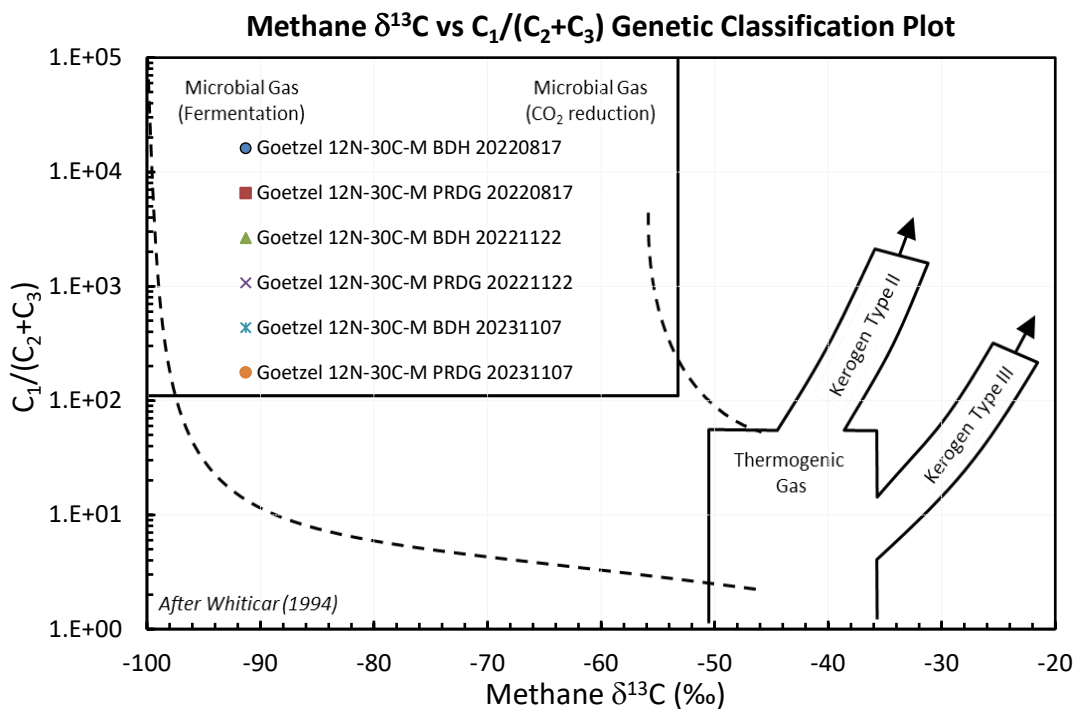
