.000
3,076.47	2,950.00	PICTURED CLIFFS (ss)		0.00	0.000
3,629.66	3,467.00	LEWIS SHALE		0.00	0.000
5,162.96	4,900.00	CLIFFHOUSE		0.00	0.000
5,563.14	5,274.00	MENEFEE		0.00	0.000
5,756.81	5,455.00	POINT LOOKOUT		0.00	0.000
6,312.14	5,974.00	MANCOS		0.00	0.000

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

CONDITIONS

Operator: HILCORP ENERGY COMPANY 1111 Travis Street Houston, TX 77002	OGRID: 372171
	Action Number: 412216
	Action Type: [C-101] Drilling Non-Federal/Indian (APD)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	1/10/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	1/10/2025
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	1/10/2025
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	1/10/2025
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing.	1/10/2025
ward.rikala	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	1/10/2025
ward.rikala	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.	1/10/2025