



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

Analysis No: DU150703
Cust No: 23000-22620

30-045-28768

Well/Lease Information

Customer Name: DUGAN PRODUCTION CORP.
Well Name: LISBON #1; CSG
County/State: NM
Location:
Field:
Formation:
Cust. Stn. No.:

Source: CASING
Pressure: 200 PSIG
Sample Temp: DEG. F
Well Flowing:
Date Sampled: 11/03/2015
Sampled By:
Foreman/Engr.: JIMMY DAVIS

OIL CONS. DIV DIST. 3

NOV 19 2015

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	1.235	0.1360	0.00	0.0119
CO2	0.659	0.1130	0.00	0.0100
Methane	79.918	13.5940	807.17	0.4427
Ethane	9.041	2.4260	160.00	0.0939
Propane	5.466	1.5110	137.53	0.0832
Iso-Butane	0.641	0.2100	20.84	0.0129
N-Butane	1.649	0.5220	53.80	0.0331
I-Pentane	0.445	0.1630	17.80	0.0111
N-Pentane	0.457	0.1660	18.32	0.0114
Hexane Plus	0.489	0.2190	25.78	0.0162
Total	100.000	19.0600	1241.24	0.7263

* @ 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): 1248.6
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1226.9
REAL SPECIFIC GRAVITY: 0.7286

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

DRY BTU @ 14.650: 1241.8
DRY BTU @ 14.696: 1245.7
DRY BTU @ 14.730: 1248.6
DRY BTU @ 15.025: 1273.6

CYLINDER #: 6125
CYLINDER PRESSURE: 60 PSIG
DATE RUN: 11/11/15 8:26 AM
ANALYSIS RUN BY: PATRICIA KING



DUGAN PRODUCTION CORP.
WELL ANALYSIS COMPARISON

Lease: LISBON #1; CSG
Str. No.:
Mtr. No.:

CASING

11/12/2015
23000-22620

Smpl Date: 11/03/2015
Test Date: 11/11/2015
Run No: DU150703

Nitrogen: 1.235
CO2: 0.659
Methane: 79.918
Ethane: 9.041
Propane: 5.466
I-Butane: 0.641
N-Butane: 1.649
I-Pentane: 0.445
N-Pentane: 0.457
Hexane+: 0.489

BTU: 1248.6
GPM: 19.0600
SPG: 0.7286



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

Analysis No: DU150697
Cust No: 23000-22590

Well/Lease Information

Customer Name: DUGAN PRODUCTION CORP.
Well Name: LISBON #1; BHD
County/State:
Location:
Field:
Formation: DAKOTA
Cust. Stn. No.:

Source: BRADENHEAD
Pressure: 29 PSIG
Sample Temp: DEG. F
Well Flowing:
Date Sampled: 10/29/2015
Sampled By:
Foreman/Engr.:

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.458	0.0510	0.00	0.0044
CO2	0.014	0.0020	0.00	0.0002
Methane	90.222	15.3330	911.24	0.4997
Ethane	5.524	1.4810	97.76	0.0574
Propane	2.222	0.6140	55.91	0.0338
Iso-Butane	0.368	0.1210	11.97	0.0074
N-Butane	0.539	0.1700	17.58	0.0108
I-Pentane	0.192	0.0700	7.68	0.0048
N-Pentane	0.139	0.0510	5.57	0.0035
Hexane Plus	0.322	0.1440	16.97	0.0107
Total	100.000	18.0370	1124.69	0.6327

* @ 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): 1130.3
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1110.6
REAL SPECIFIC GRAVITY: 0.6341

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

DRY BTU @ 14.650: 1124.2
DRY BTU @ 14.696: 1127.7
DRY BTU @ 14.730: 1130.3
DRY BTU @ 15.025: 1152.9

CYLINDER #: 7000
CYLINDER PRESSURE: 22 PSIG
DATE RUN: 11/5/15 8:01 AM
ANALYSIS RUN BY: PATRICIA KING



DUGAN PRODUCTION CORP.
WELL ANALYSIS COMPARISON

Lease: LISBON #1; BHD
Stn. No.:
Mtr. No.:

BRADENHEAD
DAKOTA

11/10/2015
23000-22590

Smpl Date: 10/29/2015
Test Date: 11/05/2015
Run No: DU150697

Nitrogen: 0.458
CO2: 0.014
Methane: 90.222
Ethane: 5.524
Propane: 2.222
I-Butane: 0.368
N-Butane: 0.539
I-Pentane: 0.192
N-Pentane: 0.139
Hexane+: 0.322

BTU: 1130.3
GPM: 18.0370
SPG: 0.6341