5379

CRAIGMONT MINES LIMITED

ASSESSMENT REPORT

OF 92I/2W

WORK

ON THE

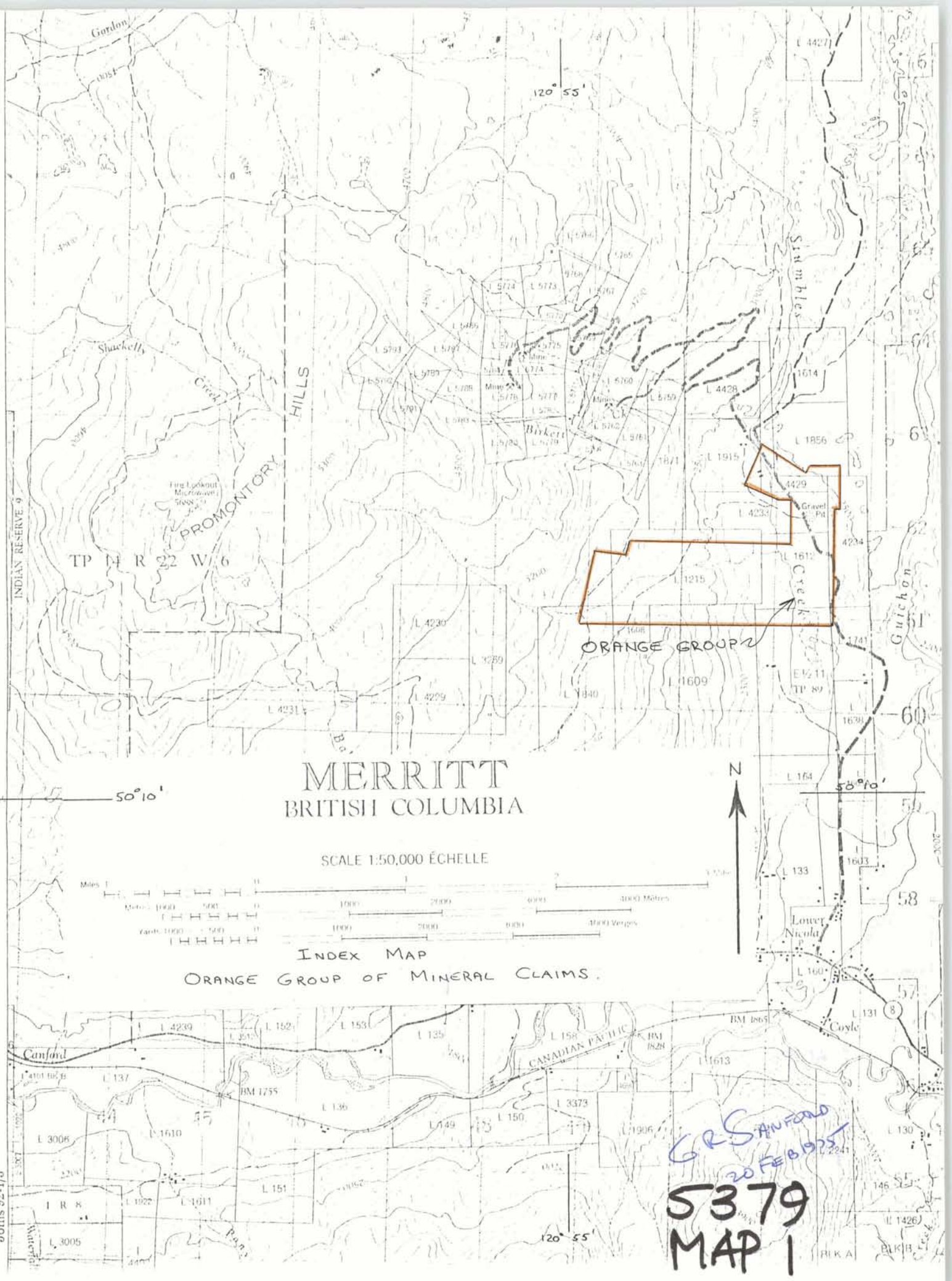
ORANGE GROUP OF MINERAL CLAIMS

LOCATED 10 MILES NORTH WEST OF MERRITT, B.C.

N 50°10' E 120°55'

NICOLA MINING DIVISION

G.R. SANFORD GEOLOGIST


MERRITT
BRITISH COLUMBIA
SCALE 1:50,000 ÉCHELLE
INDEX MAP
ORANGE GROUP OF MINERAL CLAIMS.
ORANGE GROUP
TP 14 R 22 W 6
PROMONTORY HILLS
INDIAN RESERVE 9
Shackelly Creek
Gordon
Stumbles
Guichon
Birkett
Lower Nicola
Coyle
Canford
CANADIAN PACIFIC
BM 1755
BM 1865
BM 1828
50°10'
120°55'
N
G R SANFORD
20 FEB 1975
5379
MAP 1

ASSESSMENT REPORT OF WORK ON THE ORANGE

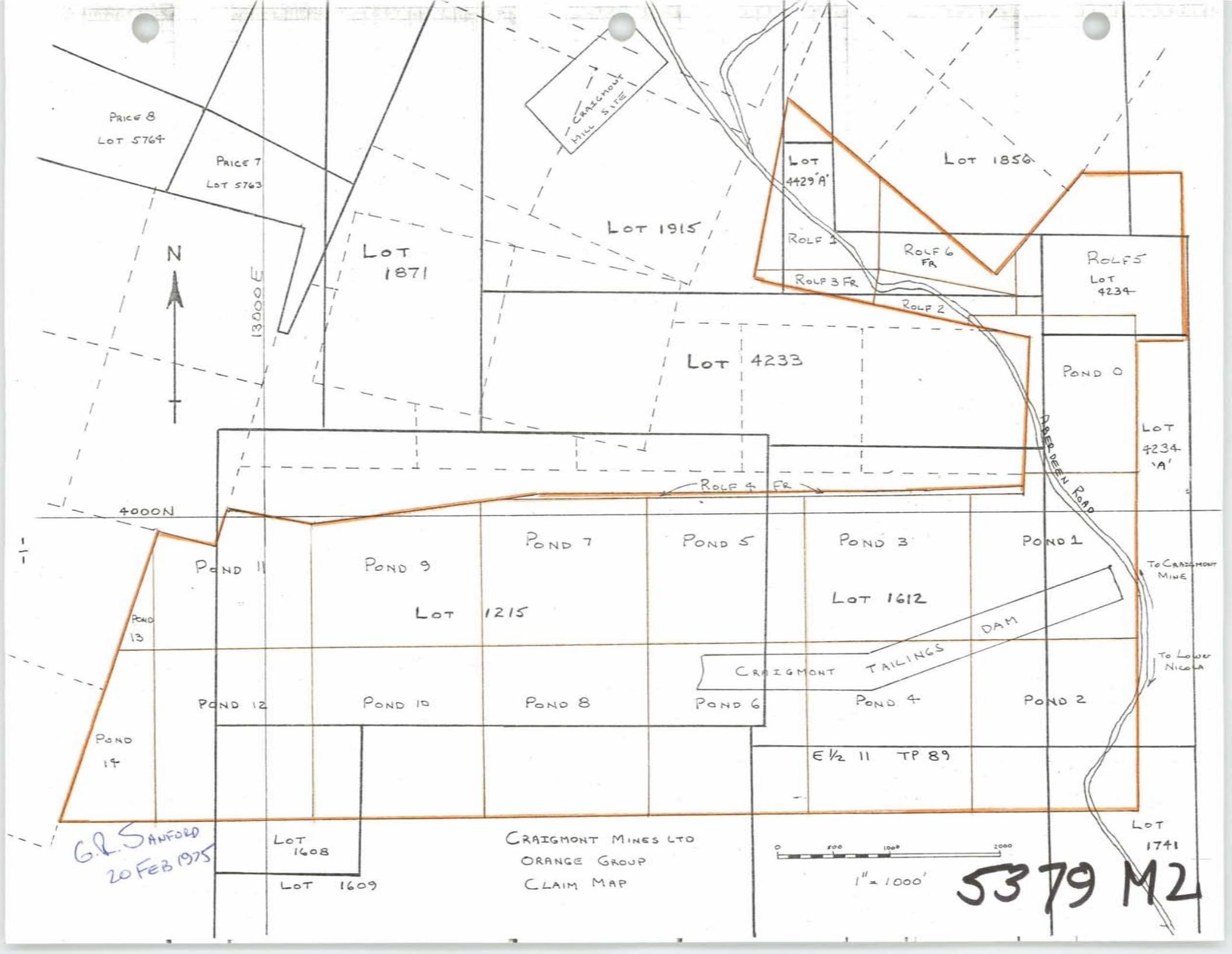
GROUP OF MINERAL CLAIMS

TABLE OF CONTENTS

ASSESSMENT REPORT OF WORK ON THE ORANGE

GROUP OF MINERAL CLAIMS

LIST OF ILLUSTRATIONS


PRICE 8
LOT 5764
PRICE 7
LOT 5763
CRAIGMONT MILL SITE
LOT 1915
LOT 1856
LOT 4429 'A'
ROLF 1
ROLF 6 FR
ROLF 5
LOT 4234
ROLF 3 FR
ROLF 2
LOT 1871
N
13000E
LOT 4233
POND 0
ABERDEEN ROAD
LOT 4234 'A'
ROLF 4 FR
4000N
POND 11
POND 9
POND 7
POND 5
POND 3
POND 1
TO CRAIGMONT MINE
LOT 1215
LOT 1612
POND 13
DAM
CRAIGMONT TAILINGS
TO LOWER NICOLA
POND 12
POND 10
POND 8
POND 6
POND 4
POND 2
POND 14
E½ 11 TP 89
LOT 1608
LOT 1609
LOT 1741
CRAIGMONT MINES LTD
ORANGE GROUP
CLAIM MAP
0 500 1000 2000
1" = 1000'
G.R. SANFORD
20 FEB 1975
5379 M2

ASSESSMENT REPORT OF WORK ON THE ORANGE

GROUP OF MINERAL CLAIMS

STATEMENT OF EXPENSES

Augering of three test holes under contract to Connors Drilling Limited (222 Feet) 3-5 September 1974	$	960.00
Mobilization and Demobilization to and from Merritt, B.C. using Craigmont men and equipment 3-5 September 1974		100.00
Moving from site to site using Craigmont front-end loader 3-5 September 1974		100.00
Supervision by G.R. Sanford or J. Johnstone 3-5 September 1974		100.00
Assay Costs 888 determinations @ 3.50 per sample		3,108.00
Control Survey J. Brennan, G. Miller 4 days @ $100/day - Claim post locations- March-April 1974		400.00
1 day @ $100/day - Auger hole collars- 5 September 1974		100.00
Reclamation Costs Irrigation of tailings dam 1 man hr/day for 120 days @ 5.00/hr May - September 1974		600.00
Report Preparation G.R. Sanford - 5 days @ 75.00/day		375.00
TOTAL	$	5,843.00

ASSESSMENT REPORT OF WORK ON THE ORANGE

GROUP OF MINERAL CLAIMS

DESCRIPTION OF CLAIMS

The Orange Group of twenty-one Located Mineral Claims and Fractions, owned by and operated by Craigmont Mines Limited, is located approximately ten miles northwest of Merritt, B.C. These claims cover a portion of Craigmonts' tailings pond and the ground to the east and west. The eastern claim bondary is partially coincident with the paved mine access road leading from Lower Nicola.

The individual claims, record numbers and date due for assessment work are as follows:

Claim	Record Number	Date Due
Pond 0-Pond 14	59780 - 59794	28 February 1975
Rolf 1, Rolf 2	59776 , 59777	28 February 1975
Rolf 3Fr, Rolf 4Fr	59778 , 59779	28 February 1975
Rolf 5	59879	7 March 1975
Rolf 6Fr	59880	7 March 1975

No work was attempted on claims Pond 8 to Pond 14. These claims will be allowed to lapse.

ASSESSMENT REPORT OF WORK ON THE ORANGE

GROUP OF MINERAL CLAIMS

LOCATION AND ACCESS

The Orange Group of Mineral Claims was staked by Craigmont Mines Limited in early spring 1974, to cover portions of the Craigmont tailings pond, and ground to the east and west which had become open. Aberdeen Road, connecting the mine and Lower Nicola, crosses the eastern portion of the claims. Several dirt mining and logging roads provide easy access to most of the claims.

TOPOGRAPHY

The eastern half of the claim group lies near the floor of the broad gravel filled valley of Guichon Creek. Locally, Stumbles Creek has cut into this valley, creating the basin into which the Craigmont Mine tailings are pumped. Stumbles Creek was diverted to the west, around the tailings pond, and now flows along the base of a bedrock scarp at the western edge of the valley. Here the land rises abruptly about 150 feet to a level plateau which covers the western half of the claim group. Vegetation is typical dry interior pine forest, with open aspen groves in moister areas.

DESCRIPTION OF WORK DONE

1. Augering of Test Holes

a) Purpose of Auger Test Holes

In order to assess the potential of reworking the Craigmont tailings material, vertical test holes were augered into the tailings at three locations. This was a preliminary attempt, testing the method, before initiation of a full scale sampling program, if the results indicated that this was warranted. It was hoped that if any distribution of values existed, caused through winnowing, gravity settling, etc. as the tailings were pumped into the pond, it would be found. Samples were taken at three foot intervals and tested or assayed for moisture, copper, acid soluble iron, magnetics and magnetic iron.

b) Location of Test Holes

Holes 1 and 2 were drilled 1500 feet apart, along the crest of the tailings dam. Hole 3 was drilled 1200 feet north of Hole 2, about one quarter of the way across the tailings pond from the west. Holes 1 and 2 were collared immediately adjacent to discharge spigots, while Hole 3 is about 700 feet from the nearest spigot, and lies between two decant towers.

Hole 1 is collared on the Pond 3 Mineral Claim and Holes 2 and 3 on the Pond 5 Mineral Claim.

The coordinates of the holes are:

Hole	Latitude	Departure	Elevation	Length
1	3220.39	19167.44	2262.30	81'
2	2898.04	17678.20	2260.40	87'
3	4106.89	17141.95	2252.00	54'

The holes are shown on plan on Drawing No. 1

c) Detailed Method

A skid mounted BBS1 diamond drill was used to auger the test holes. The drilling was done under contract by Connors Drilling Limited, using 3 inch diameter auger sections.

