

**ARMSTRONG GAS LABS, INC.**

P.O. Box 988
 Monahans, Texas 79756
 (432) 943-8844 (FAX) 943-8855

GAS ANALYSIS REPORT

Analysis No.: 131634
 Customer: Centennial

<u>Component</u>	<u>Mol. %</u>	(Ideal) <u>BTU</u>	(Ideal) <u>SG</u>	(Real) <u>GPM</u>	
Nitrogen	2.0228	0.000	0.020		
Methane	79.9326	804.792	0.443		
CO2	2.4045	0.000	0.037		
Ethane	8.3648	147.569	0.087	2.232	
H2S	0.0005	0.000	0.000		
Propane	4.1899	105.092	0.064	1.152	
Iso-Butane	0.6102	19.781	0.012	0.199	
Butane	1.3586	44.183	0.027	0.427	
Iso-Pentane	0.3446	13.744	0.009	0.126	
Pentane	0.2936	11.733	0.007	0.106	
Hexanes C6+	0.4779	24.436	0.015	0.208	
Hydrogen	N/A				
Helium	N/A				
Oxygen	N/A				
CO	N/A				
Totals	100.0000	1171.329	0.720	4.450	

Producer: Centennial
Well / Sta. Name: Mortal Kombat 36 State Com 502H
Sta. No.: 8615
Formation:
Field: New Mexico
County:
API Number: 3002545063

Spot / Composite: SP
 Date / Time On:
 Date / Time Off: 09/26/23
 Date to Lab: 09/27/23
 Date Analyzed: 09/28/23
 Effective Date:

Sample Press. (PSIG): 155
 Line Press. (PSIG): 155
 Sample Temp. (F): 88
 Fl. Gas Temp. (F): 88
 Amb. Temp. (F): 62

Del. To:
 Sampled By: JM
 Cylinder No.: 862

Field H2O (#/mm):

Field H2S (PPM): 5.0
 Field H2S (Grains): 0.31

Pressure Base: 14.65**Temp. Base: 60**

Z Factor (Dry): 0.9967159

Z Factor (Act.): 0.9967159

Dry BTU w/ H2S: 1175.19

Sat BTU w/ H2S: 1155.06

As Del. BTU w/ H2S: 1175.19

Dry BTU W/O H2S (Real): 1175.19**Sat. BTU W/O H2S (Real): 1155.06****H2O (# / mmcf): 0.0****AS DEL. BTU W/O H2S (Real): 1175.19***BTU Calc: Dry***Sp. Gravity (Real): 0.7224**

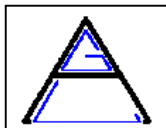
Field Gravity:

Lab Gravitometer:

GPM Ethane+ (Real): 4.450**GPM Propane+ (Real): 2.218****GPM IC5+ (Real): 0.440**

GPA 2145 / 2172

Fld. Remarks: FR 822**Lab Remarks:**

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GAS ANALYSIS REPORT

Analysis No.: 131635
 Customer: Centennial

<u>Component</u>	<u>Mol. %</u>	(Ideal) <u>BTU</u>	(Ideal) <u>SG</u>	(Real) <u>GPM</u>
Nitrogen	2.7347	0.000	0.026	
Methane	76.0257	765.456	0.421	
CO2	5.0496	0.000	0.077	
Ethane	8.8992	156.996	0.092	2.374
H2S	0.0005	0.000	0.000	
Propane	4.3073	108.037	0.066	1.184
Iso-Butane	0.5359	17.372	0.011	0.175
Butane	1.2662	41.178	0.025	0.398
Iso-Pentane	0.3185	12.703	0.008	0.116
Pentane	0.3085	12.328	0.008	0.112
Hexanes C6+	0.5539	28.322	0.018	0.241
Hydrogen	N/A			
Helium	N/A			
Oxygen	N/A			
CO	N/A			
Totals	100.0000	1142.392	0.752	4.600

Producer: Centennial
Well / Sta. Name: TOUR BUS 23 STATE 601H
Sta. No.: 5236
Formation:
Field: New Mexico
County:
API Number: 3002544290

Spot / Composite: SP
 Date / Time On:
 Date / Time Off: 09/26/23
 Date to Lab: 09/27/23
 Date Analyzed: 09/28/23
 Effective Date:

Sample Press. (PSIG): 157
 Line Press. (PSIG): 157
 Sample Temp. (F): 95
 Fl. Gas Temp. (F): 95
 Amb. Temp. (F): 92

Del. To:
 Sampled By: DB
 Cylinder No.: 451

Field H2O (#/mm):

