

Lab name: SRI Instruments
 Client: SRI Final test
 Client ID: N10457
 Analysis date: 12/23/2020 12:18:33
 Method: Valve Loop 1ml
 Description: TCD low current 100C
 Column: 3' MS5A
 Carrier: Argon@10psi
 Integration: Peak sens=95.0 Base sens= 1.0 Min area= 1.00 Standard=100.000 Sample=100.000 Tangents=off
 Data file: 333calMXT703.CHR ()
 Sample: Outdoor air

Temperature program:

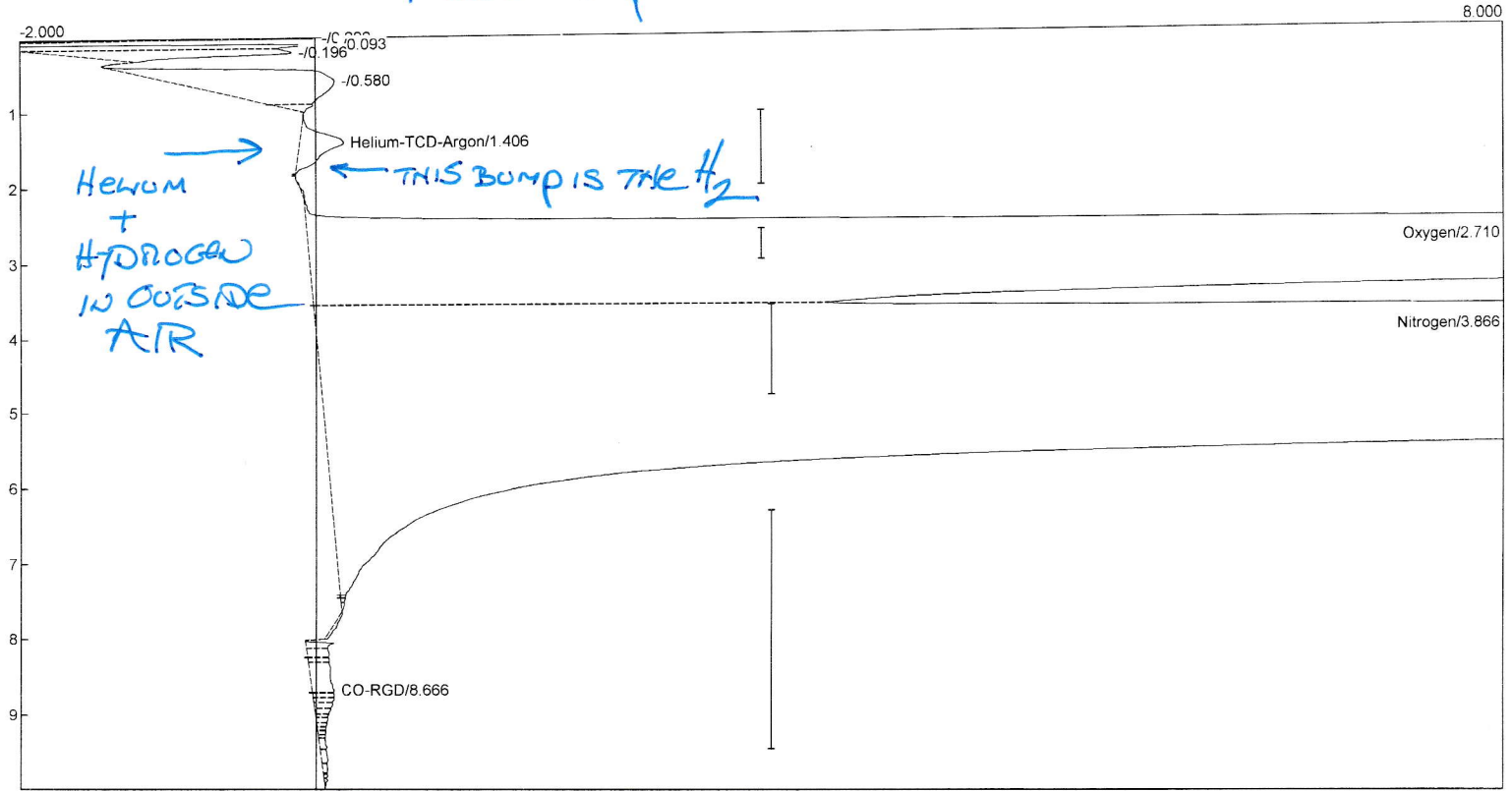
Init temp	Hold	Ramp	Final temp
50.00	10.000	0.000	50.00

Events:

Time	Event
0.000	ZERO
0.020	G ON (ValveRotate)
0.300	INTEG IMMEDIATE
1.000	INTEG IMMEDIATE
2.000	INTEG IMMEDIATE
8.000	G OFF (ValveRotate)
8.000	INTEG IMMEDIATE

TEST SRI TCD FOR
 SENSITIVITY TO AMBIENT
 HELIUM \approx 5ppm

FOUR REPLICATE OUTSIDE AIR RUNS



Component	Retention	Area	Internal	Units
Helium-TCD-Argon	1.406	5.8452	4.2142	ppm
Oxygen	2.710	11450.2216	200444.2810	ppm
Nitrogen	3.866	34060.4882	800150.3890	ppm
CO-RGD	8.666	3.2566	0.0000	ppm
Helium-TCD	0.000	0.0000	0.0000	ppm
Oxygen-TCD	0.000	0.0000	0.0000	ppm
N2-TCD	0.000	0.0000	0.0000	ppm

