

EL PASO NATURAL GAS COMPANY

SAN JUAN LABORATORY

FRACTIONAL DISTILLATION ANALYSIS ☐GAS CHROMATOGRAPHY ANALYSIS ☐

Date of Run 10-5-76 Analysis No. VF29586
 Sample From Blackwood Nickols Date Secured 10-4-76
 Sample Marked N. E. Blanco Unit # 34 Secured By DeLasso Loos

COMPONENT	MOL. %	G. P. M.	LIQ. VOL. %
Carbon Dioxide	.14		
Hydrogen Sulfide	.00		
Nitrogen	.32		
Methane	87.93		
Ethane	6.96		
Propane	2.73	.7493	
I-Butane	.55	.1794	
N-Butane	.72	.2263	
I-Pentane	.23	.0839	
N-Pentane	.16	.0573	
Hexane	.26	.1131	
TOTALS	100.00	1.410	

HEATING VALUE
B.T.U. PER CU. FT.

Dry Basis, 14.696 lbs./sq. in., 60° F. 1150
 Calculated from % Composition

Calorimeter

SULPHUR CONTENT
GRAINS PER 100 CU. FT.

14.7 lbs./sq. in., 60° F.
 Hydrogen Sulfide .00

Mercaptans .00

SPECIFIC GRAVITY

14.696 lbs./sq. in., 60° F. .650
 Calculated from % Composition

Calculated from % Liquid

VAPOR PRESSURE

PSIA at 100° F.
 Calculated from Mole %

Column/s Used	AE&MS
Calculation By	NGPA
Carbon Dioxide	NGPA
Hydrogen Sulfide	
LOCATION AND WELL DATA	
Sec. 19 T. 30 N. R. 7 W.	
County	
Rio Arriba	
State	
New Mexico	
Formation	
Mesa Verde	
Bomb Pressure	
Fibered #12	

BEFORE THE
OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

Case No. 5994 Exhibit No. 12Submitted by Blackwood & NicholsDate 11-10-77Run By Ross Checked By James

Remarks

R L Ahrens

H. L. Holder

R. Ullrich

R. E. Johnson

R. B. Herr

M. E. Blakely

R. E. Lemon

J. E. Ashworth

Don Adams

File

EL PASO NATURAL GAS COMPANY
SAN JUAN LABORATORY

FRACTIONAL DISTILLATION ANALYSIS ☐

GAS CHROMATOGRAPHY ANALYSIS ☐

Date of Run 10-5-76 Analysis No. VF29687
Sample From Blackwood Nickols Date Secured 10-4-76
Sample Marked N. E. Blanco Unit # 105 Secured By DeLasso Loos

COMPONENT	MOL. %	G. P. M.	LIQ. VOL. %
Carbon Dioxide	.87		
Hydrogen Sulfide	.00		
Nitrogen	.28		
Methane	88.33		
Ethane	6.31		
Propane	2.46	.6752	
I-Butane	.48	.1565	
N-Butane	.64	.2012	
I-Pentane	.20	.0730	
N-Pentane	.13	.0469	
Hexane	.30	.1305	
TOTALS	100.00	1.284	

HEATING VALUE
B.T.U. PER CU. FT.

Dry Basis, 14.696 lbs./sq. in., 60° F.
Calculated from % Composition 1131

Calorimeter _____

SULPHUR CONTENT
GRAINS PER 100 CU. FT.

14.7 lbs./sq. in., 60° F.
Hydrogen Sulfide .00

Mercaptans .00

SPECIFIC GRAVITY

14.696 lbs./sq. in., 60° F.
Calculated from % Composition .649

Calculated from % Liquid _____

VAPOR PRESSURE

PSIA at 100° F.
Calculated from Mole % _____

Column/s Used
<u>AE&MS</u>
Calculation By
<u>NGPA</u>
Carbon Dioxide
<u>NGPA</u>
Hydrogen Sulfide

LOCATION AND WELL DATA

Sec. <u>24</u> T. <u>30</u> N. <u>8</u> W.
County
<u>San Juan</u>
State
<u>New Mexico</u>
Formation
<u>Mesa Verde</u>
Bomb Pressure

Run By Ross Checked By James

Remarks
<u>R. L. Ahrens</u>
<u>H. L. Holder</u>
<u>R. Ullrich</u>
<u>R. E. Johnson</u>
<u>R. B. Herr</u>
<u>M. E. Blakley</u>
<u>R. F. Lemon</u>
<u>J. E. Ashworth</u>
<u>Don Adams</u>
File

EL PASO NATURAL GAS COMPANY

SAN JUAN LABORATORY

RACTIONAL DISTILLATION ANALYSIS ☐GAS CHROMATOGRAPHY ANALYSIS ☐

Date of Run 10-5-76 Analysis No. VF29588
 Sample From Blackwood Nickols Date Secured 10-4-76
 Sample Marked N. E. Blanco Unit #64-A Secured By DeLasso Loos

COMPONENT	MOL. %	G.P.M.	LIQ. VOL. %
Carbon Dioxide	.92		
Hydrogen Sulfide	.00		
Nitrogen	.20		
Methane	89.95		
Ethane	5.60		
Propane	2.06	.5654	
I-Butane	.34	.1109	
N-Butane	.47	.1477	
I-Pentane	.13	.0474	
N-Pentane	.09	.0325	
Hexane	.24	.1044	
TOTALS	100.00	1.009	

HEATING VALUE
B.T.U. PER CU. FT.

