

Multi Seal Integrity Preliminary Results

ADAMS D30-31D

Logged: June 23, 2024



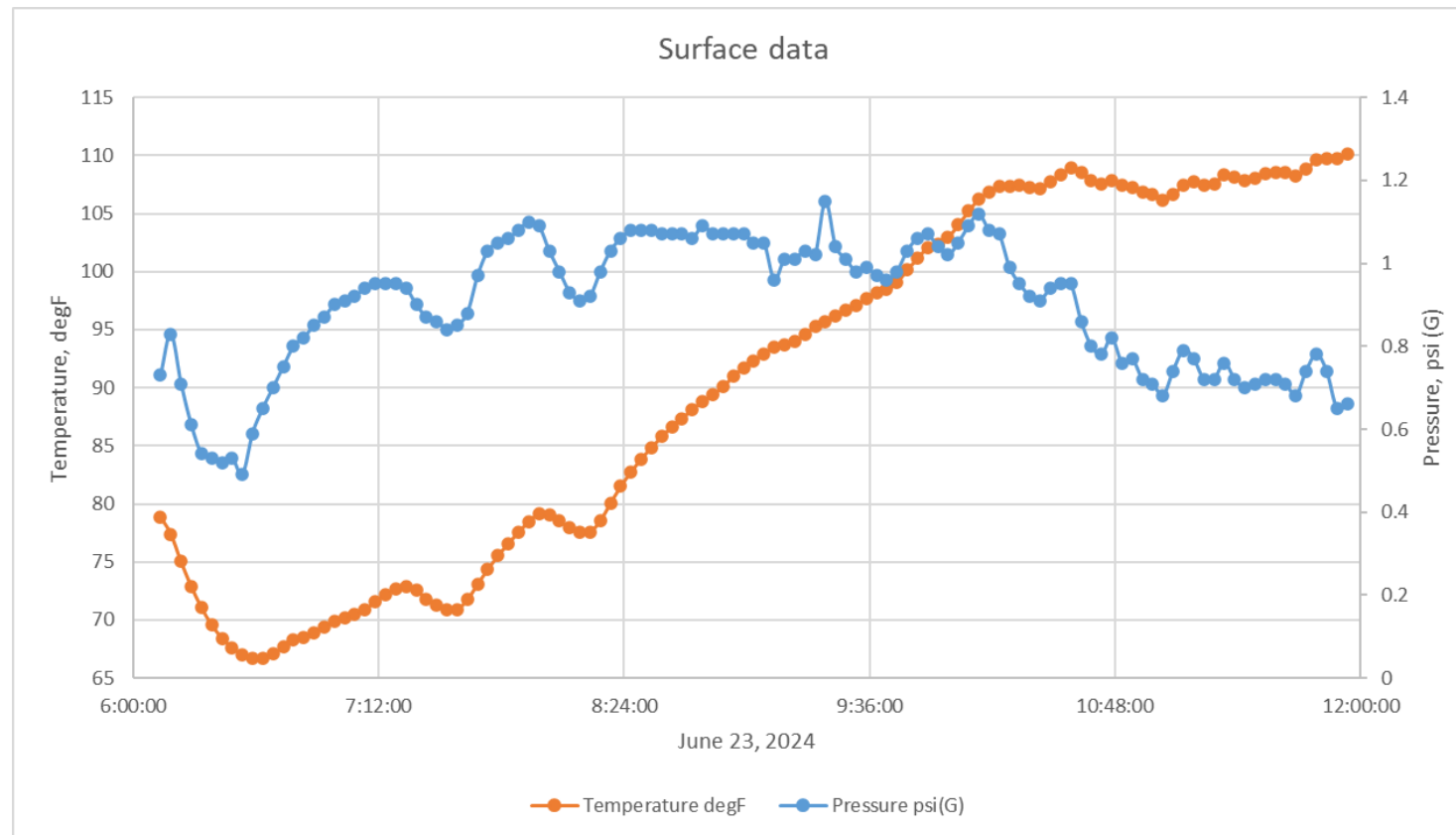
Background


Survey Objective

- Identify the source of sustained pressure inside of the surface casing

Well Information

This Re-P&A well indicates 5 psi inside the surface casing.



