

TERA EX ENGINEERING CORP.

Mining & Marine Divisions

- Phase One -

BYPASS DRIFT ASSESSMENT REPORT

ON THE MIDNIGHT and IXL CLAIM GROUP

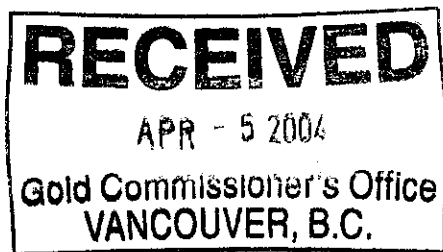
LAT.4906.0 N

LONG. 11748.0 W

Rossland, B.C. Trail Creek Mining Division

EMPR PERMIT MX-5-460

MINE #O500006



FOR

MATOVICH MINING CORPORATION LTD.

MONTROSE, B.C., 2002-3

MARCH 2004

BY: TERRENCE SMITHSON BSc.
VANCOUVER, B.C.

GEOLOGICAL SURVEY BRANCH
ASSESSMENT REPORT

27-1-04

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*Also includes the enclosed NTS, claim , Base & Compilation
Maps*

1.0 Introduction

Matovich Mining Ltd. held ownership on Midnight Mine Claim Group containing 82 claim units including Crown grants and staked claims. These are located 2 km south of Rossland, B.C. Rossland has proved to be the second largest gold camp in B.C.. The claim group is situated in Rossland along the Le Roi trend. Geologically, the claim group is underlain by Rossland volcanic meta-sedimentary rocks, the intrusive Trail batholith and the Ultramafic basement complex along the structural Rossland break and LeRoi trend. This report covers an ongoing geological and exploration drilling program between October and December 23, 1997. In 2002 a rehabilitation and Bypass modern trackless drift was completed.

Following property examination, C.M. Lalonde, P. Geo., recommended a 1996 exploration and development program on the Midnight property. The 1996 exploration program consisted of: engineering survey control; a preliminary geochemical survey program, underground geological mapping and sampling and an ongoing diamond drill program into the Spring of 1997. Drill results to date have been encouraging with a broad zone of interest in the Rossland volcanic and ultramafic rock units with drill intersections. The exploration program continued through 1997. The projection of this structure controlled vein system extends northeasterly under the Midnight group in the valley, across OK mountain. Additional drilling is needed to test the "Listwanite model at depth and prove indicated large tonnages of the ore zone along the main contact with strike lengths exceeding 5000 ft which was traced by geophysical magnetometer and V.L.F. Listwanite is the same ore model as the Bralorne Mine and more importantly the Eriksson Mine in north Bc. which has been in production and increasing gold reserves for more than 50 years.

In 2002-3 a modern trackless BYPASS Drift and tunnel access from surface to the proven ore zone was driven by local Mining Contractors for Matovich Mining Ltd. and Windsong Resources and this is the basis of the following assessment report.

Midnight Property

Trail Creek Mining Division - Kootenay District

All claims listed were owned by Allen P. Matovich and/or Matovich Mining Industries.

<u>Crown Grants</u>	<u>Lot #</u>
Midnight	1186
Little Dallas	1215
June	1216
Golden Butterfly	1217
Golden Butterfly Fr.	1943
O.K. Fr.	2675
O.K.	678



Routes:

all weather	pavée, toute saison	duar highway	more than 2 lanes
all weather	pavée, toute saison	2 chaussées séparées	plus de 2 voies
abilized surface, all weather	gravier, aggloméré, toute saison	2 lanes	less than 2 lanes
dry weather	de gravier, temps sec	2 voies	moins de 2 voies
ereets	rues hors classe	2 lanes or more	less than 2 lanes
	de terre	2 voies ou plus	moins de 2 voies

NTS R2F

ROSSLAND-TR

BRITISH COLUMBIA

Scale 1 50 000 Échelle



<u>Located Mineral</u>	<u>Claim Tenure #</u>
Ram I	326113
Union Jack Fr.	315576
Poor Fr.	31555

<u>Crown Grants</u>	<u>Lot # (additional option available)</u>
IXL	679

2.0 Access and Physiography

The Midnight Claim Group is located approximately 2 km, via paved and gravel roads, south of the town of Rossland, British Columbia in the Trail Creek Mining Division. The main access to the Midnight and IXL property is along the Little Sheep Creek Road turning 1.5 km off the Cascade Highway. Existing roads and underground workings have been rehabilitated as per Mines Act specifications under permit. The property is also flanked on both sides of the valley by the Cascade Highway and Patterson Highway (Dewdney Trail Road). Excellent road access is maintained year round by B.C. Department of Highways.

