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29 July 2013

ASX Limited Company Announcements Level 4, 20 Bridge Street SYDNEY NSW 2000

Dear Sir/Madam

# **RE: QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDING 30 JUNE 2013**

Please find the Quarterly Activities Report for the period ended 30 June 2013 for Sun Resources NL (ASX: SUR).

Yours faithfully **SUN RESOURCES NL** 

Govert van Ek

**MANAGING DIRECTOR** 



# **QUARTERLY ACTIVITIES REPORT**

# FOR THE PERIOD ENDING 30 JUNE 2013

# **HIGHLIGHTS**

# Delta Oil Project (Sun: 100%WI)

- Sun Resources NL ("**Sun**" or "**the Company**") announced on 12 June 2013 that it had entered into a binding agreement with Petro-Hunt LLC ("**Petro-Hunt**") to jointly explore and develop an Area of Mutual Interest (AMI) consisting of approximately 7,832 acres in northern Leon County.
- Petro-Hunt, based in Dallas, Texas, is one of the largest privately held oil companies in the world, and remains active in the onshore and offshore oil and gas sectors.
- Both Sun and Petro-Hunt have each contributed leases to the AMI, with Sun contributing 810 net acres from its Delta Oil Project portfolio.
- The combined total acres leased will be approximately 3,240 acres, with the ownership split Petro-Hunt 75%WI and operator, Sun 25%WI.
- The first well in this AMI is targeting the Lower Woodbine "C" or "Dexter" sands and is currently planned to be drilled in the fourth quarter of 2013.

# Amerril Oil Project (Sun: 50%WI)

- Sun and its joint venture partner and Operator, Amerril Energy LLC ("Amerril"), completed a 23-stage fraccing program along a 6,800 feet section of the **Seale #1H** horizontal well.
- The Flow back of the Seale #1H well was conducted over seven available stages at the heal of the well after the drill bit broke off and was left in the hole whilst drilling out the seventh stage plug, obstructing flow from stages 8-23 and restricting flow back to the seven available stages.
- The maximum daily oil flow rate recorded from the restricted flow back period at Seale #1H during was 61 bopd.
- Subsequent to the end of the Quarter, Amerril successfully completed a planned 5-stage fraccing operation across approximately 1,500 feet of the toe of the T. Keeling #1H horizontal well, with a period of flow back to recover fraccing fluids now underway. Additional 5,500 feet of the well lateral remains available for fraccing at a future time, after the testing of the first 5 stages.

# Beeler Oil Project (Sun: 13.54-16.67%WI)

- Sun and its joint venture partners continued with clean-up and flow back operations at its three horizontal Woodbine wells at the Beeler Oil Project (previously referred to as the Richland Oil Project), with oil production ongoing under the new operatorship of Amerril.
- All three horizontal Woodbine wells now have jet pumps installed and all wells continued to produce oil at the end of the quarter: Ellis #1H, CW Brown #1H and John Beeler #1H.
- Ellis #1H delivered an average 90-day initial production rate (IP rate) of 150 bopd.

# Corporate

• Dr Philip Linsley retired from the Board, effective 30 June 2013.

#### 1. UNITED STATES OF AMERICA

#### **1.1. OIL AND GAS EXPLORATION AND DEVELOPMENT**

During May and June 2013, four oil companies (Halcon, Clayton Williams, EOG and Silver Oak) collectively announced oil flow results of 10 horizontal wells each drilled into the same stratigraphic horizon as Sun's Seale #1H and T.Keeling #1H horizontal wells, being the "Lower Woodbine" or "Woodbine C".

Industry participants are using a range of names to describe this same target horizon, such as the "Eagle Ford", "Dexter", "Manness Shale", "Lower Woodbine" or the "Woodbine C". These various names all refer to the same stratigraphic horizon for which Sun uses the term "Lower Woodbine" or the "Woodbine C".

The 10 horizontal wells drilled into the Lower Woodbine by Sun's peers have achieved excellent oil flow results after fraccing, with 30 day IPs of at least 609 barrels oil equivalent per day ('Boepd') and up to 835 Boepd, and 90 day oil production per well of up to 50,000 barrels of oil ('Bo'). Of these 10 horizontal wells in the Lower Woodbine, 7 have been reported by Halcon Resources Corporation (Halcon), and all of these horizontal wells have been drilled into the Lower Woodbine, in Brazos County, Texas (south-west along geological strike of Sun's Seale #1H and T. Keeling #1H wells). Halcon's 7 horizontal wells in the Lower Woodbine are reported by them as resulting in average cumulative production of 40,000 Bo per well over the first 90 days of oil flow, with Halcon's reported type curve showing an estimated gross EURs per well of 371,000 Boe and Internal Rates of Returns exceeding 50% at current oil pricing.