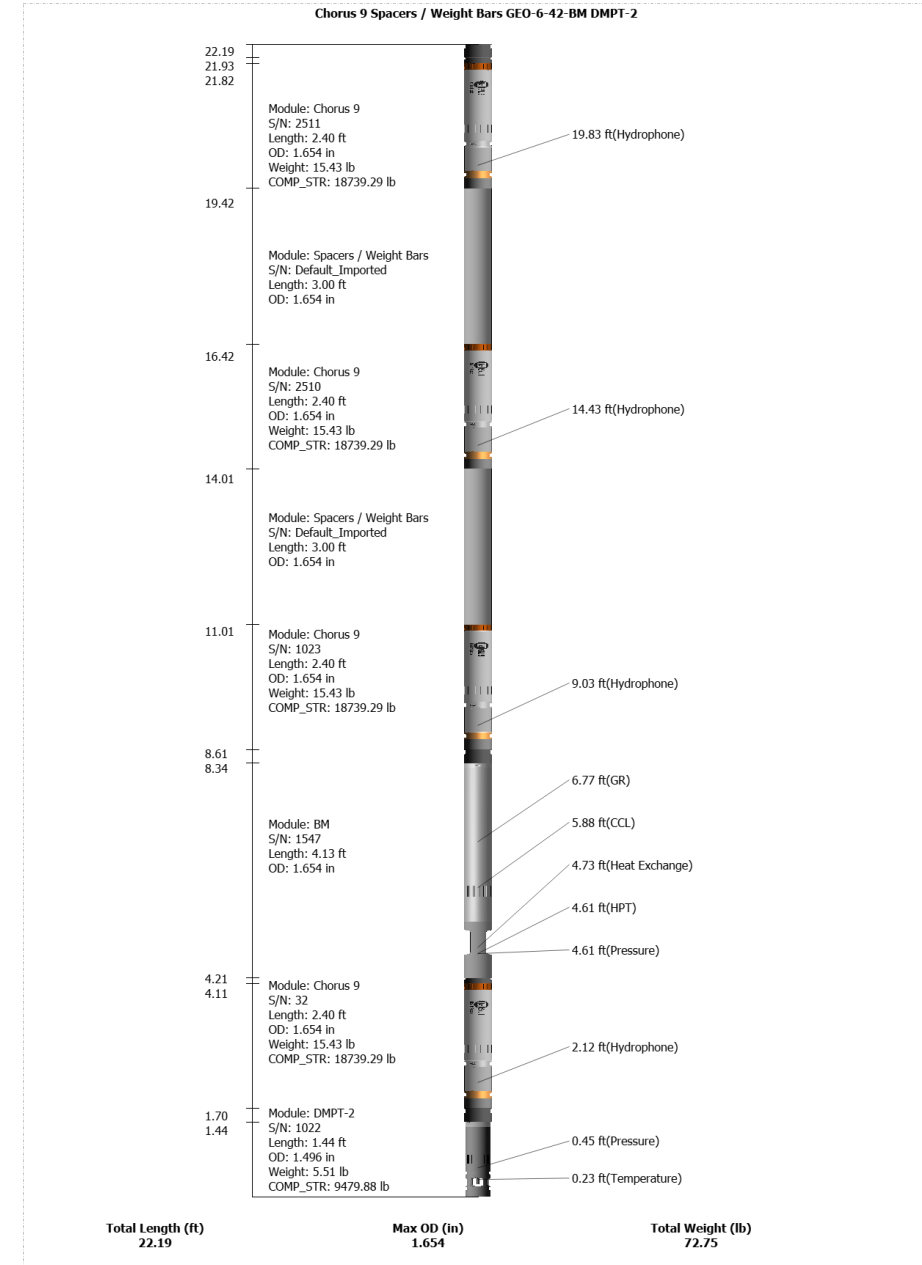
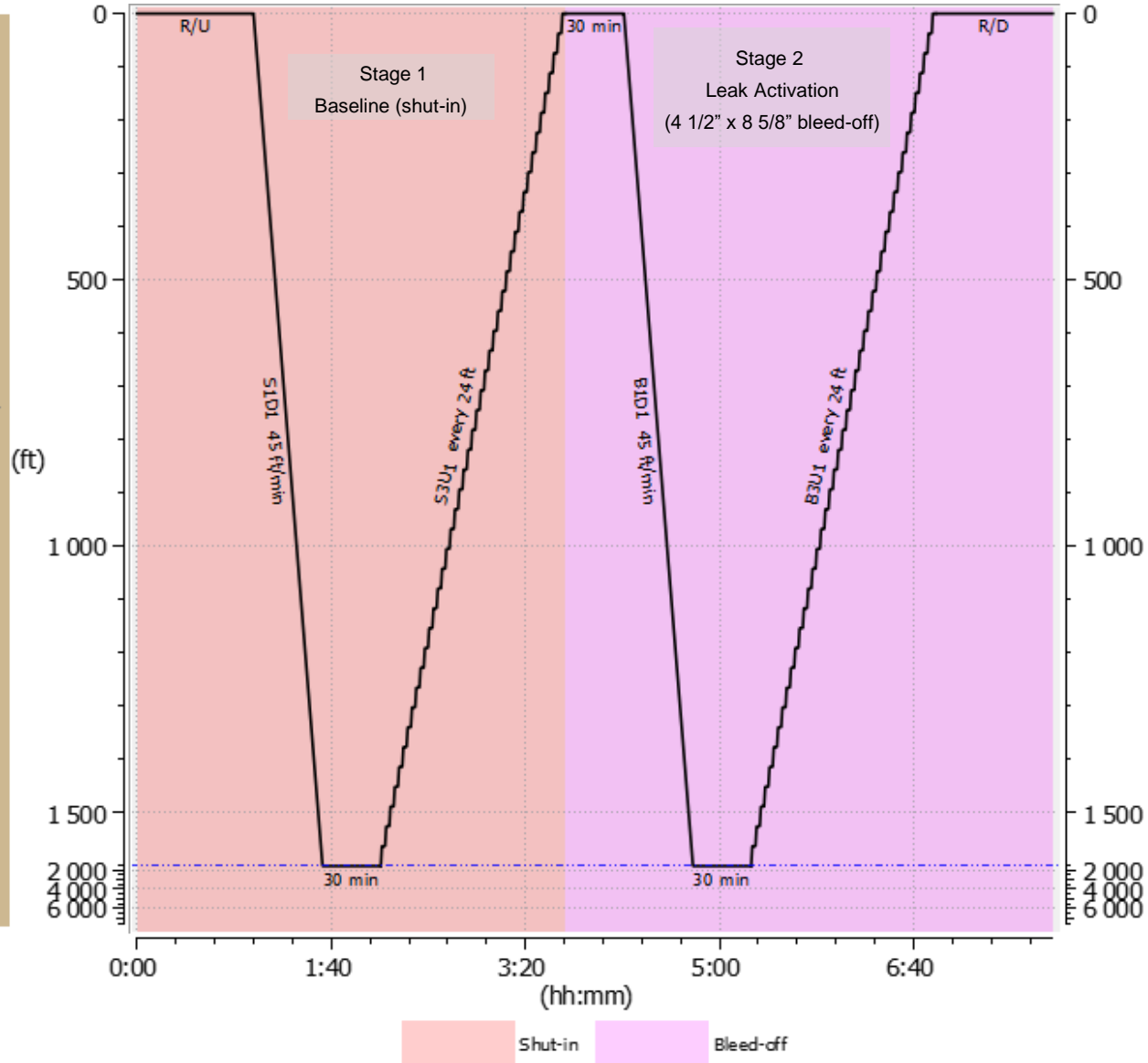
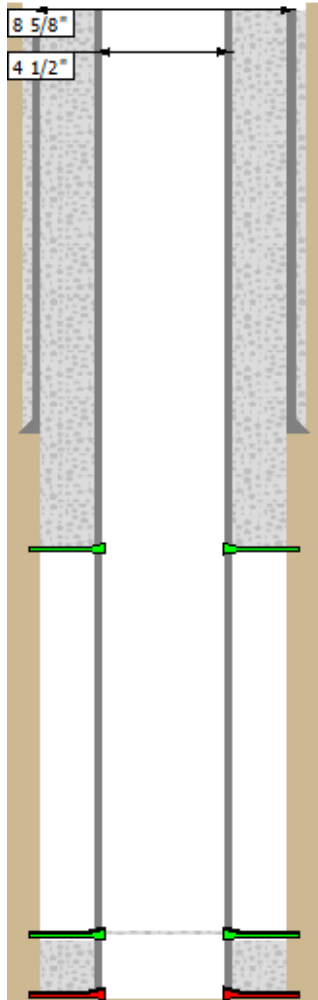


