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**REPORT
ON**

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O'CONNOR GYPSUM

1965

ATLIN

MINING DIVISION

J. J. McDougall

O'CONNOR GYPSUM REPORT 1965 Atlin
By: J.J. McDougall January 27, 1966

114-P-10

REPORT ON
O'CONNOR GYPSUM, 1965

Vancouver, B. C.
January 27, 1966.

J. J. McDougall,
Geologist.

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REPORT ON
O'CONNOR GYPSUM, 1965
J.J. McDougall

A short program designed to establish assessment credits and at the same time determine depth potential on the O'Connor Gypsum in northwestern B.C. was undertaken and supervised by the writer in 1965. Several previous reports cover the various aspects more closely and reference should be made to them.

PROPERTY

There are 20 located mineral claims comprising the Aunt Jemima Group, and they are in good standing to 1972-74.

LOCATION & ACCESS

The property is located 6 miles west of the Haines Cut-off Highway in extreme northwestern B.C. Access is by walking or by helicopter, the latter method being used in 1965.

HISTORY & DEVELOPMENT

The property was discovered by ground helicopter checks made in 1958 following the noting of anomalous features during earlier Super Cub recce. It was staked in 1958, mapped and packsack drilled (5 holes totalling 225 feet) in 1959, and received further physical assessment work (rock cuts) in 1964 (Beloud). During the latter part of July, 1965, while waiting for ice to melt on the Alsek Copper property, our B.B.S.1 WL drill, with the Alsek crew, was moved to the western end of the north (#1) body where 6 AX (717 feet) and 4 PS EX (190 feet) holes (total 907 feet)* were put in as close to a given section line as possible. A portion of the core was assayed in its entirety with only a few representative specimens being retained in the Vancouver warehouse.

Drilling was not as easy as had been anticipated and the program was continued only until water supplies became available on the Alsek.

* Footage of additional abandoned holes was not counted.

GENERAL GEOLOGY

The gypsum bands occur in lime-rich Permian sediments near a granite contact. There is some suggestion that the two paralleling beds recognized are the result of isoclinal folding of a single original bed, or more likely, of folding and faulting which has resulted in repetition.

Most gypsum deposits are hydrated anhydrite beds and most commercially worked are relatively flat, having never been involved in mountain-building processes. The distribution of required water for conversion to gypsum was generally horizontal with the result that conversion took place areally. Given sufficient water, whole beds were thus "gypsumized"; if the supply of water was limited (generally by surface agencies) then the change took place only to a given, but consistent level. In the case of the O'Connor Gypsum, the beds as now exposed are vertical to steep northerly dipping and the problem is to determine whether the conversion to gypsum took place before the folding, in which case the gypsum/anhydrite ratio should not change considerably at depth (anhydrite being of no value commercially), or whether such occurred later and only the top 100-200 feet is gypsum. The problem is further complicated by the proximity to granitic rock whose effect on the sediments intruded must have been appreciable. Certainly the gypsum/granite relation is rare and little discussed in geological literature. Also some modification of unknown intensity of the present surface, exposed following ice retreat probably less than 100 years ago, has occurred.

Although good argument can be presented to the contrary, the writer believes that the entire beds were partially converted to gypsum before orogeny, then further affected by exposure to surface in relatively recent times. It is also felt that the granitic intrusion may have, through a process such as marmorization, "cleaned up" some of the material with resultant snow-white colour not common in most deposits.

DESCRIPTION OF PROPERTY & WORK ATTEMPTED

The western end of the northern (#1) deposit was chosen for drilling as suitable locations were on hand near a water supply from which it was thought that the depth potential could be established by collaring holes well back in the hangingwall. One predictable difficulty

in using this location was that of the attitude of the body itself. Although elsewhere steep, northerly dipping and regular (i.e. #2 body and east continuation of the #1 body), the western end, although impressive on the surface, is completely folded and faulted resulting in sudden termination and "satellite" bodies displaced (?) considerable distances. Geological mapping within the 300-foot wide mass is of little value because of considerable sloughing and because of the known fact that the "pop-corn like" expansion during the gypsumizing process takes place along any direction of weakness and the presently exposed "bedding" attitudes are too variable to use.

Earlier packsack drilling collared (naturally) within the massive bands; attitudes and slough areas were necessarily neglected. However, such could not be the case with longer cross-cutting holes. With money and time in short supply and drilling difficulties much more prevalent than anticipated, the objectives of the program were lessened in favour of obtaining rapid assessment work.

As shown on Map OG 10/65 and contained cross section A - A¹, a line of southerly directed holes approximating a section was attempted from suitable pre-existing locations. The first three holes, drilled in a poor coring grey limy argillite and what is taken for a highly altered fine-grained diorite or basalt sill, had to be abandoned before reaching the gypsum zone at a projected 80-100 feet of depth. The longer hole was apparently pinched off by a deep, unexposed, sink hole type cavity at the gypsum contact. Following the failure of these holes to run according to schedule without the time-consuming driving of casing for the entire length, it was decided to forego depth penetration in favour of shallower cross-sectioning.

