

MEMORANDUM

017253

TO Hon. W. K. Kiernan,
Minister.

FROM THE

DEPARTMENT OF MINES
AND PETROLEUM RESOURCES

VICTORIA, B.C., August 14, 1961.

Re: Granby Contract

WHEN REPLYING PLEASE REFER
TO FILE No.....

Pursuant to your memorandum of July 28, proposals for a draft memorandum of agreement with Jedway Iron Ore Limited have been given to your secretary.

The proposals are designed to adapt the Noranda agreement to suit the situation of Jedway Iron Ore, at Harriet Harbour.

The Noranda agreement provides for a deposit of \$100,000 by the company. I do not know whether you intend any such provision in the Jedway agreement.

The submission of Jedway Iron Ore Limited, re ore reserves, indicates:

Positive Ore			
Open pit mine	1,780,000 short tons	Grade	41.9% Fe
Underground mine	1,200,000 short tons		42.6% Fe

Assuming 88 per cent mill recovery, a short ton of ore at 43.1 per cent iron will yield 0.55 long tons of concentrate at 62 per cent iron. Accordingly, the above figures are equivalent to:--

Open pit mine to yield 950,000 long tons concentrate @ 62% Fe
Underground mine to yield 650,000 long tons concentrate

Those figures indicate a somewhat lesser quantity of concentrates from the open pit operation, and a somewhat greater quantity from the underground operation than indicated in the figures that I gave you in January, and are derived from somewhat different assumptions. The Jedway report contemplates an additional probable tonnage from underground mining.

It remains to be seen, and may depend on company policy, what the distribution will be between open pit and underground mine ore. The probable ore tonnage will depend largely on costs and on selling price.

The data available do not indicate any other metal in the ore that may be expected to yield return. Our data indicate that copper, sulphur, titanium, and phosphorus are present in the range of undesirable contaminants rather than as potential sources of revenue. Presumably for most if not all those elements the content in the concentrates will be reduced in the milling process.

H Sargent

H. Sargent,
Chief, Mineralogical Branch.

JEDWAY IRON ORE LIMITED

Jedway, B.C.,

June 3rd, 1964.

Mr. H. Sargent,
Chief, Mineralogical Branch,
Dept. of Mines & Petroleum Resources,
Victoria, British Columbia.

2060

Dear Sir:

I have your letter dated May 15th to Mr. K.C. Fahrni, Chief Geologist, Granby Mining Co., requesting information on ore reserves and diamond drilling at Jedway Iron Ore Ltd. during 1963. In accordance with the agreement under which Jedway is authorized to mine iron ore, the following data is submitted:

DEPT. OF MINES
AND PETROLEUM RESOURCES
Rec'd JUN 8 1964
HS Jedway

1.)	Ore Reserves, Dec. 31st, 1963 (Above 475 level)	L.D.Tons 2,750,000	Grade 35.0% Fe/mag.
	Production, 1963	649,540	35.5% Fe/mag.

2.) Diamond Drilling, 475 level, AXT. core

Plan	Sec	Hole	Collar Lat.	Co-ords. Long.	Elev.	Direction	Dip	Magnetite	Length
✓	—	4-1	10,227	10,108	480	N 53° - 10°W	hor.	132 - 151 318 - 323	580
✓	—	4-2	10,391	10,227	480	N 53° - 10°W	hor.	283 - 284 300 - 313	497
✓	—	4-3	10,382	10,238	480	S 52° - 13°E	hor.	119 - 170 195 - 205 281 - 301 406 - 408 522 - 524 533 - 537 557 - 561	710
✓	—	4-4	10,302	10,179	480	S 54° - 10°E	hor.	104 - 106 489 - 519	613

