

**PLACER DOME CANADA LIMITED
Drill Hole Record**

NTS Reference: 32E/13

Drill Hole: 519-064

Northing: 10 300

Easting: 21 350

Elevation: 252m

Collar Azi.: 180°

Collar Dip: -45°

Hole Length: 371.20m



Downhole Survey Type: Sperry-Sun

Depth	Azimuth	Dip	Depth	Azimuth	Dip
14m	185°	-43.25°	250m	185°	-40.25°
48m	184°	-43°	300m	189°	-38.75°
95m	184°	-42.5°	371m	201°	-37.25°
150m	186°	-41.75°			
200m	186°	-41.25°			

010

Core Size: NQ

Logged By: Barbara Pierna

Drilled By: Bradley Brothers

Surveyed By: Barbara Pierna

Drill Type: Boyle's 35A

Logged Started: March 5, 1996

Drilling Start: March 1, 1996

Logged Ended: March 16, 1996

Drilling End: March 9, 1996

Depth to Bedrock: 2.90m

Materials Left: Casing left in

Core Storage: Detour Lake Mine Site

Claim: Claim P780738-part
of CLM 358.

Post Location: DDH is 113m north and 7m
west of Post no. 2 (southeast corner) of claim
P780738.

Local Reference: DDH is located 1.05 km on a bearing of 258° from the point where
Detour River exits Lower Detour Lake.

Signature:

KEY TO ABBREVIATIONS FOR DDH 519-064

cpy chalcopyrite
 hem hematite
 mag/mg magnetite
 mr marcasite
 po pyrrhotite
 py pyrite
 sph sphalerite
 Te telluride

alb/ab albite
 ak ankerite
 bio/bt biotite
 cb carbonate
 chl/cl chlorite
 ep epidote
 gt garnet
 kspar potassium feldspar
 plag plagioclase
 qtz/qz quartz
 tour tourmaline

Fe iron
 K potassium

@ at
 w/ with
 < less than
 > more than
 . trace amount
 N in vein

alt/alt'n/alter'n	alteration	porph(s)	porphyroblast(s)
am't(s)	amount(s)	qc	quartz-carbonate
assoc	associated	qv(s)	quartz vein(s)
bx	breccia	RQD	Rock Quality Density
ct	contact	sed	sediment
deg	degree	sulph/sul	sulphide(s)
dissem/diss	disseminated	SBV	sulphide breccia vein
fgrained	fine-grained	tr	trace
fol/fol'n	foliation	var	variable
frag	fragment	vn/v	vein
med	medium	VG	visible gold
microvn(s)	microvein(s)	xeno(s)	xenolith(s)
min	minor		
mod/mod'ly	moderate(ly)		
perv	pervasive		
pheno(s)	phenocryst(s)		

Key to Abbreviations for DDH 519-064

OVBD	overburden
CON	conglomerate
FI	felsic intrusive
FP	feldspar porphyry
GD/GDT	granodiorite
GWE	greywacke
II	intermediate intrusive
QFP	quartz-feldspar porphyry
TF	tuff

SOUTH DETOUR - DDH 519-064, MARCH 1996

0.00 2.90m OVBD OVERBURDEN

2.90 98.80m CON CONGLOMERATE

Rock is clast-supported and size is variable depending on clast lithology. Majority of clasts are sed/volcanic, sub-angular to sub-rounded and 3-8cm; QFP/FP clasts are fresh and chloritically-altered, rounded and 5-11cm in size. Cherty clasts 0.5-1cm. Rock is well-foliated and parallel to bedding; clasts are stretched and majority contain +/- cb tails. Rock is nonmagnetic and trace py is disseminated; py is wispy and 1% magnetite is disseminated from 35-37m. Rare qtz vns @ 50deg w/ py and rare cpy/tourmaline; qtz stringers w/ py/tourmaline @ 65m. Patchy 1% mag and GWE interbeds >52m. Laminated cb-qtz vns and bright green chl w/ 1% py and tourmaline @ 72m. Foliation @ 45deg. 90% RQD and 100% recovery.