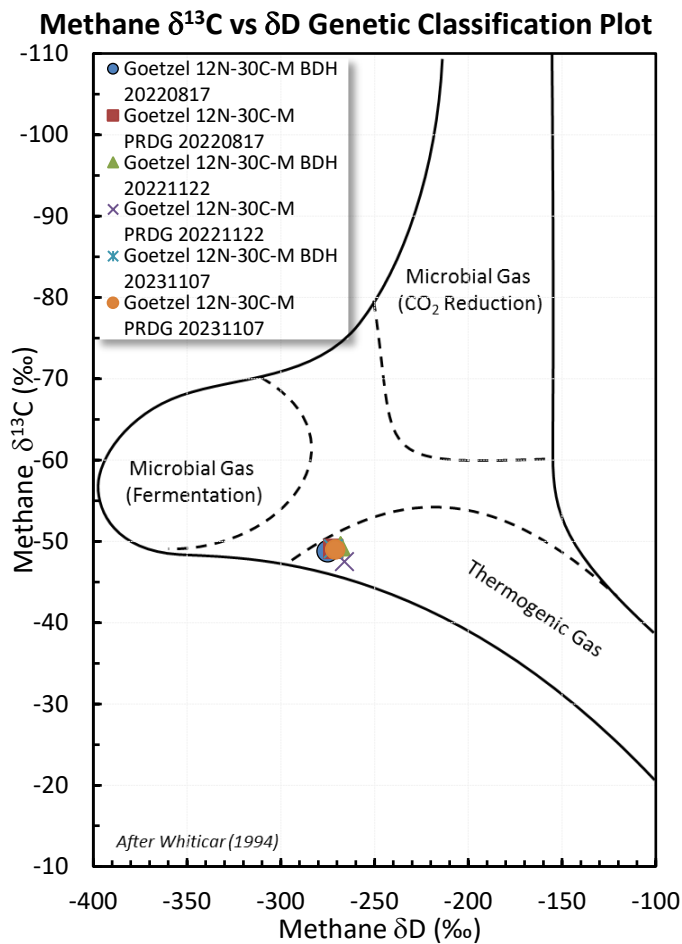
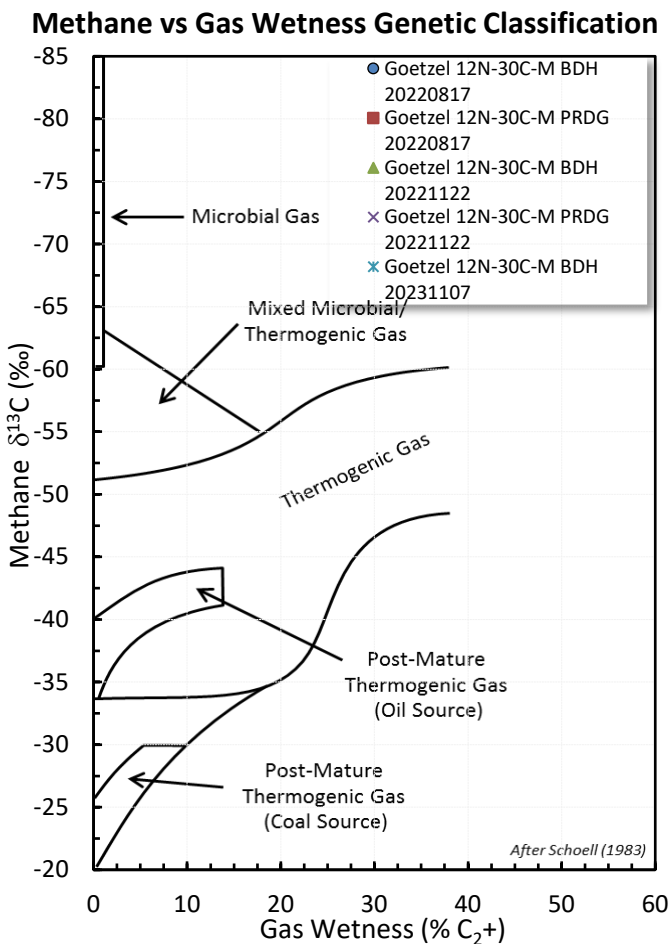