fwd=

P1	See	Hole	Collar Lat.	Co-Ords. Long.	Elev.	Direction	Dip	Magnetite	Length
✓		4 - 5	10,309	10,168	480	N 52° - 20'W	hor.	74 - 77 91 - 189	549
✓		4 - 6	10,349	10,198	480	N 54° - 47'W	hor.	61 - 76	451
✓		4 - 7	10,268	10,139	480	N 54° - 39'W	hor.	0 - 13 113 - 117 134 - 155 286 - 289	317
✓		4 - 8	10,430	10,257	480	N 53° - 42'W	hor.	239 - 295	375
✓		4 - 9	10,470	10,286	481	N 53° - 38'W	hor.	42 - 126 212 - 218 238 - 251 302 - 348 553 - 558 650 - 657 667 - 671 688 - 733	800
✓		4 - 10	10,442	10,267	480	S 52° - 20'E	hor.	124 - 135 166 - 168 428 - 430	436
✓		4 - 11	10,341	10,209	480	S 50° - 09'E	hor.	69 - 115	328
✓		4 - 12	10,461	10,298	480	S 54° - 34'E	hor.	-	754
✓		4 - 13	10,219	10,120	480	S 51° - 18'E	hor.	-	504
✓		4 - 14	10,137	10,061	480	S 59° - 59'E	hor.	-	403
	10100 E	4 - 15	10,191	10,089	489	N 37° - 46'E	+60	62 - 77 206 - 211	263
✓		4 - 16	10,509	10,317	481	N 52° - 28'W	hor.	229 - 240 505 - 520	658
	10200 E	4-17	10,350	10,199	486	N 57° - 29'W	+60°	81 - 99 114 - 147 181 - 186	201
	10200 E	4 - 18	10,350	10,200	485	N 00° - 17'E	+30°	101 - 112 123 - 175	221

<u>Hole</u>	<u>Collar</u> <u>Lat.</u>	<u>Co-Ords.</u> <u>Long.</u>	<u>Elev.</u>	<u>Direction</u>	<u>Dip</u>	<u>Magnetite</u>	<u>Length</u>
<i>Phu Sa</i> 10000E 4 - 19	10,082	10,000	481	N 00° - 52' E	+20°	218 - 239 250 - 269 418 - 471 502 - 520 602 - 614	666
10000E 4 - 20	10,081	10,001	485	N 02° - 40' E	+50°	133 - 140 242 - 248 258 - 317 345 - 367	377
10120E 4 - 21	10,244	10,120	482	N 00° - 32' E	+13°	8 - 55 224 - 280 324 - 336 389 - 400	430
10120E 4 - 22	10,243	10,120	486	N 05° - 20' E	+45°	0 - 46 151 - 255 284 - 306	310
10000E 4 - 23	10,081	10,000	484	N 01° - 09' E	+30°	317 - 377 420 - 430	478
10200E 4 - 24	10,341	10,199	491	-	+90°	127 - 136 144 - 191 225 - 264	285
10200 4 - 25	10,339	10,200	490	S 04° - 03' E	+67°	209 - 236 281 - 290	304
10200E 4 - 26	10,334	10,200	483	S 02° - 02' E	+16°	71 - 87	220
10120E 4 - 27	10,238	10,120	490	N 00° - 00' E	+70°	6 - 32 173 - 188 214 - 224 256 - 267	300
10120E 4 - 28	10,234	10,121	489	S 11° - 46' E	+75°	26 - 72	110
10120E 4 - 29	10,233	10,121	487	S 05° - 57' E	+60°	81 - 95	201
10720E 4 - 30	10,246	10,121	484	N 00° - 00' E	+30°	0 - 33 139 - 199 214 - 255 297 - 313	327

<u>Hole</u>	<u>Collar</u> <u>lat.</u>	<u>Co-Ords.</u> <u>Long.</u>	<u>Elev.</u>	<u>Direction</u>	<u>Dip</u>	<u>Magnetite</u>	<u>Length</u>
<i>plan sec</i> 10100E 4 - 31	10,220	10,103	486	N 03° - 00' W	+40°	19 - 45 169 - 271	299
10100 4 - 32	10,218	10,103	487	N 03° - 00' W	+60°	29 - 60 175 - 205 229 - 279	314
1010300E 4 - 33	10,473	10,301	484	S 01° - 08' E	+20°	85 - 55 242 - 252 280 - 307 315 - 412	449
							13,730

In addition, four holes were drilled from the open pit to provide correlation between ore zones in the open pit and those defined by drilling from the 475 level.