Dry Basis, 14.696 lbs./sq. in., 60° F.

Calculated from % Composition 1107

Calorimeter _____

SULPHUR CONTENT
GRAINS PER 100 CU. FT.

14.7 lbs./sq. in., 60° F.

Hydrogen Sulfide .00Mercaptans .00

SPECIFIC GRAVITY

14.696 lbs./sq. in., 60° F.

Calculated from % Composition .633

Calculated from % Liquid _____

VAPOR PRESSURE

PSIA at 100° F.

Calculated from Mole % _____

Run By Ross Checked By Janes

Remarks
R L Ahrens
H. L. Holder
R. U. Ullrich
R. E. Johnson
R. B. Herr
M. E. Blakley
R. F. Lemon
J. E. Ashworth
Don adams
File

Column/s Used
AE&MS
Calculation By
NGPA
Carbon Dioxide
NGPA
Hydrogen Sulfide

LOCATION AND WELL DATA
Sec. 24 T. 30 N. R. 8 W.
County
San Juan
State
New Mexico
Formation
Mesa Verde
Bomb Pressure

EL PASO NATURAL GAS COMPANY
SAN JUAN LABORATORYFRACTIONAL DISTILLATION ANALYSIS ☐GAS CHROMATOGRAPHY ANALYSIS ☐

Date of Run 10-5-76 Analysis No. VF29588
Sample From Blackwood Nickols Date Secured 10-4-76
Sample Marked N. E. Blanco Unit #64 Secured By DeLasso Loos

COMPONENT	MOL. %	G. P. M.	LIQ. VOL. %
Carbon Dioxide	.92		
Hydrogen Sulfide	.00		
Nitrogen	.20		
Methane	89.95		
Ethane	5.60		
Propane	2.06	.5654	
I-Butane	.34	.1109	
N-Butane	.47	.1477	
I-Pentane	.13	.0474	
N-Pentane	.09	.0325	
Hexane	.24	.1044	
TOTALS	100.00	1.000	

HEATING VALUE
B.T.U. PER CU. FT.

Dry Basis, 14.696 lbs./sq. in., 50° F.
Calculated from % Composition 1107
Calorimeter _____

SULPHUR CONTENT
GRAINS PER 100 CU. FT.

14.7 lbs./sq. in., 60° F.
Hydrogen Sulfide .00
Mercaptans .00

SPECIFIC GRAVITY

14.696 lbs./sq. in., 60° F.
Calculated from % Composition .633
Calculated from % Liquid _____

VAPOR PRESSURE

PSIA at 100° F.
Calculated from Mole % _____

Run By Ross Checked By James

Remarks
R L Ahrens
H. L. Holder
R. U. Ullrich
R. E. Johnson
R. B. Herr
M. E. Blakley
R. F. Lemon
J. E. Ashworth
Don adams
File

Column/s Used
AE&MS
Calculation By
NGPA
Carbon Dioxide
NGPA
Hydrogen Sulfide

LOCATION AND WELL DATA			
Sec. 24	T. 30 N.	R. 8	W.
County			
San Juan			
State			
New Mexico			
Formation			
Mesa Verde			
Sump Pressure			

EL PASO NATURAL GAS COMPANY
SAN JUAN LABORATORYFRACTIONAL DISTILLATION ANALYSIS ☐GAS CHROMATOGRAPHY ANALYSIS ☐

Date of Run 10-5-76 Analysis No. VF29586
Sample From Blackwood Nickols Date Secured 10-4-76
Sample Marked H. E. Blanco Unit # 34 Secured By DeLasso Loos

COMPONENT	MOL. %	G. P. M.	LIQ. VOL. %
Carbon Dioxide	.14		
Hydrogen Sulfide	.00		
Nitrogen	.32		
Methane	87.93		
Ethane	6.96		
Propane	2.73	.7493	
I-Butane	.55	.1794	
N-Butane	.72	.2263	
I-Pentane	.23	.0839	
N-Pentane	.16	.0573	
Hexane	.26	.1131	
TOTALS	100.00	1.410	

HEATING VALUE
B.T.U. PER CU. FT.