Each hole was collared in the center of a plywood sheet. As each additional 3 foot length of auger was added, the total spill from the previous 3 foot run was collected and sealed in plastic sample bags. The amount collected averaged five pounds per sample. The sampling continued until the auger penetrated the gravel surface at the bottom of the tailings pond. The drill string was then pulled out of the hole and the material adhering to each auger section was also collected. It was realized from the start that at most the first 15 feet down and the last 15 feet up could be considered as representative of in place tailings. The other samples would come from a "grey area" between. It was felt that this method would give an approximation of more detailed and expensive methods such as standard penetration with split spoon disturbed sampling or undisturbed sampling with Shelby tubes.

d) Assay Procedures

All samples were processed in Craigmont's own assay lab using routine Craigmont techniques. Samples were tested for water content by measuring the weight loss after oven drying for 24 hours. Copper values were determined using polarographic procedures. As the copper content was expected to be very low, each sample was assayed twice, and the average of the two values taken. The polarograph used was a Leeds - Northrup Type E Electrochemograph with dropping electrode. Samples were decomposed in nitric acid and potassium chlorate. Ammonium chloride and sulphuric acid were added and boiled. Ammonium hydroxide was added to precipitate iron. Sodium sulphite and gelatin were added and the resulting solution tested on the polarograph where the deflections of an ink tracer are proportional to the copper concentration as measured against a known standard.

Craigmont tailings contain considerable amounts of magnetite and

hematite, and assays were made for these as well. Assays for oxide iron were made using acid digestion and end point titration. Samples were dissolved in sulphuric acid and then hydrochloric acid. The filtrate was reduced with $SnCl_2$. Excess $SnCl_2$ was eliminated by addition of $HgCl_2$. Sulphuric-phosphoric acid was added and the resultant solution titrated to a blue end point with standardized $K_2Cr_2O_7$. The oxide iron assay is the total of magnetitic plus hematitic iron.

Magnetics were run using a Davis Magnetic Tube. This gives the total magnetic material in the sample and includes small particles of gangue attached to any magnetic matter. The magnetic material separated in the Davis Tube was then assayed for iron, considered to be all magnetic iron, using end point titration as described above. Thus oxide iron less magnetic iron gives hematitic iron. To convert to percent magnetite or percent hematite, these values are multiplied by 1.0/0.7236 or 1.0/0.6994 respectively, the weight percentages of iron in these two minerals.

The breakdown for assay determinations is as follows:

Hole 1	54 Samples x 6 Assays	=	324 Determinations
Hole 2	58 Samples x 6 Assays	=	348 Determinations
Hole 3	36 Samples x 6 Assays	=	216 Determinations
	TOTAL		888 Determinations

Moisture, two copper, oxide iron, magnetics and magnetic iron assays were performed on each sample. Assay work sheets are attached in Appendix I.

e) Results

All results are presented in graphical form, showing the value tested or assayed plotted against increasing depth. Sample results are plotted equally at three foot intervals, but no true depth is shown.

i) Average Values

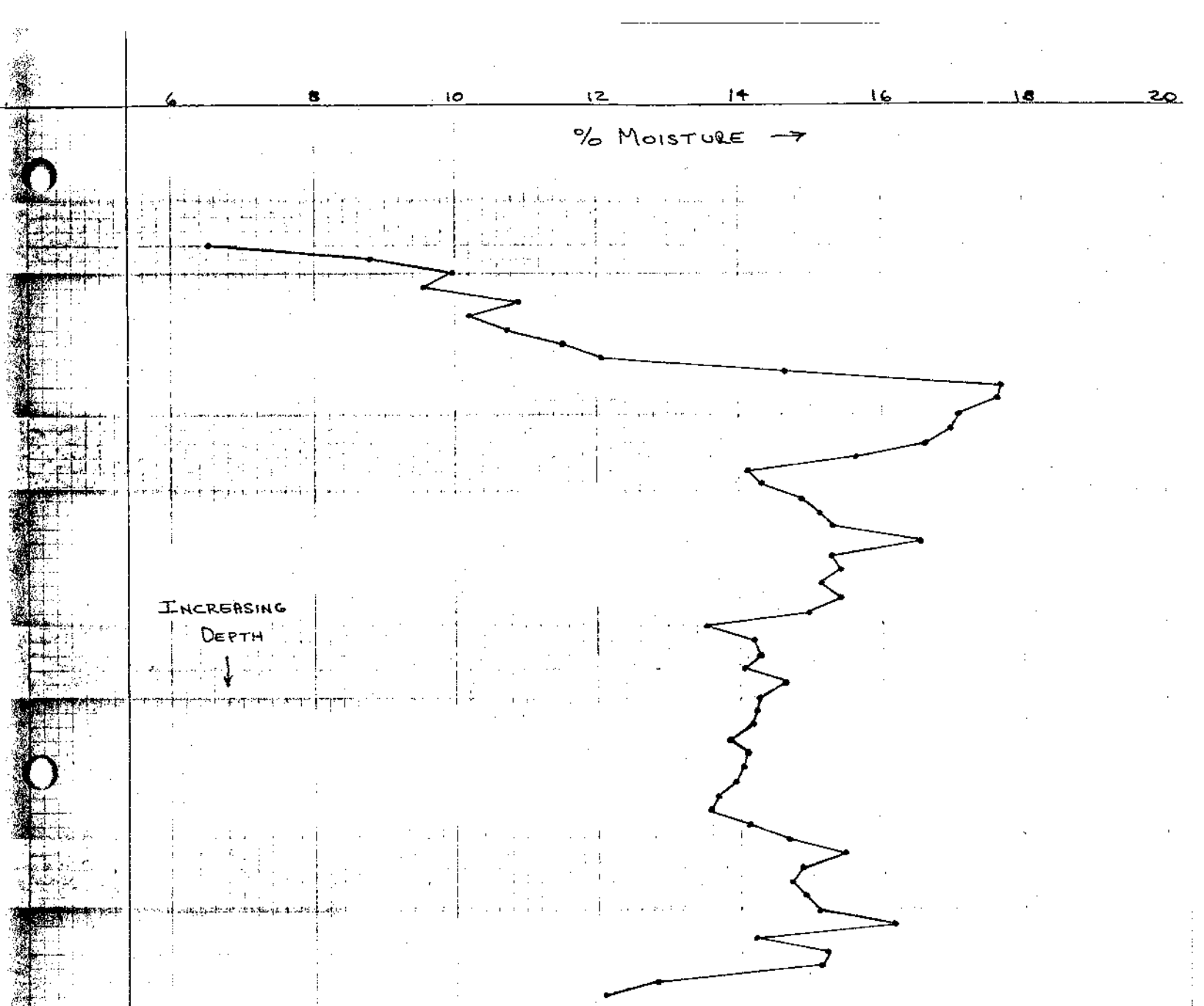
The arithmetic average of the values encountered in each hole is shown below.

	Hole 1	Hole 2	Hole 3	Average
Average Moisture	14.05	14.55	16.85	15.15
Average Copper	0.069	0.078	0.078	0.075
Average Oxide Iron	16.38	15.72	14.09	15.40
Average Magnetic Iron	4.82	5.15	5.22	5.06
Average Hematitic Iron (Oxide Iron-Magnetic Iron)	11.56	10.57	8.86	10.33
Average Magnetics	10.80	10.96	11.04	10.93

ii) Moisture Content

Moisture content was measured to give an indication of the amount of water in the tailings. All three holes were relatively free of moisture near surface, as would be expected. Holes 1 and 2, centered on the tailings dam, are more or less indentical, averaging 15.0% and 15.4% respectively, once below the surface evaporation and percolation zone. The moisture increases steadily over the first third of the hole and remains nearly constant at 14 to 16 percent moisture to the base of the tailings. The higher moistures near the top of Hole 1, (16 to 18 percent) reflect the downward percolation of water from tailings which had been pumped in this area a few weeks earlier. Both holes penetrated into the gravel pond base, reflected by the sudden drop in moisture at the bottom of the hole.

Hole 3, reaching 20 percent moisture at a depth of ten feet, is higher in moisture throughout than Holes 1 and 2, averaging 17.3% moisture below the evaporation zone. The higher moisture is caused by the recent pumping of tailings in this area and more so by nearness to the slimes pond, which had covered this position at one time. It is known from previous stability test work that Holes 1 and 2 are entirely above the phreatic line while parts of Hole 3 undoubtedly lie below the phreatic line. This hole is also located between two decant towers.

