

Brisco

82KNE 013

Property File
1980

(17)

003732

BRISCO

REPORT FROM F. NUSS, MTA MINERALS

The underground drilling programme was designed to "make or break" the Brisco barite deposit. It appears quite conclusively to "break" the deposit as far as the present mine workings are concerned.

At the southernmost end of the deposit seven holes were drilling from the crosscut to intersect any vein 100' and 200' ahead of the present advance and any vein offset possibly to the west. No significant barite was intersected in any of these holes, values being limited to stringers.

At the end of the decline two holes were put down to test the extension of the vein in the back, at depth, and along strike. At depth the drilling indicated that the vein broke up within 30' vertically and was not encountered 30' along strike. This limits the volume below the decline to approximately 1,000 tons in a small pod which is poorly placed for exploitation. Three additional holes were drilled along strike to locate any northern extension which might tie in with the pod of ore found in the creek to the northwest.

One hole intersected a good width (13') of low grade (3.99) but this was not backed up by the hole above or by the hole to the north. Consequently the presence of another small pod of approximately 1,500 tons is inferred. This concept is in keeping with the ore found on the upper adit level where a series of pods were mined out. It appears that the vein at its northern end becomes broken up into pods. The definition of such small size pods by diamond drilling is uneconomic.

Mining Recommendations

It is considered to be impractical to remove the pod below the decline level. This leaves the back along the drift from the foot of the decline which contains an indeterminate amount of ore (in the order of 1,000 tons).

There is no other ore in the present Brisco mine which is economically recoverable. Consequently, it is recommended that an orderly withdrawal from the mine be started.

Future Exploration

It is apparent from the recent underground drilling that the barite zone has a certain amount of graphite associated closely with it. Graphite is a conductive material with electromagnetic responses similar to a sulphide ore body. Because of its association the graphite can be used as a tracer for barite and the major fault zone of the area. While locating the graphitic horizon will not in itself indicate the presence of barite, it will identify target zones and provide information on the depth of such zones.

It is recommended that the following programme be instituted.

1. Line cutting over all the Brisco claims (5) with a N-S base line and E-W tie lines. This will provide a good base for future work. It is estimated that 24 miles of line will be required.
2. Conduct a magnetic survey on these grid lines. This will provide stratigraphic information and will help locate faults, etc.
3. Conduct a continuous E.M. survey over the area to identify the conductive/graphitic zone. Costing and time requirements for 1-3 are currently under investigation.

If suitable targets are outlined a surface drill should be brought in as soon as practical to explore these zones.

DRILLING REPORT

The diamond drill programme conducted at Brisco was designed to explore the potential of a series of outcrops of barite lying to the east and northeast of the main mine zone. Structurally this area is controlled by a major fault zone in which the barite veins sit, as partial replacement. This zone may be an offset continuation of the mine zone displaced dextrally by a crossfault. However, there is no surface indication of this faulting.

Because of the topography access to the site is limited, consequently a fan of holes was drilled from one set up close to the Templeton River. Intersected barite widths were corrected for azimuth variation by a series of charts. The indicated structure of the area is that of a steeply dipping (-75° west) body some 2 m. thick which flattens and widens to a maximum of approximately 5 m. before being terminated by the fault zone hanging wall. To the north, along strike the body is terminated by another cross fault within 15 m. ($\approx 50'$) and to the south it thins and disappears within 30 m. (100').

Holes # 6 & 7 drilled to intersect an apparent continuation of the vein to the south failed to cut any barite indicating that this vein pinches out and is not connected to the vein in the river bed.

The mineral inventory which could be inferred from the drilling is limited to approximately 3,000 tonnes grading 4.27 located in the immediate creek bed area.

Because of the thick overburden contained in these holes, no attempt was made to penetrate the rocks in the mine portal area to determine if there is any connection between the river bed zone and the main mine zone.

The drill logs, sections and an ore reserve calculation are enclosed.

MINERAL INVENTORY

<u>Hole No.</u>	<u>True Area of Section (sq.m.)</u>	<u>Length of Section (m)</u>	<u>Volume (cu.m.)</u>	<u>S.G.</u>
1	70	6.0	420	4.20
2	32	6.0	192	3.62
3	44	7.0	308	4.38
4	53	7.0	371	3.95
5	10	9.0	90	4.42
TOTALS			1381	4.10

Tonnes \approx 5650 grading 4.10

DISCOUNT #2 (low grade)
#5 (too narrow vein)

Tonnes \approx 4550 grading 4.17

To 20 m. below creek '0' reference level

DISCOUNT ALSO #4 (most northerly intersection)

Tonnes \approx 3100 grading 4.27

This tonnage lies in a zone approximately 13 m. long 2-5 m. wide and up to 20 m. below creek level.

Hole # 1

September 19 - 20, 1979

Dip - 60°

Az 90°

Elevation + 8 m

<u>From</u>	<u>To</u>	
0	12.19	Casing
0	12.19	Overburden. Broken fragments of dolomite.
<u>12.19</u>	<u>25.30</u>	<u>DOLOMITE</u> Dark grey siliceous brecciated dolomite. Core very broken to 18.29 with numerous clay mud fault gouge sections. Minor calcite fracture fillings near surface. Below 18.29 less broken core, but very brecciated with iron and manganese fracture fillings. Less than 1% disseminated pyrite. Small fault zone at 25.30.
<u>25.30</u>	<u>30.78</u>	<u>BARITE ZONE</u> Grey-white barite with pyrite veins and stringers to 1. Minor quartz veining. Very brecciated. Part of major fault zone.
<u>30.78</u>	<u>34.44</u>	<u>DOLOMITE</u> As above. Somewhat brecciated. Minor fault at foot. Extensive iron and manganese staining. Fault zone 32.33.83.
	34.44	End of Hole

<u>Core Recovery</u>	<u>%</u>
13.11 13.41	50
13.41 14.02	25
14.02 14.63	10
14.63 15.85	50
15.85 16.46	25
16.46 16.76	50
16.76 17.07	50
17.07 17.68	100
17.68 17.98	50
17.98 18.29	50
18.29 19.20	50
19.29 19.32	100
19.32 20.73	60
20.73 21.03	10
21.03 21.34	50
21.34 22.25	75
22.25 23.77	100
23.77 31.39	100
31.39 32.92	60
32.92 34.44	25

Hole #1 continued

Samples

Core broken to 3 cm. lengths.
Alternate pieces sampled.

<u>No.</u>	<u>From</u>	<u>To</u>	<u>Length</u>	<u>S.G.</u>
5493	25.30	26.82	1.52	4.13
5494	26.82	28.36	1.54	4.09
5495	28.36	29.87	1.51	4.35
5496	29.87	32.78	0.91	4.27

Hole # 2

September 21 - 22, 1979

Dip - 75°

Az 90°

Elevation + 8 m.