45519.8116 1000598.8842

#1 5.8452
 #2 6.2756
 #3 5.9078
 #4 5.7572

 AVERAGE 5.94645
 STD Dev. 0.22716
 %RSD = 3.83%

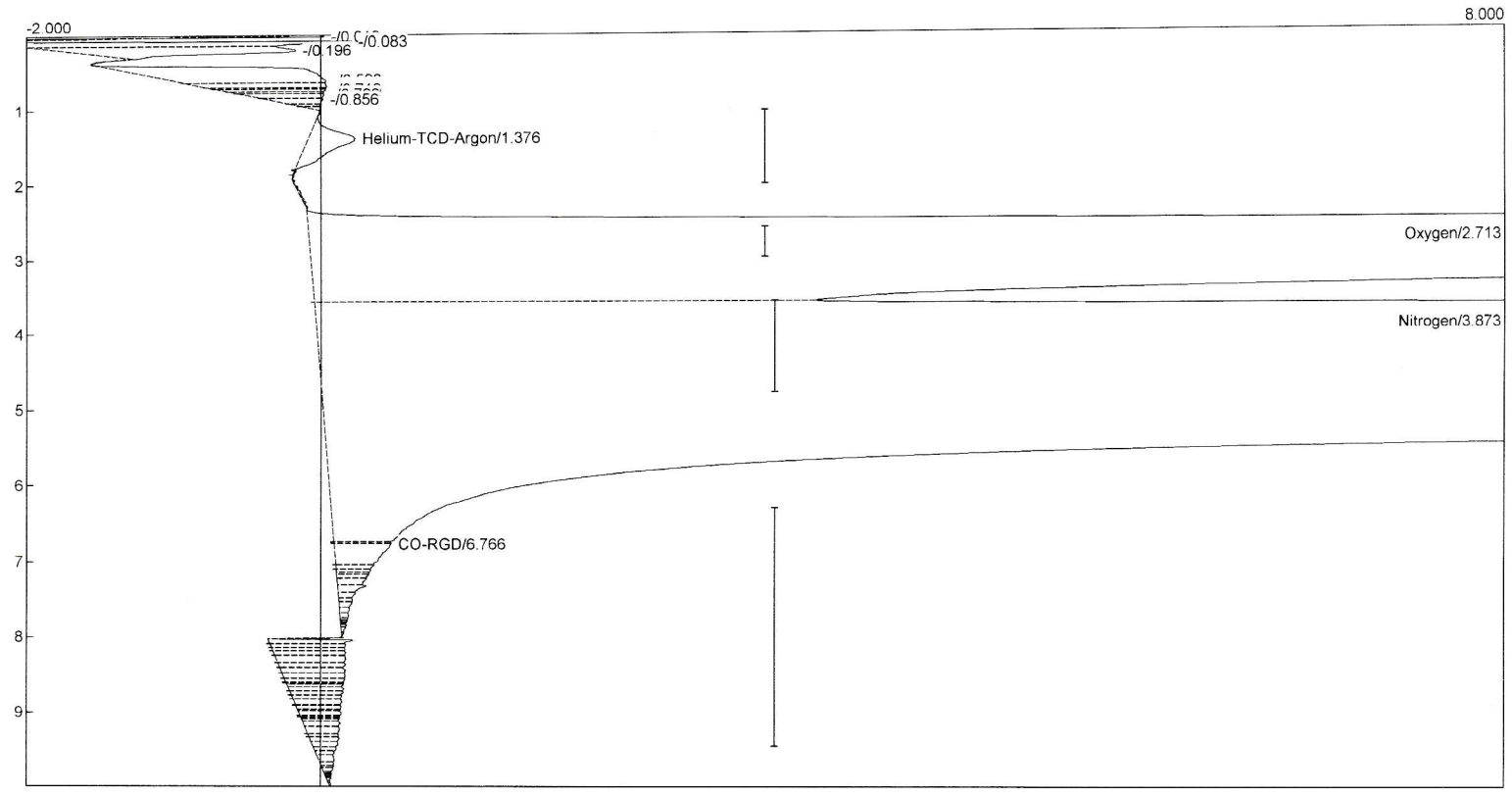
Lab name: SRI Instruments
 Client: SRI Final test
 Client ID: N10457
 Analysis date: 12/23/2020 12:56:51
 Method: Valve Loop 1ml
 Description: TCD low current 100C
 Column: 3' MS5A
 Carrier: Argon@10psi
 Integration: Peak sens=95.0 Base sens= 1.0 Min area= 1.00 Standard=100.000 Sample=100.000 Tangents=off
 Data file: 333caIMXT704.CHR ()
 Sample: Outdoor air

Temperature program:

Init temp	Hold	Ramp	Final temp
50.00	10.000	0.000	50.00

Events:

Time	Event
0.000	ZERO
0.020	G ON (ValveRotate)
0.300	INTEG IMMEDIATE
1.000	INTEG IMMEDIATE
2.000	INTEG IMMEDIATE
8.000	G OFF (ValveRotate)
8.000	INTEG IMMEDIATE



Component	Retention	Area	Internal	Units
Helium-TCD-Argon	1.376	6.2756	4.5245	ppm
Oxygen	2.713	11480.6670	200977.2494	ppm
Nitrogen	3.873	34004.7511	798841.0108	ppm
CO-RGD	6.766	5.3736	0.0000	ppm
Helium-TCD	0.000	0.0000	0.0000	ppm
Oxygen-TCD	0.000	0.0000	0.0000	ppm
N2-TCD	0.000	0.0000	0.0000	ppm
		45497.0673	999822.7846	

