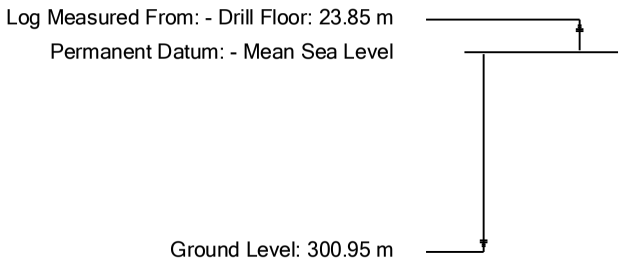
Drilling Mechanics Depth
1:200 Measured Depth
Recorded Mode Data

Schlumberger

Company:	BP Development Australia Pty Ltd
Well:	Ironbark-1
Field:	Ironbark
Rig Name:	Ocean Apex
State:	Western Australia
Country:	Australia

Latitude:	19° 9' 34.079" S	UWID:	20AWA0029
Longitude:	116° 4' 35.795" E	Rig Name:	Ocean Apex
Block:	WA-359-P	Rig Type:	Semi-Submersible

FL:	WA-359-P
FL1:	Northing: 7,881,270.990 m
FL2:	Easting: 402,902.910 m



Acquisition Dates:	25-Dec-2020 -- 30-Dec-2020
Log Interval:	5150.00(m) -- 5618.00(m)
Index Types:	Measured Depth
Index Scales:	1:200
Depth Source:	Driller's Depth
Depth Sensor:	DES
Print Type:	Final
Spud Date:	31-OCT-2020

Other Services:

VISION Service

InterACT

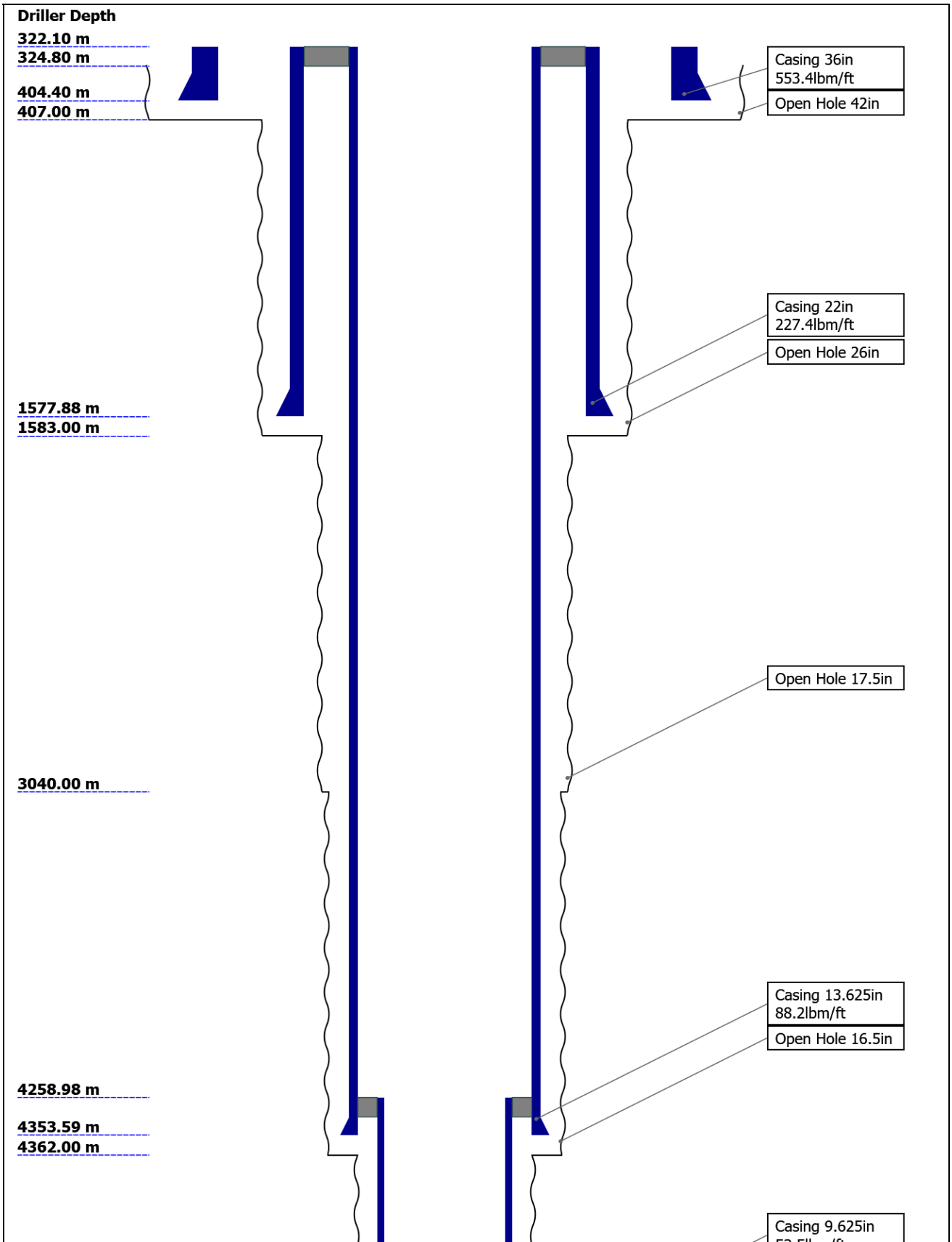
Directional Services

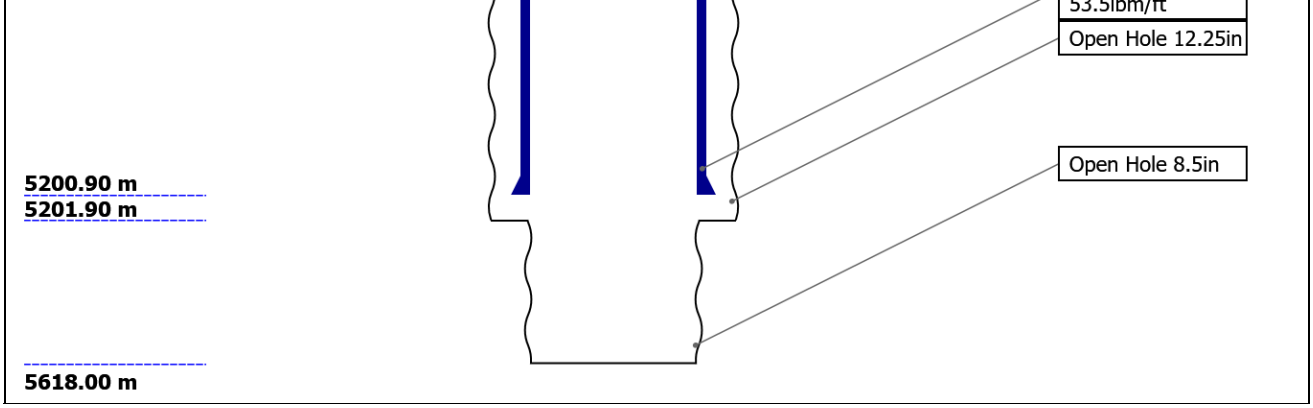
Country: Australia
State: Western Australia
Rig Name: Ocean Apex
Field: Ironbark
Well: Ironbark-1
Company: BP Development Australia Pty Ltd

Disclaimer

Contents

Well Sketch


Driller Depth
322.10 m
324.80 m
404.40 m
407.00 m
1577.88 m
1583.00 m
3040.00 m
4258.98 m
4353.59 m
4362.00 m
Casing 36in
553.4lbm/ft
Open Hole 42in
Casing 22in
227.4lbm/ft
Open Hole 26in
Open Hole 17.5in
Casing 13.625in
88.2lbm/ft
Open Hole 16.5in
Casing 9.625in



Borehole Size/Casing Record

Bit						
Bit Size (in)	42	26	17.5	16.5	12.25	8.5
Top Driller (m)	324.8	407	1583	3040	4362	5201.9
Bottom Driller (m)	407	1583	3040	4362	5201.9	5618
Casing						
Size (in)	36	22	13.625	9.625		
Weight (lbm/ft)	553.4	227.4	88.2	53.5		
Inner Diameter (in)	32.191	20.018	12.375	8.639		
Grade	X56	N/A	N/A	P110		
Top Driller (m)	322.1	322.1	322.1	4258.98		
Bottom Driller (m)	404.4	1577.88	4353.59	5200.9		

Operational Run Summary

Parameter (unit)	Run8_8.5in					
Date Log Started	25-Dec-2020					
Time Log Started	20:13:26					
Date Log Finished	30-Dec-2020					
Time Log Finished	09:47:12					
Bit Size (in)	8.500					
Bit Start Depth (m)	5201.90					
Bit Stop Depth (m)	5618.00					
Top Log Interval (m)	5150.00					
Bottom Log Interval (m)	5608.50					
Max Hole Deviation (deg)	1.52					
Azimuth of Max Deviation (deg)	305.09					
Logging Unit Number	1010979					
Logging Unit Location	Portside Deck					
Recorded By	B.Yang/K.Hasanov/S.Lewy					
Witnessed By	S.Southworth/M.Jones					
Service Order Number	20AWA0029					

Remarks and Equipment Summary

Remarks and Equipment Summary

Run8_8.5in: Toolstring

Equip name	Length	MP name	Offset
ADN6C:H7429/1	37.92	adnVISION	
		Neutron	36.03
		Density	34.83
		UltraSonic	34.44
		ROP	33.68
SONICVISION6:A0847	31.3	sonicVISION	
		Delta-T	28.26
		ROP	27.86
Stab: 6 3/4":OSS15-01319B	24.12	ILS	
TELE675:N18M0068	22.89	TeleScope	

Run8_8.5in: Remarks

Depth is referenced to Driller's Depth.

Depth is tide-corrected.

DES consists of a Geolograph and GTE.

Pump Strokes, Surface Torque, and Surface RPM data is taken from the Geoservices via wits.

arcVISION Gamma Ray is corrected for mud weight, bit size, collar thickness and potassium content in the mud.

arcVISION Resistivity is borehole compensated and environmentally corrected for bit size, mud resistivity and temperature.

sonicVISION Delta-T is borehole compensated.

adnVISION Neutron Porosity is corrected for borehole size, mud salinity, temperature and mud hydrogen index (a factor of mud weight, temperature and pressure).

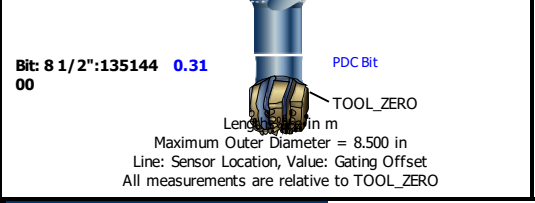
adnVISION Density is compensated for standoff with the spine and rib algorithm which determines a correction factor.

17.5x21.2in was drilled with17.5in bit but enlarged to 21.2in later, all the LWD tools were logging under 17.5in environment, so bit size has to be set as17.5in on that section for environment correction purpose, and no 18in casing can be added.

Run Objective: Drill 8.5in hole to well total depth.

Reason for POOH: Well Total Depth@5618mMD.