Hole #4 was started at a location just north of the surface contact and driven southerly at -37° to a depth of 210 feet where it was abandoned, in gypsum, because of another surface (?) originating solution cavity. This hole encountered a total of about 114 feet of relatively pure gypsum. However, surprisingly this did not occur as a single unit as limited surface exposures had suggested but as essentially two bands with thicknesses of 43 and 85 feet. When abandoned in the second band, established depth was only 125 feet below the collar or some 70 to 90 feet

below the immediate surface depending on the depth of sloughed material. Poor core recovery leaves nearly half of the above thicknesses in doubt but past experience has shown that if anything is going to grind and not be recovered, despite wire-line equipment, the soft gypsum is that material. In addition, the fragmentary but staggered, or spaced, recovery is believed to be representative and not a trace of the common impure gypsiferous material or the altered sill or dyke rocks occurred in these sections.

The next wire-line hole, #9, was collared in the central portion of the gypsum zone where a small "nunatak-like" gypsum bluff nearby was expected to afford solid footing below shallow overburden. However, the vertical hole, after going through 10 feet of gypsum talus, collared in a previously unrecognized amphibolite skarn which, along with pyritic altered basaltic rock (G.2) and gypsiferous limestone (G.5), it was in and out of until abandonment at 125 feet. As only a few feet of gypsum was encountered in this hole, it was concluded that it had followed down the axial plane of a westerly trending, centrally located (isoclinal?) fold and had encountered rock types probably correlative with those intersected between the two gypsum bands of Hole #4. The next hole, #10, was then directed northerly from the same location but with a dip of 74° . It encountered 51 feet of white gypsum in 4 sections before being abandoned in a large cave between 105 and 125 feet. It is believed to have crosscut at a low angle the westerly limb of the inferred fold. A slightly shallower hole from this location should then have intersected and followed down the first gypsum band encountered by DDH #4.

In an effort to round off assessment work, 4 packsack holes were put in, staggered slightly off-section, to depths of between 40 and 50 feet, depending on where the least difficulty was experienced. (This is one of the first drilling jobs where packsack core recovery surpassed that of the larger drill!!) Three of them, by pre-design, encountered gypsum for their entire length. One hole, #8, was drilled southerly from just within what appeared to be an anomalous southerly (rather than the general northerly) dipping contact and encountered 40 feet of gypsum which may thus represent drilling across the top of the southerly limb.

ASSAYS & RESERVES

As considerable assays were made of the gypsum in the past, only a portion of the total drilled this year was assayed.

As shown on the drill logs, a total 369 feet of gypsum was assayed in four samples. Gypsum content was calculated as being 80.56, 91.67, 84.88 and 88.99% with a contained anhydrite content of 3.04, 5.10, 12.80 and 6.64% respectively. On a weighted basis, the average gypsum content is 87% and the anhydrite 8%. The remaining 5% of impurities are largely carbonates.

Assay results of 12 samples received long after the 1959 report was made, show the results of that drilling (including some gypsiferous shale) to have ranged between 64 and 94.1% gypsum with an arithmetic average of about 86%. The anhydrite content ranged from 3.9% to 6.8% with an average of 4.9%.

Although the 1965 gypsum content is similar, the 8% anhydrite average is considerably higher - contributed largely by one sample. The greatest anhydrite content occurs in the shallower holes, thus within the 100⁺ foot vertical range tested there appears to be no marked change in the ratios once comfortably beyond the present surface effect.

All core assayed is of good white colour similar to that of earlier material tested and found well suited for dental cement as well as plaster of Paris.

CONCLUSIONS & RECOMMENDATIONS

In an effort to pick suitable set-up location for the large drill we unfortunately picked the most structurally complex and generally mixed up sections of the gypsum deposits. Thus this area near the western termination of the #1 body appears complexly folded and may in fact be the locus of a large thrust fault. The drilling in this area established the presence of previously unsuspected horsts and/or sills of country rock disrupting the continuity suggested by staggered surface exposures. Nevertheless there is still a large quantity of good grade gypsum present at this westerly end even if it is in two bands rather than one.

Compared to the next closest known gypsum deposit in the northwest - that at Bullion Creek, some 120 miles to the northwest

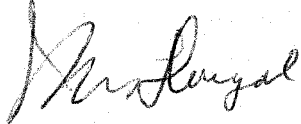
and checked this year by the writer - the O'Connor deposit is small and complex. However it appears to be of higher grade and considerably closer to ocean transportation than the one in the Yukon. Since the 1959 work, Japanese interests have enquired about buying such gypsum at Haines, Alaska, but, despite the fact that their price of \$9-12/ton was almost satisfactory, the relatively small maximum tonnage requirement of 100,000 tons/year was only about 10 or 20% of that required to make the operation commercial.

It is recommended that the property (in good standing until 1972-74) be held until there is more interest quantity-wise in gypsum. In the meantime, should we ever be in the area with a bulldozer, a couple days should be spent pushing a jeep road through the relatively easy six miles from the Haines Cut-off at Chuck Creek. Then should there ever be a small demand for relatively high priced dental cement - plaster of Paris grade material, a few truck loads could readily be obtained.