<u>From</u>	<u>To</u>	
0	6.10	Casing
0	6.10	Overburden. Broken fragments of dolomite.
<u>6.10</u>	<u>26.52</u>	<u>DOLOMITE</u> Dark grey siliceous brecciated dolomite. Core very broken to 24.69 with numerous clay mud fault gouge sections. Below 24.69 very brecciated as part of a major fault zone. Small hanging wall fault zone.
<u>26.52</u>	<u>29.72</u>	<u>BARITE ZONE</u> Grey-white barite with minor pyrite. Some Dolomitic inclusions. Minor quartz veining. Brecciated. Part of major fault zone. Light. 27.13 - 27.30) 27.43 - 27.58) Dolomite zones
<u>29.72</u>	<u>30.63</u>	<u>DOLOMITE</u> Mixed brecciated dolomite - barite rock.
<u>30.63</u>	<u>31.55</u>	<u>BARITE ZONE</u> Grey-white brecciated barite. Heavy core. Part of fault zone.
<u>31.55</u>	<u>32.61</u>	<u>DOLOMITE</u> As above. Somewhat brecciated. Iron and manganese staining.
	32.61	End of Hole.

<u>Core</u>	<u>Recovery</u>	<u>%</u>
6.10	- 7.32	30
7.32	- 8.84	25
8.84	- 10.36	40
10.36	- 11.89	10
11.89	- 13.11	10
13.11	- 14.63	10
14.63	- 19.20	100
19.20	- 19.51	50
19.51	- 20.73	75
20.73	- 22.25	10
22.25	- 23.47	10
23.47	- 24.38	50
24.38	- 32.61	100

Hole # 2 continued

Samples

Core broken to 3 cm. lengths.
Alternate pieces sampled

<u>No.</u>	<u>From</u>	<u>To</u>	<u>Length</u>	<u>S.G.</u>
5497	26.52	28.04	1.52	3.50
5498	28.04	29.72	1.68	3.74
5499	29.72	30.63	0.91	2.91
5500	30.63	31.55	0.92	4.34

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Hole # 3

September 22 - 23, 1979

Dip - 60°

Az 105°

Elevation + 8 m.

<u>From</u>	<u>To</u>	
0	9.14	Casing
0	9.14	Overburden. Broken fragments of dolomite.
<u>9.14</u>	<u>25.91</u>	<u>DOLOMITE</u> Dark grey siliceous brecciated dolomite. Core very broken to 22.25. Below this level the rock forms part of a major fault zone with manganese staining and disseminated pyrite.
<u>25.91</u>	<u>28.19</u>	<u>BARITE ZONE</u> Brecciated grey-white barite with up to 5% pyrite as veins and stringers.
<u>28.19</u>	<u>29.57</u>	<u>DOLOMITE</u> Dark-grey siliceous dolomite. Very fine grained. Not brecciated.
	29.57	End of hole.

<u>Core Recovery</u>		<u>%</u>
11.58	13.11	10
13.11	14.33	25
14.33	14.94	5
14.94	16.15	10
16.15	17.68	5
17.68	18.29	15
18.29	19.20	25
19.20	19.51	100
19.51	20.12	75
20.12	20.73	75
20.73	21.03	100
21.03	21.95	75
21.95	29.57	100

Samples

Core broken to 3 cm. lengths
Alternate pieces sampled.

<u>No.</u>	<u>From</u>	<u>To</u>	<u>Length</u>	<u>S.G.</u>
5001	25.91	28.19	2.28	4.38

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Hole # 4

September 23 - 25, 1979

Dip - 60°

Az 60°

Elevation + 8 m.

<u>From</u>	<u>To</u>	
0	13.41	Casing
0	22.86	Overburden. Broken fragments of dolomite, sand and gravel.
<u>22.86</u>	<u>29.87</u>	<u>DOLOMITE</u> Dark grey siliceous brecciated dolomite. Core very broken to 24.08. Becomes more solid below this level with zones of brecciation and faulting at 24.99 - 25.60 and 27.74 - 29.8
<u>29.87</u>	<u>32.92</u>	<u>BARITE ZONE</u> Good grey-white barite with some pyrite veins. 19.87 - 32.05 Poorer mixed barite dolomite from 31.10 - 31.55. Brecciated fault zone with dolomite/barite from 32.05 - 32.92
<u>32.92</u>	<u>34.44</u>	<u>DOLOMITE</u> As above. Broken core.
	34.44	End of hole.

<u>Core Recovery</u>	<u>%</u>
14.63 16.15	10
16.15 17.68	10
17.68 18.29	5
18.29 19.51	10
19.51 20.73	25
20.73 22.25	25
22.25 22.86	5
22.86 34.44	100

Samples

Core broken to 3 cm. lengths.
Alternate pieces sampled.

<u>No.</u>	<u>From</u>	<u>To</u>	<u>Length</u>	<u>S.G.</u>
5002	29.87	32.00	2.13	4.04
5003	32.00	32.92	0.92	3.75

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Hole # 5

September 26 - 27, 1979

Dip - 45°

Az 135°

Elevation + 8 m.

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<u>From</u>	<u>To</u>	
0	15.24	Casing
0	15.24	Overburden. Broken dolomitic fragments.
<u>15.24</u>	<u>24.38</u>	<u>DOLOMITE</u> Dark grey siliceous brecciated dolomite. Core very broken to 19.81 with numerous fault zones. Less broken below 19.81. Fault breccia at 21.34 - 22.56 and at 24.08 - 24.38 (hanging wall fault)
<u>24.38</u>	<u>25.30</u>	<u>BARITE ZONE</u> White to grey brecciated barite.
<u>25.30</u>	<u>28.96</u>	<u>DOLOMITE</u> Siliceous dolomite as above. Some brecciation. Pyrite to 25% from 25.30 - 25.91
	28.96	End of hole.

<u>Core Recovery</u>	<u>%</u>
26.46 17.37	75
27.37 18.90	20
18.90 19.20	5
19.20 19.51	10
19.51 19.81	10
19.81 21.18	75
21.18 22.25	100
22.25 28.96	100

Samples

Core broken to 3 cm. lengths.
Alternate pieces sampled.

<u>No.</u>	<u>From</u>	<u>To</u>	<u>Length</u>	<u>S.G.</u>
5004	24.38	25.30	0.92	4.42

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Hole # 6

September 27 & October 4, 1979

Dip - 60°

Az 90°

Elevation + 32 m.

<u>From</u>	<u>To</u>
0	10.36
0	10.36
<u>10.36</u>	<u>22.25</u>

Casing

Overburden. Sand and dolomitic fragements.

DOLOMITE

Very fine grained dark grey siliceous dolomite.
 Extremely broken core as part of major fault zone.
 Numerous mud fault gouge seams. Some iron and
 manganese staining. Very poor recovery. Hole stopped
 at 22.25 beyond projection of barite vein but still in
 fault zone because of poor recovery.