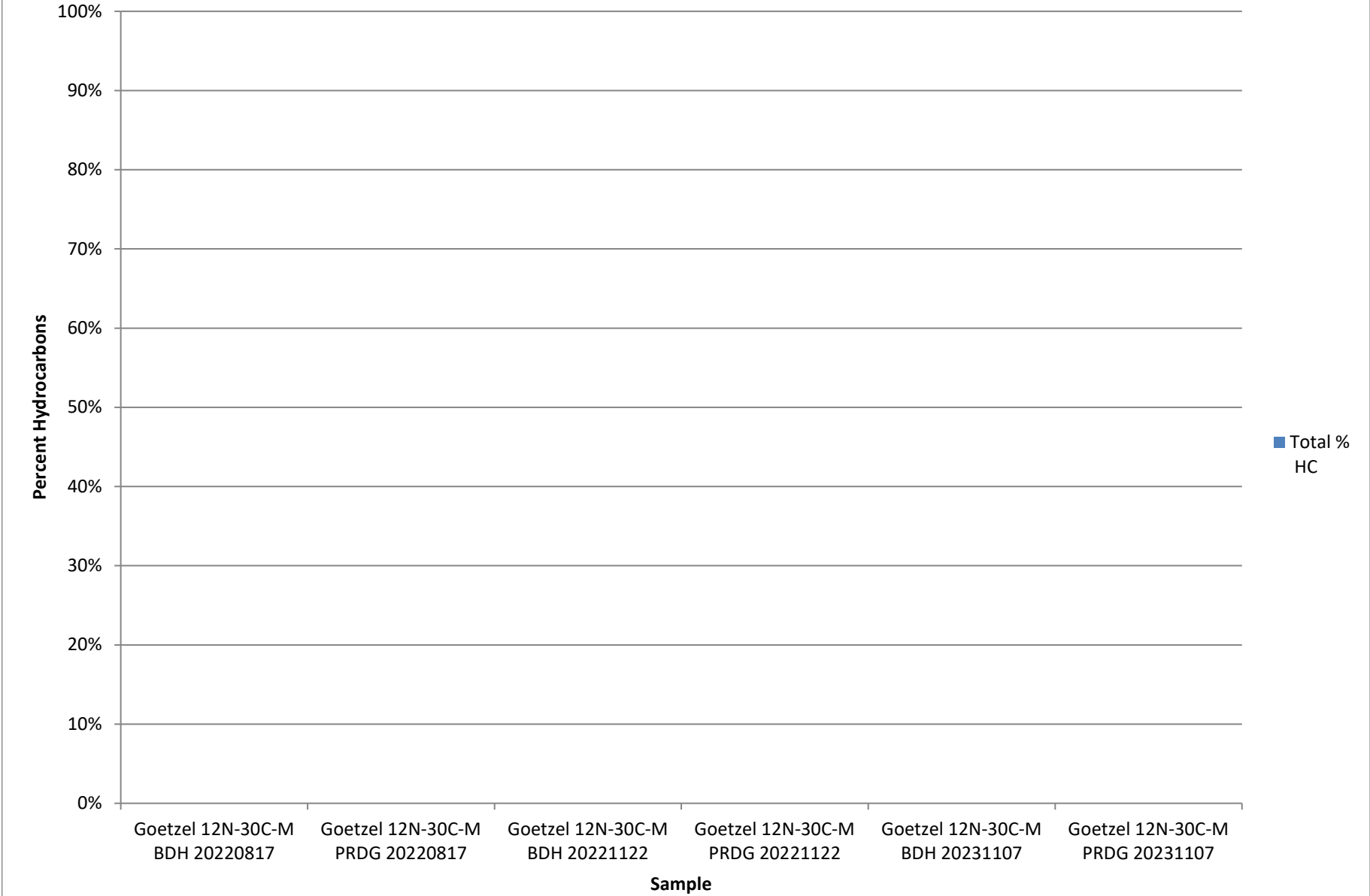


