



**ROYAL OAK
MINES INC.**

DIVISION: TIMMINS

PROJECT: TIMMINS-MICHIE 1623

LOGGED BY: P. Harvey

Peter Harvey
P. Harvey

DATE LOGGED: Oct 22 1997

DRILL HOLE NO: TT 97-10

Surface Grid: NORTHING 2+50s

EASTING 9+00E

ELEVATION 5E

LENGTH 210m

SECTION 9+00E

LEVEL

Engineering Grid: _____

DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP	DIST	AZIM	DIP
0	225	50												
100m	225	52												
200m	225	50												

START DATE: Oct 14 1997

FINISH DATE: Oct 17 1997

TOWNSHIP: TIMMINS

CLAIM NO.: 1193700

DRILLING CONTRACTOR: NDS Drilling

PURPOSE: Test I.P. Anomaly.

RESULTS: Blocky, pyritic feldspar porphyry @ 138.0-140.7 probable cause of IP anomaly

WHY HOLE TERMINATED: Target intersected.

CORE SIZE: BQ

CASING: 28m BW; left intact and capped

HOLE CEMENTED: No.

NO. OF ASSAYS: 54

NO. OF ICP: _____

NO. OF WRA: _____

REJECTS/PULPS SAVED: _____

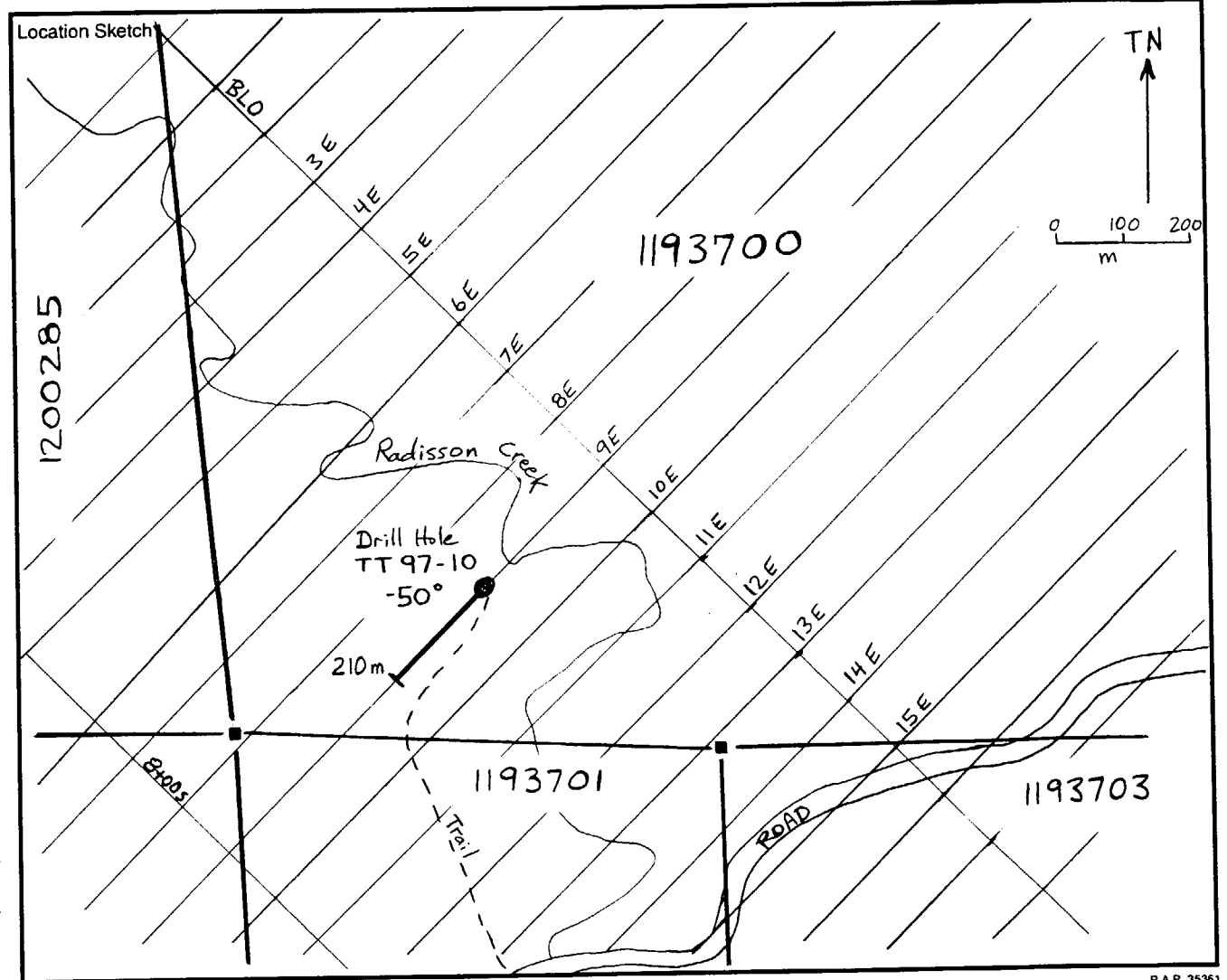
CORE STORED (LOCATION): Hollinger Coresheds, Timmins Ontario.