22.25 End of hole.

<u>Core Recovery</u>		<u>%</u>
10.36	11.58	50
11.58	13.11	20
13.11	14.33	40
14.33	15.85	50
15.85	16.15	50
16.15	17.53	40
17.53	19.20	40
19.20	20.73	20
20.73	22.75	5

Hole # 7

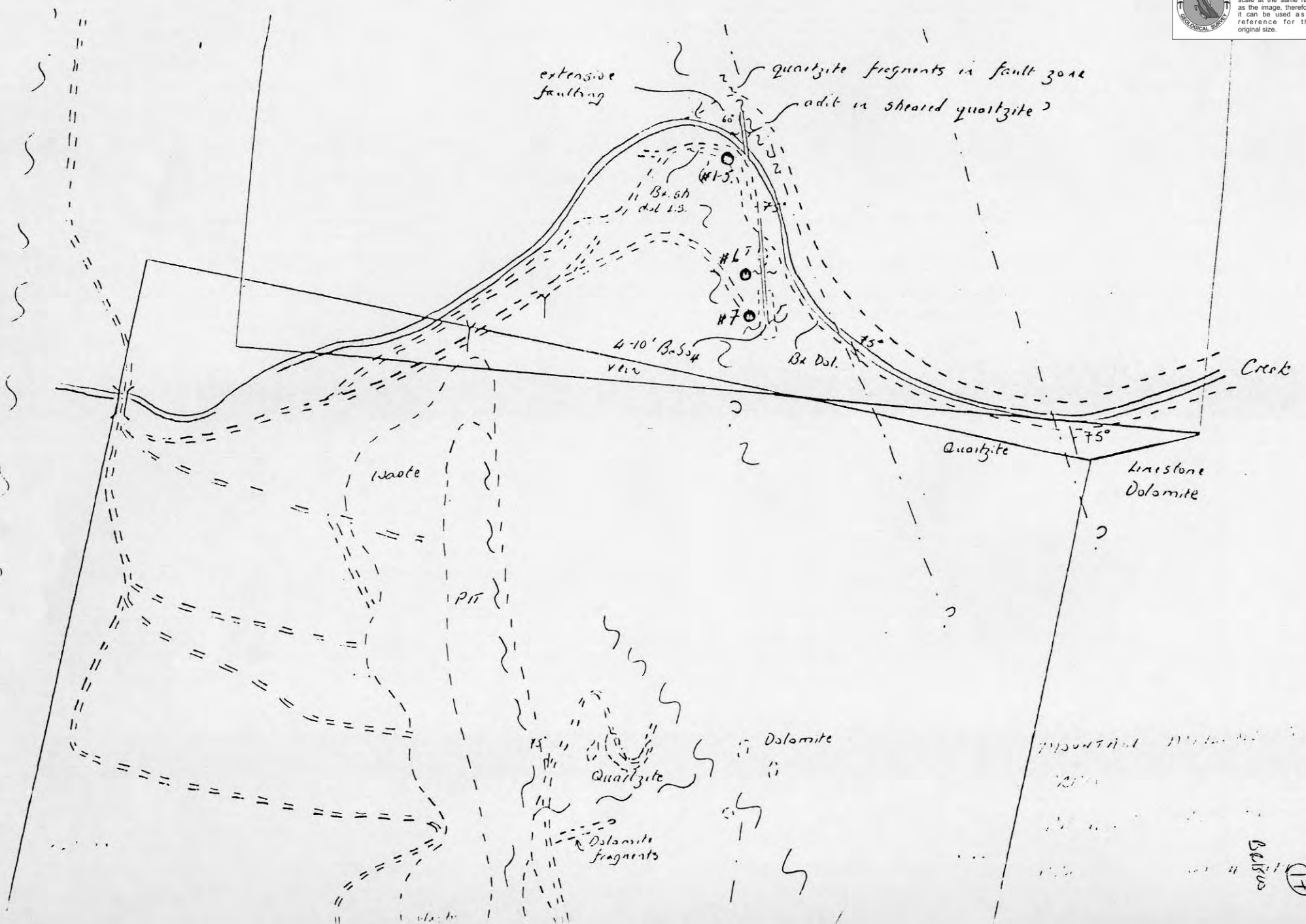
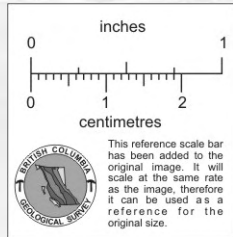
October 4 - 5, 1979

Dip - 60°

Az 135°

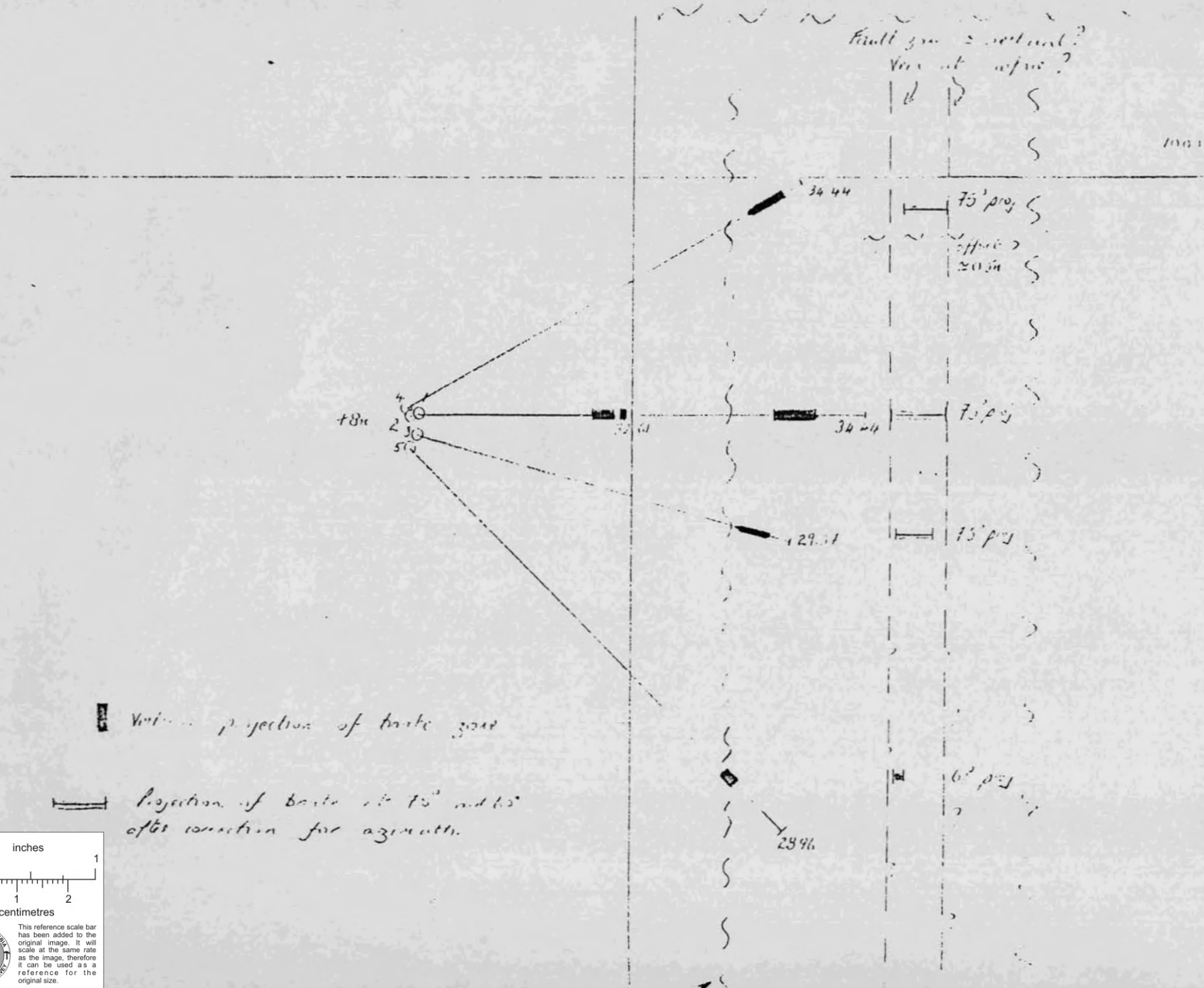
Elevation + 35 m.

