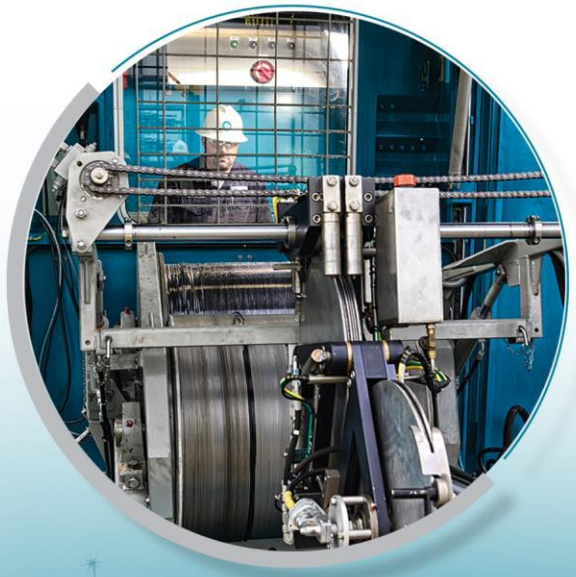
EXPRO

WELL FLOW MANAGEMENT™

Multifinger Caliper Analysis Report



Client:	**NAM**
Well No.:	**ROSSUM-WEERSELO-5**
Field:	**ROSSUM-WEERSELO**
Country:	**Netherlands**
Survey Date:	**14th November 2019**
Survey Type:	**Extended 24-Arm Caliper**
Job ID:	**DAC636**

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Pass no.	Survey Interval (m)	Data Quality	Notes
1	1140 to surface	Good	

Rev	Description	Author	Checked by
0	Report		

The Expro Group Data Analysis Centre

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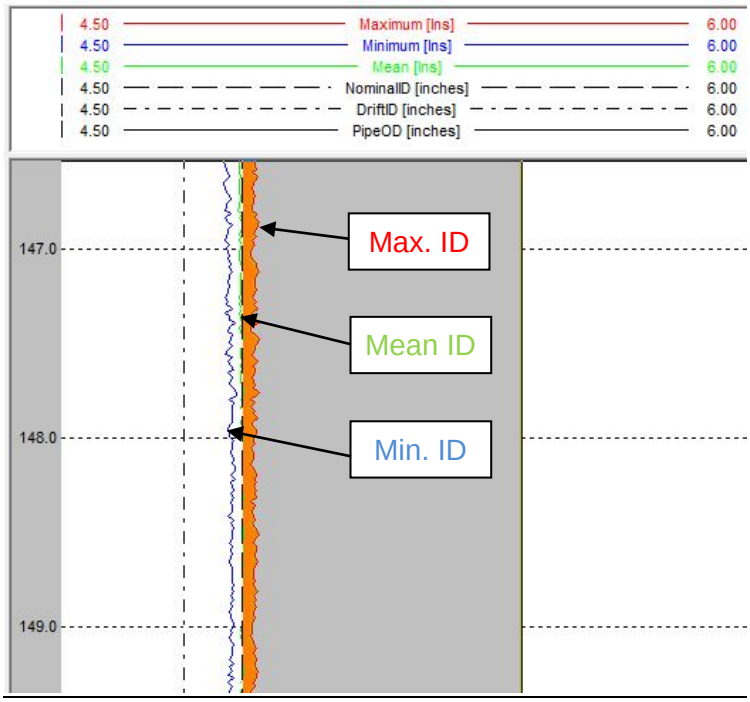
Tel:

Website: www.exprogroup.com

Definitions

Measured IDs

- Each caliper finger records a radius value at each depth sample. For the purposes of calculating metal loss, this value is multiplied by 2, creating an ID value which can be referenced against the nominal ID and OD of the tubular (all ID values quoted are 2* radius values unless otherwise indicated).
- When calculating restrictions within the tubular caused by features such as deposition or deformation, opposite arm radius values are combined to create an ID value.
- At each depth sample the Maximum ID, Minimum ID and Mean ID is recorded. These can then be plotted against the Drift ID and Nominal ID and OD.



Maximum Percentage Penetration

- The maximum percentage penetration is the maximum recorded radius x 2 value referenced against nominal ID and OD
- $Maximum\,percentage\,penetration = 100 * \frac{Max.ID - Nom.ID}{OD - Nom.ID}$

Maximum Percentage Circumferential Wall Loss

- The maximum percentage circumferential wall loss is the sum of the areal metal loss at each depth sample with reference to nominal ID and OD
- $(\frac{100}{N}) * \sum_{i=1}^{i=N}(Si^2 - Nom.ID^2) \div (OD^2 - Nom.ID^2)$
- N: is the number of caliper sensors on the tool, 24, 40, 60.
- Si: is the measured radius value x 2 for each arm.

Report Contents

1. Survey Objectives and Interpretation Summary

Survey Objectives

An extended 24-arm memory multifinger caliper was run to determine the general condition of the tubing within the ROSSUM-WEERSELO-5 well.

Data Analysis

This report highlights the main findings of the analysis. However, for a more detailed view of the tubing condition, the accompanying deliverables (which include the tool data and the MIPS client viewer) can be used to inspect the completion on a joint by joint basis.

Processing:

- Centralised
- Depth corrected – to well completion depths (TBF 22.52 datum), MD in metres
- Statistical analysis applied

Interpretation Summary

- Both the 5", 15 lb/ft tubing and the surveyed section of 4", 10.9 lb/ft tubing appear to be in good condition overall, with no clear evidence of any significant metal loss, damage or deposition.

Statistical Data Summary	2019	2018	2017	2016	T.L. Max Difference
Maximum % Penetration	20.2 %	17.7 %	24.4 %	14.7 %	9.7 %
Maximum Penetration Depth	1128.54 m	825.22 m	1117.28 m	1124.81 m	-
Average Maximum % Penetration	12.9 %	12.1 %	12.9 %	8.0 %	4.9 %
Maximum % Circumferential Wall Loss	13.7 %	8.4 %	-	-	-
Maximum % Circumferential Wall Loss Depth	1128.54 m	1117.28 m	-	-	-
Average Recorded Mean ID	4.380 inches	4.374 inches	4.377 inches	4.342 inches	0.039 inches
Average Maximum % Circumferential Wall Loss	5.3 %	4.3 %	-	-	-

Note: All values from statistical analysis are based on the maximum, minimum and mean IDs per tubing or casing joint
Note: Caliper measurement tolerance is 0.03"

2. Data Interpretation

5", 15 lb/ft Tubing Condition

- The 5", 15 lb/ft tubing appears to be in good condition overall, with all 89 joints logged containing maximum recorded percentage penetration values below 19% of the tubing nominal wall thickness, averaging 12.6% (see Figure 1, Section 3 & Max. Percentage Penetration per Joint vs. Depth Plot, Section 4).
- There is no clear evidence of any significant metal loss or damage within the 5", 15 lb/ft tubing. Furthermore, the average mean recorded ID of 4.429" remains close the manufacturer specified nominal ID of 4.408" (see Measured ID per Joint vs. Depth Plot, Section 4).
- The minimum recorded ID within the 5", 15 lb/ft tubing was 4.107" at 2.07 m. This relates to an area of localised circumferentially distributed patchy deposition within the upper part of the pup joint directly below the hanger (see Figures 2 & 3, Section 3).

4", 10.9 lb/ft Tubing Condition

- The surveyed interval of 4", 10.9 lb/ft tubing appears to be in good condition overall, with all 5 joints logged containing maximum recorded percentage penetration values below 21% of the tubing nominal wall thickness, averaging 17.6% (see Figure 4, Section 3 & Max. Percentage Penetration per Joint vs. Depth Plot, Section 4).
- There is no clear evidence of any significant metal loss or damage within the surveyed interval of 4", 10.9 lb/ft tubing, with toolstring decentralisation effects above and below SPMs responsible for most slightly higher than expected IDs. Furthermore, the average mean recorded ID of 3.511" remains close the manufacturer specified nominal ID of 3.476" (see Measured ID per Joint vs. Depth Plot, Section 4).
- There are no clear signs of any significant deposition within the surveyed interval of 4″, 10.9 lb/ft tubing, and none of the recorded IDs fall below the manufacturer specified drift ID of 3.351".

Time-lapse Analysis

- Three 24-arm caliper surveys have been performed previously within this well by Expro, on the 10th of November 2016, 15th of June 2017 and the 4th of October 2018. Time-lapse analysis has been performed by comparing these previously recorded datasets with data recorded in the current 2019 survey (see Time-lapse Plots, Section 4).
- Based on the plots, it seems that there was a slight overall increase in metal loss throughout the surveyed interval between 2016 and 2017, and only minor change between 2017, 2018 and 2019. However, it appears likely that the lower recorded IDs in 2016 are at least partly due to slightly different tool calibrations. Additionally, there are no clear signs of any severe metal loss present in any of the surveys and the overall well picture has remained similar since 2016.