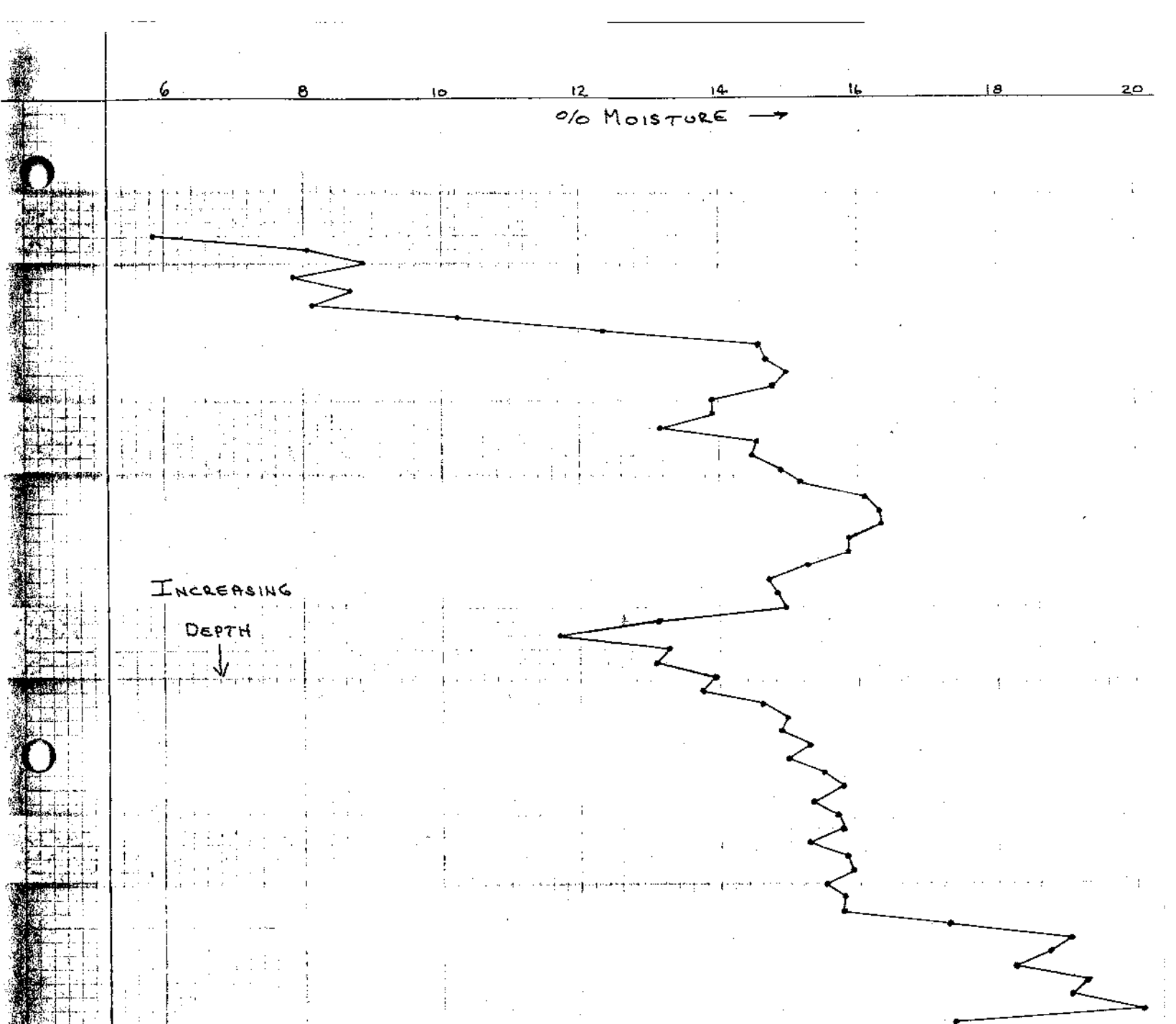


Hole # 1

Moisture
vs
Depth

Samples at 3 ft intervals

G.L. Sanford
20 Feb 1975

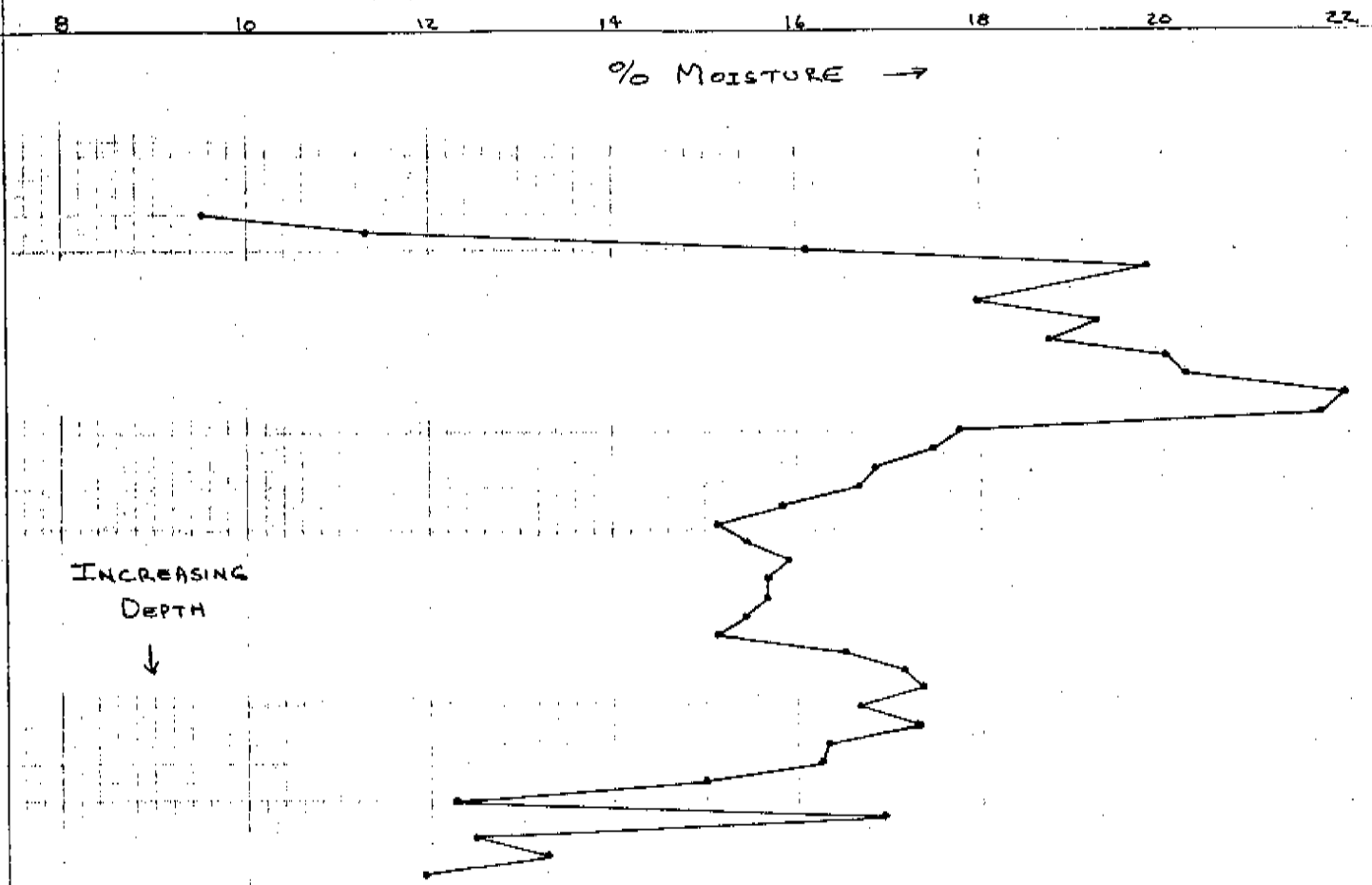


HOLE # 2

MOISTURE
VS
DEPTH

Samples at 3 ft intervals

G R SANFORD
20 FEB 1975



Hole #3

Moisture

vs

Increasing Depth

Samples at 3ft intervals

G L Sanford
20 Feb 1975

iii) Copper Content

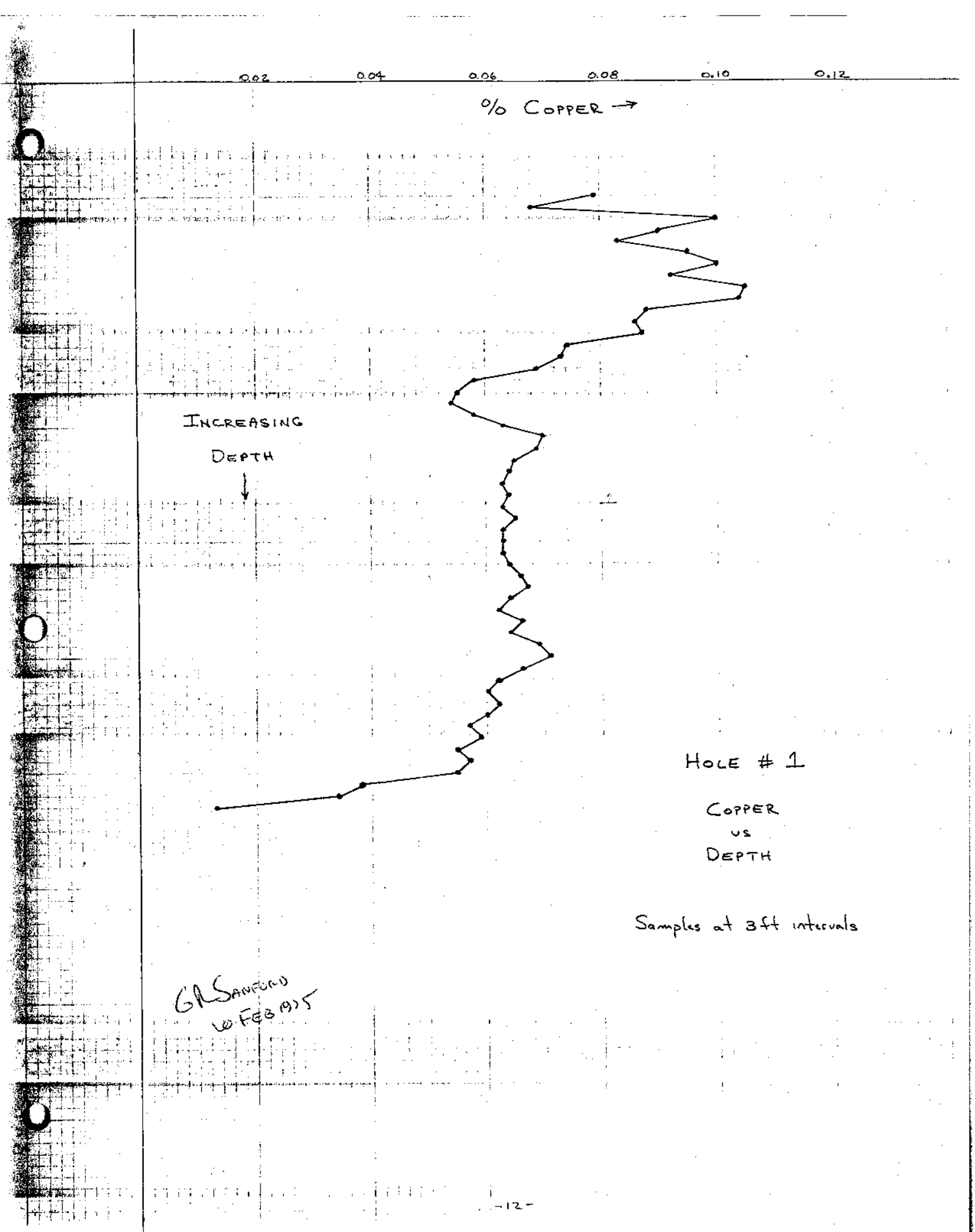
Copper content was measured because it is a value over which there is some control and which should not have significantly changed over the years. Routine copper assays are made daily of mill tailings, and any distribution of values could hopefully be detected.

Holes 1 and 2 exhibit a gradual decrease in copper content with depth, fluctuating in the top half of the hole and remaining nearly constant over the bottom half. This shows the change from an open pit operation to underground mining. Upon conversion to underground mining, the inherent difficulties of dilution, harder milling rock and relatively irregular grade of mill feed from inflexible underground operations, all contribute to the increased and somewhat fluctuating copper content of the tailings.

Hole 3 is reversed to Holes 1 and 2, with higher grades near the bottom. In the early stages of the tailings pond, the slimes pond was located in the area of Hole 3. The slimes are noteably higher in copper content than the coarser tailings. As the pond began to fill with tailings, the slimes pond retreated from this area, the former position being covered with tailings.

There is an apparent zonation of copper values due to gravity settling near the edges of the pond as Hole 3 contains 0.02 to 0.03 percent less copper at its' top than do Holes 1 and 2, located immediately at the discharge spigots.

The average copper content of Hole 1 was 0.069% and 0.078% for both Holes 2 and 3. It is doubtful that this amount of copper could be economically extracted if the tailings are reworked.

