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MANN

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Report on Diamond Drilling Falconbridge Limited - Exploration

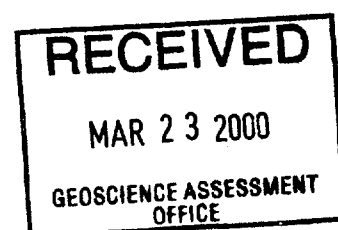
Mann Township, Iroquois Falls, Ont.
Porcupine Mining Division

NTS 42A/15

March 16, 2000

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Prepared by:
Dean Rogers





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Diamond Drilling Assessment Report Mann Twp, Porcupine Mining Division

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1. MAIN ROCK DIVISIONS

15	To be Announced
14	Huronian Supergroup
13	Metamorphic (Unknown)
12	Gneiss
11	Schist
10	Diabase
9	Felsic Intrusive
8	Intermediate Intr. Rocks
7	Mafic Intrusive Rocks
6	Ultramafic Intr. Rocks
5	Sedimentary Rocks
5,s	Sulphide (>40%)
4	Felsic Volcanic Rocks
3	Intermediate Volcanic Rocks
3,C	Heterolithic Volcanic Rocks
2	Mafic Volcanic rocks
1	Ultramafic Volcanic Rocks

2. TEXTURAL/GEOCHEMICAL MODIFIERS

a	Fine Grained	A	Primitive (Y<20)
b	Medium Grained	B	Evolved (Y>20<60)
bx	Breccia		
c	Coarse Grained	C	Heterolithic
d	Quartz-Feldspar Phyric	D	Feldspar Phyric
e	Amygdaloidal/Vesicular	E	Chert
f	Primary Fragmentals	F	Wacke
g	Graphitic/Argillaceous	G	Leucoxene Bearing
h	Tholeiitic	H	Basaltic Komatiite
i	Alkalic		
j	Calc-Alkalic	J	Pyroxenite
k	Komatiitic	K	Net Textured
l	Flows (banded)	L	Peridotite
m	Massive	M	Dunite
n	Variolitic/Spherulitic	N	Ophitic
p	Pillowed	P	Porphyritic
q	Quartz Phyric	Q	
r	Oxide Iron Formation	R	Polysutured
s	Sulphides, Exhalites	S	Fractured
t	Pyroclastic	T	Gabbroic Textured
u	High Mg	U	Pyroxene Spinifex
v	High Fe	V	Olivine Spinifex
w	High Al	W	Skeletal/Crescumulate
x	Andesite	X	Adcumulate
y	Icelandite	Y	Mesocumulate
z	Highly Evolved (Y>60)	Z	Orthocumulate

ROCK NAMES MUST HAVE ALL MODIFIERS COMMA DELIMITED AND CAN BE NO LONGER THAN 15 CHARACTERS, COMMAS INCLUDED. Example: 3,*y,d,<DAC>,*t

3. ALTERATION MODIFIERS

Ab	Albitization
Bl	Bleached
C>	Carbonaceous
Cb	Carbonatization
Ch	Chloritization
Ep	Epidotization
F>	Iron Carbonatization
He	Hematization
K>	Potassic Alteration
Ka	Kaolinitization
Rs	Rust Stained
Se	Sericitization
Si	Silicification
Sr	Serpentinization
Tc	Talc-Carbonatization
Tk	Talc

4. Textural/Structural MODIFIERS

*a	Tuff (67% <2mm)	*n	Graded Bedding
*b	Lapilli Tuff (2-64mm)	*o	Cross bedding
*c	Lapillistone (76% <264mm)	*p	Fault Gouge
*ct	Cataclastic	*q	Augen
*d	Block (>64mm)/Xenolith	*r	Porphyroblastic
*e	Autoclastic/Hyaloclastic	*s	Hornfels
*f	Thickly Laminated	*t	foliated/sheared
*g	Thinly Laminated	*u	folded
*h	Clast Supported	*v	boudinage
*i	Matrix Supported	*w	fragmental (felsic>mafic)
*j	Granule (grit 2-4mm)	*x	fragmental (mafic>felsic)
*k	Pebble (4-64mm)	*y	Crystal Tuff (>50% of frags)
*l	Cobble (64-256mm)	*z	Lithic Tuff (>50% of frags)
*m	Boulder (>256)		

ALTERATION CODES

FORM	
S	Spots
F	Fracture/vein controlled
P	Pervasive
STRENGTH	
S	Strong
M	Moderate
W	Weak

Example: EpPW = Epidote, Pervasive, Weak

MINERALIZATION CODES

FORM	
D	Disseminated/Blebs
F	Fracture/vein controlled
M	Massive
B	Bedded
C	Clasts/Fragments

PERCENTAGE

Numeric percentage, or percentage range (i.e. 1-3%), must always be specified

Example: CpB3% = Chalcopyrite, Bedded, 3%

5. MINERALOGICAL NAMES

Ak	Actinolite	Fc	Fuchsite	Pn	Pentlandite
Alb	Albite	Gn	Galena	Py	Pyrite
Al	Almandine	Gt	Garnet	Px	Pyroxene
Am	Amphibolite	VG	Gold	Po	Pyrrhotite
Ah	Anhydrite	Gf	Graphite	Qt	Quartz
Ad	Andalusite	GS	Gravel & sand	Ro	Rhodochrosite
Ay	Anthophyllite	Gyp	Gypsum	Ru	Rutile
Ap	Apatite	Hem	Hematite	Sur	Serpentine
Ar	Argentite	Hb	Hornblende	Sc	Sericite
Asp	Arsenopyrite	Hy	Hypersthene	Sh	Scheelite
Asb	Asbestos	Il	Ilmenite	Sid	Siderite
Aug	Augite	I-F	Iron Formation	Sil	Silica
Az	Azurite	Jr	Jarosite	Slm	Silliminite
Ba	Barite	Ky	Kyanite	Sps	Spessartite
bi	Bismuthite	Ls	Limestone	Sph	Sphalerite
Bi	Biotite	Lm	Limonite	Ti	Sphene (Titanite)
Bo	Bornite	Mag	Magnetite	Ag	Silver
Ca	Calcite	Mc	Malachite	Sp	Spinel
Cn	Chalcedony	Ma	Marcasite	Spd	Spodumene
Cc	Chalcocite	Mi	Mica	St	Staurolite
Cp	Chalcopyrite	Mk	Microcline	Sb	Stibnite
Chl	Chlorite	Mi	Millerite	Sul	Sulphides
Ch>	Chloritoid	Mo	Molybdenite	S-M	Mass. Sulphides
Cr	Chromite	Mu	Muscovite	S-D	Diss. Sulphides
Cpx	Clinopyroxene	Ne	Nepheline	Tk	Talc
Co	Cobalt Minerals	Nc	Niccolite	Te	Telluride
Cv	Covellite	Ni	Nickel minerals	Tt	Tertrahedrite
Ct	Cordierite	Ov	Olivine	Ta-CI	Tantalite-Columbite
Dp	Diopside	Or	Orthoclase	Tl	Tourmaline
Dol	Dolomite	Opx	Orthopyroxene	Tr	Tremolite
Epi	Epidote	Pl	Phlogopite	Wo	Wollastonite
Fel	Feldspar	Pg	Plagioclase	Zr	Zircon
Fl	Fluorite				

6. ROCK TYPE / PROTOLITH

<QFG>	Quartzofeldspathic	<PER>	Peridotite	<CHM>	Chem. Precip.
<QTZ>	Quartzite	<SER>	Serpentinite	<SLA>	Slate
<MAR>	Marble	<DUN>	Dunite	<KIM>	Kimberlite
<SKA>	Skarn(Calc-Silicate)	<PRX>	Pyroxenite	<CAR>	Carbonatite
<PHY>	Phyllite	<LMP>	Lamprophyre	<AMP>	Amphibolite
<TON>	Tonalite	<SST>	Sandstone	<MIG>	Migmatite
<SYN>	Syenite	<ARK>	Arkosic sandstone	<PEG>	Pegmatite
<GRA>	Granite	<WCK>	Graywacke	<LEU>	Leucocratic
<MON>	Monzonite	<CGL>	Conglomerate	<MEL>	Melanocratic
<GRD>	Granodiorite	<SLT>	Siltstone	<UNK>	Unknown Protolith
<APL>	Aplite	<ARG>	Mudstone-argillite	<UMF>	Ultramafic
<FEL>	Felsite	<EXH>	Chert/exhalite	<MAF>	Mafic
<QDI>	Quartz Diorite	<QIF>	Silicate IF	<AND>	Andesite
<GAB>	Gabbro	<OIF>	Oxide IF	<DAC>	Dacite
<NOR>	Norite	<SIF>	Sulphide IF	<RYD>	Rhyodacite
<ANT>	Anorthosite	<CIF>	Carbonate IF	<RHY>	Rhyolite
<DIO>	Diorite	<SHA>	Shale	<SCL>	Sulphide Clasts
		<LST>	Limestone	<RWV>	Reworked Volcanic Debris

HOLE NUMBER: MAN23-02

PROJECT NAME: LOGGING
PROJECT NUMBER: 8296
CLAIM NUMBER: Lease # 446054
LOCATION: Mann Twp.

