



Certificate of Analysis

Number: 2500-21090205-001A

Greeley Laboratory

2881 S. 31st Ave

Unit 6-8

Greeley, CO 80631

Russ Snowden
Southwestern Energy
390 Yampa Ave
Craig, CO 81625

Oct. 06, 2021

Station Name: Diamond T Sheep 1-26
Sample Point: Meter Run
Cylinder No: 2500-00703
Analyzed: 09/30/2021 08:40:35 by RHJ

Sampled By: Dan Lara
Sample Of: Gas Spot
Sample Date: 09/21/2021 15:50
Sample Conditions: 60.20 psig, @ 69.7 °F
Method: GPA 2286

Analytical Data

Components	Mol. %	Wt. %	GPM at 14.73 psia
Nitrogen	0.2245	0.2918	
Carbon Dioxide	1.0313	2.1055	
Methane	77.6908	57.8195	
Ethane	11.3377	15.8152	3.0429
Propane	5.7566	11.7759	1.5916
Iso-Butane	0.7353	1.9826	0.2415
n-Butane	1.7624	4.7520	0.5576
Iso-Pentane	0.3943	1.3197	0.1447
n-Pentane	0.4020	1.3455	0.1462
i-Hexanes	0.1653	0.6581	0.0682
n-Hexane	0.1354	0.5401	0.0557
Benzene	0.0349	0.1266	0.0098
Cyclohexane	0.0579	0.2259	0.0197
i-Heptanes	0.1682	0.7347	0.0705
n-Heptane	0.0259	0.1206	0.0120
Toluene	0.0170	0.0728	0.0057
i-Octanes	0.0427	0.2041	0.0184
n-Octane	0.0023	0.0124	0.0012
2,2,4-Trimethylpentane	0.0007	0.0034	0.0003
Ethylbenzene	NIL	NIL	NIL
Xylenes	0.0012	0.0062	0.0005
i-Nonanes	0.0003	0.0019	0.0002
n-Nonane	0.0008	0.0045	0.0004
Decane Plus	0.0125	0.0810	0.0066
	100.0000	100.0000	5.9937

Calculated Physical Properties

Calculated Molecular Weight 21.56 C10+

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.73 psia & 60°F

Real Gas Dry BTU	1283.7	7110.7
Water Sat. Gas Base BTU	1261.4	6960.4
Relative Density Real Gas	0.7468	4.7770
Compressibility Factor	0.9962	

Ryleigh Jacobs

Data reviewed by: Ryleigh Jacobs, Laboratory Analyst

Quality Assurance:

The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.