RECEIVED
 NOV 10 1997
 GEOSCIENCE ASSESSMENT
 (PFC)

2.17922



010



ft
 m

DIST	ID	ROCK DESCRIPTION						STRUCTURE				GANGUE		METALLIC		SAMPLE #	WIDTH	T	<input checked="" type="checkbox"/> AU opt grams	COMMENTS
		Com	Grs	Text	Co	Alt	Name 1	Name 2	B/S	J/F	B	A1	J	A2	Qtz					
28.0							CAS													Casing in sand overburden.
90.9		M	cg	msv	gy		12													Diabase Dike. Coarse grained, massive, magnetic RQD > 95%. 64-66 m blocky, low angle fractures 70-72 m blocky 89.5-90.9 fine grained chill margin, contact at 65°
91.2		S	fg	por	gy	chl	St	S65							AX 46426	0.3	S	.001		Tuffaceous sediment; stg folia @ 65°, felds phenos, chloritic.
93.0		M	mg	msv	or	hem	8fp								427	1.8	S	.001		Red-orange med grained feldspar porphyry, mm scale white-orange K spars tightly packed in fg matrix, 2-5 mm epidote altn patches scattered throughout; few qtz grains, low angle qtz-epi veinlets; tr diss py.
94.5		M	mg	msv	or	hem	8fp								428	1.5	S	.001		As 93.0, blocky sections; hematite staining
95.0		M	mg	msv	or	hem	8fp								429	0.5	S	.001		As 93.0, low angle qtz-epi veinlets.

DIST	ID	ROCK DESCRIPTION						STRUCTURE				GANGUE		METALLIC		SAMPLE #	WIDTH	T	AU opt grams	COMMENTS
		Com	Grs	Text	Co	Alt	Name 1	Name 2	B/S	A1	J	A2	Qtz	Px						
95.0																				
96.5		S	fg	por	gy	chl	St					5		tr		430	1.5	S	.001	Tuffaceous sediment, typical of that seen in previous holes drilled on property. Well banded at 60° CA, alternating chlorite and biotite rich bands on cm scale define unit, 30% feldspar phenocrysts scattered throughout gave porphyritic appearance, 5% gfp lapilli also scattered through. Few qtz veins w epidote alt'd margins where noted. 95.0-96.5 Irregular and low angle qtz veins: w epidote and sericite alt' margins
98.0		S	fg	por	gy	chl	St	S	60							431	1.5	S	.001	As 96.5, 5% mm scale garnets throughout.
99.0		S	fg	por	gy	chl	St	S	60							432	1.0	S	.001	As 96.5, few garnets.
99.5		S	fg	por	gy	chl	St	S	60			5		2		433	0.5	S	.001	As 96.5 cm qtz vein parallel to folia lined w fg py; tr cpy + (2u?).
101.0		S	fg	por	gy	chl	St	S	60							434	1.5	S	.001	As 96.5, few garnets.
102.5		S	fg	por	gy	chl	St									435	1.5	S	.001	As 96.5; locally to 20% mm scale garnets; felsic lapilli common.
104.0		S	fg	por	gy	chl	St	S	60							436	1.5	S	.001	As 96.5.