# Stable Isotope Interpretive Plots



Total Percent Hydrocarbons



**GAS COMPOSITION**

GAS COMPOSITION (MOL %)

Parameter

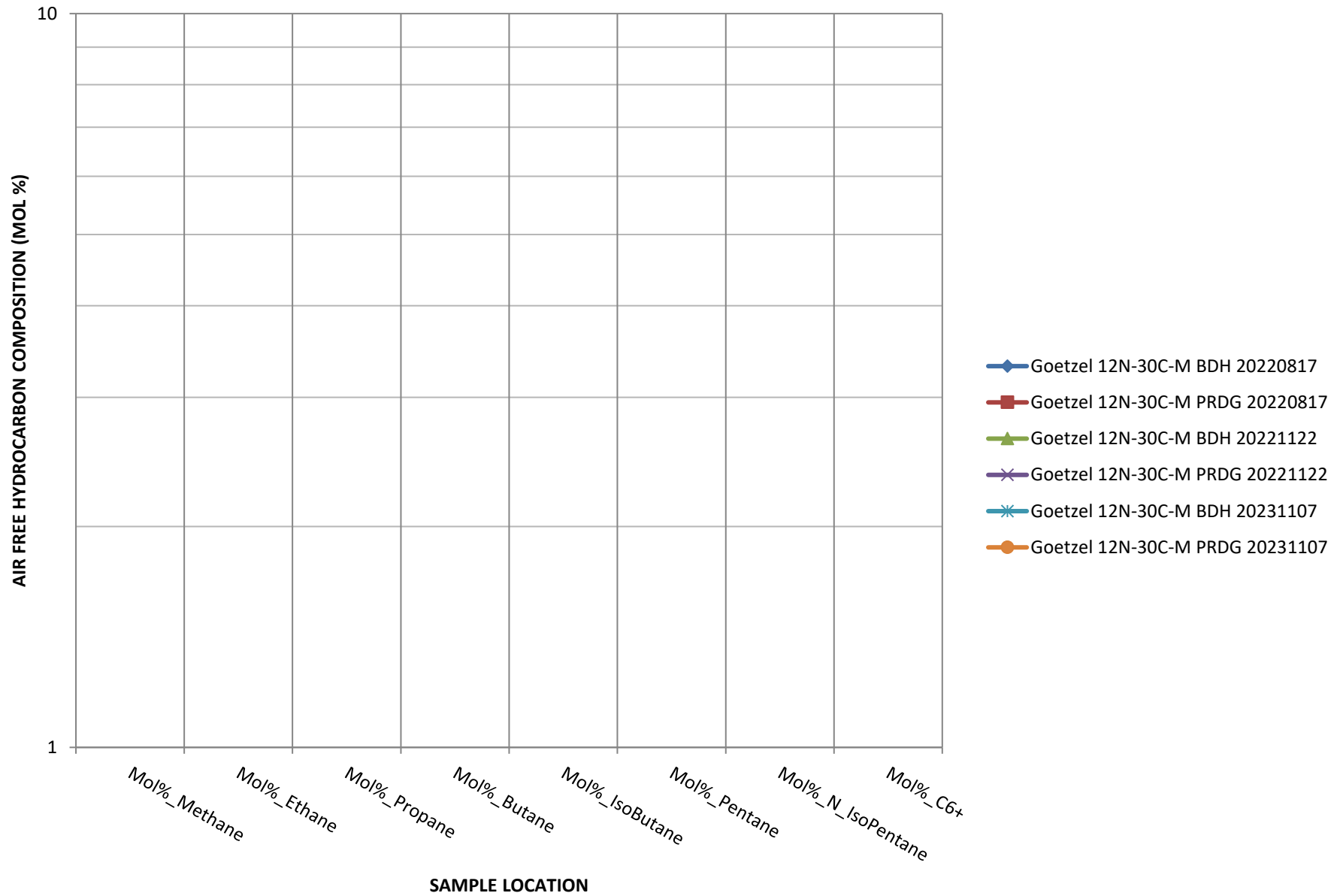
Legend:

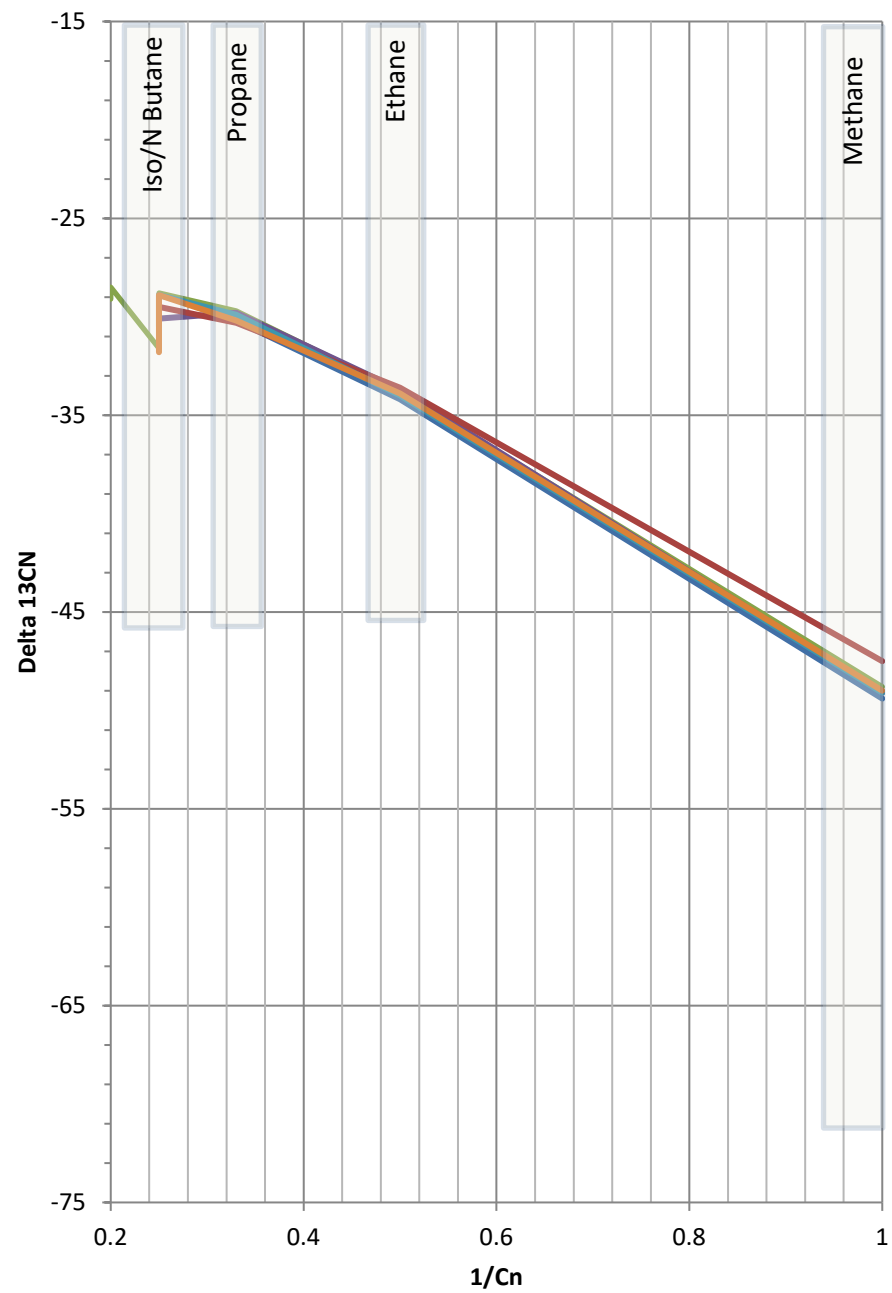
- Goetzel 12N-30C-M BDH 20220817
- Goetzel 12N-30C-M PRDG 20220817
- Goetzel 12N-30C-M BDH 20221122
- Goetzel 12N-30C-M PRDG 20221122
- Goetzel 12N-30C-M BDH 20231107

Parameter	Goetzel 12N-30C-M BDH 20220817	Goetzel 12N-30C-M PRDG 20220817	Goetzel 12N-30C-M BDH 20221122	Goetzel 12N-30C-M PRDG 20221122	Goetzel 12N-30C-M BDH 20231107
Mol%_Nitrogen	20	0.6	30	4	0.8
Mol%_Oxygen	0.0001	0.0001	0.0001	0.0001	0.0001
Mol%_Argon	0.5	0.015	0.8	0.8	0.11
Mol%_O2+AR	0.0001	2	0.0001	2	2
Mol%_CarbonDiOxide	0.0001	0.0001	0.0001	0.0001	0.0001
Mol%_Helium	1.8	0.025	11	0.0001	0.25
Mol%_hydrogen	60	70	50	70	70
Mol%_Methane	7.5	14	5	12	14
Mol%_Ethane	3.2	6.5	1.2	5.5	6.5
Mol%_Propane	0.8	2	0.2	1.4	2
Mol%_Butane	0.35	0.7	0.09	0.55	0.7
Mol%_IsoButane	0.18	0.38	0.03	0.22	0.55
Mol%_N_Pentane	0.15	0.35	0.025	0.22	0.48
Mol%_C6+	0.025	0.075	0.0001	0.08	0.3

- Goetzel 12N-30C-M BDH  
20220817
- Goetzel 12N-30C-M PRDG  
20220817
- Goetzel 12N-30C-M BDH  
20221122
- Goetzel 12N-30C-M PRDG  
20221122
- Goetzel 12N-30C-M BDH  
20231107