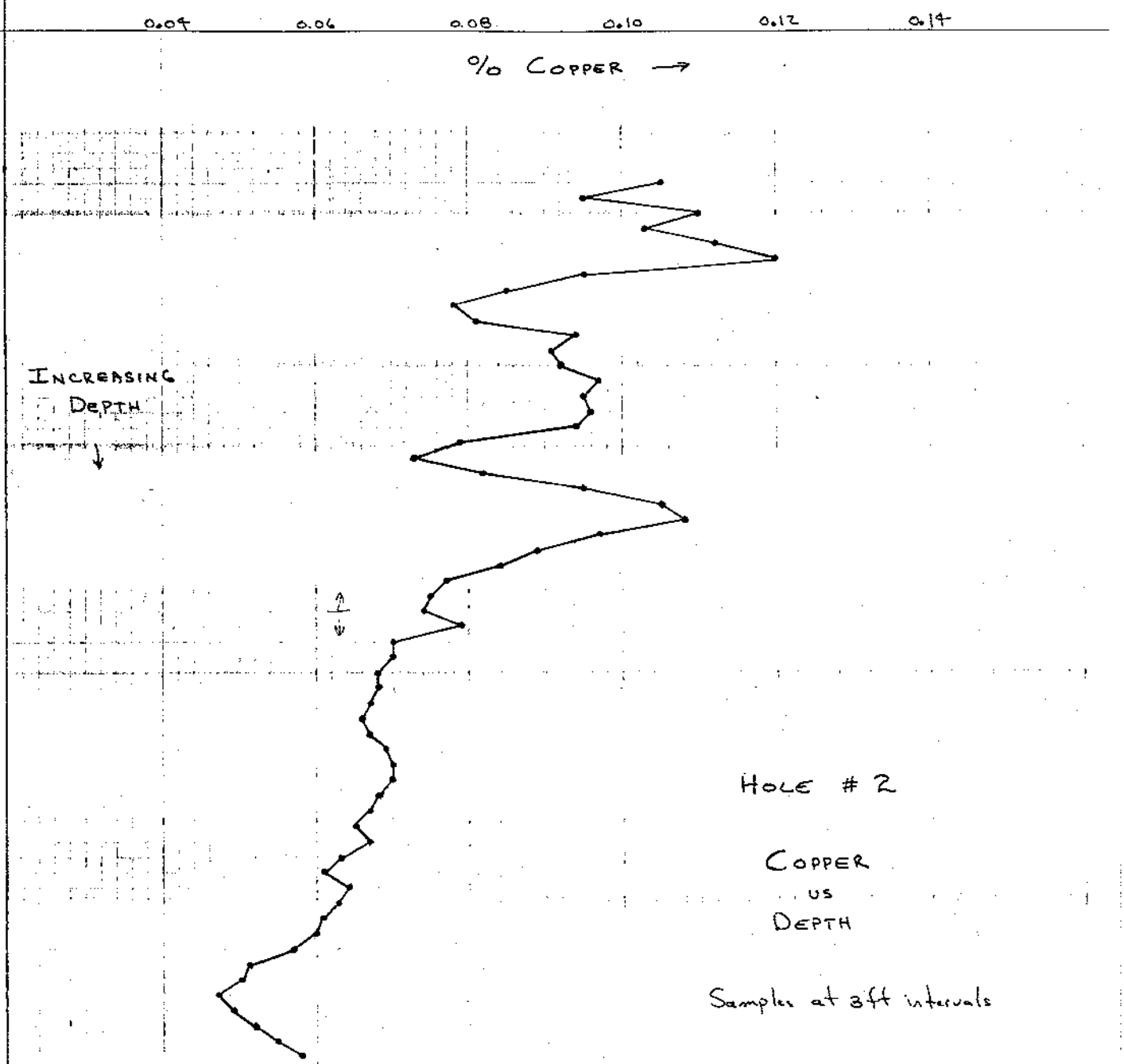


HOLE # 1

COPPER
VS
DEPTH

Samples at 3ft intervals

G.L. SANFORD
10 FEB 1955

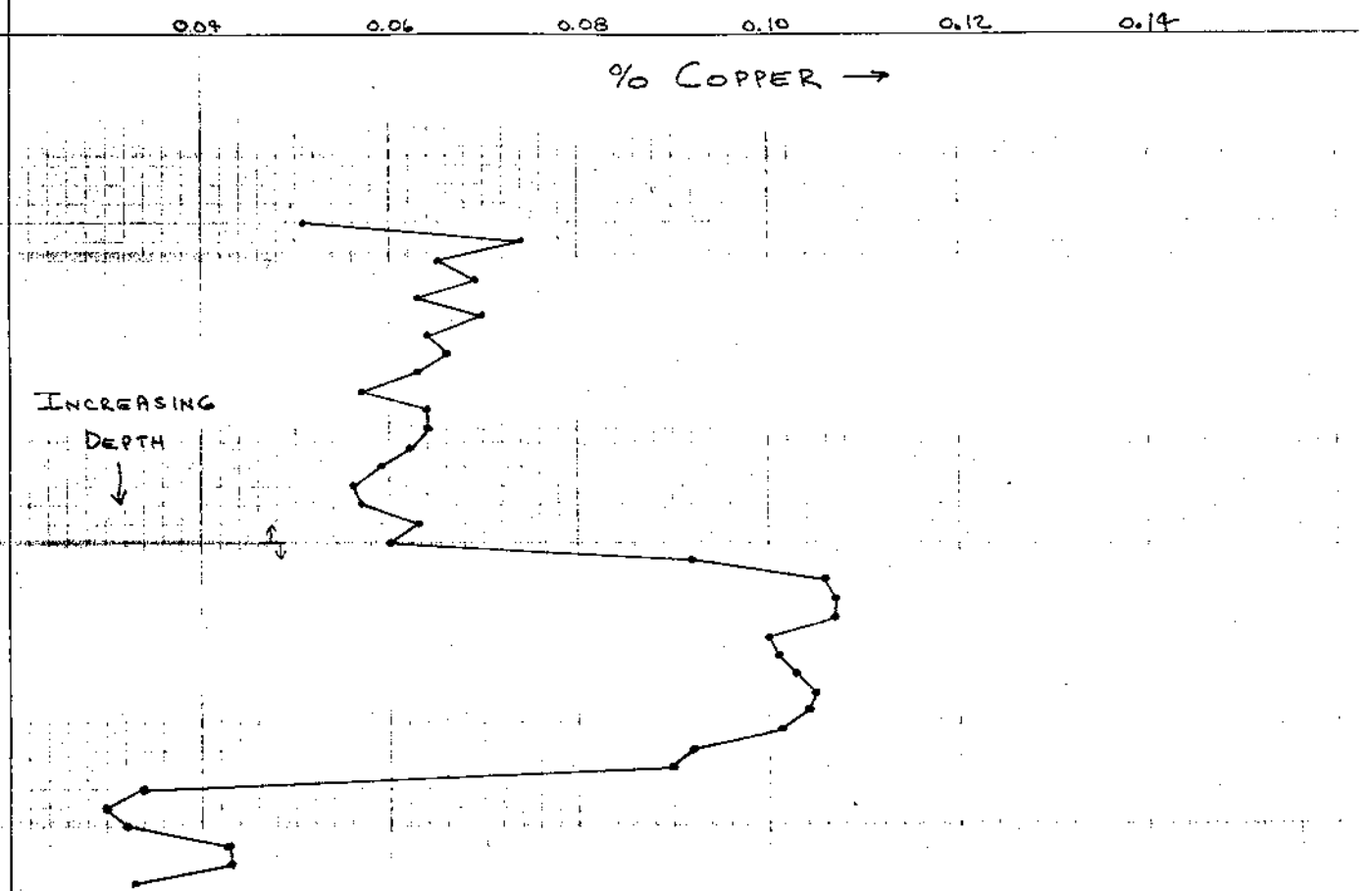


Hole # 2

Copper vs Depth

Samples at 3ft intervals

G R Sanford
29 Feb 1975



HOLE # 3

COPPER
VS
DEPTH

Samples at 3 ft intervals

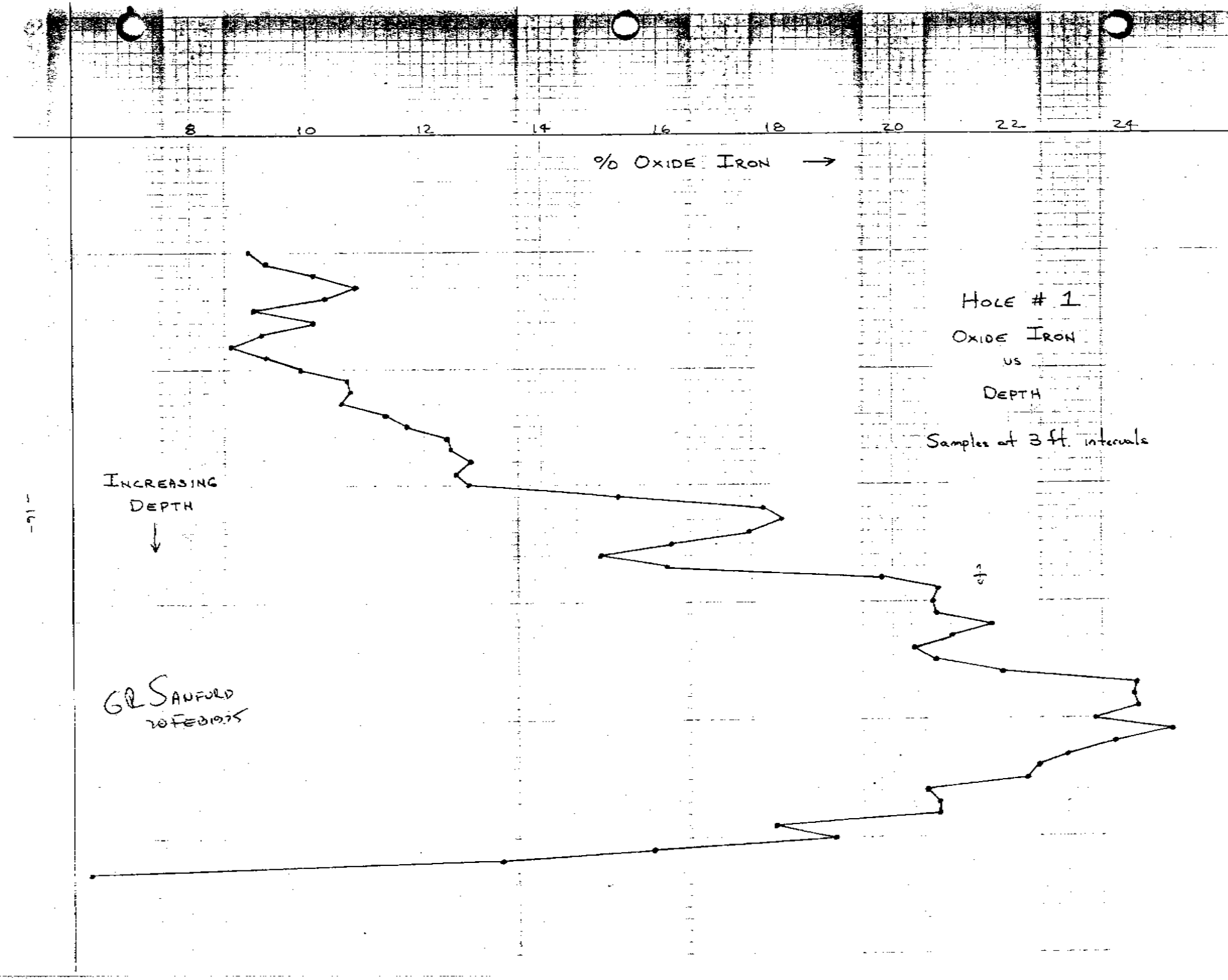
G.R. SANFORD
20 FEB 1975

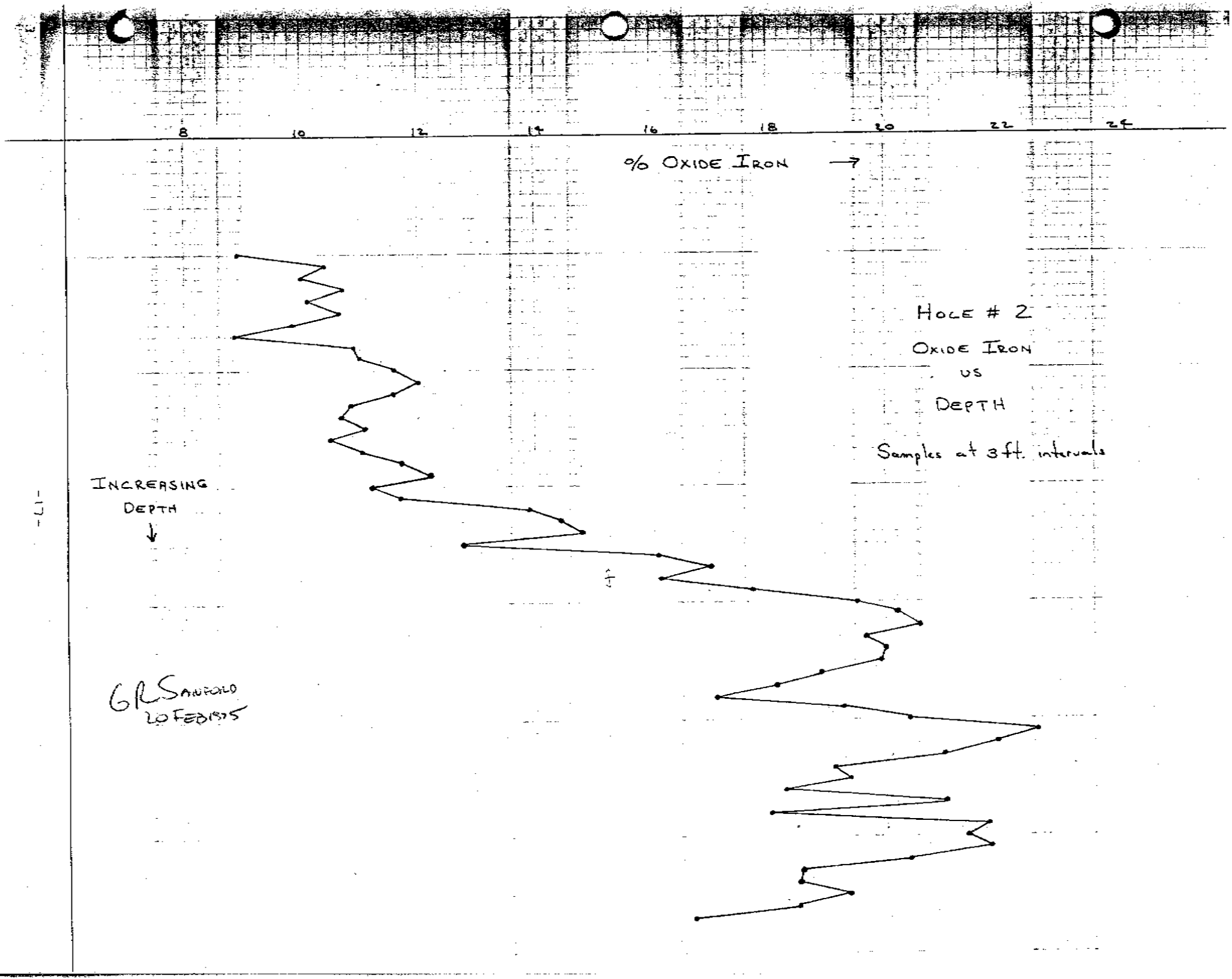
iv) Oxide Iron Content

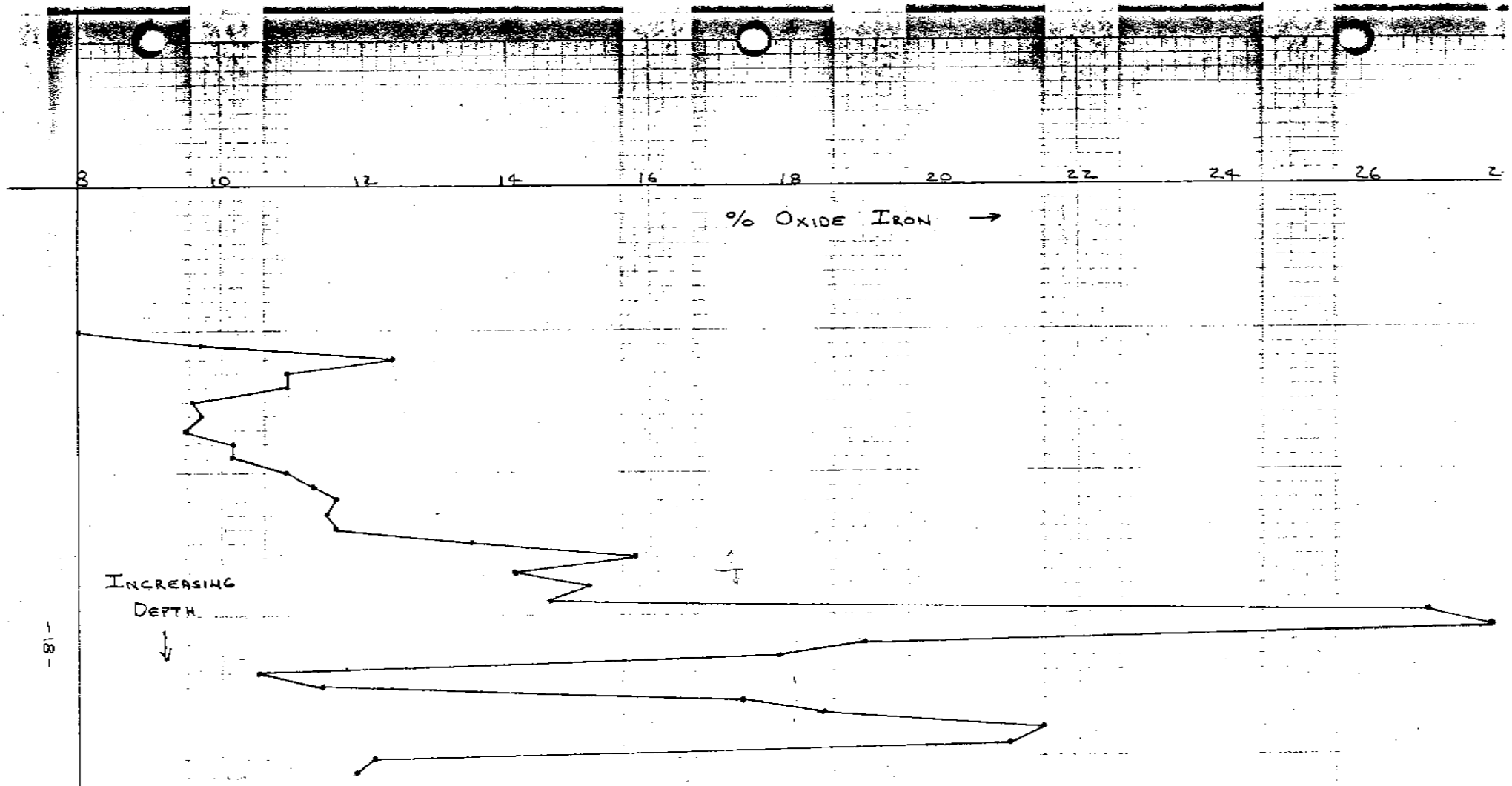
All three holes show an increase in percent oxide iron with depth. Near bottom values of 18 to 22 percent iron decrease rapidly to 10 to 12 percent halfway up the holes. This decrease has two causes. The gradual decline from 20 percent plus to 12 percent indicates the phased conversion from an open pit operation to an underground method, where dilution of waste rock with a low iron content is significant. The abrupt change in this gradual decline at 12 percent iron reflects a combination of total conversion to the underground method and of much more significance, the routine removal of portions of the magnetic iron, commencing in late 1969.

Hole 3 contains more erratic and higher grades at depth than Holes 1 or 2. As with copper, this whould reflect higher iron content in the slimes. More erratic values would be expected in Hole 3 as pumping is infrequent in this area, and there is not the mixing of values as in the more continuously pumped areas of Holes 1 and 2.

The average iron content of Hole 3 (14.09% vs 16.38% and 15.72% for Holes 1 and 2 respectively) is somewhat lower due to the location of the hole. This hole is 1200 feet upstream from the tailings dam and the higher iron content tailings from the open pit operations are not as thick or are lacking at the upper and shallower end of the pond.


8
10
12
14
16
18
20
22
24
% Oxide Iron →
Hole # 1
Oxide Iron
vs
Depth
Samples at 3 ft. intervals
Increasing
Depth
GR Sanford
20 Feb 1975


8
10
12
14
16
18
20
22
24
% Oxide Iron →
Hole # 2
Oxide Iron
vs
Depth
Samples at 3 ft. intervals
Increasing
Depth
↓
G.L. Sanford
20 Feb 1975



GR Sanford
20 Feb 1975

Hole # 3

Oxide Iron

vs

Depth

Samples at 3 ft intervals

v) Magnetics and Magnetic Iron

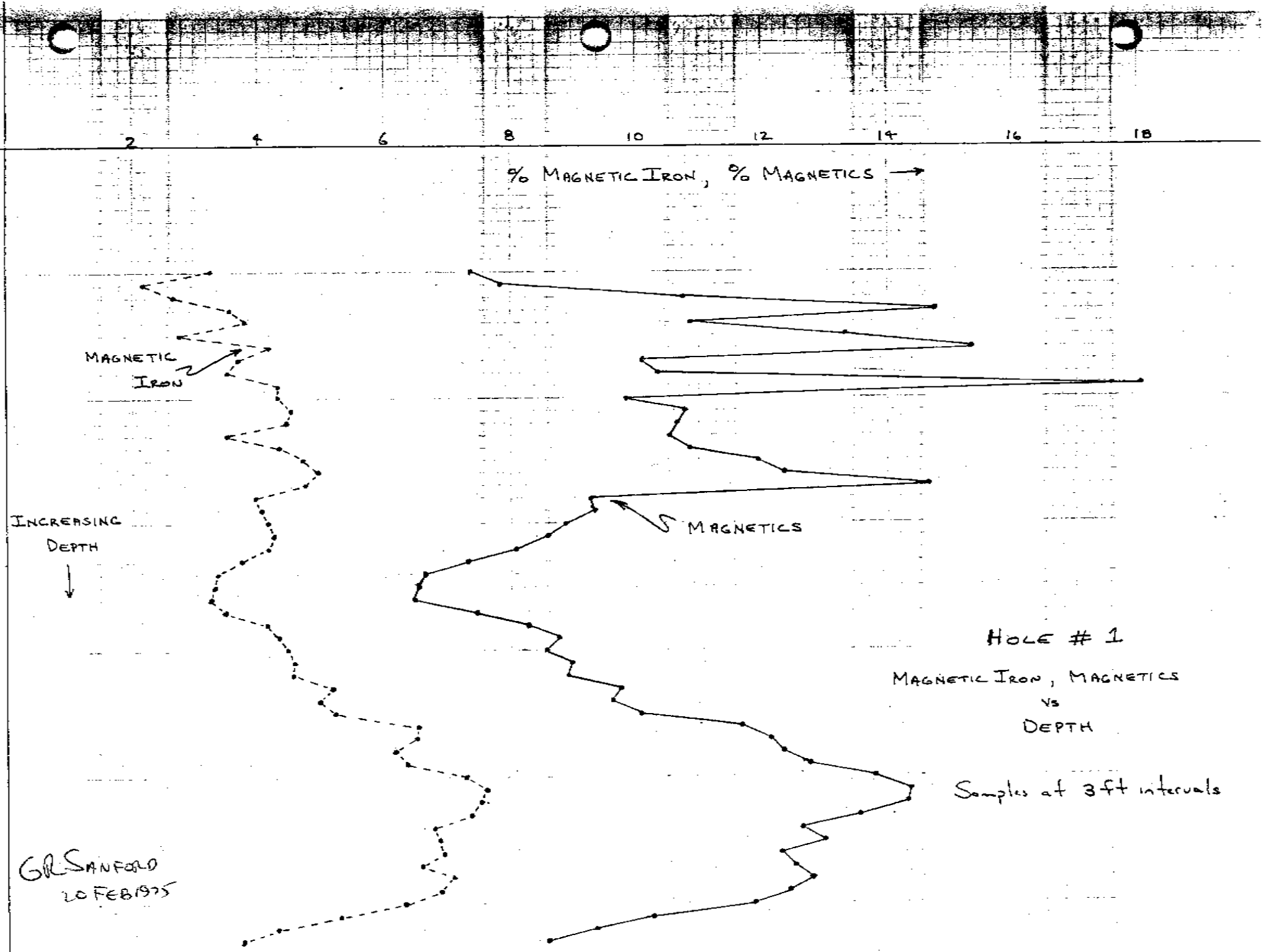
Magnetics and Magnetic Iron are shown on the same graphs as they are strongly related. These values are useful as milling indicators at Craigmont. If the magnetics remain above 11 percent, there is no difficulty in grinding or in recovery of magnetite. When below 11 percent, problems are encountered.

