# Santos

### **DRILLING MORNING REPORT # 11** Henry-2 (03 Sep 2008)

|                   |               | From :            | Chris Roots  | / Nathan Peri         |              |            |              |  |  |  |  |  |
|-------------------|---------------|-------------------|--|-----------------------|--------------|------------|--------------|--|--|--|--|--|
|                   |               | OIM :             | Dennis Gore  |                       |              |            |              |  |  |  |  |  |
| Well Data         |               |                   |  |                       |              |            |              |  |  |  |  |  |
| Country           | Australia     | Measured Depth    | 657.0m   | Current Hole Size     | 315mm        | AFE Cost   | \$41,512,831 |  |  |  |  |  |
| Field             |               | TVD               | 657.0m   | Casing OD             | 340mm        | AFE No.    | 5746043      |  |  |  |  |  |
| Drill Contractor  | DOGC          | Progress          | 0.0m   | Shoe MD               | 652.0m       | Daily Cost | \$726,683    |  |  |  |  |  |
| Rig               | Ocean Patriot | Days from spud    | 9.87   | Shoe TVD              | 652.0m       | Cum Cost   | \$14,954,912 |  |  |  |  |  |
| Water Depth (LAT) | 66.3m         | Days on well      | 10.58  | F.I.T. / L.O.T.       | /            | Planned TD | 2552.0m      |  |  |  |  |  |
| RT-SL(LAT)        | 21.5m         | Current Op @ 0600 | Connected  | the riser to the BOPs | in the moonp | ool.       |              |  |  |  |  |  |
| RT-ML             | 87.8m         | Planned Op        | Run and land the BOPs.   |                       |              |            |              |  |  |  |  |  |
| Rig Heading       | 217.0deg      |                   | Pressure test BOPs, scope out slip joint to diverter.<br>Run the Test tool and complete pressure testing the BOPs and surface equipment. |                       |              |            |              |  |  |  |  |  |
|                   |               |                   |  |                       |              |            |              |  |  |  |  |  |

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#### Summary of Period 0000 to 2400 Hrs

Continued to function test ROV sonar. Deployed ROV, waited on visibility to improve.

Manuerved ROV and untangled the guidelines from XT. Tensioned up the guidelines. Searched for the missing ROV, unable to locate with the sonar, swept the area.

Moved the rig off location.

#### Operations For Period 0000 Hrs to 2400 Hrs on 03 Sep 2008

| Phse | Cls<br>(RC) | Ор  | From | То   | Hrs  | Depth  | Activity Description   |
|------|-------------|-----|------|------|------|--------|--|
| SC   | TP<br>(VE)  | ROV | 0000 | 0200 | 2.00 | 657.0m | Continued working on electronics on Nomad#3.   |
| SC   | TP<br>(VE)  | ROV | 0200 | 0400 | 2.00 | 657.0m | Deployed Nomad#3, lost sonar on entering water. Pulled ROV to surface and repaired faulty sonar. Changed out RH arm hydraulic ram.   |
| SC   | TP<br>(VE)  | ROV | 0400 | 0415 | 0.25 | 657.0m | Deployed ROV, functioned RH arm, unable to retract arm. Sonar dropped out, pulled ROV to surface.  |
| SC   | TP<br>(VE)  | ROV | 0415 | 0530 | 1.25 | 657.0m | Investigated Sonar malfunction and repaired over-extended manipulator arm.   |
| SC   | TP<br>(WOW) | ROV | 0530 | 1230 | 7.00 | 657.0m | Deployed ROV to bottom, functioned all instruments. Proceeded to wellhead, very poor visibility and surge. Unable to hold station with visibility down to ±1.0m. Moved ROV off location and settled on sea bed. Waited for an improvement to visibility. |
| SC   | TP<br>(WOW) | ROV | 1230 | 1400 | 1.50 | 657.0m | Pulled ROV to surface to work on the camera while poor visibility.   |
| SC   | TP<br>(WOW) | ROV | 1400 | 1830 | 4.50 | 657.0m | Deployed ROV, still unable to proceed due to the surge and poor visibility.<br>Pulled ROV to surface, added more buoyancy to the unit.   |
| SC   | TP<br>(VE)  | ROV | 1830 | 2130 | 3.00 | 657.0m | Deployed ROV, worked guidelines free from the wellhead and tensioned same.<br>Note: All (3) guidelines required assistance to untangle from the XT. Guideline #3 still<br>on surface.  |
| SC   | TP<br>(VE)  | ROV | 2130 | 2330 | 2.00 | 657.0m | Inspected XT and VX gasket. Attempted to locate the Nomad #6 ROV, no obvious markers noted on the sonar. Completed a sonar sweep of the area. Pulled the ROV to surface.   |
| SC   | Р           | RR1 | 2330 | 2400 | 0.50 | 657.0m | Moved the rig off location 25m to starboard.<br>Prepared to function the BOPs prior to running.  |

