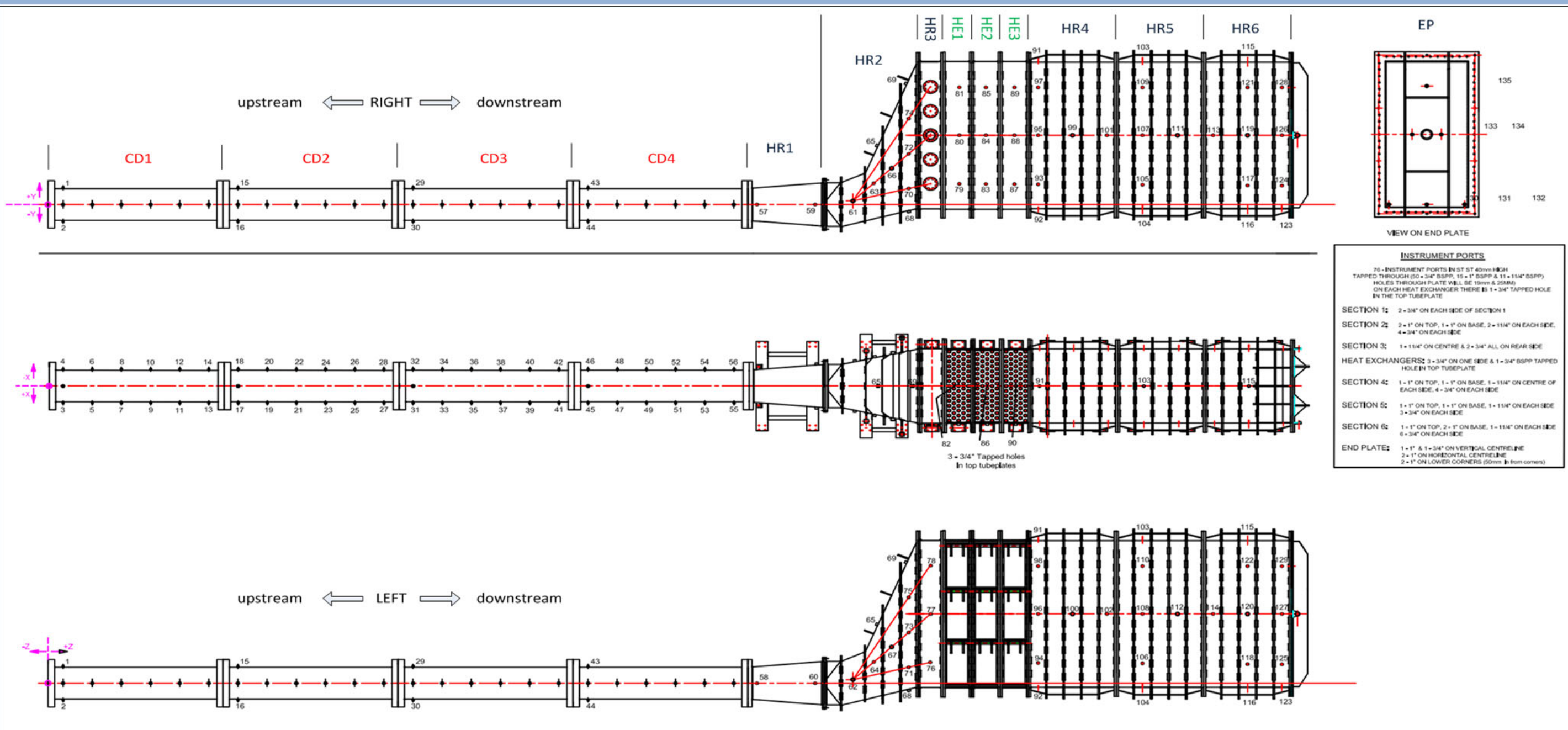


Date	08 January 2019	General Comments: (weather, rig configuration) Weather: Sunny part cloud. Cold and crisp, light wind. Rig configuration: 4 x 3m circular duct; expansion section and HRSG attached. End Plate attached. Igniter 258mm from beginning of 2nd circular duct section Engine Speed: 40%; 11,800 rpm Test on 60% CH4 40% H2 at an intended EQR of 0.70 The test gave a strong combustion event and most sensors provided an identifiable response. Highest overpressure of 1211 mbar seen at end plate on KU10
Time	14:46:56	
Test Number	HRS G Test 28	
Mixture Composition	40/60 H2/CH4	
Ambient Temperature	4.1 °C	
Ambient Pressure	979 mbar	
Wind Speed	4.9 m/s	
Wind direction	NW	
Relative Humidity	84.00%	
Mass Flow	10.0640 kg/s	
Equivalence Ratio	0.71	

		Ionisation Probes		Ionisation Rakes		Optical Probes	
Max overpressure		Max. gas temperature		Max. flame speed		Max. flame speed	
1211 mbar		1345 °C		317 m/s		193 m/s	
		Initial gas temperature					
		449 °C					
Location of Max. Overpressure		Location of Max. Temperature		Location of Max. Flame Speed		Location of Max. Flame Speed	
sensor	KU10	sensor	TC2	sensor	IP11	sensor	RA1
label	HR6-L5L	label	CD2-R3	label	HR4-L1M	label	HR2-R2M
distance	21165 mm	distance	4258 mm	distance	16985 mm	distance	13785 mm
						distance	12152 mm
						sensor	OP2
						label	HR1-R1



Naming Convention		
Section Identifier i.e. HE, HR, CD or EP	HR1 - R1U	Vertical position in section (sides only) i.e. U, M or L. Absence of letter denotes centreline
Section Number (1-6) Numbered from downstream to upstream	Side i.e. R, L, T or B	Longitudinal position in section (numbered from 1)

Key			
CD	Circular duct	U	Upper
HR	HRSG	M	Middle
HE	Heat Exchanger	L	Lower
EP	End Plate	R	Right Side (when viewed downstream from engine)
		L	Left Side
		T	Top
		B	Bottom

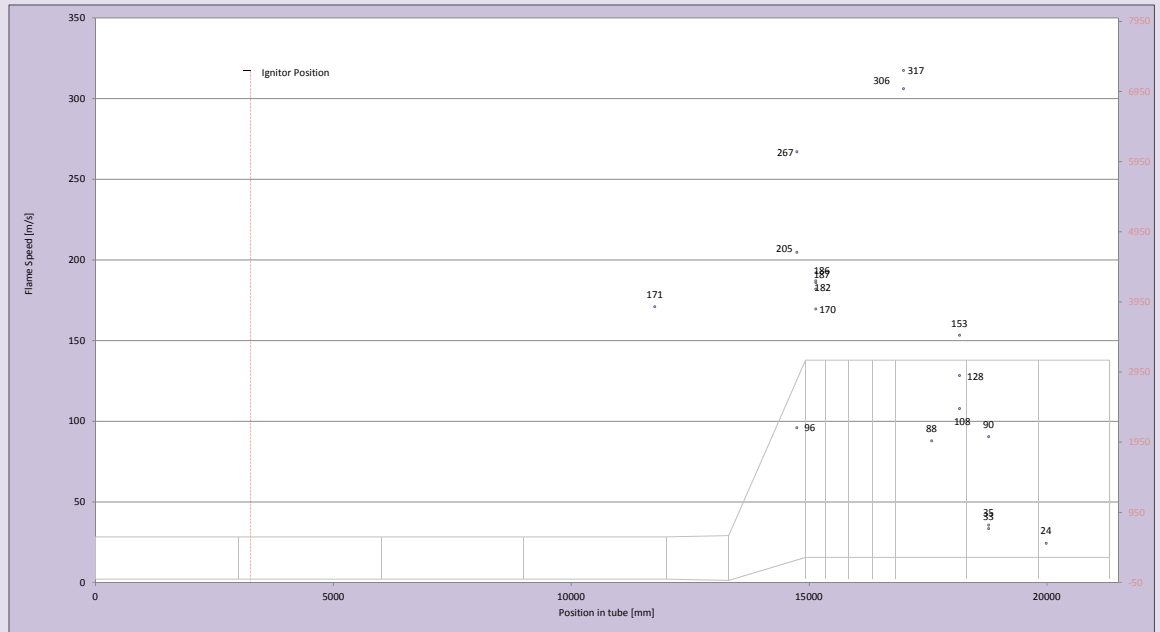
There are 13 sections on the rig

- 4 circular duct sections (CD1 to CD4)
- 6 HRSG sections (HR1 to HR6)
- 3 heat exchanger sections (HE1 to HE3) located between HR3 and HR4