Any future drilling should be done to test the deposits at greater than the 100-foot depth reasonably well established. This can only be done given an adequate supply of time and casing.

Should pipeline transport ever develop to the stage where \$10/ton gypsum can be economically transported over 150 miles to the sea coast, then the multi-billion (?) ton Bullion Creek deposit, still open to staking, should be looked at.

Vancouver, B. C.
January 27, 1966


J. J. McDougall,
Geologist.

REFERENCES:

1. 1958 - O'Conner Gypsum Report - J. J. McDougall On file
2. 1959 - " " " " "
3. Analysis and Material Testing Results (1959-1962) "
4. B.C. M.N. Annual Report, 1960 "
5. Monthly Reports (July-August, 1965) J.J. McDougall "

PROPERTY O'Connor Gypsum

HOLE NUMBER 1 (AXWL)

SHEET NUMBER 1

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

West end of north band. 380 ft. @

LOCATION: LAT. N73°W from old Stn #5

STARTED July 22, 1965

DEP _____

COMPLETED July 24, 1965

ELEVATION OF COLLAR 2911 ft. (approx.)

ULTIMATE DEPTH 75 feet

DATUM _____

PROPOSED DEPTH _____

DIRECTION AT START: BEARING S27°W

DIP -35°

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE					
0 - 75	Hole abandoned in overburden and badly broken up f.g. gray argillite	not	assayed.						

PROPERTY O'Connor Gypsum

HOLE NUMBER 2 (WL)

SHEET NUMBER _____

DIAMOND DRILL RECORD

SECTION FROM _____ TO _____

West end of north band. 380 ft. @

N73°W from old Stn #5

LOCATION: LAT _____

STARTED July 25, 1965

DEP _____

COMPLETED July 25, 1965

ELEVATION OF COLLAR 2911 ft.

DATUM _____

ULTIMATE DEPTH 135.0 ft.

DIRECTION AT START: BEARING S27°W
DIP -35°

PROPOSED DEPTH ---

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE			
0 - 9	O.B.						
8 - 47	V.f.g., grayish, sl phyllitic, limey argillite; cut by numerous Co ₃ strgs-- poss sl gypsiferous - (call G1)		not assayed				
	- most prominent bndg at hi angle (80°) to core <u>C.Rec. 40%</u>						
47 - 47.2	Calcite gob.						
47.2 - 115	75% C.R. of altered and sheared medium grained greenish dioritic (?) sill (G2) - sl gneissic bndg @ 53° - intervals of disseminated granular pyrite to 1/2". Rusty weathering to 85 feet <u>58-60 -- qtz rich, lighter coloured</u> brecciated area; 6% pyrite <u>88-89 -- well defined py bndg @ 60°</u>						

PROPERTY O'Connor Gypsum

HOLE NUMBER 2

SHEET NUMBER 2

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT. _____

DEP. _____
ELEVATION OF COLLAR 2911 ft.

DATUM _____

DIRECTION AT START: BEARING S27° W
DIP _____

STARTED _____

COMPLETED _____

ULTIMATE DEPTH _____

PROPOSED DEPTH _____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE	Gold \$	Sludge Gold \$
115 - 118	Brecciated G2., sl hematitic					
118 - 135	75% C.R. of v.f.g., dense light greenish to gray siliceous mottled tuff (could be altered sediment) - banding & fracturing @ 55% - (call <u>G3</u>)					
	135 - end as hole pinched off in sandy break----probably start of gyp. zone.					

PROPERTY O'Connor Gypsum

HOLE NUMBER 3

SHEET NUMBER 1

DIAMOND DRILL RECORD

SECTION FROM _____ TO _____

LOCATION: LAT As #1

STARTED July 26, 1965

DEP _____

COMPLETED July 28, 1965

ELEVATION OF COLLAR 2911 ft.

DATUM _____

ULTIMATE DEPTH 47 ft.

DIRECTION AT START: BEARING S27° W
DIP -70°

PROPOSED DEPTH _____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
0 - 7	O.B.							
7 - 47.0	G1 occ Co ₃ bndg blocky and broken. Difficult drilling. Hole stopped at 47.0 ft.							
	<u>CR = 35'</u>							

PROPERTY O'Connor Gypsum

HOLE NUMBER 4

SHEET NUMBER 1

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT. 393 ft. @ S87°W from Stn 5
 DEP. _____
 ELEVATION OF COLLAR 2907
 DATUM _____
 DIRECTION AT START: BEARING S27°W
 DIP -37°