Operations For Period 0000 Hrs to 0600 Hrs on 04 Sep 2008

| Phse    | Cls<br>(RC) | Ор                                     | From      | То       | Hrs      | Depth  |  | Activity Description |         |      |                        |                       |  |  |  |  |
|---------|-------------|--|-----------|----------|----------|--------|--|----------------------|---------|------|------------------------|-----------------------|--|--|--|--|
| SC      | Р           | BOP                                    | 0000      | 0430     | 4.50     | 657.0m | Picked up the BOP test pipe and set it in the BOPS. Function tested the BOPs on both pods. |                      |         |      |                        |                       |  |  |  |  |
| SC      | Ρ           | RR1                                    | 0430      | 0600     | 1.50     | 657.0m | Moved the BOP below the rotary table. Lowered the riser down and made up to the BOPs.      |                      |         |      |                        |                       |  |  |  |  |
| WBM     | Data        |  |           |          |          |        | Cost Today   | /\$0                 |         |      |                        |                       |  |  |  |  |
| Mud Typ | e:          | SW/PacR API FL: 20cm <sup>3</sup> /30m |           |          |          |        | KCI:   | 0%                   | Solids: | 0    | Viscosity:             | 0sec/L                |  |  |  |  |
| Sample  | -From:      |  | Pit Filte | r-Cake:  |          |        | Hard/Ca:   | 2500                 | H2O:    | 100% | PV:<br>YP:             | 0.018Pa/s<br>0.096MPa |  |  |  |  |
| Time:   |             | 22                                     | :30 HTH   | IP-FL:   |          |        | MBT:   | 0                    | Oil:    |      | Gels 10s:              | 0.014                 |  |  |  |  |
| Weight: |             | 1.03                                   | Bsg HTH   | IP-Cake: |          | 0mm    | PM:  | 0                    | Sand:   | 0    | Gels 10m:<br>Fann 003: | 0.024                 |  |  |  |  |
| Temp:   |             |  |           |          |          |        | PF:  | 0.02                 | pH:     | 0    | Fann 006:<br>Fann 100: | 4<br>18               |  |  |  |  |
|         |             |  |           |          |          |        |  |                      | PHPA:   | 0ppb | Fann 200:              | 30                    |  |  |  |  |
|         |             |  |           |          |          |        |  |                      |         |      | Fann 300:              | 38                    |  |  |  |  |
|         |             |  |           |          |          |        |  |                      |         |      | Fann 600:              | 56                    |  |  |  |  |
| Comme   | nt          |  | No t      | reatment | required | l.     |  |                      |         |      |                        |                       |  |  |  |  |

