



# Certificate of Analysis

Number: 2500-21090084-003A

Greeley Laboratory

2881 S. 31st Ave

Unit 6-8

Greeley, CO 80631

Tony Walton  
Bonanza Creek  
4301 Industrial Parkway  
Evans, CO 80620

Sep. 17, 2021

Station Name: State Antelope 44-21-16 XRLNB GPM  
Station Number: 68004470  
Station Location: ANT T-21 Pad  
Sample Point: Meter Run  
Analyzed: 09/17/2021 10:33:10 by RGA

Sampled By: Patrick Purcell  
Sample Of: Gas Spot  
Sample Date: 09/09/2021 12:20  
Sample Conditions: 114.22 psig, @ 88.34 °F  
Method: GPA-2261M  
Cylinder No: 2500-00134

## Analytical Data

Components	Mol. %	Wt. %	GPM at 14.73 psia	
Hydrogen Sulfide	0.0002	ND		GPM TOTAL C2+ 7.137
Nitrogen	0.6235	0.755		GPM TOTAL C3+ 3.450
Carbon Dioxide	2.3878	4.540		GPM TOTAL iC5+ 0.774
Methane	72.3499	50.138		
Ethane	13.7293	17.833	3.687	
Propane	4.0068	7.632	1.108	
Iso-butane	1.1693	2.936	0.384	
n-Butane	3.7418	9.395	1.184	
Iso-pentane	0.6143	1.915	0.226	
n-Pentane	0.7571	2.360	0.276	
Hexanes Plus	0.6200	2.496	0.272	
	100.0000	100.000	7.137	

<b>Calculated Physical Properties</b>	<b>Total</b>	<b>C6+</b>
Relative Density Real Gas	0.8025	3.2176
Calculated Molecular Weight	23.15	93.19
Compressibility Factor	0.9957	
<b>GPA 2172 Calculation:</b>		
<b>Calculated Gross BTU per ft<sup>3</sup> @ 14.73 psia &amp; 60°F</b>		
Real Gas Dry BTU	1330	5141
Water Sat. Gas Base BTU	1308	5052
<b>Comments:</b> H2S Field Content 1.75 ppm		

Data reviewed by: Matthew Loveley, Laboratory Manager

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