Overview

Evolution Mining is a leading growth focussed Australian gold company forecasting to produce between 770,000oz and 820,000oz gold in FY16. Edna May exceeded expectations with production of 98,766oz gold at an average C1 cash cost of A$747 per ounce and AISC of A$898 per ounce in FY15 and is forecast to produce between 82,500oz and 90,000oz in FY16.

Location:
312km east of Perth, approximately half way to Kalgoorlie and one kilometre north of the township of Westonia Gold

Producing:
Gold

Site management:
Robert Hudson - General Manager

Mine Site contact number:
+61 8 9046 8000

History

Geology

The project is located near the northern end of the Westonia Greenstone Belt, in the Southern Cross Province of Western Australia's Archaean Yilgarn Craton. The Westonia Greenstone Belt comprises a series of outliers of predominantly amphibolite-grade metamorphic rocks extending approximately 100km WNW from near Edwards Find, south of Southern Cross. The remainder of the terrain comprises granitic rocks and their metamorphosed equivalents.

The Edna May gold mineralisation consists of high grade reef structures and associated stockwork veining hosted within three en-echelon tonalitic gneiss intrusions (Edna May, Greenfinch and Golden Point). The deposits are bound to the north and south by an ultramafic amphibolite.

Reserves: 11.73Mt @ 1.02g/t gold for 387koz Au
Resources: 31.73Mt @ 1.03g/t gold for 1,056koz Au

Mining

Open pit mining is by conventional drill and blast, load and haul method. A bulk mining approach has been adopted to the extraction of remnant high grade reef structures and associated stockwork mineralisation with a remaining life of mine strip ratio of 2.8:1. This allows the mine to employ a single mining fleet for most of the mine life. The open pit is being mined in two stages and is carried out on 10.5 metre benches and 3.5 metre flitches.
Edna May Plant

**Conventional open pit mining** - single fleet operation

- **3.0Mt ore per year (FY16)**
- **9.9Mt per year (FY16)**

**Dry Hire** (mining equipment hired from Force)

- **8/6 mine roster**

**Haulage/mine trucks:**

- 6 x Caterpillar 785D dump trucks, 4 x Caterpillar 777D dump trucks

**Shovels/excavators/loaders:**

- 1 x Hitachi 3600, 1 x Hitachi 1900 (backup), 1 x Hitachi 1200
- 1 x Caterpillar 990, 1 x Caterpillar 992, 2 x Caterpillar 988 wheel loaders

**Dozers:**

- 2 x Caterpillar D10R

**Haul road maintenance regime/equipment:**

- 1 x Caterpillar 14M motor grader, 1 x 773F water cart, 1 x Hitachi 330 rock breaker

**Drilling equipment:**

- 1 x L8 Atlas, 3 x Pantera 1100

**Explosives:**

- SRG contractor, Maxam Explosives RIOFLEX, nonel and booster

**Blasting contract services:**

- SRG

**Mine survey equipment/products:**

- GPS / solar power base station / repeater / total station

**Geotechnical equipment/products:**

- Prism monitoring, CAL-S

**Mine planning software:**

- Whittle, MineSched, Surpac
Edna May CONT

Processing Plant

Ore treatment/processing method/s: Crush-grind-CIL to produce gold doré
Annual average throughput rate: (FY13): 2.6Mtpa; (FY14): 2.5Mtpa; (FY15): 2.8Mtpa
Utilisation: (FY13): 90.0%; (FY14): 92.4%; (FY15): 93.0%
Recovery: (FY13): 90.5%; (FY14): 94.1%; (FY15): 93.5%
Crushing plant total capacity: 500tph
Power: Western Power - grid supply
Primary crushing/grinding plant/machinery: Single stage crushing, single toggle jaw 1,066mm x 1,371mm, feed size 800mm, product size p80 120mm
Mobile crushing fleet including jaw crusher, cone crusher, vibrating screen and 2 x stacker conveyors. 70t and 20t cranes
Grinding plant equipment: SAG with 2,000kW installed power, SAG mill size 6.71m x 2.59m, rubber-steel composite liners, Ball mill with 3,720kW installed power, ball mill size 5.03m x 8.21m, composite. Classification Warman Cavex 400mm (400CVX)
Grinding media: Donhad 125mm SAG, Ball mill 65/52mm
Screening plant/equipment: Trash screen horizontal vibratory 2.4m x 6.1m, polyurethane deck 0.8mm cross flow slots
Recycle crusher: Terex RC45 cone crusher, vibrating feeder bypass using an overflow bin. Nominal reduction CCS of 14mm
Mineral liberation/recovery method: Gravity & CIP
Mineral liberation plant/equipment: 2 x 2,200m³ leaching tanks, 6 x 1,100m³ adsorption tanks
Mineral recovery plant/equipment: Knelson concentrator XD 40, followed by Consep Acacia Reactor type CS 1000DM. CIP leach circuit with 2 x 2,000m³ tanks and 6 x 1,100m³ adsorption tanks. Elution circuit - pressure Zadra. 3 x electrowinning tanks, 2 in parallel for leach circuit and 1 for gravity circuit
Gravity circuit: Knelson Concentrator 54% of gold recovered via gravity
Process pumps: Warman 10/12 split casing
Chemicals/reagents used: Sodium Cyanide, Oxygen 3t/d PSA plant, Quicklime, Sodium Hyd Roxide, hydrochloric acid, activated carbon, LPG
Refining plant/equipment: 8t elution column, 8t acid wash column
Process control system: Citect SCADA
Maintenance system: Pronto
Production work roster: 4 shifts, 8/6 roster
Maintenance work roster: 2 shifts, 8/6 roster

General

Drive in Drive out service provider(s): ADAMS Mining Services
Accommodation: Accommodation available in Westonia for up to 136 people
Mine Workforce: 217 employees & contractors
Safety/Environment/Community: Evolution strives to enable all work activities related to its operations to be carried out safely and with all reasonable measures taken to remove or reduce risks to the health, safety and welfare of all stakeholders, plant and equipment