Geographically, the Midnight Claim Group it is located on the south slope of OK Mountain in Little Sheep Creek Valley between 850 m and 1,500 m in elevation. The property is mostly second growth hemlock, larch and fir. Much of the property has been previously logged and skid road access to all parts of the property is good with minimal undergrowth. Climate and precipitation is typical of interior sub-boreal forest.

Electricity is supplied to mine by lines from West Kootenay Power. Two phase and three phase electricity is supplied to the mine dry and underground workings. Water supply is year round and completely accessible from Little Sheep Creek which flows in the valley through the middle of the claim group.

3.0 History and Previous Work

The Rossland Mining Camp was the second largest gold camp in British Columbia in terms of recorded production. The majority of the recorded production was from four deposits: the LeRoi; the Centre Star; the War Eagle; and the Josie.

By 1941, Rossland mines had produced 5,640,000 tonnes (6,200,000 tons) with an average grade of 13 grams gold per tonne (0.47 oz. gold per ton). Total recorded gold production was 73.32 million grams (2.9 million ounces) (Fyles, 1984).

Included in this production is a limited tonnage from three contiguous claims on the southwest edge of the Rossland camp: Midnight; IXL; and OK. Gold production levels is outlined in the following table. Fyles concluded approximately 34,000 ounces gold from 10 k ton

RECORDED PRODUCTION TO 1941

Claim	Tonnes	Grams Au	Grams Au/Tonne
IXL	5,248	809,766	154
Midnight	4,760	218,346	46
O.K.	293	17,916	61

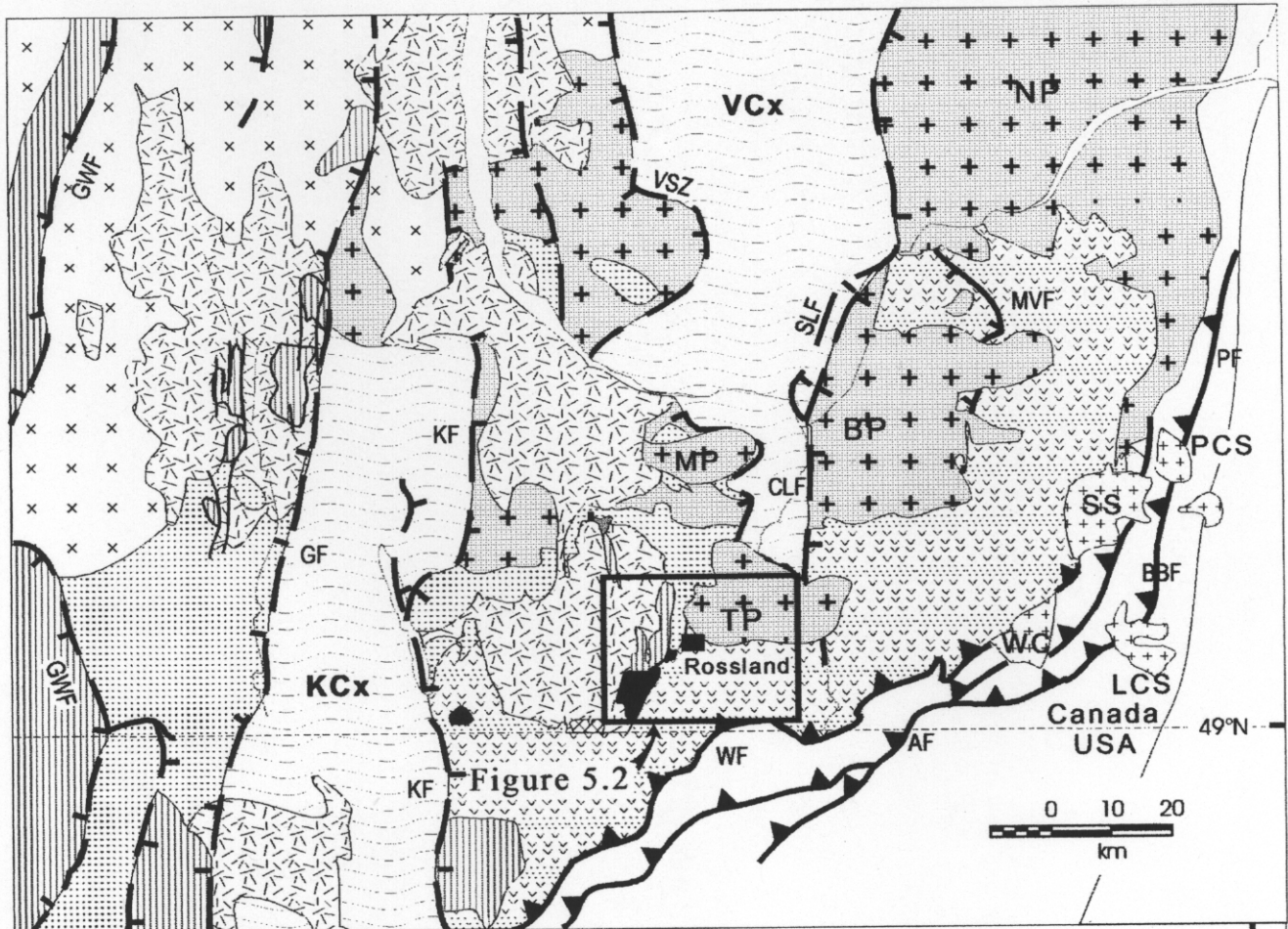
From the time of staking, circa 1895, these claims were worked by individuals "gophering" irregular quartz veins with different attitudes, variable thicknesses and disrupted continuity. In a few places, widths were greater than two meters. The production figures in the above table most likely represent a significant component of hand sorting, since reported vein widths ranged from centimetres to a meter. Quartz veins were encountered and followed in search of lenses and pockets of spectacular grade.