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PLOTING COORDS  GRID: UTM's
                  NORTH: 5407441.00N
                  EAST:  499164.00E
                  ELEV:   290.00

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ALTERNATE COORDS  GRID: Grid
                   NORTH: 98+ 00
                   EAST:  90+ 00
                   ELEV:   290.00

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COLLAR DIP: -50° 0' "

LENGTH OF THE HOLE: 187.00M

START DEPTH: 0.00M

FINAL DEPTH: 187.00M

COLLAR ASTRONOMIC AZIMUTH: 200° 0' 0"

GRID ASTRONOMIC AZIMUTH: 20° 0' 0"

DATE STARTED: 09/29/1999
DATE COMPLETED: 10/01/1999
DATE LOGGED: 10/01/1999

COLLAR SURVEY: NO
RQD LOG: NO
HOLE MAKES WATER: NO

PULSE EM SURVEY: YES
PLUGGED: NO
HOLE SIZE: BQ

CONTRACTOR: NDS Drilling
CASING: 0.5m left in hole
CORE STORAGE: Mine-site
UTM COORD.: as above

COMMENTS : Argillites b/t 61-82m cause of HLEM conductor Po towards EOH cause of associated Mag high
WEDGES AT:

DIRECTIONAL DATA:

[illegible]

[Signature]

HOLE NUMBER: MAN23-02

DRILL HOLE RECORD

DATE: 03/14/2000

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 0.50	*OB}* Casing Overburden					
0.50 TO 19.15	*1,a,m* Ultramafic Volcanic fine grained massive	-black to dark gray -weak to mod. fol'n at 45-60° to CA -fine-grained unit overall, likely flows -well developed spinifex textures -mod. to strongly magnetic -coarser grained cumulate textures locally throughout -fractured/polysutured? textures sporadically developed 11.00-18.00 *2,a* Mafic Volcanic fine grained, -intermixed zone of lighter gray coloured, mafic? material -possibly flow tops of ultramafics?		0.50-19.15 *TcPW* weak, pervasive, talc-carbonatization -mod. to strongly magnetic	-negligable, nil	
19.15 TO 36.40	*3,b,m,D,P* Intermediate Volcanic medium grained massive feldspar phyric porphyritic	-sharp but broken uphole contact at 60° to CA -15%, 1-3mm buff to white coloured feldspar lathes set in a fine-grained, greenish gray matrix -relatively undeformed -massive textured apart from porphyritic texture -little evidence of flow except for fine-grained nature of matrix -rare (<0.5%) mafic phenocrysts -minor intermixed zones of finer grained, non-porphyritic material 20.50-21.70 *7,a,m* Mafic Intrusive fine grained, massive, -sharp contacts at 60° to CA -strong qtz/carb laminations/fracturing		-relatively unaltered -minor qtz/carb veining	-negligable -tr. Py	
36.40 TO 61.20	*4,a,m,*a,c EXH* Felsic Volcanic fine grained massive tuff	-sharp but irregular uphole contact -dark gray to buff -undeformed but moderately fractured -extremely fine-grained unit, essentially chert but some textures suggestive of volcanic origin -vitric/glassy with weak bedding/banding locally developed -brecciated/fragmental textures between 38-41m		-largely silicification alteration -mod. to strong qtz/carb veining -creamy pinkish to buff pervasive feldspar/hematite alteration developed locally is more prevalent within more cherty textured portions of unit 36.40-61.20 *SiPS*	-Po+Py mineralization occurs as fractures within matrix to brecciated textures and as irregular blebby clots -no visible base-metals 36.40-61.20 *PoF1-3%, PyC0-1%* 1.0-3.0% fracture/vein controlled pyrrhotite; 0.1-1.0% clasts/fragment of	

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DRILL HOLE RECORD

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
	chert/exhalite	-wormy, mottled, possibly amygdular textures begin at ~44.5m, consisting of 1-3mm ovoid to spherical spotting -carbonate/qtz/feldspar? infilling, possibly spherulitic -zone of coalesced spherulites? between 44.5-45.1m -breccia textures developed locally defined by angular to sub-angular felsic clasts set in a qtz/carb matrix -largely jig-saw puzzle type bx'n -short, 10cm zone of hyaloclastite at 49.8m -fine mm-scale laminations visible below 51m, either cherty laminations or flow-banding -unit returns to massive, cherty and fine-grained tuff below breccia unit at 56.4m and continues to end of unit #52.00-56.40#4,a,bx,<EXH> Felsic Volcanic fine grained, breccia, chert/exhalite, -strongly brecciated zone with 1-10cm angular felsic fragments set in a greenish carbonate/qtz matrix -hyaloclastitic matrix? visible towards base of sub-unit -strongly sulphidic (Py+Po) as replacement within matrix of breccia		strong, pervasive, silicification #36.40-61.20#ChFW> weak, fracture/vein controlled, chloritization -very weakly developed as fine mm-scale fractures	pyrite #52.00-56.40#PoF5-7%,PyF7-5%> 5.0-7.0% fracture/vein controlled pyrrhotite; 7.0-5.0% fracture/vein controlled pyrite -stronger mineralization within matrix to breccia sub-unit -possibly tr. Sph?	
61.20 TO 62.60	#5,a,g,*g> Sedimentary fine grained graphitic/argillaceous thinly laminated	-interlaminated, gradational uphole contact -downhole tops based on contact relationships -dark gray to black, weakly deformed -little evidence of cleavage/parting -finely laminated on <mm scale -mod. to strongly conductive		-weak pervasive calcite with minor qtz/carb veining	-fracture controlled and blebby/nodular sulphides -tr. Sph? w/in Po clots #61.20-62.60#PoF5-7%,PoD2-3%,PyF1-1%> 5.0-7.0% fracture/vein controlled pyrrhotite; 2.0-3.0% disseminated/blebby pyrrhotite; 1.0-1.0% fracture/vein controlled pyrite	
62.60 TO 69.40	#4,a,n,*a,<EXH> Felsic Volcanic fine grained	-sharp uphole contact at 70° to CA -dark gray to black -weakly fol'd at 60° to CA, mostly likely transposed with primary bedding -glassy, vitric textured with similar spotted texture as seen in overlying cherty unit		-strong silicification and minor qtz/carb fracturing #62.60-69.40#SiPS> strong, pervasive, silicification	-blebby to nodular and fracture controlled Po+Py is largely but not exclusively found within argillitic sub-units #62.60-69.40#PoD1-3%,PyF0-1%>	

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DRILL HOLE RECORD

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
	variolitic/ spherulitic tuff chert/exhalite	-5-7% chloritic to carbonate-filled amygdulites? -wormy, mottled possibly porphyroblastic textures -vague radiating textures, spherulites? -unit is interbedded with numerous thin (<10cm) argillitic interbeds which are largely non-conductive but weakly so over short intervals -wider zones noted as sub-intervals -argillites generally have gradational uphole contacts and sharp downhole contacts (tops down-hole?) #65.35-65.50#*5,a,g* Sedimentary fine grained, graphitic/argillaceous, #68.55-68.65#*5,a,g* Sedimentary fine grained, graphitic/argillaceous,			1.0-3.0% disseminated/blebby pyrrhotite; 0.1-1.0% fracture/vein controlled pyrite	
69.40 TO 78.20	*5,g,E,<EXH >* Sedimentary graphitic/a rgillaceous chert chert/exhalite	-sharp but irregular uphole contact -'inclusions' of argillite within uphole felsic -appears as though argillites have been deposited on top of irregular surface? not rip-up clasts! -unit consists of intermixed intervals on conductive and non-conductive argillite with spotted textured siliceous rhyolite/chert similar to overlying unit -bedding/fol'n at 70° to CA -strongly convoluted/disturbed argillite locally due to soft sediment deformation -argillites weakly magnet ic locally, likely due to fine Po, not magnetite -sulphides (Po,Py,Sph/Cpy occur as fractures, disseminations and bedding parallel bands -sulphides (Py) also occur at cores of spotted spherulites/amygdulites within felsic portions of unit -brecciated over lower 20cm of unit with angular argillite clasts set in cherty matrix of underlying unit (tops downhole) #72.00-75.60#*4,a,n,<EXH>* Felsic Volcanic fine grained, variolitic/spherulitic, chert/exhalite,		-extremely cherty unit over both argillitic and felsic portions -minor qtz/calcite veining #69.40-78.20#*SiPS ,ChFW* strong, pervasive, silicification; weak, fracture/vein controlled, carbonatization	-minor sulphides occurring as fractures, disseminations and as cores to spherulites/amygdulites within felsic portions -predominantly Po/Py but with appreciable Sph/Cpy within argillites -Cpy as exsolution from Po -Sph as rusty to pinkish brown fractures and clots within conductive argillite over lower 0.9m of unit -fine Po disseminated throughout argillites giving weakly magnetic character #69.40-78.20#*PoF2-3%,PyF1-2%,SphF0-2%, CpF0-0%* 2.0-3.0% fracture/vein controlled pyrrhotite; 1.0-2.0% fracture/vein controlled pyrite; 0.1-2.0% fracture/vein controlled sphalerite; 0.1-0.2% fracture/vein controlled chalcopryrite -stronger Sph mineralization within lower 1.0m of unit within graphitic argillite	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		-similar to uphole felsic unit				
78.20 TO 82.65	«5,a,E,*g,< EXH» Sedimentary	-gradational uphole contact containing angular clasts of uphole argillite -med. to dark gray fine -well bedded/banded at 60-70° to CA grained -more distinctly exhalative horizon than chert overlying felsic tuffs/cherts thinly -extremely fine-grained and massive laminated -upper 1.3m is mod. brecciated with chert/exhal ite bleached/mottled appearance (possibly rhyolitic) -weak colour variations due to bleaching along bedding contacts -no visible phenocryst content -short zone of amygdulites?/spherulites? between 80.0-80.3m, possibly concretionary		‡78.20-82.65‡«SiPS» strong, pervasive, silicification -extremely cherty/silicified unit	-trace fine-grained, fracture and disseminated Py	
82.65 TO 150.10	«4,bx,d,f,* c» Felsic Volcanic breccia quartz-feld spar Phyric primary fragmentals lapillistone e	-faint but sharp uphole contact at 60° to CA -med to dark gray, weakly fol'd -thick, heterogenous sequence of rhyolite fragmentals and breccias, interbedded with cherty exhalative units -significant Sph mineralization described in Mineralization -unit varies from coarse lapilli-tuffs and lapilli-stone units to finer tuffaceous units and more massive brecciated felsics intervals -largely clast supported fragmentals with subrounded to rounded clasts -2-4% subhedral qtz phenocrysts from 1-3mm in diameter -hazy, corroded feldspar phenocrysts up to 4mm become more abundant (up to 10%) below 92m -little evidence of primary bedding, possibly a debris flow-type unit -coarser lapilli-tuffs to lapilli-stones become prominant below chert horizon at 99m -1-2cm angular clasts become apparent -possible hyaloclastite development below 122m unit becomes mixture of cherty interbeds within distinctly clast supported lapilli-tuffs -Po/Sph mineralization decreases but continues throughout unit -contacts between chert beds and fragmentals are generally sharp but irregular		-dominantly weak to mod. silicification with weak sericite fractures developed locally -minor chlorite along some fracture surfaces -unit is strongly bleached locally (carbonate/feldspar alteration?) ‡82.65-150.10‡«SiPM ,SeFW» moderate, pervasive, silicification; weak, fracture/vein controlled, sericitization	-significant Sph mineralization within fragmental unit -coarse, purplish brown Sph occurs generally associated with Po along margins of wispy veins and clots within matrix of unit -less often associated with qtz/carb veins -rare clots of Sph not associated with Po -tr. Cpy as exsolutions within Po -mineralization occurs within both rhyolite fragmentals as well as within cherty interbeds -larger Sph clots/slugs at 83.5m, 95.8m, 96.2m, 98.3m, 99.3m(w/in qtz/carb vein) -host Po veins from 0.5-5cm width -possibly some primary sulphide clasts but most are veins and matrix replacement -fine Po+Py also disseminated through matrix of unit -intensity of mineralization decreases below 100m but continues to end of unit -larger Po/Sph clots at 112.6m, 118.8m, 130.7m, 131.5m, 133.8m -negligable Sph mineralization below	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		-no consistant topping indicators -dominantly siliceous, feldspar-quartz-phyric lapilli-tuffs below mafic dyke at 141m to end of unit #87.00-90.10#4,*b* Felsic Volcanic lapilli tuff, -distinctive, densely packed tuffaceous to lapilli-tuff unit with 1-2mm clasts -very uniform, no internal stratigraphy apparent -1-2mm purplish garnet?/carbonate speckling over lower 10cm of unit #98.20-99.10#5,a,E,<EXH>* Sedimentary fine grained, chert, chert/exhalite, -interbedded chert unit similar to uphole chert unit very siliceous/glassy #109.00-111.35#5,a,E,<EXH>* Sedimentary fine grained, chert, chert/exhalite, -light gray cherty horizon -weakly bx'd locally -weak Po mineralization but no visible base-metals #118.35-119.50#5,a,E,<EXH>* Sedimentary fine grained, chert, chert/exhalite, -similar to overlying chert horizons but with significant Sph associated with stringery Po mineralization #136.40-137.10#7,a,m,D* Mafic Intrusive fine grained, massive, feldspar phyric, -similar to dyke below #138.40-140.90#7,a,m,D* Mafic Intrusive fine grained, massive, feldspar phyric, -dark gra mafic dyke			feldspar-phyric dyke at 141m but Po mineralization continues to end of unit #82.65-150.10#PoF3-5%,PyF1-2%,SphF0-3% ,CpF0-0%* 3.0-5.0% fracture/vein controlled pyrrhotite; 0.5-2.0% fracture/vein controlled pyrite; 0.1-3.0% fracture/vein controlled sphalerite; 0.1-0.1% fracture/vein controlled chalcopyrite	