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## Bulk Stocks

| BUIK Stock    |                      |          |                 |                 |                |                              |                                |                                 |                             |                |  |
|---------------|----------------------|----------|-----------------|-----------------|----------------|------------------------------|--------------------------------|---------------------------------|-----------------------------|----------------|--|
|               | Name                 |          | Unit            | In              |                | Used                         | Adjust                         | Balance                         |                             | Comment        |  |
| Barite        |                      |          | mT              |                 | 0              | 0                            | 0                              | 148.0                           |                             |                |  |
| Gel           |                      |          | mT              |                 | 0              | 0                            | 0                              | 33.0                            |                             |                |  |
| Cement        |                      |          | mT              |                 | 0              | 0                            | 0                              | 63.0                            |                             |                |  |
| Fuel          |                      |          | m3              |                 | 0              | 4.4                          | 0                              | 439.2                           |                             |                |  |
| Potable Water |                      |          | m3              |                 | 32             | 28                           | 0                              | 317.0                           |                             |                |  |
| Drill Water   |                      |          | m3              |                 | 0              | 12                           | 0                              | 595.0                           |                             |                |  |
| Personnel     | On Board             |          |                 |                 |                |                              |                                |                                 |                             |                |  |
|               | Company              |          |                 |                 |                | Comment                      |                                |                                 |                             | Pax            |  |
| Santos        |                      |          |                 |                 |                |                              |                                |                                 |                             | 4              |  |
| DOGC          |                      |          |                 |                 |                |                              |                                |                                 |                             | 52             |  |
| ESS           |                      |          |                 |                 |                |                              |                                |                                 |                             | 8              |  |
| BHI           |                      |          |                 |                 |                |                              |                                |                                 |                             | 5              |  |
| Dowell        |                      |          |                 |                 |                |                              |                                |                                 |                             | 2              |  |
| Rheochem      |                      |          |                 |                 |                |                              |                                |                                 |                             | 2              |  |
| MI Swaco      |                      |          |                 |                 |                |                              |                                |                                 |                             | 1              |  |
| ТМТ           |                      |          |                 |                 |                |                              |                                |                                 |                             | 7              |  |
| Cameron       |                      |          |                 |                 |                |                              |                                |                                 |                             | 2              |  |
| -             | Drilling & Measureme |          | IWD / LWD       |                 |                |                              |                                |                                 |                             | 3              |  |
| Santos        |                      | S        | ubsea           |                 |                |                              |                                |                                 |                             | 1              |  |
| Santos        |                      |          | eologist        |                 |                |                              |                                |                                 |                             | 1              |  |
| -             | Drilling & Measureme |          | irectional      |                 |                |                              |                                |                                 |                             | 2              |  |
| DOGC Service  | 9                    | -        | caffolders      |                 |                |                              |                                |                                 |                             | 3              |  |
| Santos        |                      |          | rilling Supt    |                 |                |                              |                                |                                 |                             | 1              |  |
| DPI           |                      | G        | ovt Environment | Auditors        |                |                              |                                |                                 |                             | 2              |  |
|               |                      |          |                 |                 |                |                              |                                |                                 | Total                       | 96             |  |
| Casing        |                      |          |                 |                 |                |                              |                                |                                 |                             |                |  |
| OD            | L.O.T. / F.I.T.      | Casing S | hoe (MD/TVD)    |                 |                | Cementin                     | ng                             |                                 |                             |                |  |
| 762mm         | /                    | 131.     | 70/131.70       | SI              | urry:          | 30.8m <sup>3</sup> (194b     | bl x 916sxs) o                 | of 1.9sg (15.8                  | ppg) class (                | G              |  |
| 340mm         | /                    | 652.     | 00/652.00       | Lea<br>Tail: 17 | d: 41<br>7.8m³ | m³ (256bbl x<br>(112bbl x 64 | 532sx) of 1.5s<br>4sx) 150m of | sg (12.5ppg) o<br>1.9sg (15.8pp | class G slur<br>og) class G | ry.<br>slurry. |  |