14.04 14.17m QFP STRAINED QUARTZ FELDSPAR PORPHYRY DYKE
QFP contacts w/ CON @ 45deg. Qtz and reddish-feldspar phenos are stretched along fol'n. Py is disseminated and rock is non-magnetic. Foliation @ 50deg. 100% RQD and recovery.

52.26 52.58m GWE GREYWACKE INTERBED
GWE contacts w/ CON @ 40 and 50deg. Granular size clasts are bedded and replaced by cb. Py is disseminated and rock is magnetic. Graded contacts and graded bedding are common. Fol'n @ 45deg. 100% RQD and recovery.

53.78 54.10m GWE GREYWACKE INTERBED
GWE contacts w/ CON @ 50deg. Granular size clasts are bedded and replaced by cb; rock is chloritic. Increase in py from previous GWE; py occurs along beds/fol'n. Magnetite is disseminated. Foliation @ 45deg; 100% RQD and recovery.

98.80 101.49m FI STRAINED FELDSPAR-CHLORITE PORPHYRITIC DYKE
FI contact w/ CON @ 55deg. Rock is well-foliated and strained. Chlorite wisps/phenos? and feldspar phenos are stretched and aligned w/ fol'n. 3% magnetite and trace py is disseminated. Cb wispy and as stringers. Foliation @ 45deg; 100% RQD and recovery.

101.49 185.21m CON CONGLOMERATE

CON contact w/ FI @ 50deg. Rock is well-foliated and mostly clast supported. Clast composition, shape and size are the same as previous CON unit. 1-2% magnetite is disseminated and clustered; trace to 0.5% py is disseminated and wispy. Rare Qtz vns are generally @ 50-60deg w/ py and rare cpy/tourmaline. 4% cb occurs as wisps, as tails on stretched clasts and as vns w/ py and rare cpy/tourmaline. Rock as a whole does not appear to be well-sorted as overall grain size varies from 0.5-15cm. INCREASE IN FI/II clasts >104m. Laminated bright green chl and cb-Qtz vns w/ 1% py/tourmaline w/ limonite @ 108m and without limonite @ 156m. Increase in Qtz vns to 1/5m >102m and 1/3m >159m. Qtz vns w/ py and rare cpy/tourmaline; tourmaline becoming more common >102m. Foliation @ 45deg; 90% RQD and 100% recovery.

124.70 125.05m GD CB-STOCKWORKED GRANODIORITE DYKE

GD contacts w/ CON @ 50 and 60deg. Rock is fine-grained and equigranular. 5% cb is stockworked and as vn. Rare py is disseminated and rock is nonmagnetic. Clasts of GDT dyke composition are present in CON after 125.05m. Foliation @ 55deg; 100% RQD and recovery.

135.34 136.06m GWE GREYWACKE INTERBED

GWE contacts w/ CON @ 45deg. Rock is not as well-sorted as previous GWE units; 5% chl wisps and 2% cb wisps define a moderate fol'n. This rock looks like a reworked tuff however energy regime here is too high. This may just be a chloriticly altered and poorly sorted GWE. Trace py is disseminated and rock is nonmagnetic. Foliation @ 55deg; 100% RQD and recovery.

170.60 171.61m GWE GREYWACKE INTERBED

Grey-green w/ strong 40deg foliation/bedding and sharp 40deg cts. There is a 6cm qv @ 90deg w/ tr py. 100% RQD and recovery.

183.36 183.63m QFP STRAINED QUARTZ FELDSPAR PORPHYRY DYKE

Well foliated at 45deg w/ sharp 50deg cts. Has very little quartz xtals. Foliation @ 45deg; 100% RQD and recovery.

183.63 185.21m GWE GREYWACKE INTERBED

Green-grey w/ moderate foliation at 45deg and sharp var cts (50&25deg). There is a 8cm qv @ 90deg w/ N.py and N.tour and 10% ab(?). Grain size is coarse sand. Foliation @ 45deg; 100% RQD and recovery.

185.21 188.64m QFP QUARTZ FELDSPAR PORPHYRY

Greyish-brown, massive center w/ greenish well foliated at 35deg edges. There are tr to .5% tour +/- Qtz stringers throughout. There is a 5cm TF xeno. 75% RQD and 100% recovery.