DIST 104.0	ID	ROCK DESCRIPTION						STRUCTURE				GANGUE		METALLIC		SAMPLE #	WIDTH	T	AU opt grams	COMMENTS
		Com	Grs	Text	Co	Alt	Name 1	Name 2	B/S B	A1	J/F J	A2	Qtz	Py						
105.0		S	fg	por	gy	chl	St									437	1.0	S	.001	As 96.5; lapilli to >3cm
106.5		S	fg	por	gy	chl	St									438	1.5	S	.001	As 96.5
108.0		S	fg	por	gy	chl	St									439	1.5	S	.001	As 96.5, few barren 2-3 cm qtz veins.
109.0		S	fg	por	gy	chl	St					10	5			440	1.0	S	.001	As 96.5, 5x1cm qtz veins, parallel to folia, barren except for vein at 108.5 with massive, fg pyrite throughout.
110.5		S	fg	por	gy	chl	St									441	1.5	S	.001	Typical tuff sed as 96.5
111.5		S	fg	por	gy	chl	St					10	1			442	1.0	S	.001	Irreg qtz veining, tr py, epidote alt.
112.5		S	fg	por	gy	chl	St									443	1.0	S	.001	Typical; biotite rich bands on scale
114.0		S	fg	por	gy	chl	St									444	1.5	S	.001	Typical; blocky 112.8-113.5
132.5		S	fg	por	gy	chl	St	S	60							445	20.0	G	.001	Typical chloritic-biotite well banded tuffaceous sediment; moderately magnetic locally - vfg magnetic and w chlorite rich bands; 2-20% mm garnets throughout. Few cm barren qtz veins parallel to folia.

DIST 132.5	ID	ROCK DESCRIPTION							STRUCTURE				GANGUE		METALLIC		SAMPLE #	WIDTH	T	AU opt grams	COMMENTS
		Com	Gr	Text	Co	Alt	Name 1	Name 2	B	A1	J	A2	Qtz		Py	CP					
134.0		S	fg	por	gy	chl	St						2		tr		446	1.5	S	.001	Similar to above, with several qtz veinlets w bleached + epidote alt'd margins; tr py
135.0		S	fg	por	gy	chl	St						2		tr		447	1.0	S	.001	As 134; blocky RQD = 50%.
136.5		S	fg	por	gy	chl	St						10		1	1	448	1.5	S	.001	Qtz veins, parallel to foli, epidote alt'd margins, tr py; tr cpy veins 1-3cm. RQD = 70%.
138.0		S	fg	por	gy	chl	St						2		1		449	1.5	S	.001	Blocky RQD = 0% mixed interval of tuff sds and porphyry; few qv's tr py
139.5		M	mg	msv	or	hem	8fp						2		2		450	1.5	S	.001	Red-orange (qtz)-feldspar porphyry, 10% mm felds phenos loosely packed in fg red orange matrix. Core very blocky - fractures in chlorite-epidote filled fractures, unit has diss py through matrix; mg py locally in fractures. RQD = 10%, hematite staining.
140.7		M	mg	msv	or	hem	8fp						2		2		451	1.2	S	.001	As 139.5 - Syenite? RQD 20%; pyritic. Interval 138.0-140.7 probable cause of targeted IP anomaly.
142.0		S	fg	por	gy	chl	St										452	1.3	S	.001	Tuff sd as 134.0; grey, blocky, RQD 70%

