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Lab #:	798137	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	Caldwell 14-25 / Production Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	276425				
Date Sampled:	7/06/2021 12:15	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0124			
Hydrogen	0.155			
Argon	nd			
Oxygen	0.011			
Nitrogen	0.49			
Carbon Dioxide	1.23	2.6		
Methane	73.70	-50.3	-241	
Ethane	13.32	-33.4		
Ethylene	nd			
Propane	7.04	-29.6		
Propylene	nd			
Iso-butane	0.943	-31.7		
N-butane	2.21	-28.3		
Iso-pentane	0.446	-28.5		
N-pentane	0.409	-28.2		
Hexanes +	0.0302			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1304
Specific gravity, calculated: 0.763

Remarks: W31852 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798138	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	Caldwell 14-25 / Surface Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	276425				
Date Sampled:	7/06/2021 12:10	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0504			
Hydrogen	nd			
Argon	nd			
Oxygen	0.012			
Nitrogen	1.76			
Carbon Dioxide	nd			
Methane	82.15	-54.8	-237	
Ethane	7.93	-34.7		
Ethylene	nd			
Propane	5.52	-30.9		
Propylene	nd			
Iso-butane	0.678	-31.8		
N-butane	1.36	-29.1		
Iso-pentane	0.239	-28.3		
N-pentane	0.218	-28.3		
Hexanes +	0.0853			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1204
Specific gravity, calculated: 0.693

Remarks: W31852 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798139	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	Echeverria 2L-2H / Production Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	459169				
Date Sampled:	7/09/2021	8:03	Date Received:	7/20/2021	Date Reported: 8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0070			
Hydrogen	0.0492			
Argon	nd			
Oxygen	nd			
Nitrogen	0.32			
Carbon Dioxide	1.89	3.2		
Methane	69.79	-49.4	-247	
Ethane	14.77	-33.1		
Ethylene	0.0024			
Propane	7.12	-29.5		
Propylene	nd			
Iso-butane	1.00	-31.8		
N-butane	2.72	-28.4		
Iso-pentane	1.44	-30.5		
N-pentane	0.857	-20.2		
Hexanes +	0.0363			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1370
Specific gravity, calculated: 0.813

Remarks: C82440 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798140	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	File 3D-32H / Production Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	434243				
Date Sampled:	7/07/2021 11:10	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0128			
Hydrogen	0.426			
Argon	nd			
Oxygen	nd			
Nitrogen	0.51			
Carbon Dioxide	0.33	-2.0		
Methane	82.86	-49.4	-242	
Ethane	11.53	-32.6		
Ethylene	0.0021			
Propane	3.43	-28.8		
Propylene	nd			
Iso-butane	0.303	-31.1		
N-butane	0.469	-27.5		
Iso-pentane	0.0487	-28.2		
N-pentane	0.0380	-27.2		
Hexanes +	0.0364			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1165
Specific gravity, calculated: 0.660

Remarks: C82213 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798141	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	File 3E-32H / Production Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	434247				
Date Sampled:	7/07/2021 10:22	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0106			
Hydrogen	0.128			
Argon	nd			
Oxygen	nd			
Nitrogen	0.39			
Carbon Dioxide	1.37	2.9		
Methane	77.76	-49.7	-245	
Ethane	12.68	-33.1		
Ethylene	0.0002			
Propane	5.15	-29.2		
Propylene	nd			
Iso-butane	0.634	-31.4		
N-butane	1.38	-27.7		
Iso-pentane	0.216	-28.1		
N-pentane	0.180	-27.2		
Hexanes +	0.105			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1233
Specific gravity, calculated: 0.719

Remarks: C82213 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798142	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	File 3F-32H / Production Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	434246				
Date Sampled:	7/07/2021 10:20	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0165			
Hydrogen	0.407			
Argon	nd			
Oxygen	0.011			
Nitrogen	0.71			
Carbon Dioxide	0.034			
Methane	87.91	-50.4	-248	
Ethane	8.78	-33.4		
Ethylene	0.0012			
Propane	1.88	-29.3		
Propylene	nd			
Iso-butane	0.105	-30.8		
N-butane	0.114	-27.3		
Iso-pentane	0.0024			
N-pentane	0.0013			
Hexanes +	0.0246			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1105
Specific gravity, calculated: 0.620

