



Well Name: SAN JUAN 32-9 #38; BHD

API #: 3004511192

Source: BRADENHEAD

Sample Type: GAS

Analysis No: HS20230172

Cust No: 35825-14825

### Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)  
 Well Name: SAN JUAN 32-9 #38; BHD  
 County/State: SAN JUAN NM  
 Location:  
 Lease/PA/CA: SF078507  
 Formation: MV/DK  
 Cust. Stn. No.: 3004511192

Source: BRADENHEAD  
 Well Flowing: Y  
 Pressure: 32 PSIG  
 Flow Temp: 90 DEG. F  
 Ambient Temp: 90 DEG. F  
 Flow Rate: MCF/D  
 Sample Method:  
 Sample Date: 07/25/2023  
 Sample Time: 1.15 PM  
 Sampled By: ART SULLIVAN  
 Sampled by (CO): HILCORP

Heat Trace: AREA 4 / RUN 403  
 N  
 Remarks:

### Analysis

| Component:  | Mole%:   | Unnormalized %: | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|----------|-----------------|---------|---------|--------------|
| Nitrogen    | 0.2923   | 0.2899          | 0.0320  | 0.00    | 0.0028       |
| CO2         | 0.0243   | 0.0241          | 0.0040  | 0.00    | 0.0004       |
| Methane     | 94.0446  | 93.2825         | 15.9780 | 949.85  | 0.5209       |
| Ethane      | 4.1151   | 4.0817          | 1.1030  | 72.82   | 0.0427       |
| Propane     | 0.6098   | 0.6049          | 0.1680  | 15.34   | 0.0093       |
| Iso-Butane  | 0.2070   | 0.2053          | 0.0680  | 6.73    | 0.0042       |
| N-Butane    | 0.1587   | 0.1574          | 0.0500  | 5.18    | 0.0032       |
| I-Pentane   | 0.1132   | 0.1123          | 0.0410  | 4.53    | 0.0028       |
| N-Pentane   | 0.0683   | 0.0677          | 0.0250  | 2.74    | 0.0017       |
| Hexane Plus | 0.3667   | 0.3637          | 0.1640  | 19.33   | 0.0121       |
| Total       | 100.0000 | 99.1895         | 17.6330 | 1076.52 | 0.6001       |

\* @ 14.730 PSIA DRY &amp; UNCORRECTED FOR COMPRESSIBILITY

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

COMPRESSIBILITY FACTOR (1/Z): 1.0024  
 BTU/CU.FT IDEAL: 1079.0  
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1081.6  
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1062.8  
 DRY BTU @ 15.025: 1103.3  
 REAL SPECIFIC GRAVITY: 0.6013

CYLINDER #: 6115  
 CYLINDER PRESSURE: 26 PSIG  
 ANALYSIS DATE: 08/01/2023  
 ANALYSIS TIME: 08:40:39 AM  
 ANALYSIS RUN BY: SARAH BALLARD

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: 08/03/2023

GC Method: C6+ Gas



HILCORP (BHD PROJECT)  
WELL ANALYSIS COMPARISON

|           |                        |            |             |
|-----------|------------------------|------------|-------------|
| Lease:    | SAN JUAN 32-9 #38; BHD | BRADENHEAD | 08/03/2023  |
| Stn. No.: | 3004511192             | MV/DK      | 35825-14825 |
| Mtr. No.: |                        |            |             |

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|            |            |            |
|------------|------------|------------|
| Smpl Date: | 07/25/2023 | 05/26/2023 |
| Test Date: | 08/01/2023 | 05/31/2023 |
| Run No:    | HS20230172 | HS20230048 |
| Nitrogen:  | 0.2923     | 1.2396     |
| CO2:       | 0.0243     | 0.0343     |
| Methane:   | 94.0446    | 93.6853    |
| Ethane:    | 4.1151     | 3.9064     |
| Propane:   | 0.6098     | 0.5000     |
| I-Butane:  | 0.2070     | 0.1599     |
| N-Butane:  | 0.1587     | 0.1153     |
| I-Pentane: | 0.1132     | 0.0861     |
| N-Pentane: | 0.0683     | 0.0463     |
| Hexane+:   | 0.3667     | 0.2268     |
| BTU:       | 1081.6     | 1059.0     |
| GPM:       | 17.6330    | 17.4810    |
| SPG:       | 0.6013     | 0.5971     |



Well Name: SAN JUAN 32-9 #38; INT  
 API #: 3004511192  
 Source: INTERMEDIATE CASING  
 Sample Type: GAS  
 Analysis No: HS20230173  
 Cust No: 35825-14835