Location of igniter mm Time of ignition seconds

IP Number	Location label	Data Name	Position in tube (mm)	Flame arrival time (s)	Avg Flame speed from last sensor (m/s)
IP0	CD4-L6	Ionisation probe 0	11758	17.54427	171
IP1	HR2-L5L	Ionisation probe 1	14745	17.55546	267
IP2	HR2-L5M	Ionisation probe 2	14745	17.55886	205
IP3	HR2-L5U	Ionisation probe 3	14745	17.57540	96
IP4	HR3-R1L	Ionisation probe 4	15140	17.55854	186
IP5	HR3-R1LM	Ionisation probe 5	15140	17.55812	187
IP6	HR3-R1M	Ionisation probe 6	15140	17.55988	182
IP7	HR3-R1U	Ionisation probe 7	15140	17.56462	170
IP8	HR3-L1U	Ionisation probe 8	15140	17.56982	
IP9	HE2-R1M	Ionisation probe 9	16090	17.56107	
IP10	HR4-L1L	Ionisation probe 10	16985		
IP11	HR4-L1M	Ionisation probe 11	16985	17.56592	317
IP12	HR4-L1U	Ionisation probe 12	16985	17.56747	
IP13	HR4-R1U	Ionisation probe 13	16985	17.57065	306
IP14	HR4-R3U	Ionisation probe 14	17575	17.57420	88
IP15	HR4-L5L	Ionisation probe 15	18165	17.56710	
IP16	HR4-L5M	Ionisation probe 16	18165	17.57512	128
IP17	HR4-L5U	Ionisation probe 17	18165	17.57841	108
IP18	HR4-R5M	Ionisation probe 18	18165	17.57462	153
IP19	HR5-L2L	Ionisation probe 19	18775	17.57386	90
IP20	HR5-L2M	Ionisation probe 20	18775	17.59337	33
IP21	HR5-L2U	Ionisation probe 21	18775	17.57291	
IP22	HR5-R2U	Ionisation probe 22	18775	17.60802	35
IP23	HR6-L1M	Ionisation probe 23	19985	17.64319	24

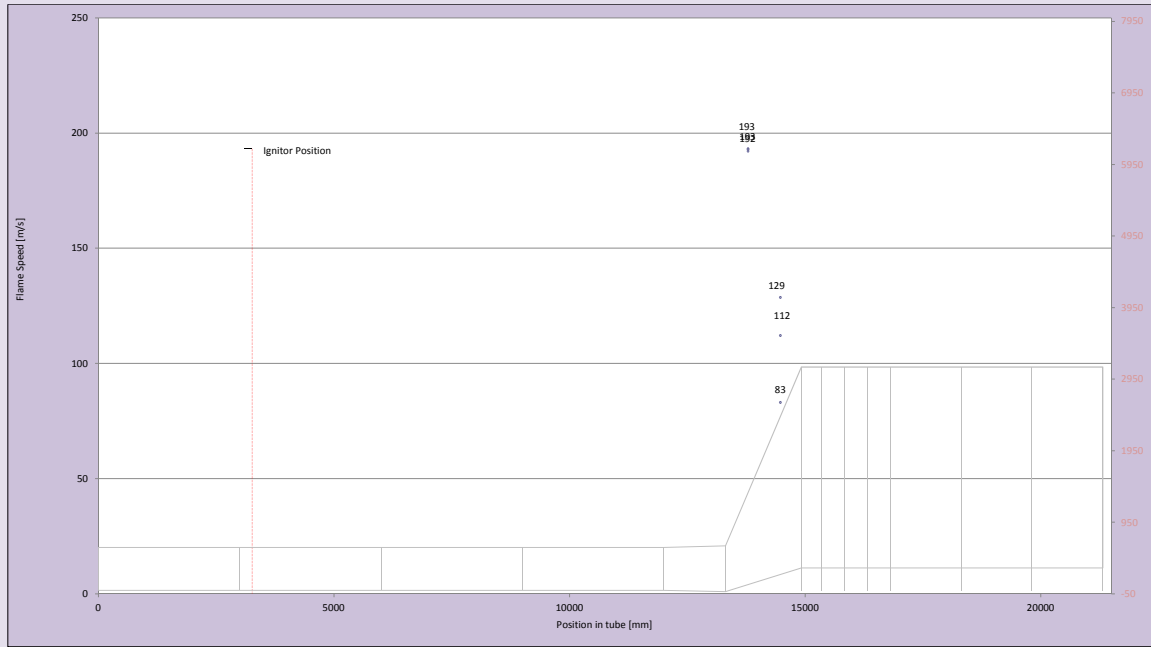
KEY: ND - not detected - sensor working but flame too weak to be picked up
 NW - not working - sensor not working



Location of igniter 3258 mm Time of ignition 17.49456 seconds

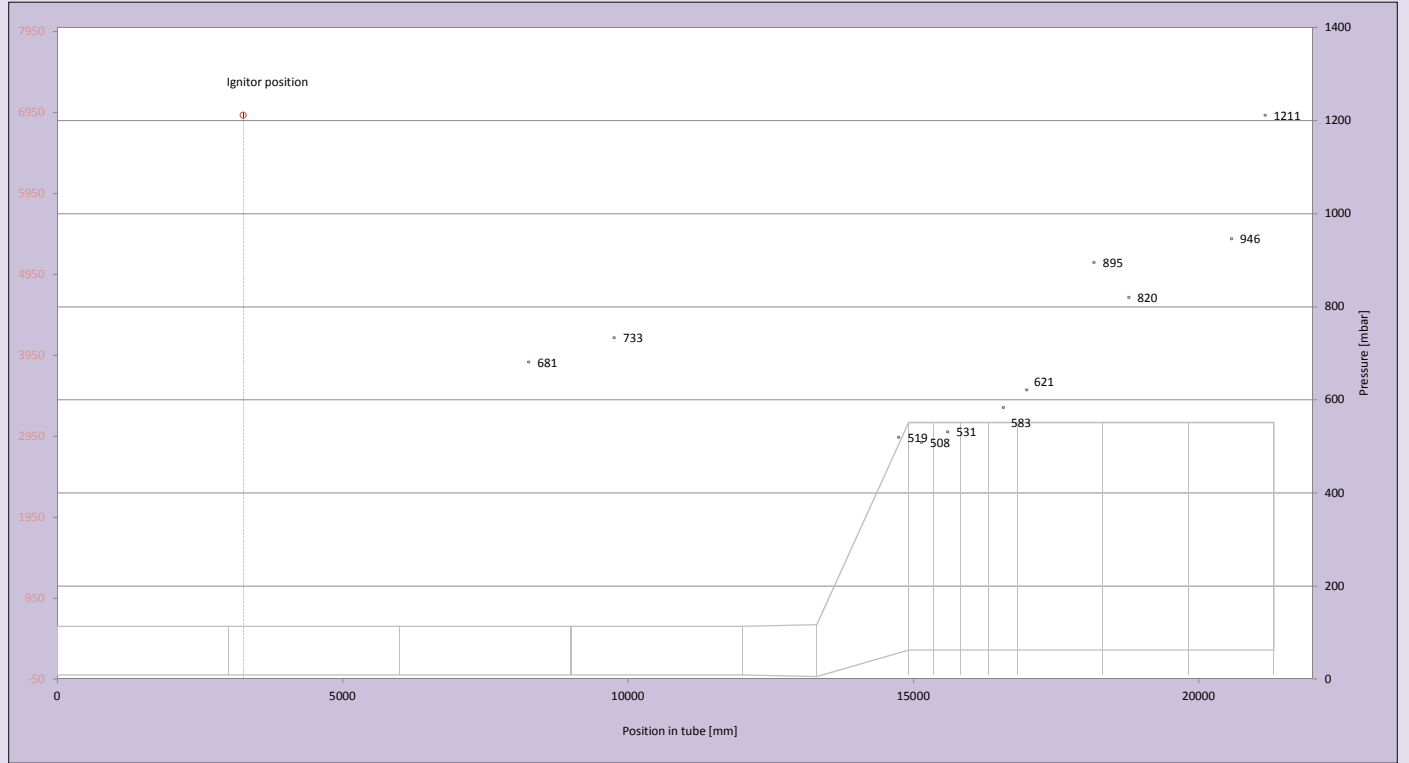
Rake Number	IP Number	Location label	Data Name	Position in tube (mm)	Flame arrival time (s)	Avg Flame speed from last sensor (m/s)
RA1	IP24	HR2-R2M	IP24	13785	17.5490	193
RA1	IP25	HR2-R2M	IP25	13785	17.5491	193
RA1	IP26	HR2-R2M	IP26	13785	17.5493	192
RA2	IP27	HR2-R4M	IP27	14475	17.5573	83
RA2	IP28	HR2-R4M	IP28	14475	17.5553	112
RA2	IP29	HR2-R4M	IP29	14475	17.5547	129
RA3	IP30	HR4-R3M	IP30	17575	17.5683	
RA3	IP31	HR4-R3M	IP31	17575	NW	
RA3	IP32	HR4-R3M	IP32	17575	NW	
RA4	IP33	HR4-R3L	IP33	17575	NW	
RA4	IP34	HR4-R3L	IP34	17575	NW	
RA4	IP35	HR4-R3L	IP35	17575	NW	