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FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
		-sharp but largely broken uphole and downhole contacts -2-3% 1-3mm feldspar phenocrysts as lathes to clots throughout unit -minor fracture controlled pyrite				
150.10 TO 187.00	«7,b,m,D,<L EU»» Mafic Intrusive medium grained massive feldspar phyric leucocratic	-likely faulted uphole contact -relatively undeformed -med. to dark gray mafic intrusive -1-2mm clotty feldspar phenocrysts are often zoned concentrically -sparsely feldspar-phyric (2-3%) to ~161m where abundance increases dramatically to >25-30% and rock becomes somewhat leucocratic in appearance -groundmass is fine-grained with abundant Po clots/nodules -rare mafic, (chloritized) pyroxene phenocrysts slightly more abundant downhole (ie. below 164m) -gives unit vague, spotted texture locally -core is moderately jointed at 60-80° to CA -fairly monotonous/uniform, strongly feldspar porphyritic unit to EOH 150.10-151.80 «FAI » Fault -broken, blocky core with minor qtz/carb veining and associated Py stringers -likely extends into overlying 2m of felsic unit uphole		-minor fracture controlled qtz/carbonate veining -weakly chloritic	-minor sulphides for most of unit except between ~161-165m which contains 2-5% clotty Po knots within groundmass of unit -minor fracture controlled Py along slips/joints -makes unit weakly magnetic overall suggesting fine Po within all of groundmass -possibly cause of Mag high 161.00-165.00 «PoD2-5%» 2.0-5.0% disseminated/blebby pyrrhotite	
187.00 TO 187.00	«EOH» End-Of-Hole					

HOLE NUMBER: MAN23-02

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HOLE NUMBER : MAN23-02

ASSAYS SHEET

DATE: 14/03/2000

Sample	From (M)	To (M)	Leng. (M)	Cu ppm	Zn ppm	Pb ppm	Ni ppm	Au ppb	Ag ppm	Cu/Zn ppm	Co ppm	Pt ppb	Pd ppb	S %	Se ppm	As ppm	Hg ppb	Sb ppm	Est.Ni %	Est.Po %	Est.Py %	Est.Cp %	Est.Sp %	Est.Gn %	ROCK TYPE	Comments
KA03451	52.00	53.00	1.00	109	58	1	453	3	0.2																	
KA03452	53.00	54.50	1.50	227	115	2	1250	14	0.3																	
KA03453	54.50	56.00	1.50	95	54	1	528	2	0.2																	
KA03454	56.00	57.50	1.50	38	66	4	77	2	0.2																	
KA03455	57.50	59.00	1.50	50	127	4	80	2	0.1																	
KA03456	59.00	60.50	1.50	58	295	5	179	2	0.1																	
KA03457	60.50	61.20	0.70	46	149	4	24	2	0.1																	
KA03458	61.20	61.40	0.20	379	1920	7	225	2	0.4																	
KA03459	61.40	62.60	1.20	82	75	22	106	7	1.3																	
KA03460	71.00	72.50	1.50	59	85	4	390	2	0.2																	
KA03461	72.50	74.00	1.50	71	272	4	47	14	0.1																	
KA03462	74.00	75.50	1.50	45	205	6	33	17	0.2																	
KA03463	75.50	77.30	1.80	214	1450	12	114	21	0.5																	
KA03464	77.30	78.20	0.90	388	4150	11	198	3	0.9																	
KA03465	83.00	84.00	1.00	315	964	2	182	2	0.6																	
KA03466	84.00	85.00	1.00	65	312	2	130	2	0.4																	
KA03467	85.00	86.00	1.00	23	115	1	55	2	0.2																	
KA03468	86.00	87.00	1.00	71	86	1	54	2	0.3																	
KA03469	87.00	88.00	1.00	69	101	1	84	2	0.3																	
KA03470	88.00	89.00	1.00	42	170	1	65	3	0.1																	
KA03471	89.00	90.00	1.00	62	278	2	81	2	0.3																	
KA03472	90.00	91.00	1.00	4	26	2	27	2	0.1																	
KA03473	91.00	92.00	1.00	63	104	2	72	2	0.2																	
KA03474	92.00	93.00	1.00	28	70	3	61	2	0.2																	
KA03475	93.00	94.00	1.00	26	72	1	51	2	0.1																	
KA03476	94.00	95.00	1.00	10	33	1	27	2	0.1																	
KA03477	95.00	96.00	1.00	44	37	3	33	2	0.2																	
KA03478	96.00	97.00	1.00	588	515	4	102	2	0.7																	
KA03479	97.00	98.00	1.00	344	483	4	70	2	0.3																	
KA03480	98.00	99.00	1.00	311	920	3	107	2	0.5																	
KA03481	99.00	100.00	1.00	175	501	3	100	2	0.3																	
KA03482	100.00	101.00	1.00	150	75	2	95	2	0.3																	
KA03483	101.00	102.00	1.00	69	85	2	55	2	0.1																	
KA03484	102.00	103.00	1.00	124	151	1	66	3	0.2																	
KA03485	103.00	104.00	1.00	148	120	2	69	2	0.3																	
KA03486	104.00	105.00	1.00	124	73	1	5	2	0.2																	
KA03487	105.00	106.00	1.00	62	49	1	61	2	0.2																	
KA03488	106.00	107.00	1.00	251	130	1	82	2	0.3																	
KA03489	107.00	108.00	1.00	54	78	1	71	2	0.1																	
KA03490	108.00	109.00	1.00	79	228	1	59	7	0.3																	
KA03491	109.00	110.00	1.00	129	286	1	128	3	0.4																	
KA03492	110.00	111.50	1.50	60	63	2	51	3	0.1																	
KA03493	111.50	113.00	1.50	88	967	3	80	7	0.1																	
KA03494	113.00	114.50	1.50	82	706	3	74	2	0.2																	
KA03495	114.50	116.00	1.50	88	284	2	73	7	0.2																	
KA03496	116.00	117.50	1.50	37	72	3	45	2	0.1																	
KA03497	117.50	119.00	1.50	82	232	1	76	3	0.1																	

HOLE NUMBER: MAN23-02

ASSAYS SHEET

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DATE: 14/03/2000

[illegible]

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HOLE NUMBER : MAN23-02

GEOCHEMICAL ASSAY

DATE: 14/03/2000

Sample	From (M)	To (M)	Leng. (M)	SI02 %	AL2O3 %	CAO %	MGO %	NA2O %	K2O %	FE2O3 %	TIO2 %	P2O5 %	MNO %	CR2O3 %	LOI %	SUM %	Y PPM	ZR PPM	BA PPM	CU PPM	ZN PPM	NI PPM	CR PPM	FIELD NAME	CHEM ID	ALUM
KA03401	8.00	11.00	3.00	34.50	4.21	6.43	33.99	0.25	0.07	9.36	0.19	0.04	0.18		8.75		5	10		55	100	2190	4495			
KA03402	26.00	29.00	3.00	59.53	14.09	6.09	4.44	4.12	1.99	6.27	0.53	0.23	0.14		1.42		10	90		50	135	65	195			
KA03403	48.00	51.00	3.00	81.44	6.75	3.42	0.94	2.08	0.85	3.10	0.24	0.07	0.07		0.76		10	60		60	20	75	440			
KA03404	63.00	66.00	3.00	66.32	14.85	3.69	1.71	3.74	1.21	4.43	0.51	0.12	0.08		2.52		20	120		55	75	50	240			
KA03405	80.00	82.00	2.00	80.18	9.48	1.56	0.64	3.29	1.00	1.71	0.13	0.05	0.03		0.43		<5	70		55	845	25	315			
KA03406	83.00	86.00	3.00	65.67	13.67	3.81	1.35	4.35	1.26	5.34	0.33	0.09	0.09		2.65		5	120		130	675	80	315			
KA03407	87.00	89.00	2.00	68.48	14.65	3.81	1.09	4.94	1.17	2.86	0.37	0.09	0.09		1.44		5	110		60	120	50	330			
KA03408	92.00	95.00	3.00	71.74	14.69	2.54	0.27	5.73	1.65	0.78	0.33	0.08	0.05		0.66		5	110		5	20	15	300			
KA03409	104.00	107.00	3.00	75.19	12.24	2.96	0.36	4.18	0.94	1.90	0.28	0.07	0.04		0.70		5	90		70	85	30	300			
KA03410	128.00	131.00	3.00	71.86	12.38	3.12	0.79	4.25	1.32	3.31	0.29	0.07	0.05		1.37		5	90		75	130	45	290			
KA03411	139.00	140.90	1.90	57.68	14.65	5.96	3.18	4.99	1.11	7.29	0.70	0.47	0.16		2.92		15	120		85	90	25	130			
KA03412	143.00	146.00	3.00	75.48	11.07	2.17	0.42	4.35	1.28	2.37	0.25	0.08	0.06		2.08		5	80		55	170	35	305			
KA03413	161.00	164.00	3.00	60.12	14.35	7.03	3.39	4.17	1.50	4.90	0.39	0.23	0.09		2.17		10	80		30	70	45	195			
		</																								