3. Caliper Graphics

Client:	NAM	Well No.:	ROSSUM-WEERSELO-5	Field:	ROSSUM-WEERSELO
Survey Date:	14/11/2019	Survey	MFC-24 Extended	Job ID:	DAC636

Figure 1: 5", 15 lb/ft Tubing Overview

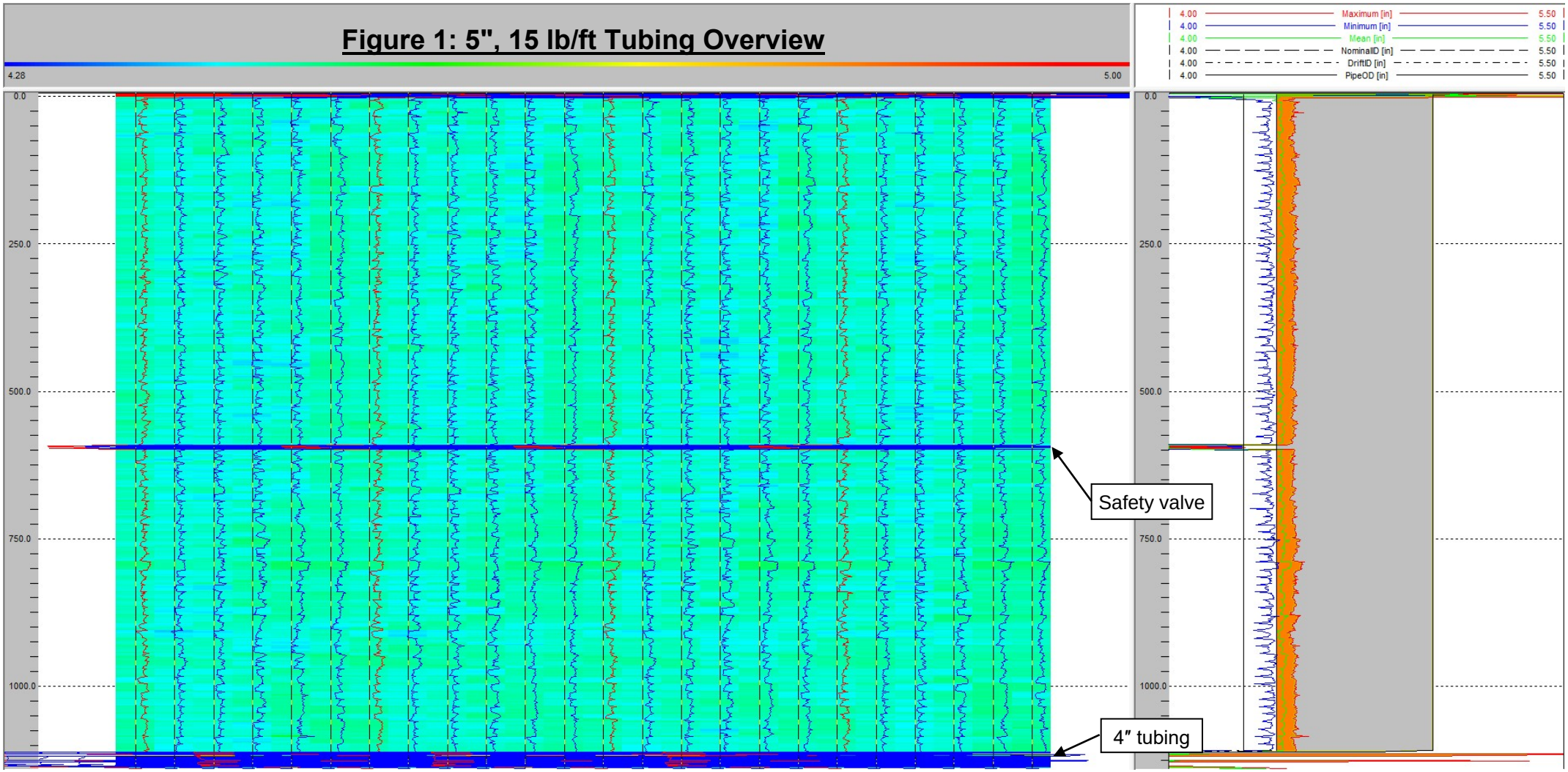


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Figure 2: Deposition within 5", 15 lb/ft Tubing

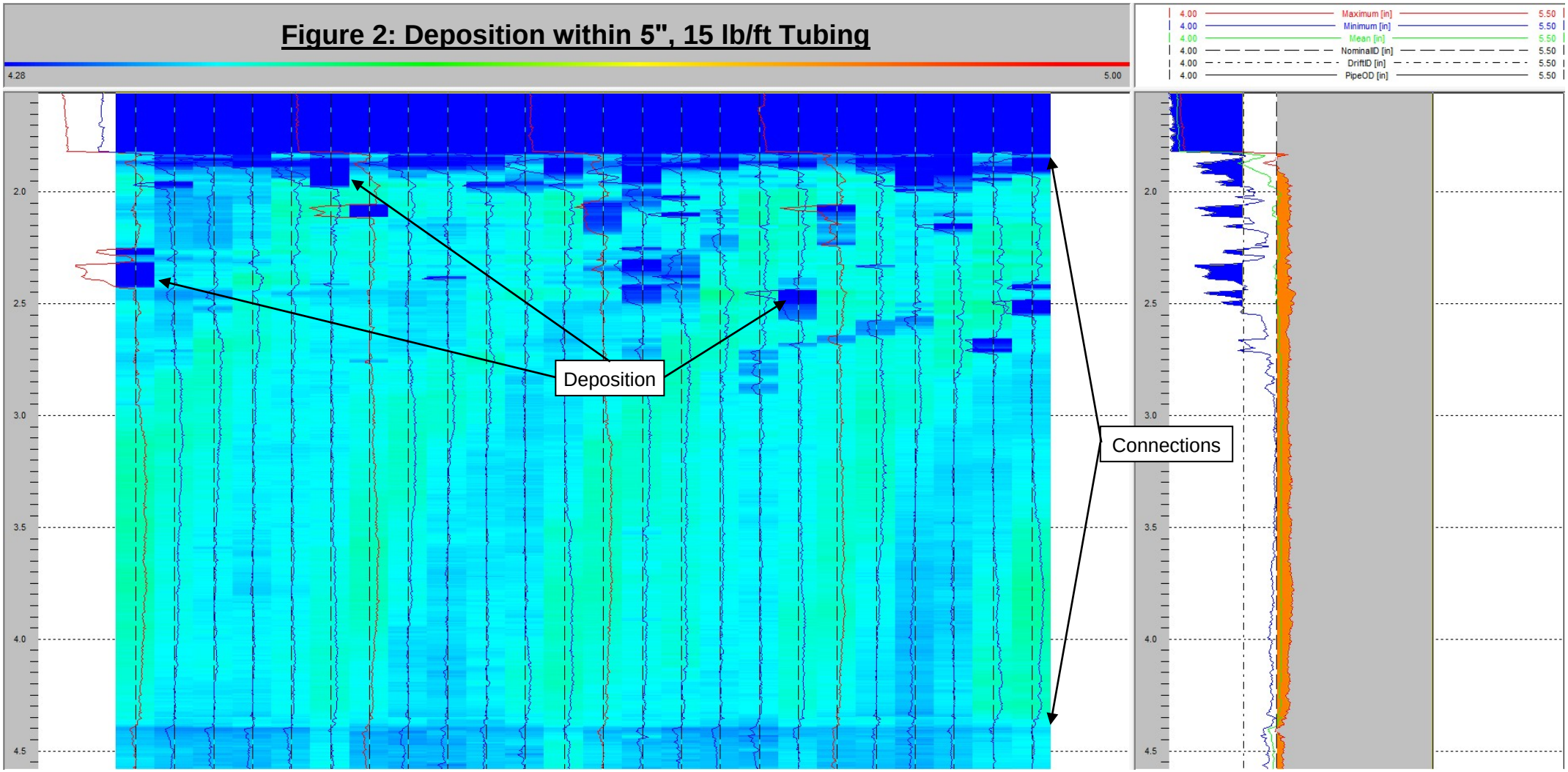
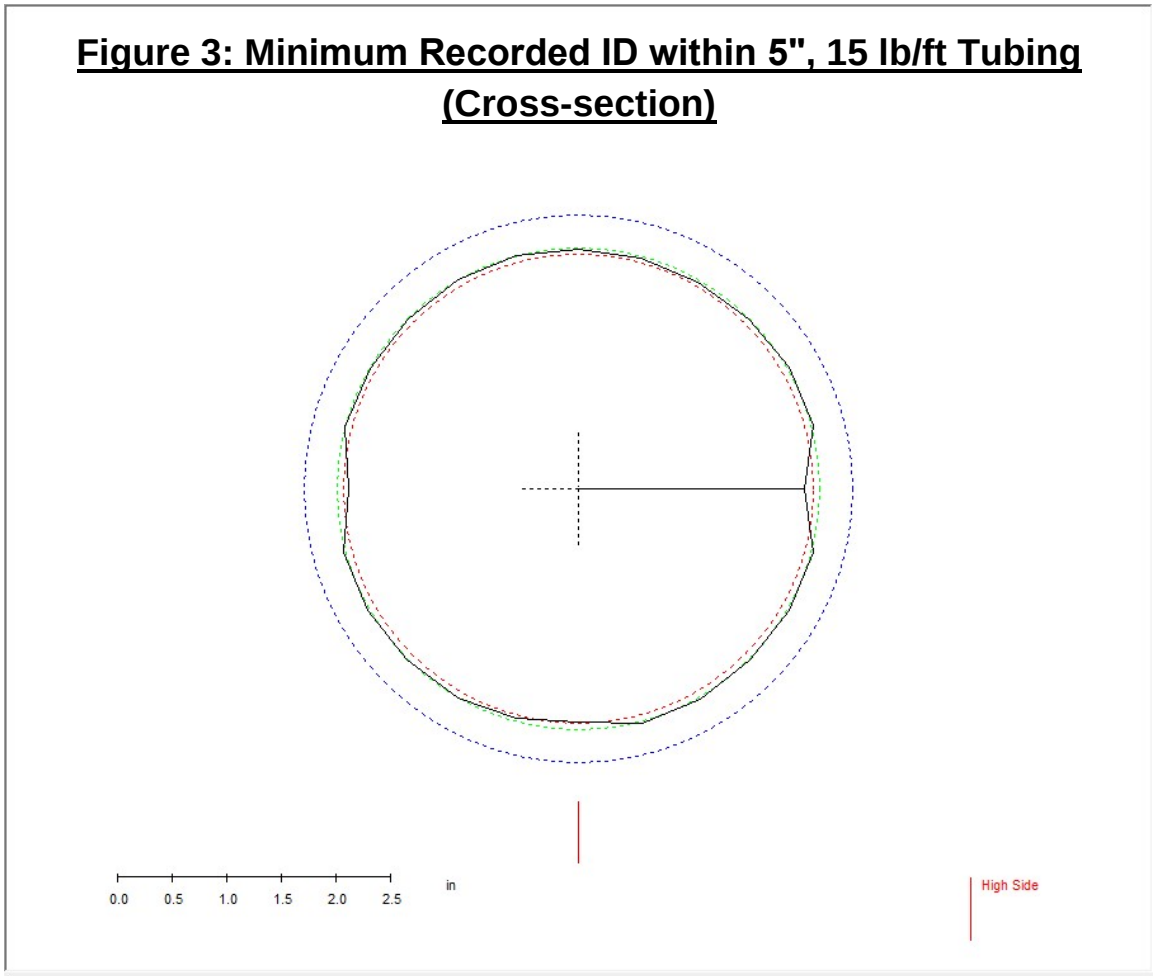
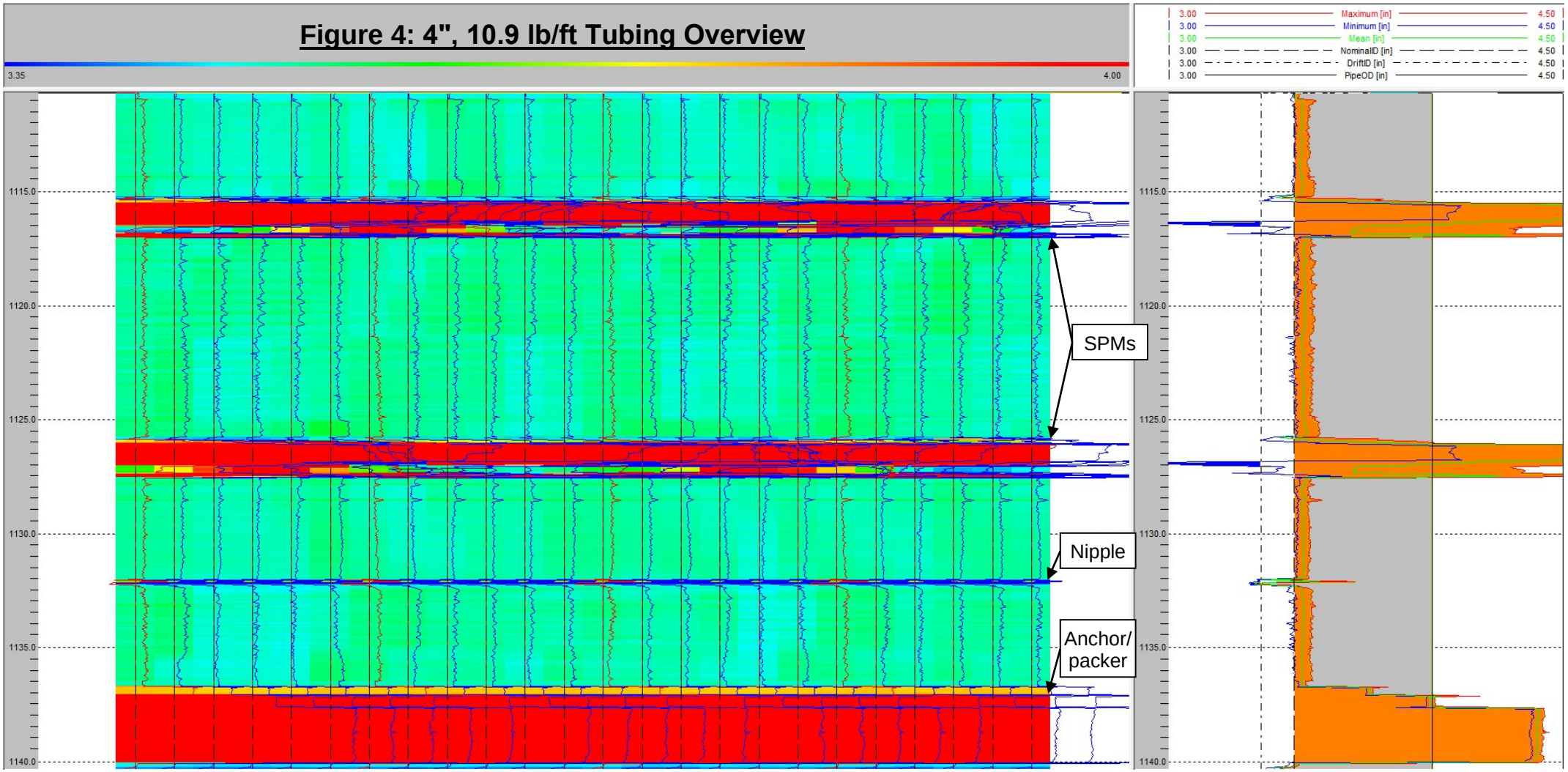