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HSE Summary

| Events                     | Num<br>Events | Date of Last | Days<br>Since | Remarks   |
|----------------------------|---------------|--------------|---------------|---|
| Abandon Drill              | 1             | 31 Aug 2008  | 3 Days        | Abandon drill completed after the simulated fire was under control.<br>Completed full muster at the forward lifeboats at 11:02hrs.  |
| Environmental Audit        | 1             | 03 Sep 2008  | 0 Days        | Rig visit by DPI. Conducted an environmental audit on Santos operation.   |
| Fire Drill                 | 1             | 31 Aug 2008  | 3 Days        | Simulated a fire in the paint locker. Emergency alarm sounded at 10:31hrs, emergency under control at 10:45hrs.<br>Full muster complete in the Temporary Refuge (Galley) at 10:41hrs  |
| First Aid                  | 1             | 13 Aug 2008  | 21 Days       | During the relocation of a container on the port pipe deck, IP located hand<br>on corner of a container to assist another roustabout to steady for<br>placement. IP looked at the base of the container when it swung and caught<br>his hand between the container and wall resulting in a bruised hand.  |
| JHA                        | 25            | 03 Sep 2008  | 0 Days        | Drill crew - 1<br>Deck Crew - 14<br>Welder - 6<br>Marine - 1<br>Subsea - 2<br>Mech - 1  |
| Lost Time Incident         | 1             | 30 May 2008  | 96 Days       | Man had his left hand caught between an 8" drill collar and the casing tongs<br>when he was trying to secure the tong.<br>Preliminary checks on the rig deemed only stitches required and the hand<br>was not broken.<br>The person was medivac'd off the rig @ 23:00hrs.<br>Man was released from Royal Hobart hospital with 12 stitches to the hand<br>(no broken bones).   |
| Medical Treatment Incident | 1             | 13 Aug 2008  | 21 Days       | During lifting operations of 3rd party tooling on the pipe deck, IP was<br>assisting the dogman in attaching slings to the whip-line hook. During this<br>process the hook swung and hit the IP in the side of the hardhat resulting in<br>an injury to the IPs neck. The IP was immobilised as a precautionary<br>measure, treated as per symptoms and in readiness for medivac to hospital<br>for further assessment. |
| Pre-Tour Meeting           | 4             | 03 Sep 2008  | 0 Days        | Discussed upcoming operations and associated hazards prior to each shift starting.  |
| PTW Issued                 | 14            | 03 Sep 2008  | 0 Days        | 8 x hot work permits<br>6 x cold work permits   |
| Rig Inspection             | 1             | 30 Aug 2008  | 4 Days        | Conducted 1 by Santos STOP audit.<br>Welding Shop: Stopped welder from working and inspected his permit for<br>validity, OK.<br>We then inspected the workshop for any hazards, found a steel plate<br>leaning against a fire extinguisher. Removed plate away, no other changes<br>required.   |
| Safety Audit               | 1             | 29 Jul 2008  | 36 Days       | Santos environment audit conducted.   |
| Safety Audit               | 1             | 30 Jul 2008  | 35 Days       | EHSMS audit conducted onboard.  |
| Safety Meeting             | 1             | 13 Aug 2008  | 21 Days       | Held 'Time Out for Safety' meeting on the rig floor with senior DODI and<br>Santos personnel, drill crew, deck crew and third party. Reviewed 2<br>incidents which occurred on the previous tour and associated safety<br>outcomes. Opened the floor and discussed safe acts and feedback.  |
| Safety Meeting             | 1             | 26 Aug 2008  | 8 Days        | Held a pre-spud meeting with all parties on the drill floor. Discussed the operation and also the shallow gas procedures.   |
| Safety Meeting             | 3             | 31 Aug 2008  | 3 Days        | Reviewed stop cards for the week and awarded Santos best stop card to<br>Brendan Palmer.<br>Reviewed 3 safety alerts and 2 Tech alerts.<br>Discussed the fire drill in the shale shaker house.  |
| Santos Induction           | 2             | 03 Sep 2008  | 0 Days        | Conducted Santos induction to new personnel to site after DODI induction.   |
| Stop Observations          | 76            | 03 Sep 2008  | 0 Days        | 46 - Safe<br>30 - Corrective Actions  |
| STOP Tour                  | 4             | 03 Sep 2008  | 0 Days        | Submitted Diamond supervisor audits.  |