Dry Basis, 14.596 lbs./sq. in., 60° F. 1150
Calculated from % Composition

Calorimeter

SULPHUR CONTENT
GRAINS PER 100 CU. FT.

14.7 lbs./sq. in., 60° F.
Hydrogen Sulfide .00

Mercaptans .00

SPECIFIC GRAVITY

14.596 lbs./sq. in., 60° F. .650
Calculated from % Composition

Calculated from % Liquid

VAPOR PRESSURE

PSIA at 100° F.
Calculated from Mole %

Run By Ross Checked By James

Remarks
R. L. Ahrens
H. L. Holder
R. Ellrich
R. E. Johnson
R. B. Herr
M. E. Blakely
R. E. Lemon
J. E. Ashworth
Don Adams
File

Column/s Used
AE&MS
Calculation By
NGPA
Carbon Dioxide
NGPA
Hydrogen Sulfide

LOCATION AND WELL DATA			
Sec.	10	T. 30	N. R. 7 W.
County	Rio Arriba		
State	New Mexico		
Formation	Mesa Verde		
Seam Pressure			

EL PASO NATURAL GAS COMPANY
SAN JUAN LABORATORYFRACTIONAL DISTILLATION ANALYSIS ☐GAS CHROMATOGRAPHY ANALYSIS ☐

Date of Run 10-5-76 Analysis No. VF29687
Sample From Blackwood Nickols Date Secured 10-4-76
Sample Marked N. E. Blanco Unit # 105 Secured By DeLasso Loos

COMPONENT	MOL. %	G. P. M.	LIQ. VOL. %
Carbon Dioxide	.87		
Hydrogen Sulfide	.00		
Nitrogen	.28		
Methane	88.33		
Ethane	6.31		
Propane	2.46	.6752	
I-Butane	.48	.1565	
N-Butane	.64	.2012	
I-Pentane	.20	.0730	
N-Pentane	.13	.0469	
Hexane	.30	.1305	
TOTALS	100.00	1.284	

HEATING VALUE
B.T.U. PER CU. FT.

Dry Basis, 14.696 lbs./sq. in., 60° F.
Calculated from % Composition 1131

Calorimeter SULPHUR CONTENT
GRAINS PER 100 CU. FT.

14.7 lbs./sq. in., 60° F.

Hydrogen Sulfide .00Mercaptans .00

SPECIFIC GRAVITY

14.696 lbs./sq. in., 60° F.

Calculated from % Composition .649Calculated from % Liquid

VAPOR PRESSURE

PSIA at 100° F.

Calculated from Mole %

Column/s Used

AE&IS

Calculation By

NGPA

Carbon Dioxide

NGPA

Hydrogen Sulfide

Run By <u>Ross</u> Checked By <u>James</u>
Remarks
<u>R. L. Ahrens</u>
<u>H. L. Holder</u>
<u>R. Ullrich</u>
<u>R. E. Johnson</u>
<u>R. B. Herr</u>
<u>M. E. Blakley</u>
<u>R. F. Lemon</u>
<u>J. E. Ashworth</u>
<u>Don Adams</u>
<u>File</u>

LOCATION AND WELL DATA

Sec. 24 T. 30 N. R. 8 W.County San JuanState New MexicoFormation Mesa VerdeBomb Pressure

EL PASO NATURAL GAS COMPANY
SAN JUAN LABORATORYFRACTIONAL DISTILLATION ANALYSIS ☐GAS CHROMATOGRAPHY ANALYSIS ☐

Date of Run 10-5-76 Analysis No. VF29588
Sample From Blackwood Nickols Date Secured 10-4-76
Sample Marked N. E. Blanco Unit #64 Secured By DeLasso Laos

COMPONENT	MOL. %	G.P.M.	LIQ. VOL. %
Carbon Dioxide	.92		
Hydrogen Sulfide	.00		
Nitrogen	.20		
Methane	89.95		
Ethane	5.60		
Propane	2.06	.5654	
I-Butane	.34	.1109	
N-Butane	.47	.1477	
I-Pentane	.13	.0474	
N-Pentane	.09	.0325	
Hexane	.24	.1044	
TOTALS	100.00	1.000	

Run By Ross Checked By James

REMARKS
R L Ahrens
H. L. Holder
R. U. Ulrich
R. E. Johnson
R. B. Herr
M. E. Blakley
R. F. Lemon
J. E. Ashworth
Don Adams
File

HEATING VALUE
B.T.U. PER CU. FT.Dry Basis, 14.696 lbs./sq. in., 60° F.
Calculated from % Composition 1107Calorimeter SULPHUR CONTENT
GRAINS PER 100 CU. FT.14.7 lbs./sq. in., 60° F.
Hydrogen Sulfide 00Mercaptans 00