ARC6:E9135	13.53	arcVISION
Stab: 8 1/4"[2]:OS S13-01685E	7.72	Stabilizer
NMDC: 6 3/4":SBD 10884	6.01	NMPC
Stab: 8 1/4"[1]:SB D10890	2.15	NB Stab



Survey Record

Survey Calculation

Method :	Minimum Radius of Curvature	DLS Method :	Lubinski
North Reference :	Grid North	Total Correction Formula :	Magnetic Dec - Grid Convergence
Grid Convergence :	0.30 deg		

Rig Location

Latitude :	19° 9' 34.079" S	Longitude :	116° 4' 35.795" E

Tie In Point

Measured Depth:	0.00 m	Inclination:	0.00 deg	Azimuth:	0.00 deg
True Vertical Depth:	0.00 m	North Displacement:	0.00 m	East Displacement:	0.00 m
N/-S VSec Origin:	0.00 m	E/-W VSec Origin:	0.00 m	Vertical Section Azimuth:	0.00 deg

D&I Inits Computed and Values Used - Run1_26inx42in

Geomagnetic Model :	BGGM 2020	Geomagnetic Date :	30-Oct-2020
Computed Location B :	51138.82 nT +/- 300.00nT	Used Location B :	51138.83 nT +/- 300.00nT
Computed Location G :	997.89 mgn +/- 2.50mgn	Used Location G :	997.90 mgn +/- 2.50mgn
Computed Magnetic Dip :	-50.49 deg +/- 0.45deg	Used Magnetic Dip :	-50.49 deg +/- 0.45deg
Computed Magnetic Dec :	0.86 deg	Used Magnetic Dec :	0.86 deg
Computed Total Correction :	0.56 deg	Used Total Correction :	0.56 deg

D&I Inits Computed and Values Used - Run2_26in

Geomagnetic Model :	BGGM 2020	Geomagnetic Date :	30-Oct-2020
Computed Location B :	51138.82 nT +/- 300.00nT	Used Location B :	51138.83 nT +/- 300.00nT
Computed Location G :	997.89 mgn +/- 2.50mgn	Used Location G :	997.90 mgn +/- 2.50mgn
Computed Magnetic Dip :	-50.49 deg +/- 0.45deg	Used Magnetic Dip :	-50.49 deg +/- 0.45deg
Computed Magnetic Dec :	0.86 deg	Used Magnetic Dec :	0.86 deg
Computed Total Correction :	0.56 deg	Used Total Correction :	0.56 deg

D&I Inits Computed and Values Used - Run3_17.5x21.2in

Geomagnetic Model :	BGGM 2020	Geomagnetic Date :	30-Oct-2020
Computed Location B :	51138.82 nT +/- 300.00nT	Used Location B :	51138.83 nT +/- 300.00nT
Computed Location G :	997.89 mgn +/- 2.50mgn	Used Location G :	997.90 mgn +/- 2.50mgn
Computed Magnetic Dip :	-50.49 deg +/- 0.45deg	Used Magnetic Dip :	-50.49 deg +/- 0.45deg
Computed Magnetic Dec :	0.86 deg	Used Magnetic Dec :	0.86 deg
Computed Total Correction :	0.56 deg	Used Total Correction :	0.56 deg

D&I Inits Computed and Values Used - Run4_17.5x21.2in

Geomagnetic Model :	BGGM 2020	Geomagnetic Date :	30-Oct-2020
Computed Location B :	51138.82 nT +/- 300.00nT	Used Location B :	51138.83 nT +/- 300.00nT
Computed Location G :	997.89 mgn +/- 2.50mgn	Used Location G :	997.90 mgn +/- 2.50mgn
Computed Magnetic Dip :	-50.49 deg +/- 0.45deg	Used Magnetic Dip :	-50.49 deg +/- 0.45deg
Computed Magnetic Dec :	0.86 deg	Used Magnetic Dec :	0.86 deg
Computed Total Correction :	0.56 deg	Used Total Correction :	0.56 deg

D&I Inits Computed and Values Used - Run5_16.5in

Geomagnetic Model :	BGGM 2020	Geomagnetic Date :	30-Oct-2020
Computed Location B :	51138.82 nT +/- 300.00nT	Used Location B :	51138.83 nT +/- 300.00nT
Computed Location G :	997.89 mgn +/- 2.50mgn	Used Location G :	997.90 mgn +/- 2.50mgn
Computed Magnetic Dip :	-50.49 deg +/- 0.45deg	Used Magnetic Dip :	-50.49 deg +/- 0.45deg
Computed Magnetic Dec :	0.86 deg	Used Magnetic Dec :	0.86 deg
Computed Total Correction :	0.56 deg	Used Total Correction :	0.56 deg

D&I Inits Computed and Values Used - Run6_16.5in

Geomagnetic Model :	BGGM 2020	Geomagnetic Date :	30-Oct-2020
Computed Location B :	51138.82 nT +/- 300.00nT	Used Location B :	51138.83 nT +/- 300.00nT
Computed Location G :	997.89 mgn +/- 2.50mgn	Used Location G :	997.90 mgn +/- 2.50mgn

Computed Magnetic Dip :	-50.49 deg +/- 0.45deg	Used Magnetic Dip :	-50.49 deg +/- 0.45deg
Computed Magnetic Dec :	0.86 deg	Used Magnetic Dec :	0.86 deg
Computed Total Correction :	0.56 deg	Used Total Correction :	0.56 deg

D&I Inits Computed and Values Used - Run7_12.25in

Geomagnetic Model :	BGGM 2020	Geomagnetic Date :	30-Oct-2020
Computed Location B :	51138.82 nT +/- 300.00nT	Used Location B :	51138.83 nT +/- 300.00nT
Computed Location G :	997.89 mgn +/- 2.50mgn	Used Location G :	997.90 mgn +/- 2.50mgn
Computed Magnetic Dip :	-50.49 deg +/- 0.45deg	Used Magnetic Dip :	-50.49 deg +/- 0.45deg
Computed Magnetic Dec :	0.86 deg	Used Magnetic Dec :	0.86 deg
Computed Total Correction :	0.56 deg	Used Total Correction :	0.56 deg

D&I Inits Computed and Values Used - Run8_8.5in

Geomagnetic Model :	BGGM 2020	Geomagnetic Date :	30-Oct-2020
Computed Location B :	51138.82 nT +/- 300.00nT	Used Location B :	51138.83 nT +/- 300.00nT
Computed Location G :	997.89 mgn +/- 2.50mgn	Used Location G :	997.90 mgn +/- 2.50mgn
Computed Magnetic Dip :	-50.49 deg +/- 0.45deg	Used Magnetic Dip :	-50.49 deg +/- 0.45deg
Computed Magnetic Dec :	0.86 deg	Used Magnetic Dec :	0.86 deg
Computed Total Correction :	0.56 deg	Used Total Correction :	0.56 deg

Survey Quality Index

0 : Long Survey passed all criteria
2 : Long Survey failed mag criteria
4 : Long Survey failed all criteria
9 : Manual
28 : Tie-In Point

Survey Correction Index

0 : No correction

Survey Description Index

0 : Not Flagged Survey
7 : Projection to Bit

Seq	MD (m)	Incl (deg)	Azim (deg)	Course (m)	TVD (m)	V Sec (m)	N/ -S (m)	E/ -W (m)	Closure (m)	at Azim (deg)	DLS deg/30m	Tool Type	QI	CI	DI
1	0.00	0.00	0.00	- - - -	0.00	0.00	0.00	0.00	0.00	90.00	0.00	TIP	28	0	0
2	324.80	0.00	0.00	324.80	324.80	0.00	0.00	0.00	0.00	90.00	0.00	Other	9	0	0
3	357.80	0.24	204.22	33.00	357.80	-0.06	-0.06	-0.03	0.07	204.22	0.22	TeleScope	4	0	0
4	384.92	0.29	209.78	27.11	384.92	-0.17	-0.17	-0.09	0.19	206.21	0.07	TeleScope	2	0	0
5	394.30	0.29	199.53	9.38	394.30	-0.22	-0.22	-0.11	0.24	205.91	0.17	TeleScope	2	0	0
6	411.83	0.29	186.99	17.54	411.83	-0.30	-0.30	-0.13	0.33	202.54	0.11	TeleScope	2	0	0
7	441.02	0.57	198.30	29.19	441.02	-0.51	-0.51	-0.18	0.54	199.33	0.30	TeleScope	2	0	0
8	468.10	0.43	192.97	27.07	468.09	-0.74	-0.74	-0.25	0.78	198.32	0.16	TeleScope	2	0	0
9	496.64	0.32	189.98	28.54	496.63	-0.93	-0.93	-0.28	0.97	197.03	0.12	TeleScope	2	0	0
10	524.98	0.33	193.27	28.34	524.98	-1.08	-1.08	-0.32	1.13	196.27	0.02	TeleScope	4	0	0
11	554.36	0.26	197.41	29.38	554.36	-1.23	-1.23	-0.35	1.28	196.13	0.07	TeleScope	2	0	0
12	581.61	0.17	192.89	27.25	581.61	-1.32	-1.32	-0.38	1.38	196.10	0.10	TeleScope	2	0	0
13	609.83	0.41	208.84	28.22	609.82	-1.45	-1.45	-0.44	1.52	196.85	0.27	TeleScope	2	0	0
14	637.71	0.25	200.72	27.88	637.71	-1.60	-1.60	-0.51	1.67	197.70	0.18	TeleScope	2	0	0
15	666.95	0.35	203.21	29.23	666.94	-1.73	-1.73	-0.57	1.82	198.07	0.10	TeleScope	2	0	0
16	694.32	0.15	154.43	27.37	694.31	-1.84	-1.84	-0.58	1.93	197.57	0.30	TeleScope	2	0	0
17	722.92	0.39	173.59	28.60	722.91	-1.97	-1.97	-0.56	2.05	195.77	0.27	TeleScope	4	0	0
18	750.64	0.26	153.70	27.72	750.63	-2.12	-2.12	-0.52	2.18	193.75	0.19	TeleScope	2	0	0
19	778.03	0.11	105.18	27.39	778.02	-2.18	-2.18	-0.47	2.23	192.03	0.22	TeleScope	2	0	0
20	807.61	0.13	24.58	29.58	807.60	-2.16	-2.16	-0.42	2.20	191.07	0.16	TeleScope	2	0	0
21	834.50	0.22	18.37	26.89	834.49	-2.08	-2.08	-0.39	2.12	190.70	0.11	TeleScope	2	0	0
22	861.54	0.31	23.24	27.04	861.53	-1.97	-1.97	-0.35	2.00	190.04	0.10	TeleScope	2	0	0
23	891.48	0.36	17.61	29.94	891.47	-1.80	-1.80	-0.29	1.83	189.08	0.06	TeleScope	2	0	0
24	919.75	0.35	13.68	28.28	919.74	-1.63	-1.63	-0.24	1.65	188.37	0.03	TeleScope	2	0	0
25	947.42	0.31	4.28	27.67	947.41	-1.48	-1.48	-0.21	1.49	188.28	0.08	TeleScope	2	0	0
26	973.79	0.33	15.24	26.37	973.79	-1.33	-1.33	-0.19	1.34	188.10	0.07	TeleScope	2	0	0
27	1002.79	0.53	18.98	28.99	1002.78	-1.12	-1.12	-0.12	1.13	186.28	0.22	TeleScope	2	0	0
28	1031.23	0.47	23.29	28.45	1031.22	-0.89	-0.89	-0.03	0.89	182.23	0.08	TeleScope	2	0	0

