

P. Christopher

Property File

82 E NW 066

000995

ENGINEER'S REPORT
AND
PRO-FORMA STATEMENTS
RE: SWAN GROUP
SILICA DEPOSIT

Okanagan Silica Ltd.
2050 - 777 Hornby St.
Vancouver 1, B. C.

684-2820

January 20, 1972

OKANAGAN SILICA LTD.

Office

2050 - 777 Hornby Street
Vancouver 1, B.C.
Ph. 684-2820

Directors

Herman O. Planck, President
Oskar Sikorsky
John Schoonderwoerd

Authorized Capital

300,000 Shares of a Par
* Value of \$1.00 - each

Number of Shares Issued

100,000 Shares

Solicitor

Gordon Alvin Hazlewood
2050 - 777 Hornby Street
Vancouver 1, B.C.

REPORT ON SWAN GROUP OF CLAIMS
LEASE OF OKANAGAN SILICA LTD.
OSOYOOS, M. D.

INTRODUCTION:-

The writer examined a large outcrop of quartz on these claims on October 24th. The purpose of the trip was primarily to determine whether quartz of marketable grade could be obtained. H. Plank took the writer to the property and acted as guide. As owner of the property and President of OKANAGAN SILICA LTD. he requested the examination and report.

Old posts were seen on the property but to the writer's knowledge there is no written account of the occurrence.

SUMMARY:-

There is on the Swan group an easily minable outcrop of quartz of unknown total size, but definitely of sufficient size to maintain production at a rate of 35,000 tons per year for ten years or more. With the exception of the south and west boundaries it appears to be almost entirely free of any impurities and could probably be used for most purposes*, as indicated hereafter under market possibilities.

The most lucrative market, however, appears to be in its use in the construction industry which is a growing market. Assuming costs conservatively set at twice those apparently obtained at a similar operation during the last 15 years, and assuming a 35,000 ton per year average demand at prices quoted for stucco dash, roof gravel, and similar items, there is indicated to be a very substantial profit potential which leaves considerable room for error in the estimates.

* See Memorandum 134 1956, The Canadian Silica Industry, R. K. Collins, DEPARTMENT OF MINES AND TECHNICAL SURVEYS, OTTAWA.

Even at as little as 5,000 tons per year demand there is enough profit in site to pay for the required investment, at the same time providing a generally acceptable rate of interest for ventures of this nature.

PROPERTY, LOCATION, AND ACCESSIBILITY:-

The group consists of 4 claims, the Swan # 1 to Swan # 4, record numbers 27495 to 27498 with an anniversary date of January 4th. They are presently in good standing until January 4th, 1973, as a result of road work recently completed to the bottom of the quartz outcrop.

The property lies approximately 17 miles by gravel and dirt road northwest of Summerland, and 11 miles north of a railroad siding at Faulder on the Canadian Pacific Railway. The road is generally good but there is 1/2 mile of steep rocky road on which it is advisable to use four-wheel drive vehicles or heavy trucks.

The property is more precisely located at co-ordinates 49° 43' N. latitude, 119° 54' W. longitude at elevation 4,300 feet. It is 1-1/2 miles west of Darke Lake.

PHYSIOGRAPHY:-

In the vicinity of the showings the topography is moderately steep but the hills are rounded and there are flat benches. The climate is inclined to be humid and fairly cool at this elevation and there is no distinct dry season as in the Okanagan Valley to the east. Snow starts to fly intermittently in late November, is heaviest during January and February and remains on the ground until the end of April. It probably never is deeper than two feet. Average monthly temperatures probably range from about 10 above in January to about

75 above in July. It is therefore possible to operate all year once a good road has been completed and necessary facilities are provided at the property.

Timber is generally non-commercial in size and consists of fir and jackpine. There is practically no underbrush.

The quartz outcrop is such that it will be easily mined by benching.