Remarks: C82215 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798143	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	File 3H-32H / Production Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	434241				
Date Sampled:	7/07/2021	8:45	Date Received:	7/20/2021	Date Reported: 8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0153			
Hydrogen	0.362			
Argon	nd			
Oxygen	nd			
Nitrogen	0.64			
Carbon Dioxide	0.25	-1.1		
Methane	86.45	-49.9	-246	
Ethane	9.64	-32.9		
Ethylene	0.0029			
Propane	2.19	-29.2		
Propylene	nd			
Iso-butane	0.133	-30.7		
N-butane	0.161	-27.4		
Iso-pentane	0.0074			
N-pentane	0.0068			
Hexanes +	0.144			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1122
Specific gravity, calculated: 0.633

Remarks: C82217 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798144	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	File 3I-32H / Production Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	434284				
Date Sampled:	7/07/2021	8:25	Date Received:	7/20/2021	Date Reported: 8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0125			
Hydrogen	0.133			
Argon	nd			
Oxygen	nd			
Nitrogen	0.47			
Carbon Dioxide	0.39	-0.6		
Methane	80.02	-48.7	-241	
Ethane	12.47	-32.6		
Ethylene	0.0050			
Propane	4.56	-28.9		
Propylene	nd			
Iso-butane	0.520	-31.4		
N-butane	0.982	-27.8		
Iso-pentane	0.176	-28.5		
N-pentane	0.159	-27.9		
Hexanes +	0.104			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1218
Specific gravity, calculated: 0.694

Remarks: C82218 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798145	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	File 3K-32H / Production Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	434287				
Date Sampled:	7/07/2021	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0124			
Hydrogen	0.0779			
Argon	nd			
Oxygen	0.010			
Nitrogen	0.50			
Carbon Dioxide	0.88	2.9		
Methane	76.57	-49.4	-243	
Ethane	12.77	-33.2		
Ethylene	nd			
Propane	5.36	-29.2		
Propylene	nd			
Iso-butane	0.708	-31.3		
N-butane	1.68	-28.1		
Iso-pentane	0.411	-28.6		
N-pentane	0.479	-28.2		
Hexanes +	0.546			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1281
Specific gravity, calculated: 0.743

Remarks: C82220 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798146	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	File 3P-32 H / Production Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	434282				
Date Sampled:	7/08/2021	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0160			
Hydrogen	0.722			
Argon	nd			
Oxygen	0.011			
Nitrogen	0.58			
Carbon Dioxide	0.19	-2.9		
Methane	85.01	-49.8	-246	
Ethane	10.46	-33.2		
Ethylene	0.0048			
Propane	2.64	-29.1		
Propylene	nd			
Iso-butane	0.167	-30.7		
N-butane	0.178	-27.1		
Iso-pentane	0.0034			
N-pentane	0.0014			
Hexanes +	0.0116			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1130
Specific gravity, calculated: 0.636

Remarks: C82225 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798147	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	File 3Q-32H / Production Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	434244				
Date Sampled:	7/08/2021	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0188			
Hydrogen	0.570			
Argon	nd			
Oxygen	nd			
Nitrogen	0.69			
Carbon Dioxide	0.16	-2.1		
Methane	87.32	-50.7	-249	
Ethane	8.99	-33.5		
Ethylene	0.0025			
Propane	2.01	-29.5		
Propylene	nd			
Iso-butane	0.110	-30.9		
N-butane	0.122	-27.3		
Iso-pentane	0.0026			
N-pentane	0.0013			
Hexanes +	0.0027			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1106
Specific gravity, calculated: 0.622