29	1058.66	0.41	26.32	27.42	1058.65	-0.70	-0.70	0.05	0.70	175.68	0.06	TeleScope	2	0	0
30	1086.33	0.52	44.77	27.67	1086.32	-0.52	-0.52	0.19	0.55	160.45	0.20	TeleScope	2	0	0
31	1114.11	0.46	47.42	27.78	1114.09	-0.36	-0.36	0.36	0.50	135.04	0.07	TeleScope	2	0	0
32	1142.10	0.41	70.38	28.00	1142.09	-0.25	-0.25	0.53	0.59	114.87	0.19	TeleScope	4	0	0
33	1169.34	0.57	93.00	27.24	1169.32	-0.22	-0.22	0.76	0.79	106.28	0.27	TeleScope	4	0	0
34	1199.03	0.71	109.03	29.69	1199.01	-0.29	-0.29	1.08	1.12	105.01	0.23	TeleScope	4	0	0
35	1225.15	0.70	117.03	26.12	1225.13	-0.41	-0.41	1.38	1.44	106.78	0.11	TeleScope	4	0	0
36	1226.69	0.72	115.62	1.54	1226.67	-0.42	-0.42	1.39	1.46	106.91	0.53	TeleScope	2	0	0
37	1252.20	0.79	118.33	25.51	1252.18	-0.58	-0.58	1.69	1.79	108.81	0.10	TeleScope	2	0	0
38	1280.40	0.78	125.86	28.19	1280.37	-0.78	-0.78	2.02	2.17	111.15	0.11	TeleScope	4	0	0
39	1307.85	0.73	131.54	27.45	1307.83	-1.01	-1.01	2.30	2.51	113.63	0.10	TeleScope	2	0	0
40	1336.56	0.66	135.36	28.71	1336.53	-1.25	-1.25	2.55	2.84	115.99	0.09	TeleScope	2	0	0
41	1365.28	0.78	137.95	28.73	1365.25	-1.51	-1.51	2.80	3.18	118.29	0.13	TeleScope	2	0	0
42	1394.15	1.09	138.79	28.87	1394.12	-1.86	-1.86	3.11	3.63	120.86	0.32	TeleScope	2	0	0
43	1422.32	1.13	141.34	28.17	1422.28	-2.28	-2.28	3.46	4.15	123.34	0.06	TeleScope	2	0	0
44	1449.38	1.09	141.01	27.06	1449.33	-2.69	-2.69	3.79	4.65	125.31	0.04	TeleScope	4	0	0
45	1476.57	1.19	143.75	27.19	1476.52	-3.11	-3.11	4.12	5.16	127.08	0.13	TeleScope	4	0	0
46	1505.66	1.63	145.92	29.09	1505.60	-3.70	-3.70	4.53	5.85	129.23	0.46	TeleScope	4	0	0
47	1533.16	1.81	140.90	27.51	1533.09	-4.36	-4.36	5.02	6.65	130.96	0.25	TeleScope	2	0	0
48	1554.24	1.93	135.14	21.07	1554.15	-4.87	-4.87	5.48	7.33	131.61	0.32	TeleScope	2	0	0
49	1558.24	1.89	133.59	4.01	1558.16	-4.96	-4.96	5.58	7.47	131.66	0.46	TeleScope	2	0	0
50	1613.46	2.24	137.62	55.22	1613.34	-6.39	-6.39	6.97	9.45	132.52	0.21	TeleScope	2	0	0
51	1640.45	2.28	142.21	26.99	1640.31	-7.20	-7.20	7.65	10.51	133.27	0.20	TeleScope	2	0	0
52	1665.19	2.27	142.48	24.75	1665.03	-7.98	-7.98	8.25	11.48	134.04	0.01	TeleScope	2	0	0
53	1696.98	2.30	141.65	31.79	1696.80	-8.98	-8.98	9.03	12.74	134.84	0.04	TeleScope	4	0	0
54	1725.43	2.26	142.07	28.44	1725.22	-9.87	-9.87	9.73	13.86	135.41	0.04	TeleScope	2	0	0
55	1754.71	2.23	140.32	29.29	1754.48	-10.76	-10.76	10.45	15.00	135.85	0.08	TeleScope	4	0	0
56	1780.80	2.21	141.32	26.09	1780.55	-11.55	-11.55	11.09	16.01	136.17	0.05	TeleScope	2	0	0
57	1808.81	2.19	138.52	28.01	1808.54	-12.37	-12.37	11.78	17.08	136.40	0.12	TeleScope	2	0	0
58	1836.06	2.08	140.26	27.25	1835.77	-13.14	-13.14	12.44	18.10	136.57	0.14	TeleScope	2	0	0
59	1865.69	2.06	142.20	29.63	1865.38	-13.98	-13.98	13.11	19.16	136.83	0.07	TeleScope	2	0	0
60	1891.46	1.96	142.72	25.77	1891.14	-14.69	-14.69	13.66	20.06	137.08	0.12	TeleScope	2	0	0
61	1924.02	1.95	141.96	32.56	1923.68	-15.57	-15.57	14.34	21.17	137.36	0.03	TeleScope	2	0	0
62	1947.77	1.73	143.21	23.75	1947.41	-16.18	-16.18	14.80	21.93	137.54	0.28	TeleScope	2	0	0
63	1972.38	1.71	144.18	24.61	1972.01	-16.77	-16.77	15.24	22.66	137.74	0.05	TeleScope	2	0	0
64	2002.46	1.72	145.12	30.08	2002.08	-17.51	-17.51	15.76	23.56	138.00	0.03	TeleScope	2	0	0
65	2028.64	1.68	145.35	26.18	2028.24	-18.14	-18.14	16.21	24.33	138.23	0.05	TeleScope	2	0	0
66	2056.72	1.72	144.14	28.08	2056.31	-18.82	-18.82	16.69	25.16	138.45	0.06	TeleScope	2	0	0
67	2084.47	1.68	143.96	27.75	2084.05	-19.49	-19.49	17.17	25.98	138.62	0.04	TeleScope	2	0	0
68	2112.31	1.68	147.60	27.83	2111.87	-20.17	-20.17	17.63	26.79	138.84	0.12	TeleScope	2	0	0
69	2140.19	1.65	147.19	27.89	2139.75	-20.85	-20.85	18.07	27.59	139.09	0.04	TeleScope	2	0	0
70	2167.83	1.56	146.32	27.64	2167.38	-21.50	-21.50	18.49	28.35	139.30	0.09	TeleScope	2	0	0
71	2196.20	1.60	148.78	28.37	2195.74	-22.16	-22.16	18.91	29.13	139.52	0.08	TeleScope	2	0	0
72	2224.74	1.44	148.01	28.54	2224.27	-22.80	-22.80	19.31	29.88	139.75	0.17	TeleScope	2	0	0
73	2254.86	1.30	151.75	30.11	2254.37	-23.43	-23.43	19.67	30.59	139.98	0.17	TeleScope	2	0	0
74	2281.24	1.32	153.89	26.38	2280.75	-23.96	-23.96	19.94	31.17	140.23	0.06	TeleScope	2	0	0
75	2308.52	1.26	154.99	27.28	2308.02	-24.51	-24.51	20.21	31.77	140.50	0.07	TeleScope	2	0	0
76	2336.54	1.24	154.32	28.03	2336.04	-25.06	-25.06	20.47	32.36	140.76	0.03	TeleScope	2	0	0
77	2364.73	1.16	159.79	28.19	2364.22	-25.61	-25.61	20.70	32.93	141.05	0.15	TeleScope	2	0	0
78	2395.62	1.13	163.09	30.89	2395.10	-26.19	-26.19	20.90	33.51	141.42	0.07	TeleScope	2	0	0
79	2422.25	1.12	167.90	26.63	2421.73	-26.70	-26.70	21.03	33.99	141.78	0.11	TeleScope	2	0	0

80	2449.45	1.07	175.49	27.20	2448.92	-27.21	-27.21	21.10	34.44	142.21	0.17	TeleScope	2	0	0
81	2478.07	1.04	173.02	28.63	2477.54	-27.74	-27.74	21.16	34.88	142.67	0.05	TeleScope	2	0	0
82	2504.78	0.67	198.42	26.71	2504.25	-28.13	-28.13	21.14	35.18	143.08	0.59	TeleScope	2	0	0
83	2532.44	0.58	200.39	27.66	2531.90	-28.41	-28.41	21.04	35.35	143.48	0.10	TeleScope	2	0	0
84	2560.36	0.42	213.21	27.93	2559.83	-28.63	-28.63	20.93	35.47	143.83	0.22	TeleScope	2	0	0
85	2590.11	0.36	226.50	29.74	2589.57	-28.79	-28.79	20.80	35.52	144.14	0.11	TeleScope	2	0	0
86	2619.36	0.37	215.18	29.26	2618.83	-28.93	-28.93	20.68	35.56	144.44	0.08	TeleScope	2	0	0
87	2646.81	0.57	197.10	27.45	2646.27	-29.13	-29.13	20.59	35.67	144.75	0.26	TeleScope	2	0	0
88	2673.67	0.63	186.80	26.86	2673.14	-29.41	-29.41	20.53	35.87	145.07	0.14	TeleScope	2	0	0
89	2701.71	0.63	188.69	28.04	2701.17	-29.71	-29.71	20.49	36.09	145.41	0.02	TeleScope	2	0	0
90	2730.88	0.60	188.83	29.16	2730.33	-30.02	-30.02	20.44	36.32	145.75	0.04	TeleScope	2	0	0
91	2759.22	0.47	187.21	28.34	2758.68	-30.28	-30.28	20.41	36.52	146.03	0.13	TeleScope	2	0	0
92	2786.22	0.41	188.21	27.00	2785.67	-30.49	-30.49	20.38	36.68	146.24	0.07	TeleScope	2	0	0
93	2812.78	0.29	182.79	26.56	2812.23	-30.65	-30.65	20.36	36.80	146.40	0.14	TeleScope	2	0	0
94	2842.78	0.26	191.99	30.00	2842.24	-30.80	-30.80	20.34	36.91	146.55	0.05	TeleScope	2	0	0
95	2870.53	0.20	203.60	27.75	2869.98	-30.90	-30.90	20.31	36.98	146.68	0.08	TeleScope	2	0	0
96	2897.59	0.15	195.41	27.06	2897.04	-30.98	-30.98	20.28	37.03	146.79	0.07	TeleScope	2	0	0
97	2926.33	0.09	136.06	28.74	2925.79	-31.03	-31.03	20.29	37.08	146.82	0.13	TeleScope	2	0	0
98	2954.09	0.06	133.50	27.75	2953.54	-31.06	-31.06	20.32	37.11	146.81	0.03	TeleScope	2	0	0
99	2971.58	0.12	103.10	17.50	2971.04	-31.07	-31.07	20.34	37.14	146.79	0.12	TeleScope	2	0	0
100	2995.92	0.23	112.84	24.33	2995.37	-31.09	-31.09	20.41	37.19	146.72	0.14	TeleScope	2	0	0
101	3018.03	0.26	93.61	22.11	3017.48	-31.11	-31.11	20.50	37.26	146.62	0.12	TeleScope	2	0	0
102	3045.96	0.32	84.01	27.93	3045.41	-31.11	-31.11	20.64	37.34	146.43	0.08	TeleScope	2	0	0
103	3073.52	0.43	71.06	27.56	3072.97	-31.07	-31.07	20.82	37.40	146.18	0.15	TeleScope	2	0	0
104	3102.01	0.53	54.83	28.49	3101.46	-30.96	-30.96	21.02	37.42	145.82	0.18	TeleScope	2	0	0
105	3131.56	0.81	42.86	29.55	3131.01	-30.73	-30.73	21.28	37.38	145.30	0.32	TeleScope	2	0	0
106	3160.02	1.03	30.44	28.46	3159.47	-30.36	-30.36	21.54	37.23	144.64	0.32	TeleScope	2	0	0
107	3188.26	1.22	35.43	28.24	3187.70	-29.89	-29.89	21.85	37.03	143.84	0.23	TeleScope	2	0	0
108	3215.12	1.66	41.65	26.85	3214.55	-29.37	-29.37	22.27	36.86	142.83	0.52	TeleScope	2	0	0
109	3242.66	2.33	45.32	27.54	3242.08	-28.68	-28.68	22.94	36.72	141.35	0.74	TeleScope	2	0	0
110	3270.92	2.60	43.57	28.26	3270.31	-27.81	-27.81	23.79	36.59	139.46	0.30	TeleScope	2	0	0
111	3298.98	2.63	46.62	28.07	3298.34	-26.90	-26.90	24.69	36.52	137.46	0.15	TeleScope	2	0	0
112	3327.37	2.88	50.28	28.39	3326.70	-26.00	-26.00	25.71	36.57	135.32	0.32	TeleScope	2	0	0
113	3355.35	2.93	53.08	27.98	3354.64	-25.12	-25.12	26.83	36.75	133.12	0.16	TeleScope	2	0	0
114	3383.32	2.91	50.63	27.97	3382.57	-24.24	-24.24	27.95	37.00	130.94	0.13	TeleScope	2	0	0
115	3410.62	2.86	49.19	27.30	3409.84	-23.36	-23.36	29.00	37.24	128.85	0.10	TeleScope	2	0	0
116	3438.10	2.74	50.60	27.48	3437.29	-22.49	-22.49	30.02	37.52	126.84	0.15	TeleScope	2	0	0
117	3467.99	2.78	52.45	29.88	3467.14	-21.60	-21.60	31.15	37.91	124.74	0.10	TeleScope	2	0	0
118	3496.92	2.78	53.47	28.93	3496.04	-20.76	-20.76	32.27	38.37	122.75	0.05	TeleScope	2	0	0
119	3524.14	2.94	52.00	27.22	3523.23	-19.93	-19.93	33.35	38.85	120.87	0.19	TeleScope	2	0	0
120	3550.80	2.94	51.80	26.65	3549.85	-19.09	-19.09	34.42	39.36	119.01	0.01	TeleScope	2	0	0
121	3580.71	2.99	53.26	29.92	3579.72	-18.15	-18.15	35.65	40.01	116.98	0.09	TeleScope	2	0	0
122	3606.89	3.04	51.89	26.18	3605.86	-17.31	-17.31	36.75	40.62	115.23	0.10	TeleScope	2	0	0
123	3634.86	2.88	52.39	27.97	3633.80	-16.43	-16.43	37.89	41.29	113.44	0.17	TeleScope	2	0	0
124	3663.69	2.92	54.72	28.83	3662.58	-15.56	-15.56	39.06	42.04	111.72	0.13	TeleScope	2	0	0
125	3692.41	2.90	54.68	28.72	3691.27	-14.72	-14.72	40.25	42.86	110.08	0.03	TeleScope	2	0	0
126	3718.76	2.93	55.18	26.35	3717.59	-13.95	-13.95	41.35	43.64	108.64	0.05	TeleScope	2	0	0
127	3747.95	2.90	55.27	29.19	3746.74	-13.10	-13.10	42.57	44.54	107.10	0.03	TeleScope	2	0	0
128	3773.17	2.92	57.54	25.22	3771.93	-12.39	-12.39	43.63	45.36	105.85	0.14	TeleScope	2	0	0
129	3803.28	2.88	55.09	30.11	3801.99	-11.55	-11.55	44.90	46.36	104.42	0.13	TeleScope	2	0	0
130	3829.05	2.80	52.61	25.77	3827.73	-10.79	-10.79	45.93	47.18	103.23	0.17	TeleScope	2	0	0