STARTED July 28, 1965
 COMPLETED July 29, 1965
 ULTIMATE DEPTH 210 ft.
 PROPOSED DEPTH _____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE			
0 - 25	O.B.						
25 - 51	(25% C.R.) of border phase gypsum	82935		25-75	Water (H ₂ O)		
	25-26 -- buff, impure, surface stained gyp			(50.0)			
						Moisture	0.027%
	26-43 -- structures white gyp					Combined	16.86 %
	43-43.5 -- gray, impure, sl micaceous				SO ₃	(Total)	39.37 %
	banded gypsum - carborate mixture (G5)						
	43.5-48 --				Calculated Gypsum		80.66 %
	gyp incl some sl sandy or				"	Anhydrite	3.04 %
	granular brownish sugar like						
	material -- prob in breaks to surface	82936		75-210	Water (H ₂ O)		
	- bndg @ 39°			less			
	48-51 -- good gyp., sl bndg @ 47°	130-135		5.0 ft.	Moisture		0.034%
		157-158		1.0 ft.		Combined	19.16 %
51 - 75	Mixed, low grade gyp and CO ₃ plus	-total		129.0 ft.	SO ₃	Total	45.70 %
	G5.						
	57-59 -- brecc CO ₃ sed.				Calculated Gypsum		91.67 %
	74 -- poor ctct gyp - G5 @ 15°				"	Anhydrite	5.10 %
	C. Rec 40%						
75 - 118	75% C. Rec. of white gyp sl rw due to bits						

PROPERTY O'Connor Gypsum

HOLE NUMBER 4

SHEET NUMBER 2

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT _____

STARTED July 28, 1965

DEP _____

COMPLETED July 29, 1965

ELEVATION OF COLLAR 2907

DATUM _____

ULTIMATE DEPTH 210 ft.

DIRECTION AT START: BEARING S27°W

DIP _____

PROPOSED DEPTH _____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
118 - 125	<u>10% C.R. sl. impure gyp</u> - gray bndg @ 42°							
125 - 150	<u>5% C.R. gyp</u> 130 - 3" --- G2 dyke 130-135 --- occ buff Co ₃							
150 - 175	<u>65% C.R. Wh. gyp.</u> 157-158.5 -- G5 @ 43° 172-173 -- " " 45°							
175 - 200	<u>7% C.R. - wh. gyp.</u>							
200 - 210	<u>7% C.R. - wh. gyp.</u>							
	Hole abandoned @ 210 ft. after either flattening and coming to surface or hitting a sand fitted crack under ice.							
	*Hole about 1/2 way through gypsum deposit Cut about 144 feet of relatively pure gypsum.							

PROPERTY O'Connor Gypsum

HOLE NUMBER 5

SHEET NUMBER 1

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT. 560 ft. @ S75°W from Stn 5

STARTED July 30, 1965

DEP. _____
ELEVATION OF COLLAR 2941

COMPLETED July 31, 1965

DATUM _____

ULTIMATE DEPTH 50.0 ft.

DIRECTION AT START: BEARING S27°W
DIP -55°

PROPOSED DEPTH _____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE			
0 - 50	white good grade gyp. structureless <u>35% C.R.</u>	82937		0 - 50 (50 ft)	Water (H2O)	Moisture	0.032%
	<u>abandoned in slip</u>				So ₃	Combined	<u>17.74 %</u>
						(Total)	<u>47.08 %</u>
						Calculated Gypsum	<u>84.88 %</u>
						Anhydrite	<u>12.80 %</u>

PROPERTY O'Connor Gypsum

HOLE NUMBER 6

SHEET NUMBER 1

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT. 553 ft. @ S70°W from Stn #5
DEP _____

STARTED July 31, 1965

ELEVATION OF COLLAR 2927

COMPLETED Aug. 1, 1965

DATUM _____

ULTIMATE DEPTH 50.0 ft.

DIRECTION AT START: BEARING S27°W
DIP -45°

PROPOSED DEPTH _____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
0 - 50	White Gypsum	82937		(0-50) 50 ft.				
	<u>48 - 48.5 --- 30% anhydrite</u> (crystalline Granular)			Combined with DDM #6				
	35% C.R.			<u>84.88 %</u> Gypsum				
	END			<u>12.80 %</u> Anhydrite				

PROPERTY O'Connor Gypsum

HOLE NUMBER 7

SHEET NUMBER 1

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT. 553 ft. @ 570°W from Stn 5.

STARTED Aug. 1, 1965

DEP. _____

COMPLETED Aug. 2, 1965

ELEVATION OF COLLAR 2927

ULTIMATE DEPTH 50.3

DATUM _____

PROPOSED DEPTH _____

DIRECTION AT START: BEARING S27°W
DIP -70°

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE			
				(0-50.3)			
0 - 25	Wh. gyp. <u>(35% C.R.)</u>	82937		(50.3 ft.)			
				Combined with total core			
25 - 50.3	Tray spilled before logging but appears to have several feet of anhydrite present -- gypsum reported to be near end.			of ddh's #5 & 6			
					84.88 % Gypsum		
					12.80 % Anhydrite		
	<u>50 - 50.3</u> - f.g., micaceous G2 (?)						
	mixed with G5 -- bndg @ low 10-15° <u>(CR 50%)</u>						
	(end)						

PROPERTY O'Connor Gypsum

HOLE NUMBER 8

SHEET NUMBER 1

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT. 510 ft. @ S57°W of Stn #5
 DEP. _____
 ELEVATION OF COLLAR 2891
 DATUM _____
 DIRECTION AT START: BEARING S27°W
 DIP -40°