188.64 274.29m TF TUFF

Green-grey w/ strong to moderate banding/foliation at 40deg. Cb occurs mostly as bands(veins), as blebs and pods, possibly boudined v's w/ sparse small (<3mm) vugs. Limonite occurs in about 5% of the fractures. There are local 1-4m zones w/ up to 2% dissem MG throughout. Most qv's and qc v's contain from trace to 10% or 20% black tourmaline as ribbons or pods and occasionally as euhedral crystals (up to about 1cm in length and 1mm dia.) FAULT ZONE FROM 189-192m. Foliation @ 40deg; 95% RQD and 100% recovery.

274.29 279.73m TF MODERATELY FOLIATED ASH(?) TUFF

Fine grained, blueish green, moderately foliated at 45deg w/ about 1% dissem MG. This unit has sharp cts at 45deg and is much finer grained than above unit. This could be a GWE or an ash tuff or ?. There is also a zone of med grained crystal tuff(?) at 278-278.62m w/ sharp 45deg cts. This zone has about 30% 1mm dia white mineral which looks like feldspar and has about 2-3% dissem MG. Well foliated at 45deg too. 100% RQD and recovery.

279.73 324.65m TF MODERATELY FOLIATED TUFF

Green w/ mod foliation at 45deg and strong cb banding as veins and boudins. There are local 1-5m zones w/ up to 3% dissem MG. There is a 20cm zone of qc microveins and stringers at 288.65m @45deg w/ 1% py and a possible speck VG!! About half of the qz and qc veins contain from tr. to 10% tourmaline. Tourmaline/py are cut by qtz/alb in qtz vns and cpy occurs in vn fractures; cb in vn is pervasive. Foliation @ 45deg; 100% RQD and recovery.

324.65 330.65m FP STRAINED FELDSPAR PORPHYRY

FP contact w/ TF @ 50deg. Rock is light green and composed of very strained feldspar phenos, wispy cb and chl. 2-3% qtz vns contain tourmaline (up to 10% in one vn) w/ interlaminated py and blebby albite. Qtz vn composition is similar to TF qtz vns. TF above FP is increasingly chloritic and qtz vns are boudined and deformed. Foliation @ 45deg; 100% RQD and recovery.

330.65 371.20m TF CRYSTAL TUFF

TF contact w/ FP is sharp @ 50deg. Crystal-size frags (15-20%) become coarser w/ depth. Magnetite is rare to absent throughout rock except where it clusters from 315-321m, 10% @ 358m and 5-7% dissem after 366m. Trace to rare py is dissem. Concentration of qtz vns from 331-343m orientated @ 55deg w/ py/tourmaline/albite; 45deg qtz vn w/ py/cpy/mr @ 358m. After 343m qtz vns are rare and occasional vuggy cb vn w/ py. 2-3% cb occurs mostly as vns and minor patches and wisps. Foliation @ 50deg; 95% RQD and 100% recovery.

EOH @ 371.20m.



Report of Work Conducted After Recording Claim

Mining Act

Transaction Number
W9660.00371

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Mining Division, 15th Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.



900

- Instructions:**
- Please type or print and submit in duplicate.
 - Refer to the Mining Act and Regulations for recording.
 - A separate copy of this form must be completed for each Work Group.
 - Technical reports and maps must accompany this form in duplicate.
 - A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s) WESTMIN RESOURCES LIMITED		Client No. 207937
Address 904 - 1055 DUNSMUIR STREET, PO BOX 49066 BENTALL CENTRE VANCOUVER BC V7X 1C4		Telephone No. 604 - 681-2253
Mining Division PORCUPINE	Township/Area LOWER DETOUR LAKE	M or G Plan No. G-1647
Dates Work Performed From: MARCH 1 1996		To: MARCH 16 1996

Work Performed (Check One Work Group Only)

Work Group	Type
<input type="checkbox"/> Geotechnical Survey	
<input checked="" type="checkbox"/> Physical Work, Including Drilling	1 DIAMOND DRILLHOLE 371.20 METRES (DDH 519-064)
<input type="checkbox"/> Rehabilitation	
<input type="checkbox"/> Other Authorized Work	
<input type="checkbox"/> Assays	
<input type="checkbox"/> Assignment from Reserve	

