


4.0 - BALDWIN-2H

WELL DATA CARD					
 PetroFrontier	WELL NAME	BALDWIN-2H			
	WELL CLASS	Onshore Petroleum Exploration Well			
LOCATION DETAILS					
LAT	22° 15' 49.76"	S	NORTHING	7537603.5	mN
LONG	136° 02' 19.36"	E	EASTING	607021.4	mE
BLOCK	EP 103		ZONE	53	GDA „94
SEISMIC STATION	235m SW of Baldwin-1 (Line 89-204, SP 1580.07)		STATE	Northern Territory	
GENERAL DETAILS					
OPERATOR	PetroFrontier (Australia) Pty Ltd		CONTRACTOR	Major	
RIG	Major TX SS20108		RIG HEIGHT	4.7m	
SIDETRACK DATE	01/09/2011		DATE of FINAL OPS	20/09/2011	
WELL TYPE	Horizontal		DAYS	20	
ELEVATION (AHD)	348.38 m (GL)		353.08 m (RT)		
TD	1605.0 m MDRT		-520.7 m TVDAHD		
PLUG BACK DEPTH	1003m MDRT		-523.1 m TVDAHD		
STRUCTURE	Lateral target				

CASING SUMMARY				
HOLE SIZE	HOLE DEPTH	CASING SIZE	SHOE DEPTH	CASING TYPE
17.5" (574mm)	25.5m	13 3/8" (340mm)	23.0m	Conductor 54.4#, K55, BTC
12.25" (402mm)	421m	9 5/8" (244mm)	417.8m	Surface casing 40#, K55, BTC
8.5" (279mm)	950m	7" (178mm)	515.1m	Intermediate 23#, K55, BTC
6 1/8" (201mm)	1605m			

FORMATION TOPS								
Formation (member)	Age	Prognosed			Actual			Diff (m)
		MDRT (m)	TVDSS (m)	Thick. (m)	MDRT (m)	TVDSS (m)	Thick. (m)	
Kick-Off from Baldwin-2		590.0	-	-	534.0	-180.9	-	-
Arthur Creek Formation	M.Camb	-	-	-	534.0	-180.9	352.5	-
(Oolitic Reef)		606.7	-259.0	-	607.5	-252.3	(23.5)	6.7 H
(Basal "Hot Shale")		867.7	-520.0	21.3	992.5	-520.4	(12.8)	0.4 L
Thorntonia Formation	M.Camb	883.7	-541.3	41.7	1186.0	-533.2	-	7.9 H
Total Depth		2045	-536.0	-	1605.0	-520.9	-	-

LWD SUMMARY (LWD survey conducted after Baldwin-2HST1 was drilled)			
RUN	LOG	INTERVAL (m)	REMARKS
1	GR	515m – 1104m	Run in memory mode after completion of drilling of Baldwin-2HST1. Max Temp = 47°C.
	AWR	515m - 1104m	Shallow, medium and deep resistivities
	IDNSC	515m – 1104m	Density, Neu Por, Density correction and caliper
	Caliper	515m – 1104m	Ultrasonic

LOG ANALYSIS SUMMARY				
Formation/Interval (mMDRT)	Av Sw	Av Por.	Inter. Pay (m)	Comments
No log analysis conducted due to drilling of Baldwin-2HST1				

CORING	SIDEWALL CORES
No cores taken	No sidewall cores taken

MDT FORMATION TESTS										
TEST NO / TYPE	FMN	INT. (m)	Initial Press. (mud) (psia)	Draw Down Press (psia)	Final Build Up (psia)	Flow Time (min)	Final Mud (psia)	Max Temp (°C)	Interp Mob. (md/m)	REMARKS
No Formation testing was undertaken.										

SUMMARY
<p>Baldwin-2H was drilled as a sidetrack from the Baldwin-2 pilot hole as part of PetroFrontier's 2011/12 drilling campaign. The well is situated in the Georgina Basin, onshore Northern Territory, in EP 103. The basal Arthur Creek Formation; Hot Shale was a lateral target in which the well built a horizontal trajectory to the NE, intercepting the Hot Shale close to the old Baldwin-1 well site.</p> <p>Baldwin-2H kicked-off from Baldwin-2 in 6 1/8" hole at 21:00 hrs on 01/09/2011 at a depth of 534.0m. The well was sidetracked into the Arthur Creek Formation and drilled using a steerable mud motor assembly. The trajectory was built to 90° and intercepted the Hot Shale Unit near Baldwin-1 at 992.5m MDRT, and reached horizontal at a depth of 1077mMDRT (-531.0m TVDAHD). Formation dip of approximately 1.6°, and possible thinning, resulted in the well passing into the Thornton Formation at 1186.0m MDRT. An attempt was made to build back up to the Hot Shale, but was not achieved due to the required dogleg severity impacting on running completions equipment. Baldwin-2H was plugged and abandoned at 1605m MDRT on 20/09/2011, with cement plug 1 placed between 1250 mMDRT and 1150 mMDRT. The kickoff plug was placed between 1133m and 1003 mMDRT.</p> <p>Fluorescence was detected within the Arthur Creek Formation; Oolitic Reef Member at 621.0-627.0m and 639.0-642.0m MDRT. Gas was recorded from 543.5m MDRT with average readings of 0.36 units, increasing to an average of 12.0 TG units within the Hot Shale. A maximum peak of 698.8 units was recorded in the Hot Shale unit at 1136.5m MDRT.</p>
AUTHOR: PetroFrontier Team February 2012