

Overview

Evolution Mining is a leading growth focussed Australian gold company forecasting to produce between 800,000oz and 860,000oz gold in FY17. Edna May is forecast to produce between 80,000oz and 85,000oz in FY17.

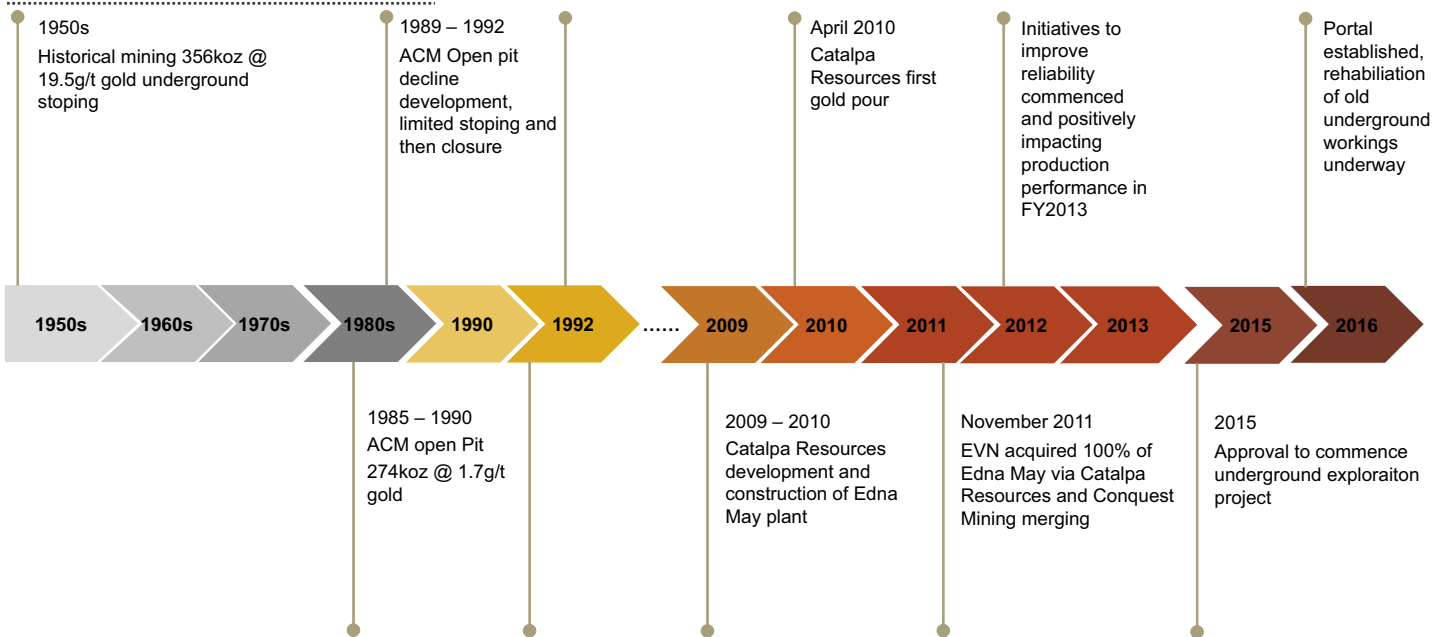
Location: 312km east of Perth, approximately half way to Kalgoorlie and one kilometre north of the township of Westonia Gold

Producing: Richard Carlton - General Manager

Site management: +61 8 9046 8000

Mine Site contact number:

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: 9.66Mt @ 1.51g/t gold for 471koz Au

Resources: 19.14Mt @ 1.37g/t gold for 840koz 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.

A program has commenced to confirm viability of an underground operation. This includes rehabilitation of 1,700m of existing decline and an additional 1,000m of new development which will access potential ore and provide a platform for a diamond drill program to prove up a mineable resource.



Edna May CONT



Mining CONT

Mining method/s:	Conventional open pit mining - single fleet operation
Ore mined:	3.0Mt ore per year (FY16)
Waste mined:	9.9Mt per year (FY16)
Mining contractor:	Dry Hire (mining equipment hired from Force)
Mine work roster:	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 L8Atlas, 3 x Pantera 1100
Explosives:	SRG contractor, Maxam Explosives RIOFLEX, nonel and booster
Blasting contract services:	Maxam
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

Processing plant



October 2016: Edna May open pit



Entrance to Edna May underground development

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; (FY16): 2.9Mtpa
Utilisation:	(FY13): 90.0%; (FY14): 92.4%; (FY15): 93.0%; (FY16): 93.5%
Recovery:	(FY13): 90.5%; (FY14): 94.1%; (FY15): 93.5%; (FY16): 91.7%
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 WarmanCavex 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 2,200m ³ leaching tanks, 6 x 1,100m ³ adsorption tanks
Mineral recovery plant/equipment:	Knelson concentrator XD 40, followed by Consep Acacia Reactor type CS 1000DM. CIP leach circuit with 2 x 2,000m ³ tanks and 6 x 1,100m ³ 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 Hydroxide, 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:	243 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



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Process Flowsheet