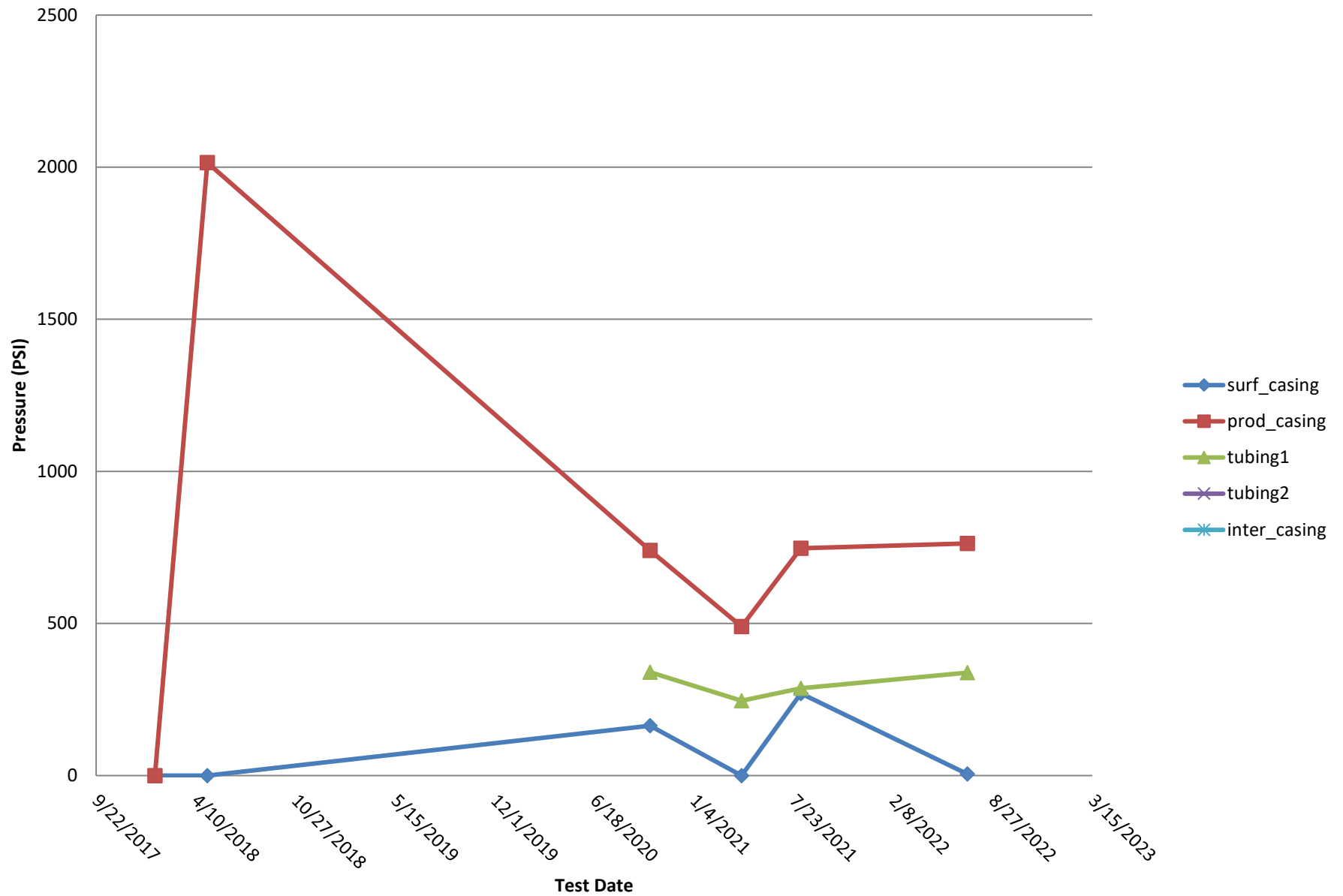
# HYDROCARBON COMPOSITION





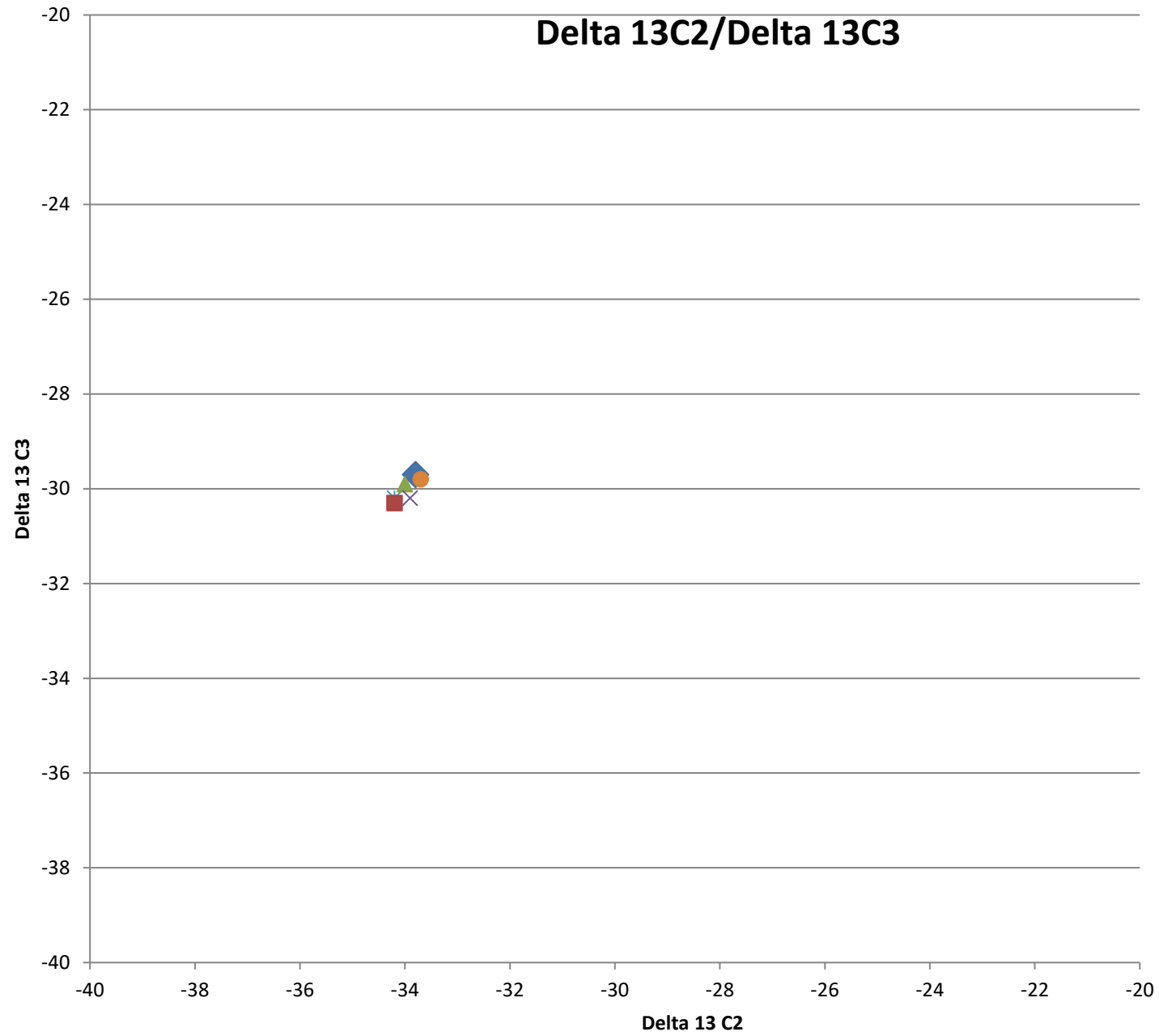
- Goetzel 12N-30C-M BDH
- Goetzel 12N-30C-M PRDG
- Goetzel 12N-30C-M BDH
- Goetzel 12N-30C-M PRDG
- Goetzel 12N-30C-M BDH
- Goetzel 12N-30C-M PRDG