<u>From</u>	<u>To</u>		
0	3.65	Casing	
0	3.65	Overburden. Sand, boulders and dolomite fragments.	
<u>3.65</u>	<u>23.77</u>	<u>DOLOMITE</u>	
		Extremely broken fine grained grey siliceous dolomite. Brecciated in fault zone. Poor recovery. Iron stained with some calcite stringers.	
3.65	8.53	Rotten weathered rock.	
8.53	11.28	Sand	
11.28	12.19	Very broken fragments.	
12.19	13.10	Sand.	
13.10	13.41	Brecciated dolomite.	
13.41	14.02	Sand.	
14.02	15.24	Brecciated dolomite.	
15.24	23.77	Less broken core.	
	23.77	End of hole.	
		<u>Core Recovery</u> <u>%</u>	
	3.65	5.49	
	5.49	7.01	40
	7.01	8.53	5
	8.53	10.06	20
	10.06	11.58	20
	11.58	13.10	10
	13.10	13.41	5
	13.41	14.02	25
	14.02	14.33	5
	14.33	14.63	25
	14.63	15.24	50
	15.24	16.46	75
	16.46	17.68	75
	17.68	19.20	100
	19.20	20.73	100
	20.73	22.25	20
	22.25	23.77	100



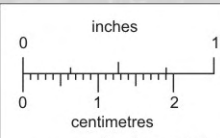
19002 Mayer fault zone

fault zone is vertical?
 Yes or no?



Vertical projection of base zone

Projection of base at 75° and 65° after correction for azimuth.



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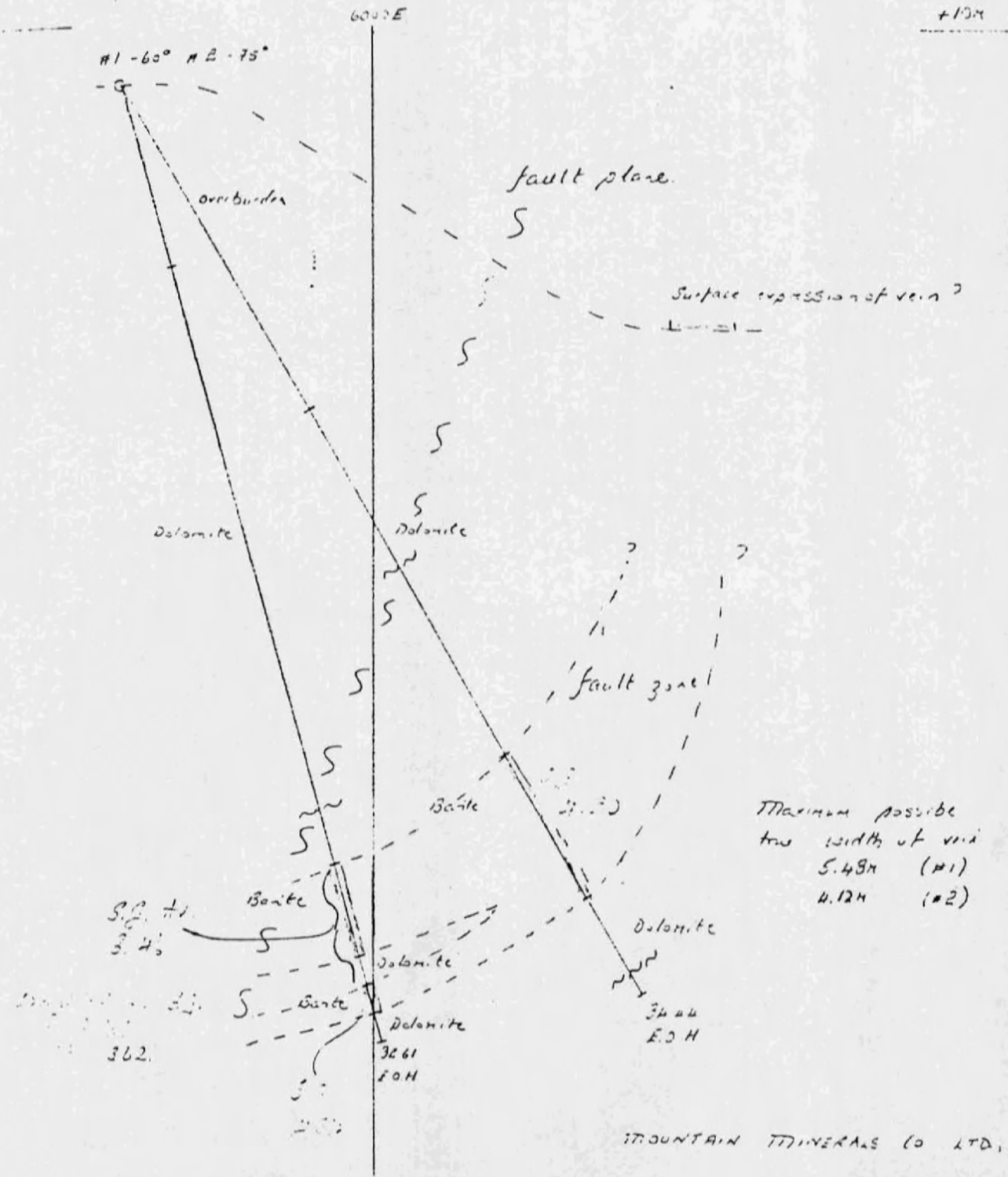
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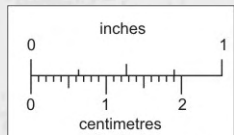
Section looking N

