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Standard Expe		HighChkStd																																									
Date	Lab/Std	QA/QC?	Comment	He	He %	Ar	Ar %	H2	H2 %	O2	O2 %	O2+Ar	O2+Ar %	CO2	CO2 %	N2	N2 %	CO	CO %	C1	C1 %	C2	C2 %	C2H4	C2H4 %	C3	C3 %	C3H6	C3H6 %	IC4	IC4 %	NC4	NC4 %	ICS	ICS %	NC5	NC5 %	C6+	C6+ %	Raw Total			
4/10/2018	highchkstd	Y		0	0.0056	0	0.0058	0	0.0059	0	0.0062	0	0	0	0	9.46276	95	0	0	90.5263	100.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100.447	
4/10/2018	highchkstd	Y		0	0.0058	0	0.0058	0	0.0062	0	0.0062	0	0	0	0	9.488	95	0	0	90.4999	100.55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100.04
Date	Repeated Samples	Lab/Std	QA/QC?	Comment	He	He %	Ar	Ar %	H2	H2 %	O2	O2 %	O2+Ar	O2+Ar %	CO2	CO2 %	N2	N2 %	CO	CO %	C1	C1 %	C2	C2 %	C2H4	C2H4 %	C3	C3 %	C3H6	C3H6 %	IC4	IC4 %	NC4	NC4 %	ICS	ICS %	NC5	NC5 %	C6+	C6+ %	Raw Total		
4/10/2018	659671	lab		Tube at ATM. Reported	0.01018	0.03808	0.00117	0.00117	0.12558	0	0.01582	2.34813	18.34	0	97.2235	0.22457	0	0.00991	0	0.00106	0.00121	0.0002	0.00019	0.00043	101.649																		
4/10/2018	659671	rep		air contam.	0.00906	11.72	0.04267	11.35	0.00144	20.78	0.24739	65.32	0	0.01663	4.99	2.82229	18.34	0	96.6239	0.62	0.22384	0.33	0	0.00991	0.02	0	0.00105	1.21	0.00118	2.75	0.00017	16.49	0.00011	53.59	0.00041	4.93	101.932						
4/10/2018	659671	reun		air contam. Chkstd performed.	0.01018	0.04	0.04612	19.08	0.00145	21.11	0.38029	100.7	0	0.01731	9.03	3.26411	18.34	0	96.0261	1.24	0.22174	1.27	0	0.00972	1.95	0	0.00102	3.72	0.00111	8.42	0.00014	35.24	0.00008	81.43	0.00039	9.47	101.592						

Results of Daily Instrument Check

Delta S: Dual Inlet Carbon Isotope Analysis

Date	zero enrichment	ck std expected	ck std measured
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Delta Plus: Dual Inlet Carbon Isotope Analysis

Date	zero enrichment	ck std expected	ck std measured
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4/11/2018		-11.136	-11.353
4/11/2018		-11.136	-11.386

Delta Q: Dual Inlet Carbon Isotope Analysis

Date	zero enrichment	ck std expected	ck std measured
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Delta R: Dual Inlet Hydrogen Isotope Analysis

Date	zero enrichment	ck std expected	ck std measured
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4/11/2018	-0.051	-148.55	-148.129
		-148.55	-148.272

Orca Standards

Date Ran	C ₁	C ₂	C ₃	i-C ₄	n-C ₄	i-C ₅	n-C ₅	CO ₂
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04/11/18	-41.415	-31.649	-32.564					
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Expected Value	-41.60	-31.76	-32.69					
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Date Ran	2C ₁	2C ₂	2C ₃	2i-C ₄	2n-C ₄	2i-C ₅	2n-C ₅
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04/11/18	-178.794	-191.610	-139.884				
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Expected Value	-175.28	-188.66	-136.06				
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GPA Standards

Date Ran	C ₁	C ₂	C ₃	i-C ₄	n-C ₄	i-C ₅	n-C ₅	CO ₂
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04/11/18	-43.638	-29.129	-32.460					
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Expected Value	-43.57	-28.99	-32.27					
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Date Ran	2C ₁	2C ₂	2C ₃	2i-C ₄	2n-C ₄	2i-C ₅	2n-C ₅
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04/11/18	-194.671	-174.132	-180.584				
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Expected Value	-189.78	-172.68	-179.82				
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Duplicates

Date Ran	C ₁	C ₂	C ₃	i-C ₄	n-C ₄	i-C ₅	n-C ₅	CO ₂
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Date Ran	2C ₁	2C ₂	2C ₃	2i-C ₄	2n-C ₄	2i-C ₅	2n-C ₅
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