<u>Hole</u>	<u>Collar</u> <u>lat.</u>	<u>Co-Ords.</u> <u>long</u>	<u>Elev.</u>	<u>Direction</u>	<u>Dip</u>	<u>Magnetite</u>	<u>Length</u>
10200E 24 - 13	10,092	10,201	851	-	vert.	84 - 159 181 - 228	303
10200E 26 - 10	9,891	10,203	887	N 00 - 00 E	-70°	76 - 79	325
10200E 26 - 10A	9,891	10,203	887	-	vert.	78 - 81	250
10200E 26 - 10B	9,891	10,203	887	S 00 - 00 E	-60°	89 - 90	141
							1,019

Attached please find maps showing the 475 level horizontal drilling and sections showing inclined holes and holes drilled from the open pit. Assays of magnetite intersections are shown, together with approximate correlation of ore zones.

Yours very truly,



J. L. May,
Chief Geologist.

JLM/l

cc- Mr. A.J. McDougall.

JEDWAY IRON ORE LIMITED

1111 WEST GEORGIA STREET

VANCOUVER 5, B.C.

February 12th, 1965

3092

Dr. Hartley Sargent,
B. C. Department of Mines,
Victoria, B. C.

855

Re: 1964 Expenditures on search for Iron
Ore in British Columbia.

Dear Sir:

During the past year expenditures were made for diamond drilling on the Adonis Mineral Claim in a search for iron ore. The following cost figures were extracted from the ledgers of the company for months of May, June and July.

Drill Contractors invoices	10,750.21
Company Labor, W.C.B. & H.P.	40.36
Assaying	36.00
Repairs and Maintenance	7.18
Miscellaneous and Sundry	94.07
Core Boxes	<u>125.28</u>
Total Cost	<u>\$ 11,053.10</u>

For this amount a total of 1668 feet was drilled in nine drill holes.

*In hand
ASB
2/4/65*

The locations of eight of these holes totalling 1424 feet are shown with relation to the Jedway mine coordinate system on an attached sketch. Drilling results are shown graphically, together with information from earlier pack-sack drill holes. Assays are shown as percent total iron on the older drill holes and as percent magnetic iron on the 1964 drill holes. The drilling was done during May and June. During October, November and December the pit shown on the plans attached was mined out producing 115,204 tons of ore at about 35.0 percent magnetic iron. Waste sorted amounted to 205,745 tons to give a stripping ratio of ore to waste of 1 : 1.8.

The other drill hole was located on the Adonis Mineral Claim, but beyond the limits of the small sketch. Its location is shown on a large scale map attached to the Granby letter of this date. The coordinates of the collar are 10,460 north, 12,000 east on the Jedway mine grid. The hole was drilled vertically to a depth of 244 feet from 156 to 194 the hole passed through low grade magnetite, otherwise the hole is in volcanic rock.

*see map
with letter 854*

DEPT. OF MINES AND PETROLEUM RESOURCES		
Rec'd	FEB 15 1965	
<i>AS</i>		

It is requested that the amount expended amounting to \$11,053.10 be recorded for application as a credit against future iron ore production royalties which might be payable by the company.

Yours truly,

A handwritten signature in cursive script, appearing to read "Keith C. Fahrni". The signature is written over a circular, faint stamp or seal that is partially obscured.

Keith C. Fahrni, P. Eng.
Chief Geologist.