Through extensive discussions with frac design consultants and various frac completion contractors focused on exploitation of the Woodbine "C" horizon, a consensus view as to the "recipe" of an optimal frac design for a Lower Woodbine horizontal well is rapidly taking shape. This progression in the optimal frac design is also what occurred in the Eagle Ford Shale in locations such as Karnes, Live Oak and Atascosa Counties in Texas. What is abundantly clear is that oil flow results from later horizontal wells are materially superior to earlier wells as more appropriate frac designs are used and superior frac completions occur.

With the recognition of the potential of the Lower Woodbine play, lease activity (the purchase of acres containing the play) has been active over the quarter as the horizontal well results become more widely known and understood. Sun believes these recently reported horizontal well results into the Woodbine "C" achieved by other oil companies has significantly de-risked the Lower Woodbine play from a financing and investment perspective (both debt and equity).

# Delta Oil Project, Onshore, East Texas (Sun: 100% WI)

On 12 June 2013, Sun executed a binding agreement with Petro-Hunt LLC to jointly explore and develop an Area of Mutual Interest (AMI) consisting of approximately 7,832 acres in Northern Leon County, Texas. Sun and Petro-Hunt have each contributed oil and gas leases that they own within the area of the AMI for the purpose of drilling and exploring for oil and gas in the Lower Woodbine interval of the Woodbine Formation.

Sun has contributed 810 net acres from its northern Delta Oil Project acres which lie within the agreed AMI to the Joint Venture. Petro-Hunt has contributed 2,430 net acres that it owns or will own and which also lie within the AMI. The combined 3,240 net acres will be owned by Petro-Hunt (75%) and Sun (25%). The total area of the AMI is 7,832 acres so there is the capacity for the Joint Venture to expand in size by way of additional lease acquisitions.

Petro-Hunt, based in Dallas, Texas, is one of the largest privately held oil companies in the world, and remains active in the onshore and offshore oil and gas sectors.

Petro-Hunt will be the Operator of the Joint Venture and the intention of the Joint Venture partners is for the first horizontal well into the Lower Woodbine interval to be drilled in the final quarter of 2013. The parties have agreed to enter into a formal Joint Operating Agreement (JOA) and all costs going forward (including but not limited to exploring, drilling, production and additional lease acquisitions within the AMI) will be shared on the ownership percentages of Petro-Hunt (75%) and Sun (25%). Under the JOA, the AMI area shall remain in force and effect for a period of three (3) years from the date of the executed JOA.

## Amerril Oil Project, Onshore, East Texas (Sun: 50% WI)

During the quarter, the Operator, Amerril Energy LLC ('Amerril'), completed approximately four weeks of flow back operations at Seale #1H after the successful 23-stage frac operation. The flow back operations incorporated only 7 stages of the multi-stage frac near the heel of the well after the shaft of the drill bit drilling out the plugs sheared off and left the drill bit in the hole.

The Seale #1H horizontal well had been flowing back for approximately 26 days, including a period of natural flow to reduce well bore pressure, followed by a further period of flow back after the installation of a down-hole jet pump. The oil cut to date varied but peaked at about 8 bbls of oil per hour on an intermittent basis (this varying oil cut is thought to be caused by some frac water passing the fish in the hole as a pressure differential builds up during flow back). The flow rate had increased with the recent installation of a jet pump and the total amount of frac fluid recovered to date is ~9% of that pumped into the formation during the fraccing process. However, more recently the flow rates have reduced again, for reasons thought to be related to the broken drill bit still lodged down hole.

The Operator subsequently re-entered the Seale #1H well during July 2013 to attempt to remove the broken drill bit and plug debris obstructing the well-bore below the first 7 frac stages. This effort was suspended in mid-July to allow for the 5-stage fraccing operation to begin on the T. Keeling #1H well. Further attempts to recover the fish will be considered after fraccing operations are complete at T. Keeling #1H. If the fishing operation is successful, the remaining frac plugs can be drilled out and the full well flowed back to remove frac water and allow oil production across all 23 frac stages.