STARTED Aug. 3, 1965
 COMPLETED Aug. 4, 1965
 ULTIMATE DEPTH 40.0 ft.
 PROPOSED DEPTH _____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE			
		82940					
0 - 40	- 35% C.R. of wh. gyp.			(0-40)	} Water (H ₂ O)		
				40 ft.			
	7 - 9 -- G5					Moisture	<u>0.010%</u>
	24 - 25.5 -- G5, bndg @ 48°					Combined	<u>18.60 %</u>
	End @ 40.0 ft. as something hard hit (dyke?) and bit worn out. Hole appears to have been drilled towards footwall?					SO ₃ Total	<u>45.37 %</u>
						Calculated Gypsum	<u>88.99 %</u>
						" Anhydrite	<u>6.64 %</u>

PROPERTY O'Connor Gypsum

HOLE NUMBER 9 (AXWL)

SHEET NUMBER 1

SECTION FROM _____ TO _____

DIAMOND DRILL RECORD

LOCATION: LAT. 510 ft. @ S80°W of Stn #5

STARTED August 3, 1965

DEP. _____

COMPLETED August 6, 1965

ELEVATION OF COLLAR 2904

ULTIMATE DEPTH 125.0

DATUM _____

PROPOSED DEPTH _____

DIRECTION AT START: BEARING _____
DIP -90°

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE				
0 - 10	O.B.)							
10 - 16.5	Gr. G2 - amphibolite skarn)							
16.5 - 2.9	White gyp grading to buff and G5 types)							
	Some bndg @ 31°)							
29 - 36	Orange weathering G2 skarn)							
	29 - fault ctct @ low angle to core)							
36 - 53	Pyritic G2)							
53 - 62	Orange weathering G2 sk as prev.)							
62 - 100	Micaceous - greyish impure G5)							
	- gen bndg @ 20° on lower)							
100 - 107	Gypsum - sl anhy (20%))							
107 - 118	Mixed Pyr G5 and G2 skarn)							
	- bndg (contorted) @ 26°)							
118 - 125	G2 --)							
	(end))							
	Hole appears to have collared in G2 dyke)							
	and rode it down.)							

PROPERTY O'Connor Gypsum

HOLE NUMBER 10 (AX)