RECORDED
JUL 03 1996
Receipt

Total Assessment Work Claimed on the Attached Statement of Costs \$ **27,432.00**

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
BRADLEY BROS. LTD.	HIGHWAY 101 WEST, PO BOX 485, TIMMINS ON P4N 7E7
BARBARA PIERNA	PLACER DOME CANADA LIMITED: PO BOX 960 TIMMINS ON P4N 7H1

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date 28 June 1996	Recorded Holder or Agent (Signature) Robin Price <i>Placer Dome Canada</i>
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Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.		
Name and Address of Person Certifying PLACER DOME CANADA LIMITED: POBOX 960 TIMMINS ON P4N 7H1		
Telephone No. (705) 267-5400	Date June 28/96	Certified By (Signature) <i>[Signature]</i>

For Office Use Only

Total Value Cr. Recorded \$27,432.00	Date Recorded Oct 1, 1996	Mining Recorder JULY 10, 1996	Received Stamp JUL 3 1996 <i>[Signature]</i>
Deemed Approval Date Oct 1, 1996	Date Approved JULY 10, 1996		
Date Notice for Amendments Sent JULY 9, 1996			



Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use)
W9660.00371

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 6 of the Mining Act, the 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 the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of Work <small>Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.</small>	Cost Per Unit	Total Cost
DIAMOND DRILLING	1 HOLE, 371.20 M	300mX\$49.35/m 71mX\$54.60/m	18,682.00
Associated Costs (e.g. supplies, mobilization and demobilization).			
TRAIL CONSTRUCTION FOR DDH ACCESS			2,500.00
GEOLOGIST WAGES	13.5 DAYS	\$300/DAY	4,050.00
Transportation Costs			
GEO + DRILLER	Food and Lodging Costs 55 DAYS	\$40/DAY	2,200.00
Total Value of Assessment Work			\$27,432

Calculations of Filing Discounts:

Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work. 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.

ie:

Work older than 5 years is not eligible for credit.

The 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.

Verification verifying costs:

PAUL BURCHELL
(please print full name)

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

accompanying Declaration of Work form as SENIOR GEOLOGIST I am authorized
(recorded holder, agent, or state company position with signing authority)

I make this certification:

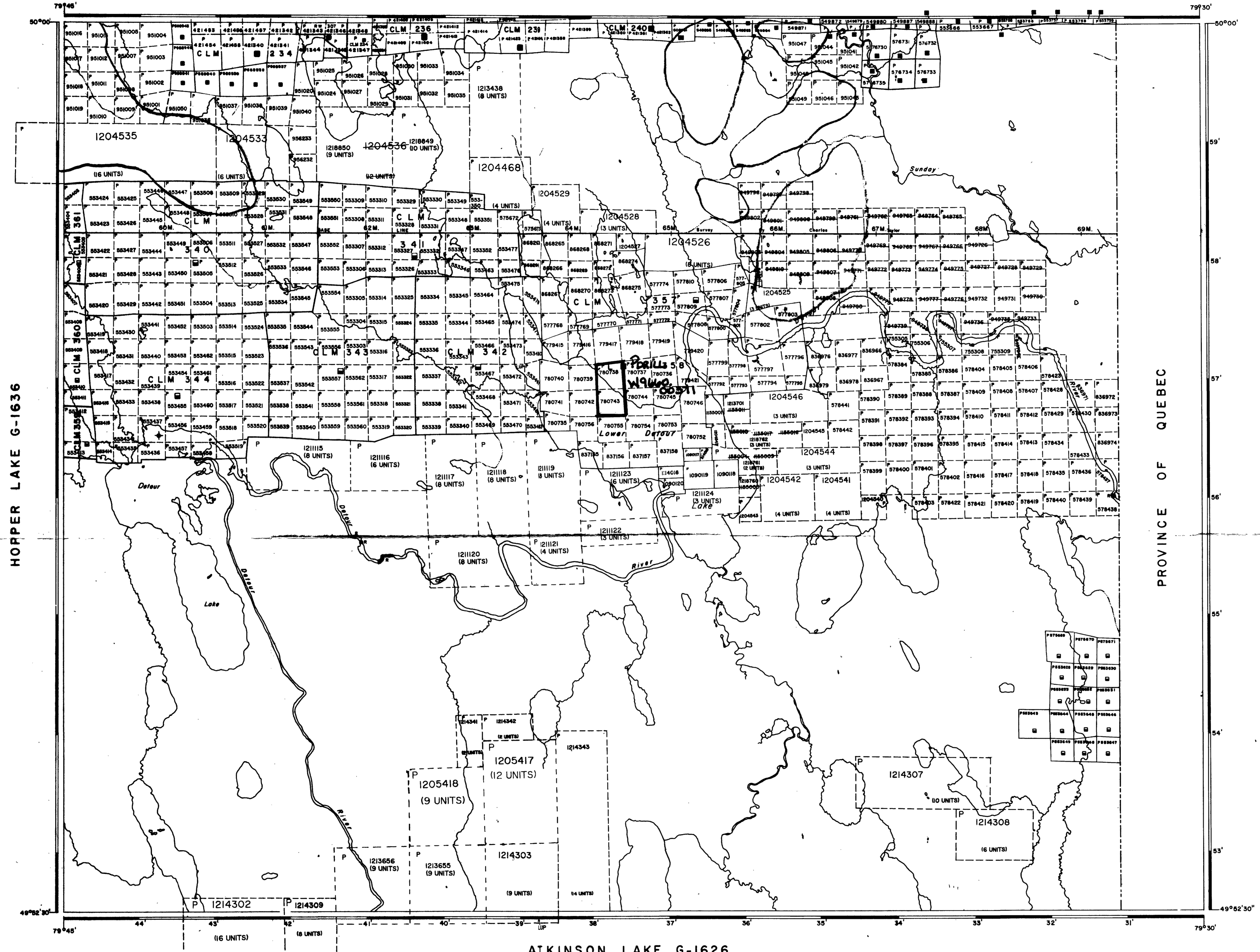
Paul Burchell June 25/96

G-1647

LOWER DETOUR LAKE

G-1647

SUNDAY LAKE G-1677



ATKINSON LAKE G-1626

REFERENCES

- AREAS WITHDRAWN FROM DISPOSITION
- M.R.O. - MINING RIGHTS ONLY
 - S.R.O. - SURFACE RIGHTS ONLY
 - M+S - MINING AND SURFACE RIGHTS
- Description Order No. Date Disposition File

THIS TOWNSHIP SUBJECT TO FORESTRY OPERATIONS IN 1996/97 FURTHER INFORMATION ON FILE

- LUP - LAND USE PERMIT
- RT - REMOTE TOURIST CAMP

LEGEND

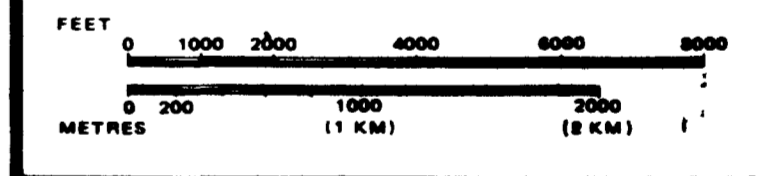
- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES: TOWNSHIPS, BASE LINES, ETC. LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES: LOT LINES
- PARCEL BOUNDARY
- MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION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

DISPOSITION OF CROWN LANDS

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	◗
SAND & GRAVEL	◘

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1912, VESTED IN ORIGINAL PATENTEES BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 280, SEC. 63, SUBSEC. 1.