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| Shakers,    | Volumes a     | and Losse             | es Data      | Er         | ngineer : Cariss | sa Thompson     | / Fius Siregar |                              |                  |          |                  |
|-------------|---------------|-----------------------|--------------|------------|------------------|-----------------|----------------|------------------------------|------------------|----------|------------------|
| Available   | 325.6n        | n <sup>3</sup> Losses | (            | 0.0m³      | Equip.           |                 | Descr.         | Mesh Si                      | ze               | Ηοι      | urs              |
| Active      | 0.0r          | n³ Downho             | ole          |            |                  |                 |                |                              |                  |          |                  |
| Mixing      |               | Surf+ Ed              | auip         | 0.0m³      |                  |                 |                |                              |                  |          |                  |
| Hole        | 0.0r          |                       |              | 0.0m³      |                  |                 |                |                              |                  |          |                  |
| Slug        | 0.01          | De-San                |              | 0.011      |                  |                 |                |                              |                  |          |                  |
| -           | 400.0         |                       |              |            |                  |                 |                |                              |                  |          |                  |
| Reserve     | 106.0n        |                       |              |            |                  |                 |                |                              |                  |          |                  |
| Kill        | 0.0r          |                       | ge           |            |                  |                 |                |                              |                  |          |                  |
| KCL/Gly     | 219.6         |                       |              |            |                  |                 |                |                              |                  |          |                  |
| Comment     | Reserve vo    | olume = SW/           | PacR.        |            |                  |                 |                |                              |                  |          |                  |
| Marine      |               |                       |              |            |                  |                 |                |                              |                  |          |                  |
| Weather che | eck on 03 Sep | 2008 at 24:0          | 00           |            |                  |                 |                | Rig Support                  |                  |          |                  |
| Visibility  | Wind Speed    | Wind Dir.             | Pressure     | Air Temp   | . Wave Height    | Wave Dir.       | Wave Period    | Anchors                      | Chain out (m)    | Те       | nsion (mt)       |
| 14.8km      | 9km/h         | 112.0deg              | 1036.00bar   | 10.0C°     | 0.3m             | 112.0deg        | 3sec           | 1                            | 1353.0           |          | 126.10           |
| Roll        | Pitch         | Heave                 | Swell Height | Swell Dir. | . Swell Period   | Weather         | Comments       | 2                            | 1372.8           |          | 131.09           |
| 0.4deg      | 0.7deg        | 0.80m                 | 4.0m         | 225.0deg   | q 12sec          |                 |                | - 3<br>4                     | 1386.8<br>1414.0 |          | 130.18<br>127.91 |
| Rig Dir.    | Ris. Tension  | VDL                   |              | Comment    | -                | -               |                | 5                            | 1365.8           |          | 136.08           |
| 217.0deg    | 0.00mt        | 1062.77mt             |              |            | -                | -               |                | 6                            | 1389.9           |          | 127.91           |
| 217.000g    | 0.00111       | 1002.17111            |              |            |                  |                 |                | 7                            | 1393.9           |          | 131.09           |
|             |               |                       |              |            |                  |                 |                | 8                            | 1389.9           |          | 130.18           |
| Boats       | Arrive        | ed (date/time         | -            | parted (da |                  | Stat            |                | r .                          | Bulks            |          |                  |
| Far Grip    |               | 21:45 hrs 3/          | 09/08        |            | 0                | n location Ocea | in Patriot     | Item                         | Uni              |          | Quantity         |
|             |               |                       |              |            |                  |                 |                | Fuel<br>Potable Water        |                  | m3<br>m3 | 569<br>410       |
|             |               |                       |              |            |                  |                 |                | Drill Water                  |                  | m3       | 340              |
|             |               |                       |              |            |                  |                 |                | Gel<br>Cement                |                  | mt<br>mt | 59<br>45.5       |
|             |               |                       |              |            |                  |                 |                | Barite                       |                  | mt       | 84               |
|             |               |                       |              |            |                  |                 |                | KCI Brine                    |                  | m3       | 113              |
|             |               |                       |              |            |                  |                 |                | NaCl Brine                   |                  | m3<br>m3 | 0                |
|             |               |                       |              |            |                  |                 |                | Mud                          |                  | m3       | 138              |
| Nor Captain |               | 04:15 hrs 1/          | /09/08       |            | 0                | n location Ocea | in Patriot     | ltem                         | Un               | it       | Quantity         |
|             |               |                       |              |            |                  |                 |                | Fuel                         |                  | m3       | 413              |
|             |               |                       |              |            |                  |                 |                | Potable Water<br>Drill Water |                  | m3<br>m3 | 280<br>495       |
|             |               |                       |              |            |                  |                 |                | Gel                          |                  | mt       | 495              |
|             |               |                       |              |            |                  |                 |                | Cement                       |                  | mt       | 0                |
|             |               |                       |              |            |                  |                 |                | Barite                       |                  | mt       | 82               |
|             |               |                       |              |            |                  |                 |                | KCI Brine<br>NaCI Brine      |                  | m3<br>m3 | 0                |
|             |               |                       |              |            |                  |                 |                | Mud                          |                  | m3       | 80               |
| Helicopte   | r Moveme      | nt                    |              |            |                  |                 |                |                              |                  |          |                  |
| Flight #    | Time          |                       | Desti        | nation     |                  |                 | Com            | nment                        |                  |          | Pax              |
| GYJ         | 10:59         | Ocean F               | Patriot      |            |                  |                 |                |                              |                  |          | 7                |
| GYJ         | 11:14         | Essendo               | <b>~</b> ~   |            |                  |                 |                |                              |                  | 1        | 8                |