HOLE NUMBER: MAN23-02

GEOCHEMICAL ASSAY

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GEOCHEMICAL ASSAYS

DATE: 14/03/2000

Sample	From (M)	To (M)	Leng. (M)	SM PPM	EU PPM	GD PPM	DY PPM	ER PPM	LU PPM	OS PPB	IR PPB	RU PPB	RH PPB	PT PPB	PD PPB	LI PPM	BE PPM	MN PPM	GA PPM	GE PPM	IN PPM	TL PPM	SC PPM	BR PPM	MGO#	CA/AL	NI/MGO	ISHIKW	ZN/NA2
KA03401	8.00	11.00	3.00														<5						10						
KA03402	26.00	29.00	3.00														5						10						
KA03403	48.00	51.00	3.00														<5						5						
KA03404	63.00	66.00	3.00														<5						10						
KA03405	80.00	82.00	2.00														<5						<5						
KA03406	83.00	86.00	3.00														<5						5						
KA03407	87.00	89.00	2.00														<5						5						
KA03408	92.00	95.00	3.00														<5						5						
KA03409	104.00	107.00	3.00														<5						5						
KA03410	128.00	131.00	3.00														<5						5						
KA03411	139.00	140.90	1.90														5						10						
KA03412	143.00	146.00	3.00														<5						5						
KA03413	161.00	164.00	3.00														<5						10						

HOLE NUMBER: MAN23-02

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HOLE NUMBER : MAN23-02

GEOCHEMICAL ASSAYS

DATE: 14/03/2000

Sample	From (M)	To (M)	Leng. (M)	YB PPM	NB PPM
KA03401	8.00	11.00	3.00		<10
KA03402	26.00	29.00	3.00		<10
KA03403	48.00	51.00	3.00		<10
KA03404	63.00	66.00	3.00		<10
KA03405	80.00	82.00	2.00		<10
KA03406	83.00	86.00	3.00		<10
KA03407	87.00	89.00	2.00		<10
KA03408	92.00	95.00	3.00		<10
KA03409	104.00	107.00	3.00		<10
KA03410	128.00	131.00	3.00		<10
KA03411	139.00	140.90	1.90		<10
KA03412	143.00	146.00	3.00		<10
KA03413	161.00	164.00	3.00		<10

HOLE NUMBER: MAN23-02

GEOCHEMICAL ASSAYS

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HOLE NUMBER: MAN23-03

DATE: 03/15/2000

IMPERIAL UNITS: METRIC UNITS: X

```
ALTERNATE COORDS  GRID: Grid
                   NORTH: 86+75
                   EAST:  90+ 0
                   ELEV:   280.00
```

COLLAR DIP: -45° 0' 0"
LENGTH OF THE HOLE: 117.40M
START DEPTH: 0.00M
FINAL DEPTH: 117.40M

COLLAR ASTRONOMIC AZIMUTH: 20° 0' 0"

GRID ASTRONOMIC AZIMUTH: 20° 0' 0"

COLLAR SURVEY: NO
RQD LOG: NO
HOLE MAKES WATER: NO

PULSE EM SURVEY: NO
PLUGGED: NO
HOLE SIZE: BQ

CONTRACTOR: NDS Drilling
CASING: 76.7m pulled
CORE STORAGE: Mine-site
UTM COORD.: as above

COMMENTS : graphitic argillite at 85m cause of HLEM conductor
WEDGES AT:

DIRECTIONAL DATA:

[illegible]

LOGGED BY: DFR

[Signature]

HOLE NUMBER: MAN23-03

DRILL HOLE RECORD

DATE: 03/15/2000

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
0.00 TO 76.70	«Job» Overburden/ Casing	-granite and mafic volcanic boulders cored between 75-77m before collaring in bedrock				
76.70 TO 84.60	«3,m,D» Intermediate Volcanic, massive, feldspar porphyritic	-med. to dark grayish green -mod. to strong fol'n at 55-65 deg. to CA -strongly broken, blocky core -likely collared within fault zone due to poor core recovery and strong fol'n -med. to coarse grained, difficult to distinguish volcanic or intrusive origin -strongly feldspar-phyric with up to 30% creamy to buff albite phenocrysts from 1-3mm in diameter -generally anhedral in form, rarely showing good crystal shapes or zonation -milky qtz-vein with anastomosing, brassy Py stringers between 84.1-84.3m 76.7-84.6 «FAI»		-minor qtz veining and chloritic fracturing -weak to mod. sericite -alteration appears predominantly tectonic in origin	-tr. Py for most of unit -increase in Py over lower 50cm of unit below qtz vein to 5-7%	
84.60 TO 85.20	«5,g» Graphitic Argillite	-broken uphole contact -dark gray to black, mod. to strong fol'n at 40 deg. to CA -strongly conductive argillite -strongly broken and blocky core -no visible bedding due to deformation but strongly schistose at 30-50 deg. to CA -minor Py fractures and nodules		-weak to mod. calcite	-5-10% Py as fine fractures and nodules up to 2cm in diameter -stronger mineralization over lower 30cm of unit	
85.20 TO 117.40	«3,m,D» Intermediate Volcanic, massive, feldspar porphyritic	-broken uphole contact -med. to dark grayish green -mod. fol'n locally at 40 deg. to CA but less intense than in similar unit uphole -identical to intermediate porphyry uphole but slightly less tectonized but with similar poor recovery -strongly albite porphyritic with 1-3mm anhedral, clotty phenocrysts comprising up to 20% of unit -groundmass is pale to med. green and med. grained		-weak sericite+/-chlorite is likely tectonic -minor qtz veining associated with faulting -increase in bull qtz veining after 100m	-tr.-1% Py overall, slightly higher near uphole contact with argillite which contains fine stringers of brassy, brilliant Py	

HOLE NUMBER: MAN23-03

DRILL HOLE RECORD

LOGGED BY: DFR

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HOLE NUMBER: MAN23-03

DRILL HOLE RECORD

DATE: 03/15/2000

FROM TO	ROCK TYPE	TEXTURE AND STRUCTURE	ANGLE TO CA	ALTERATION	MINERALIZATION	REMARKS
117.40 TO 117.40	«EOH» End-of-Hole	-no visible qtz phenocrysts [99.6-99.9]«5.g» -chips of conductive, graphitic argillite within zone of ground core -drillers noted seam was approx. 1m thick -poor core recovery, with essentially 0 RQD until approximately 114.3m where core becomes more competent -porphyritic texture increase dramatically towards bottom of hole with up to 40% albite phenocrysts up to 4mm in diameter				

HOLE NUMBER: MAN23-03

DRILL HOLE RECORD

LOGGED BY: DFR

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HOLE NUMBER : MAN23-03

ASSAYS SHEET

DATE: 15/03/2000

Sample	From (M)	To (M)	Leng. (M)	Cu ppm	Zn ppm	Pb ppm	Ni ppm	Au ppb	Ag ppm	Cu/Zn ppm	Co ppm	Pt ppb	Pd ppb	S %	Se ppm	As ppm	Hg ppb	Sb ppm	Est.Ni %	Est.Po %	Est.Py %	Est.Cp %	Est.Sp %	Est.Gn %	ROCK TYPE	Comments
AU07802	84.10	84.60	0.50	120	136	1	87	3	0.1																	
AU07801	84.60	85.20	0.60	264	396	7	350	2	0.2																	
AU07803	85.20	85.80	0.60	33	174	1	48	24	0.1																	

HOLE NUMBER: MAN23-03

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HOLE NUMBER : MAN23-03

GEOCHEMICAL ASSAYS

DATE: 15/03/2000

Sample	From (M)	To (M)	Leng. (M)	SM PPM	EU PPM	GD PPM	DY PPM	ER PPM	LU PPM	OS PPB	IR PPB	RU PPB	RH PPB	PT PPB	PD PPB	LI PPM	BE PPM	MN PPM	GA PPM	GE PPM	IN PPM	TL PPM	SC PPM	BR PPM	MGO#	CA/AL	NI/MGO	ISHIKW	ZN/NA2
AU07751	80.00	83.00	3.00														<5						5						
AU07752	115.00	117.00	2.00														<5						5						

HOLE NUMBER: MAN23-03

GEOCHEMICAL ASSAYS

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GEOCHEMICAL ASSAYS

DATE: 15/03/2000

HOLE NUMBER: MAN23-03

GEOCHEMICAL ASSAYS

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Established 1928

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Geochemical Analysis Certificate

9W-3587-RG1

Company: **FALCONBRIDGE LTD EXPLORATION**

Date: NOV-19-99

Project: 296 Expl

Attn: D. Rogers

We hereby certify the following Geochemical Analysis of 11 Core samples submitted NOV-12-99 by .