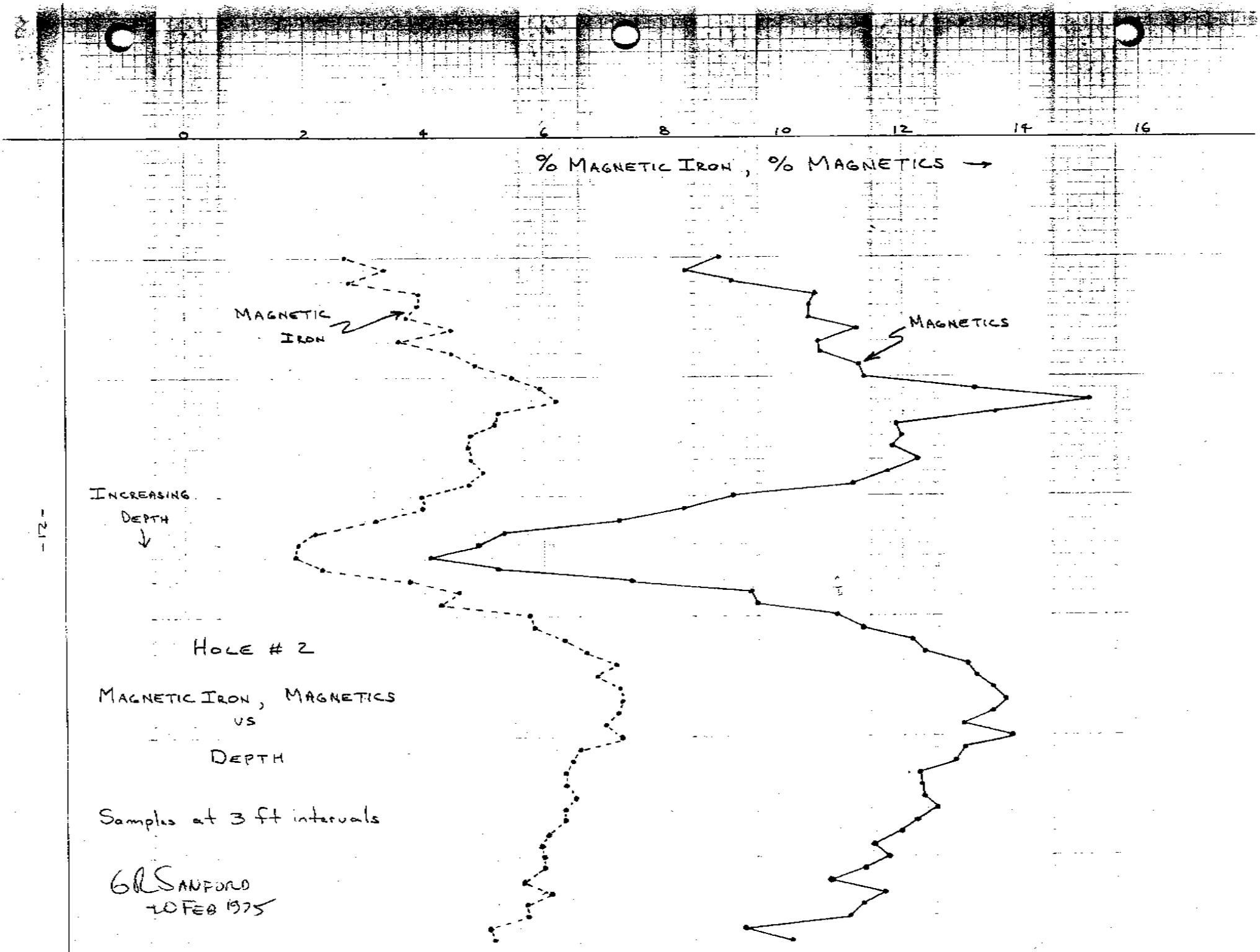
Magnetics

Holes 1 and 2 are more or less identical. The embayment halfway up the holes reflects the milling of lower grade open pit stockpiled ore containing lesser amounts of iron as underground operations were being phased in. As underground mining of higher grade material increased and stockpile recovery decreased, the iron grades began to rise slightly and then to decline again as recovery of magnetic iron commenced. This embayment can also be seen in Hole 3, but it is small and not as prominent. Again, fluctuations in tailings pumping cause values in Hole 3 to be more erratic.

Magnetic Iron

The graphs of Magnetic Iron virtually duplicate those of Magnetics. The same reasons as above explain the defections in the Magnetic Iron graphs. The gradual decrease in magnetic iron from bottom to top is much more clearly visible than is the magnetics decrease. The average amount of magnetic iron in the lower protions of the pond is 6 to 7 percent, declining to 4 percent after recovery of some of the iron in the upper portion of the pond.


2
4
6
8
10
12
14
16
18
% MAGNETIC IRON, % MAGNETICS →
MAGNETIC IRON
MAGNETICS
INCREASING DEPTH
HOLE # 1
MAGNETIC IRON, MAGNETICS
VS
DEPTH
Samples at 3 ft intervals
G R SANFORD
20 FEB 1975

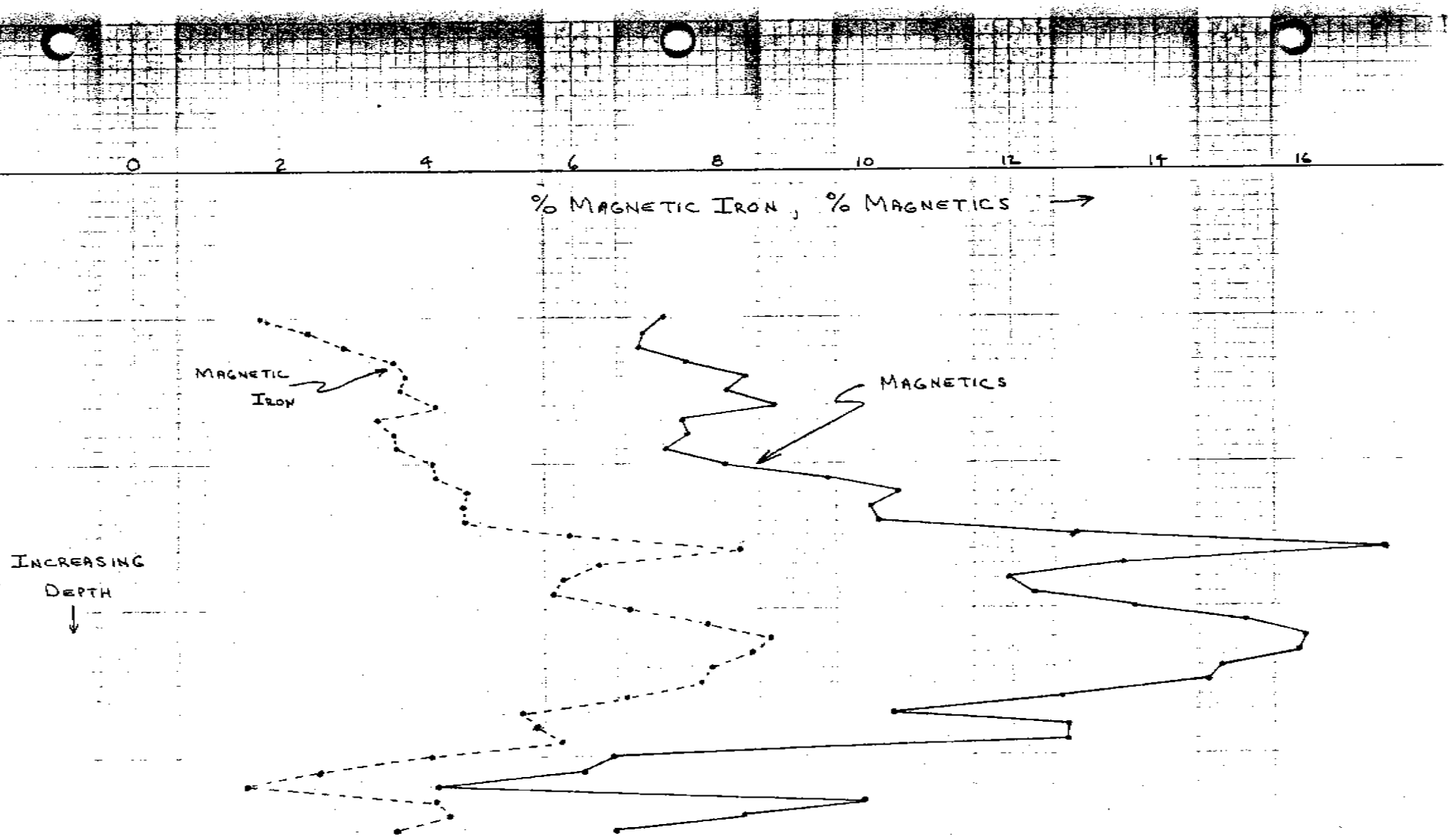


HOLE # 2

MAGNETIC IRON , MAGNETICS
VS
DEPTH

Samples at 3 ft intervals

G R SANFORD
20 FEB 1975



Hole # 3

Magnetic Iron , Magnetics

vs

Depth

Samples at 3 ft intervals

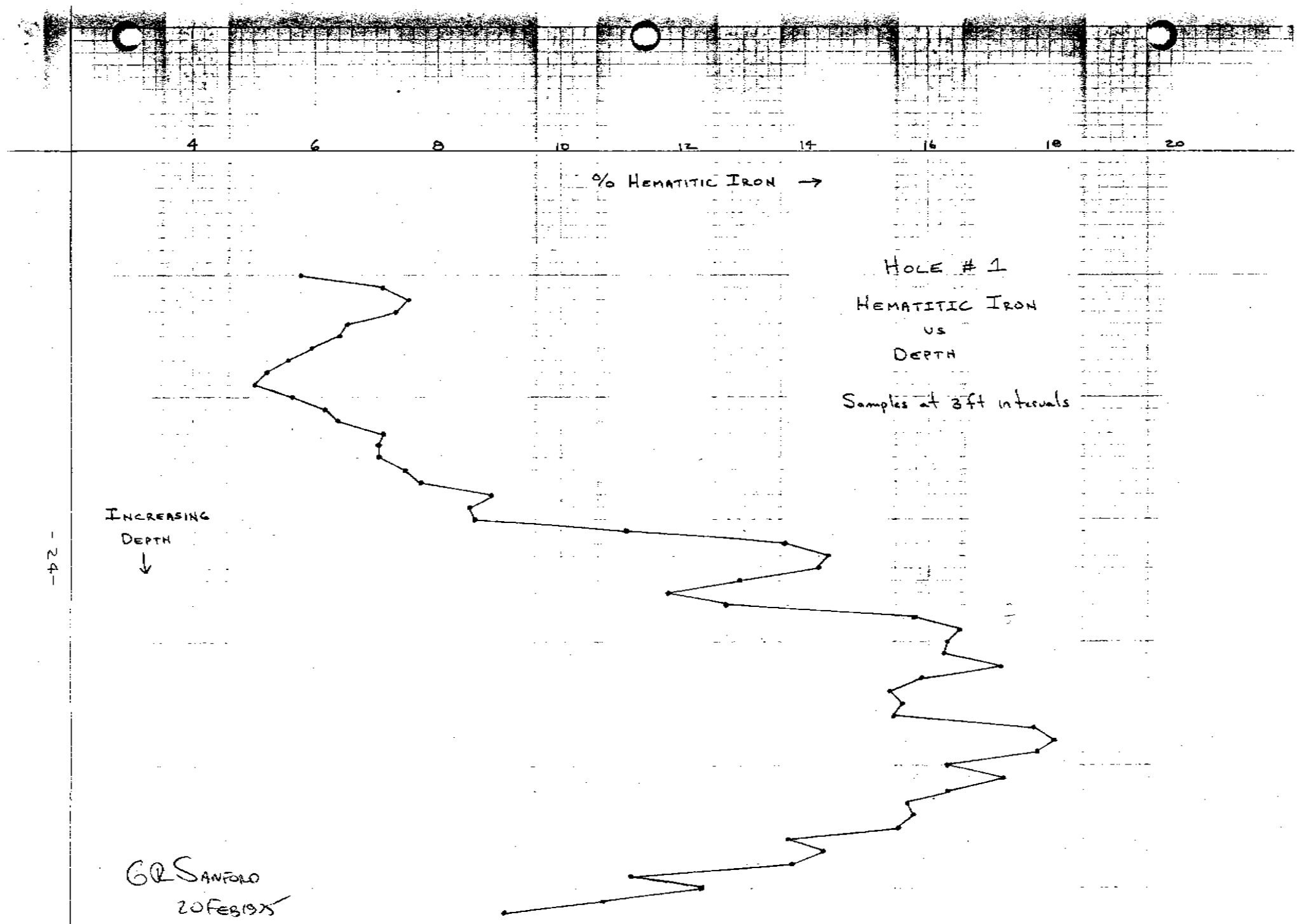
G R Sanford

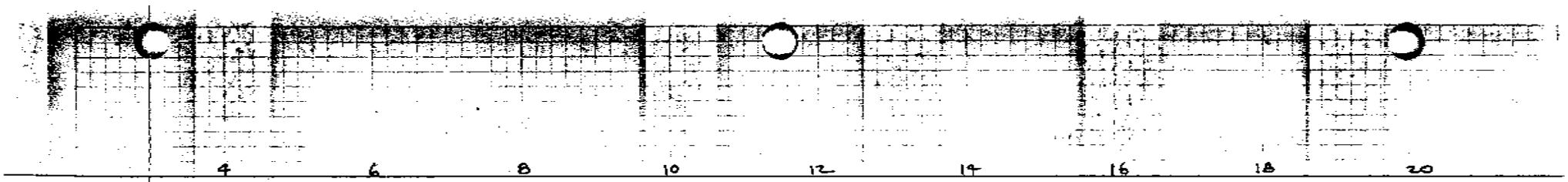
20 Feb 1935

vi) Hematitic Iron

Graphs of Hematitic Iron vs increasing depth were plotted. (Oxide iron less magnetic iron equals hematitic iron.) As no attempts to recover the hematite have been made, all three graphs simply show a decrease in hematitic iron from bottom to top, reflecting the change from open pit to underground operations.

