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|--|-----------------------|-------------------|----------------------------------|--|---|----------------|-------------|
| Well Name | Palm Valley 12 ST2 | Petroleum Title | OL3 | Basin | Amadeus | | |
| Well Purpose | Petroleum Development | Status | Completed as Pacoota P1 Producer | Parent Well Name, if any | PV 12 | | |
| Spud Date | 2/09/2022 | TD Date | 8/10/2022 | Rig Release Date | 21/10/2022 | | |
| Primary Objective | Pacoota P1 | Rig(s) Name | Ensign 963 | | | | |
| Secondary Objective | NA | 100K Map Sheet | Hermannsburg 5450 | | | | |
| Total Depth | | MD | TVD | Side-Track Kick-off Depth, if applicable | 1,331.0 | | |
| | Driller | 3,039.0 | 1,910.0 | Drill Datum Elevation Datum: AHD | GL Elevation: 845.78m Drill Datum Elevation: 852.94m | | |
| | Logger | 3,039.0 | 1,910.0 | | | | |
| Location | Coordinates | Surface | Bottom Hole | <input type="checkbox"/> DF <input checked="" type="checkbox"/> RT <input type="checkbox"/> KB Seismic Station, if applicable | Survey | Inline | Xline |
| (GDA94 Datum with GRS80 Ellipsoid using MGA94 Grid) | Latitude | 23° 59' 54.74" S | 24° 0' 36.192" S | | PV2D 1994 | | M94-PV05 |
| | Longitude | 132° 44' 01.03" E | 132° 44' 9.006" E | | | | |
| Zone | Easting | 7,344,080.00 mN | 269686.88 mE | | | | |
| 53 | Northing | 269,440.94 mE | 7342808.11 mN | | Shot point | | 575 |
| Well Summary | | | | | | | |
| <p>The Palm Valley 12 ST2 sidetrack well was designed to accelerate production from the Pacoota P1 producing reservoir; targeting the southern area of the field where there were currently no well intersections. As with PV12 ST1, PV12 ST2 was oriented to give the best potential for intersecting open T2 fractures in that part of the field.</p> <p>The proposed Total Depth of 3036 mMD was 'flexible' as the intention was to keep drilling until a potentially economic flow rate was identified via Flow Testing.</p> <p>After abandoning PV12 ST1, a whipstock was run and anchored at 1326.69m and a window milled in 9 5/8" casing from 1320m to 1331m. The directional assembly was RIH, oriented and the 8 1/2" hole build section drilled ahead to 1860m, section TD. The 7" liner assembly was RIH to 1856 m and cemented, following which the tie back assembly/DDV/ control lines were run, landed and pressure tested.</p> <p>After drilling the shoe track, an FIT of 12.1 EMW was obtained in 6" hole. Directional UB drilling BHA was RIH, unloaded kill fluids and drilled ahead to 1960m, at which depth the flare was ignited.</p> <p>The 6" hole was directionally drilled to 2598m where Flow Test #1 was run in the P1 reservoir. Flow Test #2 was also run in the P1 at 2877m and 6" hole drilled ahead to 2883m where all returns were lost. Returns were regained and the well drilled to final TD at 3039 mMDRT. The well was circulated clean and Flow Tests #3, #4, #5 and #6 conducted.</p> <p>The wellbore was then unloaded with N2.</p> <p>After scraping the 7" casing from 1820m to 1840m the production packer was set, and pressure tested. The 7" tie back assembly was pulled and the 3 1/2" completion RIH to 1827.91m. The well was displaced to Completion Brine and upper and lower hanger seals, plus 3 1/2" tubing were pressure tested.</p> <p>The Xmas Tree was nipped up and pressure tested. Gauge and Junk Catcher runs were conducted, followed by a drift run to SSD, with no obstruction encountered. Ensign Rig 963 was then rigged down and released on 21st October 2022.</p> | | | | | | | |