P&A Wellbore For State

Well Name: ADAMS D30-31D

Original Hole [Land]		Well Header			
Vertical schematic (actual)		Surface UWI	Business Unit	Gov Auth Dist	Prod Tree Loc
		0512335675	Rockies		Land
Balanced Plug (Tubing and Annulus), Plug - Balanced, 7/7/2023 09:30 (Surface plug), 14-942, 2023-07-07 09:30, 295 sacks of cement Balanced Plug (Tubing and Annulus), Plug - Balanced, 7/7/2023 09:30 (Surface plug), 14-942, 2023-07-07 09:30, 295 sacks of cement Surface Casing Cement, Casing, 8/2/2012 16:30, 14-742, 2012-08-02 16:30		Orig KB to Gnd (ft)	Original Spud Date	Abandon Date	Well Sub-Status
		14.00	8/1/2012	12/31/2019	AB
Cement					
OPEN HOLE LOGS NOT RUN					
PERFS 7442'-7454' MISFIRE - WRONG PLACEMENT (NO STIM)					
PROBLEM WELL					
Surface Location (Congressional)					
Qtr 3	Qtr 4	Section	Township	Range	Ring E/W
NE	NW	30	3 N	64	W
		Latitude (°)	Longitude (°)		
		40° 12'	104° 35' 42.355" W		
Wellbore Sections					
Section Des		Hole Size (in)		Top Depth (ftKB)	Botm Depth (ftKB)
SURFACE		12 1/4		14.0	7.50
PRODUCTION		7 7/8		750.0	7,725.0
Casing Strings					
Csg Des		Run Date	OD (in)	WtLen (t/ft)	Grade
Surface		8/2/2012	8 5/8	24.00	J-55
Production Casing		8/6/2012	4 1/2	11.60	M-80
		Top Depth (ftKB)	Set Depth (ftKB)		
		14.1	7715		
Cement					
Des		Start Date	Top (ftKB)	Botm (ftKB)	
Surface Casing Cement		8/2/2012	14.0	742.0	
Production Casing Cement		8/6/2012	2,109.0	7,715.0	
Courtesy Squeeze		6/28/2023	2,465.0	2,565.0	
Cement Plug		6/28/2023	1,750.0	1,800.0	
Surface plug		7/7/2023	14.0	942.0	
Zone Statuses					
Zone Name	Status Date	Status	Fluid Type	Job	Prod Method
CODELL	8/17/2018	AB		Abandon Well - Temporary, 8/15/2018 00:00	
CODELL	7/7/2023	Closed		Abandon Well - Permanent, 6/22/2023 12:00	
NIOBRARA	8/17/2018	AB		Abandon Well - Temporary, 8/15/2018 00:00	
NIOBRARA	7/7/2023	Closed		Abandon Well - Permanent, 6/22/2023 12:00	
Perforation Data					
Linked Zone	Explosive Type	Entered Shot Total	Top (ftKB)	Botm (ftKB)	Date
			942.0	942.0	6/26/2023
			1,600.1	1,600.1	7/6/2023
			1,730.1	1,730.1	7/6/2023
			1,850.1	1,850.1	6/27/2023
NIOBRARA, Original Hole	B	24	7,262.0	7,274.0	9/13/2012
NIOBRARA, Original Hole	C	24	7,372.0	7,384.0	9/13/2012
NIOBRARA, Original Hole		24	7,442.0	7,454.0	9/13/2012
CODELL, Original Hole		56	7,488.0	7,502.0	8/28/2012
Stim/Frac Stage					
Zone	Start Date	Top (ftKB)	Botm (ftKB)		
NIOBRARA, Original Hole	9/13/2012	7,262.0	7,384.0		
CODELL, Original Hole	9/13/2012	7,488.0	7,502.0		
Other In Hole					
Run Date	Des	Make	OD (in)	Top (ftKB)	Botm (ftKB)
8/16/2018	Cast Iron Bridge Plug w/ 20 SX Cement		4	7,162.0	7,212.0
6/23/2023	Cast Iron Bridge Plug w/ 2 SX Cement		4	4,392.0	4,418.0
6/23/2023	Cast Iron Bridge Plug		4	2,565.0	2,567.0
6/28/2023	Cement Retainer		4	1,800.0	1,802.0
7/6/2023	Cement Retainer		4	1,678.0	1,680.0
Logs					
Date	Type	Depth Top (ftKB)	Botm (ftKB)		
8/5/2012	LOGS WERE NOT RUN				
8/28/2012	CBL/CCL/GR	1,335	7,633.0		
2/21/2017	GYRO	0	7,400.0		
6/28/2023	CBL/VDL/GR/CCL	14	1,800.0		
Wellbore Plug Back Total Depths					
Date	Type	Com	PBTB (ftKB)		PBTB (ftKB)
8/6/2012	FLOAT COLLAR	FLOAT COLLAR			7,673