GEOLOGY:-

The occurrence of interest is a large "blowout" or lens of quartz, erupting boldly from the top of a northeasterly draining but usually dry slope. The strike and dip are indeterminate as the quartz appears to terminate on both the north and west boundaries whereas the south and east boundaries are hidden by overburden. Actually only a small part of the north boundary is exposed and this appears to dip into the hill obliquely. However, down the slope, the quartz may continue in this direction but there is no quartz float to indicate it. The south boundary of the outcrop has been placed at the south boundary of abundant large float. The east boundary plunges under the overburden at a steep angle.

The dimensions between boundaries are 380 feet horizontally north-south and about 300 feet east-west down the slope of the hill. Major fracturing is at north 30 degrees east, dipping about 30 degrees west.

The quartz appears to be quite pure from the north end for about 2/3 of its length towards the south end and about the same from the east end. The west and south margins appear to carry varying small amounts of orthoclase and sericite. A little pale rust was seen close to the west contact but no rust or sulphides were seen elsewhere in the quartz.

A sample weighing approximately 15 pounds and made up of small chips picked up or chipped off this outcrop by the writer from the north boundary southerly along the central portion of the outcrop for 300 feet assayed 98.93% Si O₂, 0.67% AL₂O₃, 0.033% FE₂O₃, 0.09% CaO, 0.07% MgO. The balance of 0.207% is probably all K₂O.

The quartz appears to lie within a mass of siliceous granodiorite judging from the prevailing float, on all sides. There are obviously other outcrops of quartz but no extensive areas of float were seen that would suggest another of the size of the one under discussion. However over much of the area there is no float of any kind and bedrock is probably deeply buried. Statistically other large bodies of quartz could easily occur as the geology apparently favours it.

Lacking proof of continuity in any direction it has to be assumed that this is another large quartz lens similar to the one worked on at Oliver by Pacific Silica Limited. It is apparently in the same rock formation and appears to be similar in other respects.

TONNAGE POSSIBILITIES:-

The surface area of plus 9,000 square feet indicated by the outcrop would provide about 7,500 tons of quartz per foot of depth. Hence a depth equal to the difference in elevation of the top and bottom boundaries, assuming a vertical back and side walls would provide about 750,000 tons.

Unless the occurrence dips with the hill which does not seem likely from the one dip seen on the north-west corner, there is therefore a block containing at least 750,000 tons of quartz that can be considered as reasonably assured. If the depth equals the

horizontal dimensions this could be increased to about 2,000,000 tons. Assuming a 30 degree dip into the hill, as suggested by the one dip seen, about 1,500,000 tons could be obtained by the removal of about 60,000 yards of overburden. At 35,000 tons per year a ten year supply of quartz of the grade indicated by the sample seems pretty well assured and is adequate to justify the expenditure necessary to commence production.

MARKET POSSIBILITIES:-

Preliminary investigations by Mr. Plank indicate that there is a possible market for about 5,000 tons minimum a year in the Vancouver area for stucco dash, roof gravel, and sand for sand blasting at \$24.00 to \$28.00 a ton delivered in Vancouver. This market could probably be expanded and the specifications, principally relating to colour and tenacity, to be met for stucco dash and roof gravel, could easily be met by this deposit. Sand of the proper dimensions for sand blasting would probably have to meet more rigid specifications and would have to pass the necessary tests before it could be accepted.

\$9/Ton SHIPPING TO VAN.

A glass plant at Vernon apparently requires about 98.5% SiO₂, a grade that could probably be guaranteed by selective mining or use of a sorting belt.

It is understood that Union Carbide were taking two to three carloads a week from Pacific Silica at Oliver, the year round at a price ranging between \$10.00 and \$12.00 a ton f.o.b. mine. It is further understood that freight to Rock Island, Washington totalled about \$6.50 a ton and that the operation was quite successful on the basis of an annual gross cash flow of about \$300,000.00 a year.

As the property under discussion is quite similar it would appear possible to obtain a somewhat similar outcome even allowing for a longer haul which would probably raise the freight charges by about 60¢ a ton.

However, until such time as production costs can be lowered sufficiently to meet these prices the more lucrative market available within the construction industry and possibly the nearby glass industry should be cultivated.