SCALE: 1 INCH = 40 CHAINS

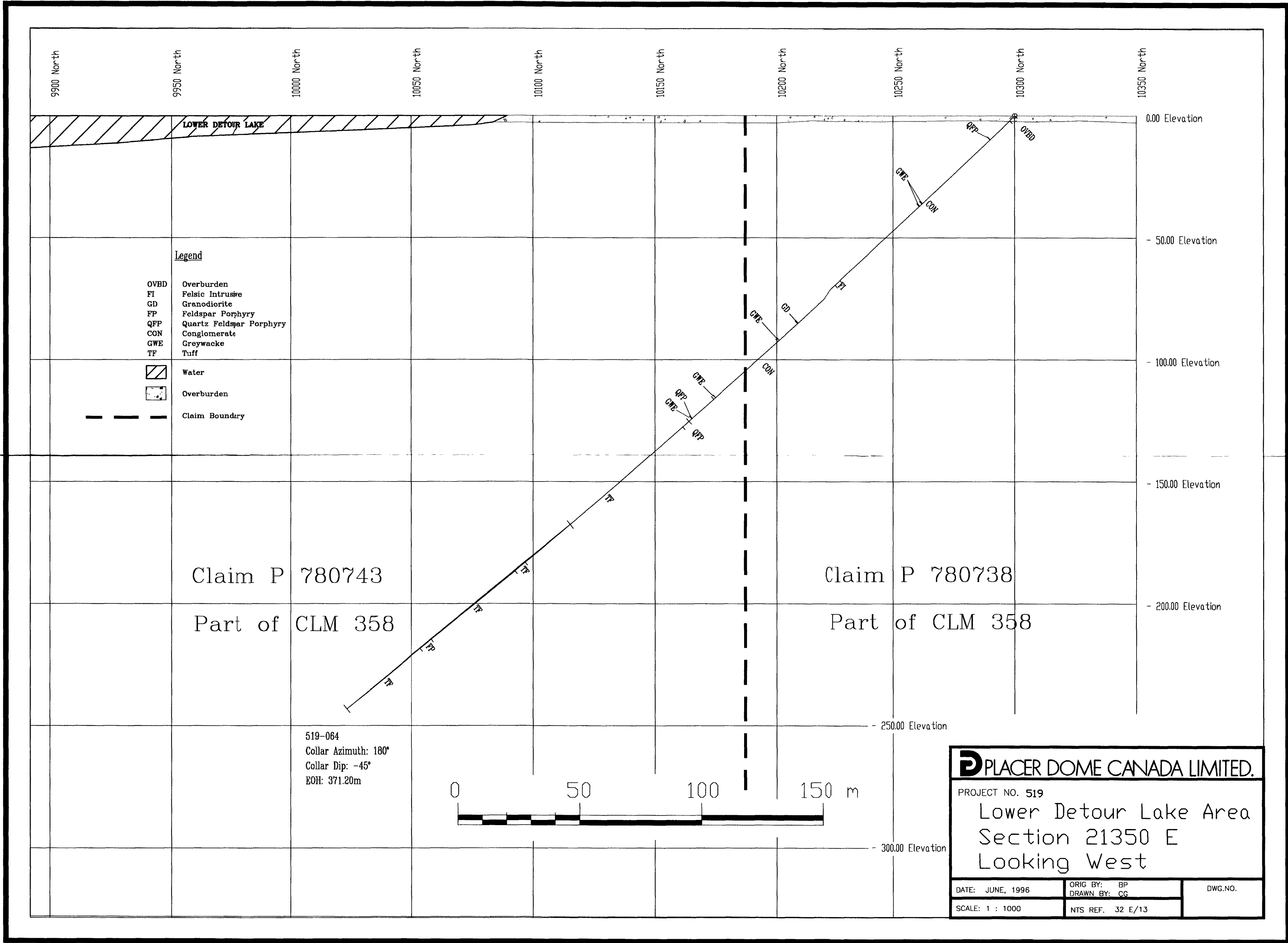


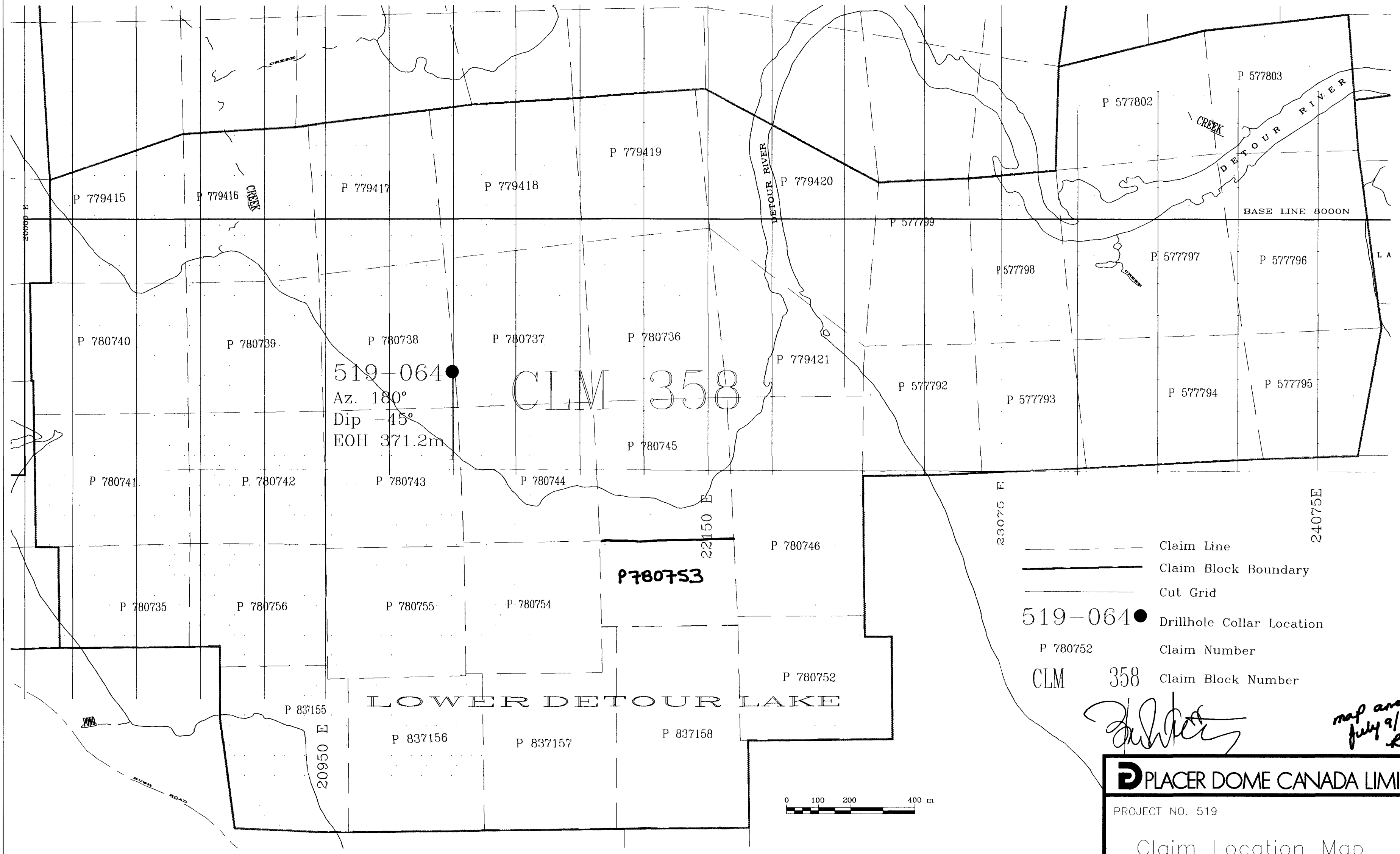
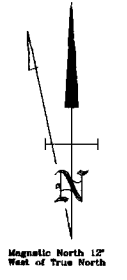
AREA
LOWER DETOUR LAKE
 M.N.R. ADMINISTRATIVE DISTRICT
COCHRANE
 MINING DIVISION
PORCUPINE
 LAND TITLES / REGISTRY DIVISION
COCHRANE



Date: DECEMBER 1982
 ACTIVATED AUG. 16/94 BY: D.C.
 CHECKED BY: **G-1647**

496793





519-064 ●
Az. 180°
Dip -45°
EOH 371.2m

CLM 358

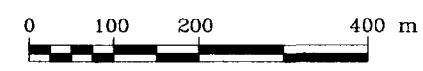
P780753

LOWER DETOUR LAKE

- Claim Line
- Claim Block Boundary
- Cut Grid
- 519-064 ● Drillhole Collar Location
- P 780752 Claim Number
- CLM 358 Claim Block Number

[Handwritten signature]

*map amended
July 9/96
R Price*



D PLACER DOME CANADA LIMITED.

PROJECT NO. 519

Claim Location Map
Lower Detour Lake Area

DATE: JUNE, 1996	ORIG BY: Imw DRAWN BY: cbg	DWG. NO.
SCALE As Shown	NTS REF. 32 E/13	