Sample Number	Au PPB	Cu PPM	Zn PPM	Pb PPM	Ag PPM	Ni PPM
KA03451	3	109	58	1	0.2	453
KA03452	14	227	115	2	0.3	1250
KA03453	<2	95	54	1	0.2	528
KA03454	<2	38	66	4	0.2	77
KA03455	<2	50	127	4	0.1	80
KA03456	<2	58	295	5	0.1	179
KA03457	<2	46	149	4	0.1	24
KA03458	<2	379	1920	7	0.4	225
KA03459	7	82	75	22	1.3	106
KA03460	<2	59	85	4	0.2	390
KA03461	14	71	272	4	0.1	47

Certified by

1 Cameron Ave., P.O. Box 10, Swastika, Ontario P0K 1T0
Telephone (705)642-3244 Fax (705)642-3300



Established 1928

Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

Geochemical Analysis Certificate

9W-3614-RG1

Company: **FALCONBRIDGE LTD EXPLORATION**
Project: 296 Expl
Attn: D.Rogers

Date: NOV-19-99

We hereby certify the following Geochemical Analysis of 28 Core samples submitted NOV-14-99 by .

Sample Number	Au PPB	Cu PPM	Zn PPM	Pb PPM	Ag PPM	Ni PPM
KA03462	17	45	205	6	0.2	33
KA03463	21	214	1450	12	0.5	114
KA03464	3	388	4150	11	0.9	198
KA03465	<2	315	964	2	0.6	182
KA03466	<2	65	312	2	0.4	130
KA03467	<2	23	115	1	0.2	55
KA03468	<2	71	86	1	0.3	54
KA03469	<2	69	101	1	0.3	84
KA03470	3	42	170	1	0.1	65
KA03471	<2	62	278	2	0.3	81
KA03472	<2	4	26	2	0.1	27
KA03473	<2	63	104	2	0.2	72
KA03474	<2	28	70	3	0.2	61
KA03475	<2	26	72	1	0.1	51
KA03476	<2	10	33	1	0.1	27
KA03477	<2	44	37	3	0.2	33
KA03478	<2	588	515	4	0.7	102
KA03479	<2	344	483	4	0.3	70
KA03480	<2	311	920	3	0.5	107
KA03481	<2	175	501	3	0.3	100
KA03482	<2	150	75	2	0.3	95
KA03483	<2	69	85	2	0.1	55
KA03484	3	124	151	1	0.2	66
KA03485	<2	148	120	2	0.3	69
KA03486	<2	124	73	1	0.2	65
KA03487	<2	62	49	1	0.2	61
KA03488	<2	251	130	1	0.3	82
KA03489	<2	54	78	1	0.1	71

Certified by



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Assaying - Consulting - Representation

Geochemical Analysis Certificate

9W-3735-RG1

Company: **FALCONBRIDGE LTD EXPLORATION**

Date: NOV-26-99

Project: 296 Expl

Attn: D. Rogers

We hereby certify the following Geochemical Analysis of 23 Core samples submitted NOV-23-99 by .

Sample Number	Au PPB	Cu PPM	Zn PPM	Pb PPM	Ag PPM	Ni PPM
KA03490	7	79	228	1	0.3	59
KA03491	3	129	286	1	0.4	128
KA03492	3	60	63	2	0.1	51
KA03493	7	88	967	3	0.1	80
KA03494	2	82	706	3	0.2	74
KA03495	7	88	284	2	0.2	73
KA03496	2	37	72	3	0.1	45
KA03497	3	82	232	1	0.1	76
KA03498	2	90	424	4	0.1	67
KA03499	2	38	91	3	0.1	68
KA03500	2	25	49	4	0.1	58
KA03501	2	16	30	2	0.1	44
KA03502	2	41	72	1	0.1	46
KA03503	2	113	95	3	0.1	68
KA03504	7	40	69	3	0.2	50
KA03505	2	78	874	2	0.1	66
KA03506	2	94	375	1	0.2	75
KA03507	2	72	305	1	0.1	70
KA03508	3	61	80	1	0.1	76
KA03509	7	40	48	1	0.1	56
AU07801	2	264	396	7	0.2	350
AU07802	3	120	136	1	0.1	87
AU07803	24	33	174	1	0.1	48

Certified by

FALCONBRIDGE LTD EXPLORATION

Attention: D. Rogers

Project: 296 Expl

Sample: Core

Swastika Laboratories Ltd.

1 Cameron Ave., Swastika, Ontario, P0K 1T0

Tel: (705) 642-3244 Fax: (705) 642-3300

Report No : 0W0528 RL

Date : Mar-06-00

ICP Whole Rock Assay

Lithium Metaborate Fusion

Sample Number	SiO ₂ %	Al ₂ O ₃ %	Fe ₂ O ₃ %	CaO %	MgO %	Na ₂ O %	K ₂ O %	TiO ₂ %	MnO %	P ₂ O ₅ %	Cr ppm	Zr ppm	Y ppm	Cu ppm	Zn ppm	Ni ppm	Co ppm	Nb ppm	V ppm	Sc ppm	Be ppm	LOI %	S %	Total %
KA03401	34.50	4.21	9.36	6.43	33.99	0.25	0.07	0.19	0.18	0.04	4495	10	5	55	100	2190	100	<10	65	10	<5	8.75	0.12	98.67
KA03402	59.53	14.09	6.27	6.09	4.44	4.12	1.99	0.53	0.14	0.23	195	90	10	50	135	65	20	<10	105	10	5	1.42	0.27	98.92
KA03403	81.44	6.75	3.10	3.42	0.94	2.08	0.85	0.24	0.07	0.07	440	60	10	60	20	75	10	<10	30	5	<5	0.76	0.89	99.79
KA03404	66.32	14.85	4.43	3.69	1.71	3.74	1.21	0.51	0.08	0.12	240	120	20	55	75	50	10	<10	55	10	<5	2.52	1.84	99.24
KA03405	80.18	9.48	1.71	1.56	0.64	3.29	1.00	0.13	0.03	0.05	315	70	<5	55	845	25	5	<10	<5	<5	<5	0.43	0.79	98.63
KA03406	65.67	13.67	5.34	3.81	1.35	4.35	1.26	0.33	0.09	0.09	315	120	5	130	675	80	10	<10	35	5	<5	2.65	2.41	98.76
KA03407	68.48	14.65	2.86	3.81	1.09	4.94	1.17	0.37	0.09	0.09	330	110	5	60	120	50	10	<10	35	5	<5	1.44	0.65	99.07
KA03408	71.74	14.69	0.78	2.54	0.27	5.73	1.65	0.33	0.05	0.08	300	110	5	5	20	15	<5	<10	25	5	<5	0.66	<0.01	98.56
KA03409	75.19	12.24	1.90	2.96	0.36	4.18	0.94	0.28	0.04	0.07	300	90	5	70	85	30	5	<10	25	5	<5	0.70	0.61	98.92
KA03410	71.86	12.38	3.31	3.12	0.79	4.25	1.32	0.29	0.05	0.07	290	90	5	75	130	45	10	<10	25	5	<5	1.37	1.28	98.87
KA03411	57.68	14.65	7.29	5.96	3.18	4.99	1.11	0.70	0.16	0.47	130	120	15	85	90	25	20	<10	165	10	5	2.92	2.29	99.16
KA03412	75.48	11.07	2.37	2.17	0.42	4.35	1.28	0.25	0.06	0.08	305	80	5	55	170	35	10	<10	20	5	<5	2.08	0.95	99.68
KA03413	60.12	14.35	4.90	7.03	3.39	4.17	1.50	0.39	0.09	0.23	195	80	10	30	70	45	15	<10	80	10	<5	2.17	0.92	98.40
AU07751	66.02	15.72	4.37	0.69	2.55	5.75	1.43	0.40	0.03	0.18	180	100	10	45	75	35	10	<10	65	5	<5	2.22	0.38	99.42
AU07752	60.81	15.27	4.46	3.59	2.45	5.68	1.24	0.39	0.07	0.17	190	110	5	40	65	35	15	<10	60	5	<5	5.05	0.03	99.24
AU07754	68.10	12.15	4.88	1.18	3.03	1.56	0.91	0.34	0.02	0.10	175	80	5	85	75	15	15	<10	30	5	<5	6.65	4.50	98.96
AU07755	69.91	13.29	1.81	2.50	0.82	5.14	1.53	0.20	0.02	0.07	250	70	5	10	30	10	5	<10	20	<5	<5	3.36	0.44	98.69
AU07756	68.86	14.00	1.85	2.84	0.95	4.88	1.90	0.21	0.03	0.08	155	70	5	5	30	20	5	<10	25	5	<5	3.97	0.01	99.60
AU07757	67.19	13.59	2.53	3.84	1.11	3.08	2.41	0.37	0.03	0.10	155	90	5	25	50	25	5	<10	30	5	<5	4.82	0.55	99.10
AU07758	68.10	13.37	2.31	3.19	1.44	4.31	1.94	0.21	0.05	0.08	160	80	5	40	35	15	5	<10	20	5	<5	4.60	0.12	99.64
AU07759	64.28	14.18	3.17	4.11	1.54	3.11	2.60	0.50	0.05	0.16	165	120	10	25	45	10	10	<10	40	5	<5	4.83	0.76	98.58
AU00497	50.31	13.67	9.49	12.65	7.82	1.48	1.00	0.56	0.17	0.06	480	30	15	<5	40	110	35	<10	190	30	<5	2.17	0.01	99.49
AU00498	51.23	13.69	9.94	10.47	7.36	1.94	1.28	0.61	0.17	0.07	295	40	15	5	50	105	40	<10	190	30	<5	2.04	<0.01	98.86
AU00499	61.41	10.38	6.15	6.40	7.50	2.27	2.43	0.40	0.13	0.12	295	90	10	25	40	100	20	<10	55	10	<5	1.63	0.05	98.89
AU00500	49.94	18.98	7.18	8.33	4.87	5.20	2.55	0.50	0.12	0.30	275	110	15	25	105	70	25	<10	100	15	<5	1.74	0.86	99.80

Sample is fused with Lithium Metaborate
and dissolved in dilute HNO₃.Signed: 



Ministry of
Northern Development
and Mines

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use)

Assessment Files Research Imaging

Pe
inl
sh



42A14SE2010 2.20163 MANN

900

Instructions: - For work performed on Crown Lands before recording a claim, use form 0240.
- Please type or print in ink.

ion 65(2) and 66(3) of the Mining Act. Under section 8 of the Mining Act, this
work and correspond with the mining land holder. Questions about this collection
and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