The initial costs are hereafter estimated to be about \$16.00 a ton which would leave room for a good profit per ton on material bringing in \$24.00 to \$28.00 a ton, the price apparently obtainable for quartz for construction uses in Vancouver, B. C. If the market for other silica products increased sufficiently in the Vancouver area and the company acquired its own distributing facilities a greater profit would probably result but this cannot be considered at the present time.

Other uses for silica, prices, specifications, etc. are given in a pamphlet issued annually by "The Mineral Resources Branch, Department of Energy, Mines and Resources, Ottawa," and also in a pamphlet called "The Canadian Silica Industry" issued in 1956 by the then Industrial Minerals Division of the Department of Mines and Technical Surveys, Mines Branch.

Among the uses listed are the manufacture of nine grades of glass, silica flux, silicon and silicon alloys, silica brick, aggregates, silicon carbide, sodium silicate. It is used for hydraulic fracturing and for foundry sand. Among minor uses are the use of silica sand for sand blasting and in the manufacture of sandpaper and in water-treatment plants as a filtering medium.

Silica flour produced by the fine grinding of quartzite, sandstone or lump quartz is used in the ceramics industry, for enamels and as an inert filler in rubber and asbestos cement products, as an extender in paints and an abrasive agent in soaps and scouring pads.

There does not appear to be sufficient demand to warrant local manufacture of any of these products in Western Canada as yet. However the demand for high quality silica has been increasing and there is no reason why Canada should have to import this material when there are deposits within her boundaries close to settled areas that, with the proper beneficiation, can be utilized.

The grade of the quartz on the Swan group as indicated in one 15 pound sample would meet the requirements of many of the uses and one or more of these uses may provide a future outlet for it.

APPROXIMATE COST PROJECTION:-

More research is necessary before a realistic cost to put the property on production can be determined, as second hand equipment may be available at prices that can be negotiated. The quantity to be processed will depend on the market for the product and will have a bearing on the plant cost and cost per unit produced. Obviously the operation should be set up in such a manner that it can commence operation on a small scale which could be enlarged as the market expanded.

The essential equipment would consist of a rock drill, a 200 c.f.m. compressor, a 10 to 15 ton dump-truck, loader, complete crushing plant for sized products including perhaps a 20 to 60 mesh screen for blasting sand if the specifications can be met, possibly some conveying equipment and a lighting plant. A few small frame

buildings including a machine shop, change house and dry small heating plant, power house, sacking and storage shed would be all that would be required if the men were to commute from town as is assumed.

New equipment would cost about as much as follows:

Rock drill and 200 c.f.m. compressor	\$ 15,000
15-ton dump-truck ✓	19,000
Front-end loader ✓	34,000
Crushing Plant ✓	65,000
Conveying system ✓	6,000
Lighting Plant	5,000
Miscellaneous tools ✓	3,000
Garage and repair shop and general purpose frame building say	15,000
Working Capital	20,000
	<hr/>
	\$ 182,000
	<hr/> <hr/>

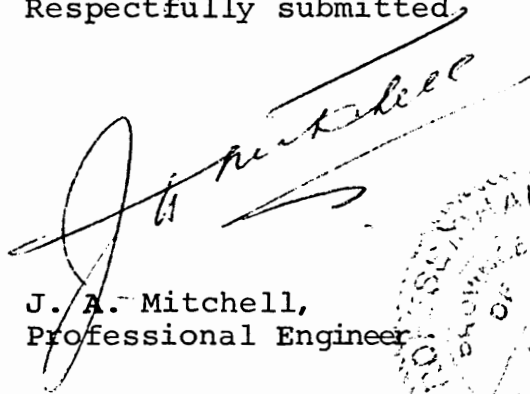
By judicious purchase of used equipment suitable for the job this cost estimate could be reduced by as much as \$100,000 and possibly more and for present purposes a figure of \$100,000 including installation of a crushing plant will be used having in mind that the operation can start up on a small scale for much less.