Figure 3: Minimum Recorded ID within 5", 15 lb/ft Tubing (Cross-section)



Client:	NAM	Well No.:	ROSSUM-WEERSELO-5	Field:	ROSSUM-WEERSELO
Survey Date:	14/11/2019	Survey	MFC-24 Extended	Job ID:	DAC636

Figure 4: 4", 10.9 lb/ft Tubing Overview



4. Statistical Analysis

Max. Percentage Penetration vs. Depth Plot

Max. Percentage Circumferential Wall Loss vs. Depth Plot

Measured ID vs. Depth Plot

Time-lapse Percentage Penetration Histogram Plot

Time-lapse Max. Percentage Penetration vs. Depth Plot

Time-lapse Maximum ID vs. Depth Plot

Time-lapse Mean ID vs. Depth Plot

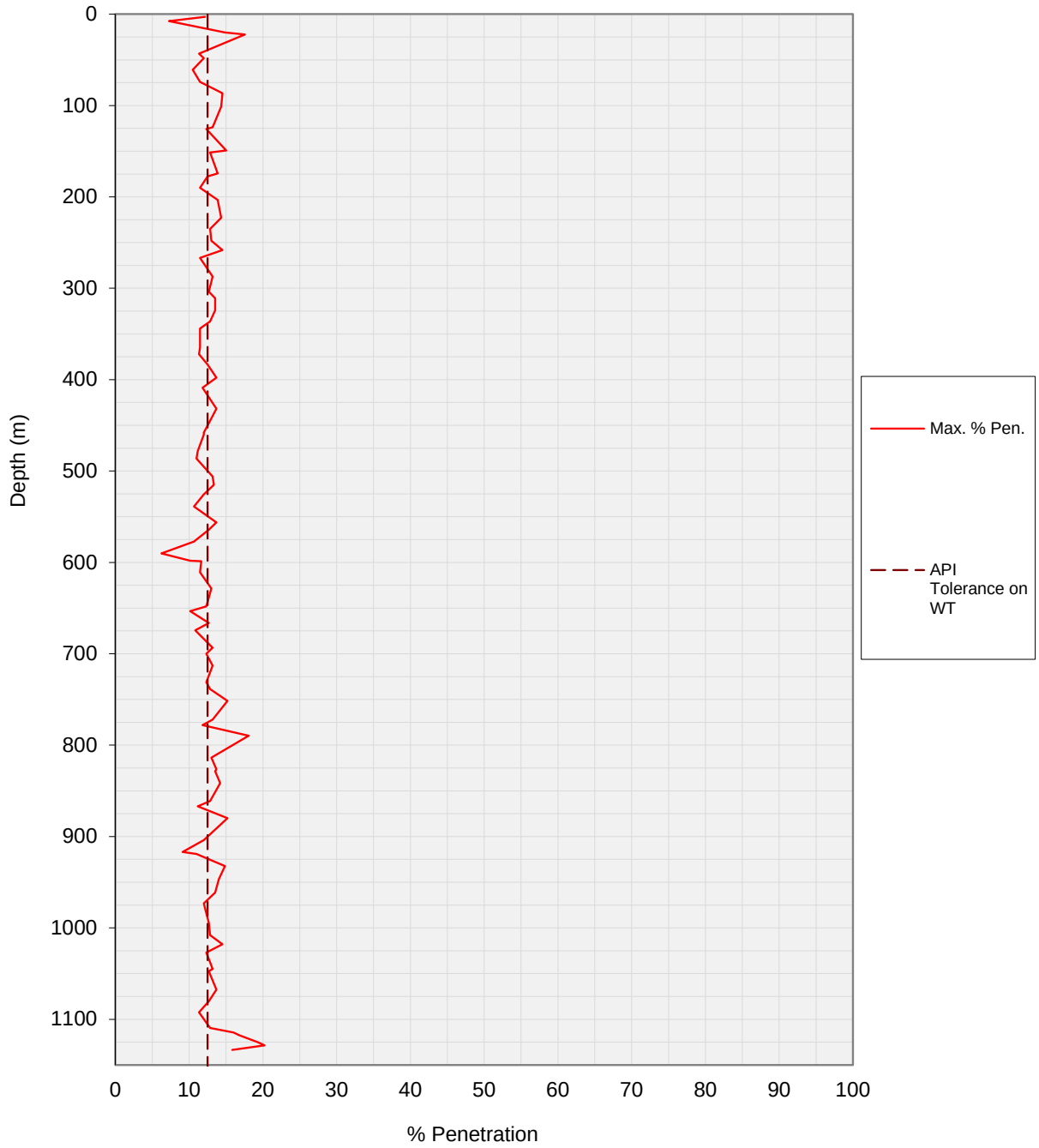
Time-lapse Minimum ID vs. Depth Plot

Tabulated Data

(Note: All values from statistical analysis are based on the maximum, mean & minimum recorded ID's from each tubing or casing joint)