+10M 1/2



MOUNTAIN TRINERALS CO LTD,
BRISCO

DRILL HOLE SECTION #1 #2
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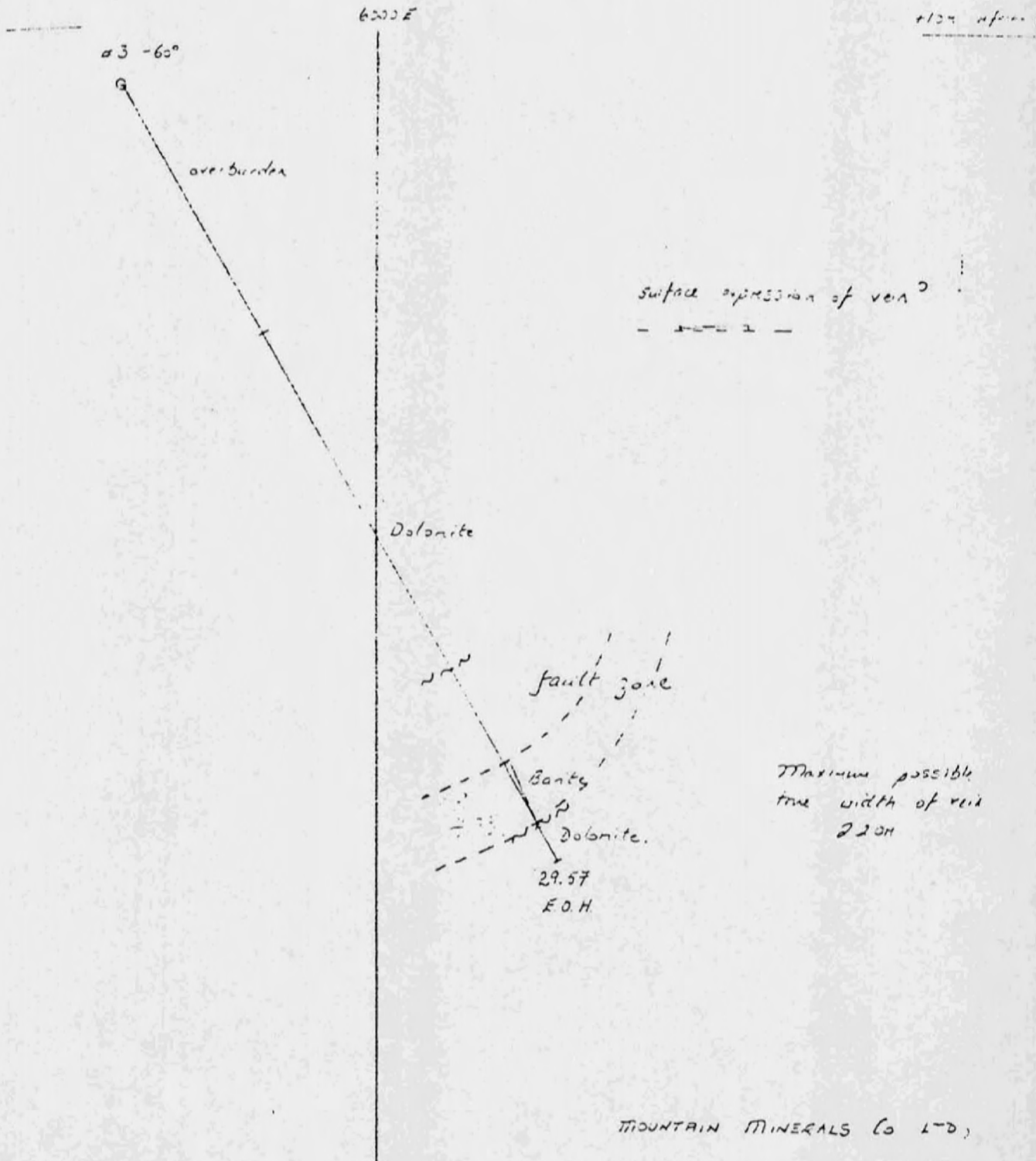


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BRITISH COLUMBIA
GEOLOGICAL SURVEY

J-P

Section looking 015°



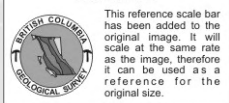
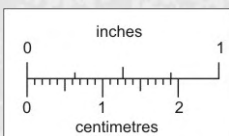
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DRILL HOLE SECTION # 3

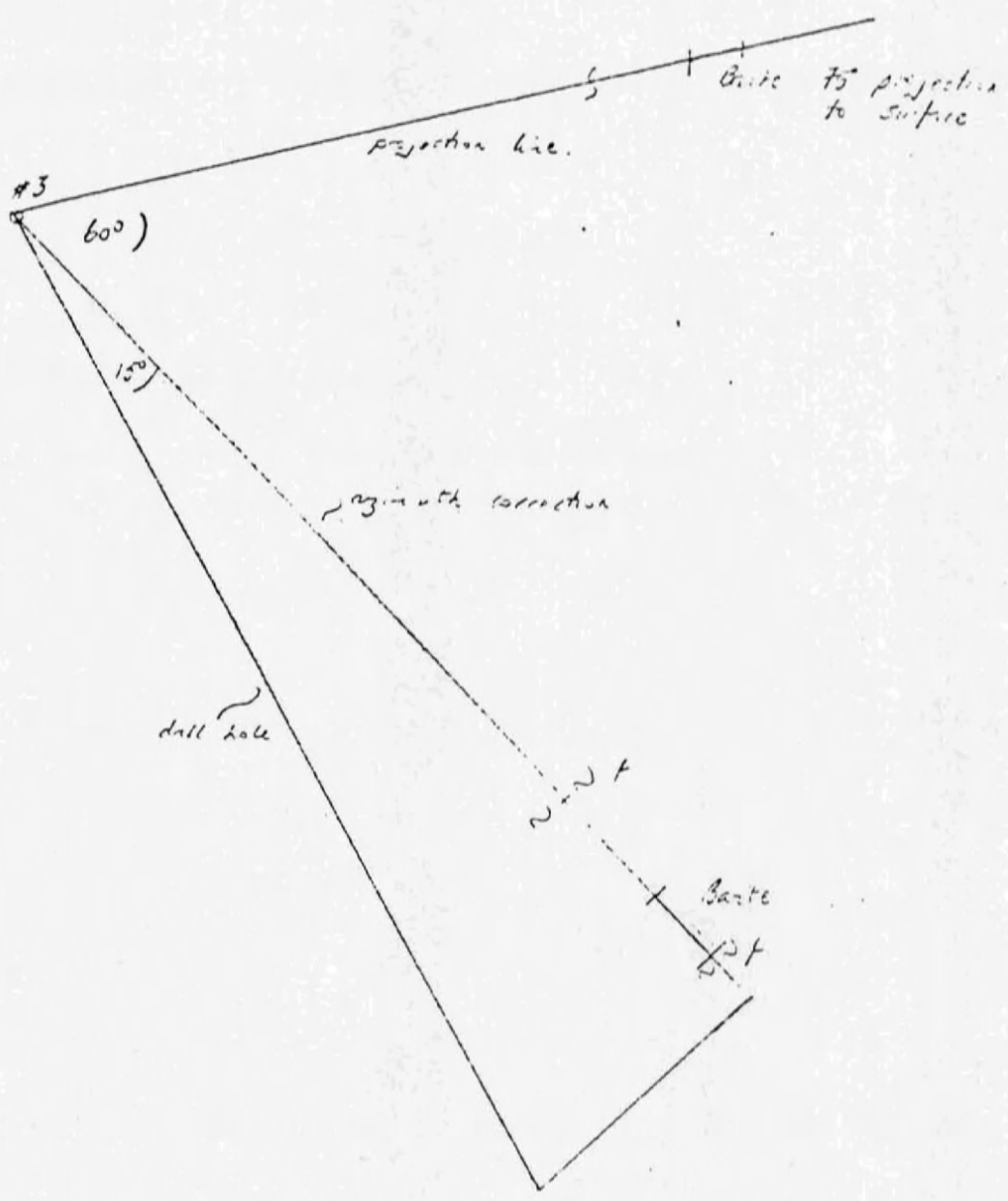
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4 OCT 1979