KEY: ND - not detected - sensor working but flame too weak to be picked up
 NW - not working - sensor not working



Location of igniter mm

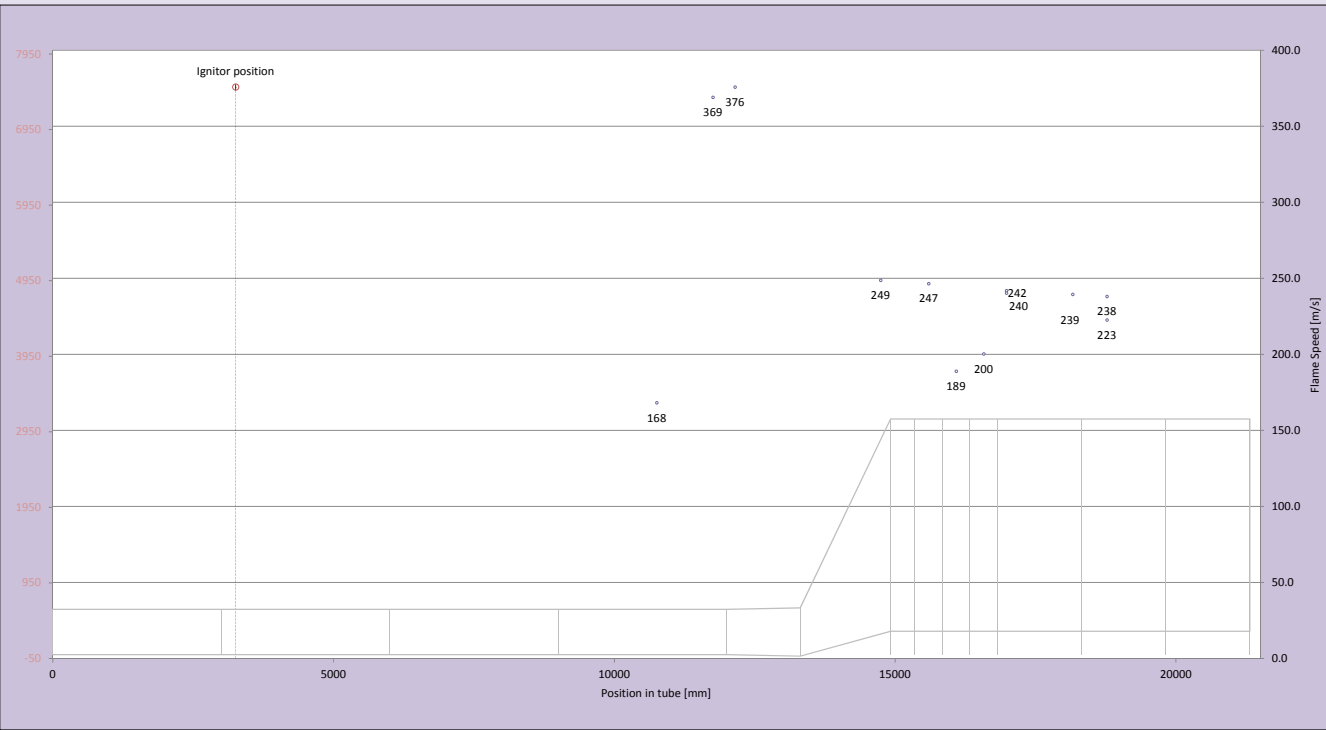
Transducer number	Location	Position in tube [mm]	ΔP_{max} [mbar]	Time ΔP_{max} [sec]
KU0	CD3-R5	8258	681	17.5922
KU1	CD4-R2	9758	733	17.5914
KU2	HR2-T5	14745	519	17.5701
KU3	HR3-L1L	15140	508	17.5850
KU4	HE1-R1U	15600	531	17.5641
KU5	HE3-R1L	16580	583	17.5825
KU6	HR4-R1L	16985	621	17.5821
KU7	HR4-R5U	18165	895	17.5694
KU8	HR5-R2L	18775	820	17.5732
KU9	HR6-R3L	20575	946	17.5757
KU10	HR6-L5L	21165	1211	17.5757



Location of igniter mm Time of ignition seconds

OP Number	Location label	Position in tube (mm)	Flame arrival time (s)	Average flame speed (m/s)
OP0	CD4-L4	10758	17.5392	168.2
OP1	CD4-R6	11758	17.5419	369.0
OP2	HR1-R1	12152	17.5429	375.7
OP3	HR2-R5M	14745	17.5552	248.7
OP4	HE1-T1	15600	17.5588	246.5
OP5	HE2-T1	16090	17.5674	188.9
OP6	HE3-T1	16580	17.5682	200.3
OP7	HR4-T1	16985	17.5649	241.8
OP8	HR4-R1M	16985	17.5651	240.2
OP9	HR4-R5L	18165	17.5701	239.4
OP10	HR5-T2	18775	17.5752	222.6
OP11	HR5-R2M	18775	17.5728	238.1

KEY: ND - not detected - sensor working but flame too weak to be picked up
 NW - not working - sensor not working