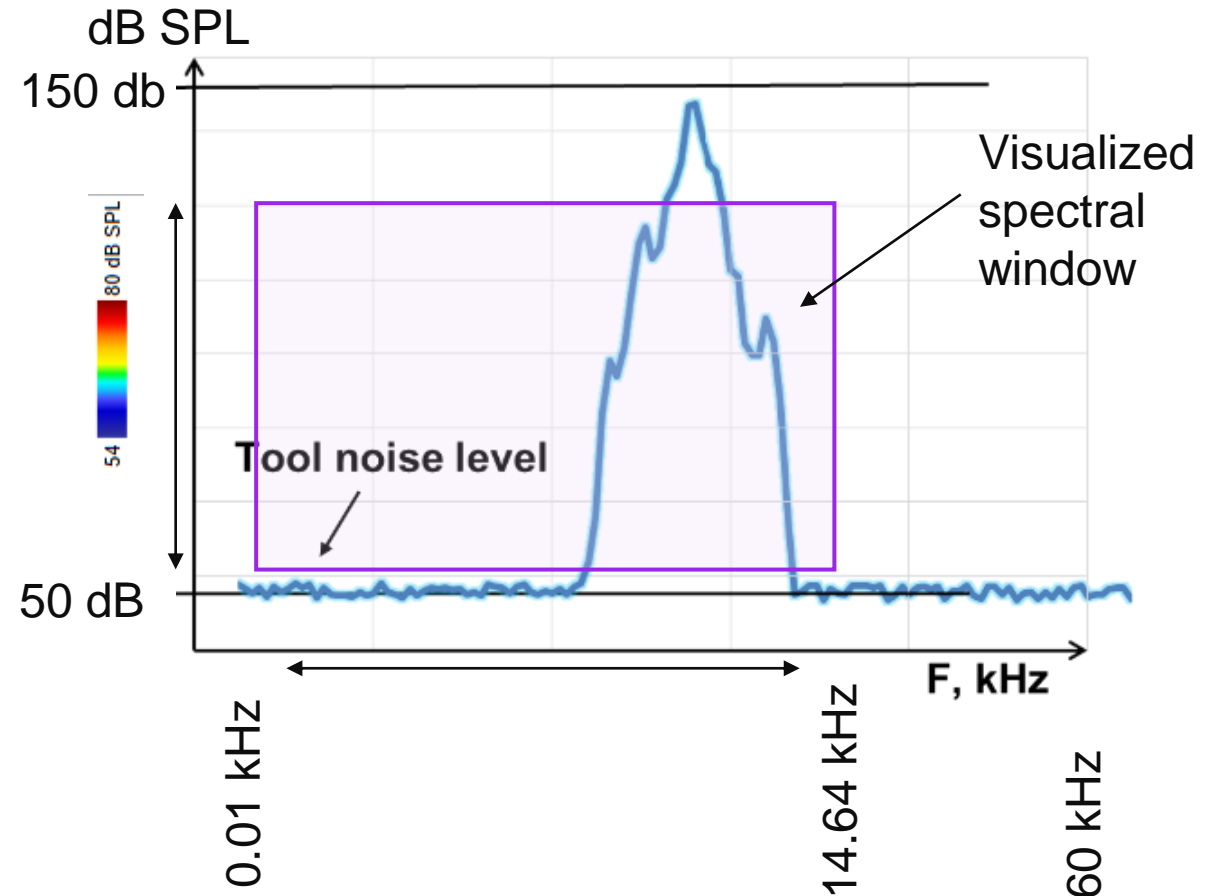
Logging Sequence



Glossary

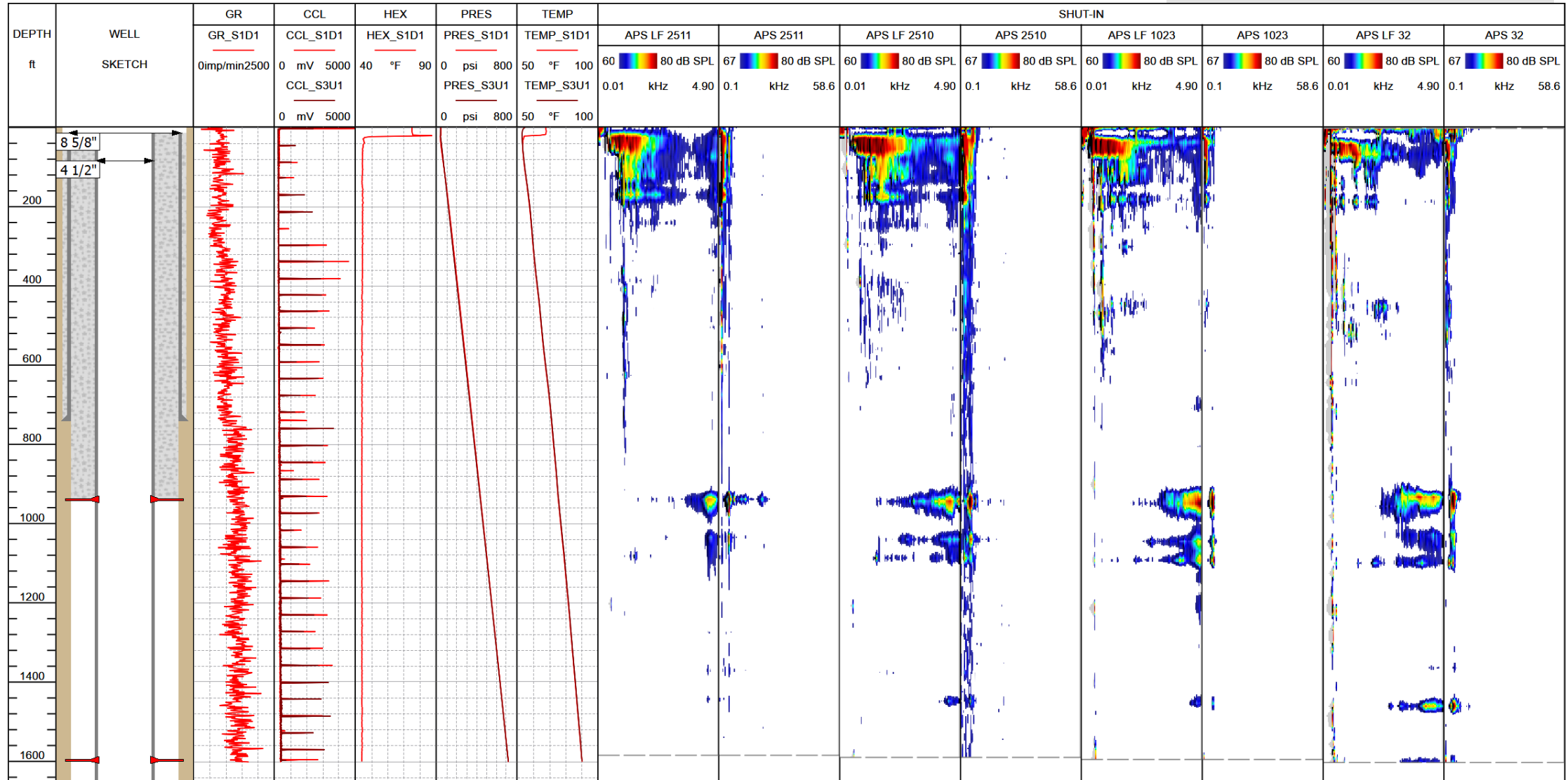
- S1D1 – Down pass during Shut-in
- S3U1 – Up pass during Shut-in
- B1D1 – Down pass during A-annulus bleed-off
- B3U1 – Up pass during A-annulus bleed-off

- GR – Gamma Ray
- CCL – Casing Collar Locator
- HEX – Heat Exchange
- PRES – Pressure
- TEMP – Temperature
- APS LF – Low Frequency Panel
- APS – High (Wide) frequency panel
- dB SPL – Sound Pressure Levels dB



Data Quality Control Baseline (shut-in)