131	3856.85	2.82	47.46	27.80	3855.50	-9.92	-9.92	46.97	48.01	101.92	0.27	TeleScope	2	0	0
132	3885.65	2.79	46.21	28.80	3884.27	-8.96	-8.96	48.00	48.83	100.57	0.07	TeleScope	2	0	0
133	3915.43	2.81	47.43	29.78	3914.02	-7.96	-7.96	49.06	49.70	99.22	0.06	TeleScope	2	0	0
134	3943.62	2.81	44.83	28.18	3942.17	-7.00	-7.00	50.06	50.55	97.96	0.14	TeleScope	2	0	0
135	3972.01	2.88	47.57	28.40	3970.53	-6.03	-6.03	51.08	51.43	96.73	0.16	TeleScope	2	0	0
136	3998.93	2.88	49.94	26.92	3997.41	-5.14	-5.14	52.09	52.34	95.63	0.13	TeleScope	2	0	0
137	4025.02	2.95	49.45	26.09	4023.47	-4.28	-4.28	53.10	53.28	94.61	0.09	TeleScope	2	0	0
138	4053.18	3.07	50.28	28.16	4051.59	-3.33	-3.33	54.23	54.34	93.51	0.14	TeleScope	2	0	0
139	4081.79	3.13	48.82	28.61	4080.16	-2.32	-2.32	55.41	55.46	92.40	0.11	TeleScope	2	0	0
140	4109.34	3.07	47.88	27.55	4107.67	-1.33	-1.33	56.53	56.54	91.35	0.09	TeleScope	2	0	0
141	4137.28	3.04	49.05	27.94	4135.57	-0.34	-0.34	57.64	57.64	90.34	0.08	TeleScope	2	0	0
142	4165.73	3.04	49.13	28.45	4163.97	0.65	0.65	58.78	58.79	89.37	0.00	TeleScope	2	0	0
143	4194.16	3.15	49.02	28.43	4192.36	1.65	1.65	59.94	59.96	88.42	0.11	TeleScope	2	0	0
144	4230.43	2.99	49.00	36.27	4228.58	2.93	2.93	61.41	61.48	87.27	0.13	TeleScope	2	0	0
145	4257.27	2.99	52.30	26.84	4255.38	3.81	3.81	62.49	62.61	86.51	0.19	TeleScope	2	0	0
146	4285.59	2.97	51.57	28.32	4283.67	4.72	4.72	63.65	63.83	85.76	0.05	TeleScope	2	0	0
147	4312.79	2.86	50.29	27.20	4310.83	5.59	5.59	64.72	64.96	85.06	0.14	TeleScope	2	0	0
148	4335.12	2.67	50.83	22.33	4333.14	6.28	6.28	65.55	65.85	84.53	0.26	TeleScope	2	0	0
149	4388.53	1.98	56.21	53.40	4386.50	7.58	7.58	67.29	67.71	83.58	0.40	TeleScope	2	0	0
150	4413.96	1.73	51.16	25.43	4411.92	8.06	8.06	67.95	68.43	83.24	0.36	TeleScope	2	0	0
151	4440.89	1.24	50.85	26.94	4438.84	8.50	8.50	68.49	69.02	82.93	0.55	TeleScope	2	0	0
152	4471.00	0.63	55.53	30.11	4468.95	8.80	8.80	68.88	69.44	82.72	0.61	TeleScope	2	0	0
153	4498.91	0.45	344.64	27.91	4496.86	8.99	8.99	68.98	69.56	82.58	0.69	TeleScope	2	0	0
154	4526.55	1.03	294.85	27.64	4524.49	9.20	9.20	68.72	69.34	82.38	0.89	TeleScope	2	0	0
155	4552.54	1.51	283.60	26.00	4550.48	9.38	9.38	68.18	68.82	82.17	0.62	TeleScope	2	0	0
156	4581.73	1.82	276.84	29.19	4579.66	9.52	9.52	67.34	68.01	81.95	0.37	TeleScope	2	0	0
157	4611.12	1.81	272.98	29.39	4609.03	9.60	9.60	66.42	67.11	81.77	0.13	TeleScope	2	0	0
158	4637.92	0.80	282.37	26.80	4635.83	9.66	9.66	65.81	66.52	81.65	1.14	TeleScope	2	0	0
159	4665.22	0.87	278.27	27.30	4663.12	9.73	9.73	65.42	66.14	81.54	0.10	TeleScope	2	0	0
160	4693.46	0.83	277.06	28.24	4691.35	9.79	9.79	65.00	65.74	81.43	0.05	TeleScope	2	0	0
161	4721.37	0.73	286.88	27.91	4719.26	9.87	9.87	64.63	65.38	81.32	0.18	TeleScope	2	0	0
162	4749.23	0.73	300.53	27.86	4747.12	10.01	10.01	64.31	65.08	81.15	0.19	TeleScope	2	0	0
163	4776.40	0.73	311.21	27.17	4774.29	10.21	10.21	64.03	64.84	80.94	0.15	TeleScope	2	0	0
164	4806.14	0.87	308.22	29.74	4804.03	10.48	10.48	63.71	64.56	80.66	0.15	TeleScope	2	0	0
165	4835.36	1.12	305.89	29.22	4833.25	10.78	10.78	63.30	64.21	80.34	0.26	TeleScope	2	0	0
166	4862.20	1.52	305.09	26.84	4860.08	11.14	11.14	62.80	63.78	79.94	0.44	TeleScope	2	0	0
167	4888.71	1.47	306.83	26.51	4886.58	11.54	11.54	62.24	63.30	79.49	0.07	TeleScope	2	0	0
168	4915.58	1.45	308.26	26.87	4913.44	11.96	11.96	61.70	62.85	79.03	0.05	TeleScope	2	0	0
169	4945.43	1.41	307.96	29.85	4943.28	12.42	12.42	61.12	62.36	78.51	0.04	TeleScope	2	0	0
170	5000.77	1.33	312.27	55.35	4998.61	13.27	13.27	60.10	61.55	77.55	0.07	TeleScope	2	0	0
171	5056.71	1.09	310.19	55.94	5054.53	14.05	14.05	59.22	60.86	76.65	0.13	TeleScope	2	0	0
172	5085.89	0.26	129.55	29.18	5083.71	14.19	14.19	59.05	60.73	76.49	1.38	TeleScope	2	0	0
173	5112.02	0.19	119.48	26.12	5109.83	14.13	14.13	59.14	60.80	76.56	0.09	TeleScope	2	0	0
174	5137.38	0.20	126.01	25.36	5135.20	14.08	14.08	59.21	60.86	76.62	0.03	TeleScope	2	0	0
175	5167.63	0.22	160.25	30.25	5165.45	13.99	13.99	59.27	60.90	76.72	0.12	TeleScope	2	0	0
176	5234.60	0.18	137.57	66.97	5232.42	13.80	13.80	59.39	60.97	76.92	0.04	TeleScope	0	0	0
177	5260.42	0.13	200.09	25.81	5258.23	13.74	13.74	59.41	60.98	76.98	0.20	TeleScope	0	0	0
178	5288.96	0.24	153.35	28.54	5286.77	13.66	13.66	59.42	60.97	77.06	0.18	TeleScope	0	0	0
179	5317.13	0.46	105.92	28.18	5314.95	13.57	13.57	59.56	61.08	77.16	0.37	TeleScope	0	0	0
180	5344.76	0.28	96.62	27.63	5342.58	13.53	13.53	59.73	61.25	77.23	0.20	TeleScope	0	0	0
181	5373.43	0.29	93.33	28.67	5371.25	13.52	13.52	59.88	61.38	77.27	0.02	TeleScope	0	0	0
182	5401.67	0.09	92.23	28.24	5399.49	13.52	13.52	59.97	61.47	77.30	0.22	TeleScope	0	0	0

183	5428.13	0.09	277.22	26.46	5425.95	13.52	13.52	59.97	61.48	77.30	0.20	TeleScope	0	0	0
184	5455.48	0.12	324.83	27.34	5453.29	13.54	13.54	59.93	61.45	77.27	0.10	TeleScope	0	0	0
185	5485.72	0.17	232.10	30.24	5483.53	13.54	13.54	59.88	61.39	77.26	0.21	TeleScope	0	0	0
186	5511.06	0.17	274.74	25.34	5508.87	13.52	13.52	59.81	61.32	77.26	0.15	TeleScope	0	0	0
187	5538.64	0.17	6.39	27.59	5536.46	13.56	13.56	59.78	61.30	77.21	0.26	TeleScope	0	0	0
188	5568.69	0.22	59.35	30.04	5566.50	13.64	13.64	59.83	61.37	77.16	0.18	TeleScope	0	0	0
189	5598.44	0.18	15.54	29.75	5596.25	13.71	13.71	59.89	61.44	77.10	0.16	TeleScope	0	0	0
190	5618.00	0.18	15.54	19.56	5615.81	13.77	13.77	59.91	61.47	77.05	0.00	Other	9	0	7

Run8_8.5in

Software Version

Acquisition System	Version
Maxwell 2020.1	10.1.205256.3100
Application Patch	DnM_TestKit-PDDHS34-2020.1_10.1.209314
	DnM_Hotfix-Mandatory-2020.1_10.1.210302

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Include Parallel Data
Run8_8.5in	Drilling	Down	4799.79 m	5618.30 m	25-Dec-2020 8:13:26 PM	30-Dec-2020 9:47:12 AM	Yes