1. Recorded holder(s) (Attach a list if necessary)

Name Falconbridge Limited Corporate Office	Client Number 130679
Address Suite 1200, 95 Wellington St. West	Telephone Number (416) 956-5700
Toronto, Ont. M5J 2V4	Fax Number (416) 956-5757
Name Falconbridge Limited Field Office - Timmins	Client Number
Address Falconbridge Ltd. Timmins Exploration Office	Telephone Number (705) 264-5200 (Field Office)
P.O. Box 1140 Timmins, Ont. P4N 7H9	Fax Number (705) 267-8874 (Field Office)

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

<input type="checkbox"/> Geotechnical: prospecting, surveys, assays and work under section 18 (regs)	<input checked="" type="checkbox"/> Physical: drilling stripping, trenching and associated assays	<input type="checkbox"/> Rehabilitation
Work Type Diamond Drilling (2 holes) + geochemical sampling		Office Use
		Commodity
		Total \$ Value of Work Claimed \$ 17,619
Dates Work From 01 10 99 To 14 10 99 Performed Day Month Year Day Month Year		NTS Reference
Global Positioning System Data (if available)	Township/Area Mann & Little Twps.	Mining Division Pacupine
	M or G-Plan Number G-3537 (Mann) & G-3241 (Little)	Resident Geologist District Timmins

Please remember to: - obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name Dean Rogers – Falconbridge Limited	Telephone Number (705) 264-5200 ext. 8211
Address P.O. Box 1140, Timmins, Ont. P4N 7H9	Fax Number (705) 267-8874
Name	Telephone Number
Address	Fax Number

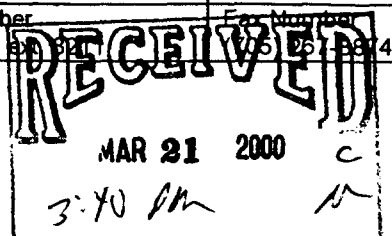
4. Certification by Recorded Holder or Agent

I, **Dean Rogers**, do hereby certify that I have personal knowledge of the facts set forth in

this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent 	Date March 16, 2000
Agent's Address Falconbridge Ltd. (As above)	Telephone Number (705) 264-5200

0241 (03/97)



5. **Work to be recorded and distributed.** Work can only be assigned to claims that are contiguous (adjoining) to the mir land where work was performed, at the time work was performed. A map showing the contiguous link must accompany form.

W0060. 0025

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of wo to be distributed at a future date
6000384 Lease #446054	16ha	\$11,676	\$0	\$11,676	\$0
6000369 Lease #446086	16ha	\$4,163	\$0	\$4,163	\$0
6000296 543 NEC	64ha	\$1,780	\$0	\$1,780	\$0
4 P1201904	8 units	\$0	\$3,200	\$0	\$0
5 P1201905	8 units	\$0	\$3,200	\$0	\$0
6 P1201906	8 units	\$0	\$3,200	\$0	\$0
7 P1201902	4 units	\$0	\$1,600	\$0	\$0
8 P1201903	8 units	\$0	\$3,200	\$0	\$0
9 P1201907	12 units	\$0	\$2,419	\$0	\$0
10 P1201908	2 units	\$0	\$800	\$0	\$0
11					
12					
13					
14				2,200	
15					
Column Totals	96ha + 50 units	\$17,619	\$17,619	\$17,619	\$0

I, **Dean Rogers**, do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing 	Date March 16, 2000
--	------------------------

6. **Instruction for cutting back credits that are not approved.**

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish prioritize the deletion of credits:

- ☐ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☒ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☐ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

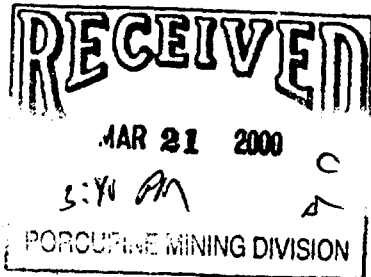
For Office Use Only

Received Stamp

0241 (03/97)

RECEIVED
MAR 23 2000
GEOSCIENCE ASSESSMENT
OFFICE

Deemed Approved Date	Date Notification Sent
Date Approved	Total Value of Credit Approved
Approved for Recording by Mining Recorder (Signature)	

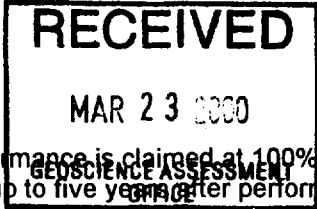




W0060-00125

Personal information collected on this form is obtained under the authority of subsection 6 (1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, this information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to a Provincial Mining Recorder, Ministry of Northern Development and Mines, 3rd Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of work Depending on the type of work, list the number of hours/day worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
Diamond Drilling	304.4m	\$43 / m	\$13,089
Assay Samples	62 samples	\$15 / sample	\$930
Whole Rock Samples	15 samples	\$25 / sample	\$375
Geologist (planning + supervision)	5 days	\$250 / day	\$1,250
Core boxes	100 boxes	\$5.25 / box	\$525
Associated Costs (e.g. supplies, mobilization and demobilization).			
Mobilization		\$1,200	\$1,200
Transportation Costs			
Truck Rental (5 days)		\$50	\$250
Food and Lodging Costs			
Total Value of Assessment Work			\$17,619



Calculations of Filing Discounts:

- 1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
- 2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK x 0.50 = Total \$ value of worked claimed.

Note:

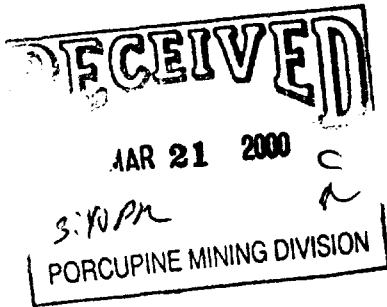
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

Certification verifying costs:

I, **Dean Rogers**, do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying

Declaration of Work form as **Project Geologist** I am authorized to make this certification.
(recorded holder, agent, or state company position with signing authority)

Signature <i>Dean Rogers</i>	Date March 16, 2000
---------------------------------	------------------------



Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (888) 415-9845
Fax: (877) 670-1555

April 14, 2000

FALCONBRIDGE LIMITED
SUITE 1200, 95 WELLINGTON STREET WEST
TORONTO, ONTARIO
M5J-2V4

Visit our website at:
www.gov.on.ca/MNDM/MINES/LANDS/mlsmnpge.htm

Dear Sir or Madam:

Submission Number: 2.20163

Status

Subject: Transaction Number(s): W0060.00125 Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. **WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.**

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice. Allowable changes to your credit distribution can be made by contacting the Geoscience Assessment Office within this 45 Day period, otherwise assessment credit will be cut back and distributed as outlined in Section #6 of the Declaration of Assessment work form.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

If you have any questions regarding this correspondence, please contact LUCILLE JEROME by e-mail at lucille.jerome@ndm.gov.on.ca or by telephone at (705) 670-5858.

Yours sincerely,



ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Work Report Assessment Results

Submission Number: 2.20163

Date Correspondence Sent: April 14, 2000

Assessor: LUCILLE JEROME

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W0060.00125	L446054	MANN, LITTLE	Approval	April 11, 2000

Section:
16 Drilling PDRILL

Correspondence to:

Resident Geologist
South Porcupine, ON

Recorded Holder(s) and/or Agent(s):

Dean F. Rogers
TIMMINS, ONTARIO, CANADA

Assessment Files Library
Sudbury, ON

FALCONBRIDGE LIMITED
TORONTO, ONTARIO

AREAS WITHDRAWN FROM DISPOSITION

M.B.O. MINING RIGHTS ONLY
S.R.O. SURFACE RIGHTS ONLY
M.B. MINING AND SURFACE RIGHTS

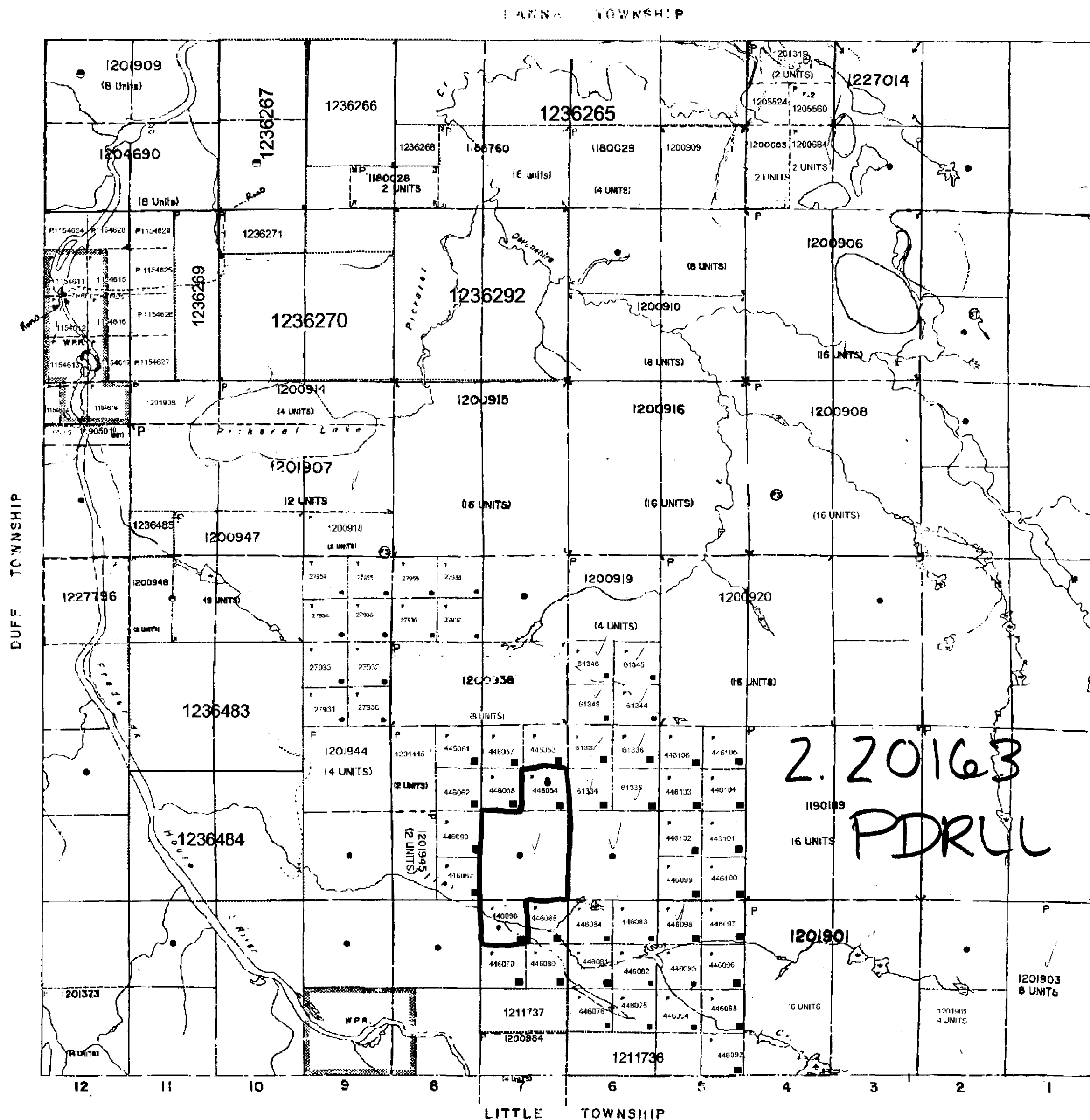
Date: 1991 Order No. Date of Approval File

WATER POWER RESERVE

NO. 47187

SURFACE AND MINING RIGHTS ARE OFFERED TO PROSPECTORS
STUDY CHART, MAPS ON LEASE UNDER SECTION 28
OF THE MINES ACT AND INFO
OF THE MINES ACT AND INFO
OF THE MINES ACT AND INFO

NOTE: P1125837 PLOTTED IN ERROR.
S/W P114737.