Operating costs on a 5,000 ton annual production rate are estimated at \$18.00 a ton, which is a much higher figure than apparently obtained by Pacific Silica and therefore considered to have sufficient built-in safety factors. It is based on a pay-roll of 6 to 8 men for a minimum 100 t.p.d. operation. It includes \$4.00

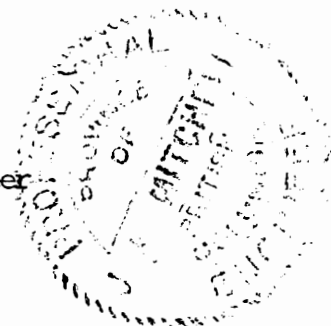
a ton for mining, \$10.00 a ton for trucking and storage, \$2.00 a ton for administration, overhead, royalties and interest charges and \$2.00 a ton for maintenance and operation of equipment.

Thus if a price of \$28.00 a ton can be obtained as seems possible there is in sight a profit of \$10.00 a ton or about \$3,500,000 on 350,000 tons of reasonably assured quartz. The present value of this acquired at a uniform rate over a ten year period at generally acceptable rates of risk interest would be about \$1,500,000 or about seven times the amount required to set-up a 35,000 ton per year operation.

Respectfully submitted,



J. A. Mitchell,
Professional Engineer



Vancouver, B. C.

January 12, 1972

Ernst Bauer

CHARTERED ACCOUNTANT
2050 - 777 HORNBY STREET
VANCOUVER 1, B.C.

688-8721

January 19, 1972

To the Directors
Okanagan Silica Ltd.

Enclosed herewith are projections of operations of the Company's
Swan Group quartz deposit.

- Schedules 1, 2, & 3 - Pro-forma statements of
income based on varying
levels of production.

- Schedule 4 - Assumptions underlying
pro-forma statements
of income.

- Schedule 5 - Pro-forma statements of
cash flow based on vary-
ing levels of production.



Chartered Accountant

SCHEDULE 1

OKANAGAN SILICA LTD.

PRO-FORMA STATEMENT OF INCOME

BASED ON ANNUAL PRODUCTION OF 3,000 TONS

	<u>Stucco - Dash</u>	<u>Roofing Gravel</u>	<u>Sand for Sand Blasting</u>	<u>Total</u>
<u>SHIPMENTS (Tons)</u>	1,500	500	1,000	3,000
<u>REVENUE</u>	\$ 42,000	\$ 12,500	\$ 28,000	\$ 82,500
<u>COST OF SALES</u>				
Drilling & blasting	3,600	1,100	2,000	6,700
Quarrying, crushing & screening	4,500	1,600	2,500	8,600
Washing, final screening & storage	5,200	400	5,500	11,100
Freight to destination	12,000	4,000	8,000	24,000
	25,300	7,100	18,000	50,400
<u>GROSS PROFIT</u>	\$ 16,700	\$ 5,400	\$ 10,000	32,100
<u>ADMINISTRATIVE, GENERAL & MARKETING EXPENSE</u>				12,000
<u>OPERATING PROFIT BEFORE POSSIBLE LUMP SILICA PROFITS AND FINANCIAL EXPENSES</u>				\$ 20,100

The assumptions underlying this Pro-forma Statement of Income are shown on Schedule # 4.

OKANAGAN SILICA LTD.PRO-FORMA STATEMENT OF INCOMEBASED ON ANNUAL PRODUCTION OF 5,000 TONS

	<u>Stucco - Dash</u>	<u>Roofing Gravel</u>	<u>Sand for Sand Blasting</u>	<u>Total</u>
<u>SHIPMENTS (Tons)</u>	2,500	1,000	1,500	5,000
<u>REVENUE</u>	\$ 70,000	\$ 25,000	\$ 42,000	\$ 137,000
<u>COST OF SALES</u>				
Drilling & blasting	4,400	1,770	2,650	8,820
Quarrying, crushing & screening	5,500	2,200	3,300	11,000
Washing, final screening & storage	6,500	600	7,650	14,750
Freight to destination	20,000	8,000	12,000	40,000
	36,400	12,570	25,600	74,570
<u>GROSS PROFIT</u>	\$ 33,600	\$ 12,430	\$ 16,400	62,430
<u>ADMINISTRATIVE, GENERAL & MARKETING EXPENSE</u>				17,000
<u>OPERATING PROFIT BEFORE POSSIBLE LUMP SILICA PROFITS & FINANCIAL EXPENSES</u>				\$ 45,430

The assumptions underlying this Pro-forma Statement of Income are shown on Schedule # 4.