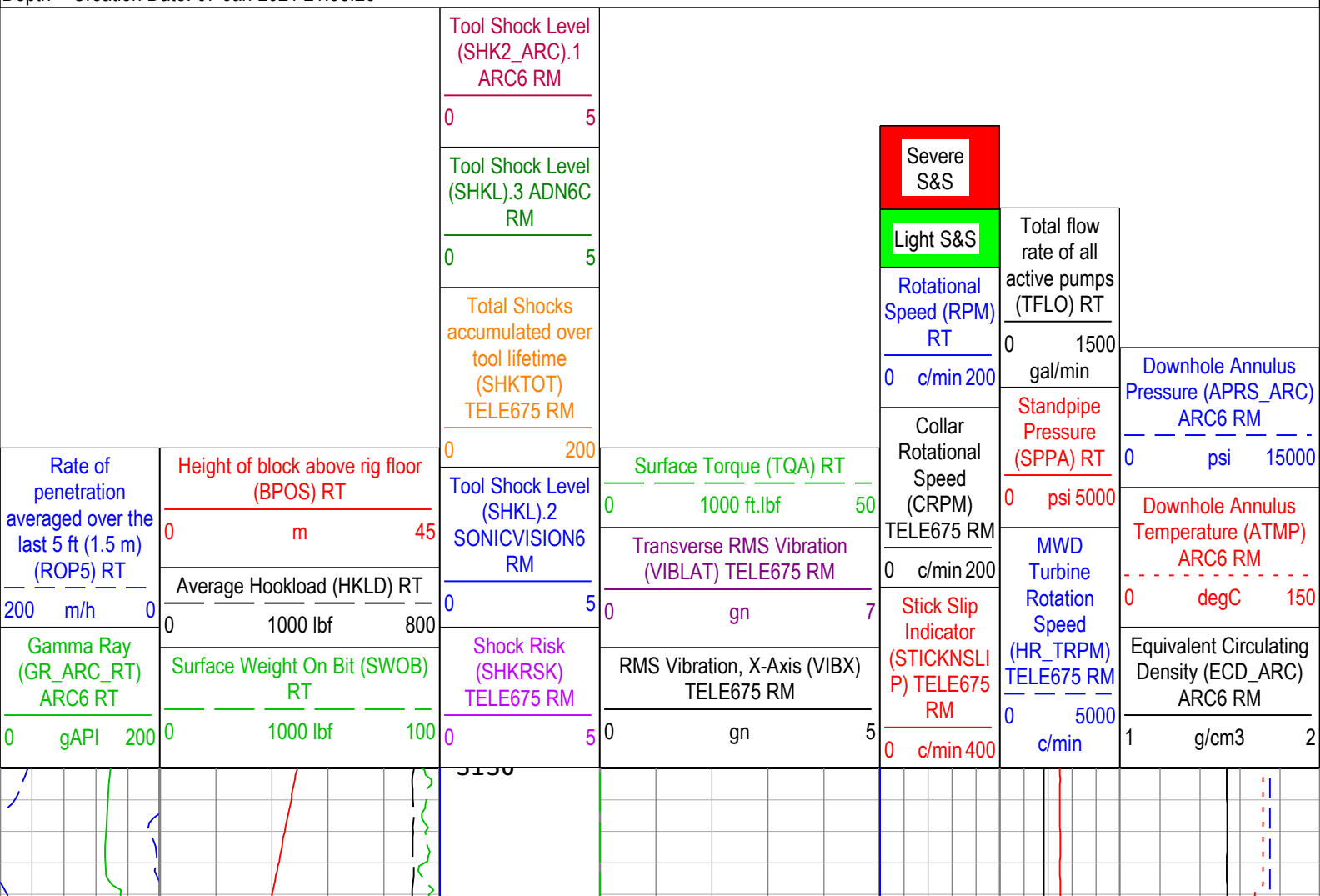
All depths are referenced to toolstring zero

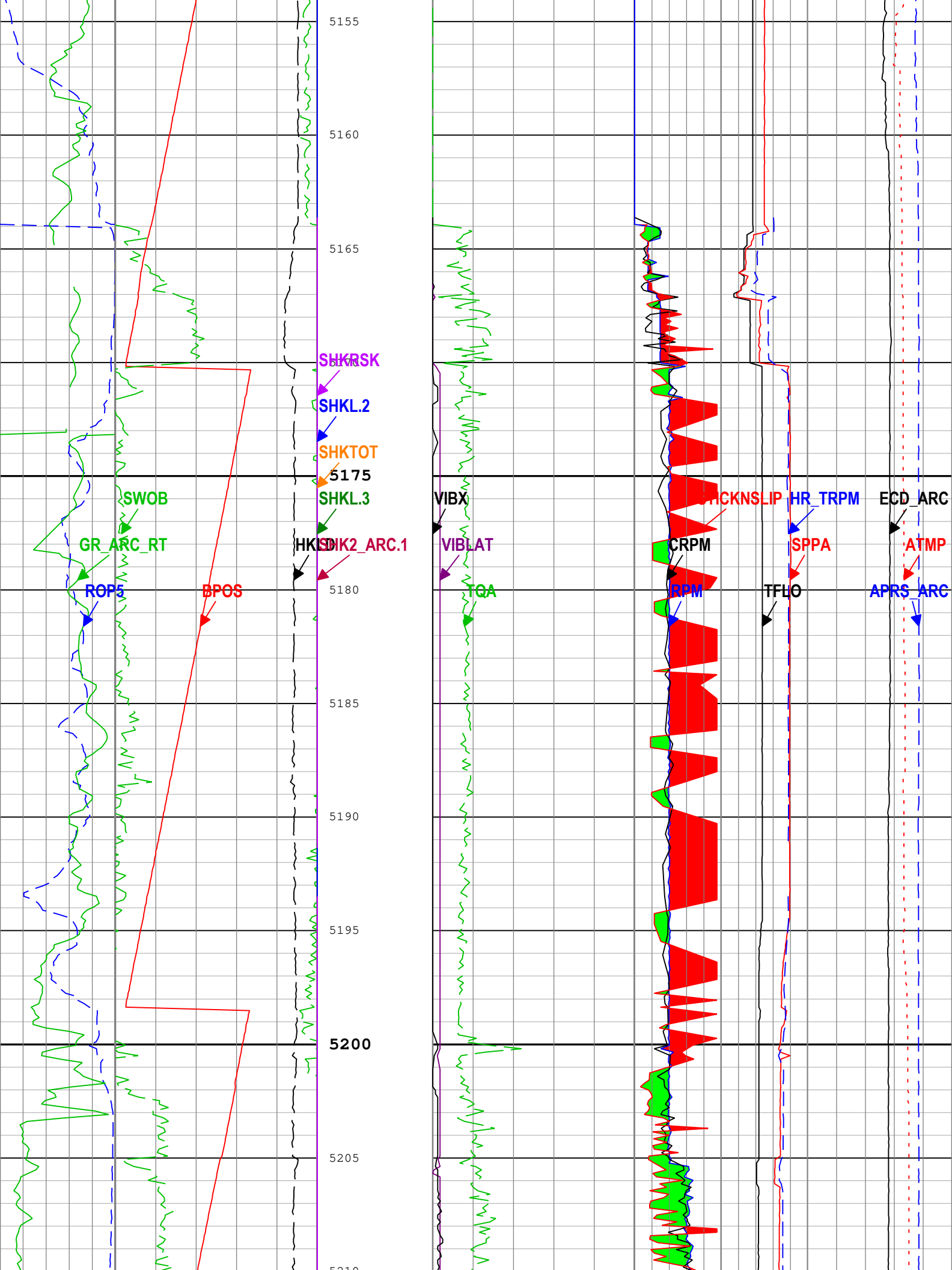
Log

Company:BP Development Australia Pty Ltd Well:Ironbark-1

Run8_8.5in: Drilling:S426

Description: TeleScope Drilling Mechanics Depth RT Format: Log (8.5in_DML_Depth RM) Index Scale: 1:200 Index Unit: m Index Type: Measured Depth Creation Date: 07-Jan-2021 21:38:26