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JW.P



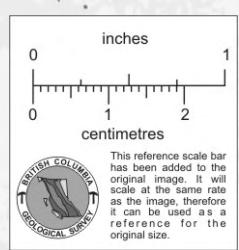
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CORRECTION CHART #3

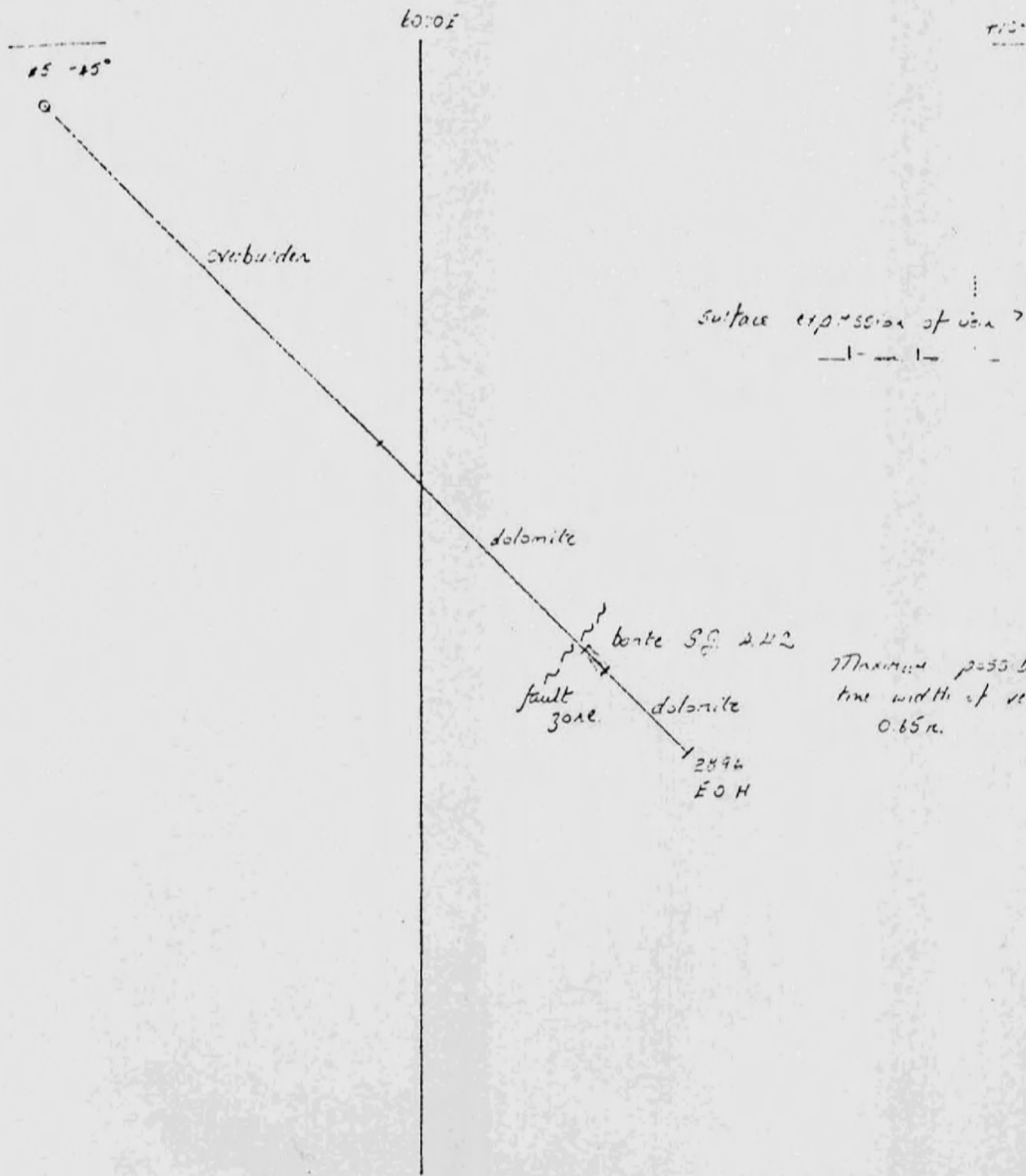
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JWF

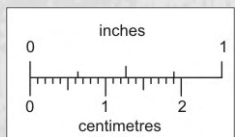
Section looking 045°



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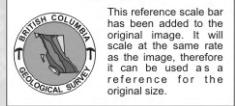
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DRILL HOLE SECTION #5