SPECIFIC GRAVITY

14.696 lbs./sq. in., 60° F.
Calculated from % Composition .633Calculated from % Liquid

VAPOR PRESSURE

PSIA at 100° F.
Calculated from Mole %

Column/s Used
AE&MS
Calculation By
NGPA
Carbon Dioxide
NGPA
Hydrogen Sulfide

LOCATION AND WELL DATA			
Sec. 24	T. 30 N.	R. 8 E.	
County	San Juan	State	New Mexico
Formation	Mesa Verde	Seam Pressure	

EL PASO NATURAL GAS COMPANY
SAN JUAN LABORATORY

RACTIONAL DISTILLATION ANALYSIS ☐

GAS CHROMATOGRAPHY ANALYSIS ☐

Date of Run 10-5-76 Analysis No. VF29586
Sample From Blackwood Nichols Date Secured 10-4-76
Sample Marked N. E. Blanco Unit # 34 Secured By DeLasso Loos

COMPONENT	MOL. %	G.P.M.	LIQ. VOL. %
Carbon Dioxide	.14		
Hydrogen Sulfide	.00		
Nitrogen	.32		
Methane	87.93		
Ethane	6.96		
Propane	2.73	.7493	
I-Butane	.55	.1794	
N-Butane	.72	.2263	
I-Pentane	.23	.0839	
N-Pentane	.16	.0573	
Hexane	.26	.1131	
TOTALS	100.00	1.410	

Run By Ross Checked By James

Remarks
R. L. Ahrens
H. L. Holder
R. Elrich
R. E. Johnson
R. B. Herr
M. E. Blakely
P. F. Leron
J. E. Ashworth
Don Adams
File

HEATING VALUE
B.T.U. PER CU. FT.

Dry Basis, 14.596 lbs./sq. in., 60° F.
Calculated from % Composition 1150

Calorimeter

SULPHUR CONTENT
GRAINS PER 100 CU. FT.

14.7 lbs./sq. in., 60° F.
Hydrogen Sulfide .00

Mercaptans .00

SPECIFIC GRAVITY

14.596 lbs./sq. in., 60° F.
Calculated from % Composition .650

Calculated from % Liquid

VAPOR PRESSURE

PSIA at 100° F.
Calculated from Mole %

Column/s Used
AE&MS
Calculation By
NGPA
Carbon Dioxide
NGPA
Hydrogen Sulfide

LOCATION AND WELL DATA
Sec. <u>19</u> T. <u>30</u> S. <u>7</u> W.
County
<u>Pio Arriba</u>
State
<u>New Mexico</u>
Formation
<u>Mesa Verde</u>
Seam Pressure

EL PASO NATURAL GAS COMPANY
SAN JUAN LABORATORY

FRACTIONAL DISTILLATION ANALYSIS ☐

GAS CHROMATOGRAPHY ANALYSIS ☐

Date of Run 10-5-76 Analysis No. VF29687
Sample From Blackwood Nickols Date Secured 10-4-76
Sample Marked N. E. Blanco Unit # 105 Secured By DeLasso Loos

COMPONENT	MOL. %	G. P. M.	LIQ. VOL. %
Carbon Dioxide	.87		
Hydrogen Sulfide	.00		
Nitrogen	.28		
Methane	88.33		
Ethane	6.31		
Propane	2.46	.6752	
I-Butane	.48	.1565	
N-Butane	.64	.2012	
I-Pentane	.20	.0730	
N-Pentane	.13	.0469	
Hexane	.30	.1305	
TOTALS	100.00	1.284	

HEATING VALUE
B.T.U. PER CU. FT.

Dry Basis, 14.696 lbs./sq. in., 60° F.
Calculated from % Composition 1131
Calorimeter _____

SULPHUR CONTENT
GRAINS PER 100 CU. FT.

14.7 lbs./sq. in., 60° F.
Hydrogen Sulfide .00
Mercaptans .00

SPECIFIC GRAVITY

14.696 lbs./sq. in., 60° F.
Calculated from % Composition .649
Calculated from % Liquid _____

VAPOR PRESSURE

PSIA at 100° F.
Calculated from Mole % _____

Run By Ross Checked By James

Remarks
R. L. Ahrens
H. L. Holder
R. Ullrich
R. E. Johnson
R. B. Herr
M. E. Blakley
R. F. Lemon
J. E. Ashworth
Don Adams
File

Column/s Used
<u>AE&MS</u>
Calculation By
<u>NGPA</u>
Carbon Dioxide
<u>NGPA</u>
Hydrogen Sulfide
<u>NGPA</u>

LOCATION AND WELL DATA
Sec. <u>24</u> T. <u>30</u> N. <u>8</u> W.
County <u>San Juan</u>
State <u>New Mexico</u>
Formation <u>Mesa Verde</u>
Bomb Pressure _____