SCHEDULE 3OKANAGAN SILICA LTD.PRO-FORMA STATEMENT OF INCOMEBASED ON ANNUAL PRODUCTION OF 7,000 TONS

	<u>Stucco - Dash</u>	<u>Roofing Gravel</u>	<u>Sand for Sand Blasting</u>	<u>Total</u>
<u>SHIPMENTS</u> (Tons)	3,500	1,500	2,000	7,000
<u>REVENUE</u>	\$ 98,000	\$ 37,500	\$ 56,000	\$ 191,500
<u>COST OF SALES</u>				
Drilling & blasting	5,200	2,440	3,300	10,940
Quarrying, crushing & screening	6,500	2,800	4,100	13,400
Washing, final screening & storage	7,800	800	9,800	18,400
Freight to destination	28,000	12,000	16,000	56,000
	47,500	18,040	33,200	98,740
<u>GROSS PROFIT</u>	\$ 50,500	\$ 19,460	\$ 22,800	92,760
<u>ADMINISTRATIVE, GENERAL & MARKETING EXPENSE</u>				22,000
<u>OPERATING PROFIT BEFORE POSSIBLE LUMP SILICA PROFITS AND FINANCIAL EXPENSES</u>				\$ 70,760

The assumptions underlying this Pro-forma Statement of Income are shown on Schedule # 4.

OKANAGAN SILICA LTD.

ASSUMPTIONS UNDERLYING THE PRO-FORMA

STATEMENT OF INCOME

1. Volume of sales or production were taken to be at levels which are considered substantially below the estimated annual marketable production. For the purpose of this projection sales considered attainable in the Vancouver area only were used. Other markets throughout Canada and Western United States of America are available.
2. Revenues per ton for each class of product sold are based on prices actually paid by the wholesalers F.O.B. Vancouver; \$28.00 per ton for stucco-dash and sand blasting; \$25.00 per ton for roofing gravel.
3. Operating costs are based on the greater of costs charged by outside contractors for their services, or actual operating costs incurred by a company which worked on a similar deposit in the Okanagan area plus 50%. Freight charges shown are actual rates per ton currently in effect.
4. Charges for administrative, general and marketing expenses are estimates considered reasonable for this type of operation.
5. Additional revenue is possible and attainable from sale of other products subject to the deposit being of sufficient quality. Some of the additional products are outlined in an engineering report prepared by Mr. J. A. Mitchell, P. Eng. dated January 12, 1972.

OKANAGAN SILICA LTD.

PRO-FORMA STATEMENT OF ANNUAL CASH FLOW

	<u>YEAR 1</u>	<u>YEAR 2</u>	<u>YEAR 3</u>
<u>PRODUCTION BASE - 3,000 tons/annum</u>			
Cash on hand - opening balance	\$ -	\$ 8,100	\$ 16,200
Operating profit before lump silica profits & financial expenses (Sch.1)	20,100	20,100	20,100
	20,100	28,200	36,300
Dividends to shareholders (Note 1)	12,000	12,000	12,000
<u>CASH ACCUMULATED IN BUSINESS BEFORE TAXES</u>	\$ 8,100	\$ 16,200	\$ 24,300
 <u>PRODUCTION BASE - 5,000 tons/annum</u>			
Cash on hand - opening balance	\$ -	\$ 33,430	\$ 66,860
Operating profit before lump silica profits & financial expenses (Sch.2)	45,430	45,430	45,430
	45,430	78,860	112,290
Dividends to shareholders (Note 1)	12,000	12,000	12,000
<u>CASH ACCUMULATED IN BUSINESS BEFORE TAXES</u>	\$ 33,430	\$ 66,860	\$ 100,290
 <u>PRODUCTION BASE - 7,000 tons/annum</u>			
Cash on hand - opening balance	\$ -	\$ 58,760	\$ 117,520
Operating profit before lump silica profits & financial expenses (Sch.3)	70,760	70,760	70,760
	70,760	129,520	188,280
Dividends to shareholders (Note 1)	12,000	12,000	12,000
<u>CASH ACCUMULATED IN BUSINESS BEFORE TAXES</u>	\$ 58,760	\$ 117,520	\$ 176,280