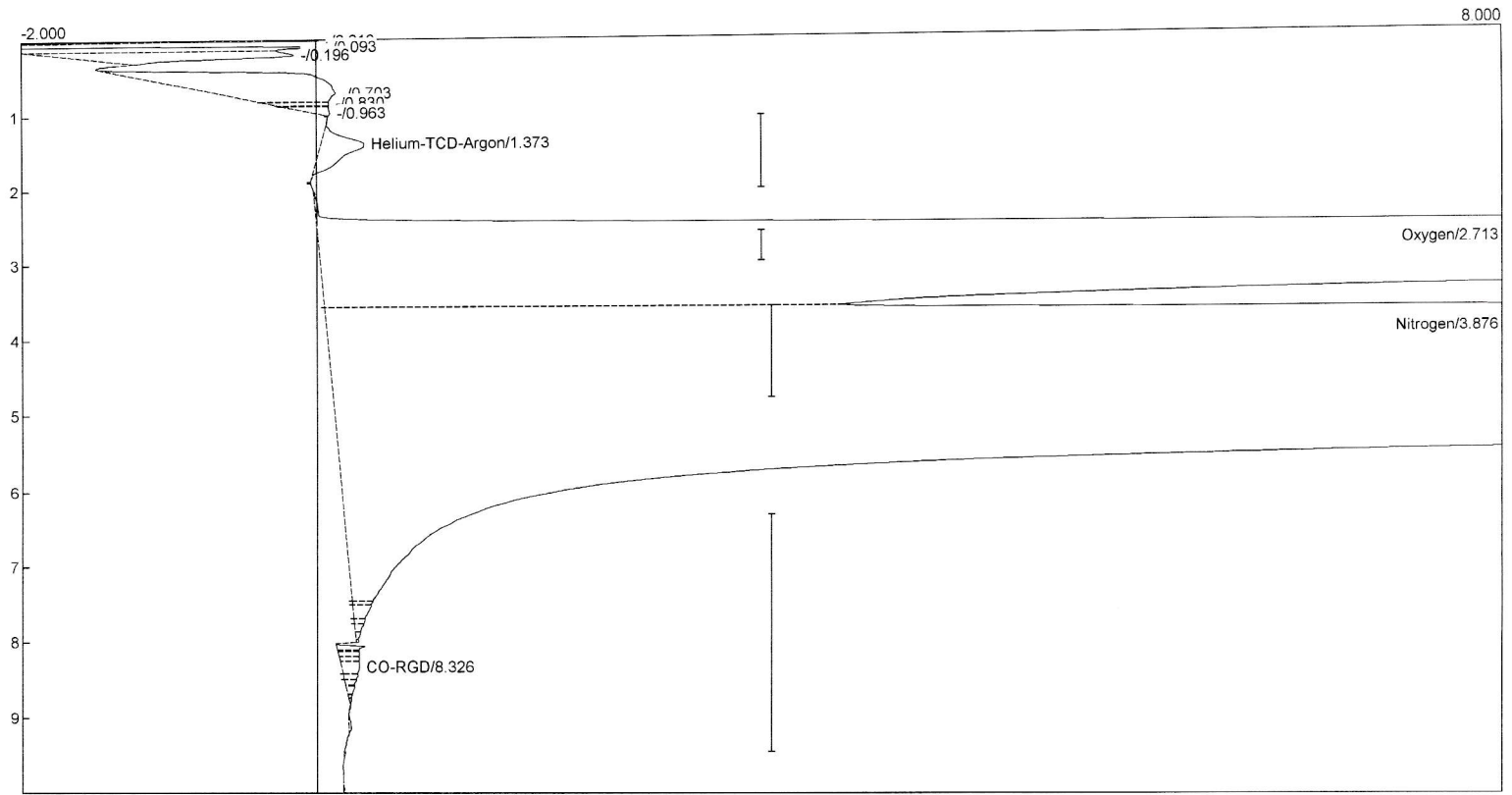
Lab name: SRI Instruments
 Client: SRI Final test
 Client ID: N10457
 Analysis date: 12/23/2020 13:19:16
 Method: Valve Loop 1ml
 Description: TCD low current 100C
 Column: 3' MS5A
 Carrier: Argon@10psi
 Integration: Peak sens=95.0 Base sens= 1.0 Min area= 1.00 Standard=100.000 Sample=100.000 Tangents=off
 Data file: 333caIMXT705.CHR ()
 Sample: Outdoor air

Temperature program:

Init temp	Hold	Ramp	Final temp
50.00	10.000	0.000	50.00

Events:

Time	Event
0.000	ZERO
0.020	G ON (ValveRotate)
0.300	INTEG IMMEDIATE
1.000	INTEG IMMEDIATE
2.000	INTEG IMMEDIATE
8.000	G OFF (ValveRotate)
8.000	INTEG IMMEDIATE



Component	Retention	Area	Internal	Units
Helium-TCD-Argon	1.373	5.9078	4.2593	ppm
Oxygen	2.713	11493.5684	201203.0976	ppm
Nitrogen	3.876	34023.5906	799283.5891	ppm
CO-RGD	8.326	1.1417	0.0000	ppm
Helium-TCD	0.000	0.0000	0.0000	ppm
Oxygen-TCD	0.000	0.0000	0.0000	ppm
N2-TCD	0.000	0.0000	0.0000	ppm

