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## Potential Mining Developments In the Northern Territory

February 2008

This document contains a summary of likely new mining developments in the Northern Territory over the next 1-3 years. It is not intended to be comprehensive and does not contain a number of projects that are at various stages of feasibility study. For further information on mining developments, contact the Resource Development and Policy Division of Department of Primary Industry, Fisheries and Mines or visit the website at [www.nt.gov.au/dpifm/Minerals\\_Energy/](http://www.nt.gov.au/dpifm/Minerals_Energy/) or email to [orestruck.nt.gov.au](mailto:orestruck.nt.gov.au)



## MINING DEVELOPMENTS SUMMARY - FEBRUARY 2008 UPDATE

### 1. Recent (Past 24 months)

Company	Project	Location	Product	Development
GBS Gold	Union Reefs	Pine Creek	Gold	Reopen mine
GBS Gold	Brocks Creek	Pine Creek	Gold	Reopen mine
GBS Gold	Fountain Head	Pine Creek	Gold	Reopen mine
Matilda Minerals	Tiwi Sands	Tiwi Islands	Rutile & Zircon	New mine
OM Manganese	Bootu Creek	Tennant Creek	Manganese	New mine
Peko Rehab Project	Peko Tailings	Tennant Creek	Magnetite	New mine
GBS Gold	Toms Gully	Mt Bundy	Gold	Reopen mine
Xstrata	McArthur River	Gulf	Zn, Pb & Ag	New open cut
Territory Resources	Frances Creek	Pine Creek	Iron Ore	Reopen mine
Compass Resources	Browns Oxide*	Batchelor	Cu, Co & Ni	New mine

\* note - Browns Oxide project is under construction & due to commission in Q1 2008 and commence processing in Q2 2008.

### 2. Pending (Next 12 months)

Company	Project	Location	Product	Development
GBS Gold	Mottrams & Chinese South	Pine Creek	Gold	New pit & extend
GBS Gold	North Point	Pine Creek	Gold	New mine
GBS Gold	Princess Louise	Pine Creek	Gold	New mine
GBS Gold	Maud Creek	Katherine	Gold	New mine
Gemco	Gemco Refirb	Groote Eylandt	Manganese	Plant upgrade
Olympia Resources	Harts Range	Alice	Garnet sands	New mine
Peko Rehab Project	Peko Tailings	Tennant	Gold & Copper	New plant
Peko Rehab Project	Peko Tailings	Tennant	Cobalt	New plant
Redbank Mines	Redbank	Gulf	Copper	New pit & plant
Thor Mining	Molyhil	Alice	Mo, W	Reopen mine

### 3. Proposed (Next 12-36 months)

Company	Project	Location	Product	Development
Arafura Resources	Mt Porter	Pine Creek	Gold	New mine
Arafura Resources	Nolans	Alice Spr	REO, P	New mine
Compass Resources	Browns Sulphide	Batchelor	Cu, Co, Ni, Pb, Zn	New mine
Emmerson Res	Tennant Ops	Tennant	Gold & Copper	Reopen & new
Energy Metals	Bigrlyi	Ngalia Basin	U, V	New mine
Excalibur	Juno	Tennant	Gold	Reopen mine
GBS Gold	Cosmo Deeps	Pine Creek	Gold	Reopen mine
NAD	Merlin	Gulf	Diamonds	Reopen mine
Newmont	Callie Deeps	Tanami	Gold	Expansion
Newmont	Oberon	Tanami	Gold	New mine
Western Desert Res	Spring Hill	Pine Creek	Gold	Reopen mine



