



2030 Afton Place  
Farmington, NM 87401  
(505) 325-6622

Analysis No: HS2021169  
Cust No: 35825-12500

### Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)  
Well Name: SAN JUAN 30-6 UNIT 12; INT  
County/State: RIO ARRIBA NM  
Location:  
Lease/PA/CA:  
Formation: MV  
Cust. Stn. No.: 3003907752

Source: INTERMEDIATE  
Well Flowing:  
Pressure: 68 PSIA  
Flow Temp: DEG. F  
Ambient Temp: DEG. F  
Flow Rate: MCF/D  
Sample Method:  
Sample Date: 06/28/2021  
Sample Time: 2.00 PM  
Sampled By: RYLEY HARRISON  
Sampled by (CO): HILCORP

AREA 12 / RUN 1200

Heat Trace:

Remarks:

### Analysis

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|----------|-----------------|---------|---------|--------------|
| Nitrogen    | 0.0954   | 0.0952          | 0.0110  | 0.00    | 0.0009       |
| CO2         | 2.0584   | 2.0538          | 0.3520  | 0.00    | 0.0313       |
| Methane     | 88.0016  | 87.8067         | 14.9580 | 888.82  | 0.4874       |
| Ethane      | 5.8106   | 5.7977          | 1.5580  | 102.83  | 0.0603       |
| Propane     | 2.0579   | 2.0533          | 0.5680  | 51.78   | 0.0313       |
| Iso-Butane  | 0.4468   | 0.4458          | 0.1470  | 14.53   | 0.0090       |
| N-Butane    | 0.5286   | 0.5274          | 0.1670  | 17.24   | 0.0106       |
| I-Pentane   | 0.2401   | 0.2396          | 0.0880  | 9.61    | 0.0060       |
| N-Pentane   | 0.1618   | 0.1614          | 0.0590  | 6.49    | 0.0040       |
| Hexane Plus | 0.5988   | 0.5975          | 0.2680  | 31.56   | 0.0198       |
| Total       | 100.0000 | 99.7784         | 18.1760 | 1122.85 | 0.6607       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0029  
BTU/CU.FT IDEAL: 1125.5  
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1128.7  
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1109.1  
DRY BTU @ 15.025: 1151.3  
REAL SPECIFIC GRAVITY: 0.6624

CYLINDER #: 4159  
CYLINDER PRESSURE: 68 PSIG  
ANALYSIS DATE: 08/04/2021  
ANALYSIS TIME: 11:31:58 AM  
ANALYSIS RUN BY: PATRICIA KING

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500 Last Cal/Verify: 08/10/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)  
WELL ANALYSIS COMPARISON

|                  |                            |              |             |
|------------------|----------------------------|--------------|-------------|
| <b>Lease:</b>    | SAN JUAN 30-6 UNIT 12; INT | INTERMEDIATE | 08/10/2021  |
| <b>Stn. No.:</b> | 3003907752                 | MV           | 35825-12500 |
| <b>Mtr. No.:</b> |                            |              |             |

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|                   |            |            |
|-------------------|------------|------------|
| <b>Smpl Date:</b> | 06/28/2021 | 07/30/2020 |
| <b>Test Date:</b> | 08/04/2021 | 07/30/2020 |
| <b>Run No:</b>    | HS2021169  | HS200106   |
| <b>Nitrogen:</b>  | 0.0954     | 0.1588     |
| <b>CO2:</b>       | 2.0584     | 2.0215     |
| <b>Methane:</b>   | 88.0016    | 88.4473    |
| <b>Ethane:</b>    | 5.8106     | 5.4493     |
| <b>Propane:</b>   | 2.0579     | 1.9042     |
| <b>I-Butane:</b>  | 0.4468     | 0.4045     |
| <b>N-Butane:</b>  | 0.5286     | 0.4891     |
| <b>I-Pentane:</b> | 0.2401     | 0.2193     |
| <b>N-Pentane:</b> | 0.1618     | 0.1511     |
| <b>Hexane+:</b>   | 0.5988     | 0.7549     |
| <b>BTU:</b>       | 1128.7     | 1127.3     |
| <b>GPM:</b>       | 18.1760    | 18.1460    |
| <b>SPG:</b>       | 0.6624     | 0.6615     |



Well Name: SAN JUAN 30-6 UNIT 12;  
 API #: 3003907752  
 Source: CASING  
 Sample Type: GAS  
 Analysis No: HS2021168  
 Cust No: 35825-12495

### Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)  
 Well Name: SAN JUAN 30-6 UNIT 12; CSG  
 County/State: RIO ARRIBA NM  
 Location:  
 Lease/PA/CA:  
 Formation: MV  
 Cust. Stn. No.: 3003907752

Source: CASING  
 Well Flowing:  
 Pressure: 67 PSIA  
 Flow Temp: DEG. F  
 Ambient Temp: DEG. F  
 Flow Rate: MCF/D  
 Sample Method:  
 Sample Date: 06/28/2021  
 Sample Time: 1.50 PM  
 Sampled By: RYLEY HARRISON  
 Sampled by (CO): HILCORP

AREA 12 / RUN 1200

Heat Trace:

Remarks:

### Analysis

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|----------|-----------------|---------|---------|--------------|
| Nitrogen    | 0.1009   | 0.1005          | 0.0110  | 0.00    | 0.0010       |
| CO2         | 2.1161   | 2.1085          | 0.3620  | 0.00    | 0.0322       |
| Methane     | 87.8785  | 87.5634         | 14.9370 | 887.57  | 0.4868       |
| Ethane      | 5.8551   | 5.8341          | 1.5700  | 103.62  | 0.0608       |
| Propane     | 2.1249   | 2.1173          | 0.5870  | 53.46   | 0.0324       |
| Iso-Butane  | 0.4473   | 0.4457          | 0.1470  | 14.55   | 0.0090       |
| N-Butane    | 0.5304   | 0.5285          | 0.1680  | 17.30   | 0.0106       |
| I-Pentane   | 0.2425   | 0.2416          | 0.0890  | 9.70    | 0.0060       |
| N-Pentane   | 0.1638   | 0.1632          | 0.0600  | 6.57    | 0.0041       |
| Hexane Plus | 0.5405   | 0.5386          | 0.2420  | 28.49   | 0.0179       |
| Total       | 100.0000 | 99.6414         | 18.1730 | 1121.26 | 0.6607       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0029  
 BTU/CU.FT IDEAL: 1123.9  
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1127.1  
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1107.5  
 DRY BTU @ 15.025: 1149.7  
 REAL SPECIFIC GRAVITY: 0.6623

CYLINDER #: 6232  
 CYLINDER PRESSURE: 65 PSIG  
 ANALYSIS DATE: 08/04/2021  
 ANALYSIS TIME: 11:27:33 AM  
 ANALYSIS RUN BY: RICHARD WILSON

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500 Last Cal/Verify: 08/10/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)  
WELL ANALYSIS COMPARISON

|                  |                            |               |             |
|------------------|----------------------------|---------------|-------------|
| <b>Lease:</b>    | SAN JUAN 30-6 UNIT 12; CSG | <b>CASING</b> | 08/10/2021  |
| <b>Stn. No.:</b> | 3003907752                 | <b>MV</b>     | 35825-12495 |
| <b>Mtr. No.:</b> |                            |               |             |

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|                   |            |            |
|-------------------|------------|------------|
| <b>Smpl Date:</b> | 06/28/2021 | 07/30/2020 |
| <b>Test Date:</b> | 08/04/2021 | 07/30/2020 |
| <b>Run No:</b>    | HS2021168  | HS200105   |
| <b>Nitrogen:</b>  | 0.1009     | 0.1030     |
| <b>CO2:</b>       | 2.1161     | 2.0279     |
| <b>Methane:</b>   | 87.8785    | 88.3988    |
| <b>Ethane:</b>    | 5.8551     | 5.4312     |
| <b>Propane:</b>   | 2.1249     | 1.9017     |
| <b>I-Butane:</b>  | 0.4473     | 0.4008     |
| <b>N-Butane:</b>  | 0.5304     | 0.4860     |
| <b>I-Pentane:</b> | 0.2425     | 0.2230     |
| <b>N-Pentane:</b> | 0.1638     | 0.1560     |
| <b>Hexane+:</b>   | 0.5405     | 0.8716     |
| <b>BTU:</b>       | 1127.1     | 1132.7     |
| <b>GPM:</b>       | 18.1730    | 18.1800    |
| <b>SPG:</b>       | 0.6623     | 0.6645     |



Well Name: SAN JUAN 30-6 UNIT 12;  
 API #: 3003907752  
 Source: TUBING  
 Sample Type: GAS  
 Analysis No: HS2021170  
 Cust No: 35825-12505

### Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)  
 Well Name: SAN JUAN 30-6 UNIT 12; TBG  
 County/State: RIO ARRIBA NM  
 Location:  
 Lease/PA/CA:  
 Formation: MV  
 Cust. Stn. No.: 3003907752