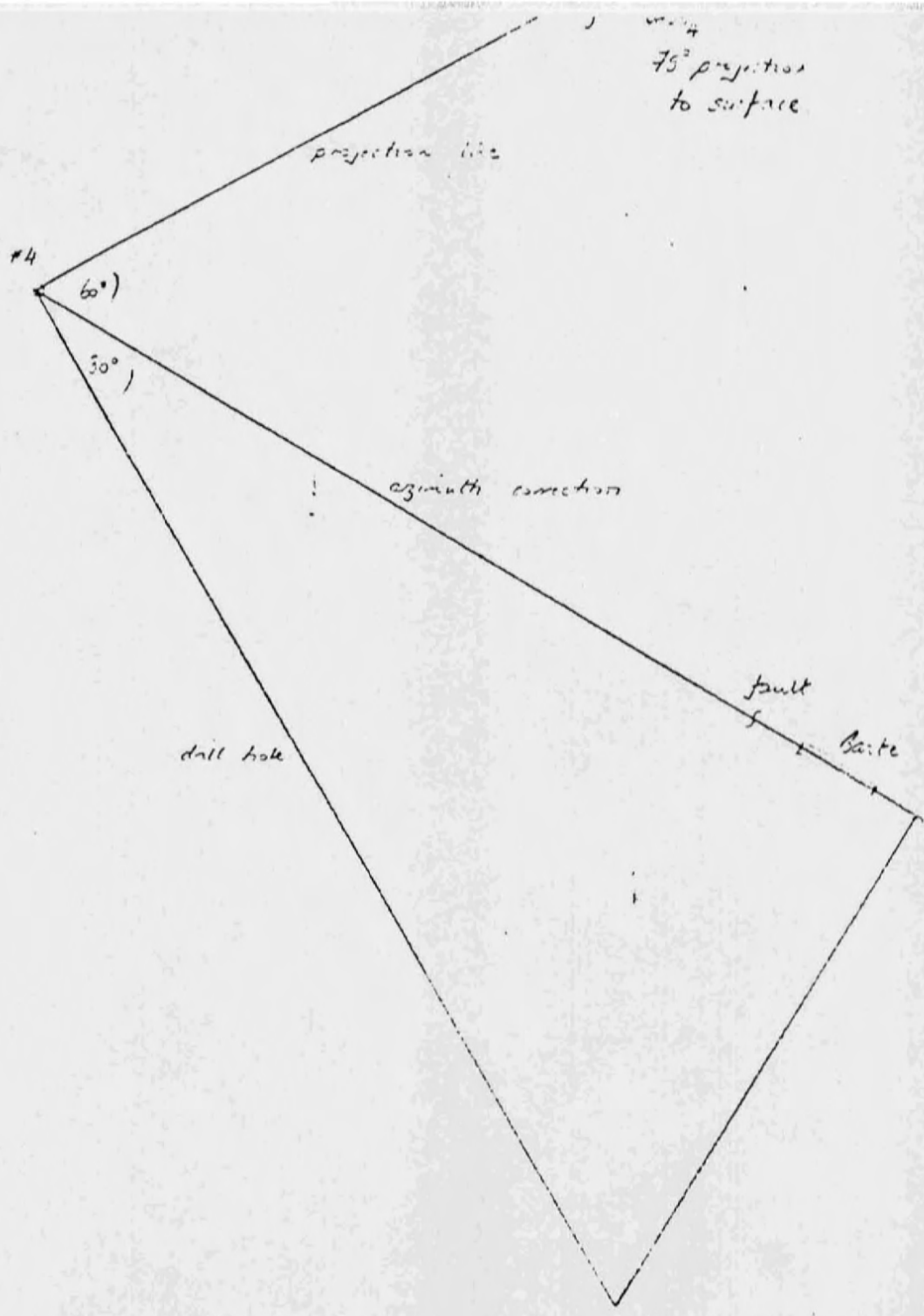
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4 OCT 1979



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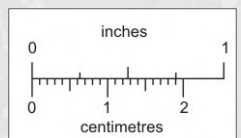


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CORRECTION CHART # 4

SCALE 1:200 4 OCT 1979



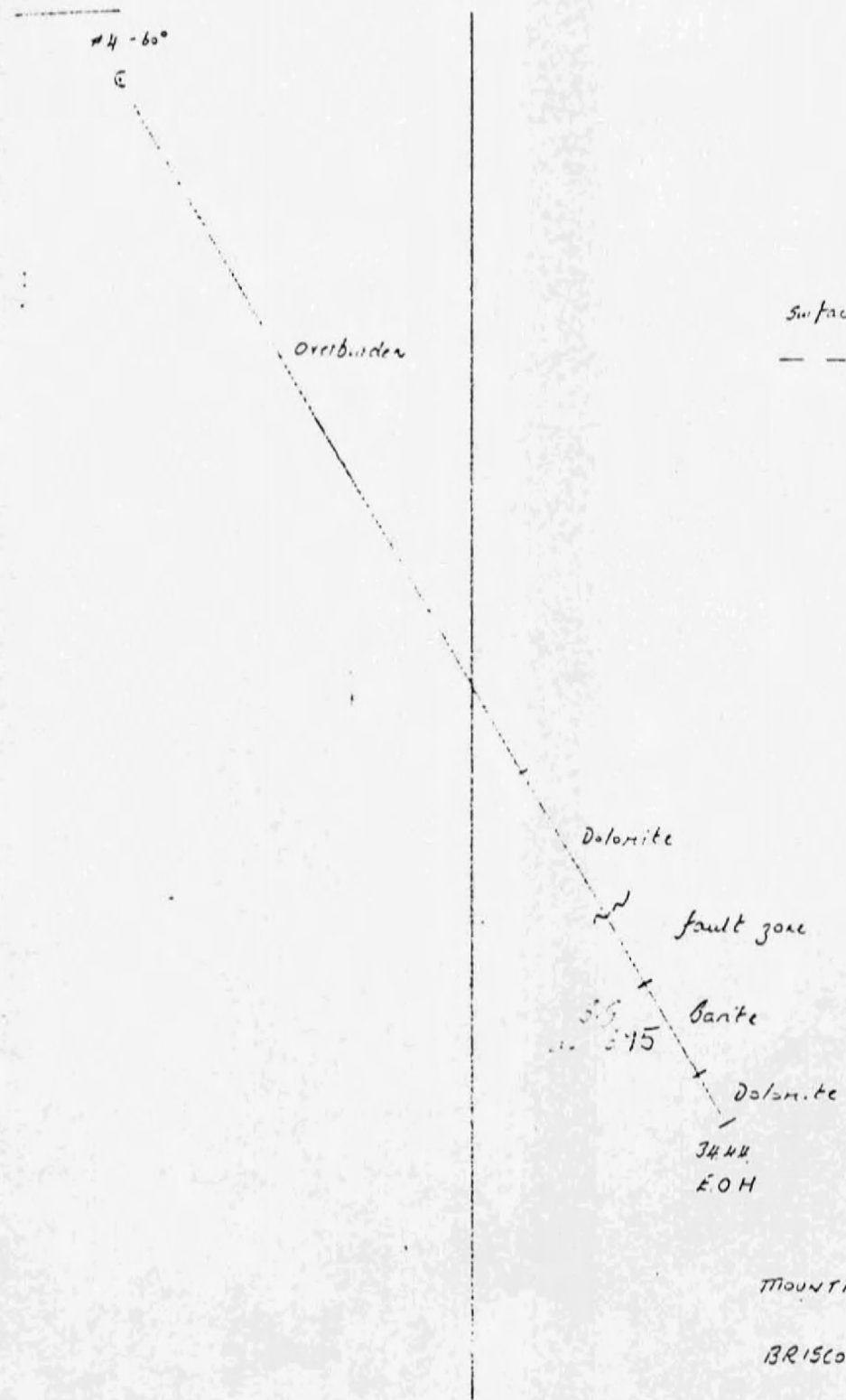
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Section 1 Aug 530°

