



Well Name: HAVASU COM #1; BHD

API #: API# 3004529458

Source: BRADENHEAD

Sample Type: GAS

Analysis No: HS2021015

Cust No: 35825-13460

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: HAVASU COM #1; BHD

County/State: SAN JUAN NM

Location:

Lease/PA/CA:

Formation: FC

Cust. Stn. No.: API# 3004529458
14033

AREA 2 / RUN 0211

Heat Trace: N

Remarks:

Source: BRADENHEAD

Well Flowing: N

Pressure: 30 PSIG

Flow Temp: DEG. F

Ambient Temp: DEG. F

Flow Rate: MCF/D

Sample Method:

Sample Date: 04/21/2021

Sample Time: 2.23 PM

Sampled By:

Sampled by (CO):

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.2336	0.2261	0.0260	0.00	0.0023
CO2	0.3861	0.3737	0.0660	0.00	0.0059
Methane	99.3419	96.1635	16.8710	1003.35	0.5503
Ethane	0.0283	0.0274	0.0080	0.50	0.0003
Propane	0.0000	0.0000	0.0000	0.00	0.0000
Iso-Butane	0.0000	0.0000	0.0000	0.00	0.0000
N-Butane	0.0000	0.0000	0.0000	0.00	0.0000
I-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
N-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
Hexane Plus	0.0101	0.0098	0.0050	0.53	0.0003
Total	100.0000	96.8005	16.9760	1004.39	0.5590

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.002
 BTU/CU.FT IDEAL: 1006.7
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1008.7
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 991.1
 DRY BTU @ 15.025: 1028.9
 REAL SPECIFIC GRAVITY: 0.5599

CYLINDER #: 6045
 CYLINDER PRESSURE: 30 PSIG
 ANALYSIS DATE: 04/26/2021
 ANALYSIS TIME: 03:55:09 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: 04/28/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease:	HAVASU COM #1; BHD	BRADENHEAD	04/28/2021
Stn. No.:	API# 3004529458	FC	35825-13460
Mtr. No.:	14033		

Smpl Date: 04/21/2021
Test Date: 04/26/2021
Run No: HS2021015

Nitrogen: 0.2336
CO2: 0.3861
Methane: 99.3419
Ethane: 0.0283
Propane: 0.0000
I-Butane: 0.0000
N-Butane: 0.0000
I-Pentane: 0.0000
N-Pentane: 0.0000
Hexane+: 0.0101

BTU: 1008.7
GPM: 16.9760
SPG: 0.5599



Well Name: HAVASU COM #1; CSG

API #: API# 3004529458

Source: CASING

Sample Type: GAS

Analysis No: HS2021016

Cust No: 35825-13465

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: HAVASU COM #1; CSG

County/State: SAN JUAN NM

Location:

Lease/PA/CA:

Formation: FC

Cust. Stn. No.: API# 3004529458
14033

AREA 2/ RUN 0211

Heat Trace: N

Remarks:

Source: CASING

Well Flowing: N

Pressure: 145 PSIG

Flow Temp: DEG. F

Ambient Temp: DEG. F

Flow Rate: MCF/D

Sample Method: Purge & Fill

Sample Date: 04/21/2021

Sample Time: 1.33 PM

Sampled By:

Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1578	0.1538	0.0170	0.00	0.0015
CO2	0.3565	0.3475	0.0610	0.00	0.0054
Methane	99.4564	96.9369	16.8900	1004.51	0.5509
Ethane	0.0281	0.0274	0.0080	0.50	0.0003
Propane	0.0000	0.0000	0.0000	0.00	0.0000
Iso-Butane	0.0000	0.0000	0.0000	0.00	0.0000
N-Butane	0.0000	0.0000	0.0000	0.00	0.0000
I-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
N-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
Hexane Plus	0.0012	0.0012	0.0010	0.06	0.0000
Total	100.0000	97.4668	16.9770	1005.07	0.5582

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.002
 BTU/CU.FT IDEAL: 1007.4
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1009.4
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 991.8
 DRY BTU @ 15.025: 1029.6
 REAL SPECIFIC GRAVITY: 0.5591