The hematitic iron content decreases quickly from 12 to 15 percent in the lower, open pit portions of the tailings to 6 to 7 percent in the upper underground portions of the tailings. Again Hole 3 is more erratic, reflecting deposition conditons.


4
6
8
10
12
14
16
18
20
% Hematitic Iron →
Hole # 1
Hematitic Iron
vs
Depth
Samples at 3ft intervals
Increasing
Depth
↓
G R Sanford
20 Feb 1975



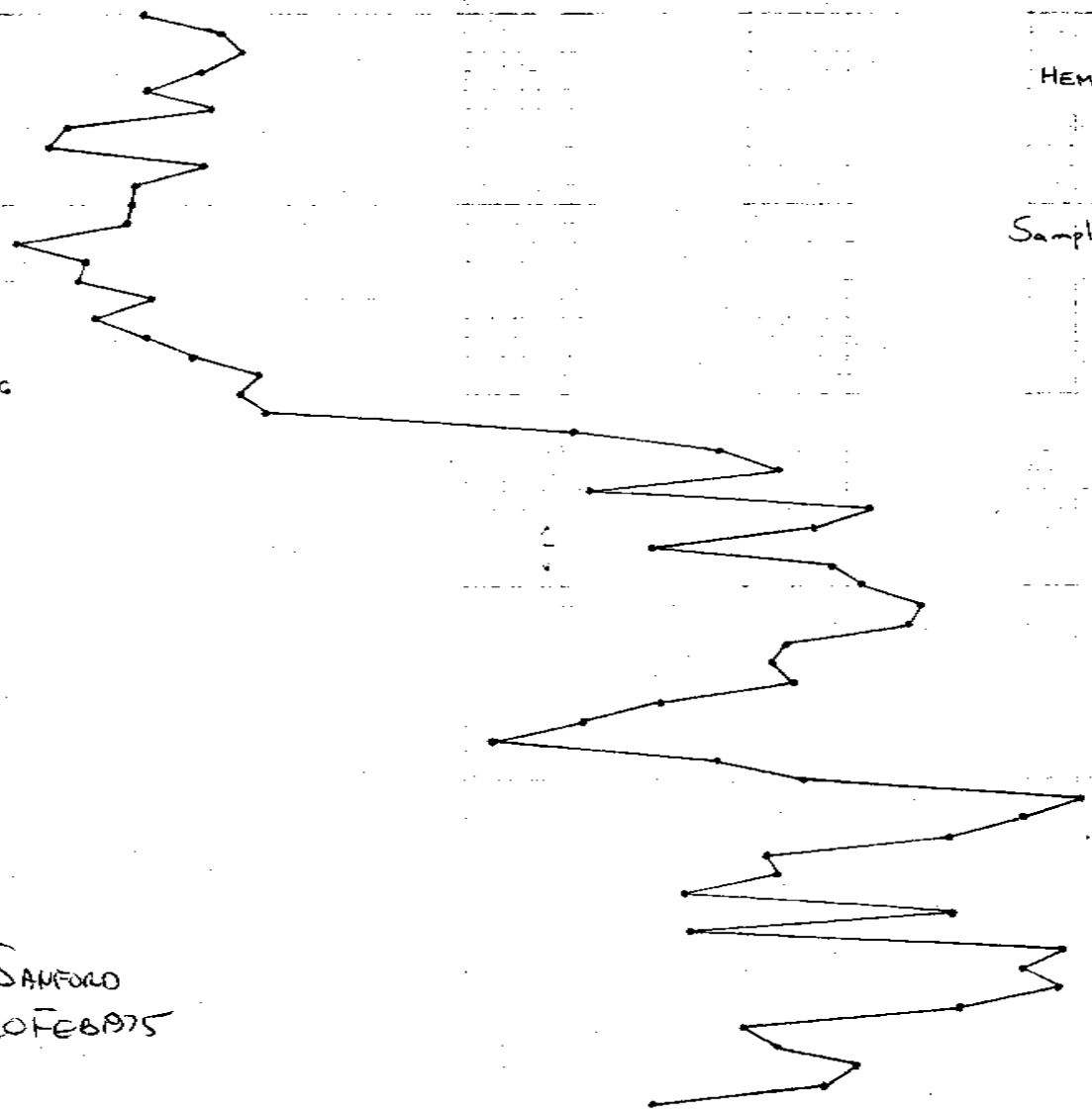
% Hematitic Iron →

Hole #2

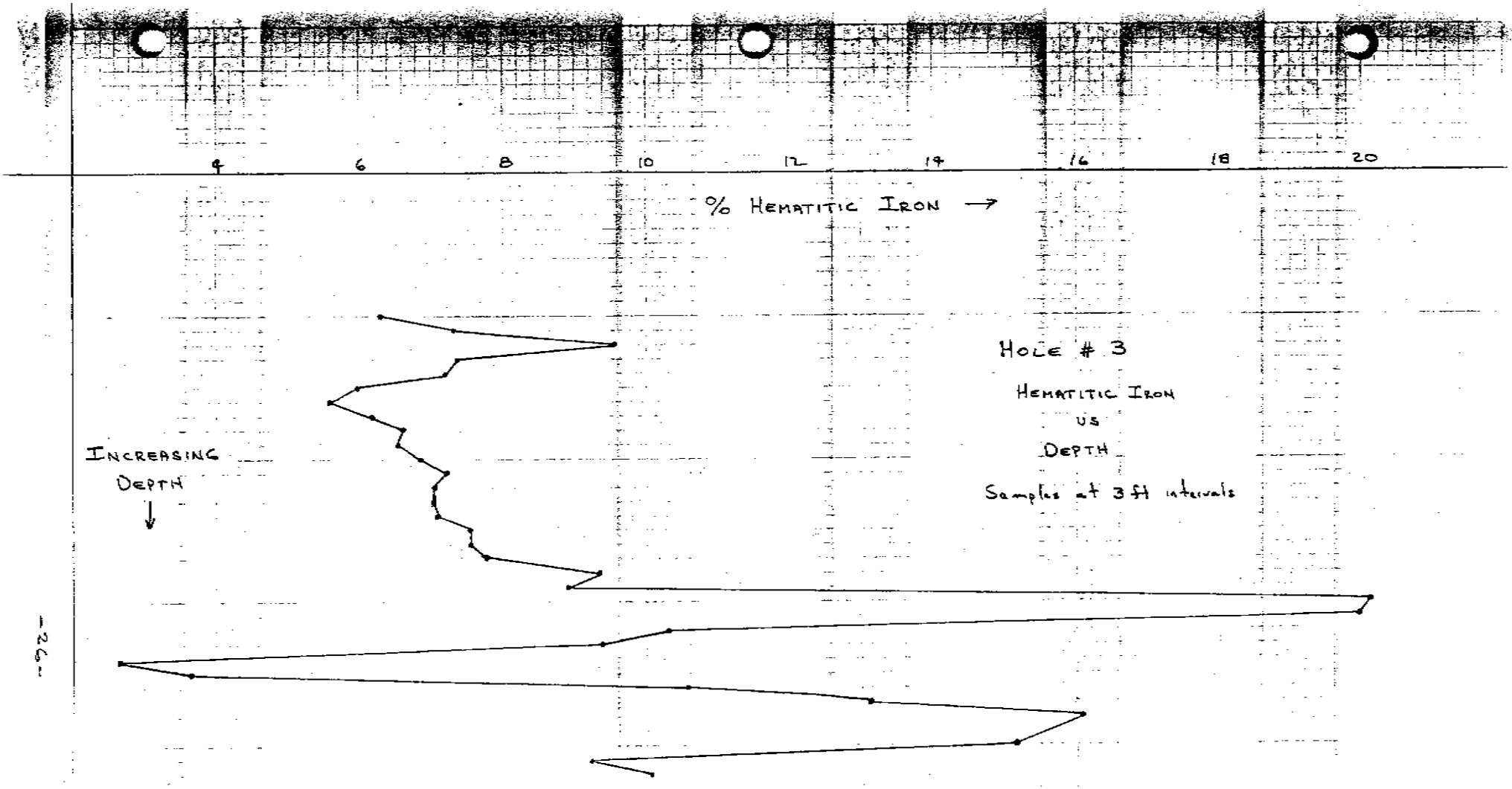
Hematitic Iron
vs
Depth

Samples at 3ft intervals

Increasing
Depth
↓



G R Sanford
20 Feb 75



G R Sanford
20 Feb 1975

f) Conclusion

On the basis of three augered test holes, the arithmetic average of values expected to be encountered in typical Craigmont tailings is: Moisture 15.2%, Copper 0.075%, Oxide Iron 15.4%, Magnetic Iron 5.1%, Hematitic Iron 10.3% and Magnetics 10.9%. All values vary with depth, copper decreasing and all others increasing, reflecting only the mining sequence of the Craigmont ore body and recent recovery of portions of the magnetic iron. Any assay variations attributable to gravity settling, sorting or winnowing are of very minor extent and are not great enough to affect any recovery plan. Water content will, of course, decrease with time when tailings cease to be pumped into the pond.

Where deposition has been more or less continuous as along the tailings dam, no wide fluctuations in values exist. However where deposition has been periodic, especially in the slimes area, erratic variations exist due to a lack of mixing effects.

If more test work is contemplated, it should be done at a time when the entire tailings area can be tested on a fixed grid basis. The amount of free water on the surface of the impoundment area prohibits this while the mine is operating.

At least one more hole should be sampled using undisturbed sampling techniques next to an augered test hole and the results compared regardless.

At the presenttime there is insufficient information to give meaningful weighted grades or tonnage estimates of material in the tailings impoundment area.

2) CONTROL SURVEY

To accurately determine the locations of the newly staked Pond and Rolf claims, Craigmont Mines survey personel ran tape and transit surveys, tying in the more important claim posts to the existing Craigmont grid and B.C. Survey Monuments. The survey was carried out in early March and was hampered somewhat by snowy weather and by long traverses from uncovered Craigmont bench marks. Coordinates of the posts surveyed and survey monuments are shown on plan on Drawing I, "Sketch Map - Tailing Area". The auger hole collars, surveyed by tape and transit are also shown.

3) RECLAMATION

Craigmont Mines has succeeded in establishing vegetation on the downstream face of the tailings dam. The face has been seeded and fertilized several times, and an irrigation system established. During the summer months, one man is required to turn the system off and on, move pipes etc. and to maintain the system in working order as cattle in the area frequently knock the sprinklers over. Over the summer this averages to one hour a day.

STATEMENT OF QUALIFICATIONS

I, Gerald R. Sanford, of 2213 Quilchena Avenue, Merritt, B.C. state that

1) I graduated from the University of British Columbia in 1969, obtaining a Bachelor of Applied Science Degree in Geological Engineering.

2) I am registered as an Engineer in Training with the Association of Professional Engineers of British Columbia.

3) I have been continuously employed in the mining industry since graduation from university.

4) I am currently employed by Craigmont Mines Limited as the Senior Mine Geologist at the Merritt mine site.

G.R. Sanford,
Senior Mine Geologist.

20 February, 1975

APPENDIX

Drill Contract

Contractor's Statement

Assay Results

Moisture Contents

Connors Drilling Ltd.
Subsidiary of
Bow Valley Industries Ltd.

155 West 3rd Avenue, Vancouver, B.C., Canada V5Y 1E8 Area Code: 604-872-1675

August 13, 1974

Mr. Jim Johnstone,
Chief Engineer,
Craigmont Mines,
Box 3000,
Merritt, B. C.

Dear Sir:

Re: Testing Tailings Pond

This is to confirm rates and terms for above work, as per our discussion August 12, 1974.

Connors will provide:

1. One complete drill outfit and equipment required to do the work.

2. Crews to operate equipment on a six day week, eight hour shift basis.

3. Housing and board accomodations for its personnel.

4. Service vehicle for personnel transportation.

For mobilization and demobilization equipment and personnel to job site and return at job completion, a total sum of $300.00.

Drilling, taking soil tests, moving from site to site, etc., at a rate of $40.00 per hour, plus all the "down the hole" tools and supplies lost or consumed during the course of the work, at Cost, plus 15 percent.

We appreciate the opportunity to work with you on this project.

Yours very truly,

CONNORS DRILLING LTD.

R. V. Miller
Operations Manager

RVM/cd

Connors Drilling Ltd.
Subsidiary of
Bow Valley Industries Ltd

155 WEST 3rd. AVENUE, VANCOUVER, B.C. CANADA V5Y 1E8
AREA CODE 604/872 - 1675

JOB: 2-504

Craigmont Mines Ltd.,
Box 3000,
Merritt, B. C.

INVOICE NO: 5184
DATE: September 19, 1974

SOILS TESTING.
TAILING POND
MERRITT, B. C.
September 3 - 5, 1974.

FIELD COST WORK

Sept.	3/74	8 Shift Hours	Set-up & sampled Hole # 1 - 48'	
Sept.	4/74	4 Shift Hours	Set-up & sampled Hole # 1 - 33'	
Sept.	4/74	4 Shift Hours	Moved & Sampled Hole # 2 - 87'	
Sept.	5/74	8 Shift Hours	Moved & Sampled Hole # 3 - 54'	
		24 Shift Hours	@$40.00	$960.00

Form No. 70

#1

A/c. 518-139

CRAIGMONT MINES LIMITED — HOLE #1 — Page 1/2.