### Well/Lease Information

|                 |                        |                  |                     |
|-----------------|------------------------|------------------|---------------------|
| Customer Name:  | HILCORP (BHD PROJECT)  | Source:          | INTERMEDIATE CASING |
| Well Name:      | SAN JUAN 32-9 #38; INT | Well Flowing:    | Y                   |
| County/State:   | SAN JUAN NM            | Pressure:        | 37 PSIG             |
| Location:       |                        | Flow Temp:       | 90 DEG. F           |
| Lease/PA/CA:    | SF078507               | Ambient Temp:    | 90 DEG. F           |
| Formation:      | MV/DK                  | Flow Rate:       | MCF/D               |
| Cust. Stn. No.: | 3004511192             | Sample Method:   | Purge & Fill        |
|                 |                        | Sample Date:     | 07/25/2023          |
|                 |                        | Sample Time:     | 1.00 PM             |
|                 |                        | Sampled By:      | ART SULLIVAN        |
|                 |                        | Sampled by (CO): | HILCORP             |

Heat Trace: N

Remarks:

### Analysis

| Component:: | Mole%:   | Unnormalized %: | **GPM:  | *BTU:   | *SP Gravity: |
|-------------|----------|-----------------|---------|---------|--------------|
| Nitrogen    | 0.4531   | 0.4479          | 0.0500  | 0.00    | 0.0044       |
| CO2         | 0.1191   | 0.1177          | 0.0200  | 0.00    | 0.0018       |
| Methane     | 93.6945  | 92.6139         | 15.9180 | 946.31  | 0.5190       |
| Ethane      | 4.1066   | 4.0592          | 1.1010  | 72.67   | 0.0426       |
| Propane     | 0.6107   | 0.6037          | 0.1690  | 15.37   | 0.0093       |
| Iso-Butane  | 0.2081   | 0.2057          | 0.0680  | 6.77    | 0.0042       |
| N-Butane    | 0.1726   | 0.1706          | 0.0550  | 5.63    | 0.0035       |
| I-Pentane   | 0.1155   | 0.1142          | 0.0420  | 4.62    | 0.0029       |
| N-Pentane   | 0.0689   | 0.0681          | 0.0250  | 2.76    | 0.0017       |
| Hexane Plus | 0.4509   | 0.4457          | 0.2020  | 23.77   | 0.0149       |
| Total       | 100.0000 | 98.8467         | 17.6500 | 1077.90 | 0.6043       |

\* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

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

COMPRESSIBILITY FACTOR (1/Z): 1.0024  
 BTU/CU.FT IDEAL: 1080.4  
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1083.0  
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1064.2  
 DRY BTU @ 15.025: 1104.7  
 REAL SPECIFIC GRAVITY: 0.6055

CYLINDER #: 6025  
 CYLINDER PRESSURE: 33 PSIG  
 ANALYSIS DATE: 08/01/2023  
 ANALYSIS TIME: 08:32:45 AM  
 ANALYSIS RUN BY: SARAH BALLARD

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: 08/03/2023

GC Method: C6+ Gas



HILCORP (BHD PROJECT)  
WELL ANALYSIS COMPARISON

|           |                        |                     |             |
|-----------|------------------------|---------------------|-------------|
| Lease:    | SAN JUAN 32-9 #38; INT | INTERMEDIATE CASING | 08/03/2023  |
| Stn. No.: | 3004511192             | MV/DK               | 35825-14835 |
| Mtr. No.: |                        |                     |             |

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|            |            |            |
|------------|------------|------------|
| Smpl Date: | 07/25/2023 | 05/26/2023 |
| Test Date: | 08/01/2023 | 05/31/2023 |
| Run No:    | HS20230173 | HS20230050 |
| Nitrogen:  | 0.4531     | 1.2600     |
| CO2:       | 0.1191     | 0.0067     |
| Methane:   | 93.6945    | 94.0087    |
| Ethane:    | 4.1066     | 3.6528     |
| Propane:   | 0.6107     | 0.4639     |
| I-Butane:  | 0.2081     | 0.1506     |
| N-Butane:  | 0.1726     | 0.1097     |
| I-Pentane: | 0.1155     | 0.0760     |
| N-Pentane: | 0.0689     | 0.0386     |
| Hexane+:   | 0.4509     | 0.2330     |
| BTU:       | 1083.0     | 1056.0     |
| GPM:       | 17.6500    | 17.4470    |
| SPG:       | 0.6055     | 0.5949     |

**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 249949

CONDITIONS

|                                                                                |                                                     |
|--------------------------------------------------------------------------------|-----------------------------------------------------|
| Operator:<br>HILCORP ENERGY COMPANY<br>1111 Travis Street<br>Houston, TX 77002 | OGRID:<br>372171                                    |
|                                                                                | Action Number:<br>249949                            |
|                                                                                | Action Type:<br>[UF-GA] Gas Analysis (GAS ANALYSIS) |

CONDITIONS

| Created By | Condition | Condition Date |
|------------|-----------|----------------|
| mkuehling  | same gas  | 9/18/2023      |