Remarks: C82226 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798148	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	File 3R-32H / Production Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	434283				
Date Sampled:	7/08/2021	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0138			
Hydrogen	0.464			
Argon	nd			
Oxygen	nd			
Nitrogen	0.70			
Carbon Dioxide	0.050	-3.3		
Methane	88.18	-48.6	-240	
Ethane	9.13	-32.8		
Ethylene	0.0043			
Propane	1.35	-28.8		
Propylene	nd			
Iso-butane	0.0529	-30.2		
N-butane	0.0414	-26.8		
Iso-pentane	0.0017			
N-pentane	0.0011			
Hexanes +	0.0096			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1096
Specific gravity, calculated: 0.614

Remarks: C82227 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798149	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	Haley 32-3 / Production Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	293983				
Date Sampled:	7/06/2021 11:17	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0144			
Hydrogen	0.191			
Argon	nd			
Oxygen	0.014			
Nitrogen	0.44			
Carbon Dioxide	1.58	2.2		
Methane	74.18	-50.4	-245	
Ethane	12.60	-33.5		
Ethylene	0.0011			
Propane	6.39	-29.7		
Propylene	nd			
Iso-butane	0.907	-31.6		
N-butane	2.37	-28.3		
Iso-pentane	0.557	-28.3		
N-pentane	0.612	-28.0		
Hexanes +	0.143			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1302
Specific gravity, calculated: 0.767

Remarks: W41820 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798150	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	Haley 32-3 / Surface Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	293983				
Date Sampled:	7/06/2021 11:15	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.146			
Hydrogen	nd			
Argon	0.0235			
Oxygen	0.011			
Nitrogen	5.39			
Carbon Dioxide	nd			
Methane	92.70	-60.2	-211	
Ethane	1.04	-34.1		
Ethylene	nd			
Propane	0.448	-30.8		
Propylene	nd			
Iso-butane	0.0918	-31.5		
N-butane	0.0885	-29.7		
Iso-pentane	0.0231	-29.2		
N-pentane	0.0170	-28.6		
Hexanes +	0.0166			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 978
Specific gravity, calculated: 0.589

Remarks: W41820 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798151	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	Marcus State 3A-36H / Production Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	433050				
Date Sampled:	7/02/2021 10:30	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0190			
Hydrogen	0.573			
Argon	nd			
Oxygen	0.016			
Nitrogen	0.65			
Carbon Dioxide	1.03	0.8		
Methane	82.89	-52.8	-257	
Ethane	11.02	-34.0		
Ethylene	0.0060			
Propane	3.17	-29.8		
Propylene	0.0001			
Iso-butane	0.197	-31.1		
N-butane	0.276	-27.5		
Iso-pentane	0.0095			
N-pentane	0.0042			
Hexanes +	0.139			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1142
Specific gravity, calculated: 0.658

Remarks: W21857 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798152	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	Marcus State 3A-36H / Intermediate Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	433050				
Date Sampled:	7/02/2021 10:35	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	nd			
Hydrogen	nd			
Argon	0.0051			
Oxygen	0.057			
Nitrogen	0.23			
Carbon Dioxide	0.017			
Methane	98.55	-44.4	-255	
Ethane	0.160	-33.6		
Ethylene	0.0008			
Propane	0.313	-30.0		
Propylene	0.0004			
Iso-butane	0.0837	-32.1		
N-butane	0.261	-28.8		
Iso-pentane	0.101	-28.8		
N-pentane	0.123	-28.4		
Hexanes +	0.101			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1035
Specific gravity, calculated: 0.571

Remarks: W21857 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798153	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	Pratt 21-29 / Surface Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	420033				
Date Sampled:	6/24/2021 14:20	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0344			
Hydrogen	nd			
Argon	0.0089			
Oxygen	0.048			
Nitrogen	1.67			
Carbon Dioxide	nd			
Methane	84.08	-53.1	-238	
Ethane	7.77	-34.2		
Ethylene	nd			
Propane	4.30	-30.1		
Propylene	nd			
Iso-butane	0.537	-31.8		
N-butane	1.01	-28.7		
Iso-pentane	0.216	-28.6		
N-pentane	0.194	-28.4		
Hexanes +	0.134			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1174
Specific gravity, calculated: 0.674