ASSAY CERTIFICATE — SAMPLES AT 3 FT. INTERVALS

Date 19 Sept. 74

Sample	% Cu.	% Ox. Cu.	% Ox. Fe.	% Mag. Fe.	% Magnetite	% Ox Fe-Mag Fe (Hem Fe)	% Magnetics	%	%
P. 14701	.079		9.00	3.72	4.44	[illegible]	7.39	TOP OF HOLE	
02	.068		9.30	2.18	3.01	7.12	7.53	↓	
03	.100		10.10	2.62	3.62	7.48	10.73	INCREASING DEPTH	
04	.090		10.85	3.64	4.89	7.31	14.76	↓	
05	.083		10.30	3.78	5.22	6.52	10.83		
06	.095		9.10	2.74	3.78	6.36	13.32		
07	.100		10.10	4.18	5.77	5.92	15.38		
08	.092		9.25	3.69	5.06	5.58	10.10		
09	.105		8.70	3.50	4.83	5.20	10.33		
10	.104		9.30	4.30	5.93	5.00	18.05		
11	.088		9.90	4.29	5.92	5.61	9.83		
12	.086		10.70	4.51	6.22	6.19	10.70		
13	.097		10.75	4.40	6.07	6.35	10.62		
14	.094		10.60	3.52	4.83	7.10	10.52		
15	.073		11.35	4.32	5.96	7.03	10.85		
16	.069		11.70	4.68	6.46	7.02	11.94		
17	.058		12.40	4.92	6.82	7.46	12.35		
18	.055		12.45	4.74	6.54	7.71	14.63		
19	.054		12.80	3.97	5.48	8.83	9.28		
20	.058		12.55	4.04	5.58	8.51	9.36		
21	.063		12.75	4.16	5.74	8.59	9.86		
22	.070		15.30	4.23	5.84	11.07	9.59		
23	.069		17.80	4.16	5.74	13.64	8.07		
24	.065		18.10	3.74	5.16	14.36	7.33		
25	.064		17.55	3.35	4.62	14.20	6.63		
26	.063		16.20	3.31	4.57	12.89	6.55		
27	.061		15.00	3.23	4.46	11.77	6.48	SPILL DOWN	
28	.063		16.15	3.45	4.76	12.70	7.25	ROOS UP	
29	.065		19.85	4.11	5.67	15.74	8.25		
30	.063		20.50	4.31	5.95	16.49	8.75		

Chief Assayer.

Form No. 70

CRAIGMONT MINES LIMITED

ASSAY CERTIFICATE

Hole #1 Page 2/2

Samples At 3 Ft Intervals

#1

A/c 518-139

Date 14th Sept. 71

Sample	% Cu.	% Ox.Cu.	% Ox. Fe.	% Mag. Fe.	% MAGNETITE S	% Ox Fe-Mag Fe (Hem Fe)	% MAGNETITE	%	%
P. 14731	.063		20.70	4.42	6.10	16.28	8.5C	INCREASING DEPTH	
32	.063		20.75	4.52	6.24	16.23	9.93	↓	
33	.064		21.70	4.51	6.22	17.19	8.87		
34	.066		21.00	5.14	7.09	15.86	9.73		
35	.067		20.35	4.97	6.86	15.38	9.60		
36	.064		20.75	5.20	7.18	15.55	10.04		
37	.062		21.90	6.49	8.96	15.41	11.64		
38	.066		24.20	6.47	8.93	17.23	12.11		
39	.064		24.15	6.13	8.46	18.02	12.30		
40	.069		24.20	6.31	8.71	17.89	12.23		
41	.071		23.50	7.23	9.97	16.27	13.74		
42	.066		24.80	7.60	10.49	17.20	14.34		
43	.062		23.80	7.50	10.35	16.30	14.28		
44	.060		23.00	7.35	10.15	15.65	13.32		
45	.062		22.50	6.78	9.35	15.72	13.60		
46	.060		22.30	6.82	9.41	15.48	12.97		
47	.059		20.60	6.89	9.51	13.71	12.26		
48	.059		20.50	6.56	9.06	14.24	12.43		
49	.055		20.80	7.05	9.74	13.75	12.78		
50	.057		18.00	6.84	9.45	11.16	12.40		
51	.055		18.50	6.26	8.65	12.24	11.82		
52	.038		15.96	5.23	7.21	10.67	10.21		
53	.034		13.30	4.25	5.86	9.05	8.33		
54	.013		6.30	3.70	5.10	2.60	8.58		

Chief Assayer.

Form No. 70

CRAIGMONT MINES LIMITED

ASSAY CERTIFICATE

#2

HOLE #2
Samples at 3ft Intervals

Date 3rd Oct. 71

518-139

Sample	% Cu.	% Ox.Cu.	% Ox Fe.	% Mag. Fe.	% OxFe - MagFe (Hem. Fe)	% MAGNETITE	%	% MAGNETITE	%
P. 144755	.105		8.90	2.66	6.24	3.67		8.93	TOP OF HOLE
56	.095		10.40	3.34	7.06	4.61		8.39	↓
57	.110		10.00	2.74	7.26	3.78		9.14	INCREASING DEPTH
58	.103		10.70	3.89	6.81	5.37		10.53	↓
59	.112		10.10	3.84	6.26	5.30		10.13	
60	.120		10.65	3.71	6.94	5.12		10.47	
61	.095		9.85	4.44	5.41	6.13		11.21	
62	.085		8.85	3.58	5.27	4.94		10.60	
63	.078		10.90	4.44	6.46	6.13		10.62	
64	.081		11.00	4.84	6.16	6.68		11.75	
65	.094		11.60	5.47	6.13	7.55		11.39	
66	.091		12.00	5.93	6.07	8.18		13.23	
67	.092		11.60	6.70	4.90	8.56		15.15	
68	.097		10.85	5.24	5.61	7.23		13.57	
69	.095		10.70	5.18	5.52	7.15		11.58	
70	.096		11.10	4.77	6.33	6.58		11.98	
71	.094		10.50	4.73	5.77	6.53		11.83	
72	.079		11.05	4.79	6.26	6.61		12.20	
73	.073		11.70	4.96	6.74	6.84		11.76	
74	.082		12.20	4.77	7.43	6.58		11.19	
75	.095		11.20	3.97	7.23	5.48		9.18	
76	.105		11.50	3.99	7.51	5.51		8.34	
77	.108		13.90	3.18	10.72	4.39		7.25	
78	.097		14.45	2.19	12.26	3.02		5.33	
79	.089		14.80	1.90	12.90	2.62		11.89	
80	.084		12.75	1.85	10.90	2.55		4.09	
81	.077		16.10	2.28	13.82	3.15		5.22	
82	.075		17.00	3.78	13.22	5.22		7.45	
83	.074		16.16	4.59	11.56	6.33		9.13	SPILL DOWN
84	.079		17.70	4.27	13.43	5.89		9.57	RODS UP

Chief Assayer.

Form No. 70

CRAIGMONT MINES LIMITED

ASSAY CERTIFICATE

Hole #2
Samples at 3 ft Intervals

#2

518 – 139

Date 2nd Oct. 74

Sample	% Cu.	% Ox.Cu.	% Ox. Fe.	% Mag. Fe.	% Ox Fe - Mag Fe (Hem Fe)	% MAGNETITE	%	% MAGNETITE	% INCREASING DEPTH ↓
P. 14785	.070		19.50	5.75	13.75	7.91		10.59	
86	.070		20.20	5.81	14.39	8.02		11.31	
87	.068		20.60	6.35	14.25	8.76		12.16	
88	.068		19.65	6.70	12.95	9.25		12.38	
89	.067		20.00	7.20	12.80	9.94		13.11	
90	.066		19.90	6.86	13.04	9.47		13.26	
91	.067		18.90	7.25	11.65	10.01		13.47	
92	.069		18.10	7.29	10.81	10.06		13.70	
93	.070		17.10	7.23	9.87	9.98		13.48	
94	.070		19.25	7.03	12.22	9.70		13.00	
95	.068		20.40	7.28	13.12	10.05		13.52	
96	.067		22.60	6.58	16.02	9.08		13.00	
97	.065		21.90	6.47	15.43	8.93		12.84	
98	.067		21.00	6.36	14.64	8.78		12.28	
99	.063		19.10	6.36	12.74	8.78		12.30	
14800	.061		19.35	6.50	12.85	8.97		12.35	
01	.064		18.35	6.36	11.89	8.78		12.57	
02	.063		21.05	6.35	14.70	8.76		12.22	
03	.061		18.00	6.07	11.93	8.36		11.98	
04	.060		21.75	5.92	15.83	8.17		11.48	
05	.057		21.40	5.98	15.42	8.25		11.74	
06	.051		21.80	5.99	15.81	8.27		11.37	
07	.050		20.40	5.62	14.78	7.76		10.77	
08	.049		18.55	6.06	12.49	8.36		11.69	
09	.049		18.50	5.67	12.83	7.82		11.29	
10	.052		19.35	5.68	13.67	7.81		11.09	
11	.055		18.45	5.08	13.37	7.01		9.33	
12	.058		16.70	5.12	11.58	7.07		10.08	

Chief Assayer.

Form No. 70

CRAIGMONT MINES LIMITED

ASSAY CERTIFICATE

Hole #3
Samples at 3 ft Intervals

#3

518-139

Date 10th Oct. 71

Sample	% Cu.	% Ox.Cu.	% Ox Fe.	% Mag. Fe.	% oxFe-MagFe (Hem. Fe)	% MAGNETITE	%	% MAGNETITE	%
P 148 13	.051		8.00	1.73	6.27	2.39		7.22	TOP OF HOLE
14	.070		9.70	2.38	7.32	3.28		6.97	↓
15	.065		12.40	2.85	9.55	3.93		6.91	INCREASING DEPTH
16	.069		10.90	3.53	7.37	4.87		7.57	↓
17	.063		10.90	3.70	7.20	5.11		8.38	
18	.070		9.60	3.62	5.98	5.00		8.09	
19	.060		9.70	4.11	5.59	5.67		8.74	
20	.066		9.50	3.33	6.17	4.60		7.47	
21	.063		10.15	3.55	6.60	4.90		7.59	
22	.057		10.15	3.58	6.57	5.32		7.25	
23	.064		10.90	4.07	6.83	5.52		8.06	
24	.064		11.30	4.10	7.20	5.60		9.48	
25	.062		11.60	4.54	7.06	6.27		10.42	
26	.059		11.50	4.44	7.06	6.13		10.08	
27	.056		11.60	4.50	7.10	6.21		10.18	
28	.057		13.50	5.97	7.53	8.24		12.89	
29	.063		15.80	8.26	7.54	11.40		17.13	
30	.060		14.10	6.35	7.75	8.76		13.53	SPILL DOWN
31	.092		15.15	5.82	9.33	8.03		11.98	RODS UP
32	.106		14.60	5.70	8.90	7.87		12.29	
33	.107		26.90	6.78	20.12	9.36		13.66	
34	.107		27.80	7.81	19.99	10.78		15.20	
35	.100		19.00	8.68	10.32	11.98		16.01	
36	.101		17.80	8.41	9.39	11.61		15.92	
37	.103		10.50	7.86	2.64	10.85		14.58	
38	.105		11.40	7.77	3.63	10.72		14.66	
39	.104		17.30	6.73	10.57	9.29		12.69	
40	.101		18.40	5.27	13.13	7.27		10.38	
41	.092		21.50	5.46	16.04	7.53		12.75	
42	.090		21.00	5.81	15.19	8.02		12.74	

Chief Assayer.

Form No. 70

CRAIGMONT MINES LIMITED

ASSAY CERTIFICATE

Hole #3
Samples at 3 ft Intervals

#3

Date 18 Oct. 71

518-139

Sample	% Cu.	% Ox.Cu.	% Ox Fe.	% Mag. Fe.	% Ox Fe-Mag Fe (Hem Fe)	% Magnetite	%	% Magnetite	% Increasing Depth ↓
P. 14843	.034		12.13	2.91	9.22	4.01		6.54	
44	.030		11.91	1.85	10.06	2.51		6.16	
45	.032		3.04	1.13	1.91	1.55		4.11	
46	.043		6.88	2.94	3.94	4.06		9.94	
47	.043		8.55	3.09	5.46	4.27		8.30	
48	.033		6.36	2.56	3.80	3.54		6.58	
	14843-48 Lot of Sand and Gravel Mixed in Sample								

Chief Assayer.

FORM NO. 96 (REVISED)

HOLE # 1 ¼

CRAIGMONT MINES LIMITED

SHIPMENT MOISTURE RECORD

SHIFT HOLE # 1-A DATE 4th Sept 74

CAR NO.	PAN WEIGHT (A)	WET CONC. + PAN (B)	DRY CONC. + PAN (C)	MOISTURE WEIGHT (B-C)	WET CONC. WEIGHT (B-A)	% MOISTURE $100 \times \frac{(B-C)}{(B-A)}$
P 14701	770	4447	4208	239	3677	6.50
02	788	3898	3625	273	3110	8.78
03	797	3853	3549	304	3056	9.95
04	807	3895	3600	295	3088	9.55
05	824	3810	3484	326	2986	10.92
06	832	3665	3376	289	2833	10.20
07	803	3175	2920	255	2372	10.75
08	816	3727	3391	336	2911	11.54
09	815	2795	2556	239	1980	12.07
10	770	8100	7028	1072	7330	14.62
11	825	5444	4628	816	4619	17.67
12	776	5212	4430	782	4436	17.63
13	810	4143	3572	571	3333	17.13
14	832	3374	2943	431	2542	16.96
15	805	3703	3222	481	2898	16.60
16	810	3500	3080	420	2690	15.61

16

INCREASING DEPTH ↓

CRAIGMONT MINES LIMITED

SHIPMENT MOISTURE RECORD

SHIFT HOLE # 1 A

DATE 4TH Sept 74

CAR NO.	PAN WEIGHT (A)	WET CONC. + PAN (B)	DRY CONC. + PAN (C)	MOISTURE WEIGHT (B - C)	WET CONC. WEIGHT (B - A)	% MOISTURE 100 x (B - C)/(B - A)
P 141717	813	7270	6357	913	6457	14.14
18	813	4410	3895	515	3597	14.32
19	838	4811	4247	594	4003	14.84
20	775	4865	4246	619	4090	15.13
21	770	4495	3926	569	3725	15.28
22	788	5989	5177	862	5201	16.57
23	797	4867	4245	622	4070	15.28
24	805	5527	4800	727	4722	15.40
25	824	3997	3517	480	3172	15.13
26	832	4459	3900	559	3627	15.41
27	803	3610	3190	420	2807	14.96
				INCREASING DEPTH ↓		

(V)

FORM NO. 98 (REVISED)

Hole #1 3/4

CRAIGMONT MINES LIMITED

SHIPMENT MOISTURE RECORD

SHIFT Hole #1-5 DATE 5th Sept 74

CAR NO.	PAN WEIGHT (A)	WET CONC. + PAN (B)	DRY CONC. + PAN (C)	MOISTURE WEIGHT (B-C)	WET CONC. WEIGHT (B-A)	% MOISTURE 100 x (B-C)/(B-A)
P 14728	370	1233	1116	117	863	13.56
29	370	1631	1452	179	1261	14.20
30	360	1509	1345	164	1149	14.27
31	360	1733	1540	193	1373	14.06
32	383	1662	1478	184	1279	14.62
33	370	1575	1403	172	1205	14.27
34	357	1060	960	100	703	14.22
35	356	1480	1321	159	1124	14.15
36	360	1272	1146	126	912	13.82
37	369	1425	1276	149	1056	14.10
38	375	1335	1200	135	960	14.06
39	357	1685	1500	185	1328	13.93
40	361	1355	1219	136	994	13.68
41	365	1395	1255	140	1030	13.59
42	364	1396	1250	146	1032	14.14
43	352	1655	1464	191	1303	14.66