SHEET NUMBER 1

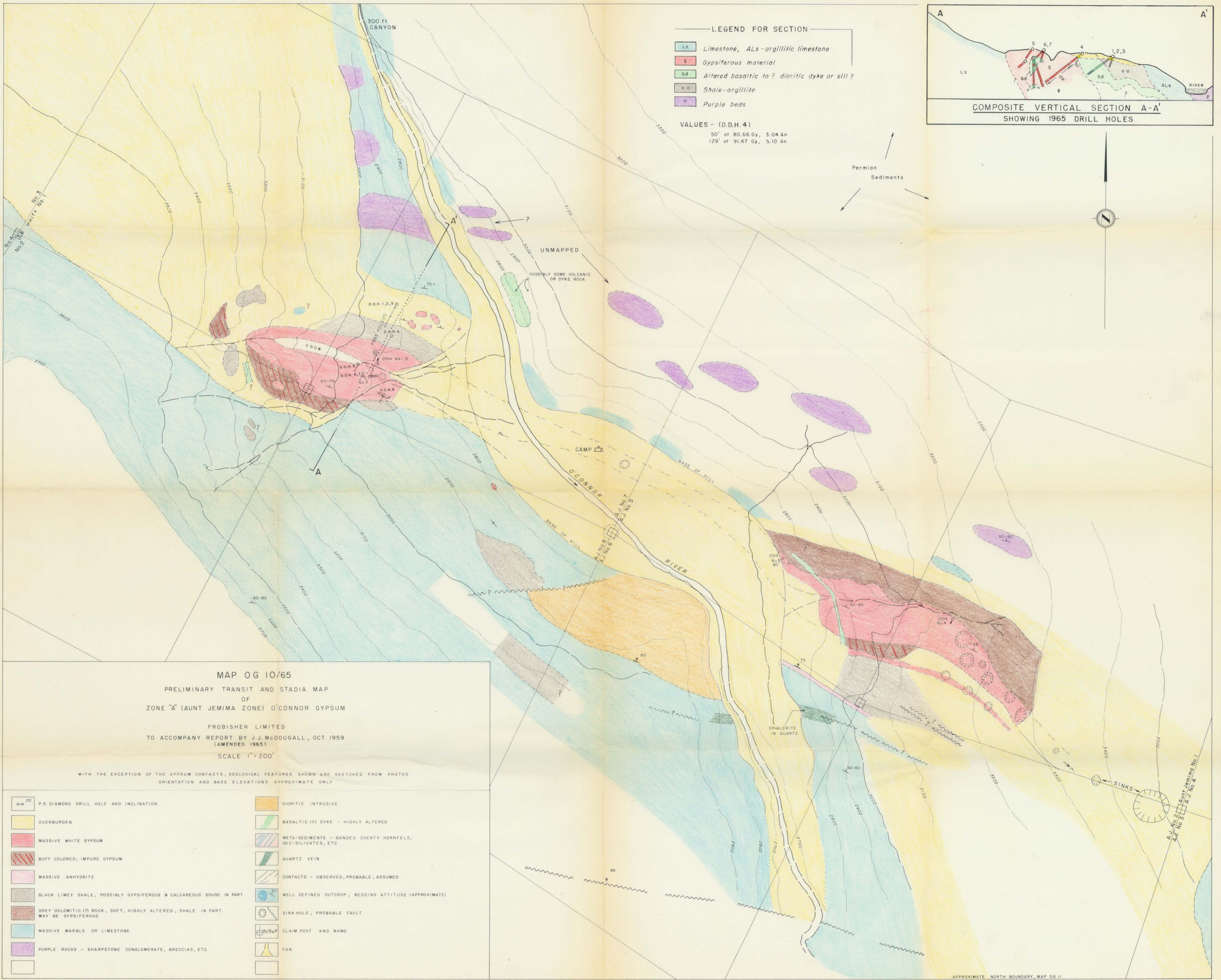
DIAMOND DRILL RECORD

SECTION FROM _____ TO _____

LOCATION: LAT. as #9
 DEP. _____
 ELEVATION OF COLLAR 2904
 DATUM _____
 DIRECTION AT START: BEARING N27°E
 DIP -74°

STARTED August 6, 1965
 COMPLETED August 7, 1965
 ULTIMATE DEPTH 125.0 ft.
 PROPOSED DEPTH _____

DEPTH FEET	FORMATION	FROM	TO	WIDTH OF SAMPLE		
0 - 5	O.B.)					
5 - 17	sl Skarny, pyritic G2, fract @ 62°)					
17 - 23	wh gyp (bndg 20' @ 60°))	30%			Sections of remaining core not assayed are in storage at warehouse.	
23 - 45	Buff gyp + G5)	CR				
	Bndg: <u>37' @ 30°, 43' @ 50°</u>)					
45 - 65	Wh. gyp.)					
	57-58 --- 50% anhydrite)	30%			<u>Combined Average</u>	
	Bndg <u>68' @ 42°</u>)	CR				
65 - 75	Buff gyp, sl G5)	40%		329.0 ft. @	86.90% gypsum	8.29% anhydrite
75 - 92	Why gyp, 50% anhy 87.5 - 89)					
	Bndg: <u>83' @ 46°, 84' @ 26°</u>)					
92 - 97	V. Micaceous gray G5 (+ gypsum))	80%				
	- bend bndg parallels core)					
97 - 105	10% CR, of white gyp.)					
105 - 125	Core - Sand)	70%				
	(end)					
	probably entered large crack marking					
	jnct of second gyp. bands.					

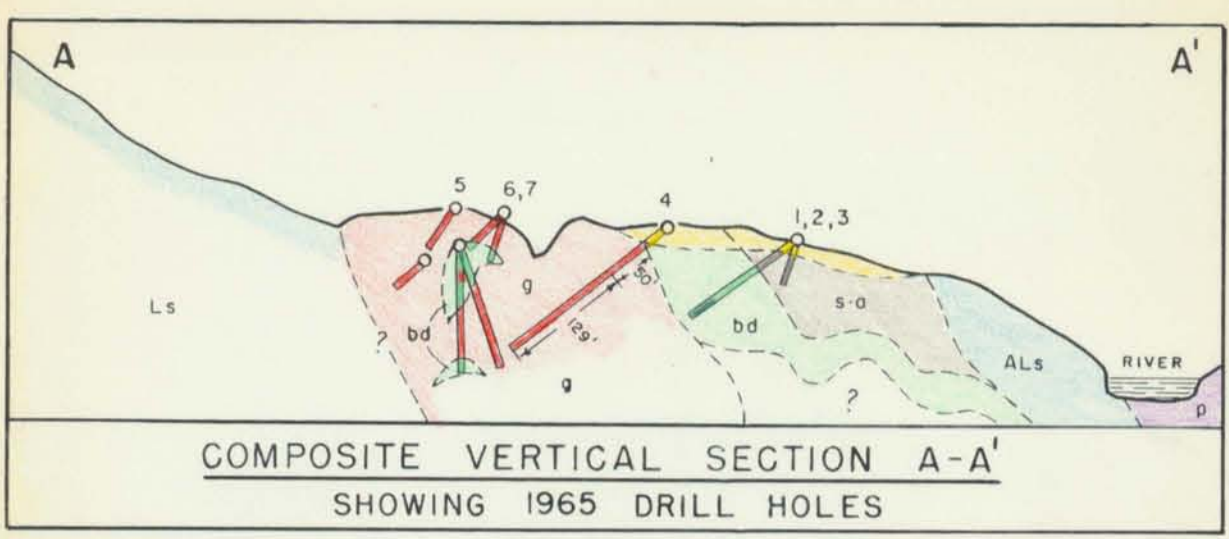


— LEGEND FOR SECTION —

- Ls Limestone, ALs - argillitic limestone
- g Gypsiferous material
- bd Altered basaltic to ? dioritic dyke or sill ?
- s-o Shale-argillite
- p Purple beds