Field H2S (PPM): 5.0
 Field H2S (Grains): 0.31

Pressure Base: 14.65
Temp. Base: 60

Z Factor (Dry): 0.9966074
 Z Factor (Act.): 0.9966074

Dry BTU w/ H2S: 1146.28

Sat BTU w/ H2S: 1126.65

As Del. BTU w/ H2S: 1146.28

Dry BTU W/O H2S (Real): 1146.28

Sat. BTU W/O H2S (Real): 1126.65

H2O (# / mmcf): 0.0

AS DEL. BTU W/O H2S (Real): 1146.28

BTU Calc: Dry

Sp. Gravity (Real): 0.7541

Field Gravity:

Lab Gravitometer:

GPM Ethane+ (Real): 4.600

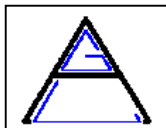
GPM Propane+ (Real): 2.226

GPM IC5+ (Real): 0.469

GPA 2145 / 2172

Fld. Remarks: FR 188

Lab Remarks:

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GAS ANALYSIS REPORT

Analysis No.: 131636
 Customer: Centennial

<u>Component</u>	<u>Mol. %</u>	(Ideal) <u>BTU</u>	(Ideal) <u>SG</u>	(Real) <u>GPM</u>
Nitrogen	2.0758	0.000	0.020	
Methane	78.5178	790.548	0.435	
CO2	2.4789	0.000	0.038	
Ethane	8.6621	152.813	0.090	2.311
H2S	0.0003	0.000	0.000	
Propane	4.6412	116.412	0.071	1.276
Iso-Butane	0.6886	22.322	0.014	0.225
Butane	1.4787	48.089	0.030	0.465
Iso-Pentane	0.4081	16.277	0.010	0.149
Pentane	0.3800	15.185	0.009	0.137
Hexanes C6+	0.6685	34.182	0.022	0.291
Hydrogen	N/A			
Helium	N/A			
Oxygen	N/A			
CO	N/A			
Totals	100.0000	1195.827	0.738	4.854

Producer: Centennial
Well / Sta. Name: Pac-Man 36 Fed Com 503H
Sta. No.: 48191
Formation:
Field: New Mexico
County:
API Number: 3002547070

Spot / Composite: SP
 Date / Time On:
 Date / Time Off: 09/26/23
 Date to Lab: 09/27/23
 Date Analyzed: 09/28/23
 Effective Date:

Sample Press. (PSIG): 167
 Line Press. (PSIG): 167
 Sample Temp. (F): 83
 Fl. Gas Temp. (F): 83
 Amb. Temp. (F): 62

Del. To:
 Sampled By: JM
 Cylinder No.: 848

Field H2O (#/mm):

Field H2S (PPM): 3.0
 Field H2S (Grains): 0.19

Pressure Base: 14.65**Temp. Base: 60**

Z Factor (Dry): 0.9965270

Z Factor (Act.): 0.9965270

Dry BTU w/ H2S: 1200.00

Sat BTU w/ H2S: 1179.45

As Del. BTU w/ H2S: 1200.00

Dry BTU W/O H2S (Real): 1199.99**Sat. BTU W/O H2S (Real): 1179.45****H2O (# / mmcf): 0.0****AS DEL. BTU W/O H2S (Real): 1199.99***BTU Calc: Dry***Sp. Gravity (Real): 0.7402**

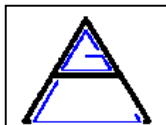
Field Gravity:

Lab Gravitometer:

GPM Ethane+ (Real): 4.854**GPM Propane+ (Real): 2.543****GPM IC5+ (Real): 0.577**

GPA 2145 / 2172

Fld. Remarks: FR 689**Lab Remarks:**

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GAS ANALYSIS REPORT

Analysis No.: 131637
 Customer: Centennial

<u>Component</u>	<u>Mol. %</u>	(Ideal) <u>BTU</u>	(Ideal) <u>SG</u>	(Real) <u>GPM</u>	
Nitrogen	4.9202	0.000	0.048		
Methane	85.8670	864.542	0.476		
CO2	1.6705	0.000	0.025		
Ethane	3.3149	58.480	0.034	0.884	
H2S	0.0015	0.000	0.000		
Propane	1.4658	36.766	0.022	0.403	
Iso-Butane	0.2589	8.393	0.005	0.084	
Butane	0.7615	24.765	0.015	0.239	
Iso-Pentane	0.3351	13.365	0.008	0.122	
Pentane	0.3692	14.754	0.009	0.133	
Hexanes C6+	1.0354	52.942	0.033	0.451	
Hydrogen	N/A				
Helium	N/A				
Oxygen	N/A				
CO	N/A				
Totals	100.0000	1074.006	0.677	2.316	