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SWOB
GR_ARC_RT
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BPOS
VIBX
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RPM
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TFLO
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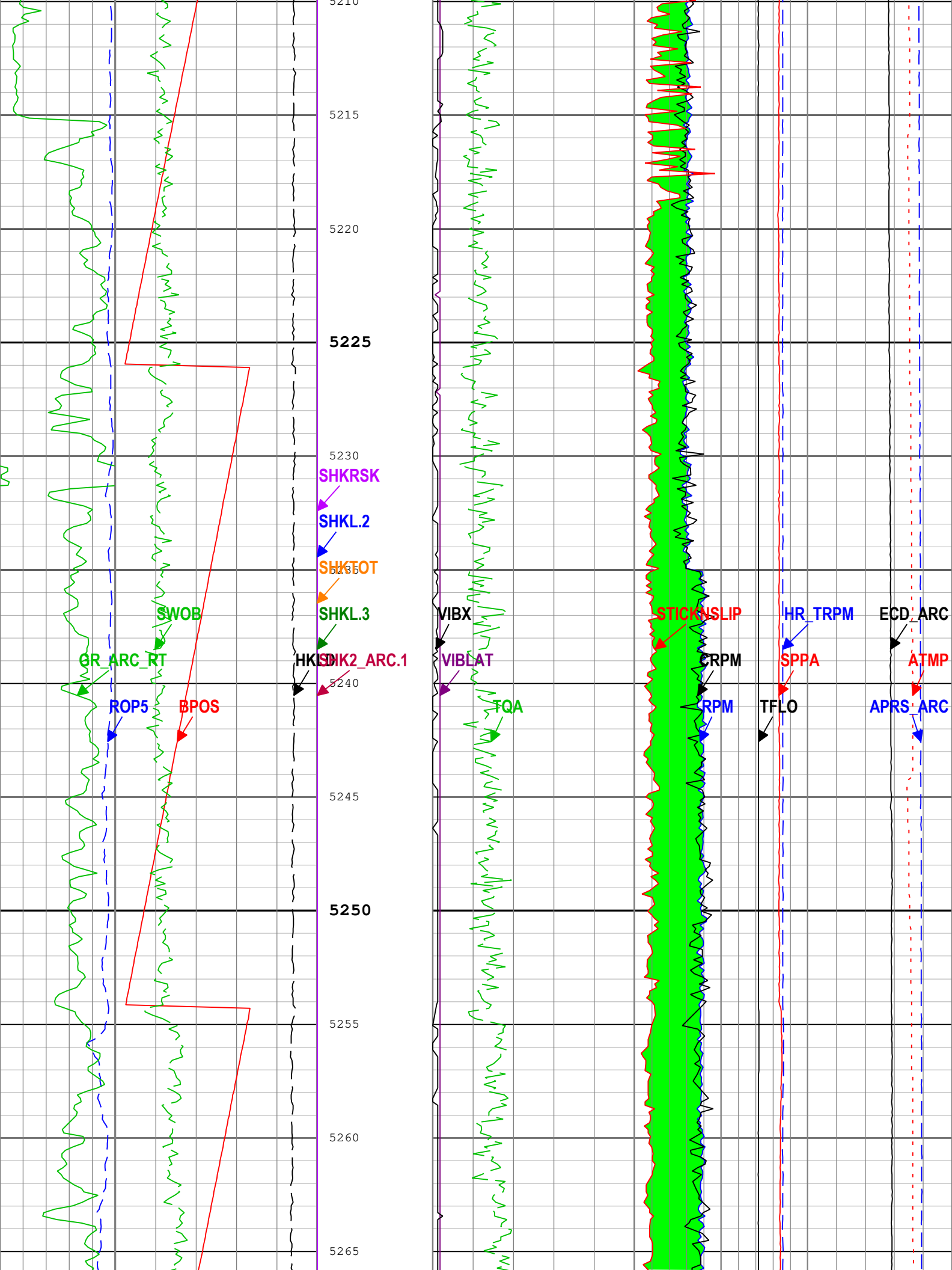
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SHK2_ARC.1
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GR_ARC_RT
ROP5
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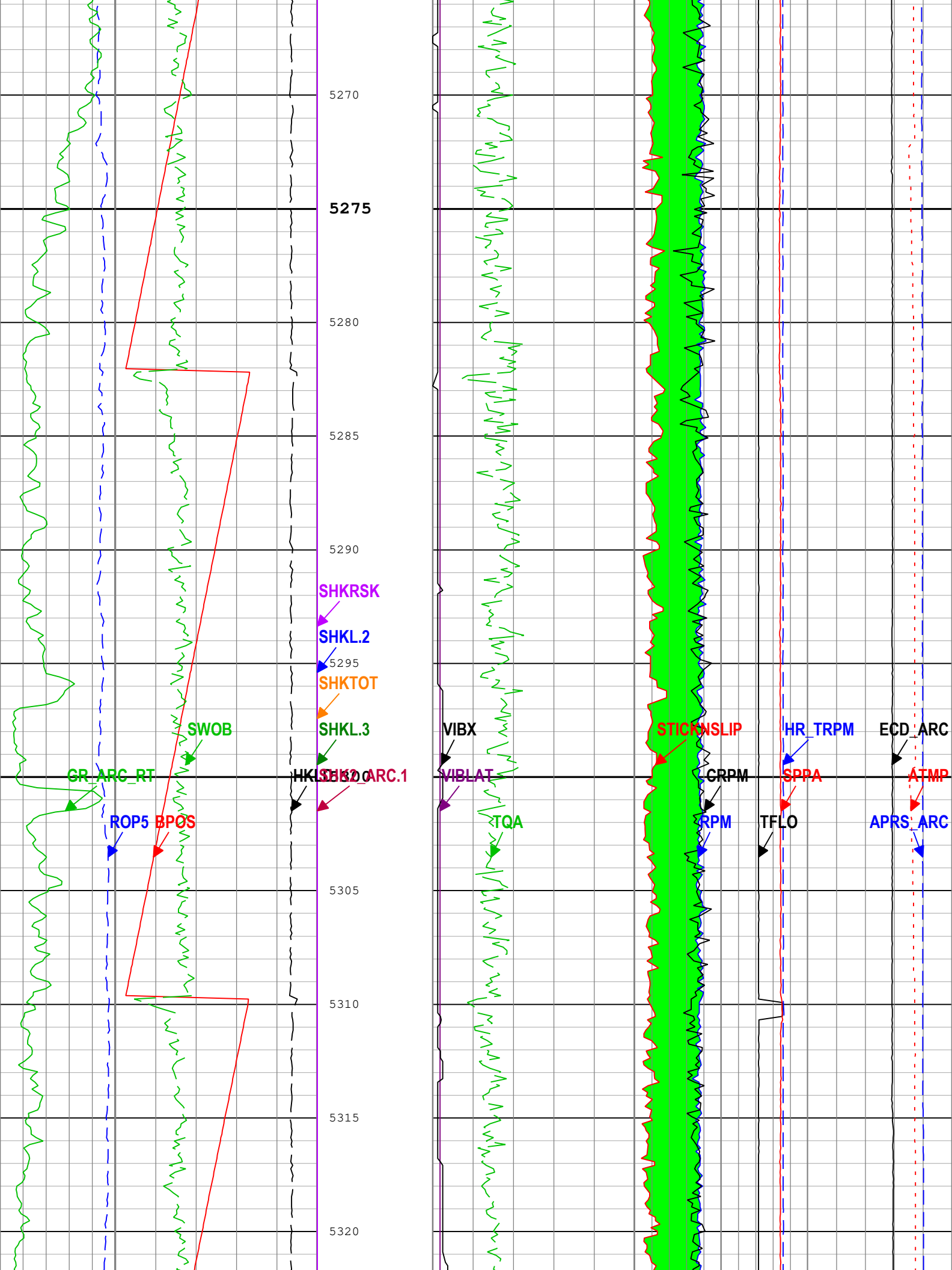