(10)

INCREASING DEPTH ↓

...M NO. 98 (REVISED)

HOLE #1 4/4

CRAIGMONT MINES LIMITED

SHIPMENT MOISTURE RECORD

SHIFT HOLE #1 B

DATE 5TH SEPT 74

CAR NO.	PAN WEIGHT (A)	WET CONC. + PAN (B)	DRY CONC. + PAN (C)	MOISTURE WEIGHT (B-C)	WET CONC. WEIGHT (B-A)	% MOISTURE $100 \times \frac{(B-C)}{(B-A)}$
P						
14744	362	1702	1495	207	1340	15.45
45	364	1916	1686	230	1552	14.82
46	361	1450	1290	160	1089	14.69
47	372	1392	1240	152	1020	14.90
48	364	1232	1101	131	868	15.09
49	360	1392	1225	167	1032	16.18
50	365	1414	1265	149	1049	14.20
51	355	1605	1415	190	1250	15.20
52	355	2485	2162	323	2130	15.16
53	365	1909	1711	198	1544	12.82
54	368	2088	1880 1680	208	1720	12.09

INCREASING DEPTH ↓

FORM NO. 98 (REVISED)

Hole #2 1/4

CRAIGMONT MINES LIMITED

SHIPMENT MOISTURE RECORD

SHIFT Hole #2 A

DATE 5th Sept. 74

CAR NO.	PAN WEIGHT (A)	WET CONC. + PAN (B)	DRY CONC. + PAN (C)	MOISTURE WEIGHT (B - C)	WET CONC. WEIGHT (B - A)	% MOISTURE $100 \times \frac{(B-C)}{(B-A)}$
14755	765	4330	4122	208	3565	5.83
56	790	4143	3873	270	3353	8.05
57	798	3600	3352	248	2802	8.85
58	800	3133	2950	183	2333	7.84
59	825	3585	3346	239	2760	8.66
60	832	3405	3195	210	2573	8.16
61	801	4296	3939	357	3495	10.21
62	815	6873	6124	749	6058	12.36
63	812	3630	3219	411	2818	14.58
64	765	6424	5595	829	5659	14.65
65	790	3792	3343	449	3002	14.96
66	798	3463	3069	394	2665	14.78
67	805	4186	3717	469	3381	13.87
68	825	6178	5435	743	5353	13.88
69	832	4749	4234	515	3917	13.15
70	801	4515	3975	540	3714	14.54

Increasing Density

FORM NO. 96 (REVISED)

HOLE #2 2/4

CRAIGMONT MINES LIMITED

SHIPMENT MOISTURE RECORD

SHIFT HOLE #2 - A DATE

CAR NO.	PAN WEIGHT (A)	WET CONC. + PAN (B)	DRY CONC. + PAN (C)	MOISTURE WEIGHT (B - C)	WET CONC. WEIGHT (B - A)	% MOISTURE $100 \times \frac{(B-C)}{(B-A)}$
14771	815	4065	3595	470	3250	14.46
72	815	7287	6324	963	6472	14.88
73	770	6940	6008	932	6170	15.11
74	825	6842	5872	970	6017	16.12
75	775	4300	3725	575	3525	16.31
76	808	6297	5400	897	5489	16.34
77	804	5153	4463	690	4349	15.87
78	828	7905	6784	1121	7077	15.84
79	810	5180	4514	666	4370	15.24
80	814	4135	3646	489	3321	14.72
81	816	4652	4084	568	3836	14.81
82	839	6969	6054	915	6130	14.93
83	774	5395	4784	606	4621	13.11

INCREASING DEPTH

HOLE #2 3/4

CRAIGMONT MINES LIMITED

SHIPMENT MOISTURE RECORD

SHIFT HOLE #2 - B DATE

CAR NO.	PAN WEIGHT (A)	WET CONC. + PAN (B)	DRY CONC. + PAN (C)	MOISTURE WEIGHT (B - C)	WET CONC. WEIGHT (B - A)	% MOISTURE $100 \times \frac{(B-C)}{(B-A)}$
14784	366	1597	1453	144	1231	11.70
85	354	1983	1767	216	1629	13.26
86	355	1418	1279	139	1063	13.08
87	368	1836	1631	208	1468	13.96
88	360	1638	1462	176	1278	13.77
89	368	1845	1629	216	1479	14.60
90	365	1670	1475	195	1305	14.94
91	366	1987	1746	241	1621	14.87
92	372	1721	1515	206	1349	15.27
93	365	1556	1378	178	1191	14.95
94	361	1949	1703	246	1588	15.49
95	361	1974	1720	254	1613	15.75
96	357	1646	1448	198	1289	15.36
97	364	2352	2040	312	1988	15.69
98	362	2048	1782	266	1686	15.78
99	361	1474	1304	170	1113	15.27

INCREASING DEPTH ↓

Hole #2 9/4

CRAIGMONT MINES LIMITED

SHIPMENT MOISTURE RECORD

SHIFT Hole #2 - B3 DATE

CAR NO.	PAN WEIGHT (A)	WET CONC. + PAN (B)	DRY CONC. + PAN (C)	MOISTURE WEIGHT (B - C)	WET CONC. WEIGHT (B - A)	% MOISTURE $100 \times \frac{(B-C)}{(B-A)}$
14800	348	1050	939	111	702	15.81
01	383	1181	1054	127	798	15.91
02	360	1249	1111	138	889	15.52
03	360	1449	1277	172	1089	15 79
04	371	1481	1306	175	1110	15 77
05	369	1765	1524	241	1396	17.26
06	369	2388	2004	384	2019	19.02
07	360	2447	2056	391	2087	18.74
08	357	2312	1956	356	1955	18.21
09	357	1702	1442	260	1345	19.33
10	370	1504	1288	216	1134	19.05
11	352	1622	1366	256	1270	20.16
12	360	1752	1510	242	1392	17.39

INCREASING DEPTH ↓

FORM NO. 96 (REVISED)

Hole # 3 1/4

CRAIGMONT MINES LIMITED

SHIPMENT MOISTURE RECORD

SHIFT Hole 3A DATE

CAR NO.	PAN WEIGHT (A)	WET CONC. + PAN (B)	DRY CONC. + PAN (C)	MOISTURE WEIGHT (B - C)	WET CONC. WEIGHT (B - A)	% MOISTURE $100 \times \frac{(B-C)}{(B-A)}$
14813	765	3708	3427	281	2947	9.54
14	790	3905	3553	352	3115	11.30
15	798	4488	3894	594	3690	16.10
16	804	5093	4362	731	4289	19.81
17	825	3745	3220	525	2920	17.98
18	832	4322	3650	672	3490	19.26
19	801	4208	3570	638	3407	18.73
20	815	3940	3313	627	3125	20.06
21	812	2890	2470	420	2078	20.21
22	769	4832	3939	893	4063	21.98
23	824	6842	5532	1310	6018	21.73
24	775	5291	4488	803	4516	17.78
25	807	4208	3613	595	3401	17.49
26	808	3805	3304	501	2997	16.83
27	802	3095	2713	382	2293	16.66
28	813	4295	3744	551	3482	15.82

INCREASING DEPTH ↓

16

FORM NO. 96 (REVISED)

Hole #3 2/4

CRAIGMONT MINES LIMITED

SHIPMENT MOISTURE RECORD

SHIFT Hole 3 A Cont. Down DATE

CAR NO.	PAN WEIGHT (A)	WET CONC. + PAN (B)	DRY CONC. + PAN (C)	MOISTURE WEIGHT (B - C)	WET CONC. WEIGHT (B - A)	% MOISTURE $100 \times \frac{(B-C)}{(B-A)}$
14828	816	5134	4480	654	4318	15.15
14830	815	7350	6340	1010	6535	15.46
				Increasing depth ↓		

FORM NO. 96 (REVISED)

Hole # 3 3/4

CRAIGMONT MINES LIMITED

SHIPMENT MOISTURE RECORD

SHIFT Hole 3-B

DATE

CAR NO.	PAN WEIGHT (A)	WET CONC. + PAN (B)	DRY CONC. + PAN (C)	MOISTURE WEIGHT (B-C)	WET CONC. WEIGHT (B-A)	% MOISTURE $100 \times \frac{(B-C)}{(B-A)}$
14831	352	1735	1515	220	1383	15.91
32	370	2140	1863	277	1770	15.65
33	360	2450	2123	327	2090	15.65
34	369	2060	1799	261	1691	15.43
35	357	2184	1907	277	1827	15.16
36	357	1846	1600	246	1489	16.52
37	371	1788	1545	243	1417	17.15
38	369	1399	1220	179	1030	17.38
39	359	1770	1535	235	1411	16.65
40	383	1788	1545	243	1405	17.30
41	348	1745	1517	228	1397	16.32
42	362	1965	1705	260	1603	16.22
43	357	1370	1218	152	1013	15.00
44	361	2256	2024	232	1895	12.24
45	372	3222	2740	482	2850	16.91
46	364	1810	1637		1446	

INCREASING DEPTH ↓

Hole #3 4/4

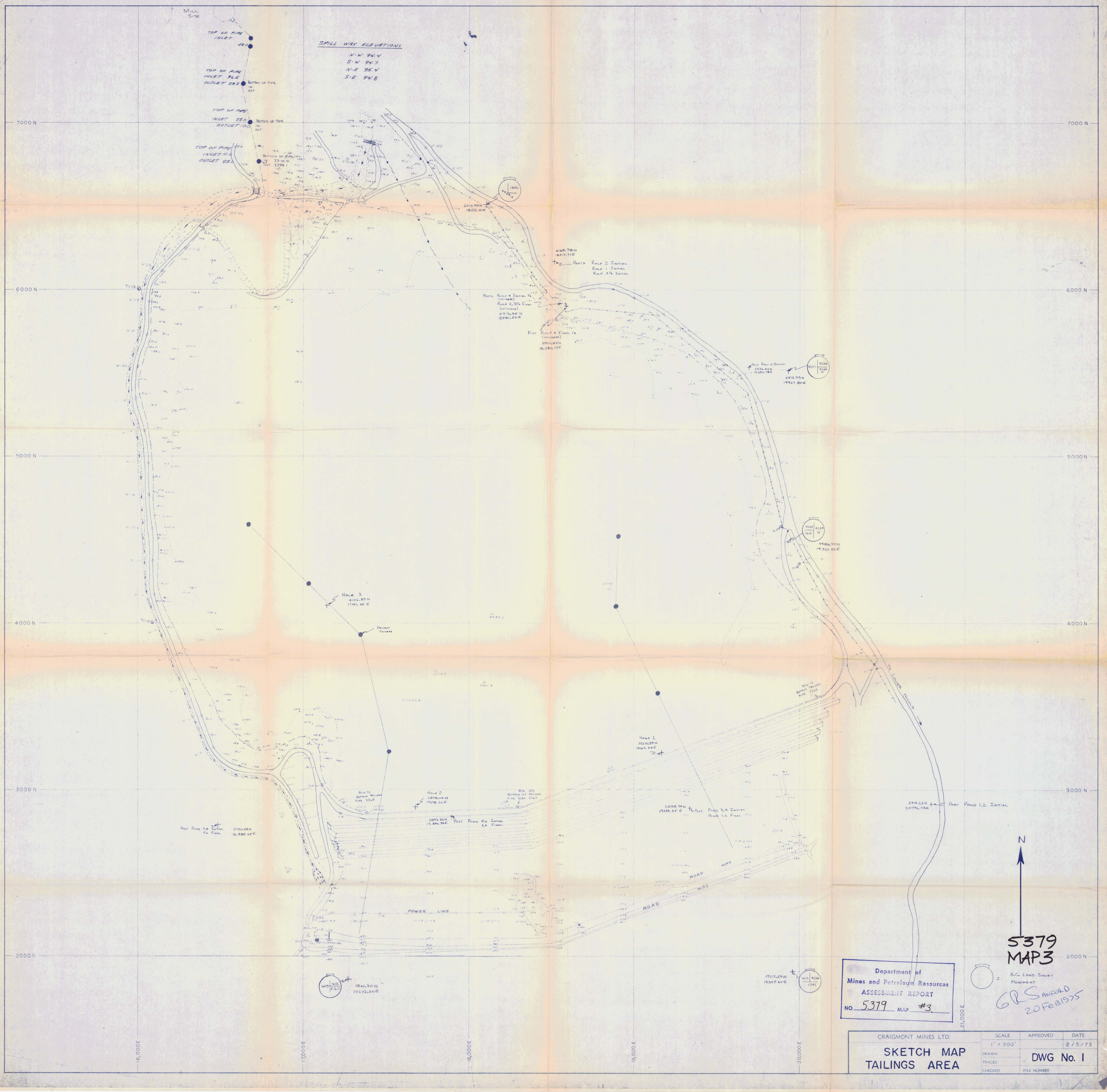
CRAIGMONT MINES LIMITED

SHIFT Hole 3 - B

SHIPMENT MOISTURE RECORD

DATE

CAR NO.	PAN WEIGHT (A)	WET CONC. + PAN (B)	DRY CONC. + PAN (C)	MOISTURE WEIGHT (B - C)	WET CONC. WEIGHT (B - A)	% MOISTURE $100 \times \frac{(B-C)}{(B-A)}$
14846	364	1818	1637	181	1454	12.45
47	361	1477	1329	148	1116	13.26
48	360	2783	2494	289	2423	11.93
				INCREASING	DEPTH ↓	



MILL SITE
TOP OF PIPE INLET 42.0
SPILL WAY ELEVATIONS
N-W 94.4
S-W 94.7
N-E 95.4
S-E 94.8
TOP OF PIPE INLET 36.5 OUTLET 23.2
BOTTOM OF PIPE IN OUT
TOP OF PIPE INLET 22.0 OUTLET 10.0
BOTTOM OF PIPE IN OUT
TOP OF PIPE INLET 10.0 OUTLET 23.0
BOTTOM OF PIPE IN 2310.0 OUT 2299.1
7000 N
6000 N
5000 N
4000 N
3000 N
2000 N
16,000 E
17,000 E
18,000 E
19,000 E
20,000 E
21,000 E
HOLE 3
DECANT TOWERS
HOLE 1
HOLE 2
POWER LINE
ROAD WAY
ROAD WAY
N
5379
MAP3
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 5379 MAP #3.
B.C. LAND SURVEY MONUMENT
GRSANFORD
20FEB1975
CRAIGMONT MINES LTD.
SKETCH MAP
TAILINGS AREA
SCALE 1" = 200'
APPROVED
DATE 2/5/73
DRAWN
TRACED
CHECKED
DWG No. 1
FILE NUMBER