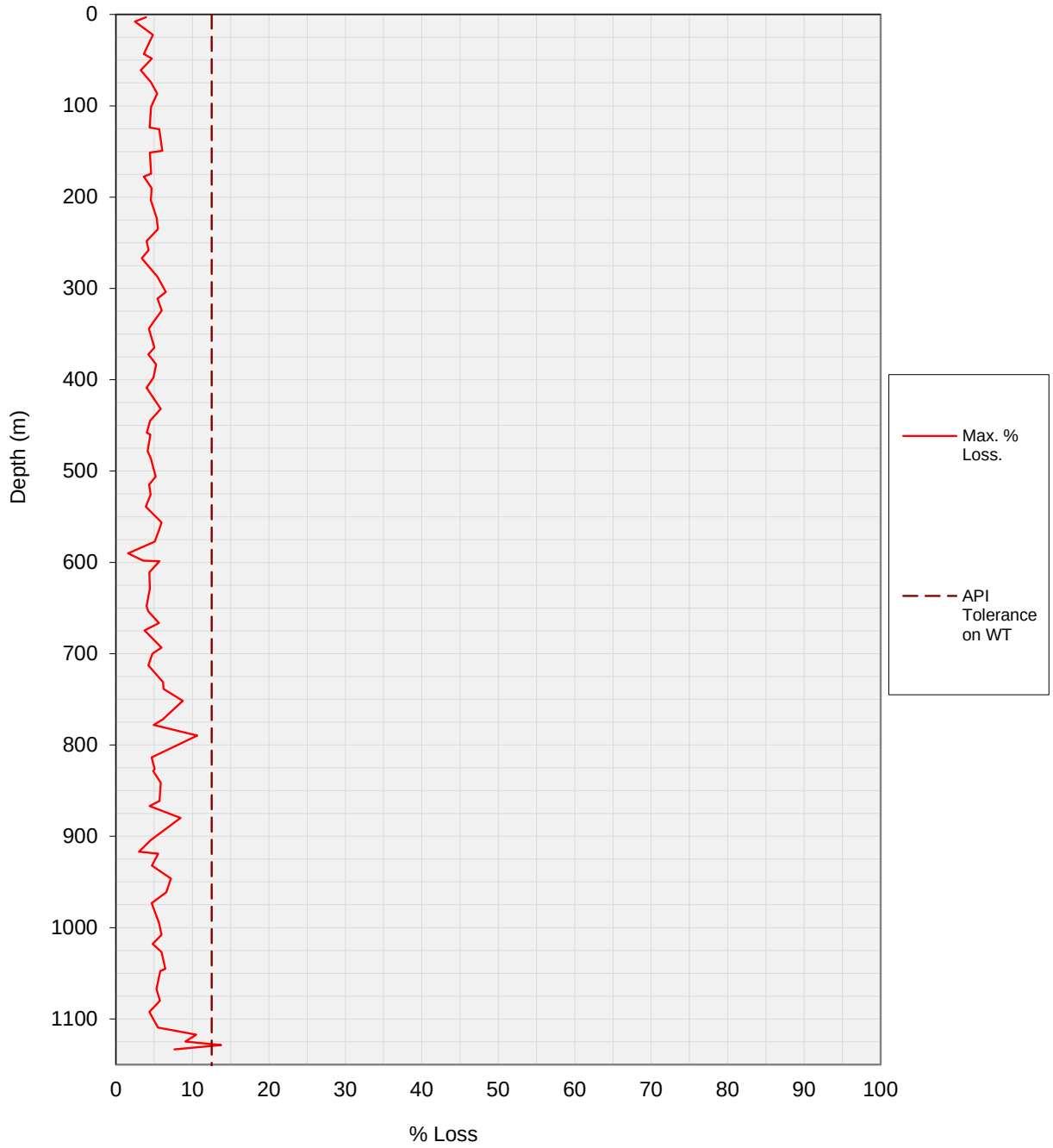
Client:	NAM	Well No.:	ROSSUM-WEERSELO-5	Field:	ROSSUM-WEERSELO
Survey Date:	14/11/2019	Survey	MFC-24 Extended	Job ID:	DAC636

Max. Percentage Penetration per Joint vs. Depth Plot



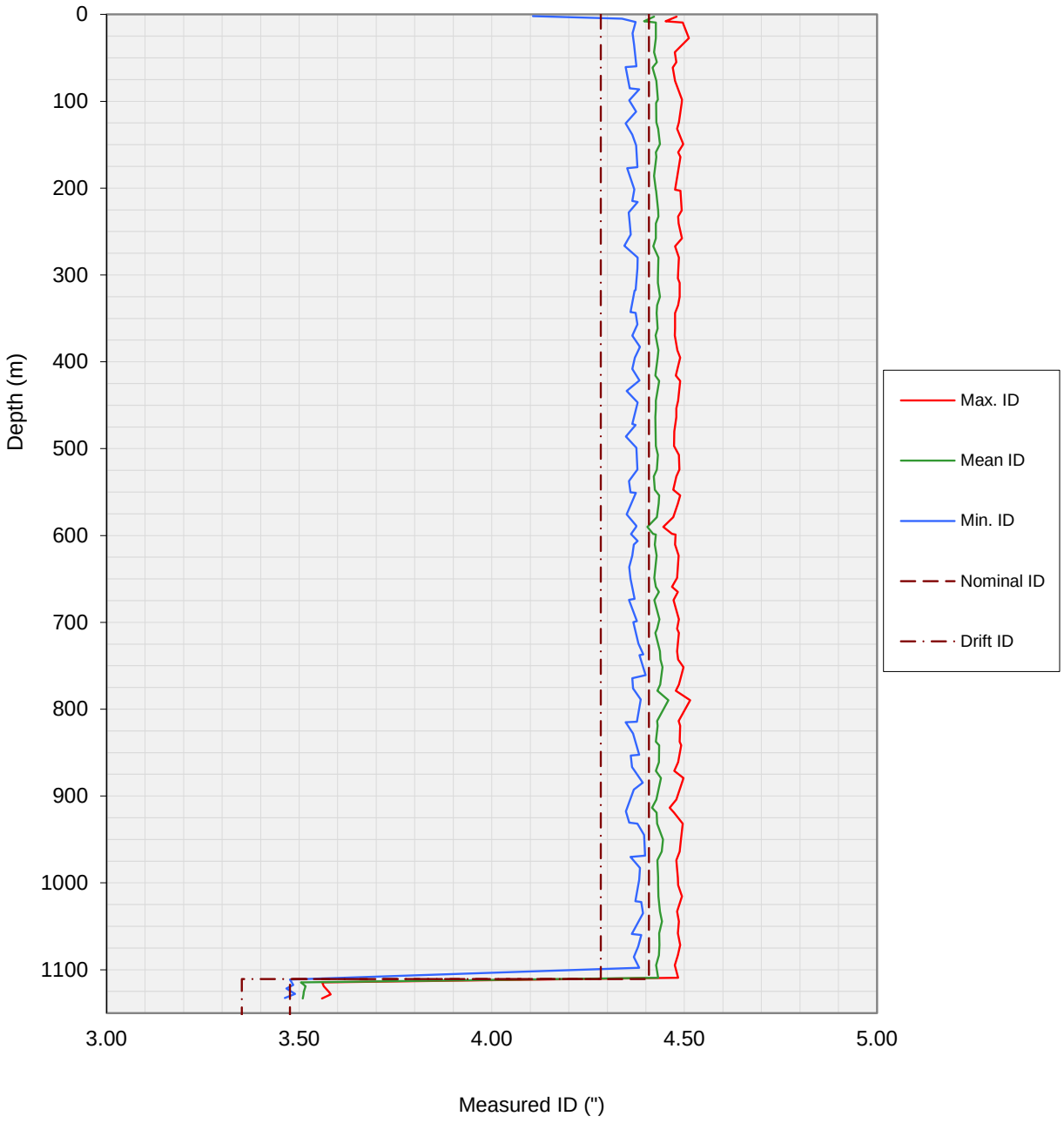
Client:	NAM	Well No.:	ROSSUM-WEERSELO-5	Field:	ROSSUM-WEERSELO
Survey Date:	14/11/2019	Survey	MFC-24 Extended	Job ID:	DAC636

Max. Percentage Circumferntial Wall Loss per Joint vs. Depth Plot



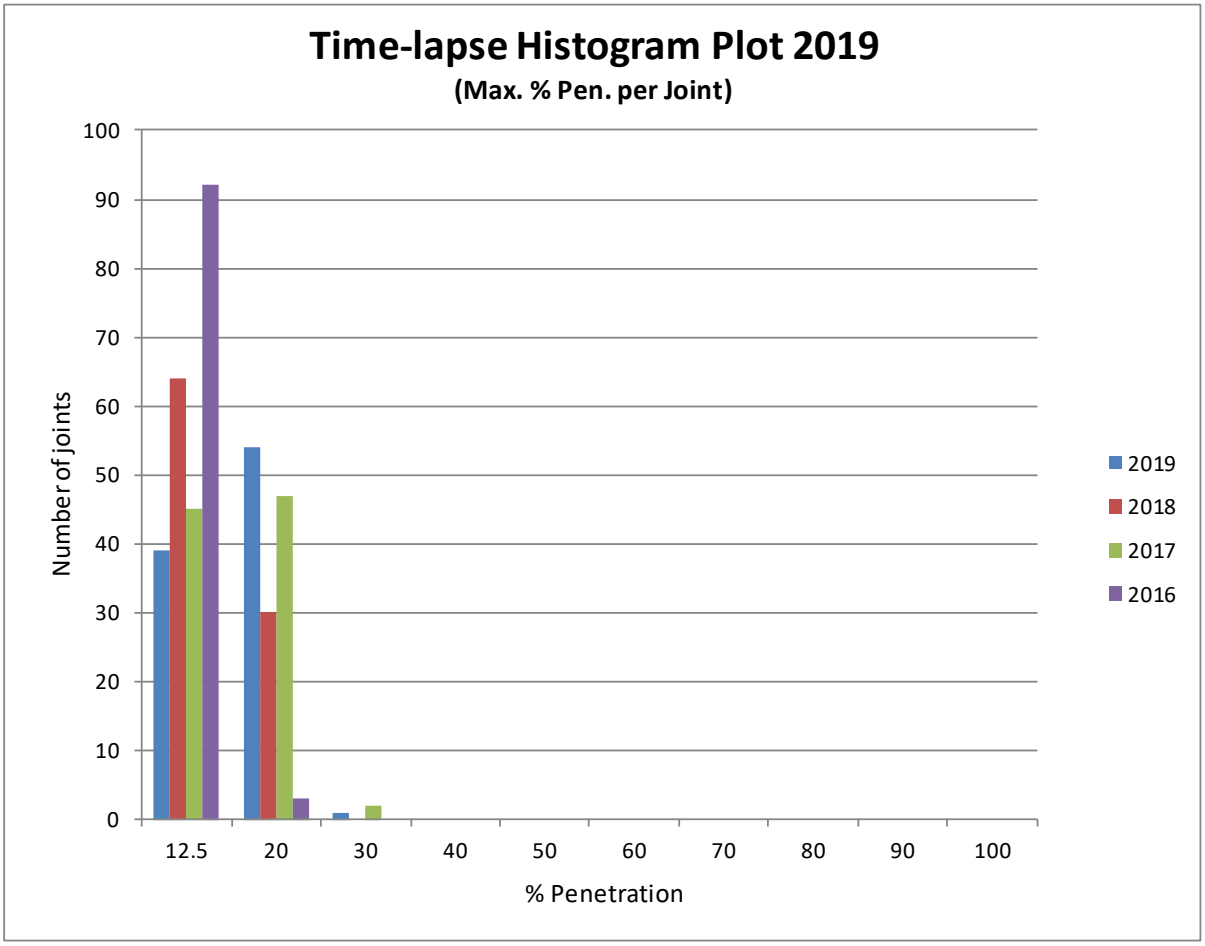
Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
Survey Date: 14/11/2019	Survey MFC-24 Extended	Job ID: DAC636