THE INFORMATION THAT
APPEARS ON THIS MAP
HAS BEEN COMPILED
FROM VARIOUS SOURCES
AND ACCURACY IS NOT
GUARANTEED. THOSE
WISHING TO STAKE MIN-
ING CLAIMS SHOULD CON-
SULT WITH THE MINING
RECORDS DIVISION OF
NORTHERN DEVELOP-
MENT AND MINES FOR AD-
DITIONAL INFORMATION
ON THE STATUS OF THE
LANDS SHOWN HEREIN.

LEGEND

HIGHWAY AND ROUTE NO.
OTHER ROADS
TRAILS
SURVEYED LINES
TOWNSHIPS, BASE LINES, ETC.
LOT, MINING CLAIMS, PARCELS, ETC.
UNSURVEYED LINES
LOT LINES
PAKLE, BOUNDARY
MINING CLAIMS ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKIEG
MINES
TRAVERSE MONUMENT

TYPE OF DOCUMENT SYMBOL

PATENT, SURFACE & MINING RIGHTS	●
- SURFACE RIGHTS ONLY	○
- MINING RIGHTS ONLY	◐
LEASE, SURFACE & MINING RIGHTS	◑
- SURFACE RIGHTS ONLY	◒
- MINING RIGHTS ONLY	◓
LICENCE OF OCCUPATION	◔
ORDER-IN-COUNCIL	◕
RESERVATION	◖
CANCELLED	◗
SAME & GRAVEL	◘
LAND USE PERMIT	◙

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO
1921, BASED ON ORIGINAL PATENT BY
LANDS ACT, R.S.O. 1970, CHAP. 286, SEC. 2, SUB-
SECTION 1.