Subsequent to the end of the Quarter, on 22 July 2013, Sun announced that Amerril, had commenced the fraccing of the T. Keeling #1H horizontal well. The fraccing operation consisted of an initial 5 stages across the first 1,500 feet of the 'toe' of the lateral section of the well. These first 5 stages of the T.Keeling horizontal well had between 3 to 5 clusters of perforations per frac stage and a frac fluid and proppant pumping program that is similar to those used in successful Lower Woodbine wells completed nearby, currently considered best practice. At the time of this report, all 5 stages were fracced successfully, as designed, and a period of flow back to recover fraccing fluids is underway.

The results of these first 5 stages will be analysed, together with the period of flow back, prior to returning to the well to complete the fraccing program across the remaining 5,500 feet of the well lateral. The specialist frac contractor that was contracted by the Operator to execute the frac program is Fractec, which is the same contractor that is currently used by EOG on its nearby Lower Woodbine horizontal wells.

## Beeler Oil Project, Onshore, East Texas (Sun: 13.54–16.67% WI)

During the Quarter, the Operator, Amerril, completed the installation of jet pumps on the remaining horizontal wells and as a consequence, all three lateral Woodbine wells contributed to the quarterly production figures. Almost 14,000 barrels of oil (gross 100%WI) were produced during the Quarter. The latest available average production rates for July are summarised below:

Lateral	Avg bopd	% Oil Cut
Ellis	140	38%
John Beeler	31	45%
CW Brown	24	52%

#### Normangee Oil Project, Onshore, East Texas (Sun: 50% WI)

Sun has a 50% working interest in a 3,952 gross acre package of oil and gas leases located on the Leon County-Madison County border, Texas, USA (Normangee Oil Project). The balance of the working interest (50% WI) in the Normangee Oil Project is held by the Operator, Amerril. Planning for the first Woodbine horizontal well in this project area was continuing at the end of the Quarter.

### Margarita & Redback Projects, Onshore, South Texas (Sun: 37.5% WI)

Sun continues with its efforts to divest these projects.

# 1.2. OIL AND GAS PRODUCTION

The table below summarises Sun's actual net working interest production for the June 2013 Quarter and compares it with the previous Quarter. Both gas and minor oil production are derived from the Flour Bluff gas plant in Corpus Christie in South Texas, with oil production now coming from flow back phases of the Woodbine laterals in both the Beeler and Amerril Oil Projects, in Leon County, East Texas. USA oil prices improved over the June Quarter average around US\$90 per barrel for West Texas Intermediate (WTI) to a peak of close to \$105 per barrel for WTI. Gas prices fell over the corresponding period from above \$4.00 per thousand cubic feet (MCF) to around \$3.70 per MCF.

PRODUCTION	June 2013	March 2013
(Sun WI% share)	Quarter	Quarter
Gas (mmscfg)	5.2	6.2
Oil (bo)	2,670	2,584

Units: mmscfg – million cubic feet gas; bo – barrels of oil

#### 2. THAILAND: L20/50 Block, Onshore Phitsanulok Basin (Sun Resources – 45% WI)

No activity by Sun on this asset subsequent to the farm-out announced on 29 October 2012.

#### 3. NEW PROJECT DEVELOPMENT: NW Europe

There were no developments during the Quarter.

#### 4. CORPORATE

The Board of Sun announced the retirement of Dr Philip Linsley as a non-executive director, effective 30 June 2013.

Dr Wolf Martinick, non-executive chairman, commented that "on behalf of the Board and staff at Sun, he thanked Dr Linsley for his valued contribution during his 16 years tenure with the Company. His critical and constructive appraisals and comments were always valued and his support for Sun's dedicated focus on unconventional oil and gas in Texas was appreciated".

Sun held cash of A\$3.5 million at the end of the June 2013 Quarter.

#### BY ORDER OF THE BOARD

Govert van Ek

### MANAGING DIRECTOR

This report is lodged on the Company's website, www.sunres.com.au.

Information contained in this report was sourced from the Operators of various Joint Ventures in which the Company has interests and was compiled by the Executive Director, Technical of Sun Resources, Matthew Battrick, BSc (Geol), MPESA, MPESGB, MAAPG, GAICD who has had more than 30 years' experience in the practice of geology and 30 years' experience in petroleum geology.