DIST 142.0	ID	ROCK DESCRIPTION						STRUCTURE				GANGUE		METALLIC		SAMPLE #	WIDTH	T	AU opt grams	COMMENTS
		Com	Gr	Text	Co	Alt	Name 1	Name 2	B	A1	J	A2	Qtz		Py					
143.5		S	fg	por	gy	chl	St									453	1.5	S	.001	Typical tuffaceous sediment, felds phenos, weakly defined folth.
144.8		S	fg	por	gy	chl	St									454	1.3	S	.001	Typical tuff sed.
145.3		S	fg	por	gy	chl	St					2		2	1	455	0.5	S	.001	Typical tuff sed with low angle qtz-epidote fracture (thematid) with cg cpy.
147.0		S	fg	por	gy	chl	St					5		1		456	1.7	S	.001	Typical tuff sed. 3x2 cm white qtz veins; tr py, epidote altit.
152.5		S	fg	por	gy	chl	St	S	60							457	5.5	G	.001	Typical chloritic tuffaceous sediment, well bedded at 60°, locally garnet rich, scattered felsic lapilli.
153.0		S	fg	por	gy	chl	St					10		1		458	0.5	S	.001	Irreg qtz lined w 1% py; epidote altit.
154.0		S	fg	por	gy	chl	St									459	1.0	S	.001	Tuff sed. felds phenos.
155.4		S	fg	por	gy	chl	St	S	60							460	1.4	S	.001	Tuff sed. locally 5% garnets,
156.0		M	mg	msv	or	hem	8fp									461	0.6	S	.001	Interval of feldspar porphyry, tr -1% diss py; epidote alt'd fractures; orange-green color.

DIST	ID	ROCK DESCRIPTION							STRUCTURE				GANGUE		METALLIC		SAMPLE #	WIDTH	T	AU opt grams	COMMENTS
		Com	Grs	Text	Co	Alt	Name 1	Name 2	B/S B	J/F A1	J J	A2	Qtz	Py							
156.0																					
157.5		S	fg	por	gy	chl	St					2		1			462	1.5	S	.001	Typical tuffaceous sediments, irreg qtz fractures, veining, w tr-lit. py.
159.0		S	fg	por	gy	chl	St										463	1.5	S	.001	tuff sed, felsic lapilli, bleached fractures.
160.5		S	fg	por	gy	chl	St										464	1.5	S	.001	As 159.0
162.0		S	fg	por	gy	chl	St					10					465	1.5	S	.001	As 159, cut by 30 cm qtz-epi veining, barren.
163.1		S	fg	por	gy	chl	St										466	1.1	S	.001	As 159, bleached fractures, 10 cm qtz-epi veining, barren.
163.8		M	mg	msv	or	hem	8fp					2	2				467	0.7	S	.001	Narrow interval feldspar porphyry, pale orange, lit. diss py, pale orange-green, massive, as 156.0.
165.0		S	fg	por	gy	chl	St										468	1.2	S	.001	Typical chloritic tuffaceous sediment, few lapilli; feldspar phytic.
166.5		S	fg	por	gy	chl	St										469	1.5	S	.001	chlorite-biotite, feldspar phenocrysts; qtz-epi fractures.
168.0		S	fg	por	gy	chl	St										470	1.5	S	.002	As 166.5
168.6		S	fg	por	gy	chl	St										471	0.6	S	.001	As 166.5