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12.15.60



Maximum possible
true width of vein
2.64M

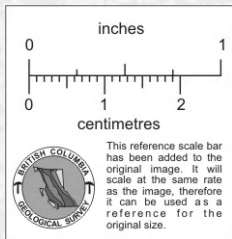
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DRILL HOLE SECTION # 4

1:200

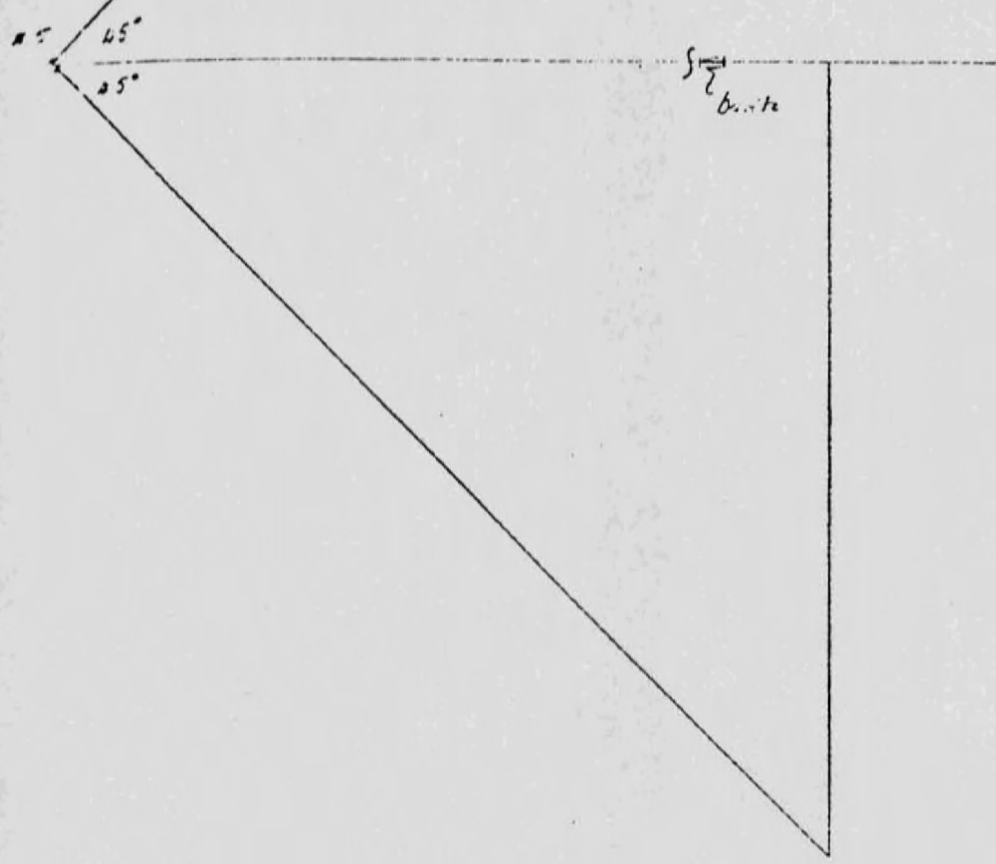
4 OCT 1979



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750 p.f

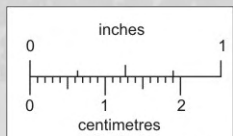


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CORRECTION CHART # 5

SCALE 1:100 4 OCT 1979



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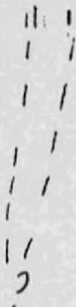
Josiah cutting v.

+35m Level

#6 -60°

Van at surface

overburden



dolomite

1225 FCH

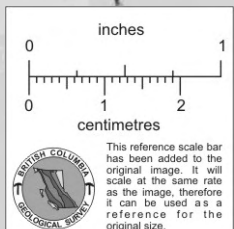
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DRILL HOLE SECTION #6

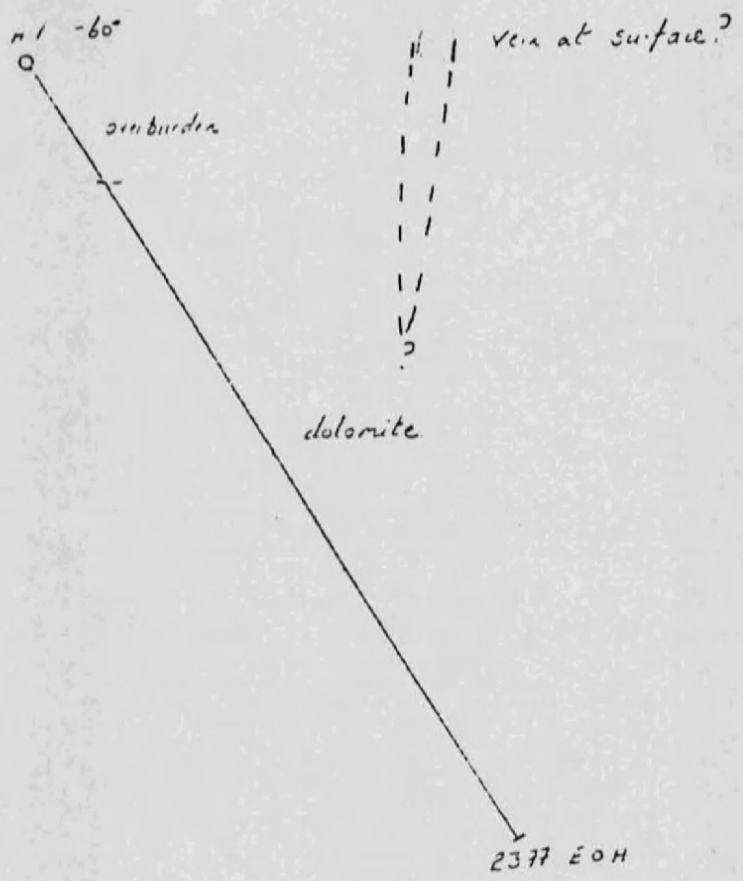
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FLP

Section looking 045°

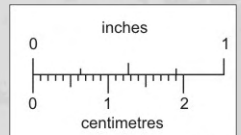


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DRILL HOLE SECTION # 7

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