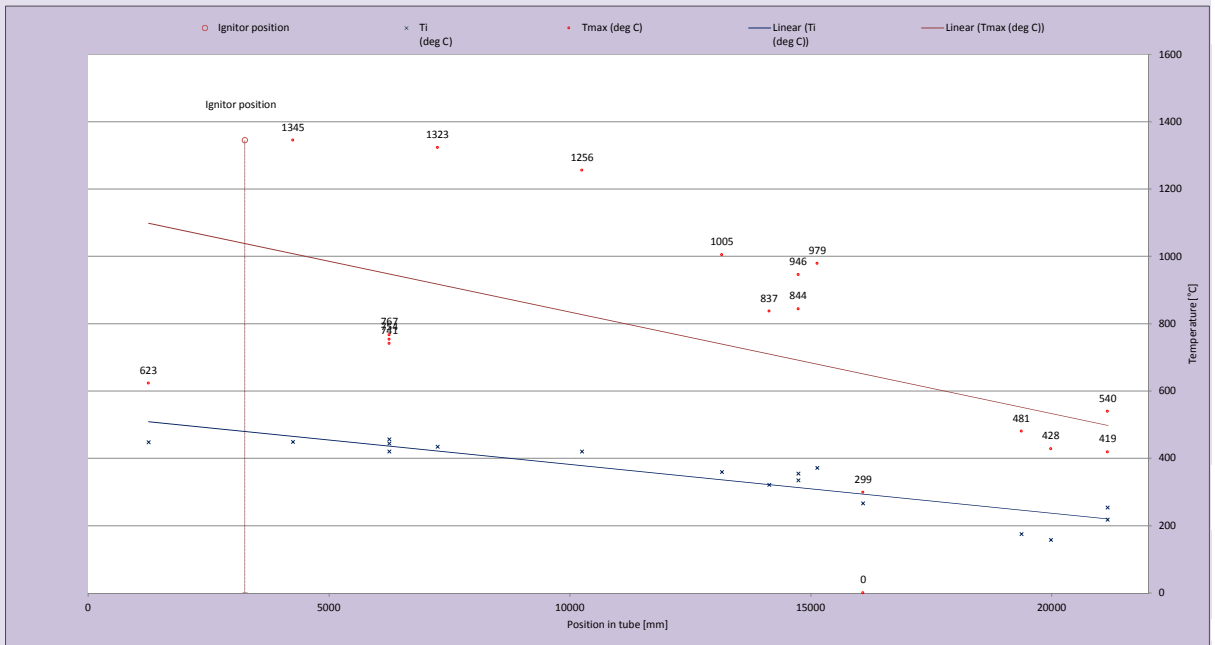


Location of igniter mm Time of ignition seconds

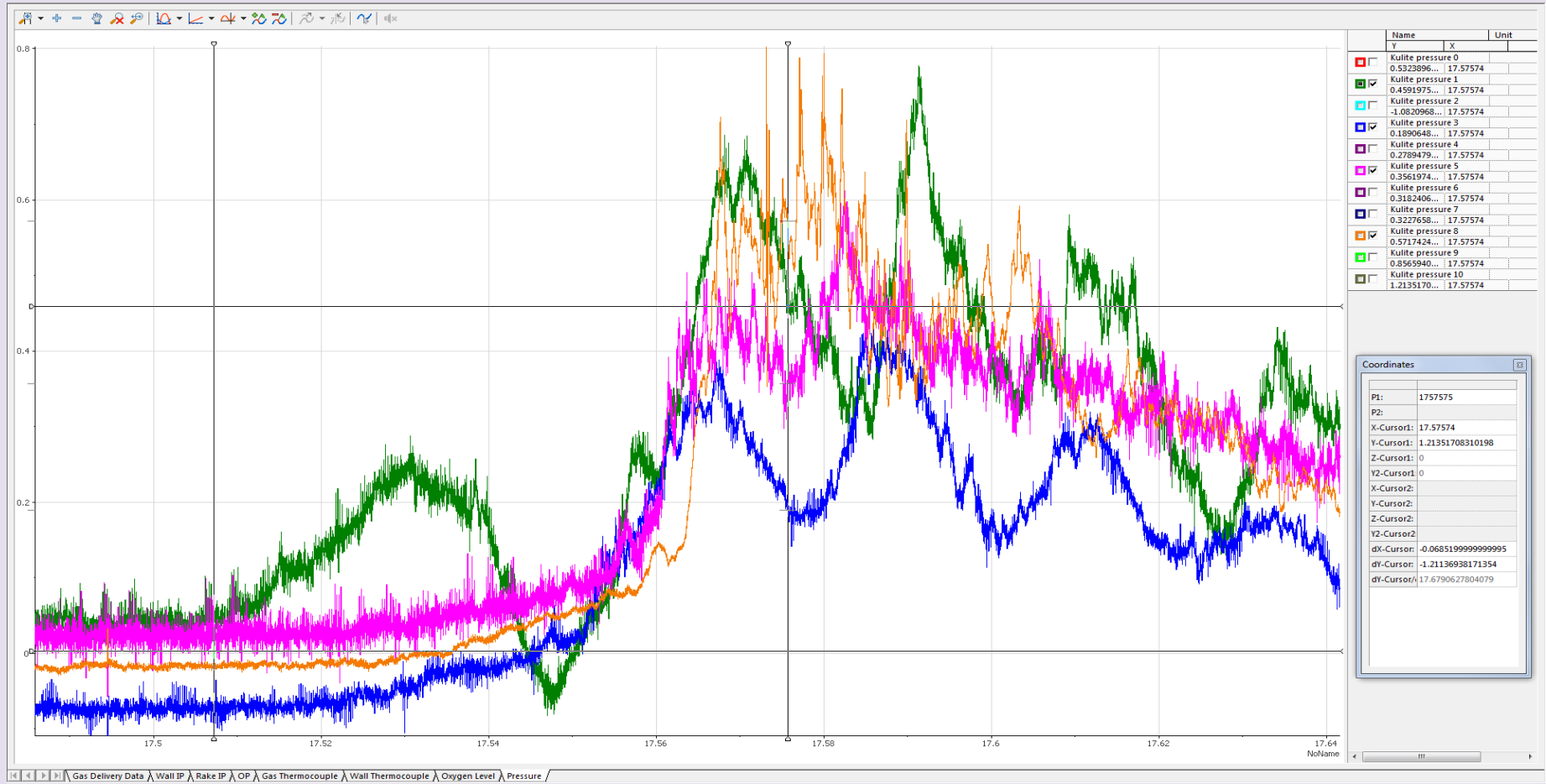
Thermocouple number	Location	Position in tube (mm)	Flame arrival time (s)	Average flame speed (m/s)	T _{max} (deg C)	T _i (deg C)
TC0	CD1-R3	1258			623	448
TC2	CD2-R3	4258	17.470		1345	449
TC4	CD3-R3	7258	17.470		1323	435
TC6	CD4-R3	10258	17.477	429	1256	421
TC8	HR1-R2	13160	17.494	171	1005	360
TC12	CD3-T1	6258			741	421
TC13	CD3-L1	6258			754	444
TC14	CD3-B1	6258				
TC15	CD3-R1	6258			767	457
TC16	HR2-R3M	14140	17.493		837	322
TC17	HR2-R5L	14745	17.502	67	946	355
TC18	HR2-R5U	14745	17.507		844	335
TC19	HR3-L1M	15140	17.509	197	979	372
TC20	HE2-R1L	16090			NW	
TC21	HE2-R1U	16090	17.507		299	267
TC22	HR5-R4M	19375	17.523	205	481	175
TC23	HR6-R1M	19985	17.528	122	428	158
TC24	HR6-R5L	21165	17.737	6	419	218
TC25	HR6-R5U	21165	17.706		540	254

surface thermocouples [not plotted]