DIST	ID	ROCK DESCRIPTION						STRUCTURE				GANGUE		METALLIC		SAMPLE #	WIDTH	T	AU opt grams	COMMENTS
		Com	GrS	Text	Co	Alt	Name 1	Name 2	B	A1	J	A2								
173.0		M	mg	msv	gy		12										4.4			Diabase dike; fq chill margins, coarser in central portion; msv, RAD 90%.
177.3		S	fg	por	gy	chl	5t		S	60						472	4.3	G	.001	Dark green-grey chloritic tuffaceous sediment, 5-10% scattered feldspar phenocrysts, bleached fractures.
178.3		S	fg	por	gy	chl	5t									473	1.0	S	.001	As 177.3, cm qtz vein w py at 177.8
180.0		S	fg	por	gy	chl	5t									474	1.7	S	.001	As 177.3, qtz-epidote fracturing 179.1-179.2
187.0		S	fg	por	gy	chl.	5t									475	7.0	G	.001	Typical tuff sediment as at 177.3; interval 186-186.5 weakly developed chloritic, Banded Iron Formation
188.0		S	fg	por	gy	chl	5t									476	1.0	S	.001	As 177.3; 5cm qtz-epi vein at 187.5.
198.0		S	fg	por	gy	chl	5t		S	60						477	10.0	G	.001	As 177.3 dark green-grey, chloritic tuff sediments, qtz lapilli; qtz-epidote fractures.
198.3		M	mg	msv	or		8fp									478	0.3	S	.001	Narrow interval of feldspar porphyry; altered wallrock into adjacent sediments
210.0		S	fg	por	gy	chl	5t									479	11.7	G	.001	Typical, chloritic tuffaceous sediments as 177.3, barren 5cm qtz vein at 203.0m.
END																				



Declaration of Assessment Work Performed on Mining Land

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

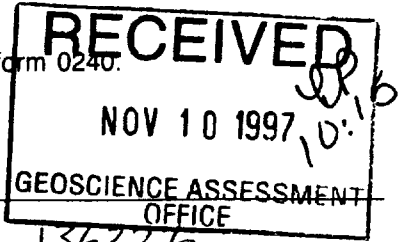
Transaction Number (office use)
09760-00560
Assessment Files Research Imaging

Personal information Mining Act, the infor Questions about th 933 Ramsey Lake R



d 66(3) of the Mining Act. Under section 8 of the work and correspond with the mining land holder. Northern Development and Mines, 6th Floor,

900



Instructions: - Please type or print in ink.

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

Name: ROYAL OAK MINES INC.
Address: P.O. BAG 2010, TIMMINS, ONT. P4N 7X7
Client Number: 136226
Telephone Number: 705-360-1141
Fax Number: 705-360-1532

2. 17922

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

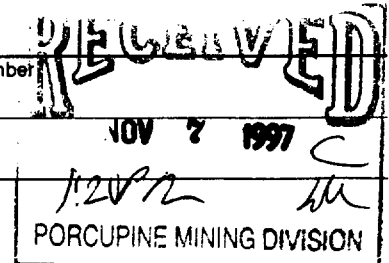
- Geotechnical: prospecting, surveys, assays and work under section 18 (regs)
Physical: drilling, stripping, trenching and associated assays
Rehabilitation

Work Type: Diamond Drilling
Office Use
Commodity
Total \$ Value of Work Claimed: 16,242
Dates Work Performed: From 13 10 1997 To 5 11 1997
Township/Area: Timmins Twp.
M or G-Plan Number: M-314
Mining Division: Timmins
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: Peter Harvey
Address: c/o Royal Oak Mines Inc. - as above
Telephone Number: 705-360-1141
Fax Number: 705-360-1532



4. Certification by Recorded Holder or Agent

I, Peter G. Harvey, 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: Peter Harvey
Date: Nov 7 '97
Agent's Address: c/o Royal Oak Mines as above
Telephone Number: 360-1141
Fax Number: 360-1532

Labruax above 05/98

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

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 work to be distributed at a future date.
eg TB 7827	16 ha	\$26,825	N/A	\$24,000	\$2,825
eg 1234567	12	0	\$24,000	0	0
eg 1234568	2	\$8,892	\$4,000	0	\$4,892
1 1193700	16	16,242	6400	9600 PH	242 ✓
2 1193701	8		3200 ✓		
3 1193703	16		6400 ✓		
4					
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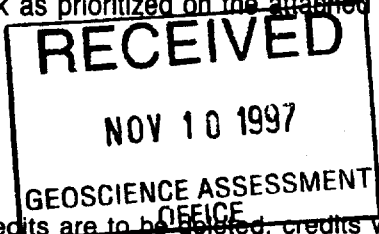
I, Peter G. Harvey (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing Peter Harvey Date Nov 7 97

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



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, 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.