Producer: Centennial
Well / Sta. Name: Airstream 24 State Com 501H
Sta. No.: 5751
Formation:
Field: New Mexico
County:
API Number: 3002545155

Spot / Composite: SP
 Date / Time On:
 Date / Time Off: 09/26/23
 Date to Lab: 09/27/23
 Date Analyzed: 09/28/23
 Effective Date:

Sample Press. (PSIG): 163
 Line Press. (PSIG): 163
 Sample Temp. (F): 105
 Fl. Gas Temp. (F): 105
 Amb. Temp. (F): 92

Del. To:
 Sampled By: DB
 Cylinder No.: 794

Field H2O (#/mm):

Field H2S (PPM): 15.0
 Field H2S (Grains): 0.94

Pressure Base: 14.65
Temp. Base: 60

Z Factor (Dry): 0.9972963
 Z Factor (Act.): 0.9972963

Dry BTU w/ H2S: 1076.93

Sat BTU w/ H2S: 1058.45

As Del. BTU w/ H2S: 1076.93

Dry BTU W/O H2S (Real): 1076.92

Sat. BTU W/O H2S (Real): 1058.44

H2O (# / mmcf): 0.0

AS DEL. BTU W/O H2S (Real): 1076.92

BTU Calc: Dry

Sp. Gravity (Real): 0.6782

Field Gravity:

Lab Gravitometer:

GPM Ethane+ (Real): 2.316

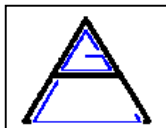
GPM Propane+ (Real): 1.432

GPM IC5+ (Real): 0.706

GPA 2145 / 2172

Fld. Remarks: FR 100

Lab Remarks:

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GAS ANALYSIS REPORT

Analysis No.: 131638
 Customer: Centennial

<u>Component</u>	<u>Mol. %</u>	<u>(Ideal)</u> <u>BTU</u>	<u>(Ideal)</u> <u>SG</u>	<u>(Real)</u> <u>GPM</u>	
Nitrogen	1.9609	0.000	0.019		
Methane	77.4970	780.270	0.429		
CO2	2.4221	0.000	0.037		
Ethane	9.5821	169.044	0.099	2.557	
H2S	0.0005	0.000	0.000		
Propane	5.0687	127.134	0.077	1.393	
Iso-Butane	0.6867	22.261	0.014	0.224	
Butane	1.5800	51.383	0.032	0.497	
Iso-Pentane	0.3699	14.753	0.009	0.135	
Pentane	0.3308	13.219	0.008	0.120	
Hexanes C6+	0.5013	25.632	0.016	0.218	
Hydrogen	N/A				
Helium	N/A				
Oxygen	N/A				
CO	N/A				
Totals	100.0000	1203.696	0.741	5.144	

Producer: Centennial
Well / Sta. Name: Pac-Man 36 Fed Com 601 Prod
Sta. No.: 97099
Formation:
Field: New Mexico
County:
API Number: 3002546434

Spot / Composite: SP
 Date / Time On:
 Date / Time Off: 09/26/23
 Date to Lab: 09/27/23
 Date Analyzed: 09/28/23
 Effective Date:

Sample Press. (PSIG): 172
 Line Press. (PSIG): 172
 Sample Temp. (F): 91
 Fl. Gas Temp. (F): 91
 Amb. Temp. (F): 62

Del. To:
 Sampled By: DB
 Cylinder No.: 727

Field H2O (#/mm):

Field H2S (PPM): 5.0
 Field H2S (Grains): 0.31

Pressure Base: 14.65**Temp. Base: 60**

Z Factor (Dry): 0.9964893

Z Factor (Act.): 0.9964893

Dry BTU w/ H2S: 1207.94

Sat BTU w/ H2S: 1187.26

As Del. BTU w/ H2S: 1207.94

Dry BTU W/O H2S (Real): 1207.94**Sat. BTU W/O H2S (Real): 1187.25****H2O (# / mmcf): 0.0****AS DEL. BTU W/O H2S (Real): 1207.94***BTU Calc: Dry***Sp. Gravity (Real): 0.7431**

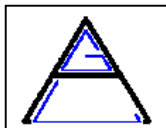
Field Gravity:

Lab Gravitometer:

GPM Ethane+ (Real): 5.144**GPM Propane+ (Real): 2.587****GPM IC5+ (Real): 0.473**

GPA 2145 / 2172

Fld. Remarks: FR 680.05**Lab Remarks:**

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GAS ANALYSIS REPORT

Analysis No.: 131639
 Customer: Centennial

<u>Component</u>	<u>Mol. %</u>	(Ideal) <u>BTU</u>	(Ideal) <u>SG</u>	(Real) <u>GPM</u>	
Nitrogen	3.2076	0.000	0.031		
Methane	72.7133	732.106	0.403		
CO2	6.9788	0.000	0.106		
Ethane	8.9316	157.568	0.093	2.384	
H2S	0.1000	0.000	0.001		
Propane	4.6441	116.484	0.071	1.277	
Iso-Butane	0.5736	18.595	0.012	0.187	
Butane	1.4255	46.359	0.029	0.449	
Iso-Pentane	0.3918	15.626	0.010	0.143	
Pentane	0.3868	15.457	0.010	0.140	
Hexanes C6+	0.6469	33.077	0.021	0.282	
Hydrogen	N/A				
Helium	N/A				
Oxygen	N/A				
CO	N/A				
Totals	100.0000	1135.271	0.785	4.862	

Producer: Centennial
Well / Sta. Name: PAC-MAN 36 FED COM 301H
Sta. No.: 95830
Formation:
Field: New Mexico
County:
API Number: 3002547061

Spot / Composite: SP
 Date / Time On:
 Date / Time Off: 09/26/23
 Date to Lab: 09/27/23
 Date Analyzed: 09/28/23
 Effective Date:

Sample Press. (PSIG): 200
 Line Press. (PSIG): 200
 Sample Temp. (F): 102
 Fl. Gas Temp. (F): 102
 Amb. Temp. (F): 62

Del. To:
 Sampled By: DB
 Cylinder No.: 201

Field H2O (#/mm):

Field H2S (PPM): 1,000.0
 Field H2S (Grains): 62.93

Pressure Base: 14.65**Temp. Base: 60**

Z Factor (Dry): 0.9964163

Z Factor (Act.): 0.9964163

Dry BTU w/ H2S: 1139.99

Sat BTU w/ H2S: 1120.48

As Del. BTU w/ H2S: 1139.99

Dry BTU W/O H2S (Real): 1139.36**Sat. BTU W/O H2S (Real): 1119.85****H2O (# / mmcf): 0.0****AS DEL. BTU W/O H2S (Real): 1139.35***BTU Calc: Dry***Sp. Gravity (Real): 0.7873**

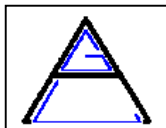
Field Gravity:

Lab Gravitometer:

GPM Ethane+ (Real): 4.862**GPM Propane+ (Real): 2.478****GPM IC5+ (Real): 0.565**

GPA 2145 / 2172

Fld. Remarks: FR 1641.79**Lab Remarks:**

**ARMSTRONG GAS LABS, INC.**

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GAS ANALYSIS REPORT

Analysis No.: 131640
 Customer: Centennial

<u>Component</u>	<u>Mol. %</u>	(Ideal) <u>BTU</u>	(Ideal) <u>SG</u>	(Real) <u>GPM</u>
Nitrogen	1.9034	0.000	0.018	
Methane	77.9716	785.048	0.432	
CO2	2.5647	0.000	0.039	
Ethane	8.9232	157.420	0.093	2.381
H2S	0.0007	0.000	0.000	
Propane	4.8386	121.363	0.074	1.330
Iso-Butane	0.7026	22.776	0.014	0.229
Butane	1.5733	51.165	0.032	0.495
Iso-Pentane	0.4278	17.062	0.011	0.156
Pentane	0.3865	15.445	0.010	0.140
Hexanes C6+	0.7076	36.181	0.023	0.308
Hydrogen	N/A			
Helium	N/A			
Oxygen	N/A			
CO	N/A			
Totals	100.0000	1206.460	0.744	5.039

Producer: Centennial
Well / Sta. Name: Pac-Man 36 Fed Com 502H
Sta. No.: 64707
Formation:
Field: New Mexico
County:
API Number: 3002547069

Spot / Composite: SP
 Date / Time On:
 Date / Time Off: 09/26/23
 Date to Lab: 09/27/23
 Date Analyzed: 09/28/23
 Effective Date:

Sample Press. (PSIG): 175
 Line Press. (PSIG): 175
 Sample Temp. (F): 96
 Fl. Gas Temp. (F): 96
 Amb. Temp. (F): 62