- Note:
- 1) It is assumed that \$100,000 can be raised by sale of 50 units of \$2,000 each with an annual return of 12%.
 - 2) It is assumed that funds raised equal cost of equipment to be purchased.

MARKETS

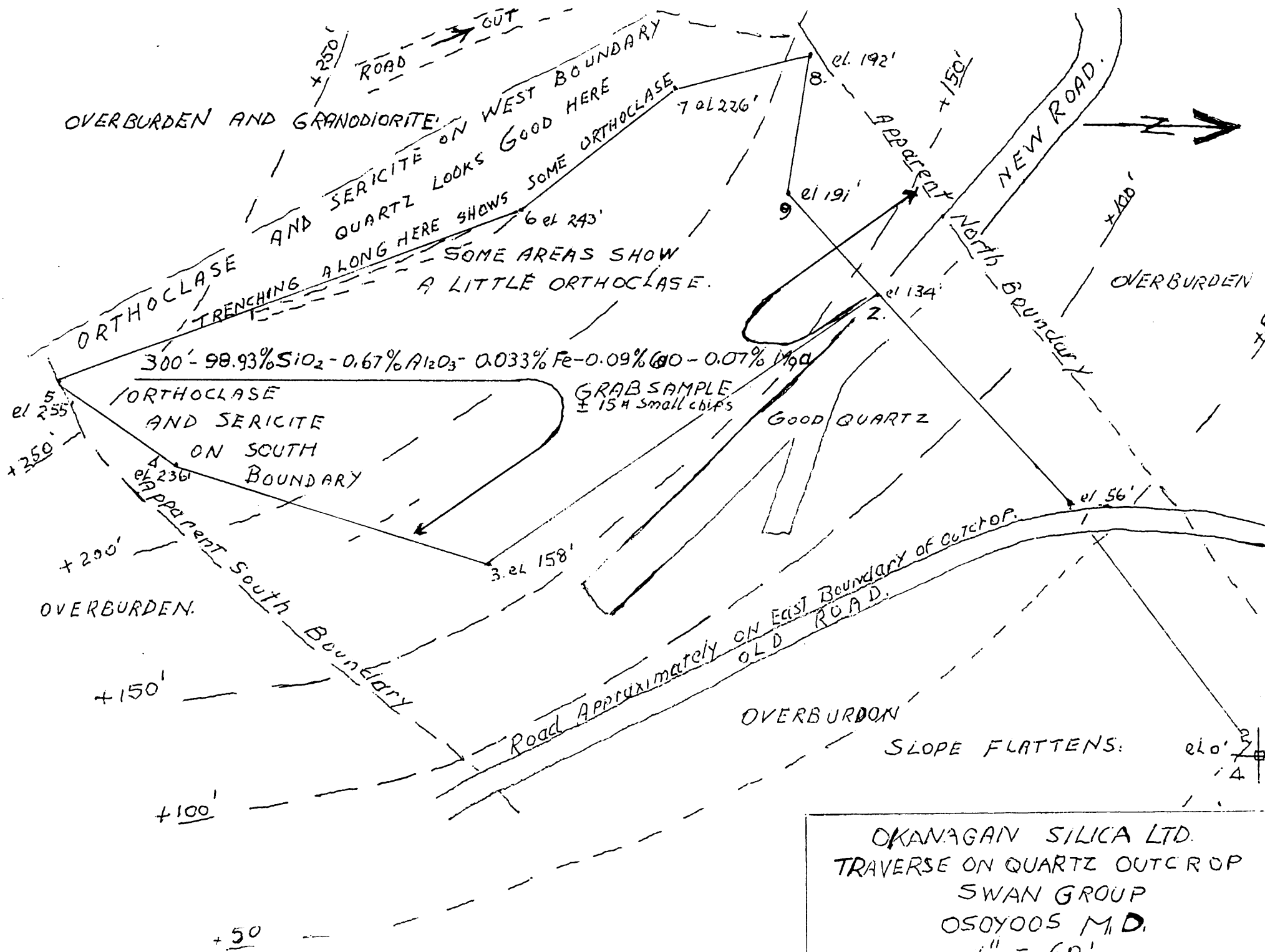
(Continued from p 54)