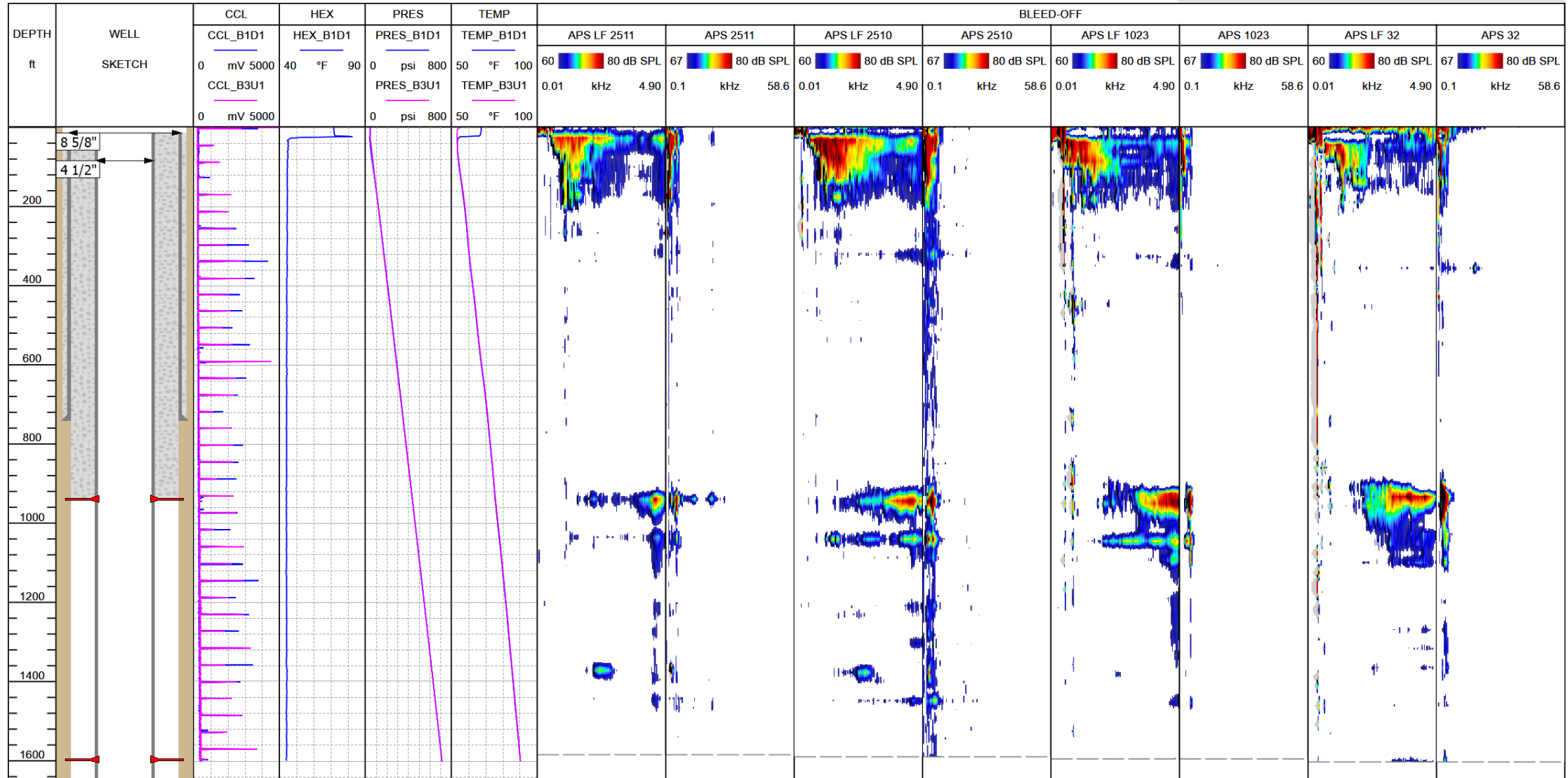
Consistent readings on all tools



Maximum reached depth : 1606.6 ft

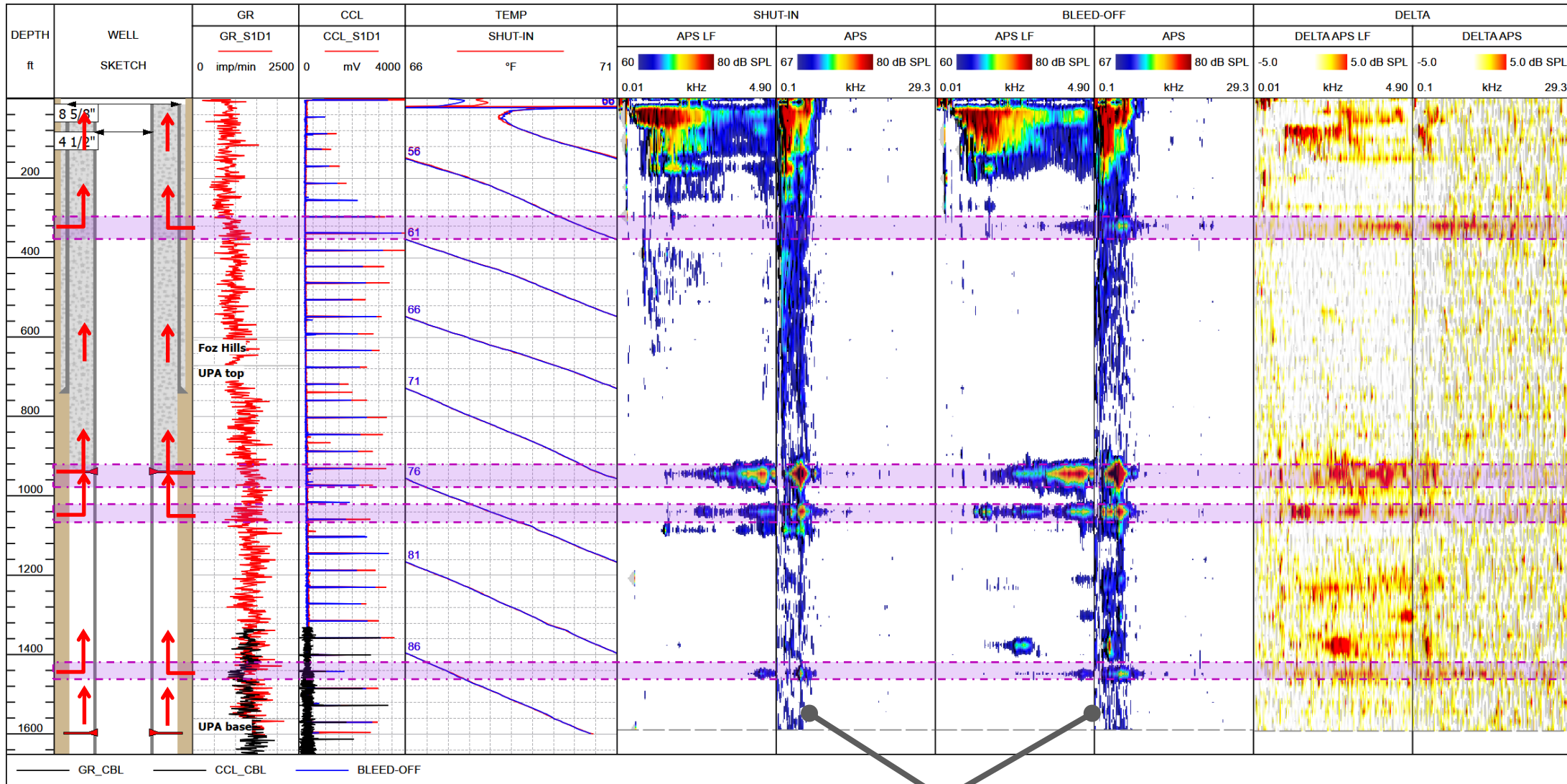
Data Quality Control (A-annulus Bleed-off)