PENDING MINE DEVELOPMENTS – NEXT 12 MONTHS

Mine Name	<b>COSMO – MOTTRAMS &amp; CHINESE SOUTH</b>
Company	GBS Gold International
Contact	Tom Heaton – Project Manager Phone: (08) 8974 7400 Email: theaton@gbsgold.com
Location	Approx 145 kms SSE of Darwin and 50 kms NW of Union Reef.
Description	New pit and old pit extension at Cosmo mine. Open pit gold deposits. Ore will be transported to Union Reef plant for processing.
Product	Gold
Resource	Mottrams: Indicated : 1,310,000 tonnes at 1.4 g/t Au Inferred : 683,000 tonnes at 1.2 g/t Au Chinese South: Indicated – 1,630,000 tonnes at 1.8 g/t Au Inferred – 974,000 tonnes at 1.9 g/t Au
Mine Life	2 years
Approvals	Environmental – approved Mining – 2007
Schedule	Construction – N/A Mining – early 2008
Jobs	Construction – N/A Mining – approx 30
Capex	Unknown

Mine Name	<b>NORTH POINT</b>
Company	GBS Gold International
Contact	Tom Heaton – Project Manager Phone: (08) 8974 7400 Email: theaton@gbsgold.com
Location	Approx 150 kms SSE of Darwin and 40 kms NW of Union Reef
Description	New mine. Proposed open pit gold deposit. Ore will be transported to Union Reef plant for processing.
Product	Gold
Resource	Indicated: 387,000 tonnes at 1.7 g/t Au Inferred: 453,000 tonnes at 1.4 g/t Au
Mine Life	6-12 months
Approvals	Environmental – PER submitted Mining – pending enviro assessment
Schedule	Construction – N/A Mining – 2008
Jobs	Construction – N/A Mining – unknown
Capex	Unknown

Mine Name	<b>PRINCESS LOUISE</b>
Company	GBS Gold International
Contact	Tom Heaton – Project Manager Phone: (08) 8974 7400 Email: theaton@gbsgold.com
Location	Approx 150 kms SSE of Darwin and 40 kms NW of Union Reef
Description	New mine. Proposed open pit gold deposit. Ore will be transported to Union Reef plant for processing.
Product	Gold
Resource	Indicated: 290,000 tonnes at 1.4 g/t Au Inferred: 381,000 tonnes at 1.1 g/t Au
Mine Life	6 months
Approvals	Environmental – PER submitted Mining – pending enviro assessment
Schedule	Construction – N/A Mining – 2008
Jobs	Construction – N/A Mining – unknown
Capex	Unknown



Mine Name	<b>MAUD CREEK</b>
Company	GBS Gold International
Contact	Tom Heaton – Project Manager Phone: (08) 8974 7400 Email: theaton@gbsgold.com
Location	285 kms SE of Darwin and 20 kms ENE of Katherine
Description	New mine. Proposed underground mine. Ore will be transported to Union Reef plant for processing.
Product	Gold
Resource	Indicated 9.3Mt at 3.1 g/t for 935,000 oz of contained gold Inferred 1.1Mt at 2.4 g/t for 82,000 oz of gold
Mine Life	Approx 10 years
Approvals	Environmental – EIS submitted Mining – pending enviro assessment
Schedule	Construction – early 2009 Mining – mid 2009
Jobs	Construction – unknown Mining – approx 50
Capex	Unknown

Mine Name	<b>GEMCO</b>
Company	Groote Eylandt Mining Company (BHP Billiton)
Contact	Lucas Dow – General Manager Phone: (08) 8987 4444 Email: lucas.dow@bhpbilliton.com
Location	Gulf of Carpentaria. Groote Eylandt is approximately 640 km east south east of Darwin, and about 48 km from the east coast of Arnhem Land.
Description	Replacement of the Feed Preparation Circuit on existing plant. This will remove a bottleneck in the processing circuit which will allow a gradual increase in production (over a period of 3 years) from 3.1Mtpa to 4.0Mtpa.
Product	Manganese
Resource	128 Mt of manganese ore
Mine Life	18 years
Approvals	Environmental – Aug 2006 Mining – 2007
Schedule	Construction – Feb 2008 Production – to be advised
Jobs	Construction – approx 150 Production – additional 40 (449 total)
Capex	Approx \$150M+