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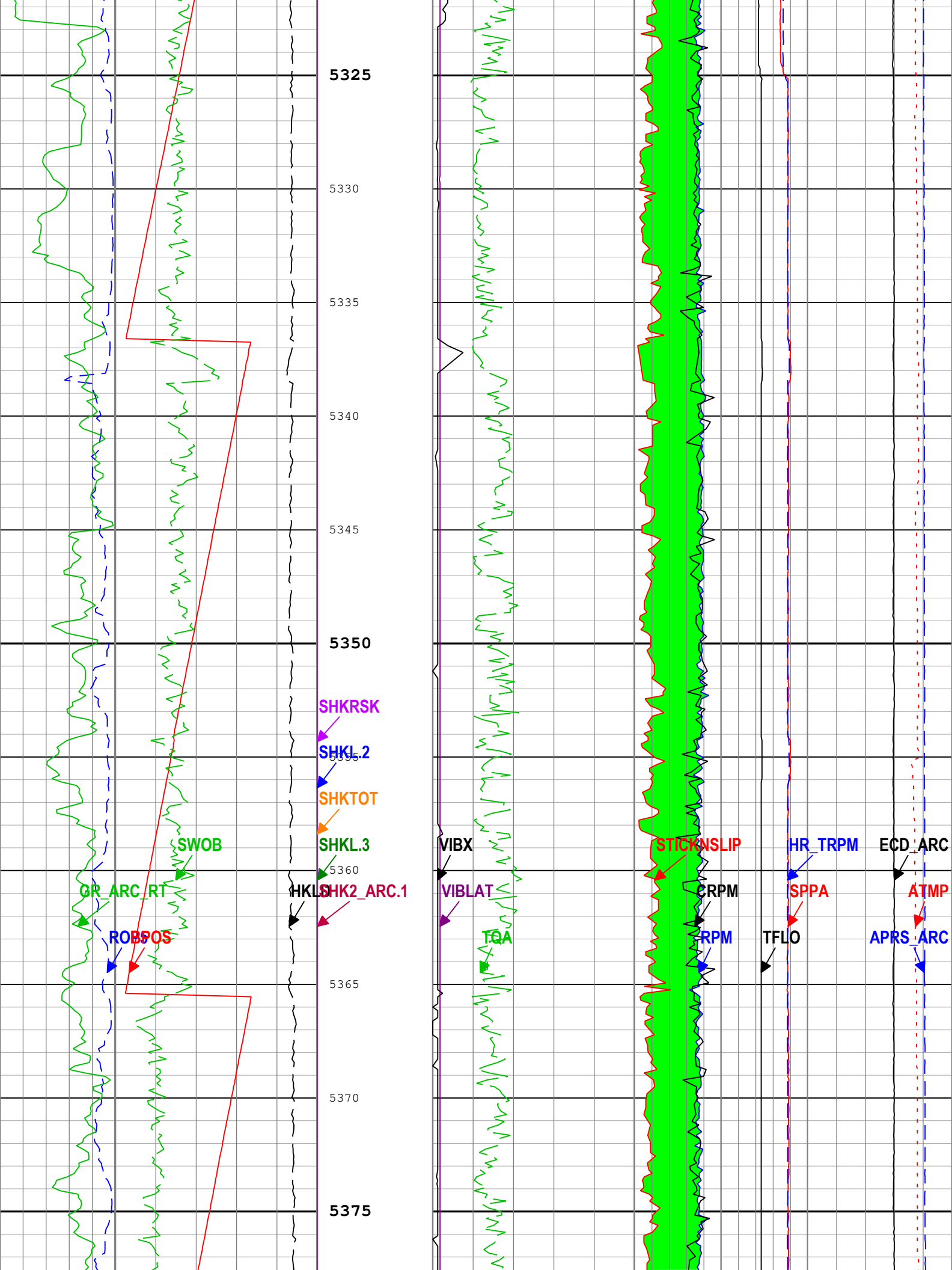
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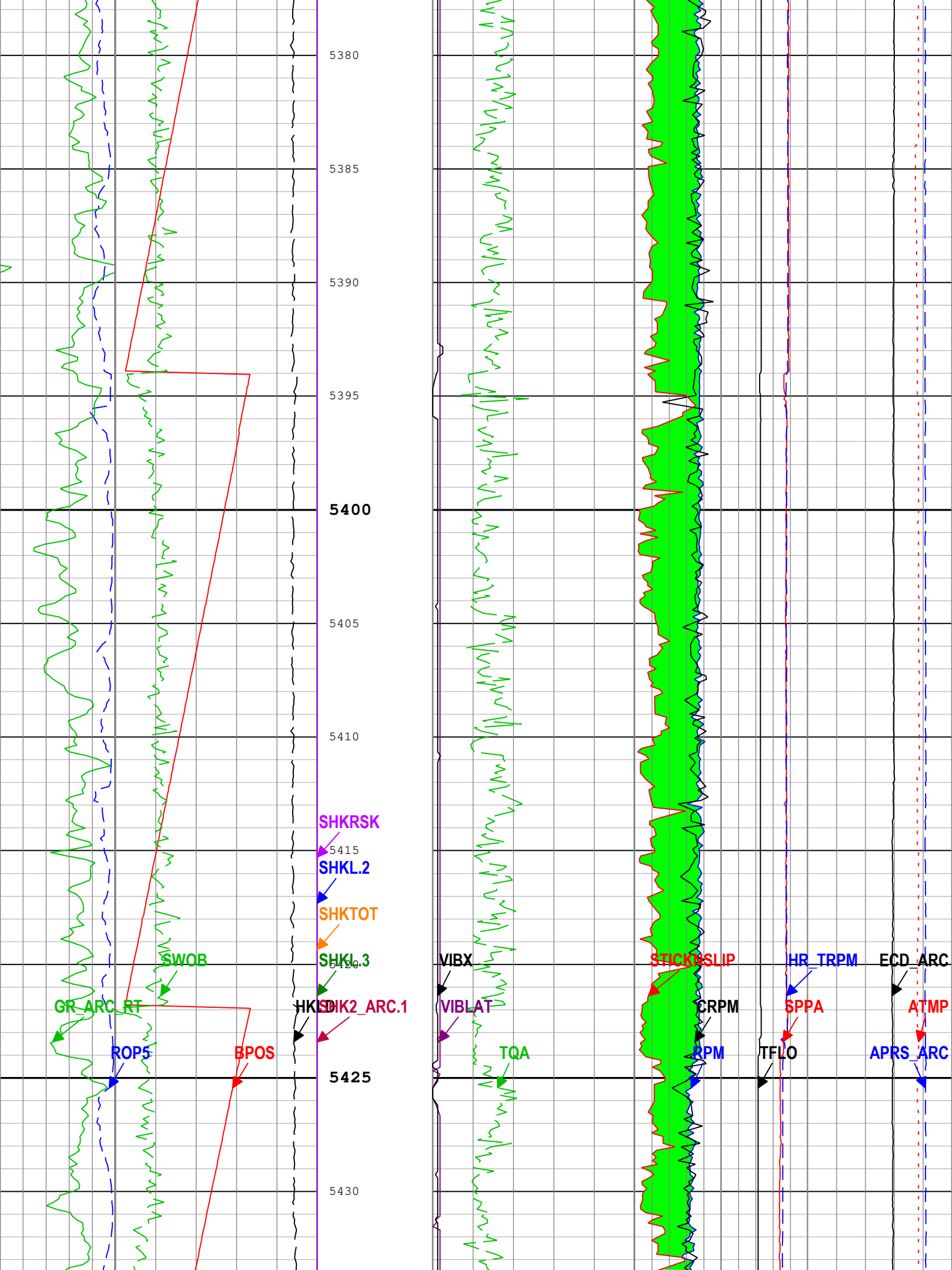
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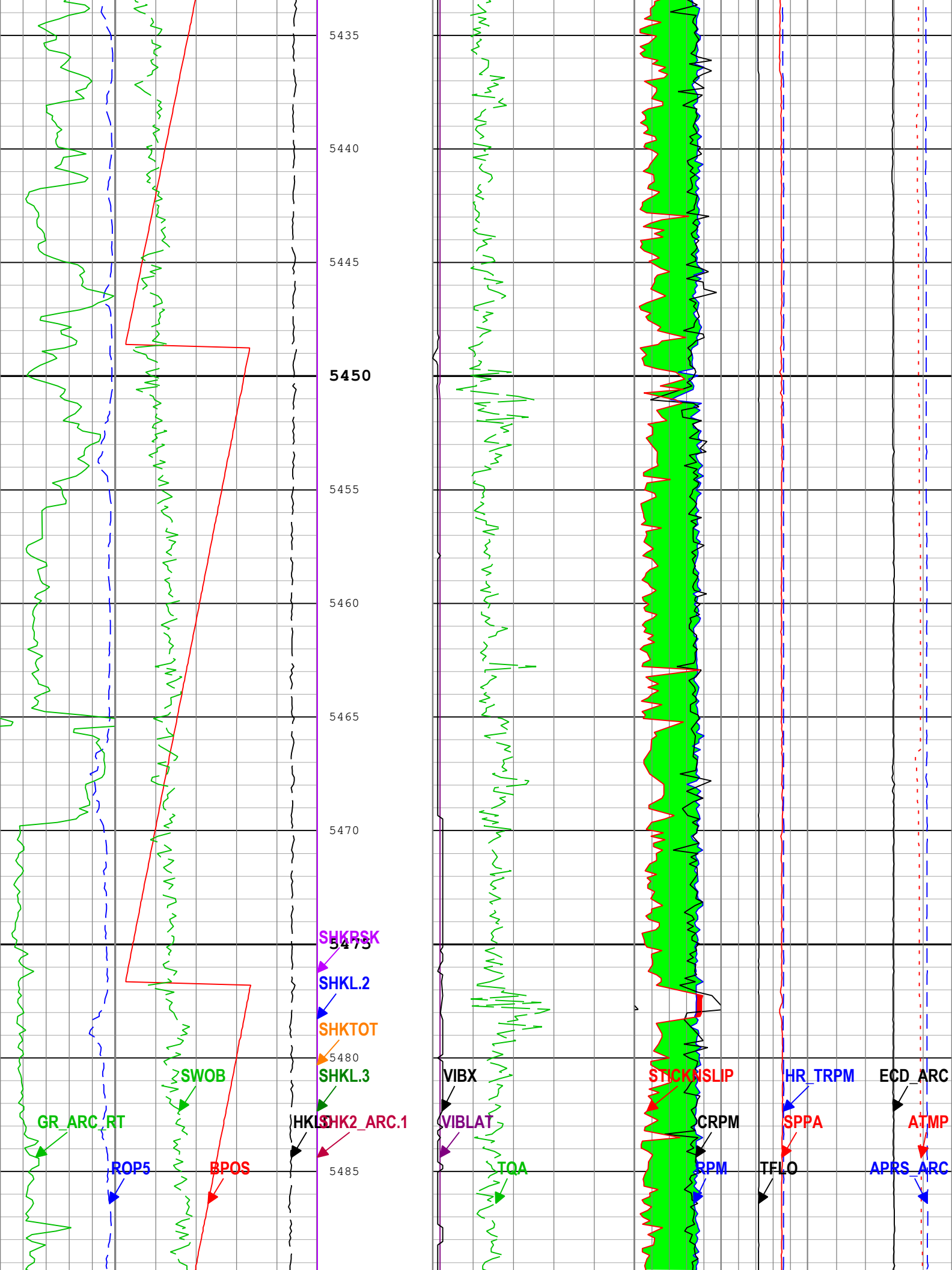
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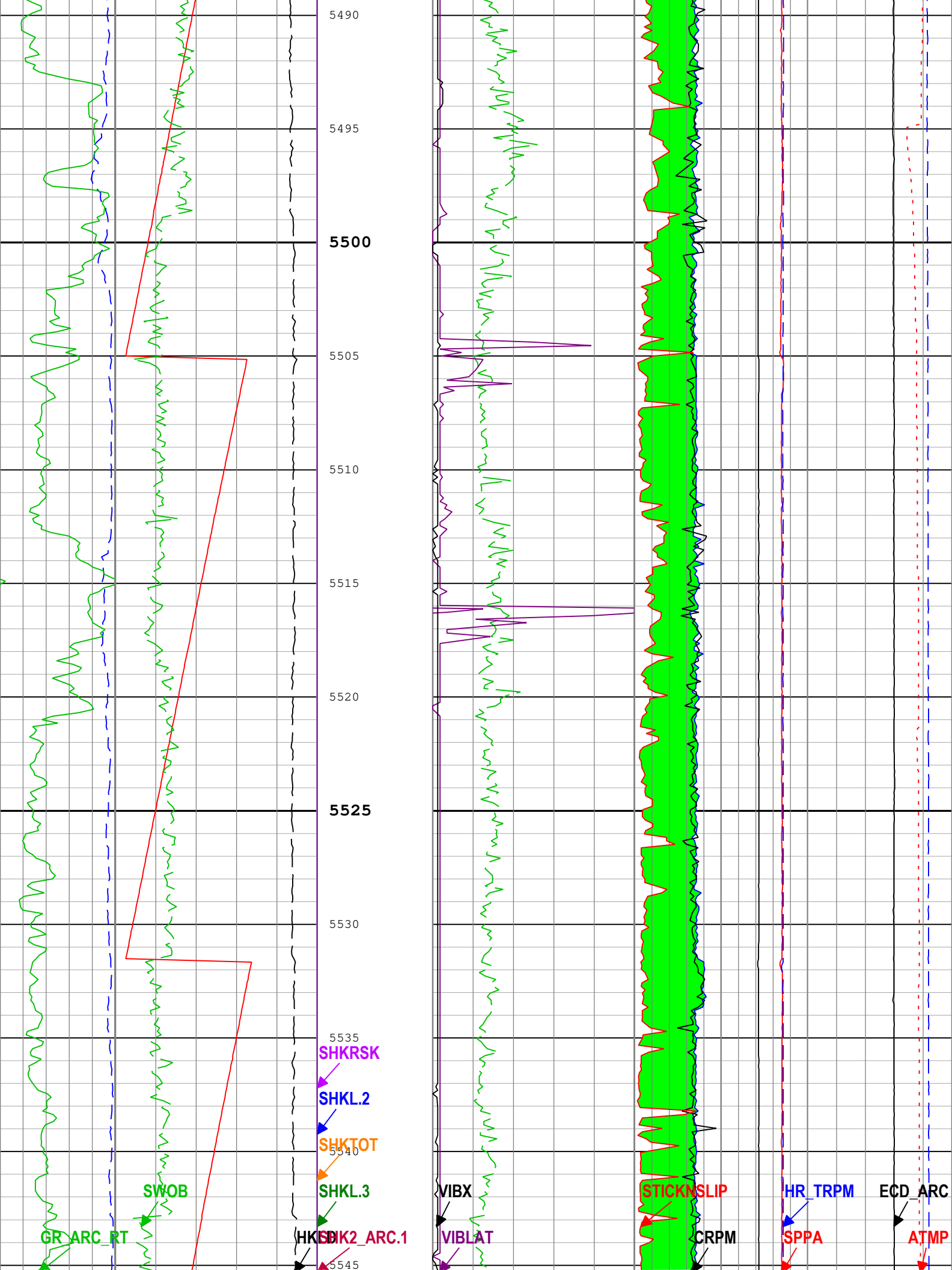
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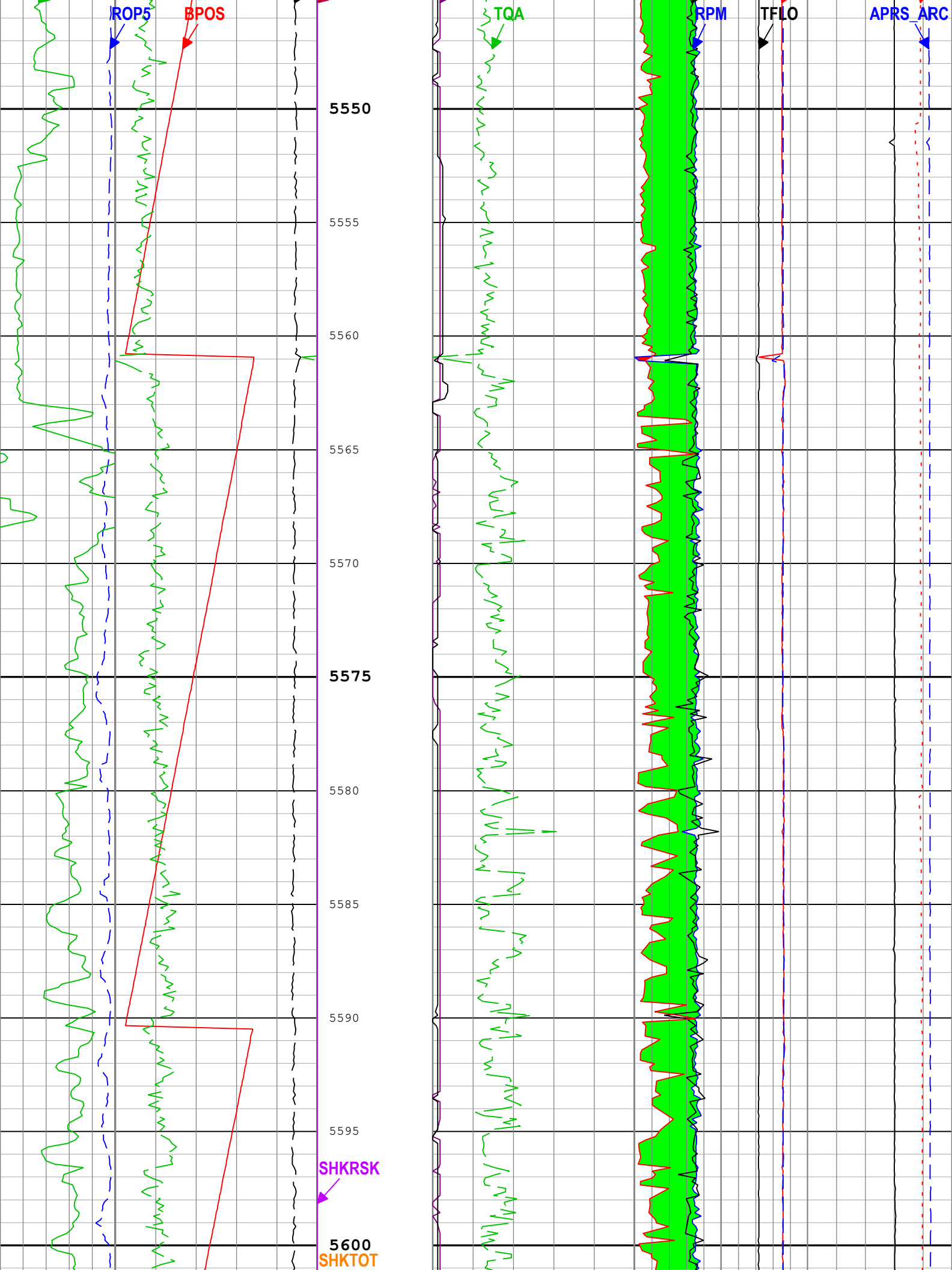
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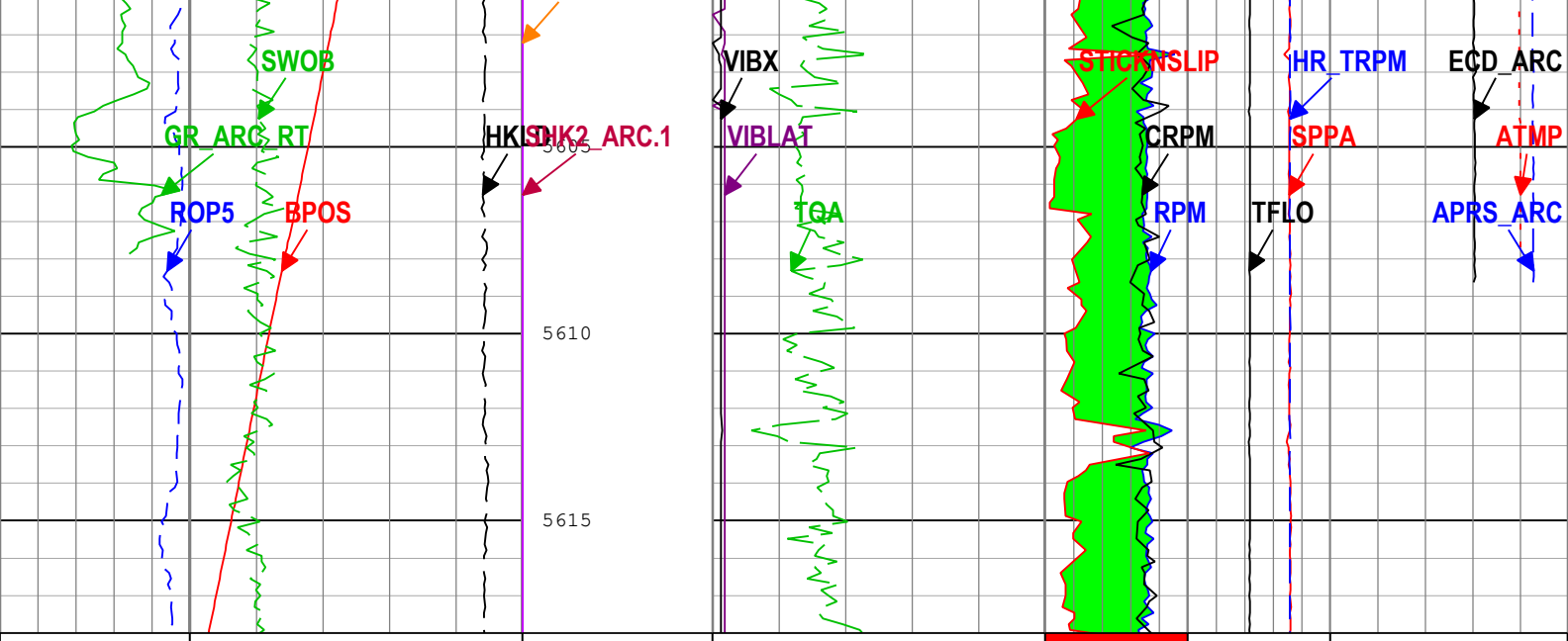