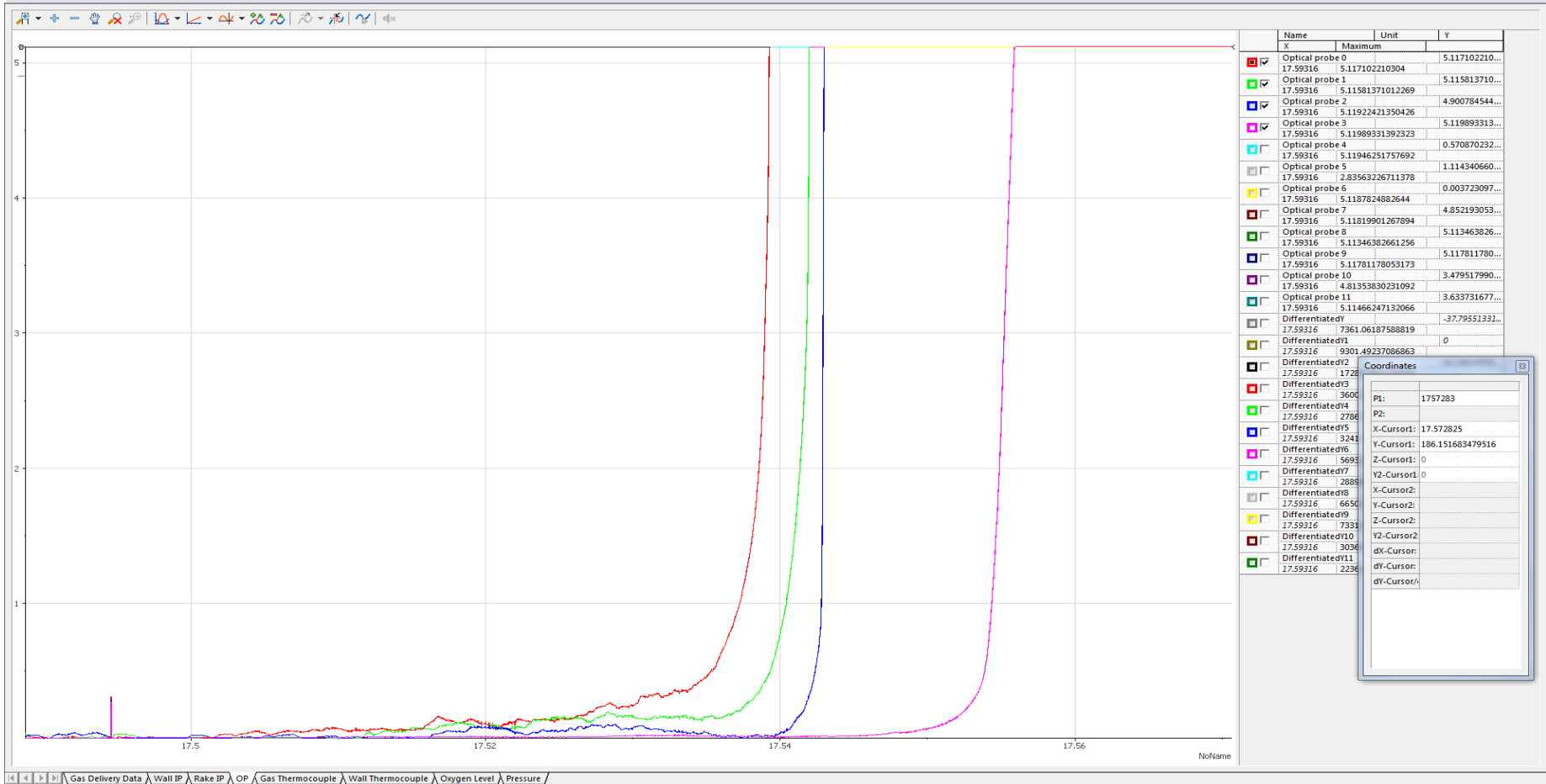
TC1	CD1-T2	1508	149	136
TC3	CD2-T2	4508	126	115
TC5	CD3-T2	7508	135	126
TC7	CD4-T2	10508	102	96