Del. To:
 Sampled By: JM
 Cylinder No.: 175

Field H2O (#/mm):

Field H2S (PPM): 7.0
 Field H2S (Grains): 0.44

Pressure Base: 14.65**Temp. Base: 60**

Z Factor (Dry): 0.9964470

Z Factor (Act.): 0.9964470

Dry BTU w/ H2S: 1210.77

Sat BTU w/ H2S: 1190.04

As Del. BTU w/ H2S: 1210.77

Dry BTU W/O H2S (Real): 1210.76**Sat. BTU W/O H2S (Real): 1190.03****H2O (# / mmcf): 0.0****AS DEL. BTU W/O H2S (Real): 1210.76***BTU Calc: Dry***Sp. Gravity (Real): 0.7467**

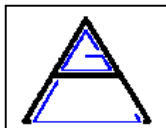
Field Gravity:

Lab Gravitometer:

GPM Ethane+ (Real): 5.039**GPM Propane+ (Real): 2.658****GPM IC5+ (Real): 0.604**

GPA 2145 / 2172

Fld. Remarks: FR 447**Lab Remarks:**

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 (432) 943-8844 (FAX) 943-8855

GAS ANALYSIS REPORT

Analysis No.: 131641
 Customer: Centennial

<u>Component</u>	<u>Mol. %</u>	<u>(Ideal)</u> <u>BTU</u>	<u>(Ideal)</u> <u>SG</u>	<u>(Real)</u> <u>GPM</u>	
Nitrogen	1.8691	0.000	0.018		
Methane	72.5535	730.497	0.402		
CO2	1.1273	0.000	0.017		
Ethane	13.7580	242.713	0.143	3.673	
H2S	0.0020	0.000	0.000		
Propane	6.9308	173.840	0.106	1.906	
Iso-Butane	0.7690	24.929	0.015	0.251	
Butane	1.7161	55.809	0.034	0.540	
Iso-Pentane	0.3563	14.211	0.009	0.130	
Pentane	0.3432	13.715	0.009	0.124	
Hexanes C6+	0.5747	29.385	0.018	0.250	
Hydrogen	N/A				
Helium	N/A				
Oxygen	N/A				
CO	N/A				
Totals	100.0000	1285.099	0.771	6.874	

Producer: Centennial
Well / Sta. Name: Vitalizer State 502H
Sta. No.: 5184
Formation:
Field: New Mexico
County:
API Number: 3002544499

Spot / Composite: SP
 Date / Time On:
 Date / Time Off: 09/14/23
 Date to Lab: 09/28/23
 Date Analyzed: 09/28/23
 Effective Date:

Sample Press. (PSIG): 135
 Line Press. (PSIG): 135
 Sample Temp. (F): 92
 Fl. Gas Temp. (F): 92
 Amb. Temp. (F): 69

Del. To:
 Sampled By: CH
 Cylinder No.: 790

Field H2O (#/mm):

Field H2S (PPM): 20.0
 Field H2S (Grains): 1.26

Pressure Base: 14.65
Temp. Base: 60

Z Factor (Dry): 0.9960338
 Z Factor (Act.): 0.9960338

Dry BTU w/ H2S: 1290.23
 Sat BTU w/ H2S: 1268.16
 As Del. BTU w/ H2S: 1290.23

Dry BTU W/O H2S (Real): 1290.22
Sat. BTU W/O H2S (Real): 1268.14
H2O (# / mmcf): 0.0

AS DEL. BTU W/O H2S (Real): 1290.22

BTU Calc: Dry

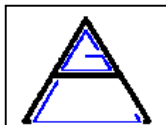
Sp. Gravity (Real): 0.7740
 Field Gravity:
 Lab Gravitometer:

GPM Ethane+ (Real): 6.874
GPM Propane+ (Real): 3.201
GPM IC5+ (Real): 0.504

GPA 2145 / 2172

Fld. Remarks: FR 71.61

Lab Remarks:

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GAS ANALYSIS REPORT

Analysis No.: 333237
 Customer: Centennial

<u>Component</u>	<u>Mol. %</u>	(Ideal) <u>BTU</u>	(Ideal) <u>SG</u>	(Real) <u>GPM</u>	
Nitrogen	3.0980	0.000	0.030		
Methane	64.4840	649.250	0.357		
CO2	11.2632	0.000	0.171		
Ethane	10.8120	190.741	0.112	2.887	
H2S	0.0000	0.000	0.000		
Propane	6.2602	157.020	0.095	1.722	
Iso-Butane	0.7409	24.018	0.015	0.242	
Butane	1.8408	59.864	0.037	0.579	
Iso-Pentane	0.4442	17.716	0.011	0.162	
Pentane	0.4421	17.667	0.011	0.160	
Hexanes C6+	0.6146	31.426	0.020	0.268	
Hydrogen	N/A				
Helium	N/A				
Oxygen	N/A				
CO	N/A				
Totals	100.0000	1147.702	0.860	6.020	