This southbelt of the Rossland camp never received systematic exploration. This was largely due to multiple ownership of the three key claims and intermittent mining by some of the owners into the 1980's. In addition, different ownership also applied to some of the surrounding claims which affected access and room to work.



Major work was completed in 1969 by A.C.A. Howe International and Tull Mines which consisted of 5,653 feet (1,766 m) of surface and underground diamond drilling. Drifting of 750 feet (235 m) consisted of development plus bulk sampling. A significant shipment from the Serpentine Zone of 61 tons of ore at 0.31 ton per gold. This zone has a known strike length of 1,600 feet.

4.0 Geology Of The Midnight Mine Area

Regional and local geology has been described and interpreted by many investigations, but many details are not yet fully understood and are therefore subject to re-interpretation. The tectonic setting has most recently been interpreted as an exotic terrain of Jurassic and pre-Jurassic rocks that has been accreted to the North American continent. Ultramafic intrusive bodies have been interpreted to be fault-bounded ophiolites that represent segments of subducted oceanic crust that have been thrust into their present position. The ophiolite interpretation is in question, as bounding faults are not well constrained and some features suggest intrusive emplacement. The ore model at this contact is referred to as Listwinite or Listwinization.



Middle Eocene

-  **CORYELL INTRUSIONS**
syenite and monzonite
-  **MARRON and KETTLE RIVER Fms**
volcanic and sedimentary rocks

Paleocene-Eocene

-  **LADYBIRD GRANITE**
leucocratic granite, quartz monzonite

Mid Cretaceous


-  **BAYONNE SUITE**
leucocratic granite, quartz monzonite:

Early to Middle Jurassic

-  **Rosland Group**
sedimentary and volcanic rocks

Late Paleozoic

SLIDE MOUNTAIN TERRANE

-  **Kaslo Assemblage**
ultramafic rocks

HARPER RANCH TERRANE

-  **Mt. Roberts Formation**
slate, argillite, greenstone, limestone

118°W

117°W

Canada
USA

49°N

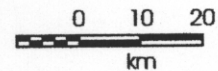


Figure 5.2

Mineralization of the Rosslund camp has been attributed to hydrothermal activity associated with intrusion of the Rosslund Monzonite (Fyles, 1984) and its accompanying dikes, many of which are pre-mineral lamprophyres. Postmineral lamprophyres are thus attributed to either later resurgent igneous activity or to the much later Coryell Syenite. This scenario is also subject to re-interpretation, as some investigations have attributed mineralization to the satellitic bodies of the Trail Pluton, which in the Red Mountain area also has associated molybdenite-tungsten skarn/porphyry deposits, and also to the Coryell Syenite, which is associated with mineralization at the Jumbo and Giant mines.