Table with 4 columns: Work Type, Units of Work, Cost Per Unit of work, Total Cost. Rows include Diamond Drilling, Core Boxes, Assays, Labor - Geologist, Labor - Technician, Associated Costs (e.g. supplies, mobilization and demobilization), Core Processing, Transportation Costs (Truck Rental and Gas), Food and Lodging Costs, and Total Value of Assessment Work.

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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, Peter Harvey, 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.

RECEIVED NOV 7 1997 DIVISION

Signature: Peter Harvey Date: Nov 7 97

January 28, 1998

Peter Harvey
ROYAL OAK MINES INC.
P.O. Bag 2010
Timmins, Ontario
P4N-7X7 Can.

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

Telephone: (888) 415-9846
Fax: (705) 670-5881

Dear Sir or Madam:

Submission Number: 2.17922

Status

Subject: Transaction Number(s): W9760.00560 Deemed 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.

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 Steve Beneteau by e-mail at benetest@epo.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,



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

Work Report Assessment Results

Submission Number: 2.17922

Date Correspondence Sent: January 28, 1998

Assessor: Steve Beneteau

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9760.00560	1193700	TIMMINS	Deemed Approval	January 26, 1998

Section:
16 Drilling PDRILL

Correspondence to:
Resident Geologist
South Porcupine, ON

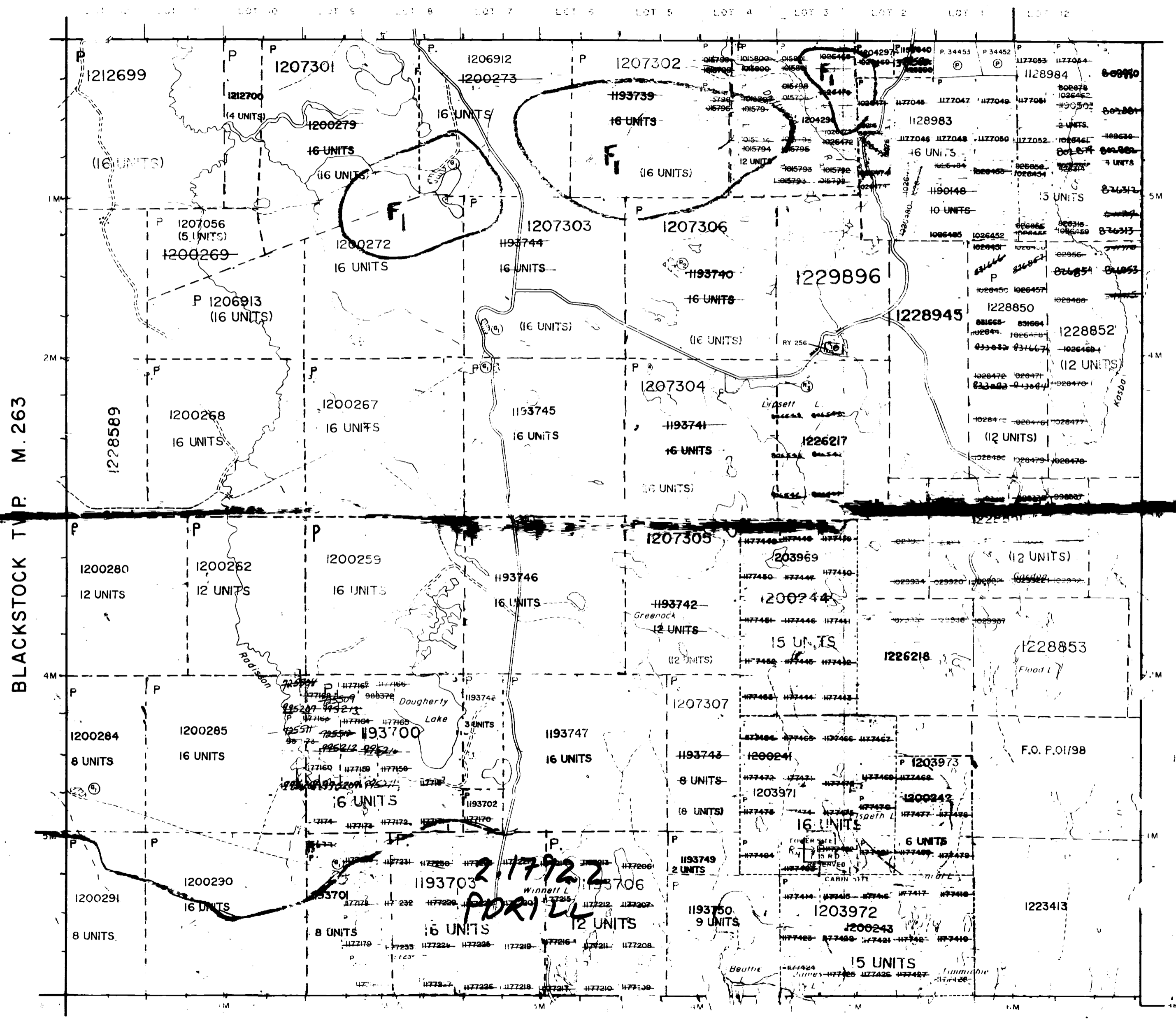
Recorded Holder(s) and/or Agent(s):
Peter Harvey
ROYAL OAK MINES INC.
Timmins, Ontario