Source: TUBING  
 Well Flowing:  
 Pressure: 63 PSIA  
 Flow Temp: DEG. F  
 Ambient Temp: DEG. F  
 Flow Rate: MCF/D  
 Sample Method:  
 Sample Date: 06/28/2021  
 Sample Time: 1.45 PM  
 Sampled By: RYLEY HARRISON  
 Sampled by (CO): HILCORP

AREA 12 / RUN 1200

Heat Trace:

Remarks:

### Analysis

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|----------|-----------------|---------|---------|--------------|
| Nitrogen    | 0.0948   | 0.0943          | 0.0100  | 0.00    | 0.0009       |
| CO2         | 2.3346   | 2.3233          | 0.3990  | 0.00    | 0.0355       |
| Methane     | 88.3449  | 87.9182         | 15.0150 | 892.28  | 0.4893       |
| Ethane      | 5.5309   | 5.5042          | 1.4830  | 97.88   | 0.0574       |
| Propane     | 1.8782   | 1.8691          | 0.5190  | 47.26   | 0.0286       |
| Iso-Butane  | 0.3718   | 0.3700          | 0.1220  | 12.09   | 0.0075       |
| N-Butane    | 0.4622   | 0.4600          | 0.1460  | 15.08   | 0.0093       |
| I-Pentane   | 0.2014   | 0.2004          | 0.0740  | 8.06    | 0.0050       |
| N-Pentane   | 0.1385   | 0.1378          | 0.0500  | 5.55    | 0.0035       |
| Hexane Plus | 0.6427   | 0.6396          | 0.2870  | 33.88   | 0.0213       |
| Total       | 100.0000 | 99.5169         | 18.1050 | 1112.08 | 0.6582       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

\*\*@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0028  
 BTU/CU.FT IDEAL: 1114.7  
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1117.8  
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1098.4  
 DRY BTU @ 15.025: 1140.2  
 REAL SPECIFIC GRAVITY: 0.6598

CYLINDER #: 6173  
 CYLINDER PRESSURE: 61 PSIG  
 ANALYSIS DATE: 08/04/2021  
 ANALYSIS TIME: 11:45:59 AM  
 ANALYSIS RUN BY: PATRICIA KING

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA-2261

GC: Danalyzer Model 500 Last Cal/Verify: 08/10/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)  
WELL ANALYSIS COMPARISON

|                  |                            |        |             |
|------------------|----------------------------|--------|-------------|
| <b>Lease:</b>    | SAN JUAN 30-6 UNIT 12; TBG | TUBING | 08/10/2021  |
| <b>Stn. No.:</b> | 3003907752                 | MV     | 35825-12505 |
| <b>Mtr. No.:</b> |                            |        |             |

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|                   |            |            |
|-------------------|------------|------------|
| <b>Smpl Date:</b> | 06/28/2021 | 07/23/2020 |
| <b>Test Date:</b> | 08/04/2021 | 07/30/2020 |
| <b>Run No:</b>    | HS2021170  | HS200107   |
| <b>Nitrogen:</b>  | 0.0948     | 0.1065     |
| <b>CO2:</b>       | 2.3346     | 2.1970     |
| <b>Methane:</b>   | 88.3449    | 88.1334    |
| <b>Ethane:</b>    | 5.5309     | 5.6541     |
| <b>Propane:</b>   | 1.8782     | 1.9700     |
| <b>I-Butane:</b>  | 0.3718     | 0.4030     |
| <b>N-Butane:</b>  | 0.4622     | 0.4974     |
| <b>I-Pentane:</b> | 0.2014     | 0.2249     |
| <b>N-Pentane:</b> | 0.1385     | 0.1535     |
| <b>Hexane+:</b>   | 0.6427     | 0.6602     |
| <b>BTU:</b>       | 1117.8     | 1124.9     |
| <b>GPM:</b>       | 18.1050    | 18.1510    |
| <b>SPG:</b>       | 0.6598     | 0.6623     |

**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 46834

## CONDITIONS

|                                                                                |                                                     |
|--------------------------------------------------------------------------------|-----------------------------------------------------|
| Operator:<br>HILCORP ENERGY COMPANY<br>1111 Travis Street<br>Houston, TX 77002 | OGRID:<br>372171                                    |
|                                                                                | Action Number:<br>46834                             |
|                                                                                | Action Type:<br>[UF-GA] Gas Analysis (GAS ANALYSIS) |

## CONDITIONS

| Created By | Condition                                   | Condition Date |
|------------|---------------------------------------------|----------------|
| mkuehling  | same gas intermediate and production casing | 10/18/2021     |