Mineralization at the Midnight Mine occurs as dissemination in broad zones of carbonate-altered ultramafics that are intruded by a north-trending lamprophyre-diorite dike swarm with pre and post-mineral dikes. High grade gold zones and gold-bearing quartz veins occur adjacent to some of the pre-mineral dikes within both ultramafic and adjacent volcanic rocks. High grade gold-quartz veins also occur in low angle fractures in volcanic and in shears in serpentine where no dikes are present. Listwanization is the modern term for this ore model.

Alteration The most conspicuous alteration observed is exposed in the 3100 Mine Level, where carbonate talc extends across 200 feet of ultramafics adjacent to the metavolcanic contact. This zone was explored by several drill holes and by underground sampling, and was found to contain zones of weak to moderate gold mineralization with various intervals of higher grade gold.(listwanization)

An intrusive quartz-feldspar encountered north of the Midnight Mine has variable garnet-epidote skarn with some tungsten as well as extensive intervals of disseminated pyrrhotite with variable but minor chalcopyrite, pyrite and arsenopyrite. Adjacent altered volcanics have similar mineralized zones as well as magnetite and pyrotite magnetite with replacement veins. It remains to be seen whether this mineralization represents indications of a separate gold zone.

5.0 Objectives of the 1996-97 Field Program

1. Establish extensive engineering survey control on previously unsurveyed IXL underground workings .
2. Compile all previous geological and engineering data of both Midenight and IXL
3. Preliminary geochemical survey sampling and survey to expand data base.
4. Sample the Midnight 3100 level and IXL 350 level vein systems on 2 m spacings.
5. Establish survey and commence an extensive drill program to test geological structures .
6. Plan a proposed bypass modern trackless drift on the 3100 level to access new ore zone and
Close and secure old mine working from inadvertent entry

6.0 Engineering Survey Control Compilation

Property boundaries were determined on the main crown grants of the group. The Midnight, IXL and OK boundaries were tied in and pins established by BCLS legal survey. All property boundaries, surface features and underground workings were surveyed by high accuracy Total Station equipment. A geophysical grid was surveyed and cut lines were established. Additional areas of interest includes geophysical highs on the Norway and June claims along the serpentine contact 5000 Ft along strike to the south. A quartz structure was mapped in short adits on both claims

7.0 Data Compilation

Autocad engineering software was used to create 3-Dimensional control; surface and underground models and cross-sections were created compiling all old and new data to date. Old data was verified where possible.

Diamond Drilling (Over 2000m logged and included in the ore model)

A series of holes was drilled from 1966 –98 to test high grade targets and a partially explored broad zone of low-grade gold in carbonate altered ultramafics to test the possibility that this mineralization had been localized below the contact of adjacent metavolcanics. Drillhole data was assayed, logged and modeled in Autocad .

This is one brief description of the results obtained by deep surface diamond drilling.

Hole	Location	
MS-93 R 5	91N- 33	130 ft to 141.5 ft 11.5 ft average of 0.85 oz/ton au
	Including	3.5ft of 1.450 oz/ton and 8 ft of .477 oz/ton au

The entire 121ft section averaged 0.117 oz/ton Au in the main ore zone

Reserves in proven category are over 20,000 tons of higher grade ore (0.5 oz /ton Au) and indicated reserves in the lower grade Listwanite serpentines are in the order of 200 000 ton on a the proven structure wide open to depth and strike.

All core was drilled NQ-2 size. Intervals were split sawed and assayed for Au, Ag, and Cu. Drill hole data is summarized below and a brief description of the results obtained in the holes. Drill logs and drill section maps and ore model were prepared in Autocad.

DDH-#	Elevation	Bearing/Angle	Depth (m)
96-1		Vertical	48.7
96-2		Vertical	55.3
96-3		346.32/-45°	152.4
96-4		346.32/-45°	153.6
96-5		346.32/-45°	153.6
96-7		21.32/-45°	161.3
96-7		346.32/-45°	123.6

12.0 Exploration Bypass Trackless Drift 2002 EMPR PERMIT MX-5 -460

Windsong Resources and Matovich Mining Ind undertook on the Midnight Group to permit , rehabilitate and drive 210ft.(66m). of trackless 10x10 (3.2x3.2m)drift to bypass the old workings and develop the Baker ore zone on the 3100 Level, and ore extensions to depth and strike along the volcanic / serpentine contact.