Assessment Files Library
Sudbury, ON



SHERATON TWP. M. 386

EGAN TWP. M. 346



NOTES

400' surface rights reservation along the shores of all lakes and rivers.

Areas withdrawn from staking under Section 43 of the Mining Act, R.S.O. 1970.

Order No.	File	Date	Disposition
W. 67/77	192164	28/6/77	S.R.O.
W. 86/77	188543	27/10/77	S.R.O.
W. 19/78	188543	10/10/78	S.R.O.
W. 34/85	188543	10/1/85	S.R. + M.R.

SAND and GRAVEL

Quarry Permit

THIS TWP. IS SUBJECT TO FOREST ACTIVITY IN 1995/96. FURTHER INFORMATION IS AVAILABLE ON FILE.

LEGEND

- PATENT LAND (P) or (P)
- LEASE (L)
- LICENSE OF OCCUPATION (L.O.)
- CROWN LAND SALES (C.S.)
- LOCATED LAND (Loc.)
- CANCELLED
- MINING RIGHTS (M.R.)
- SURFACE RIGHTS (S.R.)
- HIGHWAY & ROUTE NO. (Hwy)
- ROADS
- TRAILS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKET
- MINES

DATE OF ISSUE

JAN 29 1998

PROVINCIAL RECORDING OFFICE - SUDBURY

TOWNSHIP OF TIMMINS

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE 1 INCH = 40 CHAINS (1/2 MILE)

DATE: MARCH 7 1998 PLAN NO. M.314

MINISTRY OF NATURAL RESOURCES SURVEY AND MAPS BRANCH

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

MICHIE TWP. M. 301

CLAIM
1193700

DRILL HOLE
TT 97-10

$\alpha = 225^\circ$

-50°

OVERBURDEN

1197-10
END
210 m

LEGEND

- 12 Diabase Dike
- St Tuffaceous Sediment (chlorite-Biotite + Garnet Schist)
- Bfp Feldspic Porphyry