Pressure

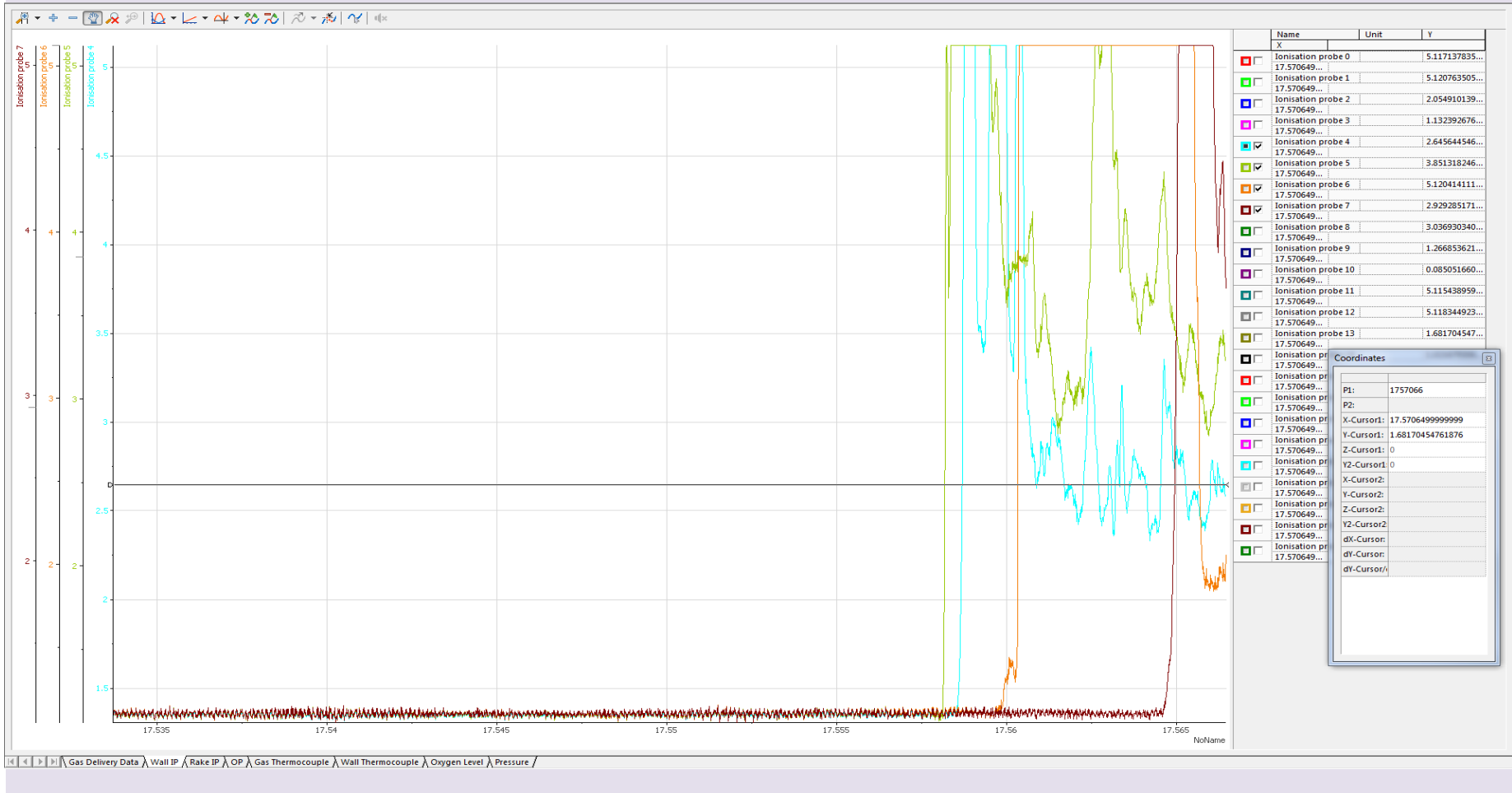


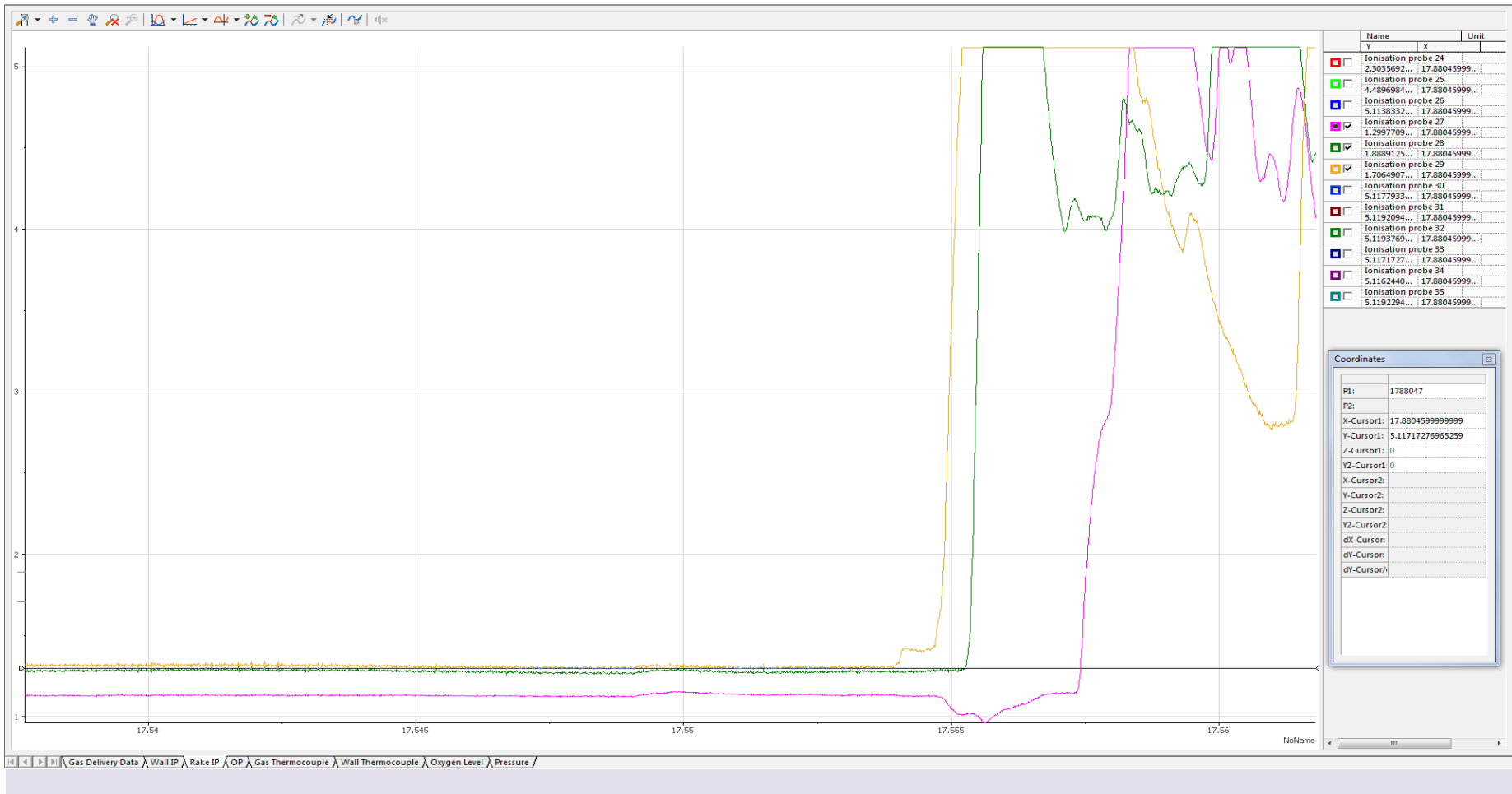
Optical Probes



Coordinates	
P1:	1757283
P2:	
X-Cursor1:	17.572825
Y-Cursor1:	186.151683479516
Z-Cursor1:	0
Y2-Cursor1:	0
X-Cursor2:	
Y-Cursor2:	
Z-Cursor2:	
Y2-Cursor2:	
dX-Cursor:	
dY-Cursor:	
dY-Cursor/:	

Ionisation Probes



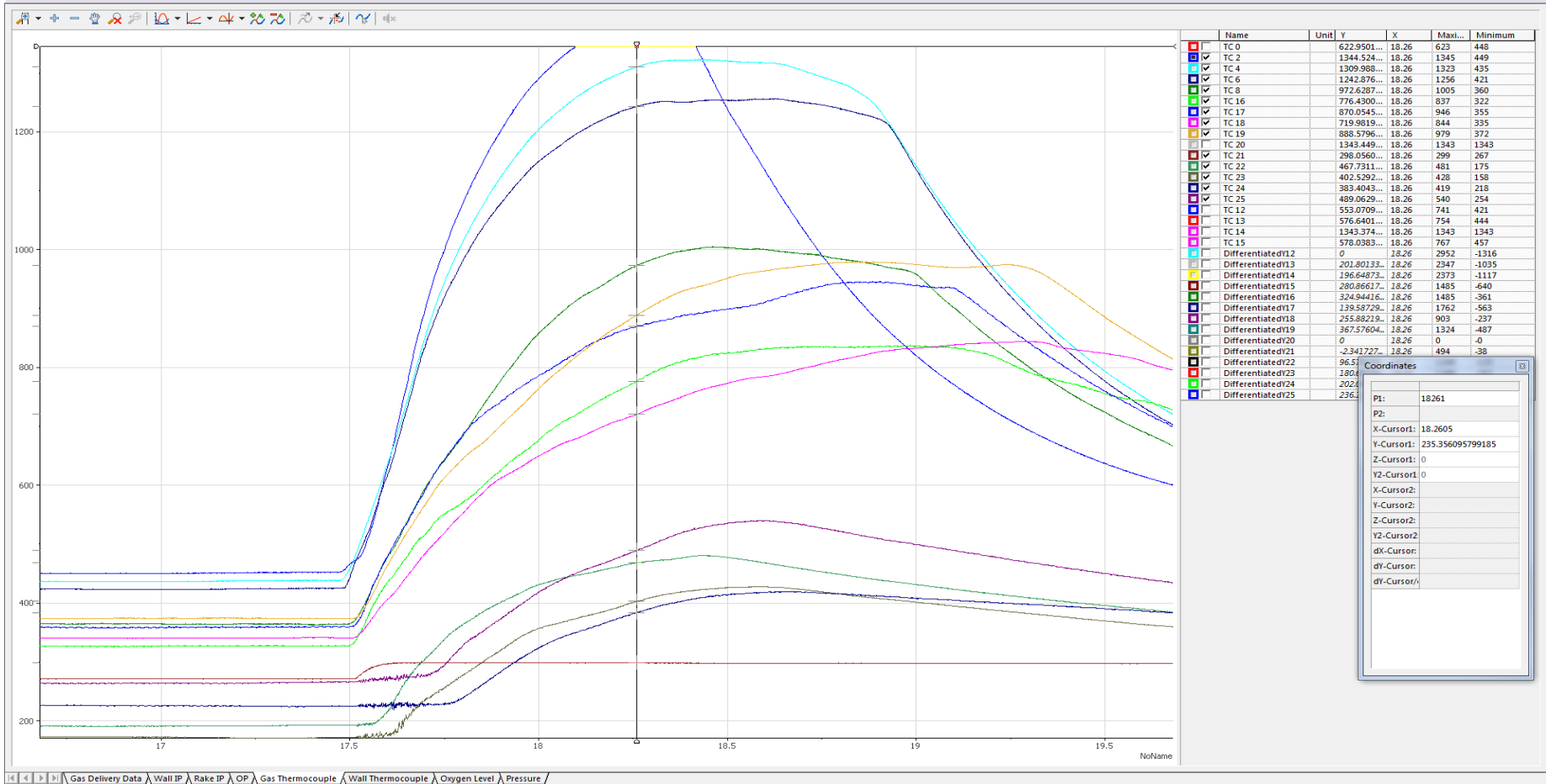


Coordinates

P1:	1788047
P2:	
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Y-Cursor1:	5.11717276965259
Z-Cursor1:	0
Y2-Cursor1:	0
X-Cursor2:	
Y-Cursor2:	
Z-Cursor2:	
Y2-Cursor2:	
dX-Cursor:	
dY-Cursor:	
dZ-Cursor:	

Gas Delivery Data | Wall IP | Rake IP | OP | Gas Thermocouple | Wall Thermocouple | Oxygen Level | Pressure

Temperature



Coordinates

P1: 18.261

P2:

X-Cursor1: 18.2605

Y-Cursor1: 235.356095799185

Z-Cursor1: 0

Y2-Cursor1: 0

X-Cursor2:

Y-Cursor2:

Z-Cursor2:

Y2-Cursor2:

dX-Cursor:

dY-Cursor:

dY-Cursor/:

Sensor	OLD DESIGNATION	NEW DESIGNATION	Section	Section Number	Side	Horizontal Location	Vertical Location	PORT REF	SIZE	"X"	"Y"	"Z"
-		CD1-T1	CD	1	T	1		1	1" BSPP	0	298	258
TC1	TS1-1	CD1-T2	CD	1	T	2		NA	SURFACE	0	298	1508
-		CD1-B1	CD	1	B	1		2	1" BSPP	0	-298	258
-	NS1-1	CD1-R1	CD	1	R	1		3	3/4" BSPP	298	0	258
-	FS1-1	CD1-L1	CD	1	L	1		4	3/4" BSPP	-298	0	258
-	NS1-2	CD1-R2	CD	1	R	2		5	3/4" BSPP	298	0	758
-	FS1-2	CD1-L2	CD	1	L	2		6	3/4" BSPP	-298	0	758
TC0	NS1-3	CD1-R3	CD	1	R	3		7	3/4" BSPP	298	0	1258
-	FS1-3	CD1-L3	CD	1	L	3		8	3/4" BSPP	-298	0	1258
-	NS1-4	CD1-R4	CD	1	R	4		9	3/4" BSPP	298	0	1758
-	FS1-4	CD1-L4	CD	1	L	4		10	3/4" BSPP	-298	0	1758
-	NS1-5	CD1-R5	CD	1	R	5		11	3/4" BSPP	298	0	2258
-	FS1-5	CD1-L5	CD	1	L	5		12	3/4" BSPP	-298	0	2258
-	NS1-6	CD1-R6	CD	1	R	6		13	3/4" BSPP	298	0	2758
-	FS1-6	CD1-L6	CD	1	L	6		14	3/4" BSPP	-298	0	2758
IGN		CD2-T1	CD	2	T	1		15	1" BSPP	0	298	3258
TC3	TS2-1	CD2-T2	CD	2	T	2		NA	SURFACE	0	298	4508
-		CD2-B1	CD	2	B	1		16	1" BSPP	0	-298	2358
-	NS2-1	CD2-R1	CD	2	R	1		17	3/4" BSPP	298	0	3258
-	FS2-1	CD2-L1	CD	2	L	1		18	3/4" BSPP	-298	0	3258
-	NS2-2	CD2-R2	CD	2	R	2		19	3/4" BSPP	298	0	3758
-	FS2-2	CD2-L2	CD	2	L	2		20	3/4" BSPP	-298	0	3758
TC2	NS2-3	CD2-R3	CD	2	R	3		21	3/4" BSPP	298	0	4258
-	FS2-3	CD2-L3	CD	2	L	3		22	3/4" BSPP	-298	0	4258
-	NS2-4	CD2-R4	CD	2	R	4		23	3/4" BSPP	298	0	4758
-	FS2-4	CD2-L4	CD	2	L	4		24	3/4" BSPP	-298	0	4758
-	NS2-5	CD2-R5	CD	2	R	5		25	3/4" BSPP	298	0	5258
-	FS2-5	CD2-L5	CD	2	L	5		26	3/4" BSPP	-298	0	5258
-	NS2-6	CD2-R6	CD	2	R	6		27	3/4" BSPP	298	0	5758
-	FS2-6	CD2-L6	CD	3	L	6		28	3/4" BSPP	-298	0	5758
TC12		CD3-T1	CD	3	T	1		29	1" BSPP	0	298	6258
TC5	TS1-1	CD3-T2	CD	3	T	2		NA	SURFACE	0	298	7508
TC14		CD3-B1	CD	3	B	1		30	1" BSPP	0	-298	6258
TC15	NS3-1	CD3-R1	CD	3	R	1		31	3/4" BSPP	298	0	6258
TC13	FS3-1	CD3-L1	CD	3	L	1		32	3/4" BSPP	-298	0	6258
-	NS3-2	CD3-R2	CD	3	R	2		33	3/4" BSPP	298	0	6758
-	FS3-2	CD3-L2	CD	3	L	2		34	3/4" BSPP	-298	0	6758
TC4	NS3-3	CD3-R3	CD	3	R	3		35	3/4" BSPP	298	0	7258
-	FS3-3	CD3-L3	CD	3	L	3		36	3/4" BSPP	-298	0	7258
-	NS3-4	CD3-R4	CD	3	R	4		37	3/4" BSPP	298	0	7758
-	FS3-4	CD3-L4	CD	3	L	4		38	3/4" BSPP	-298	0	7758
KU0	NS3-5	CD3-R5	CD	3	R	5		39	3/4" BSPP	298	0	8258
-	FS3-5	CD3-L5	CD	3	L	5		40	3/4" BSPP	-298	0	8258
-	NS3-6	CD3-R6	CD	3	R	6		41	3/4" BSPP	298	0	8758
-	FS3-6	CD3-L6	CD	3	L	6		42	3/4" BSPP	-298	0	8758
-		CD4-T1	CD	4	T	1		43	1" BSPP	0	298	9258
TC7	TS1-1	CD4-T2	CD	4	T	2		NA	SURFACE	0	298	10508
-		CD4-B1	CD	4	B	1		44	1" BSPP	0	-298	9258
-	NS4-1	CD4-R1	CD	4	R	1		45	3/4" BSPP	298	0	9258
-	FS4-1	CD4-L1	CD	4	L	1		46	3/4" BSPP	-298	0	9258
KU1	NS4-2	CD4-R2	CD	4	R	2		47	3/4" BSPP	298	0	9758
-	FS4-2	CD4-L2	CD	4	L	2		48	3/4" BSPP	-298	0	9758
TC6	NS4-3	CD4-R3	CD	4	R	3		49	3/4" BSPP	298	0	10258
-	FS4-3	CD4-L3	CD	4	L	3		50	3/4" BSPP	-298	0	10258
-	NS4-4	CD4-R4	CD	4	R	4		51	3/4" BSPP	298	0	10758
OP0	FS4-4	CD4-L4	CD	4	L	4		52	3/4" BSPP	-298	0	10758
-	NS4-5	CD4-R5	CD	4	R	5		53	3/4" BSPP	298	0	11258
-	FS4-5	CD4-L5	CD	4	L	5		54	3/4" BSPP	-298	0	11258
OP1	NS4-6	CD4-R6	CD	4	R	6		55	3/4" BSPP	298	0	11758