Consistent readings on all tools



Maximum reached depth : 1606.0 ft

Data overview



Fluid level @ 20 ft

Choke point in cement / Potential contributing zone. 310 – 330 ft

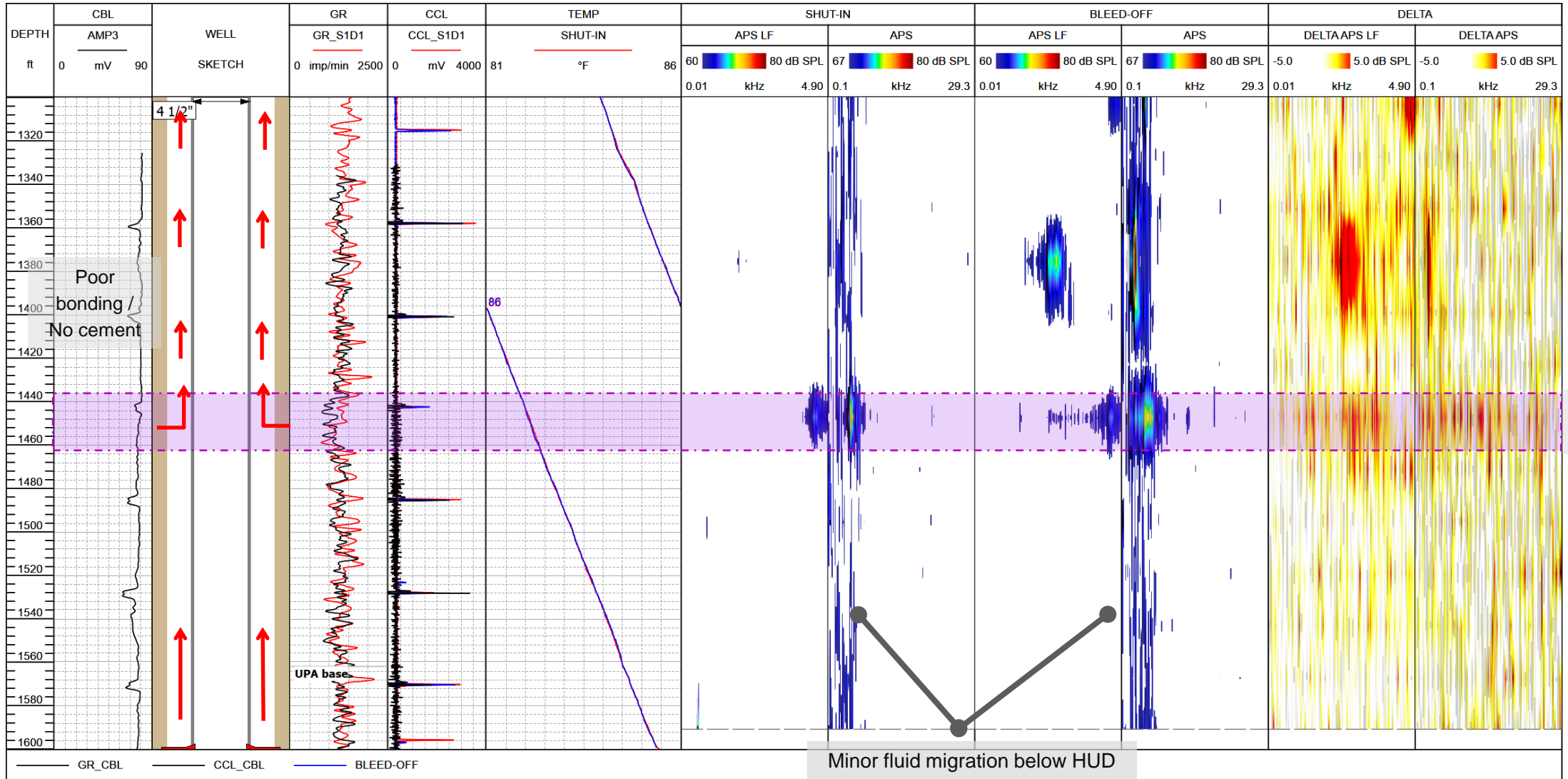
Contributing zone 925 – 965 ft