KCF/eb
encl.
cc:A.McDougall

THE GRANBY MINING COMPANY LIMITED

1111 WEST GEORGIA STREET
VANCOUVER 5, B. C.

February 12th, 1965

Dr. Hartley Sargent,
Chief Mineralogical Branch,
Department of Mines and Petroleum Resources,
Victoria, B. C.

854 3092

Re: Expenditures in search for Iron Ore
in B. C. during 1964.

Dear Sir:

During the 1964 summer season a program of diamond drilling was carried out in the vicinity of the Jedway Iron Ore mine.

From a location in the pass about one mile due south from Harriet Harbor at an elevation of 1150 feet and at about latitude 3750 north, departure 6,800 east in the Jedway mine coordinate system a drill hole was put down to a depth of 562 feet in a vertical direction. This location was dictated by ground and airborne magnetometer data.

The hole penetrated a massive intrusive of sill-like character called microdiorite in the area to a depth of 71 feet when it entered the older volcanics where it continued to the final depth of 562 feet. While a relatively higher proportion of magnetite was found throughout these rocks than is normally found, there was nowhere any concentration which justified sampling. With failure of the water supply the work was stopped and the equipment was removed.

Because of the access difficulties a drill camp was established at the pass and the drill outfit was transported in and out by helicopter with day to day servicing by back-pack by trail from Jedway.

The cost of the operation was accumulated by Jedway and charged to Granby exploration since the work did not lie on claims held by Jedway. The details and total of Costs are as follows:

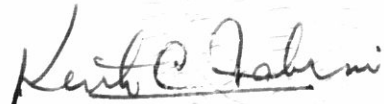
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Rec'd	FEB 15 1965	
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Camp Supplies and equipment		1787.43
Preparation of Helicopter Landing pad		276.44
Helicopter expense		1660.34
Drilling Expense		
Contract Bordeau Braden	6206.81	
Repairs and Sundry	<u>10.77</u>	<u>6217.58</u>
Engineering		
Geology and Survey	80.60	
Core Boxes	<u>342.78</u>	<u>423.38</u>
W.C.B. & Holiday Pay for Company Men		<u>109.97</u>
Total Cost of Work done		<u><u>\$ 10,475.14</u></u>

It is requested that this expenditure be recorded in favor of our subsidiary company Jedway Iron Ore Limited for application as a credit against royalty payments which might be payable at some future date on their production.

The location of the drill hole is shown on a regional map attached.

Yours truly,



Keith C. Fahrni, P. Eng.
Chief Geologist.

KCF/eb
encl.

*in hand
of PASOB
2/4/65*

JEDWAY IRON ORE LIMITED

1111 WEST GEORGIA STREET
VANCOUVER 5, B.C.

March 16th, 1965

Hon. D. L. Brothers,
Minister of Mines,
B. C. Department of Mines and Petroleum Resources,
Victoria, B. C.

Re: Ore Reserve Jedway Iron Ore Limited Jan. 1, 1965.

Dear Sir:

A revision of the ore reserve estimates for the Jedway Iron Ore Limited mine at Harriet Harbor, Queen Charlotte Islands in Skeena Mining Division has been completed as of January 1st, 1965. The following tabulation shows the locations of the reserves and gives results in short dry tons at a diluted grade of 35% Fe (magnetic) which corresponds with the expected mill heads grade.

<u>Ore Reserve</u>	<u>Fe Mag.</u>
A. Main Pit - within Pit "H" outline	1,003,000 Tons
B. For Underground Mining - between proposed Pit "H" floor and 475 Level	1,492,000
C. Adonis Pit extension to boundary of Jedway Claims	<u>70,000</u>
Total reserve	2,565,000 Tons

Explanatory Notes

- A. In October, 1964 a new open pit mining outline was laid out for the main ore zone. This outline is now known as Pit "H" outline. Present mining is being carried out on the basis of this ultimate pit limit. Reserves were calculated from ore blocks established for the January 1, 1964 ore reserve statement, which lie between the pit floor at the close of 1964 and this ultimate Pit "H" outline. In the calculation sheets appended block numbers used are the same as in the 1964 calculation but in some cases the category of the block has been changed. Because of the certainty of mining the material within the Pit "H" outline any blocks which were classified as possible or indicated ore are now advanced to proven or probable ore categories.