| Hole and Casing Design (Drillers Depths) | | | | | | Drilling Fluid | |
| Type | Hole Size | Depth (mMD) | Casing Size | Shoe mMD | Shoe mTVD | Hole Size | Type |
| Conductor (PV12) | 24" | 101.0 | 20" | 99.4 | 99.4 | 24" | Gel Polymer |
| Surface Casing (PV12) | 17 1/2" | 1103.0 | 13 3/8" | 1099.3 | 1099.3 | 17 1/2" | Gel Polymer |
| Intermediate Csg (window) | 12 1/4" | 1331.0 | 9 5/8" | 1331.0 | 1331.0 | 12 1/4" | Gel Polymer |
| Production Casing | 8 1/2" | 1860.0 | 7" | 1856.8 | 1770.8 | 8 1/2" | Gel Polymer |
| Open Hole | 6" | 3039 | NA | NA | NA | 6" | N2 Foam |
| Stratigraphy – Formation Tops (Loggers) | | | | Formation Evaluation | | | |
| Formation | Depth | | | Run | Measurement | Depth Interval | |
| | mMD | mTVD | mTVDGL | | | From (mMD) | To (mMD) |
| Hermannsburg Sandstone | 17.4 | 17.4 | 10.2 | | Wireline | | |
| Parke Siltstone | 397.0 | 397.0 | 389.8 | S1R1 | CBL-VDL-GR-CCL | 1,171.0 | 1,847.0 |
| Mereenie Sandstone | 438.0 | 438.0 | 430.8 | | | | |
| Carmichael Sandstone | 998.4 | 998.4 | 991.2 | | MWD/LWD | | |
| Stokes Siltstone | 1094.0 | 1094.0 | 1086.8 | 3800 | PGRC-ROPA | 1,314.0 | 1,475.0 |
| Upper Stairway sandstone | 1387.0 | 1387.0 | 1379.8 | 3900 | PGRC-ROPA | 1,314.0 | 1,668.0 |

| Formation | Depth | | | Run | Measurement | Depth Interval | | |
|---|--|--------|---|------|-------------|----------------|----------|--|
| | mMD | mTVD | mTVDGL | | | From (mMD) | To (mMD) | |
| Middle Stairway Sandstone | 1432.3 | 1432.3 | 1425.1 | 4000 | PGRC-ROPA | 1,314.0 | 1,703.0 | |
| Lower Stairway Sandstone | 1583.6 | 1576.4 | 1569.2 | 4100 | PGRC-ROPA | 1,314.0 | 1,808.0 | |
| Horn Valley Siltstone | 1750.0 | 1702.0 | 1694.8 | 4200 | PGRC-ROPA | 1,314.0 | 1,860.0 | |
| Pacoota P1 (P1A) | 1883.0 | 1786.0 | 1778.8 | 4400 | PGRC-ROPA | 1,858.0 | 2,063.0 | |
| Pacoota P1 (P1G) | 2437.2 | 1884.5 | 1877.3 | 4500 | PGRC-ROPA | 1,858.0 | 2,564.0 | |
| Total Depth | 3039.0 | 1910.0 | 1902.8 | 4600 | PGRC-ROPA | 1,858.0 | 3,039.0 | |
| | | | | | | | | |
| | | | | | | | | |
| Mud Logging | | | Formation Testing (DST) | | | | DFIT | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Total Gas and C1-C5 chromatograph from 0 mMD to 3039.0 mMD | | | No DST's were run, however, 6 flow tests were performed over the Pacoota P1 unit. | | | | HF | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Coring | Hydrocarbon Shows | | | | | | | |
| NA | No hydrocarbon fluorescence was noted while drilling Palm Valley 12 ST2. However, significant hydrocarbon gas peaks were recorded and flow tested in the Pacoota P1 Formation. | | | | | | | |
| Completion | | | | | | | | |
| An open hole packer was set from 2479.2m to 2480.8m, to control water production from the Sub-P1G interval. A production packer was set at 1827.9m and the 3 ½" production tubing run and pressure tested. The Xmas Tree was nipped up and pressure tested. | | | | | | | | |