Complete permitting ,Mine planning and equipment mobilization took place in May and June 2002 supervised by the author. The objective of the \$ 160k program .rehabilitated and drove the bypass drift from surface through the mine workings to within 10m of the Baker shear zone ore structure.

At this point it was intended to drill short diamond drill holes into the ore structures and to depth to delineate the ore zones and prepare a Phase Two ore Development mine plan and then to proceed to production. Milling of the ore and cost projection plans were also prepared Important to note is that the prolific gold production at the LeROI mine was extracted at depths below the 3100 ft level on the Midnight which is the lowest level they could mine at that time. The Major potential of the Midnight ore zones is yet to be to developed. Using modern trackless Mining methods and technology that the bypass drift was designed upon to access ore to depth. Additional vein systems in the volcanics on the 3100 level and below may provide additional tons or ore in separate headings.

The Phase One program was split into three stages due to financing and the ability to contract out each stage to manage the related contractors and to save costs.

All work was completed under EMPR Mines Branch permit standards and recommendations to completely reconstruct a new portal and to establish in the new drift full length ground (bolt and screen)control from the portal to the face. The existing services were removed from the old workings and for safety purposes the the old workings were closed off by barricade and therefore all portals above the 3100 level were closed to all access except to allow natural ventilation.

COST STATEMENT AND VALUATION

STAGE ONE 2002 PORTAL 3100 level TIMBER RECONSTRUCTION

Objective: To demolish and dispose of existing portal and slash, then rebuild a new 4 set timber and cap design to accomodate the modern trackless drift. The old portal was removed by excavator . The sloped entrance rock face was scaled ,ditched and contoured to allow construction of the new timber and cap sets , blasted for width ,bolted and secured.

Granite Mt Excavating Rossland BC			
	265 Cat excavator	8hrs @ \$250	\$2000
	DUMP TRUCK	8 hrs@ \$ 60	\$ 400
Teraex Engineering			
	Consulting ,permits and supervision	@\$7500/mth.	\$ 7500
Sandon Mining Associates			
	MINING LABOUR CONTRACT Including all required mining		
	Equipment, labour and mobilization to complete Objective	DURATION 2 weeks	
	Len Palmer shift boss		
	Viggo Mikkelson lead hand and chief mechanic	Contract price	\$10,000
	Accomodation and board Rossland motel plus food services 3x14	<u>mandays@\$100</u>	\$ 4,200
TOTAL STAGE ONE			\$ 24,100

STAGE TWO MOBILIZATION & SITE PREPARATION FOR Bypass Drift Contract

Objective: To establish working mine site services, shop, equipment and safety to EMPR permit requirements: install compressor, and ventilation power for Contract Bypass Drift

Teraex Engineering Consulting and supervision @ \$ 7500mth \$4000

Viggo Mikkelsen Lead hand /Mechanic (Sandon crew)

Len Palmer shift boss

DURATION Sept4-18 02

Mining preparation CONTRACT COST \$ 3,500

Accommodation and board Rossland Motel and food services 3x14 man days @ \$100 \$ 4,200

Expendibles including hard ware fuel etc Allow \$1,000

TOTAL COST STAGE TWO

\$12,700

STAGE THREE PHASE ONE 2002-3 BYPASS SLASH AND DRIFTING CONTRACT

Objective: To construct 210 ft (60m) slash of 120 ft (38m) existing tunnel 15x8ft (2m) rounds : and drift 15x 6ft (2m) rounds on pilot diamond drill hole heading with bypass trackless drift, installing complete ground control required 2. Establish diamond drill size slash at face of ore intersection. 3 Strip and close existing old workings as per permit MX 4 -460 .. Contractor must provide services to satisfy mine inspectors to EMPR standards :

All Qualified labour, equipment(2 2yd scoop trams ,jacklegs etc 4x4 ,tools) and safety plus sample air and rescue devices required. NOT including compressor ,communications ,fuel explosives and existing services and EXPEDIBLE site costs

Teraex Engineering Consulting permits ,design and mine supervision ,reports @\$7500 mth

Granite Mt Excavating :Rossland BC

Fuel storage and delivery @1000per mth \$1,000

Matovich Mining LTD

Sandon Mining associates

V.Mikkelsen /Surface shifter/chief mechanic

G.Couldrey /shiftboss ground control miner

L Palmer /shiftboss

C Blagdon /Lead hand miner

DURATION Sept25-Oct30 2002

CONTRACT BYPASS DRIFT Project COST

\$ 85,000

Accommodation and board Rossland Motel and food services

5 men x30 mandays@\$100

\$15,000

EXPENDIBLES not included in contract price

Explosives TITAN

\$ 3776.