## Bradenhead Test Summary

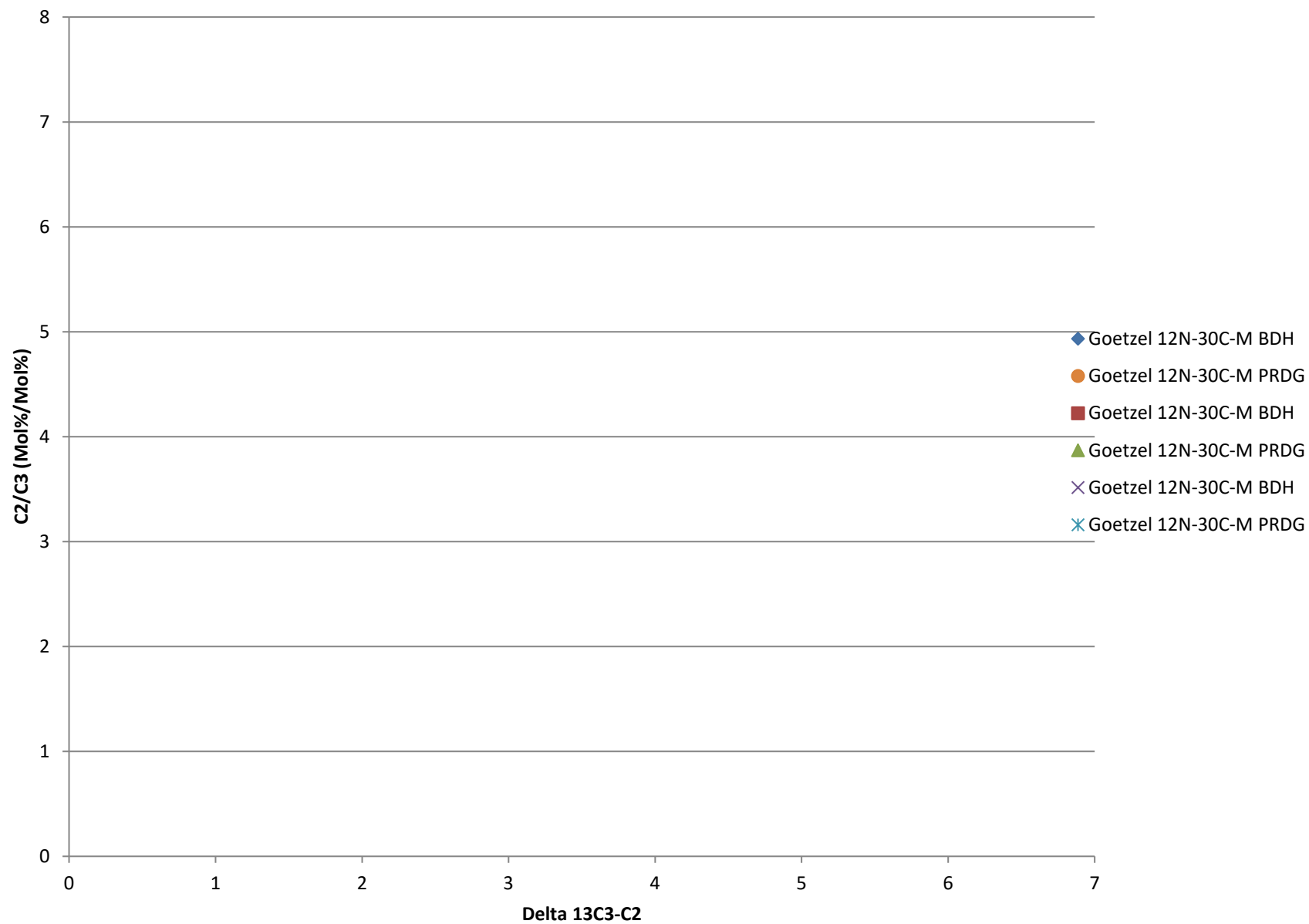


# Delta 13C2/Delta 13C3

Delta 13 C3



## Delta13 C2/C3 vs. Delta 13C3-C2





## Delta 13 IC4/ Delta NC4