L.U.P.
1:20,000
SCALE 1:20,000

RECEIVED
NOTICE RECEIVED 86-DEC-09

DATE OF ISSUE

MAR 2 - 2000
PROVINCIAL RECORDING
OFFICE - SUDBURY

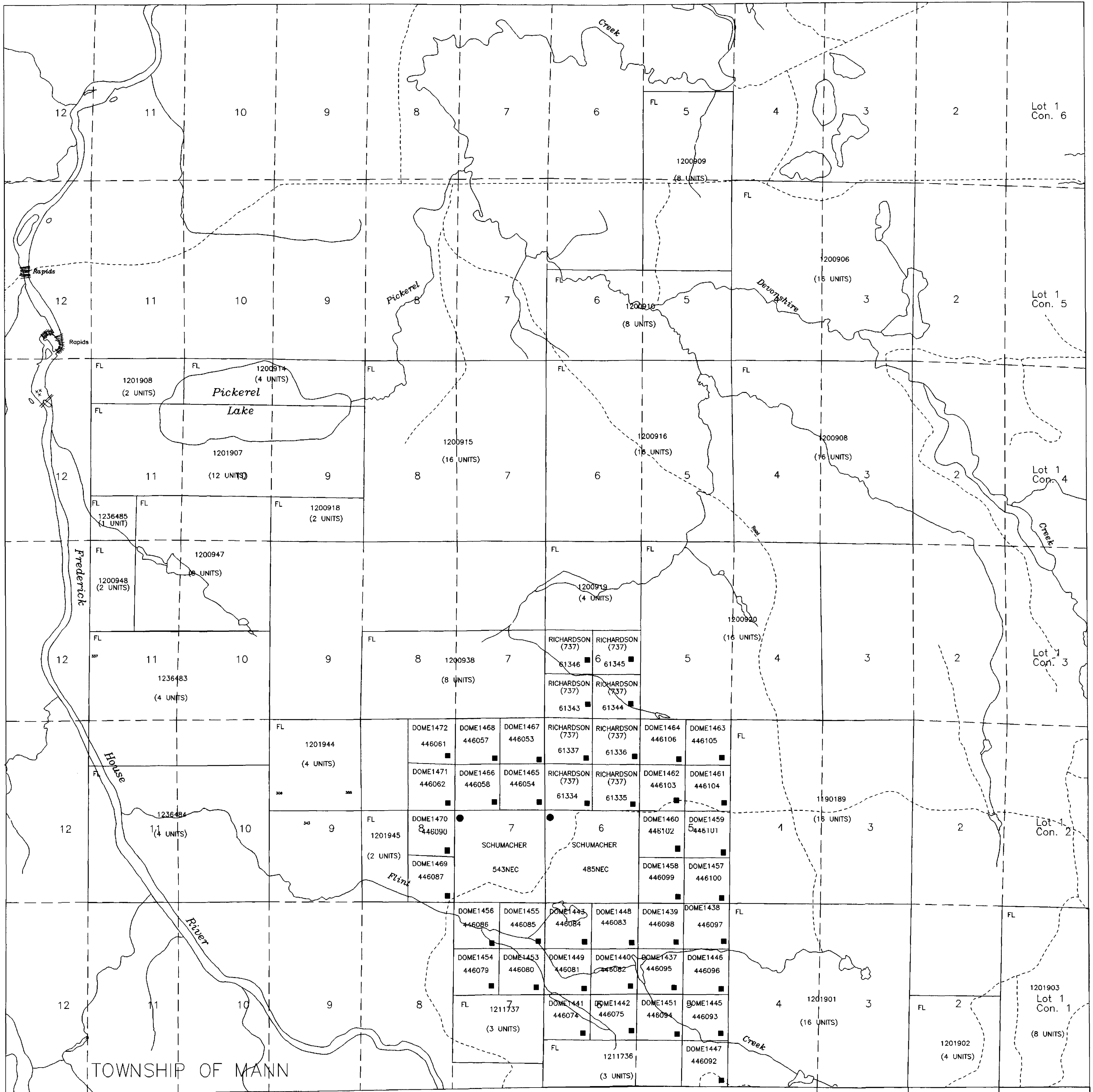
Received Sept 24/86

TOWNSHIP
MANN
M.N.R. ADMINISTRATIVE DISTRICT
COCHRANE
MINING DIVISION
PORCUPINE
AND TITLES / REGISTRY DIV. 514
COCHRANE

Ministry of Natural Resources
Ministry of Northern Development and Mines

SEPTEMBER 1995
G-3537





TOWNSHIP OF MANN

TOWNSHIP OF LITTLE



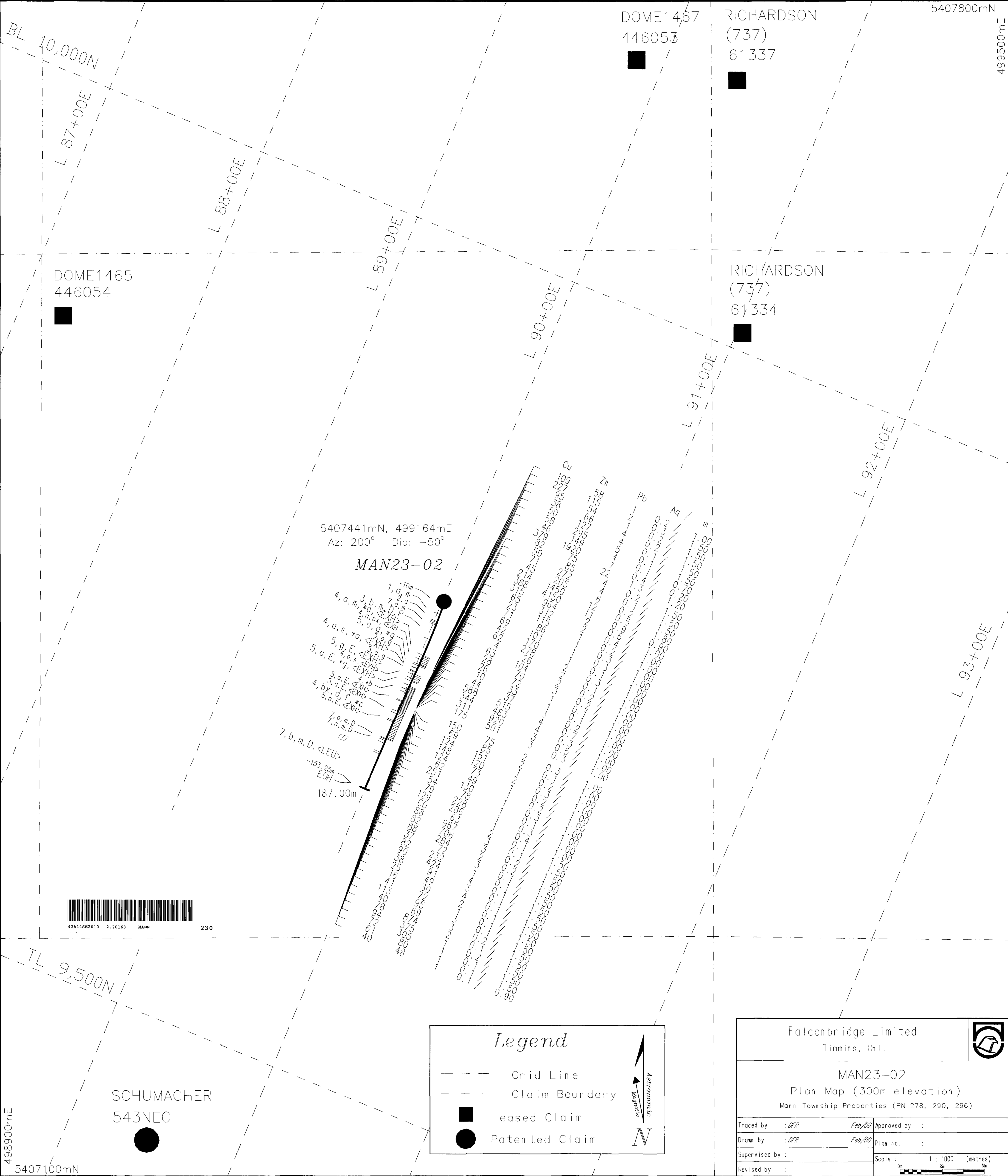
42A145B2010 2.20163 MANN

220

Falconbridge Ltd. - Timmins
Mann Township

FL Property Location Map

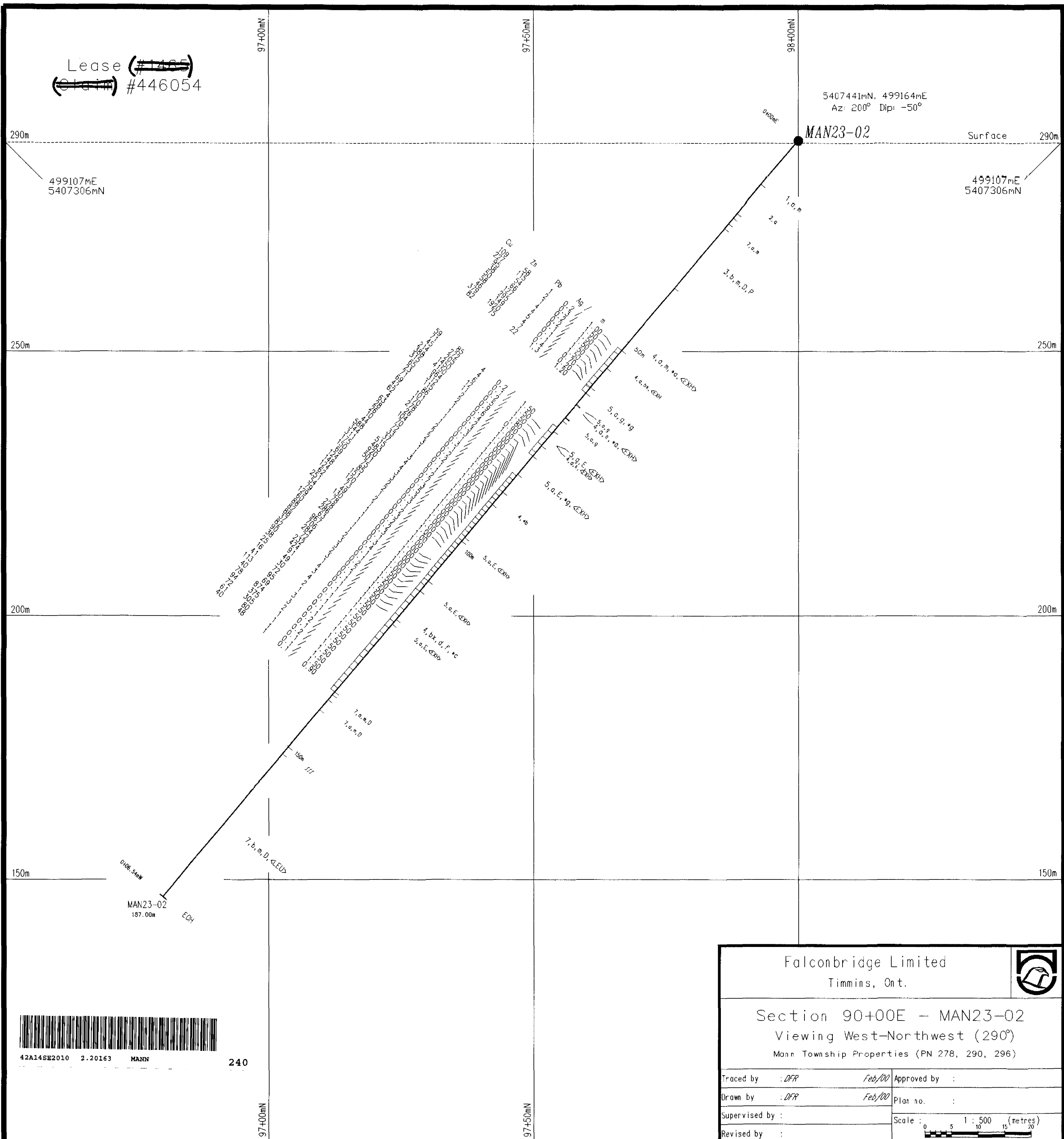
Traced by :	Approved by :
Drawn by : <i>Dean Rogers</i> <i>Oct 12/89</i>	Plan no. :
Supervised by :	Scale : 1 : 20,000 (metres)
Revised by :	



Legend

- Grid Line
- Claim Boundary
- Leased Claim
- Patented Claim

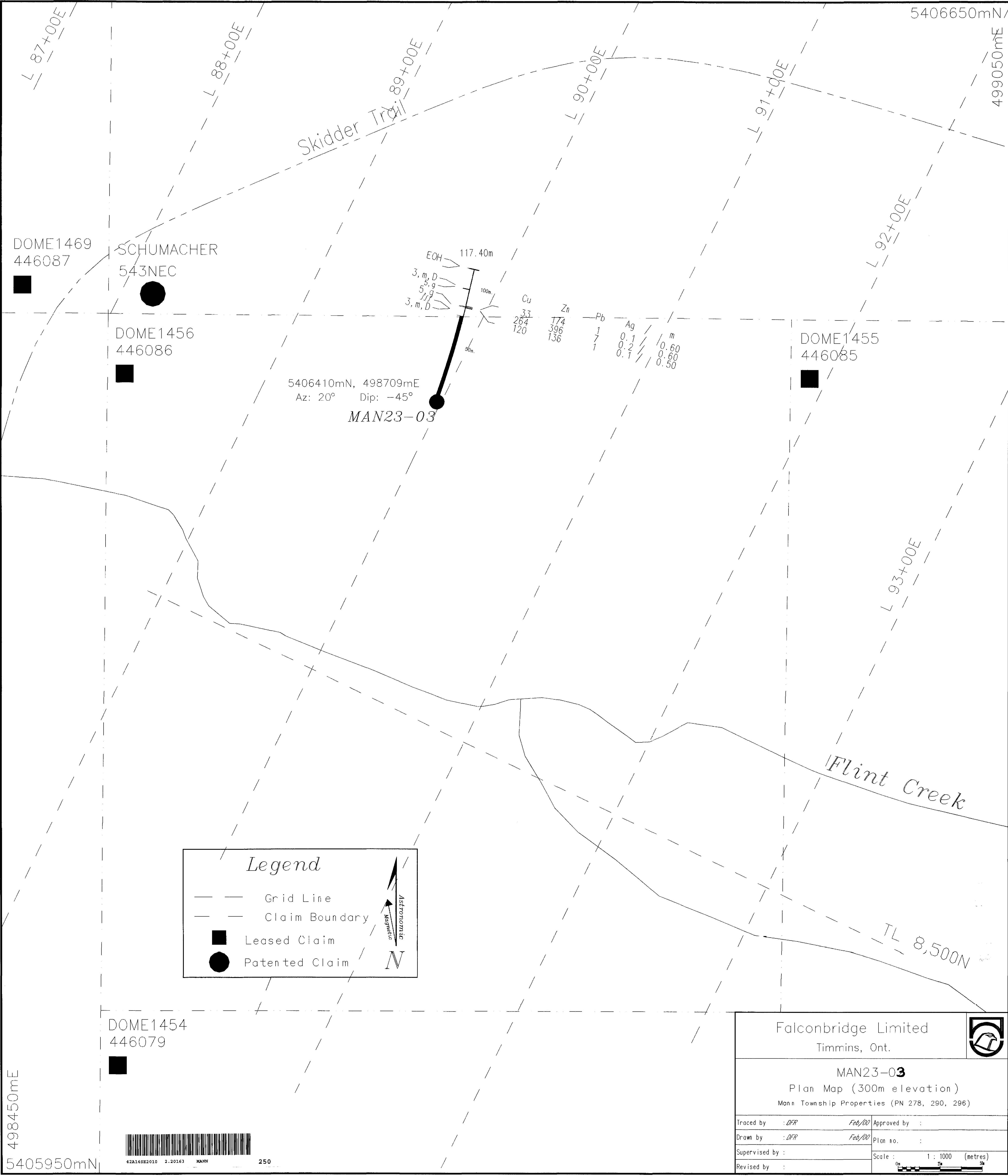
Falconbridge Limited Timmins, Ont.		
MAN23-02 Plan Map (300m elevation) Mann Township Properties (PN 278, 290, 296)		
Traced by : DFR	Feb/00	Approved by :
Drawn by : DFR	Feb/00	Plan no. :
Supervised by :		Scale : 1 : 1000 (metres)
Revised by :		



42A14SE2010 2.20163 MANN

240

Falconbridge Limited Timmins, Ont.		
Section 90+00E - MAN23-02 Viewing West-Northwest (290°) Mann Township Properties (PN 278, 290, 296)		
Traced by : DFR	Feb/00	Approved by :
Drawn by : DFR	Feb/00	Plan no. :
Supervised by :		Scale : 1 : 500 (metres)
Revised by :		



42A148E2010 2.20163 MANN

Placer Dome Lease	Schumacher Patent
Lease #446086	Parcel 543NEC

Surface

280m

498733mE
5406370mN

498806mE
5406555mN

250m

250m

Overburden

225m

200m

MAN23-03
117.40m



1000

42A14SE2010 2.20163 MANN

260

Drawn by : DFR Feb/00 Plc no .

Supervised by :	Scale :
-----------------	---------

Revised by :

Scale : 1 : 500 (metres)