45524.2085 1000490.9460

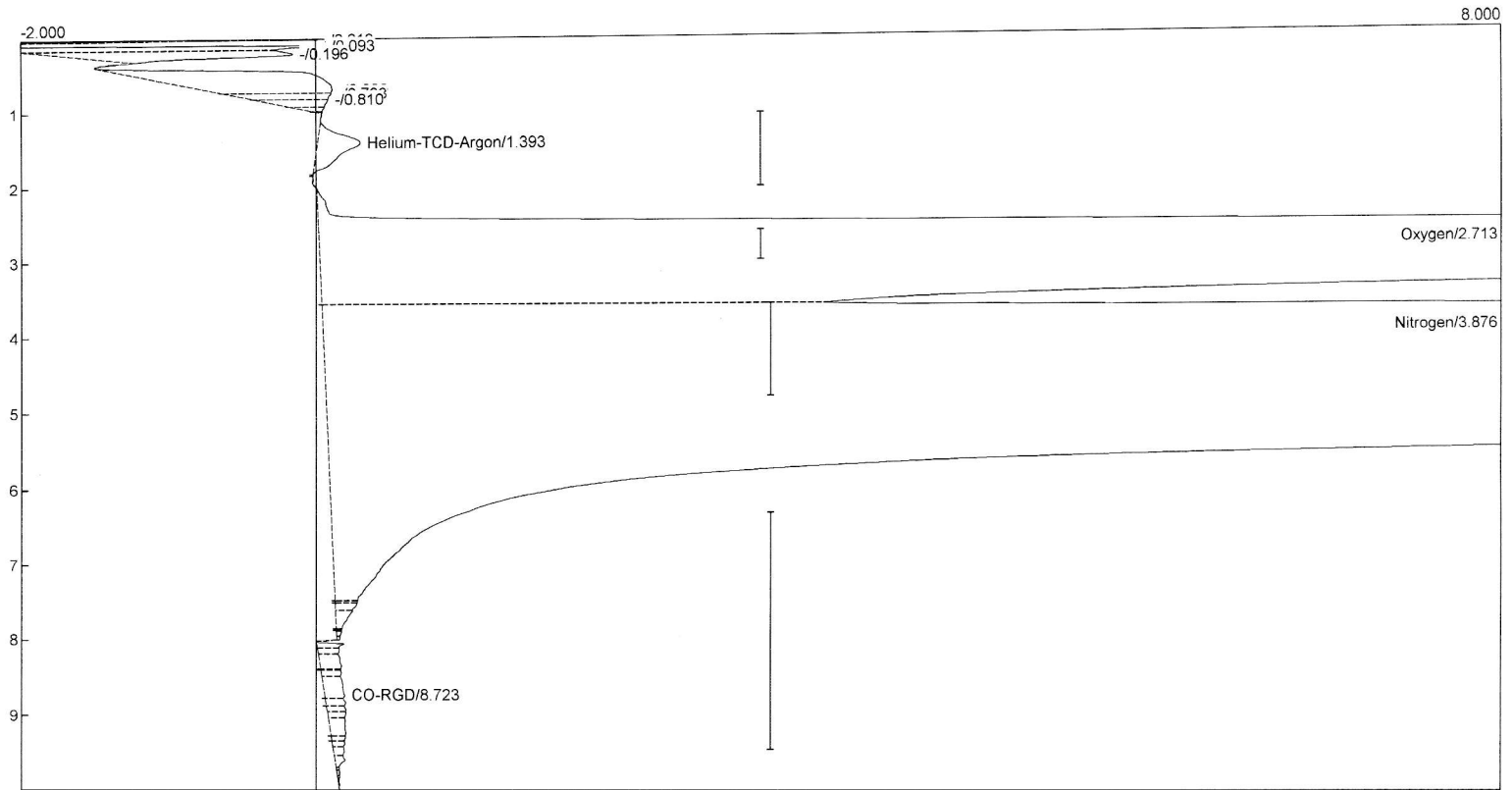
Lab name: SRI Instruments
 Client: SRI Final test
 Client ID: N10457
 Analysis date: 12/23/2020 13:50:56
 Method: Valve Loop 1ml
 Description: TCD low current 100C
 Column: 3' MS5A
 Carrier: Argon@10psi
 Integration: Peak sens=95.0 Base sens= 1.0 Min area= 1.00 Standard=100.000 Sample=100.000 Tangents=off
 Data file: 333calMXT706.CHR ()
 Sample: Outdoor air

Temperature program:

Init temp	Hold	Ramp	Final temp
50.00	10.000	0.000	50.00

Events:

Time	Event
0.000	ZERO
0.020	G ON (ValveRotate)
0.300	INTEG IMMEDIATE
1.000	INTEG IMMEDIATE
2.000	INTEG IMMEDIATE
8.000	G OFF (ValveRotate)
8.000	INTEG IMMEDIATE



Component	Retention	Area	Internal	Units
Helium-TCD-Argon	1.393	5.7572	4.1508	ppm
Oxygen	2.713	11519.0612	201649.3672	ppm
Nitrogen	3.876	34058.5636	800105.1762	ppm
CO-RGD	8.723	2.2364	0.0000	ppm
Helium-TCD	0.000	0.0000	0.0000	ppm
Oxygen-TCD	0.000	0.0000	0.0000	ppm
N2-TCD	0.000	0.0000	0.0000	ppm

45585.6184 1001758.6942

Lab name: SRI Instruments
 Client: SRI Final test
 Client ID: N10457
 Analysis date: 12/23/2020 14:12:10
 Method: Valve Loop 1ml
 Description: TCD low current 100C
 Column: 3' MS5A
 Carrier: Argon@10psi
 Integration: Peak sens=95.0 Base sens= 1.0 Min area= 1.00 Standard=100.000 Sample=100.000 Tangents=off
 Data file: 333calMXT707.CHR ()
 Sample: Outdoor air 5:1 in Argon