Sensor	OLD DESIGNATION	NEW DESIGNATION	Section	Section Number	Side	Horizontal Location	Vertical Location	PORT REF	SIZE	"X"	"Y"	"Z"
IP0	FS4-6	CD4-L6	CD	4	L	6		56	3/4" BSPP	-298	0	11758
OP2		HR1-R1	HR	1	R	1		57	3/4" BSPP	308	0	12152
-		HR1-L1	HR	1	L	1		58	3/4" BSPP	-308	0	12152
TC8		HR1-R2	HR	1	R	2		59	3/4" BSPP	393	0	13160
-		HR1-L2	HR	1	L	2		60	3/4" BSPP	-393	0	13160
RA1		HR2-R2M	HR	2	R	2	M	61	11/4" BSPP	448	70	13785
RA1		HR2-L2M	HR	2	L	2	M	62	11/4" BSPP	-448	70	13785
TC16		HR2-R3M	HR	2	R	3	M	63	3/4" BSPP	528	410	14140
-		HR2-L3M	HR	2	L	3	M	64	3/4" BSPP	-528	410	14140
-		HR2-T3	HR	2	T	3		65	1" BSPP	0	1122	14215
RA2		HR2-R4M	HR	2	R	4	M	66	11/4" BSPP	598	700	14475
RA2		HR2-L4M	HR	2	L	4	M	67	11/4" BSPP	-598	700	14475
-		HR2-B5	HR	2	B	5		68	1" BSPP	0	-100	14745
KU2		HR2-T5	HR	2	T	5		69	1" BSPP	0	2315	14745
TC17		HR2-R5L	HR	2	R	5	L	70	3/4" BSPP	662	310	14745
IP1		HR2-L5L	HR	2	L	5	L	71	3/4" BSPP	-662	310	14745
OP3		HR2-R5M	HR	2	R	5	M	72	3/4" BSPP	662	975	14745
IP2		HR2-L5M	HR	2	L	5	M	73	3/4" BSPP	-662	975	14745
TC18		HR2-R5U	HR	2	R	5	U	74	3/4" BSPP	662	1660	14745
IP3		HR2-L5U	HR	2	L	5	U	75	3/4" BSPP	-662	1660	14745
KU3		HR3-L1L	HR	3	L	1	L	76	3/4" BSPP	-700	400	15140
TC19		HR3-L1M	HR	3	L	1	M	77	11/4" BSPP	-700	1335	15140
IP8		HR3-L1U	HR	3	L	1	U	78	3/4" BSPP	-700	2270	15140
IP4		HR3-R1L	HR	3	R	1	L	136	3/4" BSPP	700	400	15140
IP5		HR3-R1LM	HR	3	R	1	LM	137	3/4" BSPP	700	868	15140
IP6		HR3-R1M	HR	3	R	1	M	138	3/4" BSPP	700	1335	15140
-		HR3-R1UM	HR	3	R	1	UM	139	3/4" BSPP	700	1802	15140
IP7		HR3-R1U	HR	3	R	1	U	140	3/4" BSPP	700	2270	15140
-		HE1-R1L	HE	1	R	1	L	79	3/4" BSPP	700	400	15600
-		HE1-R1M	HE	1	R	1	M	80	3/4" BSPP	700	1335	15600
KU4		HE1-R1U	HE	1	R	1	U	81	3/4" BSPP	700	2270	15600
TC20		HE2-R1L	HE	2	R	1	L	83	3/4" BSPP	700	400	16090
IP9		HE2-R1M	HE	2	R	1	M	84	3/4" BSPP	700	1335	16090
TC21		HE2-R1U	HE	2	R	1	U	85	3/4" BSPP	700	2270	16090
KU5		HE3-R1L	HE	3	R	1	L	87	3/4" BSPP	700	400	16580
-		HE3-R1M	HE	3	R	1	M	88	3/4" BSPP	700	1335	16580
-		HE3-R1U	HE	3	R	1	U	89	3/4" BSPP	700	2270	16580
OP4		HE1-T1	HE	1	T	1		82	3/4" BSPP HOLE	-47	2735	15600
OP5		HE2-T1	HE	2	T	1		86	3/4" BSPP HOLE	0	2735	16090
OP6		HE3-T1	HE	3	T	1		90	3/4" BSPP HOLE	-47	2735	16580
OP7		HR4-T1	HR	4	T	1		91	1" BSPP	0	2735	16985
-		HR4-B1	HR	4	B	1		92	1" BSPP	0	-65	16985
KU6		HR4-R1L	HR	4	R	1	L	93	3/4" BSPP	700	400	16985
IP10		HR4-L1L	HR	4	L	1	L	94	3/4" BSPP	-700	400	16985
OP8		HR4-R1M	HR	4	R	1	M	95	3/4" BSPP	700	1335	16985
IP11		HR4-L1M	HR	4	L	1	M	96	3/4" BSPP	-700	1335	16985
IP13		HR4-R1U	HR	4	R	1	U	97	3/4" BSPP	700	2270	16985
IP12		HR4-L1U	HR	4	L	1	U	98	3/4" BSPP	-700	2270	16985
RA3		HR4-R3M	HR	4	R	3	M	99	11/4" BSPP	700	1335	17575
RA3		HR4-L3M	HR	4	L	3	M	100	11/4" BSPP	-700	1335	17575
RA4		HR4-R3L	HR	4	R	3	L	141	11/4" BSPP	700	400	17575
IP14		HR4-R3U	HR	4	R	3	U	142	3/4" BSPP	700	2270	17575
RA4		HR4-L3L	HR	4	L	3	L	143	11/4" BSPP	-700	400	17575
-		HR4-L3U	HR	4	L	3	U	144	3/4" BSPP	-700	2270	17575
IP18		HR4-R5M	HR	4	R	5	M	101	3/4" BSPP	700	1335	18165
IP16		HR4-L5M	HR	4	L	5	M	102	3/4" BSPP	-700	1335	18165
OP9		HR4-R5L	HR	4	R	5	L	145	3/4" BSPP	700	400	18165
KU7		HR4-R5U	HR	4	R	5	U	146	3/4" BSPP	700	2270	18165
IP15		HR4-L5L	HR	4	L	5	L	147	3/4" BSPP	-700	400	18165

Sensor	OLD DESIGNATION	NEW DESIGNATION	Section	Section Number	Side	Horizontal Location	Vertical Location	PORT REF	SIZE	"X"	"Y"	"Z"
IP17		HR4-L5U	HR	4	L	5	U	148	3/4" BSPP	-700	2270	18165
-		HR5-R1M	HR	5	R	1	M	NA	SURFACE	700	1200	18455
OP10		HR5-T2	HR	5	T	2		103	1" BSPP	0	2735	18775
-		HR5-B2	HR	5	B	2		104	1" BSPP	0	-65	18775
KU8		HR5-R2L	HR	5	R	2	L	105	3/4" BSPP	700	400	18775
IP19		HR5-L2L	HR	5	L	2	L	106	3/4" BSPP	-700	400	18775
OP11		HR5-R2M	HR	5	R	2	M	107	3/4" BSPP	700	1335	18775
IP20		HR5-L2M	HR	5	L	2	M	108	3/4" BSPP	-700	1335	18775
IP22		HR5-R2U	HR	5	R	2	U	109	3/4" BSPP	700	2270	18775
IP21		HR5-L2U	HR	5	L	2	U	110	3/4" BSPP	-700	2270	18775
TC22		HR5-R4M	HR	5	R	4	M	111	11/4" BSPP	700	1335	19375
-		HR5-L4M	HR	5	L	4	M	112	11/4" BSPP	-700	1335	19375
TC23		HR6-R1M	HR	6	R	1	M	113	3/4" BSPP	700	1335	19985
IP23		HR6-L1M	HR	6	L	1	M	114	3/4" BSPP	-700	1335	19985
-		HR6-T3	HR	6	T	3		115	1" BSPP	0	2735	20575
-		HR6-B3	HR	6	B	3		116	3/4" BSPP	0	-65	20575
KU9		HR6-R3L	HR	6	R	3	L	117	3/4" BSPP	700	400	20575
-		HR6-L3L	HR	6	L	3	L	118	3/4" BSPP	-700	400	20575
-		HR6-R3M	HR	6	R	3	M	119	11/4" BSPP	700	1335	20575
-		HR6-L3M	HR	6	L	3	M	120	11/4" BSPP	-700	1335	20575
-		HR6-R3U	HR	6	R	3	U	121	3/4" BSPP	700	2270	20575
-		HR6-L3U	HR	6	L	3	U	122	3/4" BSPP	-700	2270	20575
-		HR6-B5	HR	6	B	5		123	1" BSPP	0	-65	21165
TC24		HR6-R5L	HR	6	R	5	L	124	3/4" BSPP	700	400	21165
KU10		HR6-L5L	HR	6	L	5	L	125	3/4" BSPP	-700	400	21165
-		HR6-R5M	HR	6	R	5	M	126	3/4" BSPP	700	1335	21165
-		HR6-L5M	HR	6	L	5	M	127	3/4" BSPP	-700	1335	21165
TC25		HR6-R5U	HR	6	R	5	U	128	3/4" BSPP	700	2270	21165
-		HR6-L5U	HR	6	L	5	U	129	3/4" BSPP	-700	2270	21165
-		EP-1L	EP			1	L	130	1" BSPP	650	-15	21330
-		EP-2L	EP			2	L	131	1" BSPP	0	-15	21330
-		EP-3L	EP			3	L	132	1" BSPP	-650	-15	21330
-		EP-1M	EP			1	M	133	1" BSPP	250	1335	21330
-		EP-2M	EP			2	M	134	1" BSPP	-250	1335	21330
-		EP-1U	EP			1	U	135	3/4" BSPP	0	2270	21330