Producer: Centennial
Well / Sta. Name: Raider Fed Com 502H - 701 H sales check
Sta. No.: 30601
Formation:
Field: New Mexico
County:
API Number: N/L

Spot / Composite: SP
 Date / Time On:
 Date / Time Off: 09/26/23
 Date to Lab: 09/27/23
 Date Analyzed: 09/28/23
 Effective Date:

Sample Press. (PSIG): 111
 Line Press. (PSIG): 111
 Sample Temp. (F): 91
 Fl. Gas Temp. (F): 91
 Amb. Temp. (F): 76

Del. To:
 Sampled By: IF
 Cylinder No.: 818

Field H2O (#/mm):**Field H2S (PPM):** 0.0

Field H2S (Grains): 0.0

Pressure Base: 14.65**Temp. Base:** 60

Z Factor (Dry): 0.9958624

Z Factor (Act.): 0.9958624

Dry BTU w/ H2S: 1152.47

Sat BTU w/ H2S: 1132.76

As Del. BTU w/ H2S: 1152.47

Dry BTU W/O H2S (Real): 1152.47**Sat. BTU W/O H2S (Real):** 1132.76**H2O (# / mmcf):** 0.0**AS DEL. BTU W/O H2S (Real):** 1152.47*BTU Calc: Dry***Sp. Gravity (Real):** 0.8627

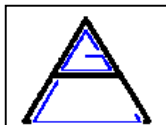
Field Gravity:

Lab Gravitometer:

GPM Ethane+ (Real): 6.020**GPM Propane+ (Real):** 3.133**GPM IC5+ (Real):** 0.590

GPA 2145 / 2172

Fld. Remarks: FR 1314.82**Lab Remarks:** TAG: NO API PER W. SHIPLEY

**ARMSTRONG GAS LABS, INC.**

P.O. Box 988
 Monahans, Texas 79756
 (432) 943-8844 (FAX) 943-8855

GAS ANALYSIS REPORT

Analysis No.: 333238
 Customer: Centennial

<u>Component</u>	<u>Mol. %</u>	(Ideal) <u>BTU</u>	(Ideal) <u>SG</u>	(Real) <u>GPM</u>
Nitrogen	2.9663	0.000	0.029	
Methane	68.3042	687.713	0.378	
CO2	0.2659	0.000	0.004	
Ethane	16.2001	285.796	0.168	4.326
H2S	0.0000	0.000	0.000	
Propane	8.2817	207.724	0.126	2.278
Iso-Butane	0.8389	27.195	0.017	0.274
Butane	2.0892	67.943	0.042	0.658
Iso-Pentane	0.3352	13.369	0.008	0.122
Pentane	0.3221	12.872	0.008	0.117
Hexanes C6+	0.3964	20.269	0.013	0.173
Hydrogen	N/A			
Helium	N/A			
Oxygen	N/A			
CO	N/A			
Totals	100.0000	1322.879	0.793	7.948

Producer: Centennial
Well / Sta. Name: JUICE BUD STATE COM 4H
Sta. No.: 90181088
Formation:
Field: New Mexico
County:
API Number: 3002542007

Spot / Composite: SP
 Date / Time On:
 Date / Time Off: 09/21/23
 Date to Lab: 09/27/23
 Date Analyzed: 09/28/23
 Effective Date:

Sample Press. (PSIG): 126
 Line Press. (PSIG): 126
 Sample Temp. (F): 73
 Fl. Gas Temp. (F): 73
 Amb. Temp. (F): 71

Del. To:
 Sampled By: IF
 Cylinder No.: 809

Field H2O (#/mm):**Field H2S (PPM):** 0.0

Field H2S (Grains): 0.0

Pressure Base: 14.65**Temp. Base:** 60

Z Factor (Dry): 0.9958068

Z Factor (Act.): 0.9958068

Dry BTU w/ H2S: 1328.45

Sat BTU w/ H2S: 1305.73

As Del. BTU w/ H2S: 1328.45

Dry BTU W/O H2S (Real): 1328.45**Sat. BTU W/O H2S (Real):** 1305.73**H2O (# / mmcf):** 0.0**AS DEL. BTU W/O H2S (Real):** 1328.45*BTU Calc: Dry***Sp. Gravity (Real):** 0.7963