Remarks: W69768 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798154	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	Prosper Farms 4-65-11-12 3BH / Surface Casin				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	456549				
Date Sampled:	6/22/2021	9:30	Date Received:	7/20/2021	Date Reported: 8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0084			
Hydrogen	0.0118			
Argon	0.0052			
Oxygen	0.022			
Nitrogen	0.91			
Carbon Dioxide	0.84	1.2		
Methane	66.87	-53.1	-280	
Ethane	14.79	-36.7		
Ethylene	nd			
Propane	10.18	-31.9		
Propylene	nd			
Iso-butane	1.26	-32.6		
N-butane	3.54	-29.9		
Iso-pentane	0.613	-28.6		
N-pentane	0.678	-29.2		
Hexanes +	0.271			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1424
Specific gravity, calculated: 0.837

Remarks: C22303 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798155	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	Prosper Farms 4-65-11-12 3BH / Production Ca				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	456549				
Date Sampled:	6/22/2021	9:30	Date Received:	7/20/2021	Date Reported: 8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0106			
Hydrogen	nd			
Argon	nd			
Oxygen	0.021			
Nitrogen	0.97			
Carbon Dioxide	2.36	1.7		
Methane	69.37	-53.0	-281	
Ethane	13.80	-36.5		
Ethylene	nd			
Propane	8.52	-31.7		
Propylene	nd			
Iso-butane	0.968	-32.6		
N-butane	2.71	-29.5		
Iso-pentane	0.477	-28.7		
N-pentane	0.539	-29.2		
Hexanes +	0.257			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1341
Specific gravity, calculated: 0.810

Remarks: C22303 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798156	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	State Peterson 2F-20H / Production Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	431502				
Date Sampled:	7/02/2021 12:35	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	0.0194			
Hydrogen	3.93			
Argon	nd			
Oxygen	0.013			
Nitrogen	0.69			
Carbon Dioxide	0.71	0.2		
Methane	81.15	-52.6	-263	
Ethane	9.67	-34.3		
Ethylene	0.0074			
Propane	2.98	-29.8		
Propylene	0.0001			
Iso-butane	0.220	-31.1		
N-butane	0.400	-28.0		
Iso-pentane	0.0316			
N-pentane	0.0256			
Hexanes +	0.149			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1113
Specific gravity, calculated: 0.634

Remarks: C72629 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

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Lab #:	798157	Job #:	48238	IS-94649	Co. Job#:
Sample Name:	State Peterson 2F-20H / Surface Casing				Co. Lab#:
Company:	Crestone Peak Resources				
API/Well:					
Container:	IsoTube®				
Field/Site Name:	Bradenhead Testing				
Location:					
Formation:					
Sampling Point:	431503				
Date Sampled:	7/02/2021 12:30	Date Received:	7/20/2021	Date Reported:	8/13/2021

Component	Chemical mol. %	$\delta^{13}C$ ‰	δD ‰	$\delta^{15}N$ ‰
Carbon Monoxide	nd			
Helium	nd			
Hydrogen	nd			
Argon	0.0106			
Oxygen	0.014			
Nitrogen	0.76			
Carbon Dioxide	nd			
Methane	88.69	-53.3	-293	
Ethane	6.86	-33.7		
Ethylene	0.0006			
Propane	2.50	-30.0		
Propylene	0.0001			
Iso-butane	0.241	-31.4		
N-butane	0.552	-28.5		
Iso-pentane	0.111	-28.4		
N-pentane	0.135	-28.2		
Hexanes +	0.124			

Total BTU/cu.ft. dry @ 60deg F & 14.73psia, calculated: 1127
Specific gravity, calculated: 0.634

Remarks: C72629 8503

nd = not detected. na = not analyzed. Isotopic composition of hydrogen is relative to VSMOW. Isotopic composition of carbon is relative to VPDB. All gas component carbon isotope values are reported on a scale defined by a two point calibration of LSVEC and NBS 19. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.