Contributing zone 1025 – 1055 ft

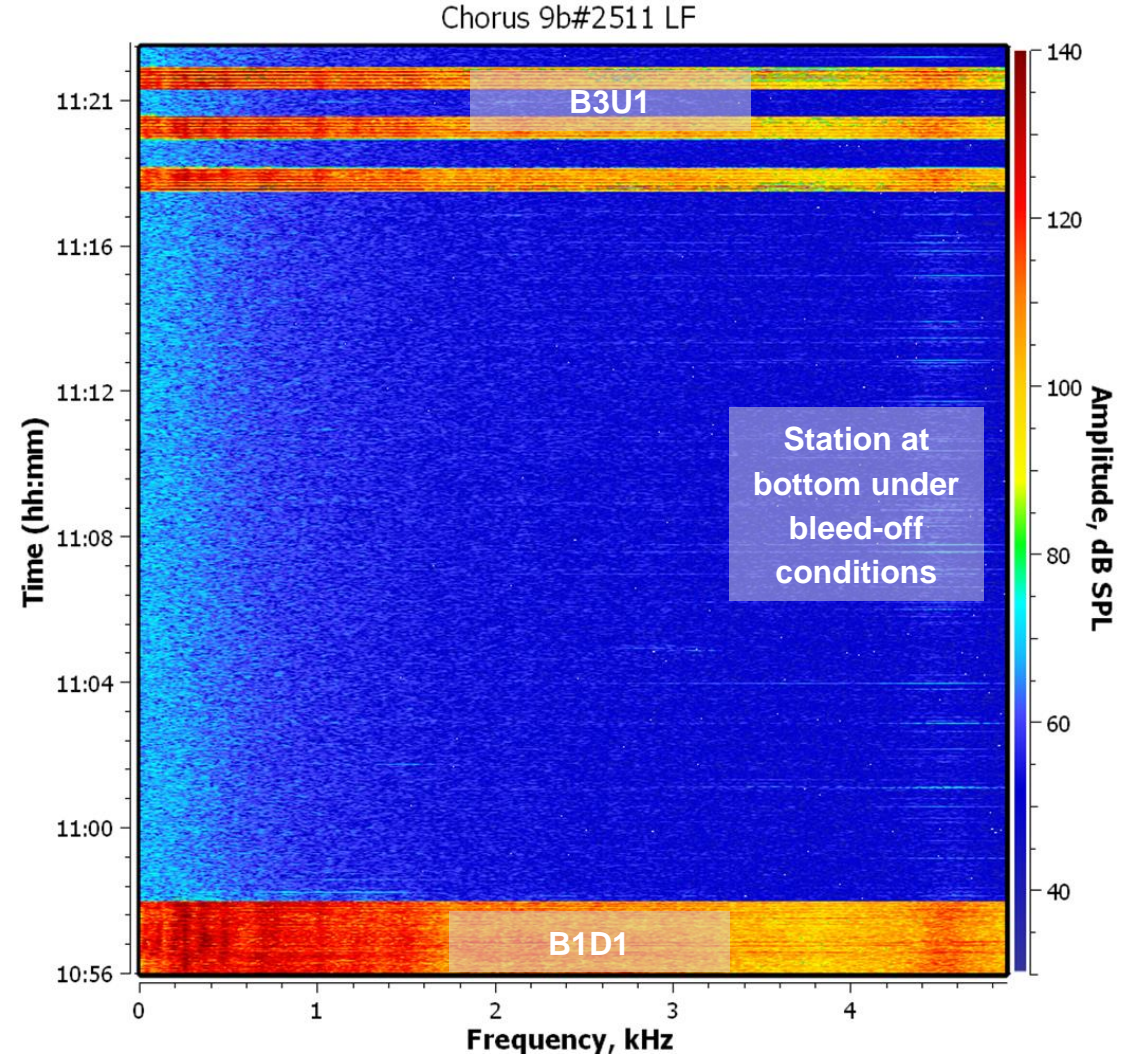
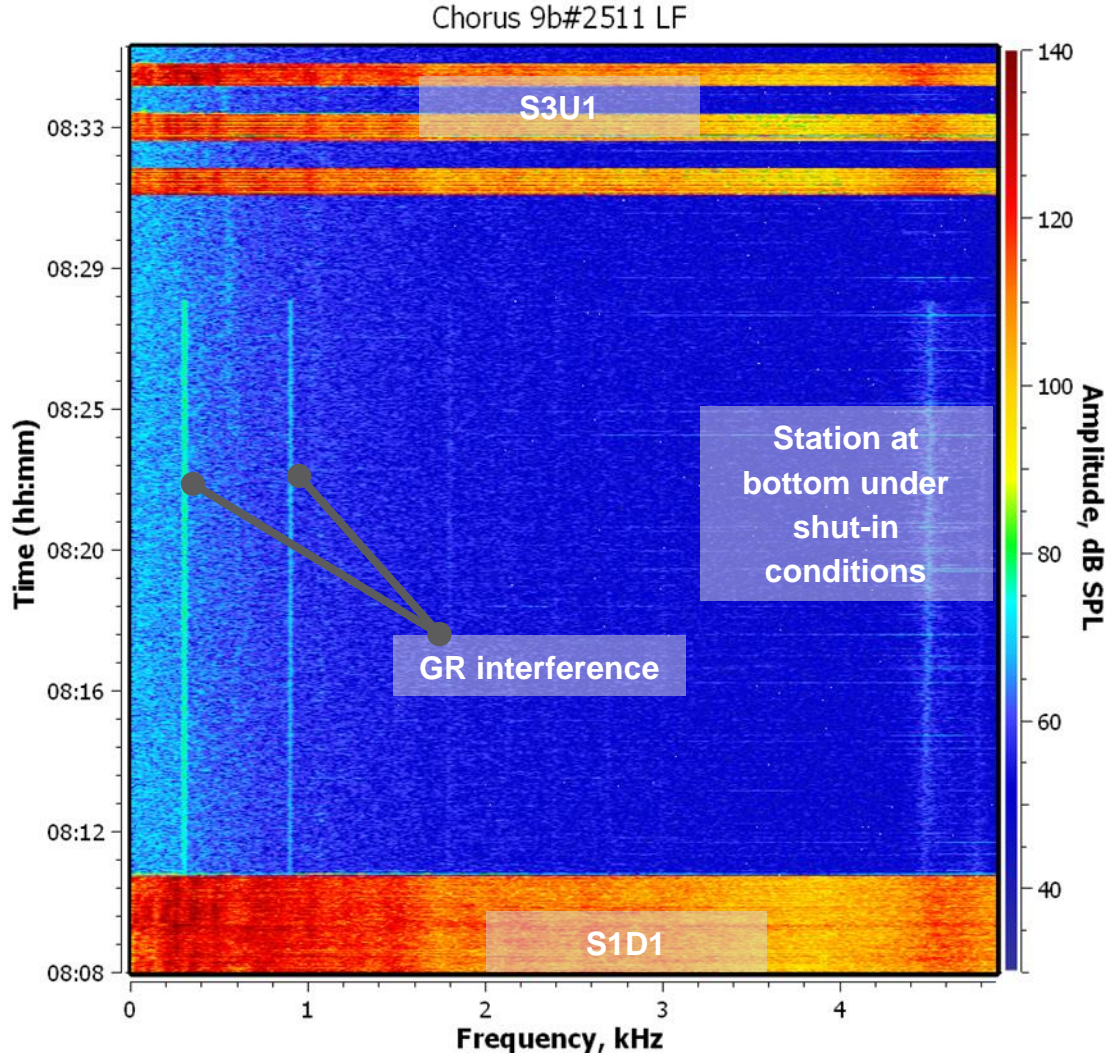
Contributing zone 1435 – 1455 ft

Minor fluid migration below HUD

Zoom across 1300 – 1600 ft



Data overview – HUD monitoring



Survey Results

Objective:

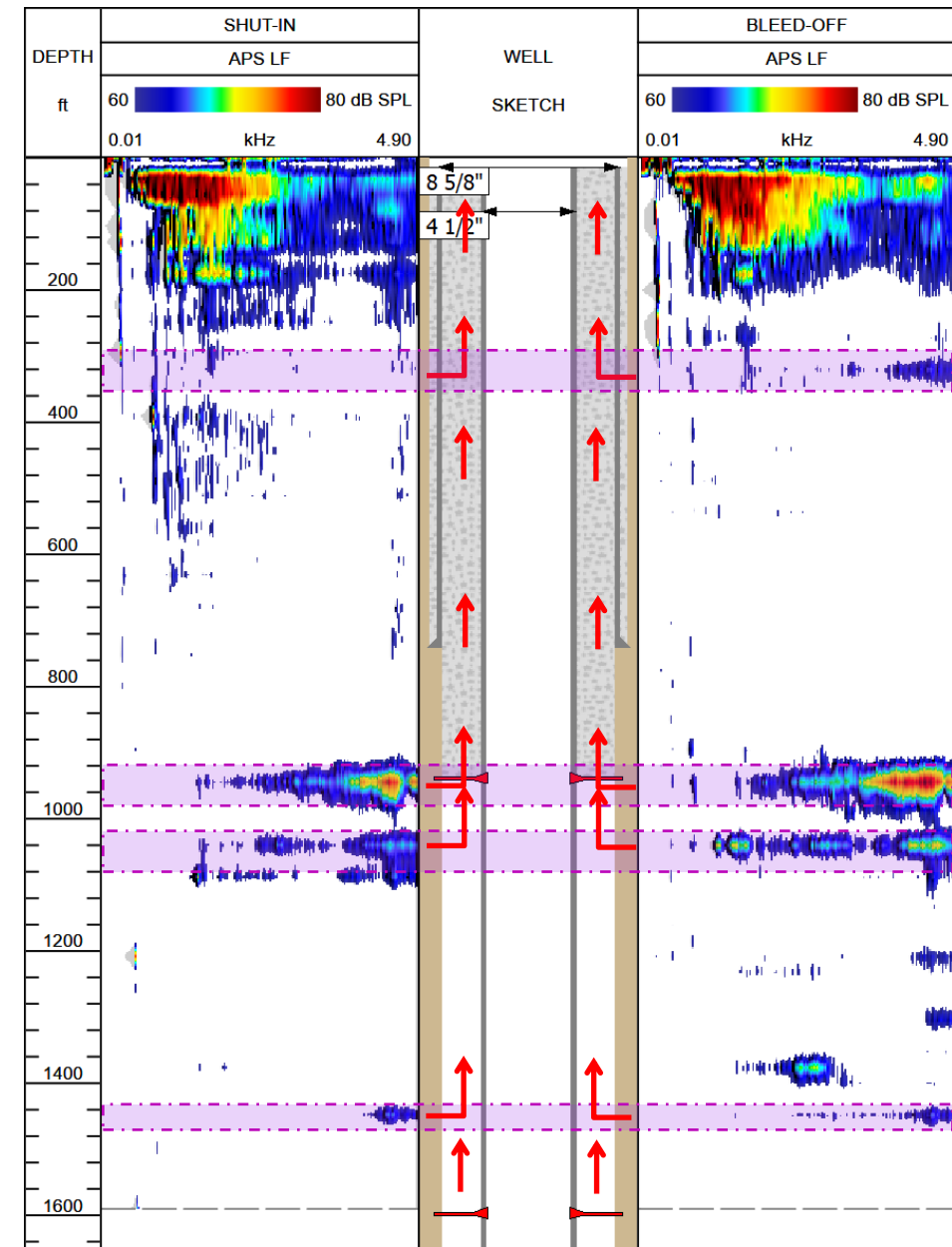
- Identify the source of sustained pressure inside of the surface casing

Conclusions:

- 4 active zones contributing to annular pressure were identified:
 - Potential Zone 1: 310 – 330 ft – Acoustic signal could be originated from a cement choke point, but there might also be a minor contribution due to a leak in the 8 5/8" casing.
 - Zone 2: 925 – 965 ft
 - Zone 3: 1025 – 1055 ft
 - Zone 4: 1435 – 1455 ftInduced acoustic activity of low – medium frequency range
- Zone 2-4 showed activity during shut-in stage indicating ongoing building up of pressure in A-annulus
- Minor active channeling from 1606.6 ft (HUD) is indicated by acoustic data.

Additional findings:

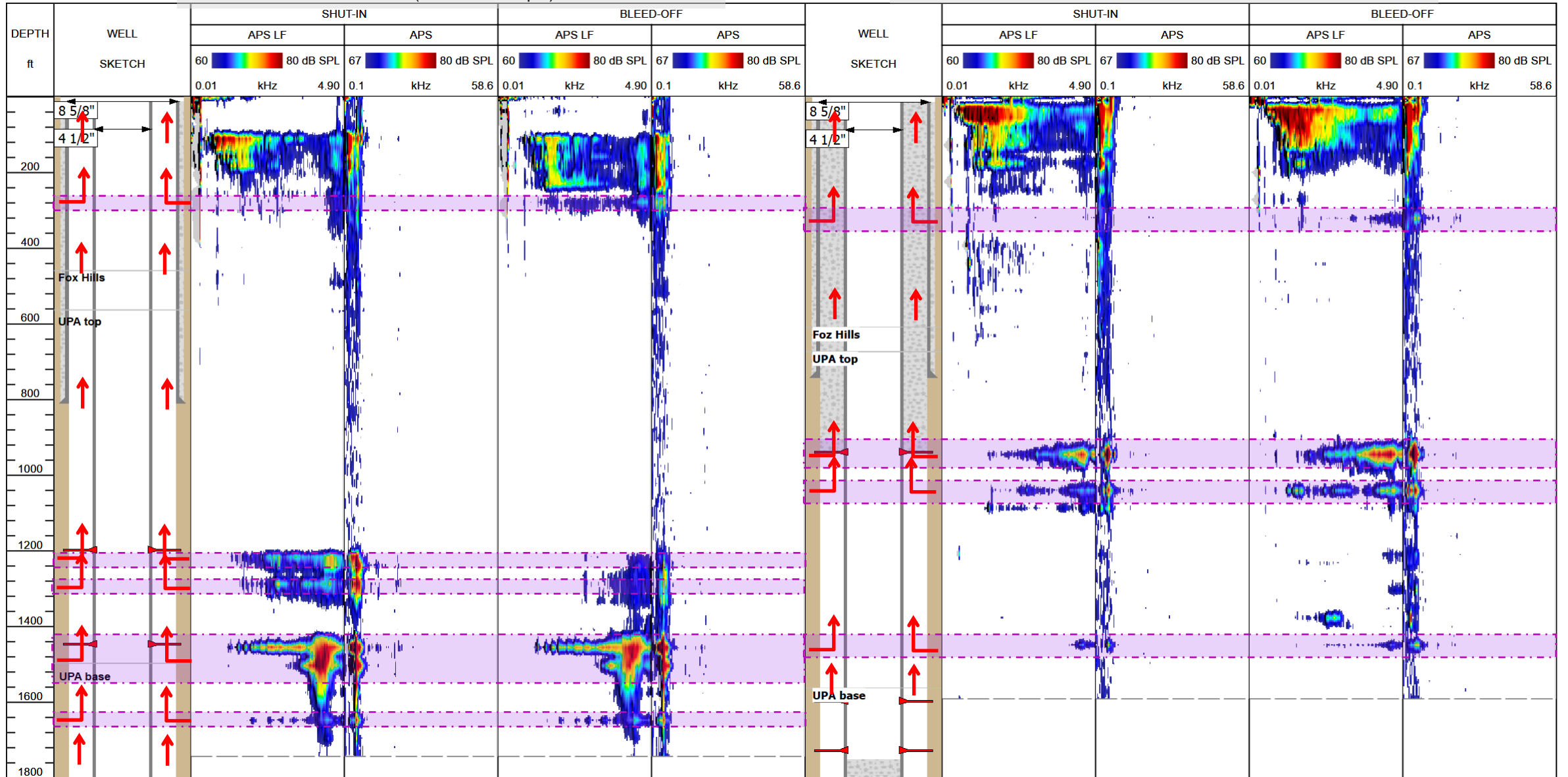
- Depth was correlated to CBL in the interval 1325 – 1600 ft (400353798.las).
- Maximum reached depth was 1606.6 ft.



Crosswell analysis

HANSCOME C28-30D (A-annulus -1 psi). 22 June 2024

ADAMS D30-31D (A-annulus -1 psi). 23 June 2024



Q + A