Imported drilling mud grade, specific gravity 4.20-4.30: c.i.f. Gulf ports	\$14-18
c.i.f. Canada	\$15
Ground, st	
Water, 99½% BaSO ₄ 325 mesh, 50-lb bags, (b), (d)	\$60-80
Dry ground drilling mud grade, 83-93% BaSO ₄ 3-12% Fe, specific gravity 4.20-4.30, (b), (d)	\$40-47
Imported 4.20-4.30 specific gravity (b)	\$31
Bauxite: lt, (d)	
Imported Guyana refractory grade, super calcined	
f.o.b. Baltimore, Md.	\$62.50
f.o.b. Mobile, Ala.	\$62.53
Borax: bulk, (d) st, (b) eff. 4-1-73	
Technical, 99½%	\$59.50
Dehydrated, min. 99%	\$109.50
Sodium Borate concentrates, 46% B ₂ O ₃	\$63.50
65% B ₂ O ₃	\$91.00
Corundum: st crude, c.i.f. US ports, crystal	\$120-130
Boulder	\$70-75
Feldspar: st, (c), (d), (e) bulk	
North Carolina	
40 mesh, flotation	\$14-21
20 mesh, flotation	\$13.00
200 mesh, flotation	\$22.50-27.00
325 mesh, Flotation	\$27.00
Georgia	
200 mesh	\$28.50
325 mesh	\$26.50
40 mesh, granular	\$24.00
Connecticut	
200 mesh	\$24.50
325 mesh	\$24.50
20 mesh granular	\$17.50
Fluorspar: net ton; f.o.b. Ill., Ky.; CaF ₂ content, bulk	
Metallurgical:	
Pellets 70% effective CAF ₂	\$65.50
Ceramic: calcite and silica variable, CaF ₂	
88-90%	\$77.00
95-96%	\$76.50-82.00
97%	\$87.00
In 100-lb paper bags, extra	\$6
Acid, dry basis, 97% CaF ₂	
Carloads	\$78.50-87.00
Less than carloads	\$78.50-87.00
Bags, extra	\$6
Pellets, 88% effective	\$76.50
Wet Filter cake, 8-10% moisture, sold dry content	subtract approx. \$2.50
Dry acid concentrates, f.o.b. Wil- mington, 97% CaF ₂ , st.	\$97.50

