

Well Name	Dukas 1	Petroleum Title	EP 112	Basin	Amadeus		
Well Purpose	Exploration	Status	Plugged back	Parent Well Name	N/A		
Spud Date	16/04/2019	TD Date	07/05/2019	Side-track Date	16/05/2019		
Primary Objective		Heavitree Formation		Rig(s) Name	Ensign 965		
Secondary Objective		Basement		100k Map Sheet	EBENEZER 2		
Total Depth		MD	TVD	Side-Track	1156m MDRT (side tracked to Dukas 1 ST1)		
	Driller	1275	1267.9	Kick-off Depth			
	Logger	N/A	N/A	Drill Datum	Datum	RT	
Location (GDA 94)	Coordinates	Surface	Bottom Hole	DF/RT/KB	GL	494.4	
	Latitude	25°02'24.20"S	-	Seismic Station	RT	501.6	
	Longitude	132°54'52.78"E	-		Survey	Inline	Xline
Zone	Easting	289 607m	289 627m		AMSAN16	DK203	CSP08-07
53 South	Northing	7 228 996m	7 228 890m		Shot Pt	-	-
Well Summary							
The well was spudded at 07:15hrs on 16 th April, 2019 with the drilling rig Ensign 965. The 17-1/2” deep conductor hole in this well was drilled from 25m to 764m, with the 13-3/8” deep conductor set at 759.3m. A Formation Integrity Test (FIT) was performed to 21.0ppg EMW. 12-1/4” surface hole was then drilled to 1100m. Drilling operations changed from mud to air drilling from 1100m to 1275m.							
The drill string became stuck at 1273m after a connection. After attempting to free the string, performing a blind back off and subsequently only being able to recover some of the fish, a decision was made to plug back and abandon Dukas 1. A kick-off BHA was made up and time drilling with mud occurred from 1130.3m to 1156m at which point 100% formation was observed, Dukas 1 was side tracked to Dukas 1 ST1 at 18:30hrs on 16 th May, 2019.							
Hole and Casing Design (Drillers Depths)						Drilling Fluid	
Type	Hole Size	Depth mMD	Casing Size	Shoe mMD	Shoe mTVD	Hole Size	Type
Conductor 1	26"	25m	20"	25m	25m	17-1/2”	KCl/Polymer
Conductor 2	17-1/2”	764m	13-3/8"	759.3m	757.4m	12-1/4”	KCl/Polymer
Surface	12-1/4”	1275m	10-3/4”	Not Run	Not Run	12-1/4”	Air/Mist/Foam
Stratigraphy – Formation Tops (Loggers Depths)				Formation Evaluation			
Formation	Depth			Run	Measurement	Depth Interval mMD	
	mMD	mTVD	mTVDGL			From	To
Surficial	7.0	7.0	494.0	N/A			
Pertnjara Gp	22.0	22.0	479.6				
Larapinta Gp	379.0	378.3	123.2				
Pertaoorta Gp	508.0	507.0	-5.3				
Areyonga Fm	520.0	518.9	-17.3				
Wallara Fm	725.0	723.2	-221.7				
Johnnys Creek	835.0	832.6	-331.0				
Loves Creek	987.0	982.4	-480.9				
Mud Logging				Formation Testing (DST)		DFIT	No
3m samples collected from 25m to 1150m, 6m samples from 1150m to 1275m (TD).				N/A		HF	No
Coring			Hydrocarbon Shows				
N/A			No oil fluorescence shows or gas shows were encountered during drilling operations at Dukas 1.				
Completion							
Dukas 1 was plugged back and side tracked to Dukas 1 ST1 at 18:30hrs on 16 th May 2019.							

Well Name	Dukas 1 ST1	Petroleum Title	EP 112	Basin	Amadeus		
Well Purpose	Exploration	Status	Plugged & Suspended	Parent Well Name	Dukas 1		
Spud Date	16/04/2019	TD Date	02/08/2019	Side-track Date	16/05/2019		
Primary Objective		Heavitree Formation		Rig(s) Name	Ensign 965		
Secondary Objective		Basement		100k Map Sheet	EBENEZER 2		
Total Depth		MD	TVD	Side-Track Kick-off Depth	1156m MDRT		
	Driller	3704	3692.8		Drill Datum DF/RT/KB		
	Logger	3705	3693.8	Datum		RT	
Location (GDA 94)	Coordinates	Surface	Bottom Hole	GL		494.4	
	Latitude	25°02'24.20"S	-	RT		501.6	
	Longitude	132°54'52.78"E	-	Seismic Station			
Zone	Easting	289 607m	289 658m		Survey	Inline	Xline
53 South	Northing	7 228 996m	7 228 819m		AMSAN16	DK203	CSP08-07
					Shot Pt	-	-

Well Summary

Mud drilling of the 12-1/4" surface hole proceeded from kick-off point at 1156m to 2162m. Wireline Suite 1, Run 1: XRMI-X Dipole Sonic-GR and Run 2: QuadCombo-GEM was performed at this time. Following wireline Suite 1, drilling resumed with 12-1/4" surface hole drilled ahead from 2162m to surface casing point at 2604m.