Ground control products Thyssen

\$ 3623

Compressor Cat (900cfm) mth rate

\$ 5000

Fuel EXXON

\$ 2500

Crew 4x4 and ambulance lease

\$ 900

TOTAL COST stage three Bypass Drift

\$ 124,299

TOTAL COST OF PHASE ONE BYPASS DRIFT PROGRAM 2002-3 FOR ASSESSMENT REPORT.

\$161,099.00

[***** Unknown cost of Empr prescribed specialist to sample an RECONFIRM that the carbonate waste rock was not acid mine generating and propose storage requirements that WERE NOT REQUIRED plus the down time to clear , At the contractee and company Expencc NOTE in 96-98 a 2.5 million dollar exploration projected was completed on the waste and ore with full meturalogical testing By Echo Bay USA and the author supervised this program].

A SPECIAL THANKS TO ALLEN WILCOX OF EMPR Victoria for various phone conversations that helped simplify the cost breakdowns for the writing of this report.

More detailed cost breakdowns of the total program are available from the accounts and engineering consultants for Matovich Mining Ind.Montrose Bc. from which this report was based and assessment credits only will be applied to A Matovich..owner.until late 2003.

Terrence Smithson Bsc. For Tera Ex Engineering April 2004

12.0 RECOMMENDATIONS FOR PHASE TWO UNDERGROUND PROGRAM 2004-5

A short diamond drill program from surface and/or underground should be completed from sites drilled in 1996 and the face of the new BYPASS DRIFT into the previous targets of high grade gold intersections. This will extend the known Baker systems to depth and with proving and providing

A Development mine plan data Analysis

B Contingent on results , the development drift can proceed into the Baker ore zone and a precise mine plan and grade control model can be established to minimize costs and extend production life of the mine.

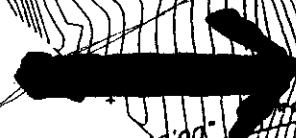
Secondly, an Engineering survey mapping and drilling program should be prepared to extend and increase ore tonnage and grade along strike to the west for several thousand feet along and ahead of mine development. Milling and smelting of the gold concentrates in contract form should be started with a major (Cominco or Echo Bay) mining company at such time.

TERAEX ENGINEERING 2004

BASE 3

IXL
SL 679

2002-3
PHASE ONE
BYPASS DRIFT
3100 LEVEL



PORTAL
3100 LEVEL

PORTAL
3100 PROPOSED
DOH

NEW 10X10
PORTAL

GOLDEN
DRIP
SL539

76°02'00"
94.15

76°02'00"
91.44

89°49'00"
91.44

76°12'00"
415.47

359°49'00"
180.38

359°49'00"
202.81

89°49'00"
182.88

MIDNIGHT MINE
2002-3 BYPASS
DRIFT PHASE ONE

SCALE 1:2000

FROM COMP 23 03/04
- DWG



RESUME SHANK STON
METHOD
(PROPOSED 2005)

DDH66-001

PHASE II
(PROPOSED)
2005

OLD
MINED
CROSSCUT

DDH66-235A

s.04
qv.32
qv.52

s.040 cv.245

CROSSCUT

s.026 s.120

cv.100

qv.523

ORIGINAL
TRACK DRIFT
OLD WORKINGS

END
PHASE
ONE
CONTRACT

DRILL
STATION

PROPOSED SLOPE 10° DIPPING
PILOT HOSE 1994

2002-3
"CAMERON"

TRACKLESS 10x10
BYPASS DRIFT

DDH94-10

KICKOFF
FROM SLASH
OLD WORKINGS

N

MIDNIGHT 3100
LEVEL PLAN
BYPASS DRIFT
PHASE ONE
SCALE 1:250
FILE COMP. 2303/04

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