Mine Name	<b>HARTS RANGE</b>
Company	Olympia Resources Limited
Contact	John Baxter – Technical Director Phone: (08) 9244 1411 Email: john.baxter@olympiaresources.com
Location	170 kms northeast of Alice Springs
Description	New mine. Open pit mining of alluvial and dune sands to a depth of approx 7m. On-site processing via screening and wet separation plant to produce a concentrate. Garnet and AMH extracted by dry magnetic separation plant. Garnet sands trucked to Alice and railed to Darwin for export.
Product	Garnet sand and alumino-magnesio-hornblend (AMH)
Resource	98Mt sand containing 2.7Mt garnet and 6.2Mt AMH
Mine Life	20 years plus
Approvals	Environmental – Jan 2006 Mining – expected Q1 2008
Schedule	Construction – Q1 2008 Production – mid 2008
Jobs	Construction – unknown Production – approx 60
Capex	\$16M



Mine Name	<b>PEKO TAILINGS – STAGE 3 &amp; 4</b>
Company Contact	Peko Rehabilitation Project Pty Ltd Bill Blackwell – Mine Manager Phone: 8962 3255 Email: peko@switch.com.au
Location	14 kms southeast of Tennant Creek
Description	Tailings reprocessing operation. Stage 1 (complete) involved a Pilot Plant. Stage 2 (complete) install a magnetite separation plant. Stage 3 (Q2 2008) install a gold and copper plant. Stage 4 (Q3 2008) install a cobalt plant.
Product	Gold, Copper, Cobalt and Magnetite.
Resource	3.9Mt of tailings
Mine Life	6-7 years
Approvals (S3)	Environmental – NA Mining – late 2007
Schedule	Construction – Q2 2008 Production – Q3 2008
Jobs	Construction – approx 30 Production – 15 (stage 3) + 3 (stage 4)
Capex	Stage 1 (\$3M), Stage 2 (\$4M), Stage 3 (\$5.5M) & Stage 4 (\$1M).

Mine Name	<b>REDBANK (SANDY FLAT)</b>
Company Contact	Redbank Mines Limited Jerome (Gino) Vitale – Managing Director Phone: (08) 9322 6045 Email: jerome.vitale@redbankmines.com.au
Location	Approx 900 kms southeast of Darwin in Gulf of Carpentaria
Description	Existing mine expansion. Open pit mine currently processing ore stockpiles. Processing through ion exchange/cementation circuit. Proposal to open new open cut pit and process onsite through upgrade of existing floatation plant.
Product	Copper
Resource	5Mt @ 1.4% Cu
Mine Life	5 years +
Approvals	Environmental – pending Mining – pending
Schedule	Construction – Q2 2008 Production – Q4 2008
Jobs	Construction – unknown Production – unknown
Capex	Feasibility studies commissioned

Mine Name	<b>MOLYHIL</b>
Company Contact	Thor Mining PLC Phil Tribbick – Project Manager Phone: (08) 9327 0900 Email: ptribbick@thormining.com
Location	220 kms northeast of Alice Springs
Description	Proposed open pit and underground mining operation with on site processing by magnetic separation and flotation to produce W and Mo concentrate.
Product	Tungsten and Molybdenum concentrates
Resource	3.73Mt at 0.51% combined WO <sub>3</sub> and MoS <sub>2</sub>
Mine Life	Initially 5 year
Approvals	Environmental – July 2007 Mining – pending (plans submitted)
Schedule	Construction – mid 2008 Production – early 2009
Jobs	Construction – 100 Production – 70
Capex	\$71M



EXPECTED MINE DEVELOPMENTS – NEXT 12 - 36 MONTHS

Mine Name	<b>MOUNT PORTER</b>
Company	Arafura Resources Limited
Contact	Alistair Stephens – Managing Director Phone: (08) 9221 7666 Email: ajs@arafuraresources.com.au
Location	Approx 180 kms SSE of Darwin and 20 kms north of Pine Creek
Description	Open cut mine from one or more pits. Ore likely to be trucked to Union Reef plant (owned by GBS Gold) for processing.
Product	Gold
Resource	355,000 tonnes at 3.0 g/t Au
Mine Life	“Campaign” mining during dry season in 1 year
Approvals	Environmental – Mar 2007 Mining – pending
Schedule	Construction – unknown Production – unknown
Jobs	Construction – NA Production – approx 30
Capex	Unknown