Measured ID per Joint vs. Depth Plot



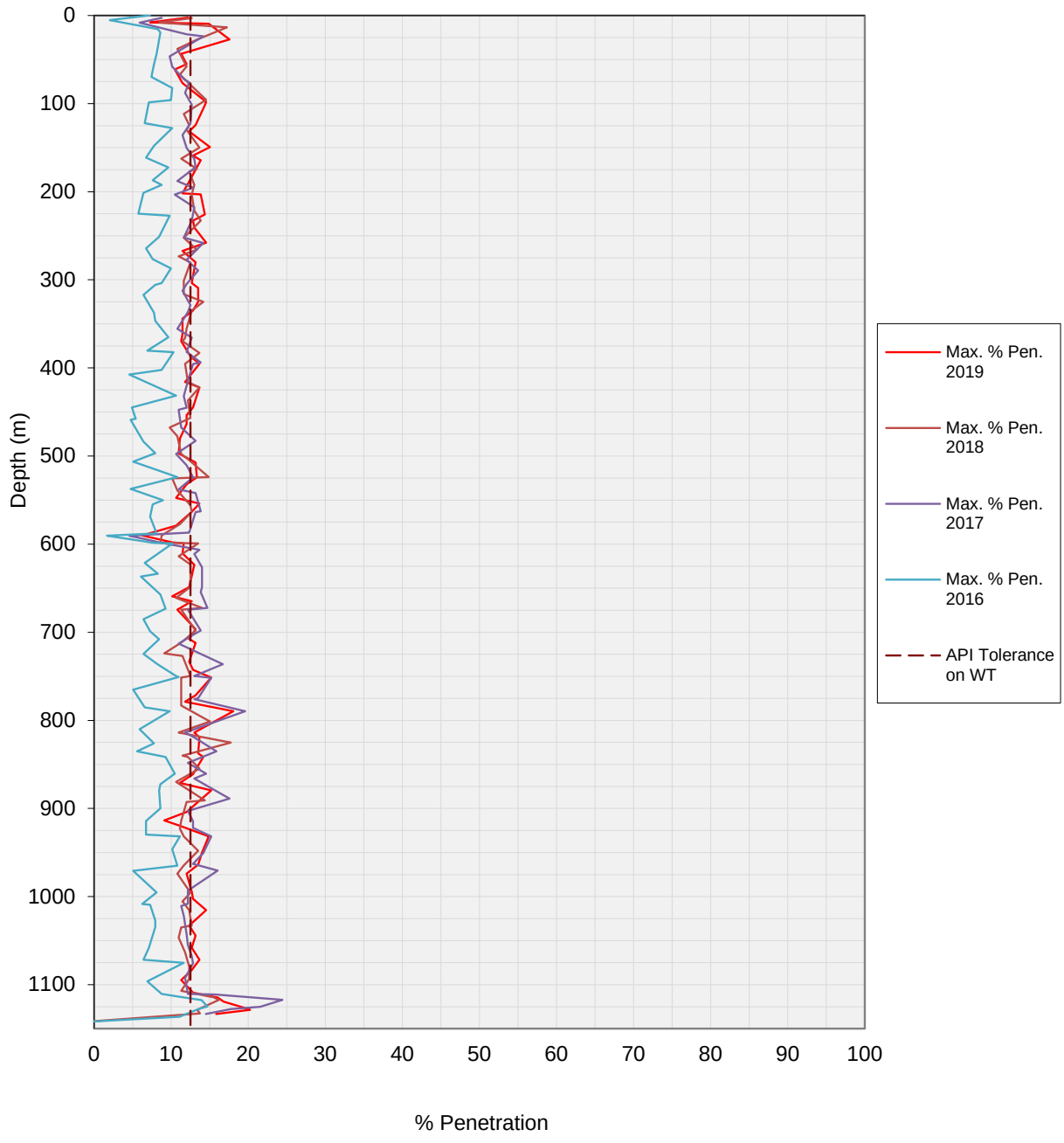
Client:	NAM	Well No.:	ROSSUM-WEERSELO-5	Field:	ROSSUM-WEERSELO
Survey Date:	14/11/2019	Survey	MFC-24 Extended	Job ID:	DAC636

Total number of joints logged: 94					
39	Joints with Max. % Penetrations Between	0	and	12.5	%
54	Joints with Max. % Penetrations Between	12.5	and	20	%
1	Joints with Max. % Penetrations Between	20	and	30	%
0	Joints with Max. % Penetrations Between	30	and	40	%
0	Joints with Max. % Penetrations Between	40	and	50	%
0	Joints with Max. % Penetrations Between	50	and	60	%
0	Joints with Max. % Penetrations Between	60	and	70	%
0	Joints with Max. % Penetrations Between	70	and	80	%
0	Joints with Max. % Penetrations Between	80	and	90	%
0	Joints with Max. % Penetrations Between	90	and	100	%



Client:	NAM	Well No.:	ROSSUM-WEERSELO-5	Field:	ROSSUM-WEERSELO
Survey Date:	14/11/2019	Survey	MFC-24 Extended	Job ID:	DAC636

Time-lapse Max. Percentage Penetration per Joint vs. Depth Plot



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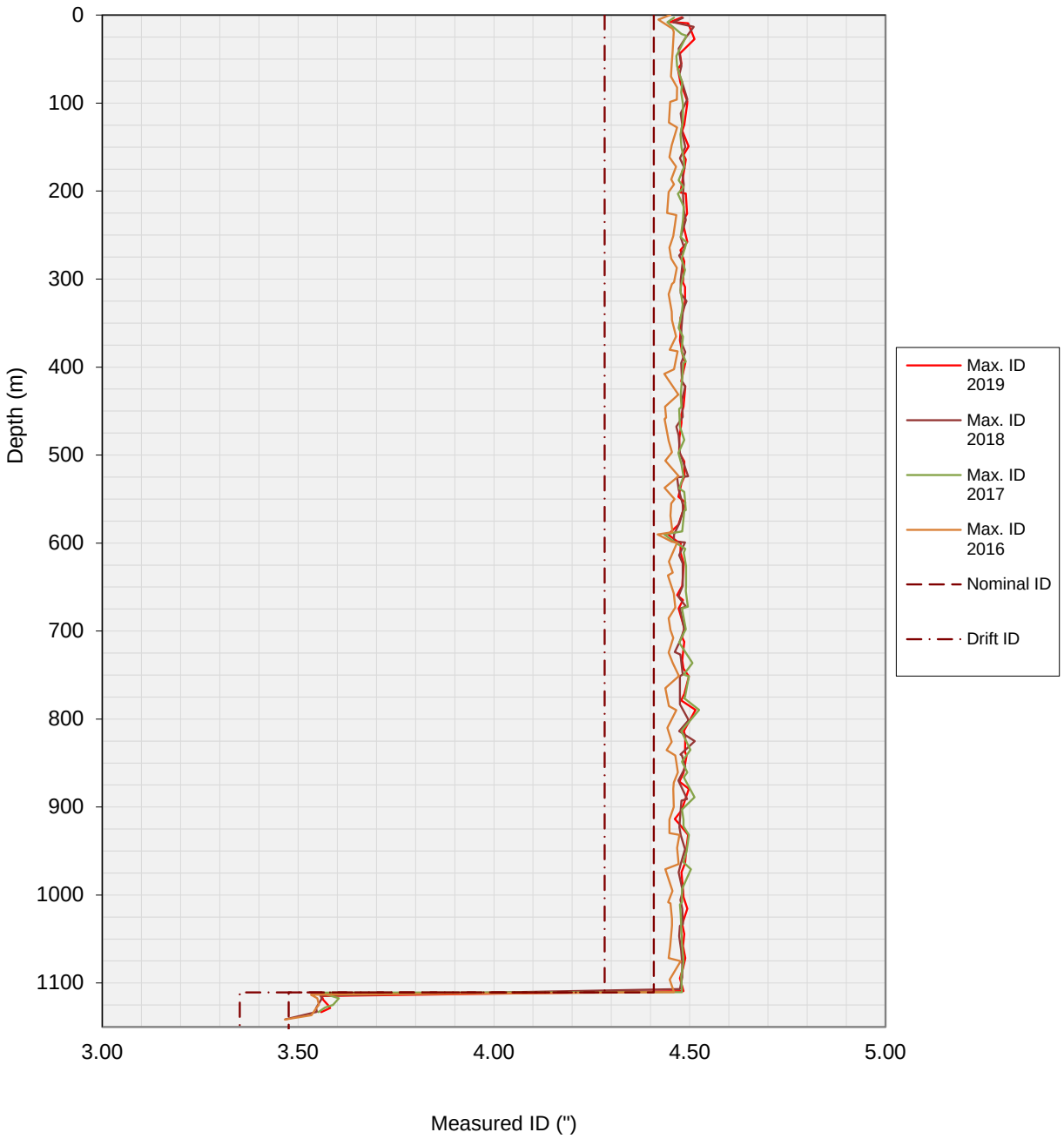
Survey Date:	14/11/2019	Survey	MFC-24 Extended	Job ID:	DAC636