VALUES - (D.D.H. 4)

50' at 80.66 Gy, 3.04 An
 129' at 91.67 Gy, 5.10 An

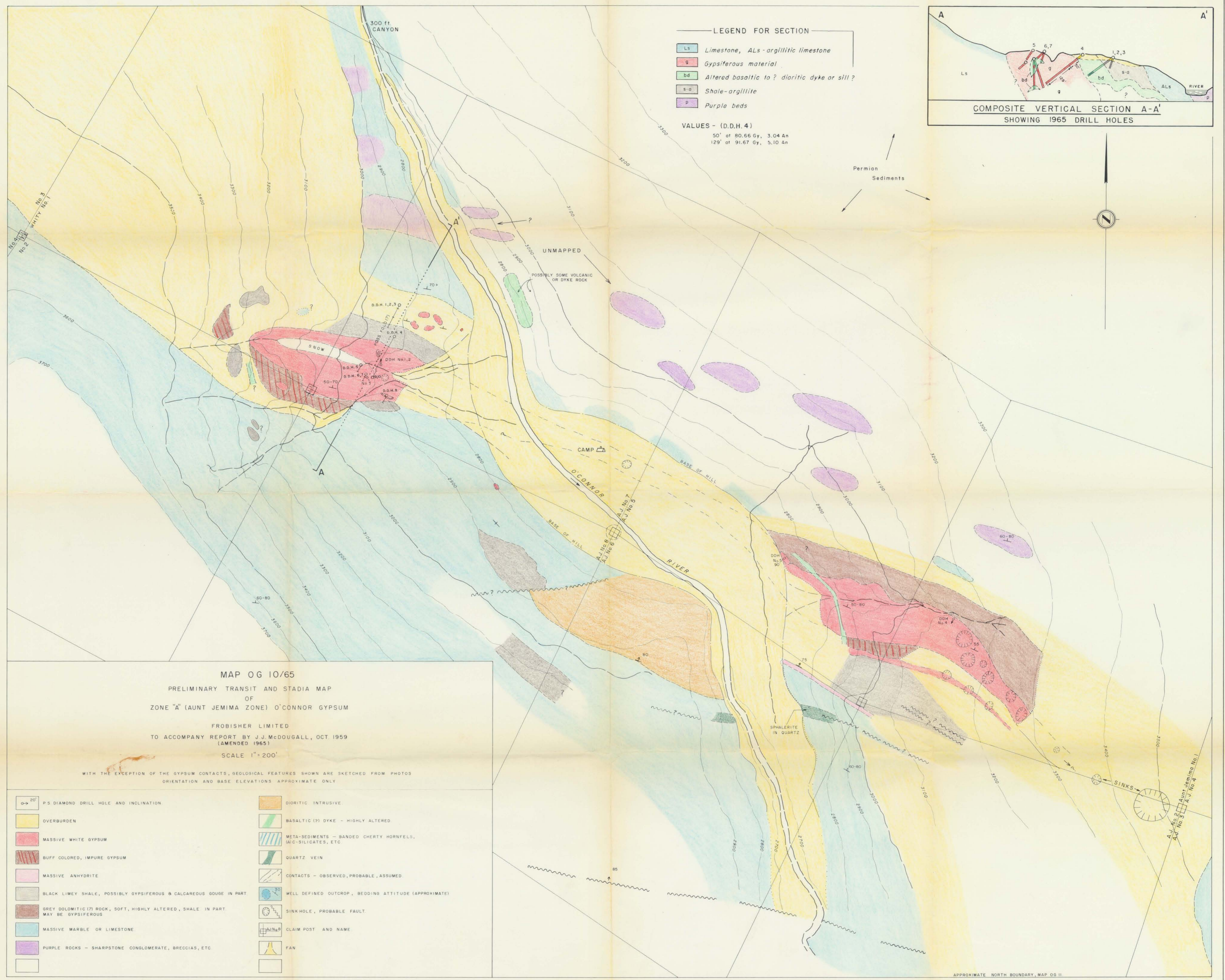


MAP OG 10/65
 PRELIMINARY TRANSIT AND STADIA MAP
 OF
 ZONE "A" (AUNT JEMIMA ZONE) O'CONNOR GYPSUM
 FROBISHER LIMITED
 TO ACCOMPANY REPORT BY J.J. McDOUGALL, OCT 1959
 (AMENDED 1965)
 SCALE 1" = 200'

WITH THE EXCEPTION OF THE GYPSUM CONTACTS, GEOLOGICAL FEATURES SHOWN ARE SKETCHED FROM PHOTOS
 ORIENTATION AND BASE ELEVATIONS APPROXIMATE ONLY