Mine Name	<b>NOLANS</b>
Company	Arafura Resources Limited
Contact	Alistair Stephens – Managing Director Phone: (08) 9221 7666 Email: ajs@arafuraresources.com.au
Location	135 kms northwest of Alice Springs
Description	New mine. Open cut mining with substantial chemical processing plant (likely to be located off site).
Product	Rare earths & phosphate (small amounts of uranium & thorium)
Resource	18.6 Mt containing 14% P2O5, 3.1% REO. (0.03% U3O8 & 0.36% ThO2)
Mine Life	20 years +
Approvals	Development proposals yet to be submitted
Schedule	Pilot plant studies in 2008. Possible construction in 2009 with production in 2010/11.
Jobs	Unknown
Capex	Estimated \$200M+ (Stage 1)

Mine Name	<b>BROWNS SULPHIDE PROJECT</b>
Company	Compass Resources NL
Contact	Richard Swann – Managing Director Phone: (08) 8923 1555 Email: richard.swann@compassnl.com.au
Location	65 kms south of Darwin and 7 kms northwest of Batchelor
Description	Expansion of existing mine. Open cut pit and underground to access sulphide deposit with associated waste rock dump, processing plants, tailings dam and mine office infrastructure.
Product	Copper, Cobalt, Nickel, Lead and Zinc
Resource	84Mt at 0.78% Cu, 2.7% Pb, 0.12% Co & 0.11% Ni
Mine Life	Approx 20 years
Approvals	Development proposals yet to be submitted (EIS expected)
Schedule	Construction – unknown Production – unknown
Jobs	Construction – unknown Production – unknown
Capex	Estimated \$750M+



Mine Name	<b>TENNANT CREEK OPERATIONS</b>
Company Contact	Emmerson Resources Rob Bills – Chief Executive Officer Phone: (08) 9489 7079      Email: rbills@emmersonresources.com.au
Location Description	Tennant Creek area New mines and reopen old mines. Potential for several open cut and underground mining developments along with reopening of the Warrego gold processing plant.
Product	Gold and Copper
Resource	Not available at this time.
Mine Life	Unknown
Approvals	Development proposals yet to be submitted
Schedule	Construction – unknown      Production – unknown
Jobs	Construction – unknown      Production – unknown
Capex	Unknown

Mine Name	<b>BIGRLYI</b>
Company Contact	Energy Metals Limited Lindsay Dudfield – Director Phone: (08) 9322 6904      Email: lindsay@energymetals.net
Location Description	Approx 340 kms NW of Alice Springs Potential open cut mine with on-site processing plant. Upgraded resource from 2007 drilling program to be announced in Mar 2008. Scoping study complete and feasibility studies to commence in mid 2008.
Product	Uranium
Resource	4.53 Mt @ 0.14% U3O8 Total 14.3 M lbs U <sub>3</sub> O <sub>8</sub> & 16.3 M lbs V <sub>2</sub> O <sub>5</sub>
Mine Life	unknown
Approvals	Development proposals yet to be submitted
Schedule	Construction – unknown      Production – unknown
Jobs	Construction – unknown      Production – unknown
Capex	Unknown.