Time-lapse Maximum ID per Joint vs. Depth Plot



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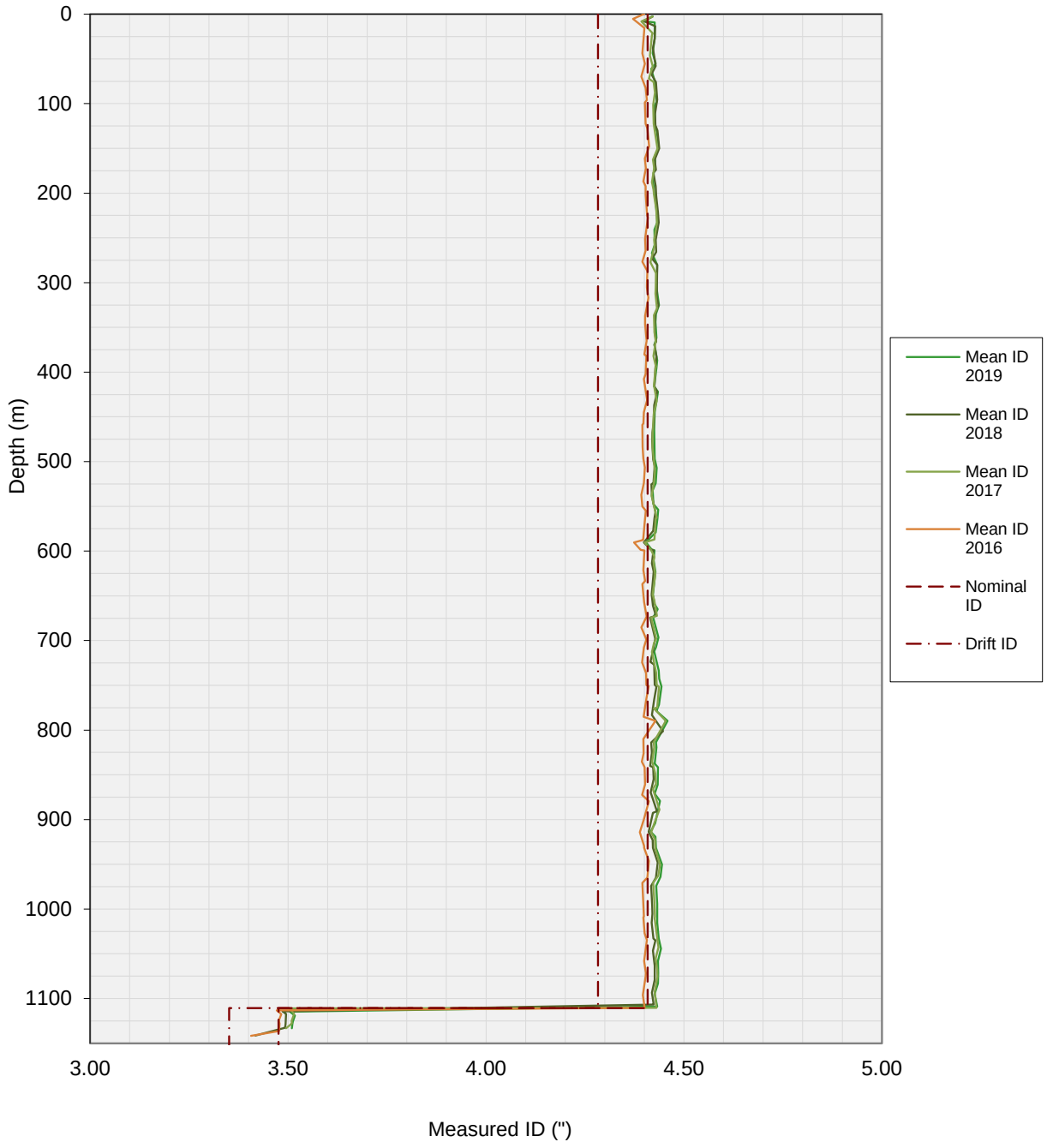
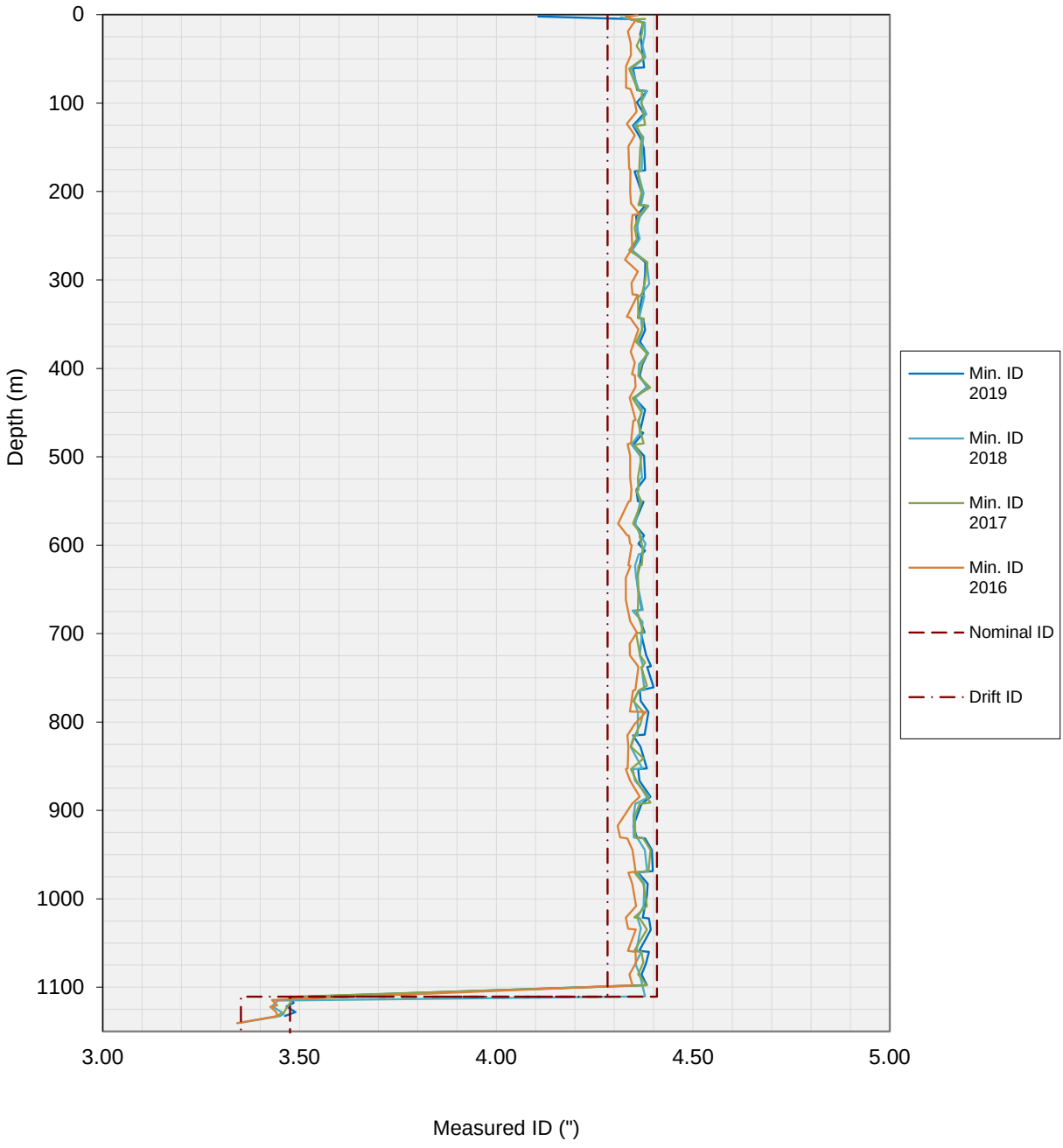
Survey Date:	14/11/2019	Survey	MFC-24 Extended	Job ID:	DAC636

Time-lapse Mean ID per Joint vs. Depth Plot



Client:	NAM	Well No.:	ROSSUM-WEERSELO-5	Field:	ROSSUM-WEERSELO
Survey Date:	14/11/2019	Survey	MFC-24 Extended	Job ID:	DAC636

Time-lapse Minimum ID per Joint vs. Depth Plot



Client:	NAM	Well No.:	ROSSUM-WEERSELO-5	Field:	ROSSUM-WEERSELO
Survey Date:	14/11/2019	Survey	MFC-24 Extended	Job ID:	DAC636

EXPRO

Client: NAM
Well: ROW-5
Survey Date: 14th November 2019
Tubulars Surveyed: 5", 15 lb/ft — **Nom. ID: 4.408** — **Drift ID: 4.283** — **Nom. OD: 5.000**
4", 10.9 lb/ft — **Nom. ID: 3.476** — **Drift ID: 3.351** — **Nom. OD: 4.000**

Max. % Penetration	0 - 20%	20 - 40%	40 - 50%	50 - 100%
Max. % Circumferential Loss	0 - 10%	10-20 %	20 - 25 %	25 - 100 %

Ref.	Top (m)	Bottom (m)	Length (m)	Max. ID (")	Dep. Max. (m)	Max. Pen. (%)	Max. Loss (%)	Min. ID (")	Dep. Min. (m)	Mean ID (")	Tubular OD (")	Completion Item
1	1.99	4.28	2.30	4.480	2.46	12.2	3.9	4.107	2.07	4.421	5.000	Pup joint
2	4.48	7.85	3.38	4.451	7.74	7.3	2.5	4.338	4.92	4.395	5.000	Pup joint
3	8.26	21.03	12.78	4.496	9.23	14.9	4.5	4.374	8.63	4.426	5.000	
4	21.44	34.03	12.59	4.512	27.26	17.6	4.8	4.365	21.77	4.426	5.000	
5	34.45	47.06	12.62	4.475	43.58	11.3	3.6	4.370	35.07	4.421	5.000	
6	47.48	59.67	12.19	4.479	55.08	12.0	4.7	4.376	59.66	4.428	5.000	
7	60.08	72.85	12.77	4.470	61.22	10.5	3.2	4.348	60.51	4.417	5.000	
8	73.26	85.40	12.14	4.476	76.64	11.5	4.6	4.358	85.11	4.427	5.000	
9	85.80	98.26	12.46	4.494	98.02	14.5	5.4	4.383	86.24	4.431	5.000	
10	98.59	111.40	12.82	4.493	101.84	14.4	4.6	4.357	99.11	4.426	5.000	
11	111.82	124.56	12.74	4.486	124.37	13.2	4.4	4.375	111.95	4.427	5.000	
12	124.96	137.60	12.64	4.481	131.56	12.3	5.6	4.348	125.42	4.432	5.000	
13	138.00	150.09	12.09	4.497	149.26	15.0	6.1	4.365	138.37	4.436	5.000	
14	150.49	163.24	12.75	4.484	158.91	12.8	4.4	4.375	150.96	4.426	5.000	
15	163.65	176.39	12.74	4.490	164.20	13.9	4.6	4.378	175.98	4.427	5.000	
16	176.80	188.93	12.13	4.482	185.80	12.5	3.6	4.352	177.15	4.421	5.000	
17	189.34	202.06	12.72	4.476	201.74	11.5	4.7	4.370	201.59	4.426	5.000	
18	202.50	215.24	12.74	4.490	202.93	13.9	4.6	4.365	214.87	4.427	5.000	
19	215.66	227.21	11.56	4.493	225.70	14.4	5.3	4.378	215.86	4.432	5.000	
20	227.62	239.29	11.68	4.484	232.76	12.8	5.5	4.356	228.05	4.433	5.000	
21	239.71	252.49	12.78	4.485	240.76	13.0	4.0	4.358	240.14	4.426	5.000	
22	252.90	265.70	12.81	4.494	257.93	14.5	4.3	4.361	253.36	4.426	5.000	
23	266.11	278.74	12.63	4.476	267.07	11.5	3.4	4.344	266.45	4.419	5.000	
24	279.16	291.84	12.69	4.486	280.07	13.2	5.4	4.379	280.02	4.432	5.000	
25	292.25	304.66	12.41	4.483	303.79	12.7	6.5	4.378	292.64	4.431	5.000	
26	305.08	317.52	12.44	4.488	309.09	13.5	5.4	4.374	317.42	4.432	5.000	
27	317.93	329.99	12.07	4.488	325.04	13.5	6.0	4.371	318.00	4.437	5.000	
28	330.39	342.89	12.50	4.484	334.89	12.8	4.9	4.360	342.69	4.429	5.000	