European wet filter cake, 8-10% moisture, sold dry content, duty pd, st, c.i.f. Wilmington/Phila- delphia term contracts	\$95-97
Mexican: st, f.o.b., metallurgical, effective CaF ₂	
70% Tampico, f.o.b. vessel	\$50
Mexican border, f.o.b. cars	\$48.50
Acid 97% +, Eagle Pass, bulk, st	\$60-62
Graphite (natural): f.o.b. source	
Flake and crystalline graphite, bags, Madagascar (metric ton)	\$175-525
Norwegian (metric ton)	\$120-200
German (metric ton)	\$225-1,300
Ceylon (metric ton)	\$200-350
Amorphous, non-flake—cryptocrystalline f.o.b. source (80-85% C):	
Mexican, bulk (metric ton)	\$24
Korean, bags (metric ton)	\$30
Kyanite: st, (b),	
Georgia, raw, bagged	
35 mesh	\$58
48 mesh	\$62
100 mesh	\$65
200 mesh	\$73
325 mesh	(n)
Bulk shipments \$2 less per ton	
Magnesite: st, f.o.b. Luning, Nev., dead burned grain, bulk	\$63.50
Bags	\$70.50
f.o.b. Port Joe, Fla., bulk	\$100
Ochre: st, (c), (d), Georgia	
50-lb bags, = 548 dark buff	\$50
50-lb bags, = 404 light buff	\$60
Phosphate rock: central Florida, land pebble, R.O.M., washed, dried, unground bulk, st, f.o.b. mine	
66-68%	\$10.00
70-72%	\$11.75
68-70%	\$10.95
74-75%	\$13.75
Potash: stu K ₂ O contained, bulk, muriate, 62% K ₂ O	
f.o.b. Carlsbad, N.M. and Moab, Utah, eff. 11-1-73 through 1-31-74	
Standard	44¢
Soluble 62-63%	47¢
Coarse	47¢
Granular	49¢
f.o.b. Saskatchewan, Canada, eff. 11-1-73 through 1-31-74	
Standard	38¢
Soluble 62-63%	40-42¢
Coarse	42¢
Granular	44¢
Charge for bags on above about \$9.00 per ton for muriate	
f.o.b. Trona, Calif., year-round	
Standard	43¢
Fine standard	45¢
Coarse	47¢

f.o.b. Tampa, Fla., warehouse (domestic), eff. 7-1-71	
Muriate	
Standard, 60% K ₂ O	64¢
Coarse, 60% K ₂ O	70¢
Sulfate, bulk, per unit K ₂ O	(n)
Pyrites: f.o.b. Climax, Colo., st, bulk 50-52% sulfur	\$4-5
Quartz rock crystals:	
For fusing, all sizes, st.	\$330-1,100
Prisms for piezo-electrical and optical use, according to size and grade, lb	\$2.50-50
Silica: amorphous, 50-lb paper bags, st, through 200 mesh, f.o.b. Elco, Ill.:	
90-95%	\$27
96-99%	\$28
through 325 mesh	
90-95%	\$29
98-99.4%	\$32.50
96-98%	\$31.50
99.5%	\$46.50
99.9% passing 400 mesh	\$68.00
99% below 15 microns	\$75.00
99% below 10 microns	\$95.00
f.o.b. Dierks, Ark., st, 100-lb paper bags	
200 mesh	\$30
325 mesh	\$40

Sulphur: Following quotes are term contracts. US producers, f.o.b. vessel at Gulf ports, La. and Tex., lt. (nominal)	
bright	\$26
dark	\$25
Export (Sulxco) f.o.b. Gulf ports:	
bright	\$36-37
dark	\$35-36
Mexican export, f.o.b. vessel, lt, eff. 8-1-70	
bright	\$26
dark	\$25
Talc: st (d), (c) containers included unless otherwise specified:	
New Jersey: mineral pulp, ground (bags extra)	\$10.50-12.50
Vermont: 98% through 325 mesh, bulk	\$20
99.99% through 325 mesh, dry processed, bags	\$58
99.99% through 325 mesh, water beneficiated, bags	\$86
New York: 96% through 200 mesh	\$28.00
99.9% through 325 mesh	\$44.50
100% through 325 mesh (fluid energy ground)	\$80-90
California	
Standard	\$37-55.50
Fractionated	\$37-71
Micronized	\$62-104
Cosmetic/steatite	\$44-65
Georgia:	
98-200	\$14
99-325	\$25
100-325 (fluid energy ground)	\$75
Tripoli: lb, paper bags, carloads	
White, f.o.b. Elco, Ill.:	
Air floated through 200 mesh	1.35¢
Rose and cream, f.o.b. Seneca, Mo. and Rogers, Ark.:	
Once ground	2.90¢
Double ground	2.90¢
Air float	3.15¢
Vermiculite: st, (c)	
Montana, So. Carolina	\$25-38
South Africa, crude, c.i.f. Atlantic ports	\$55-70



OKANAGAN SILICA LTD.
 TRAVERSE ON QUARTZ OUTCROP
 SWAN GROUP
 OSOYOOS M.D.
 1" = 60'