- B. The total tonnage shown in this section is based upon proven and probable ore blocks as calculated last year. The same block numbers are used in the calculation sheets attached. An additional 200,000 tons of possible and indicated ore listed on the calculation sheets is not included because of geological uncertainties. Of the stated total, present plans for stope development are expected to remove about 636,000 tons. This will leave about 856,000 tons in other smaller blocks which will only be considered for mining if the initial stope proves to be economically successful.
- C. During 1964 additional development by diamond drilling on the Adonis mineral claim proved up sufficient ore to support a mining operation and the Adonis Pit was opened. This is located about 2,000 feet East of the main pit at about the elevation of 475 level in the main ore zone. During the year 115,000 tons of ore was shipped to the mill and at year end ore was still exposed in the pit face. Continuity was indicated by a drill hole about 250 feet away on the Sweet Pea Mineral Claim which showed a good ore intersection on strike. On the basis of the length of structure mined and the tons produced, an estimate was made of the probable tons of ore available up to the Jedway claim boundary. A plan attached indicates the method used for this calculation.

Accountability

	<u>Short Dry Tons Ore at 35.0% Fe (Mag)</u>
Ore Reserve January 1st, 1964 (Annual Report)	2,750,000
Less Production 1964	- 750,000
Sub Total	2,000,000
Plus Ore Mined beyond Outlines, changes of category and new ore found 1964	+ 623,000
Total Ore Reserve January 1st, 1965 (Annual Report)	2,623,000
Less Adonis Ore extension beyond Jedway boundary	- 58,000
Jedway Iron Ore Reserve January 1st, 1965	<u>2,565,000</u>

Concentrate Reserve

On the basis of a 95% assumed magnetic iron recovery by the mill, one long dry ton of concentrate at 62.0% Fe (total) will require 2.0 short dry tons of ore at 35.0% Fe (mag).

Additional Concentrates indicated	1,282,000
Concentrates shipped to December 31, 1964	+ 856,000
Presumed ultimate production	<u>2,138,000</u>

Maps and Calculation Sheets

*in hand
ASB
2/4/64*

1. Vertical sections from co-ordinate 9650* East through to 10,400* East at 50 foot intervals illustrate the main pit operation and ore reserve blocks are shown on the principal sections.
2. A plan of the Adonis Pit operation shows the Adonis Pit and the Ore Reserve calculated for that area.
3. Detail work sheets are attached to permit following through the reserve calculation.
4. Jedway Iron Ore Claim map showing pit locations.

16 prints

10 sheets

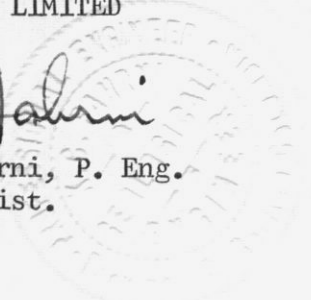
Respectfully submitted,

Yours truly,

JEDWAY IRON ORE LIMITED

Keith C. Fahrni

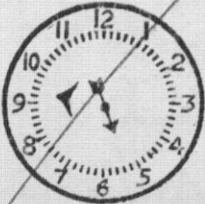
Keith C. Fahrni, P. Eng.
Chief Geologist.



KCF/eb
encl.

2419

MAR 17 '65 AM



DEPT. OF MINES
AND PETROLEUM RESOURCES

REFERRED TO	DATE	INITIAL
D.M.	✓ 17/3	KCF
C.C.		
D.C.G.C.		
D.C.C.		
G.C.		
ACCTS.		
C.M.B.	✓	
C.I.		
C.A.		
R. T.		
C.P.E.		
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