



OIL CONS. DIV DIST. 3
JUN 20 2017

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

Analysis No: CP170251
Cust No: 18300-23050

Well/Lease Information

Customer Name: CONOCO PHILLIPS COMPANY
Well Name: HELMS FEDERAL #1B; INT
County/State: SAN JUAN NM
Location: M22-30N-10W
Field:
Formation: MESA VERDE
Cust. Stn. No.: API 3004529998
AM02367343NO
98012

Source: INTERMEDIATE
Pressure: 72 PSIG
Sample Temp: 82 DEG. F
Well Flowing: Y
Date Sampled: 06/01/2017
Sampled By: MITCH SEWELL
Foreman/Engr.: CHRIS N.

Remarks: WO# 9241779

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.221	0.0240	0.00	0.0021
CO2	0.374	0.0640	0.00	0.0057
Methane	86.934	14.7780	878.03	0.4815
Ethane	7.251	1.9440	128.32	0.0753
Propane	3.010	0.8320	75.73	0.0458
Iso-Butane	0.513	0.1680	16.68	0.0103
N-Butane	0.779	0.2460	25.41	0.0156
I-Pentane	0.267	0.0980	10.68	0.0067
N-Pentane	0.189	0.0690	7.58	0.0047
Hexane Plus	0.462	0.2070	24.35	0.0153
Total	100.000	18.4300	1166.79	0.6630

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.003
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1173.0
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1152.6
REAL SPECIFIC GRAVITY: 0.6648

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

DRY BTU @ 14.650: 1166.6
DRY BTU @ 14.696: 1170.3
DRY BTU @ 14.730: 1173.0
DRY BTU @ 15.025: 1196.5

CYLINDER #: 7019
CYLINDER PRESSURE: 397 PSIG
DATE RUN: 6/12/17 12:00 AM
ANALYSIS RUN BY: PATRICIA KING



CONOCO PHILLIPS COMPANY
WELL ANALYSIS COMPARISON

Lease: HELMS FEDERAL #1B; INT
 Stn. No.: API 3004529998
 Mtr. No.: AM02367343NO

INTERMEDIATE
 MESA VERDE

06/16/2017
 18300-23050

Smpl Date:	06/01/2017	05/25/2016	08/07/2014	03/05/2014	07/22/2013	08/02/2012	03/28/2012
Test Date:	06/12/2017	05/26/2016	08/13/2014	03/27/2014	07/23/2013	08/03/2012	04/03/2012
Run No:	CP170251	CP160326	CP140685	CP140217	CP130717	CP120643	CP120169
Nitrogen:	0.221	0.451	0.243	0.237	0.239	0.201	0.212
CO2:	0.374	0.374	0.357	0.343	0.318	0.375	0.370
Methane:	86.934	75.870	87.841	90.969	88.518	82.545	87.691
Ethane:	7.251	8.890	6.680	5.376	5.855	8.560	6.905
Propane:	3.010	5.378	2.834	1.845	3.013	4.618	3.077
I-Butane:	0.513	1.346	0.534	0.304	0.545	0.902	0.445
N-Butane:	0.779	2.642	0.840	0.443	0.819	1.376	0.646
I-Pentane:	0.267	1.471	0.250	0.142	0.253	0.435	0.209
N-Pentane:	0.189	1.177	0.169	0.101	0.172	0.307	0.144
Hexane+:	0.462	2.401	0.252	0.240	0.268	0.681	0.301
BTU:	1173.0	1431.9	1157.6	1112.5	1154.9	1248.5	1156.9
GPM:	18.4300	20.2410	18.3000	17.9290	18.2420	19.0060	18.3080
SPG:	0.6648	0.8338	0.6548	0.6257	0.6525	0.7130	0.6542



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

Analysis No: CP170250
Cust No: 18300-23625

Well/Lease Information

Customer Name: CONOCO PHILLIPS COMPANY
Well Name: HELMS FEDERAL 1B; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation: MESA VERDE
Cust. Stn. No.: API 3004529998
AM02367343NO
98012

Source: CASING
Pressure: 72 PSIG
Sample Temp: 82 DEG. F
Well Flowing: Y
Date Sampled: 06/01/2017
Sampled By: MITCH SEWELL
Foreman/Engr.: CHRIS N.

OIL CONS. DIV DIST. 3

JUN 20 2017

Remarks: WO# 9241779

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.378	0.0420	0.00	0.0037
CO2	0.341	0.0580	0.00	0.0052
Methane	90.880	15.4450	917.89	0.5034
Ethane	5.703	1.5290	100.93	0.0592
Propane	1.404	0.3880	35.33	0.0214
Iso-Butane	0.129	0.0420	4.19	0.0026
N-Butane	0.129	0.0410	4.21	0.0026
I-Pentane	0.012	0.0040	0.48	0.0003
N-Pentane	0.005	0.0020	0.20	0.0001
Hexane Plus	1.019	0.4560	53.71	0.0337
Total	100.000	18.0070	1116.94	0.6321

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0027
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1122.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1103.1
REAL SPECIFIC GRAVITY: 0.6336

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

DRY BTU @ 14.650: 1116.5
DRY BTU @ 14.696: 1120.0
DRY BTU @ 14.730: 1122.6
DRY BTU @ 15.025: 1145.1

CYLINDER #: 5034
CYLINDER PRESSURE: 83 PSIG
DATE RUN: 6/12/17 12:00 AM
ANALYSIS RUN BY: PATRICIA KING



OIL CONS. DIV DIST. 3

JUN 20 2017

CONOCO PHILLIPS COMPANY
WELL ANALYSIS COMPARISON

Lease: HELMS FEDERAL 1B; CSG
 Stn. No.: API 3004529998
 Mtr. No.: AM02367343NO

CASING
 MESA VERDE

06/16/2017
 18300-23625

Smpl Date:	06/01/2017	05/25/2016	08/07/2014	03/05/2014	08/02/2012
Test Date:	06/12/2017	05/26/2016	08/13/2014	03/27/2014	08/03/2012
Run No:	CP170250	CP160325	CP140684	CP140216	CP120642
Nitrogen:	0.378	0.687	0.392	0.664	0.529
CO2:	0.341	0.304	0.299	0.081	0.261
Methane:	90.880	94.943	94.021	96.617	93.907
Ethane:	5.703	2.885	3.824	2.385	3.305
Propane:	1.404	0.533	0.864	0.217	0.698
I-Butane:	0.129	0.054	0.110	0.015	0.108
N-Butane:	0.129	0.069	0.139	0.017	0.164
I-Pentane:	0.012	0.021	0.024	0.004	0.068
N-Pentane:	0.005	0.015	0.010	0.000	0.059
Hexane+:	1.019	0.489	0.317	0.000	0.901
BTU:	1122.6	1059.5	1070.1	1029.2	1091.2
GPM:	18.0070	17.4490	17.5650	17.2070	17.6740
SPG:	0.6336	0.5959	0.5994	0.5726	0.6139