10-3/4" casing was set at 2601m and a Leak Off Test (LOT) performed to 23.6ppg EMW. 9-1/2" intermediate hole was then drilled to 2997m with mud. At this point the top drive was changed out due to a failed gearbox. Drilling resumed from 2997m to 3391m.

While out of the hole, shut in casing pressure was observed. The drill string was stripped in hole to 3383m, circulating 13.1ppg kill mud at 300m intervals. The mud weight was then raised to 13.3ppg.

Intermediate hole drilling resumed from 3391m to what was intended as the 9-1/2" section TD at 3515m. Wireline Suite 2, Run 1: TripleCombo-GEM and Run 2: CAST-XRMI-X Dipole Sonic was performed at this time. The 8-5/8" intermediate liner was run and the liner packer prematurely set at 23m while being run in hole on drill pipe. The liner was subsequently cut free, at which point it dropped to bottom and was then successfully fished out of hole.

Following setting a cement plug and pressure testing the casing, the plug was then drilled out. Drilling of the 9-1/2" hole resumed from 3515m to 3704m with 12.2ppg mud. A visual flow check showed a 3bbl gain over 20 minutes, the well was shut in. The well was killed with 16.1ppg mud and the mud weight was then raised to 16.4ppg. It was decided there would be no further drilling in Dukas 1 ST1, TD was reached at 08:30hrs, 2nd August, 2019 - the primary target was not intersected. A total of 8 bit runs were performed in Dukas 1 ST1.

Wireline Suite 3 was conducted: Run 1: QuadCombo (cable head fault while running in hole at 2100m); Run 2: QuadCombo; Run 3: XCT SWC, 26 cores attempted, 21 full cores recovered (plus 3 rubble). A cement plug was then set from 3704m to 3453.5m. Wireline Suite 3 continued, Run 4: VSP (zero offset and 500m offset).

Dukas 1 ST1 has been plugged and suspended for possible future re-entry, Plug 1A: 3704m-3453.5m; Plug 1B: 3453.5m-3204m; Plug 1C: 3204m-2954m; Plug 1D: 2954m-2704m; Plug 1E: 2704m-2557m; Plug 1F: 2531m-2297m; Plug 2: 1220m-1142.4m; Plug 3: 250m-103.3m. The rig was released at 23:59 hours, 21-08-2019.

Hole and Casing Design (Drillers Depths)						Drilling Fluid	
Type	Hole Size	Depth mMD	Casing Size	Shoe mMD	Shoe mTVD	Hole Size	Type
Conductor 1	26"	25m	20"	25m	25m	17-1/2"	KCl/Polymer
Conductor 2	17-1/2"	764m	13-3/8"	759.3m	757.4m	12-1/4"	KCl/Polymer
Surface	12-1/4"	2604m	10-3/4"	2601m	2591.2m	12-1/4"	Air/Mist/Foam
Intermediate	9-1/2"	3704m	P&A	-	-	12-1/4"	KCl/Polymer
-	-	-	-	-	-	9-1/2"	KCl/Polymer
Stratigraphy – Formation Tops (Loggers Depths)				Formation Evaluation			
Formation	Depth			Run	Measurement	Depth Interval mMD	
	mMD	mTVD	mTVDGL			From	To
Surficial	7.0	7.0	494.0	S1R1	XRMI-SONIC-GR	28	2160
Pertnjara Gp	22.0	22.0	479.6	S1R2	QUADCOMBO-GEM	33	2156
Larapinta Gp	379.0	378.3	123.2	S2R1	QUADCOMBO-GEM	1980	3514
Pertaorta Gp	508.0	507.0	-5.3	S2R2	CAST-XRMI-SONIC	2589	3506
Areyonga Fm	520.0	518.9	-17.3	S2R3	RDT-GR	Equipment Failure	
Wallara Fm	725.0	723.2	-221.7	S3R1	QUADCOMBO	Equipment Failure	
Johnnys Creek	835.0	832.6	-331.0	S3R2	QUADCOMBO	3399	3704
Loves Creek	987.0	982.4	-480.9	S3R3	XCT SWC	3125.3	3693
U Gillen Fm	1180.0	1173.3	-671.7	S3R4	VSP	15	3360
Gillen Evap	1375.0	1368.0	-866.4				

Mud Logging		Formation Testing (DST)	DFIT	No
3m samples collected from 1156m to 2389m, 6m samples from 2389m to 2467m, 3m samples from 2467m to 3004m, 6m samples from 3004m to 3392m, 3m samples from 3392m to 3704m (TD).		N/A	HF	No
Coring	Hydrocarbon Shows			
N/A	No oil fluorescence shows were encountered during drilling operations at Dukas 1 ST1. Several poor gas shows were observed, with total gas peaks of up to 17 units over a background of 3 units (98/2/Tr %).			
Completion				
Dukas 1 ST1 has been plugged and suspended for possible future re-entry, Plug 1A: 3704m-3453.5m; Plug 1B: 3453.5m-3204m; Plug 1C: 3204m-2954m; Plug 1D: 2954m-2704m; Plug 1E: 2704m-2557m; Plug 1F: 2531m-2297m; Plug 2: 1220m-1142.4m; Plug 3: 250m-103.3m. The rig was released at 23:59 hours, 21-08-2019.				