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Survey Date:	14/11/2019	Survey	MFC-24 Extended	Job ID:	DAC636

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Ref.	Top (m)	Bottom (m)	Length (m)	Max. ID (")	Dep. Max. (m)	Max. Pen. (%)	Max. Loss (%)	Min. ID (")	Dep. Min. (m)	Mean ID (")	Tubular OD (")	Completion Item
29	343.31	356.04	12.74	4.476	343.90	11.5	4.3	4.374	343.69	4.428	5.000	
30	356.46	368.93	12.47	4.476	361.66	11.5	5.0	4.378	356.84	4.431	5.000	
31	369.34	382.15	12.82	4.475	369.45	11.3	4.2	4.365	369.81	4.425	5.000	
32	382.55	394.32	11.77	4.482	386.65	12.5	5.2	4.385	382.85	4.432	5.000	
33	394.73	407.50	12.77	4.489	395.30	13.7	4.9	4.372	395.32	4.430	5.000	
34	407.90	420.62	12.72	4.478	416.01	11.8	4.0	4.365	408.31	4.425	5.000	
35	421.03	432.66	11.63	4.489	421.96	13.7	5.9	4.384	421.48	4.434	5.000	
36	433.07	445.80	12.74	4.484	444.90	12.8	4.5	4.351	433.46	4.426	5.000	
37	446.21	458.79	12.58	4.479	453.59	12.0	4.0	4.378	446.73	4.426	5.000	
38	459.21	472.01	12.80	4.479	463.64	12.0	4.5	4.365	471.58	4.425	5.000	
39	472.42	485.13	12.71	4.474	480.21	11.1	4.1	4.374	472.81	4.426	5.000	
40	485.56	498.21	12.65	4.473	497.00	11.0	4.5	4.349	485.97	4.426	5.000	
41	498.62	511.28	12.66	4.486	507.14	13.2	5.2	4.376	499.05	4.431	5.000	
42	511.69	524.43	12.75	4.487	524.06	13.3	4.3	4.378	524.11	4.428	5.000	
43	524.84	537.60	12.76	4.479	532.03	12.0	4.5	4.356	537.32	4.421	5.000	
44	538.01	550.39	12.38	4.471	547.48	10.6	3.9	4.360	550.30	4.423	5.000	
45	550.59	562.95	12.36	4.489	553.86	13.7	6.0	4.374	550.82	4.435	5.000	
46	563.19	576.00	12.82	4.483	563.39	12.7	5.6	4.351	575.71	4.433	5.000	
47	576.41	589.06	12.65	4.471	579.01	10.6	5.1	4.376	589.05	4.429	5.000	
48	589.23	590.35	1.12	4.445	590.21	6.3	1.6	4.375	590.01	4.404	5.000	Pup joint
49	590.46	597.81	7.35	4.290	594.85	-	-	3.813	594.91	3.939	5.000	Safety valve
50	598.02	598.50	0.48	4.468	598.11	10.1	3.6	4.362	598.49	4.419	5.000	Pup joint
51	598.61	609.63	11.02	4.477	599.08	11.7	5.7	4.378	606.34	4.426	5.000	
52	610.05	622.74	12.69	4.476	610.46	11.5	4.4	4.369	610.48	4.423	5.000	
53	623.15	635.74	12.59	4.485	623.26	13.0	4.4	4.365	623.17	4.428	5.000	
54	636.15	648.77	12.62	4.481	648.67	12.3	4.0	4.357	636.53	4.422	5.000	
55	649.17	661.47	12.30	4.468	659.12	10.1	4.2	4.360	649.52	4.426	5.000	
56	661.74	673.11	11.37	4.483	664.86	12.7	5.6	4.371	673.02	4.434	5.000	
57	673.53	685.89	12.36	4.472	674.36	10.8	3.7	4.356	674.03	4.422	5.000	
58	686.30	698.84	12.55	4.486	696.53	13.2	6.0	4.377	698.55	4.436	5.000	
59	699.25	711.62	12.37	4.481	707.59	12.3	4.8	4.368	699.68	4.430	5.000	
60	712.03	724.72	12.69	4.486	712.05	13.2	4.2	4.381	724.45	4.425	5.000	
61	725.13	737.42	12.29	4.481	733.38	12.3	6.1	4.394	736.91	4.437	5.000	
62	737.72	750.49	12.76	4.484	742.75	12.8	6.2	4.384	737.73	4.438	5.000	
63	750.71	763.66	12.95	4.498	751.54	15.2	8.7	4.400	760.72	4.443	5.000	
64	763.86	775.49	11.63	4.486	771.66	13.2	6.1	4.365	764.41	4.437	5.000	

Client:	NAM	Well No.:	ROSSUM-WEERSELO-5	Field:	ROSSUM-WEERSELO
Survey Date:	14/11/2019	Survey	MFC-24 Extended	Job ID:	DAC636

EXPRO

Ref.	Top (m)	Bottom (m)	Length (m)	Max. ID (")	Dep. Max. (m)	Max. Pen. (%)	Max. Loss (%)	Min. ID (")	Dep. Min. (m)	Mean ID (")	Tubular OD (")	Completion Item
65	775.67	788.46	12.80	4.478	778.72	11.8	4.9	4.367	776.27	4.430	5.000	
66	788.71	801.56	12.85	4.515	789.61	18.1	10.6	4.387	788.71	4.459	5.000	
67	801.79	814.53	12.74	4.485	813.71	13.0	4.7	4.377	814.46	4.429	5.000	
68	814.94	827.29	12.35	4.489	819.28	13.7	5.1	4.348	815.13	4.431	5.000	
69	827.58	840.24	12.66	4.488	837.55	13.5	4.9	4.367	828.00	4.426	5.000	
70	840.64	852.64	12.00	4.492	841.46	14.2	5.9	4.383	852.44	4.435	5.000	
71	853.05	865.57	12.52	4.484	861.07	12.8	5.7	4.361	853.25	4.434	5.000	
72	865.99	878.67	12.68	4.474	870.97	11.1	4.4	4.364	866.52	4.426	5.000	
73	878.95	891.84	12.89	4.498	879.39	15.2	8.4	4.392	884.59	4.439	5.000	
74	892.08	904.79	12.71	4.479	903.97	12.0	4.6	4.369	892.64	4.428	5.000	
75	905.20	917.85	12.65	4.462	913.52	9.1	3.0	4.348	917.54	4.416	5.000	
76	918.25	930.86	12.61	4.473	919.12	11.0	5.5	4.357	930.52	4.428	5.000	
77	931.27	944.03	12.76	4.496	931.68	14.9	4.7	4.378	931.67	4.430	5.000	
78	944.43	956.83	12.40	4.491	950.16	14.0	7.2	4.396	944.81	4.444	5.000	
79	957.23	969.35	12.12	4.488	963.87	13.5	6.6	4.398	968.75	4.441	5.000	
80	969.75	982.40	12.65	4.479	974.10	12.0	4.6	4.360	970.21	4.430	5.000	
81	982.81	995.58	12.77	4.483	994.27	12.7	5.6	4.385	982.82	4.432	5.000	
82	995.99	1008.62	12.64	4.484	1002.43	12.8	6.0	4.383	996.38	4.432	5.000	
83	1009.03	1021.28	12.26	4.494	1015.39	14.5	4.8	4.373	1021.20	4.432	5.000	
84	1021.69	1034.21	12.52	4.481	1033.03	12.3	5.9	4.388	1022.05	4.436	5.000	
85	1034.51	1046.35	11.84	4.486	1044.29	13.2	6.5	4.393	1034.96	4.442	5.000	
86	1046.61	1059.14	12.53	4.483	1058.01	12.7	5.8	4.364	1058.96	4.435	5.000	
87	1059.55	1071.68	12.14	4.489	1071.56	13.7	5.3	4.388	1059.98	4.435	5.000	
88	1072.09	1084.71	12.62	4.483	1083.25	12.7	5.8	4.380	1073.26	4.434	5.000	
89	1085.12	1097.26	12.14	4.475	1094.69	11.3	4.4	4.369	1085.51	4.426	5.000	
90	1097.67	1110.51	12.84	4.484	1109.14	12.8	5.5	4.383	1097.69	4.432	5.000	
91	1110.58	1110.87	0.29	4.386	1110.58	-	-	3.472	1110.85	3.527	5.000	X-over
92	1111.09	1115.10	4.01	3.560	1114.63	16.0	8.7	3.476	1111.20	3.505	4.000	Pup joint
93	1115.24	1116.95	1.71	5.554	1116.43	-	-	3.401	1115.24	4.111	4.000	SPM
94	1117.13	1121.29	4.16	3.564	1119.09	16.8	10.5	3.485	1117.61	3.517	4.000	Pup joint
95	1121.50	1125.70	4.20	3.577	1125.61	19.3	9.1	3.467	1121.68	3.512	4.000	Pup joint
96	1125.80	1127.47	1.67	5.368	1126.93	-	-	3.401	1125.80	4.103	4.000	SPM
97	1127.61	1131.95	4.34	3.582	1128.54	20.2	13.7	3.490	1127.98	3.511	4.000	Pup joint
98	1132.01	1132.33	0.33	3.709	1132.10	-	-	3.311	1132.17	3.420	4.000	Nipple
99	1132.39	1136.34	3.95	3.559	1133.17	15.8	7.7	3.463	1132.53	3.509	4.000	Pup joint
100	1136.50	1140.18	3.68	4.444	1138.71	-	-	3.463	1140.18	4.185	4.000	Anchor/packer

