



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

Analysis No: DU150683
Cust No: 23000-22540

30-045-23695

Well/Lease Information

Customer Name: DUGAN PRODUCTION CORP.
Well Name: PAN AM FEDERAL #1E
County/State: SAN JUAN NM
Location:
Field:
Formation:
Cust. Str. No.:

Source: BRADENHEAD
Pressure: 49 PSIG
Sample Temp: DEG. F
Well Flowing: Y
Date Sampled: 10/26/2015
Sampled By: JIM DAVIS
Foreman/Engr.:

OIL CONS. DIV DIST. 3

NOV 19 2015

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.706	0.0780	0.00	0.0068
CO2	0.921	0.1580	0.00	0.0140
Methane	80.279	13.6550	810.81	0.4447
Ethane	9.703	2.6040	171.72	0.1007
Propane	4.619	1.2770	116.22	0.0703
Iso-Butane	0.725	0.2380	23.58	0.0145
N-Butane	1.313	0.4150	42.83	0.0263
I-Pentane	0.428	0.1570	17.12	0.0107
N-Pentane	0.378	0.1370	15.15	0.0094
Hexane Plus	0.928	0.4150	48.92	0.0307
Total	100.000	19.1340	1246.36	0.7282

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0036
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1253.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1232.0
REAL SPECIFIC GRAVITY: 0.7306

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

DRY BTU @ 14.650: 1247.0
DRY BTU @ 14.696: 1250.9
DRY BTU @ 14.730: 1253.8
DRY BTU @ 15.025: 1278.9

CYLINDER #: 6080
CYLINDER PRESSURE: 50 PSIG
DATE RUN: 10/28/15 8:59 AM
ANALYSIS RUN BY: PATRICIA KING



DUGAN PRODUCTION CORP.
WELL ANALYSIS COMPARISON

Lease: PAN AM FEDERAL #1E
Stn. No.:
Mtr. No.:

BRADENHEAD

10/30/2015
23000-22540

Smpl Date: 10/26/2015
Test Date: 10/28/2015
Run No: DU150683

Nitrogen: 0.706
CO2: 0.921
Methane: 80.279
Ethane: 9.703
Propane: 4.619
I-Butane: 0.725
N-Butane: 1.313
I-Pentane: 0.428
N-Pentane: 0.378
Hexane+: 0.928

BTU: 1253.8
GPM: 19.1340
SPG: 0.7306



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

Analysis No: DU150706
Cust No: 23000-22635

Well/Lease Information

Customer Name: DUGAN PRODUCTION CORP.
Well Name: PAN AM FEDERAL #1E; CSG
County/State: SAN JUAN NM
Location:
Field:
Formation:
Cust. Stn. No.:

Source: CASING
Pressure: 8 PSIG
Sample Temp: DEG. F
Well Flowing: Y
Date Sampled: 11/09/2015
Sampled By: JIMMY DAVIS
Foreman/Engr.: JIMMY DAVIS

Remarks: PRESSURED WITH HELIUM TO 30 LBS.
BRADENHEAD TESTING

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.548	0.1710	0.00	0.0150
CO2	0.206	0.0350	0.00	0.0031
Methane	79.593	13.5410	803.89	0.4409
Ethane	8.600	2.3080	152.19	0.0893
Propane	5.730	1.5840	144.17	0.0872
Iso-Butane	0.680	0.2230	22.11	0.0136
N-Butane	1.660	0.5250	54.15	0.0333
I-Pentane	0.410	0.1500	16.40	0.0102
N-Pentane	0.377	0.1370	15.11	0.0094
Hexane Plus	1.196	0.5350	63.04	0.0396
Total	100.000	19.2090	1271.08	0.7416

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0038
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1278.9
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1256.6
REAL SPECIFIC GRAVITY: 0.7442

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

DRY BTU @ 14.650: 1272.0
DRY BTU @ 14.696: 1275.9
DRY BTU @ 14.730: 1278.9
DRY BTU @ 15.025: 1304.5

CYLINDER #: 4000
CYLINDER PRESSURE: PSIG
DATE RUN: 11/11/15 12:00 AM
ANALYSIS RUN BY: PATRICIA KING



DUGAN PRODUCTION CORP.
WELL ANALYSIS COMPARISON

Lease: PAN AM FEDERAL #1E; CSG
Stn. No.:
Mtr. No.:

CASING

11/12/2015
23000-22635

Smpl Date: 11/09/2015
Test Date: 11/11/2015
Run No: DU150706

Nitrogen: 1.548
CO2: 0.206
Methane: 79.593
Ethane: 8.600
Propane: 5.730
I-Butane: 0.680
N-Butane: 1.660
I-Pentane: 0.410
N-Pentane: 0.377
Hexane+: 1.196

BTU: 1278.9
GPM: 19.2090
SPG: 0.7442