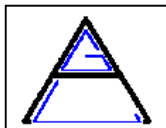
Field Gravity:

Lab Gravitometer:

GPM Ethane+ (Real): 7.948**GPM Propane+ (Real):** 3.622**GPM IC5+ (Real):** 0.412

GPA 2145 / 2172

Fld. Remarks: FR 818.3**Lab Remarks:**

**ARMSTRONG GAS LABS, INC.**

P.O. Box 988
 Monahans, Texas 79756
 (432) 943-8844 (FAX) 943-8855

GAS ANALYSIS REPORT

Analysis No.: 333239
 Customer: Centennial

<u>Component</u>	<u>Mol. %</u>	(Ideal) <u>BTU</u>	(Ideal) <u>SG</u>	(Real) <u>GPM</u>
Nitrogen	2.8592	0.000	0.028	
Methane	65.2591	657.054	0.361	
CO2	0.0931	0.000	0.001	
Ethane	16.3703	288.798	0.170	4.374
H2S	0.0000	0.000	0.000	
Propane	9.5307	239.051	0.145	2.623
Iso-Butane	0.9661	31.318	0.019	0.316
Butane	2.8071	91.289	0.056	0.884
Iso-Pentane	0.5817	23.200	0.014	0.213
Pentane	0.6487	25.923	0.016	0.235
Hexanes C6+	0.8840	45.200	0.028	0.385
Hydrogen	N/A			
Helium	N/A			
Oxygen	N/A			
CO	N/A			
Totals	100.0000	1401.835	0.840	9.030

Producer: Centennial
Well / Sta. Name: BATMAN FED COM 133H
Sta. No.: T230194391
Formation:
Field: New Mexico
County:
API Number: 3002550962

Spot / Composite: SP
 Date / Time On:
 Date / Time Off: 09/13/23
 Date to Lab: 09/28/23
 Date Analyzed: 09/28/23
 Effective Date:

Sample Press. (PSIG): 137
 Line Press. (PSIG): 137
 Sample Temp. (F): 112
 Fl. Gas Temp. (F): 112
 Amb. Temp. (F): 64

Del. To:
 Sampled By: CH
 Cylinder No.: 692

Field H2O (#/mm):**Field H2S (PPM):** 0.0

Field H2S (Grains): 0.0

Pressure Base: 14.65**Temp. Base: 60**

Z Factor (Dry): 0.9951712

Z Factor (Act.): 0.9951712

Dry BTU w/ H2S: 1408.64

Sat BTU w/ H2S: 1384.57

As Del. BTU w/ H2S: 1408.64

Dry BTU W/O H2S (Real): 1408.64**Sat. BTU W/O H2S (Real): 1384.57****H2O (# / mmcf): 0.0****AS DEL. BTU W/O H2S (Real): 1408.64***BTU Calc: Dry***Sp. Gravity (Real): 0.8442**

Field Gravity:

Lab Gravitometer:

GPM Ethane+ (Real): 9.030**GPM Propane+ (Real): 4.656****GPM IC5+ (Real): 0.833**

GPA 2145 / 2172

Fld. Remarks: FR 828.71**Lab Remarks:**

Preliminary Production Data

<u>Well Name</u>	<u>Production Date</u>	<u>Gas Flare</u>
Mortal Kombat 36 Battery 1	10/6/2023	56 mcf

District I
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District III
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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
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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

DEFINITIONS

Action 275706

DEFINITIONS

Operator: Permian Resources Operating, LLC 1001 17th Street, Suite 1800 Denver, CO 80202	OGRID: 372165
	Action Number: 275706
	Action Type: [C-129] Venting and/or Flaring (C-129)

DEFINITIONS

For the sake of brevity and completeness, please allow for the following in all groups of questions and for the rest of this application: - this application's operator, hereinafter "this operator"; - venting and/or flaring, hereinafter "vent or flare"; - any notification or report(s) of the C-129 form family, hereinafter "any C-129 forms"; - the statements in (and/or attached to) this, hereinafter "the statements in this"; - and the past tense will be used in lieu of mixed past/present tense questions and statements.
--

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QUESTIONS

Action 275706

QUESTIONS

Operator: Permian Resources Operating, LLC 1001 17th Street, Suite 1800 Denver, CO 80202	OGRID: 372165
	Action Number: 275706
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS**Prerequisites**

Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.