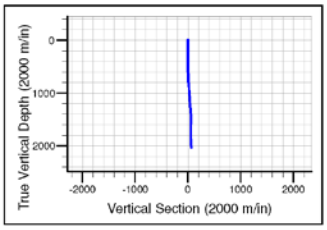
5. Well & Survey Information

Site: ROSSUM-WEERSELO-5
Well Name: ROSSUM-WEERSELO- 5
Wellbore Name: ROW- 5
Wellbore No: 01
Legal Wellbore Name: ROSSUM-WEERSELO- 5
Original Spud Date: 04/06/1972
Spud/Kick-off date: 04/06/1972
Tree Cap Connection: 6.875" 4G ACME
H2S Present: Y
LSA Present: N
Well Comments:
NOTE: For further detail: consult OpenWells/iWellfile

Schematic Datum: TBF @ 22.52m

Casing Assemblies

Name	Top MD(m)	Base MD(m)	Size(in)
Conductor - driven	0.50	29.40	24.000
Surface Casing	0.00	243.72	16.000
Intermediate Casing	0.00	798.06	10.750
Production Casing	-0.51	1,375.13	7.000

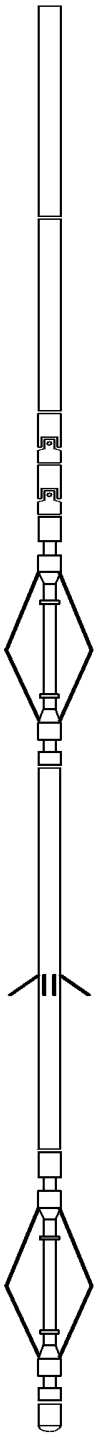


Wellbore Comments: Hole 1:Compass 2000 Rig Name: NAM 1
Compass 2000 Description: Spudded 04-06-1972; 4.1/8 x 4.1/16 X-over nodig + 4.1/16 Riser. |Original Compass Actual Design Datum: ROW- 5 ORT @ 29.46 metres above System Datum|

Top Perfo's	Casing Details	Schematic last update (14/06/2017)	Completion Details	Body ID / Min ID	HUD ORDERED AT DEPTH NOT AT DATE !!!!
			-1.07m, LDO TENTION TBG HGR, 4.00" SA-PROFILE, 5.0" - 15.0# VAM, 5.1/4" RAMS, CL, H1/U, ,	4.000in / 4.000in	
			-1.06m, WLLM,4.000,22-SAMA-4000-I070,SA,8100/8500,H2S, , LM3850	1.750in / 1.750in	
			-1.05m, WLSF,2.750,17-BPV-0068-ISLB,BPV,3600,H2S,N, , FV2358	0.000in / 0.000in	
	24.000", 29.40m		-0.55m, TBNG 5.0" - 15.0# VAM, L80, ,	4.408in / 4.408in	
	16.000", 243.72m				
			589.20m, TGPJ 5.0" - 15.0# VAM, L80, 4 ft, ,	4.408in / 4.408in	
			594.91m, WLLM,3.81,910RQ38101,RQ,2010/13320,H2S, , LM4116	2.620in / 2.620in	
			590.40m, FLCP, 5.0" - 15.0# VAM x 4.1/2" - 12.6# VAM, 9Cr1Mo, ,	3.865in / 3.865in	
			594.92m, WLSF,3.81,824-76-3812,RQVDES,5K,2200FT,H2S/CO2,E (O=160bar,F=175bar,C=100bar), , FV2410	2.500in / 2.500in	
			594.90m, LNSV, 3.813" RRQ-PROFILE, 4.1/2" - 12.6# VAM, 9Cr1Mo, ,	3.813in / 3.813in	
			595.62m, FLCP, 4.1/2" - 12.6# VAM x 5.0" - 15.0# VAM, 9Cr1Mo, ,	3.865in / 3.865in	
			598.32m, TGPJ 5.0" - 15.0# VAM, L80, 2 ft, ,	4.408in / 4.408in	
			598.92m, TBNG 5.0" - 15.0# VAM, L80, ,	4.408in / 4.408in	
			1,110.60m, TGCO 5.0" - 15.0# VAM x 4.0" - 10.9# VAM, ,	3.476in / 3.476in	
			1,115.30m, DUMMY VALVE, 1 inch, ,	/	
			1,110.85m, TGPJ 4.0" - 10.9# VAM, L80, 16 ft, ,	3.476in / 3.476in	
			1,115.20m, SPMA 4.0" - 10.9# VAM, KBMG, SOUR, 4130, BxB, ,	3.356in / 3.356in	
			1,117.10m, TGPJ 4.0" - 10.9# VAM, L80, 16 ft, PxP, ,	3.476in / 3.476in	
			1,121.40m, TGPJ 4.0" - 10.9# VAM, L80, 16 ft, ,	3.476in / 3.476in	
			1,125.80m, Camco Dummy Valve E, 1 inch, ,	/	
			1,125.70m, SPMA 4.0-10.9 VAM, KBMG, SOUR, 4130, ,	3.356in / 3.356in	
			1,127.60m, TGPJ 4.0" - 10.9# VAM, L80, 16 ft, PxP, ,	3.476in / 3.476in	
			1,132.00m, LN, 3.313" X-PROFILE, 4.0" - 10.9# VAM, 9Cr1Mo, ,	3.313in / 3.313in	
			1,132.40m, TGPJ 4.0" - 10.9# VAM, L80, 16 ft, ,	3.476in / 3.476in	
			1,136.79m, ANCHOR SEAL, SNAT, 81FA47, KBH-22, 4.0" - 10.9# VAM, BU, 4140, ,	3.750in / 3.750in	
1,200.06m			1,136.80m, PACKER 7.0", 83FAB47, 5.0" - 18.0# VAM, BD, 4140, ,	4.000in / 4.000in	
1,204.06m			1,137.80m, TGPJ 5.0" - 15.0# VAM, C75, 7 ft, PxP, ,	4.408in / 4.408in	
1,214.16m			1,140.02m, TGCO 5.0" - 15.0# VAM x 4.0" - 10.9# VAM, ,	3.476in / 3.476in	
1,221.16m			1,140.25m, TGPJ 4.0" - 10.9# VAM, C75, 16 ft, ,	3.476in / 3.476in	
			1,144.76m, FLCP, 4.0" - 10.9# VAM, 9Cr1Mo, ,	3.366in / 3.366in	
			1,145.59m, LN, 3.313" X-PROFILE, 4.0" - 10.9# VAM, 9Cr1Mo, ,	3.313in / 3.313in	
			1,145.87m, ENTRY GUIDE 3.313", 4.0" - 10.9# VAM, 9Cr1Mo, ,	3.313in / 3.313in	
					H.1,223.00m,07/09/2009 00:00
			1,243.10m, PACKER 7.0", 83FAB47, 5.0" - 18.0# VAM, BD, 4140, ,	4.000in / 4.000in	
			1,244.10m, TGPJ 5.0" - 15.0# VAM, C75, 7 ft, PxP, ,	4.408in / 4.408in	
			1,246.31m, TGCO 5.0" - 15.0# VAM x 3.1/2" - 10.2# VAM, ,	2.921in / 2.921in	
			1,246.54m, TGPJ 3.1/2" - 10.2# VAM, C75, 16 t, ,	2.922in / 2.922in	
			1,251.10m, LN, 2.750" X-PROFILE, 3.1/2" - 10.2# VAM, 9Cr1Mo, ,	2.750in / 2.750in	
			1,251.40m, ENTRY GUIDE 2.75, 3.1/2 VAM, 9Cr1Mo, ,	2.750in / 2.750in	
1,267.66m					
1,272.96m					
1,275.36m					
1,295.06m					
					H.1,352.00m,22/09/2015 00:00
					H.1,352.00m,23/09/2015 00:00
	7.000", 1,375.13m				H.1,352.00m,09/11/2016 13:15
					H.1,353.00m,21/10/2014 00:00
					H.1,354.00m,29/11/2012 00:00
					H.1,354.00m,08/10/2013 00:00
					H.1,356.00m,09/05/2007 00:00
					H.1,357.00m,24/08/2004 00:00
					H.1,358.00m,27/09/1995 00:00
					H.1,358.00m,28/05/1993 00:00
					H.1,358.00m,07/05/1991 00:00
					H.1,361.00m,05/10/2000 00:00
					H.1,363.00m,27/05/1998 00:00

Prepared By: EUROPE\J-W.vanDongen (J-W.vanDongen) Date: 01/06/2017
Data QA/QC'd by: Date QA/QC'd:

Client:	NAM	Well No.:	ROSSUM-WEERSELO-5	Field:	ROSSUM-WEERSELO
Survey Date:	14/11/2019	Survey	MFC-24 Extended	Job ID:	DAC636

Sensor	Offset (m)	Schematic	Description	Length (m)	O.D. (in)	Weight (lb
			MBH-025 (052137) Memory Battery Housing	0.71	1.69	11.60
			UMT-003 (217180) Ultrawire Memory Tool 128MB	0.65	1.69	10.60
			PKJ-013 (98631) Production Knuckle Joint	0.17	1.69	3.50
			PKJ-013 (C-1355) Production Knuckle Joint	0.17	1.69	3.50
			PRC-034 (C-1255) Production Roller Centraliser (4 Arm)	0.84	1.69	13.00
			MIT-028 (10018576) Multifinger Imaging Tool (UW 24F)	1.28	1.69	20.70
MIT	0.94					
			PRC-034 (C-1263) Production Roller Centraliser (4 Arm)	0.84	1.69	13.00
			BUL-006 (219117) Bullnose Terminator	0.10	1.69	1.20

Dataset:	Sondex Ultrawire Memory MIT/MTT
Total length:	4.77 m
Total weight:	77.10 lb
O.D.:	1.69 in