Mine Name	<b>JUNO</b>
Company Contact	Excalibur Alex Bajada – Managing Director Phone: (08) 9367 8295
Location Description	Approx 9 kms southeast of Tennant Creek Reopen old mine. Potential for open pit and underground mining of remaining gold orebody. Ore processing likely to occur at the Warrego mill.
Product	Gold
Resource	To be confirmed.
Mine Life	Undefined
Approvals	Development proposals yet to be submitted.
Schedule	Construction – unknown      Production – unknown
Jobs	Construction – unknown      Production – unknown
Capex	Unknown



Mine Name	<b>COSMO DEEPS</b>
Company	GBS Gold International
Contact	Tom Heaton – Project Manager Phone: (08) 8974 7400      Email: theaton@gbsgold.com
Location	140 kms SSE of Darwin and 50 kms NW of Pine Creek
Description	Reopen the Cosmo Howley mine. Proposed underground mining. Ore will be transported to Union Reef plant for processing.
Product	Gold
Resource	Indicated Resource of 4.6Mt at 4.6 g/t Au Inferred Resource of 5.2Mt at 3.6 g/t Au
Mine Life	Approx 10 years
Approvals	Development proposals yet to be submitted
Schedule	Construction – mid 2009      Production – late 2009
Jobs	Construction – unknown      Production – unknown
Capex	Unknown

Mine Name	<b>MERLIN</b>
Company	North Australian Diamonds
Contact	Tom Reddicliffe – Chief Executive Officer Phone: (08) 9221 3355      Email: tom.reddicliffe@nadl.com.au
Location	720 kms southeast of Darwin and 80 kms south of Borroloola.
Description	Stage 1 of the project (complete) involved retreating of sorthouse tailings. Stage 2 (partially complete) involves the mining and processing of 502,000 t of remnant ore. Stage 3 is the cutback of the Pal Sac pipe to produce 1.7Mt of ore for on-site processing. Stage 4 is underground mining.
Product	Diamonds
Resource	19.4Mt for 3.51M carrots
Mine Life	12 years plus (Stage 3 is 2 years & Stage 4 is approx 10 years)
Approvals	Environmental – pending      Mining – pending enviro assessment
Schedule	Construction – unknown      Production – unknown
Jobs	Construction – unknown      Production – unknown
Capex	Unknown – Further drilling & feasibility studies in progress.

Mine Name	<b>CALLIE DEEPS</b>
Company	Newmont Australia
Contact	Ian Suckling – General Manager Operations Phone: (08) 8957 8200      Email: ian.suckling@newmont.com.au
Location	540 kms NW of Alice Springs
Description	Expansion of existing mine. Possible expansion of existing underground operations to depth with installation of new processing plant and mine camp and infrastructure at Callie (40 kms west of the Granites).
Product	Gold
Resource	Unavailable at this time
Mine Life	Up to 15 years
Approvals	Initial studies undertaken and Prefeasibility studies commenced. Development decision yet to be made.
Schedule	Unknown
Jobs	Unknown
Capex	Estimated up to \$500M +



Mine Name	<b>OBERON</b>
Company	Newmont Australia
Contact	Ian Bird – General Manager Operations Phone: (08) 8957 8200 Email: Ian.Bird@newmont.com.au
Location	550 kms NW of Alice Springs and approx 30 kms north of Callie
Description	New mine. Proposed open pit mine with ore trucked 75 kms to Granites for processing (or trucked 30 kms to potential new plant at Callie).
Product	Gold
Resource	Unavailable at this time
Mine Life	Approx 2 years
Approvals	Development proposals yet to be submitted.
Schedule	Unknown
Jobs	Unknown
Capex	Unknown

Mine Name	<b>SPRING HILL</b>
Company	Western Desert Resources
Contact	Norm Gardner – Managing Director Phone: (08) 8388 3012 Email: kwikcon@optusnet.com.au
Location	Approx 160 kms SSE of Darwin
Description	Reopen old mine. Proposed open pit mining (up to 3 pits) of remnant gold resource. Possible toll treated at Union Reef mill or possible heap leach onsite.
Product	Gold
Resource	Approx 300,000 tonnes at 2.3 g/t Au
Mine Life	1-2 years
Approvals	Development proposals yet to be submitted
Schedule	Unknown
Jobs	Unknown
Capex	Unknown



## MINERAL PROJECTS OF THE NORTHERN TERRITORY



Produced by the Northern Territory Geological Survey, February 2008.