CYLINDER #: 6243
 CYLINDER PRESSURE: 147 PSIG
 ANALYSIS DATE: 04/26/2021
 ANALYSIS TIME: 03:39:25 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: 04/28/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: HAVASU COM #1; CSG
Stn. No.: API# 3004529458
Mtr. No.: 14033

CASING
FC

04/28/2021
35825-13465

Smpl Date: 04/21/2021
Test Date: 04/26/2021
Run No: HS2021016

Nitrogen: 0.1578
CO2: 0.3565
Methane: 99.4564
Ethane: 0.0281
Propane: 0.0000
I-Butane: 0.0000
N-Butane: 0.0000
I-Pentane: 0.0000
N-Pentane: 0.0000
Hexane+: 0.0012

BTU: 1009.4
GPM: 16.9770
SPG: 0.5591



Well Name: HAVASU COM #1; TBG

API #: API# 3004529458

Source: TUBING

Sample Type: GAS

Analysis No: HS2021017

Cust No: 35825-13470

Well/Lease Information

Customer Name: HILCORP (BHD PROJECT)

Well Name: HAVASU COM #1; TBG

County/State: SAN JUAN NM

Location:

Lease/PA/CA:

Formation: FC

Cust. Stn. No.: API# 3004529458
14033

AREA 2 / RUN 0211

Heat Trace: N

Remarks:

Source: TUBING

Well Flowing: N

Pressure: 145 PSIG

Flow Temp: DEG. F

Ambient Temp: DEG. F

Flow Rate: MCF/D

Sample Method:

Sample Date: 04/21/2021

Sample Time: 2.25 PM

Sampled By:

Sampled by (CO): HILCORP

Analysis

Component::	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.1560	0.1525	0.0170	0.00	0.0015
CO2	0.3624	0.3542	0.0620	0.00	0.0055
Methane	99.4506	97.2020	16.8890	1004.45	0.5509
Ethane	0.0292	0.0285	0.0080	0.52	0.0003
Propane	0.0000	0.0000	0.0000	0.00	0.0000
Iso-Butane	0.0000	0.0000	0.0000	0.00	0.0000
N-Butane	0.0000	0.0000	0.0000	0.00	0.0000
I-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
N-Pentane	0.0000	0.0000	0.0000	0.00	0.0000
Hexane Plus	0.0018	0.0018	0.0010	0.09	0.0001
Total	100.0000	97.7390	16.9770	1005.06	0.5582

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.002
 BTU/CU.FT IDEAL: 1007.4
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1009.4
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 991.8
 DRY BTU @ 15.025: 1029.6
 REAL SPECIFIC GRAVITY: 0.5591

CYLINDER #: 4009
 CYLINDER PRESSURE: 149 PSIG
 ANALYSIS DATE: 04/26/2021
 ANALYSIS TIME: 03:17:54 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: 04/28/2021

GC Method: C6+ Gas



HILCORP (BHD PROJECT)
WELL ANALYSIS COMPARISON

Lease: HAVASU COM #1; TBG
Stn. No.: API# 3004529458
Mtr. No.: 14033

TUBING
FC

04/28/2021
35825-13470

Smpl Date: 04/21/2021
Test Date: 04/26/2021
Run No: HS2021017

Nitrogen: 0.1560
CO2: 0.3624
Methane: 99.4506
Ethane: 0.0292
Propane: 0.0000
I-Butane: 0.0000
N-Butane: 0.0000
I-Pentane: 0.0000
N-Pentane: 0.0000
Hexane+: 0.0018

BTU: 1009.4
GPM: 16.9770
SPG: 0.5591

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
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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

COMMENTS

Action 26343

COMMENTS

Operator:				OGRID:		Action Number:		Action Type:	
	HILCORP ENERGY COMPANY	1111 Travis Street	Houston, TX77002		372171		26343		GAS ANALYSIS

Created By	Comment	Comment Date
mkuehling	same gas bh and casing	04/30/2021

District I
1625 N. French Dr., Hobbs, NM 88240
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Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 26343

CONDITIONS OF APPROVAL

Operator:	HILCORP ENERGY COMPANY	1111 Travis Street	Houston, TX77002	OGRID:	372171	Action Number:	26343	Action Type:	GAS ANALYSIS
OCD Reviewer	Condition								
mkuehling	None								