Incident Well	Unavailable.
Incident Facility	[fAPP2220949212] Mortal Kombat 36 Battery 1

Determination of Reporting Requirements

Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional guidance.

Was this vent or flare caused by an emergency or malfunction	No
Did this vent or flare last eight hours or more cumulatively within any 24-hour period from a single event	Yes
Is this considered a submission for a vent or flare event	Yes, minor venting and/or flaring of natural gas.

An operator shall file a form C-141 instead of a form C-129 for a release that, includes liquid during venting and/or flaring that is or may be a major or minor release under 19.15.29.7 NMAC.

Was there at least 50 MCF of natural gas vented and/or flared during this event	Yes
Did this vent or flare result in the release of ANY liquids (not fully and/or completely flared) that reached (or has a chance of reaching) the ground, a surface, a watercourse, or otherwise, with reasonable probability, endanger public health, the environment or fresh water	No
Was the vent or flare within an incorporated municipal boundary or within 300 feet from an occupied permanent residence, school, hospital, institution or church in existence	No

Equipment Involved

Primary Equipment Involved	Not answered.
Additional details for Equipment Involved. Please specify	Not answered.

Representative Compositional Analysis of Vented or Flared Natural Gas

Please provide the mole percent for the percentage questions in this group.

Methane (CH4) percentage	80
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	2
Oxygen (O2) percentage, if greater than one percent	0

If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.

Methane (CH4) percentage quality requirement	Not answered.
Nitrogen (N2) percentage quality requirement	Not answered.
Hydrogen Sulfide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (CO2) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

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QUESTIONS, Page 2

Action 275706

QUESTIONS (continued)

Operator: Permian Resources Operating, LLC 1001 17th Street, Suite 1800 Denver, CO 80202	OGRID: 372165
	Action Number: 275706
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	10/06/2023
Time vent or flare was discovered or commenced	12:00 AM
Time vent or flare was terminated	11:59 PM
Cumulative hours during this event	24

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Cause: Equipment Failure Pipeline (Any) Natural Gas Flared Released: 56 Mcf Recovered: 0 Mcf Lost: 56 Mcf.
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	Not answered.
Is this a gas only submission (i.e. only significant Mcf values reported)	Yes, according to supplied volumes this appears to be a "gas only" report.

Venting or Flaring Resulting from Downstream Activity	
Was this vent or flare a result of downstream activity	No
Was notification of downstream activity received by this operator	Not answered.
Downstream OGRID that should have notified this operator	Not answered.
Date notified of downstream activity requiring this vent or flare	Not answered.
Time notified of downstream activity requiring this vent or flare	Not answered.

Steps and Actions to Prevent Waste	
For this event, this operator could not have reasonably anticipated the current event and it was beyond this operator's control.	True
Please explain reason for why this event was beyond this operator's control	High Line Pressure
Steps taken to limit the duration and magnitude of vent or flare	Open valves to divert gas to a second midstream company to relive pressure off the line.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Clear consistent communication with midstream provider.

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ACKNOWLEDGMENTS

Action 275706

ACKNOWLEDGMENTS

Operator: Permian Resources Operating, LLC 1001 17th Street, Suite 1800 Denver, CO 80202	OGRID: 372165
	Action Number: 275706
	Action Type: [C-129] Venting and/or Flaring (C-129)

ACKNOWLEDGMENTS

☒	I acknowledge that I am authorized to submit a <i>Venting and/or Flaring</i> (C-129) report on behalf of this operator and understand that this report can be a complete C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC.
☒	I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to this operator) to track any C-129 forms, pursuant to 19.15.27.7 and 19.15.28.8 NMAC and understand that this submission meets the notification requirements of Paragraph (1) of Subsection G and F respectively.
☒	I hereby certify the statements in this report are true and correct to the best of my knowledge and acknowledge that any false statement may be subject to civil and criminal penalties under the Oil and Gas Act.
☒	I acknowledge that the acceptance of any C-129 forms by the OCD does not relieve this operator of liability should their operations have failed to adequately investigate, report, and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment.
☒	I acknowledge that OCD acceptance of any C-129 forms does not relieve this operator of responsibility for compliance with any other applicable federal, state, or local laws and/or regulations.

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CONDITIONS

Action 275706

CONDITIONS

Operator: Permian Resources Operating, LLC 1001 17th Street, Suite 1800 Denver, CO 80202	OGRID: 372165
	Action Number: 275706
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
chcentennial	If the information provided in this report requires an amendment, submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event.	10/15/2023