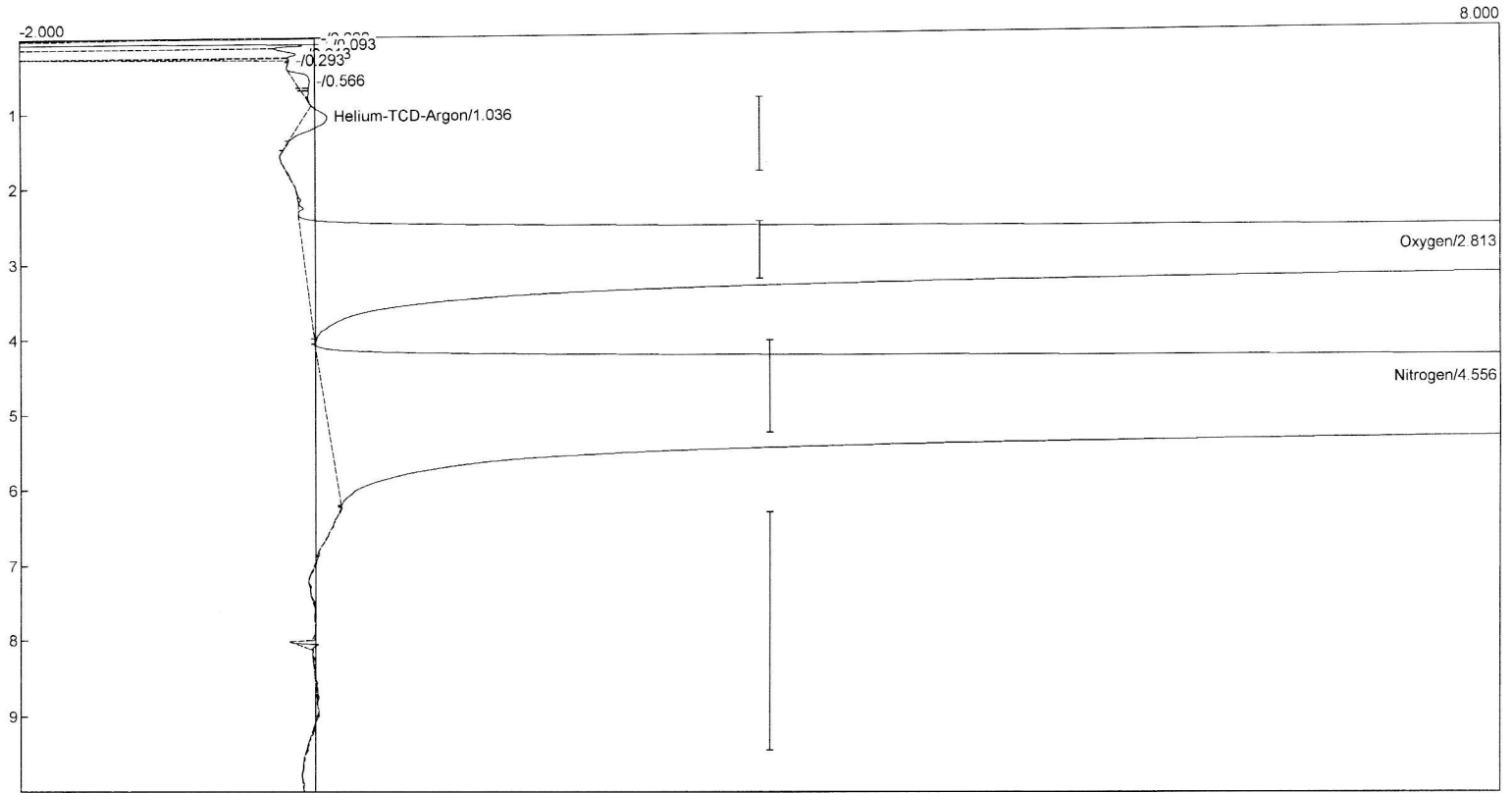
Temperature program:

Init temp	Hold	Ramp	Final temp
50.00	10.000	0.000	50.00

Events:

Time	Event
0.000	ZERO
0.020	G ON (ValveRotate)
0.300	INTEG IMMEDIATE
0.900	INTEG IMMEDIATE
2.000	INTEG IMMEDIATE
8.000	G OFF (ValveRotate)
8.000	INTEG IMMEDIATE

OUTSIDE AIR DILUTED 5:1 in ARGON



Component	Retention	Area	Internal	Units
Helium-TCD-Argon	1.036	2.5416	1.8324	ppm
Oxygen	2.813	2364.0665	41384.6672	ppm
Nitrogen	4.556	7019.8834	164911.3894	ppm
CO-RGD	0.000	0.0000	0.0000	ppm
Helium-TCD	0.000	0.0000	0.0000	ppm
Oxygen-TCD	0.000	0.0000	0.0000	ppm
N2-TCD	0.000	0.0000	0.0000	ppm
		9386.4915	206297.8890	

Lab name: SRI Instruments
 Client: SRI Final test
 Client ID: N10457
 Analysis date: 12/23/2020 14:25:25
 Method: Valve Loop 1ml
 Description: TCD low current 100C
 Column: 3' MS5A
 Carrier: Argon@10psi
 Integration: Peak sens=95.0 Base sens= 1.0 Min area= 1.00 Standard=100.000 Sample=100.000 Tangents=off
 Data file: 333calMXT708.CHR ()
 Sample: Just argon

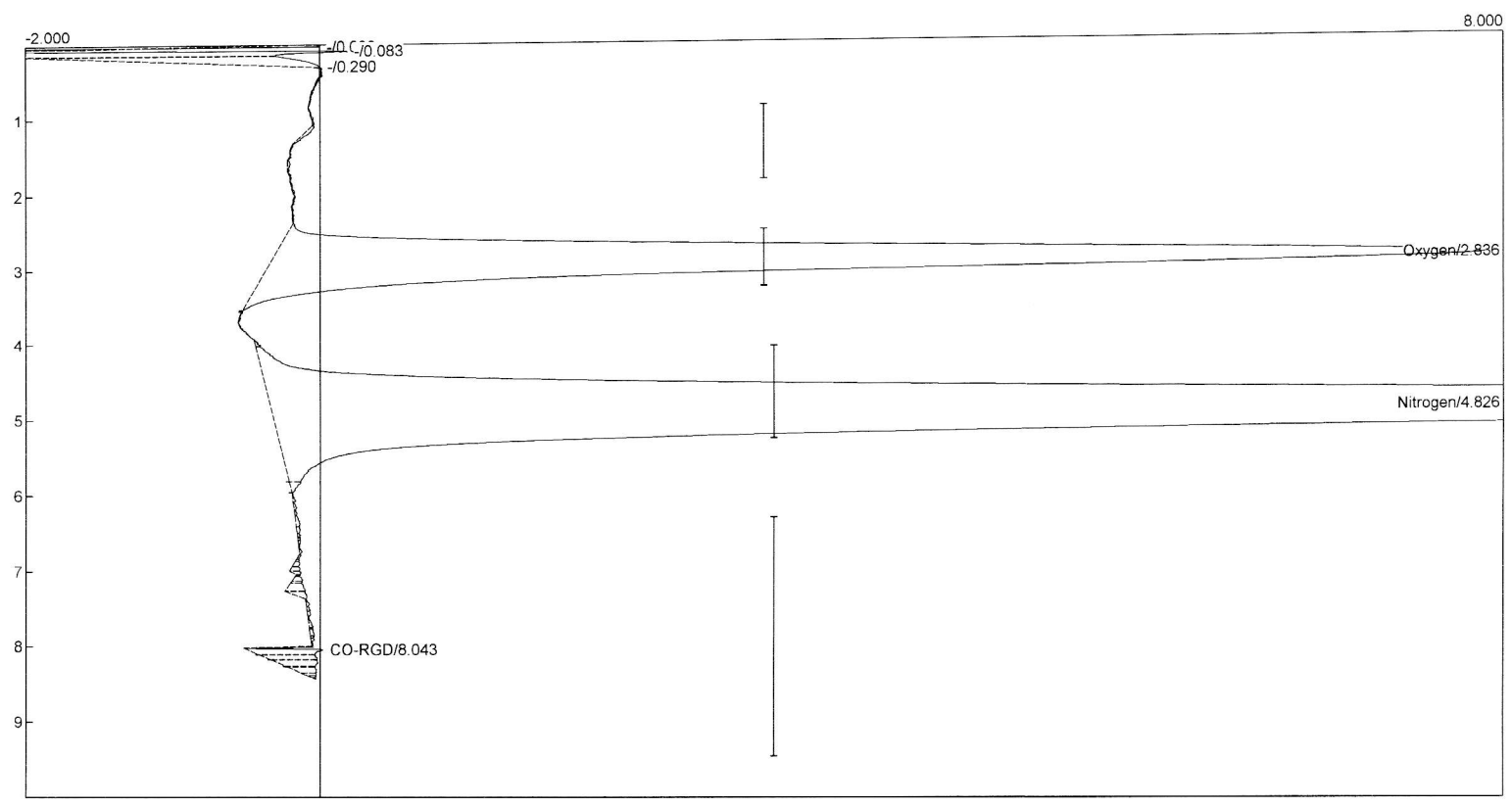
Temperature program:

Init temp	Hold	Ramp	Final temp
50.00	10.000	0.000	50.00

Events:

Time	Event
0.000	ZERO
0.020	G ON (ValveRotate)
0.300	INTEG IMMEDIATE
0.900	INTEG IMMEDIATE
2.000	INTEG IMMEDIATE
8.000	G OFF (ValveRotate)
8.000	INTEG IMMEDIATE

JUST ARGON



Component	Retention	Area	Internal	Units
Helium-TCD-Argon	0.000	0.0000	0.0000	ppm
Oxygen	2.836	174.5270	3055.2194	ppm
Nitrogen	4.826	499.1638	11726.3765	ppm
CO-RGD	8.043	2.0568	0.0000	ppm
Helium-TCD	0.000	0.0000	0.0000	ppm
Oxygen-TCD	0.000	0.0000	0.0000	ppm
N2-TCD	0.000	0.0000	0.0000	ppm

675.7476 14781.5959

Lab name: SRI Instruments
 Client: SRI Final test
 Client ID: N10457
 Analysis date: 12/24/2020 12:16:35
 Method: Valve Loop 1ml
 Description: TCD low current 100C
 Column: ~~MS5A~~ 9' HAYSEP D
 Carrier: Air @ 10psi
 Integration: Peak sens=95.0 Base sens= 1.0 Min area= 1.00 Standard=100.000 Sample=100.000 Tangents=off
 Data file: 333calIMXT722.CHR ()
 Sample: 1% mix

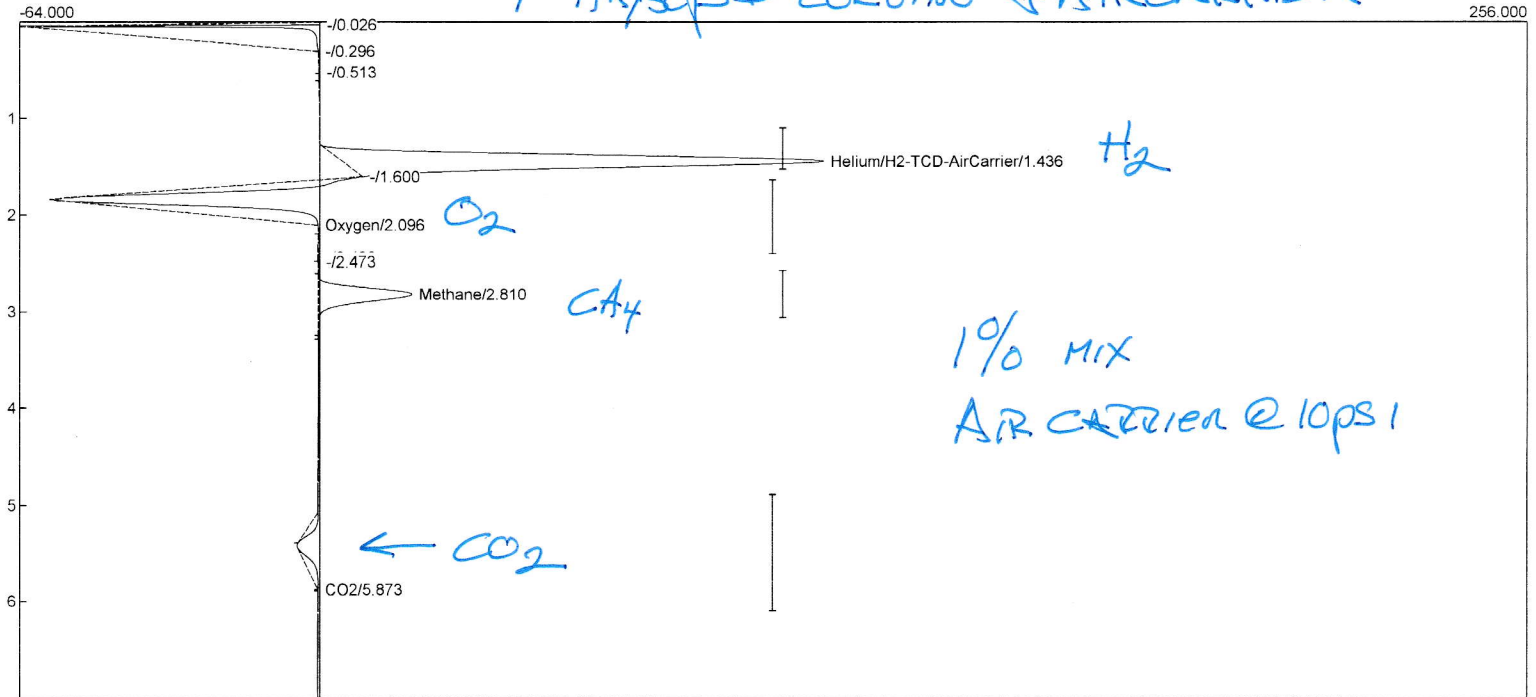
Temperature program:

Init temp	Hold	Ramp	Final temp
50.00	10.000	0.000	50.00

Events:

Time	Event
0.000	ZERO
0.020	G ON (ValveRotate)
0.300	INTEG IMMEDIATE
0.900	INTEG IMMEDIATE
1.600	INTEG IMMEDIATE
2.100	INTEG IMMEDIATE
8.000	G OFF (ValveRotate)
8.000	INTEG IMMEDIATE

SWITCH TO
 9' HAYSEP D COLUMN + AIR CARRIER



Component	Retention	Area	Internal	Units
Helium/H2-TCD-AirCarrier	1.436	890.6266	642.1155	ppm
Oxygen	2.096	229.8942	4024.4616	ppm
Methane	2.810	190.7038	3338.4058	ppm
CO2	5.873	28.2450	663.5327	ppm
Helium-TCD	0.000	0.0000	0.0000	ppm
Oxygen-TCD	0.000	0.0000	0.0000	ppm
N2-TCD	0.000	0.0000	0.0000	ppm
		1339.4696	8668.5157	

Lab name: SRI Instruments

Client: SRI Final test

Client ID: N10457

Analysis date: 12/24/2020 12:25:07

Method: Valve Loop 1ml

Description: TCD low current 100C

Column: ~~3' MSA~~ 9' HAYSEP D

Carrier: Air @ 10psi

Integration: Peak sens=95.0 Base sens= 1.0 Min area= 1.00 Standard=100.000 Sample=100.000 Tangents=off

Data file: 333calMXT723.CHR ()

Sample: Indoor Ari

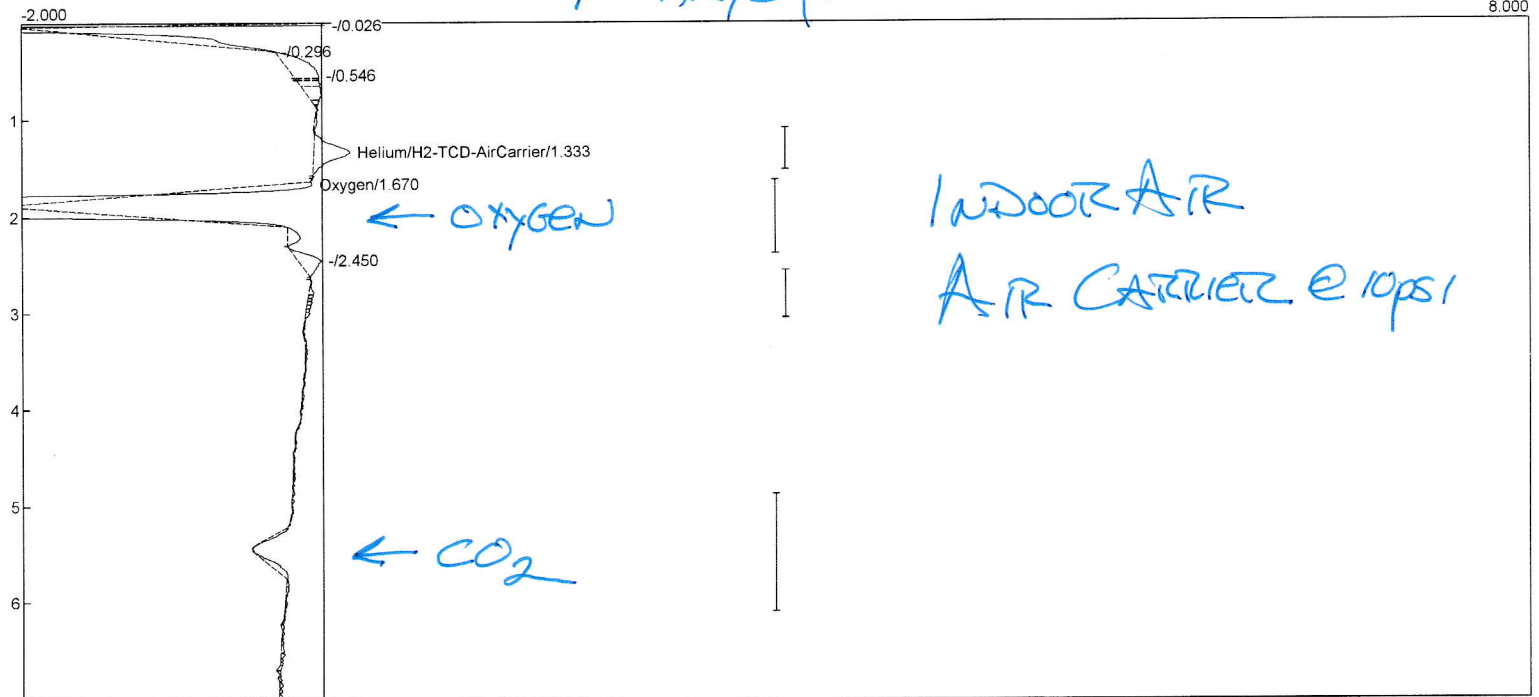
Temperature program:

Init temp	Hold	Ramp	Final temp
50.00	10.000	0.000	50.00

Events:

Time	Event
0.000	ZERO
0.020	G ON (ValveRotate)
0.300	INTEG IMMEDIATE
0.900	INTEG IMMEDIATE
1.600	INTEG IMMEDIATE
2.100	INTEG IMMEDIATE
8.000	G OFF (ValveRotate)
8.000	INTEG IMMEDIATE

9' HAYSEP D COLUMN



Component	Retention	Area	Internal	Units
Helium/H2-TCD-AirCarrier	1.333	2.6132	1.8840	ppm
Oxygen	1.670	51.5631	902.6488	ppm
Methane	0.000	0.0000	0.0000	ppm
CO2	0.000	0.0000	0.0000	ppm
Helium-TCD	0.000	0.0000	0.0000	ppm
Oxygen-TCD	0.000	0.0000	0.0000	ppm
N2-TCD	0.000	0.0000	0.0000	ppm
		54.1763	904.5328	

Lab name: SRI Instruments
 Client: SRI Final test
 Client ID: N10457
 Analysis date: 12/24/2020 12:38:22
 Method: Valve Loop 1ml
 Description: TCD low current 100C
 Column: ~~3-MSSA~~ 9' HAYSEP D
 Carrier: Air@10psi
 Integration: Peak sens=95.0 Base sens= 1.0 Min area= 1.00 Standard=100.000 Sample=100.000 Tangents=off
 Data file: 333calMXT724.CHR ()
 Sample: Outdoor Air

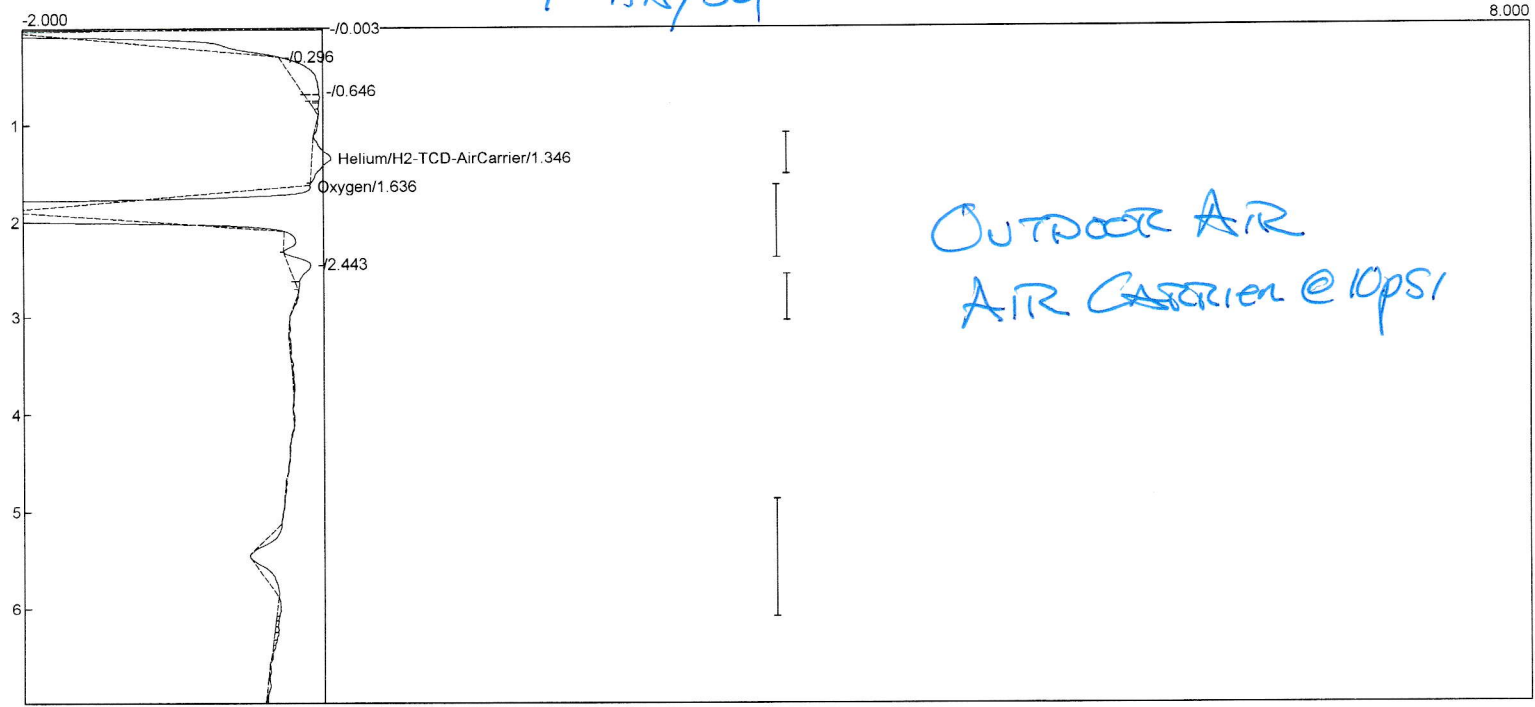
Temperature program:

Init temp	Hold	Ramp	Final temp
50.00	10.000	0.000	50.00

Events:

Time	Event
0.000	ZERO
0.020	G ON (ValveRotate)
0.300	INTEG IMMEDIATE
0.900	INTEG IMMEDIATE
1.600	INTEG IMMEDIATE
2.100	INTEG IMMEDIATE
8.000	G OFF (ValveRotate)
8.000	INTEG IMMEDIATE

9' HAYSEP D COLUMN



Component	Retention	Area	Internal	Units
Helium/H2-TCD-AirCarrier	1.346	1.6375	1.1806	ppm
Oxygen	1.636	57.4568	1005.8222	ppm
Methane	0.000	0.0000	0.0000	ppm
CO2	0.000	0.0000	0.0000	ppm
Helium-TCD	0.000	0.0000	0.0000	ppm
Oxygen-TCD	0.000	0.0000	0.0000	ppm
N2-TCD	0.000	0.0000	0.0000	ppm
		59.0943	1007.0028	