Rate of penetration averaged over the last 5 ft (1.5 m) (ROP5) RT
200 m/h 0

Gamma Ray (GR_ARC_RT) ARC6 RT
0 gAPI 200

Height of block above rig floor (BPOS) RT
0 m 45

Average Hookload (HKLD) RT
0 1000 lbf 800

Surface Weight On Bit (SWOB) RT
0 1000 lbf 100

Tool Shock Level (SHK2_ARC).1 ARC6 RM
0 5

Tool Shock Level (SHKL).3 ADN6C RM
0 5

Total Shocks accumulated over tool lifetime (SHKTOT) TELE675 RM
0 200

Tool Shock Level (SHKL).2 SONICVISION6 RM
0 5

Shock Risk (SHKRSK) TELE675 RM
0 5

Surface Torque (TQA) RT
0 1000 ft.lbf 50

Transverse RMS Vibration (VIBLAT) TELE675 RM
0 gn 7

RMS Vibration, X-Axis (VIBX) TELE675 RM
0 gn 5

Severe S&S

Light S&S

Rotational Speed (RPM) RT
0 c/min 200

Collar Rotational Speed (CRPM) TELE675 RM
0 c/min 200

Stick Slip Indicator (STICKNSLIP) TELE675 RM
0 c/min 400

Total flow rate of all active pumps (TFLO) RT
0 1500 gal/min

Standpipe Pressure (SPPA) RT
0 psi 5000

MWD Turbine Rotation Speed (HR_TRPM) TELE675 RM
0 5000 c/min

Downhole Annulus Pressure (APRS_ARC) ARC6 RM
0 psi 15000

Downhole Annulus Temperature (ATMP) ARC6 RM
0 degC 150

Equivalent Circulating Density (ECD_ARC) ARC6 RM
1 g/cm3 2

Description: TeleScope Drilling Mechanics Depth RT Format: Log (8.5in_DML_Depth RM) Index Scale: 1:200 Index Unit: m Index Type: Measured Depth Creation Date: 07-Jan-2021 21:38:26

Channel Processing Parameters

Run8_8.5in: Parameters

Parameter	Description	Tool	Value	Unit
BHK	Drilling Fluid Potassium Concentration	Borehole	0	%
BS	Bit Size	DNMSESSION	Depth Zoned	in
DEPTH_SEL	Depth Selection Parameter	DNMSESSION	Driller's Depth	
DFD	Drilling Fluid Density	Borehole	Time Zoned	g/cm3
FLEV	Depth of Drilling Fluid Level to LMF (Log Measured From)	Borehole	2.44	m
RHO_SEAWATER	Density of the Sea Water	Borehole	1.02	g/cm3
SF_FLAG	Mud Return to Sea Floor (No Riser)?	Borehole	No	

Depth Zone Parameters

Depth Zone Parameters

Parameter	Value	Start (m)	Stop (m)
BS	12.25	5150	5201.9
BS	8.5	5201.9	5618

All depth are actual.

Time Zone Parameters

Parameter	Value	Start Time	Stop Time	Start Depth (m)	Stop Depth (m)
DFD	1.49	25-Dec-2020 20:13:26	27-Dec-2020 15:00:00	4799.79	5282.16
DFD	1.51	27-Dec-2020 15:00:00	30-Dec-2020 09:47:12	5282.16	5618.3

All depth are at tool zero.

Tool Control Parameters

Run8_8.5in: Parameters

Parameter	Description	Tool	Value	Unit
OFFBTM_TH	Threshold for deciding whether the bit is off bottom	DNMSESSION	0.3	m

Calibration Report

ARC6 (Array Resistivity Compensated 675) Calibration - Run Run8_8.5in

Primary Equipment :

Elec. Chassis HP with AIM Receiver	AREA	657

RESAIRCAL - Resistivity: Air

Master (Time Frame File): 08:56:27 01-Dec-2020

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Attenuation T1 at 2 MHz	dB	Master	8.500	6.500	8.305	10.500
Attenuation T2 at 2 MHz	dB	Master	6.500	4.500	6.662	8.500
Attenuation T3 at 2 MHz	dB	Master	4.500	2.500	4.926	6.500
Attenuation T4 at 2 MHz	dB	Master	4.600	2.600	4.561	6.600
Attenuation T5 at 2 MHz	dB	Master	3.600	1.600	3.474	5.600
Phase Shift T1 at 2 MHz	deg	Master	0.100	-3.900	-0.518	4.100
Phase Shift T2 at 2 MHz	deg	Master	0.100	-3.900	0.649	4.100
Phase Shift T3 at 2 MHz	deg	Master	0.100	-3.900	-0.611	4.100
Phase Shift T4 at 2 MHz	deg	Master	0.100	-3.900	0.588	4.100
Phase Shift T5 at 2 MHz	deg	Master	0.100	-3.900	-0.653	4.100
Attenuation T1 at 400 KHz	dB	Master	8.500	6.500	8.321	10.500
Attenuation T2 at 400 KHz	dB	Master	6.500	4.500	6.656	8.500
Attenuation T3 at 400 KHz	dB	Master	4.500	2.500	4.934	6.500
Attenuation T4 at 400 KHz	dB	Master	4.600	2.600	4.551	6.600
Attenuation T5 at 400 KHz	dB	Master	3.600	1.600	3.492	5.600
Phase Shift T1 at 400 KHz	deg	Master	0.100	-3.900	1.453	4.100
Phase Shift T2 at 400 KHz	deg	Master	0.100	-3.900	-1.566	4.100
Phase Shift T3 at 400 KHz	deg	Master	0.100	-3.900	1.492	4.100
Phase Shift T4 at 400 KHz	deg	Master	0.100	-3.900	-1.577	4.100
Phase Shift T5 at 400 KHz	deg	Master	0.100	-3.900	1.459	4.100

GRGAIN - Gamma Ray: Blanket

Master (Time Frame File): 09:43:57 14-Oct-2020

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Gamma Ray Calibration Gain		Master	1.000	0.580	1.100	1.250

ADN6C (Azimuthal Density Neutron Vision 675) Calibration - Run Run8_8.5in

Primary Equipment :

ADSE-EG: Chassis, Lo-Pres, Mag	ADSE	535

Auxiliary Equipment :

Collar, IBS 8-1/4, P550	ADDC	H7429/1
Retrievable Neutron Gamma Src Plugless	RNGS	6D091

Density LSW3 - Long Spacing Window 3

Master (Time Frame File): 23:01:41 21-Oct-2020

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
LS window 3 - Background	1/s	Master	52.5	30.0	49.5	75.0
LS window 3 - Al	1/s	Master	537.5	75.0	144.8	1000.0
LS window 3 - Mg	1/s	Master	3000.0	500.0	981.0	5500.0
Long spacing water density	g/cm3	Master	1.039	1.024	1.036	1.054

Density SSW1 - Short Spacing Window 1

Master (Time Frame File): 23:01:41 21-Oct-2020

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
SS window 1 - Background	1/s	Master	125.0	75.0	109.0	175.0
SS window 1 - Al	1/s	Master	2625.0	750.0	1283.5	4500.0
SS window 1 - Mg	1/s	Master	5750.0	1500.0	2538.0	10000.0

Density SSW3 - Short Spacing Window 3

Master (Time Frame File): 23:01:41 21-Oct-2020

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
SS window 3 - Background	1/s	Master	550.0	350.0	462.5	750.0
SS window 3 - Al	1/s	Master	8500.0	2000.0	3700.3	15000.0
SS window 3 - Mg	1/s	Master	14250.0	3500.0	5943.5	25000.0
Short spacing water density	g/cm3	Master	1.126	1.096	1.138	1.156

Neutron Porosity - Water Check

Master (Time Frame File): 23:01:41 21-Oct-2020

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Far Neutron Water Porosity	m3/m3	Master	1.00000	0.86000	1.02666	1.21000

Neutron FR11 - Far Bank 1 Tube 1

Master (Time Frame File): 23:01:41 21-Oct-2020

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Far 1 tube 1 - Air	1/s	Master	21.150		20.676	
Far 1 tube 1 - Rod	1/s	Master	5.700		5.152	
Far 1 tube 1 - Water	1/s	Master	2.800		2.354	

Neutron FR12 - Far Bank 1 Tube 2

Master (Time Frame File): 23:01:41 21-Oct-2020

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Far 1 tube 2 - Air	1/s	Master	21.150		21.549	
Far 1 tube 2 - Rod	1/s	Master	5.700		5.291	
Far 1 tube 2 - Water	1/s	Master	2.800		2.418	

Neutron FR13 - Far Bank 1 Tube 3

Master (Time Frame File): 23:01:41 21-Oct-2020

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Far 1 tube 3 - Air	1/s	Master	21.150		20.910	
Far 1 tube 3 - Rod	1/s	Master	5.700		5.143	
Far 1 tube 3 - Water	1/s	Master	2.800		2.333	

Neutron FR21 - Far Bank 2 Tube 1

Master (Time Frame File): 23:01:41 21-Oct-2020

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Far 2 tube 1 - Air	1/s	Master	21.150		21.209	
Far 2 tube 1 - Rod	1/s	Master	5.700		5.266	
Far 2 tube 1 - Water	1/s	Master	2.800		2.427	

Neutron FR22 - Far Bank 2 Tube 2

Master (Time Frame File): 23:01:41 21-Oct-2020

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Far 2 tube 2 - Air	1/s	Master	21.150		21.948	
Far 2 tube 2 - Rod	1/s	Master	5.700		5.327	
Far 2 tube 2 - Water	1/s	Master	2.800		2.423	

Neutron FR23 - Far Bank 2 Tube 3

Master (Time Frame File): 23:01:41 21-Oct-2020

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Far 2 tube 3 - Air	1/s	Master	21.150		21.264		
Far 2 tube 3 - Rod	1/s	Master	5.700		5.357		
Far 2 tube 3 - Water	1/s	Master	2.800		2.392		

Neutron NR11 - Near Bank 1 Tube 1

Master (Time Frame File): 23:01:41 21-Oct-2020

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near 1 tube 1 - Air	1/s	Master	575.000		537.034		
Near 1 tube 1 - Rod	1/s	Master	895.000		861.533		
Near 1 tube 1 - Water	1/s	Master	412.500		364.263		

Neutron NR21 - Near Bank 2 Tube 1

Master (Time Frame File): 23:01:41 21-Oct-2020

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near 2 tube 1 - Air	1/s	Master	575.000		541.492		
Near 2 tube 1 - Rod	1/s	Master	895.000		879.394		
Near 2 tube 1 - Water	1/s	Master	412.500		367.823		

Company: BP Development Australia Pty Ltd

Well: Ironbark-1

Field: Ironbark

Rig Name: Ocean Apex

State: Western Australia

Country: Australia

Schlumberger

Drilling Mechanics Depth

1:200 Measured Depth

Recorded Mode Data