- | | | | |
|--|---|--|--|
| | P.S. DIAMOND DRILL HOLE AND INCLINATION | | DIORITIC INTRUSIVE |
| | OVERBURDEN | | BASALTIC (?) DYKE - HIGHLY ALTERED |
| | MASSIVE WHITE GYPSUM | | META-SEDIMENTS - BANDED CHERTY HORNFELS,
(ALC-SILICATES, ETC) |
| | BUFF COLORED, IMPURE GYPSUM | | QUARTZ VEIN |
| | MASSIVE ANHYDRITE | | CONTACTS - OBSERVED, PROBABLE, ASSUMED |
| | BLACK LIMY SHALE, POSSIBLY GYPSIFEROUS & CALCAREOUS GOUGE IN PART | | WELL DEFINED OUTCROP, BEDDING ATTITUDE (APPROXIMATE) |
| | GREY DOLOMITIC (?) ROCK, SOFT, HIGHLY ALTERED, SHALE IN PART,
MAY BE GYPSIFEROUS | | SINKHOLE, PROBABLE FAULT |
| | MASSIVE MARBLE OR LIMESTONE | | CLAIM POST AND NAME |
| | PURPLE ROCKS - SHARPSTONE CONGLOMERATE, BRECCIAS, ETC | | FAN |
| | UNMAPPED | | SINK |

APPROXIMATE NORTH BOUNDARY, MAP OG 11

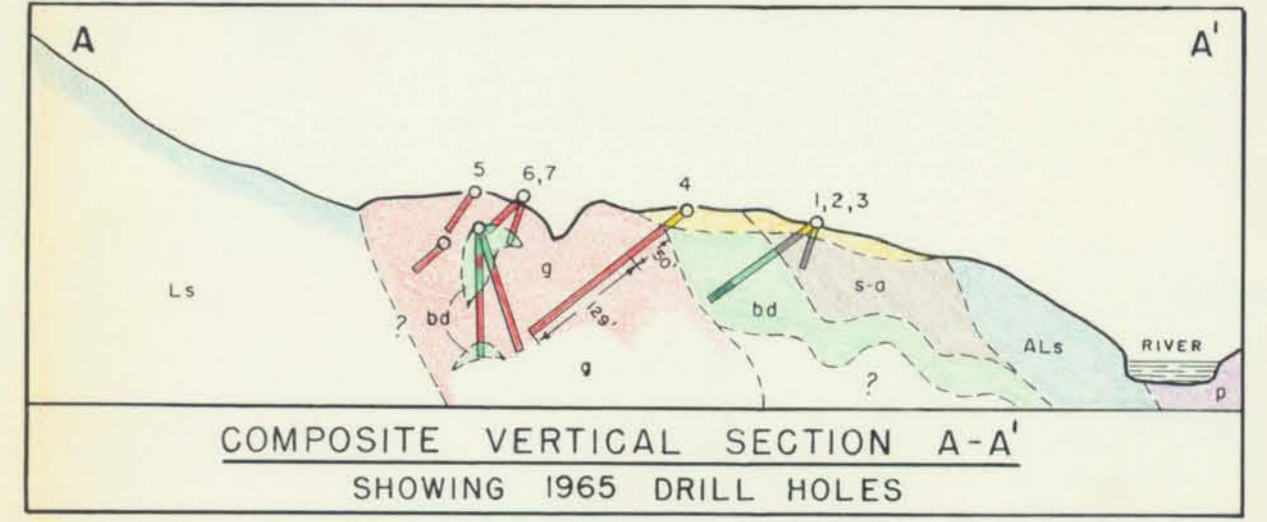


— LEGEND FOR SECTION —

- Ls Limestone, ALs - argillitic limestone
- g Gypsiferous material
- bd Altered basaltic to ? dioritic dyke or sill ?
- s-a Shale-argillite
- p Purple beds

VALUES - (D.D.H. 4)

50' at 80.66 Gy, 3.04 An
 129' at 91.67 Gy, 5.10 An



MAP OG 10/65
 PRELIMINARY TRANSIT AND STADIA MAP
 OF
 ZONE "A" (AUNT JEMIMA ZONE) O'CONNOR GYPSUM
 FROBISHER LIMITED
 TO ACCOMPANY REPORT BY J.J. McDOUGALL, OCT. 1959
 (AMENDED 1965)
 SCALE 1" = 200'

WITH THE EXCEPTION OF THE GYPSUM CONTACTS, GEOLOGICAL FEATURES SHOWN ARE SKETCHED FROM PHOTOS
 ORIENTATION AND BASE ELEVATIONS APPROXIMATE ONLY

- | | | | |
|--|--|--|--|
| | P.S. DIAMOND DRILL HOLE AND INCLINATION | | DIORITIC INTRUSIVE |
| | OVERBURDEN | | BASALTIC (?) DYKE - HIGHLY ALTERED |
| | MASSIVE WHITE GYPSUM | | META-SEDIMENTS - BANDED CHERTY HORNFELS,
(Alc-SILICATES, ETC) |
| | BUFF COLORED, IMPURE GYPSUM | | QUARTZ VEIN |
| | MASSIVE ANHYDRITE | | CONTACTS - OBSERVED, PROBABLE, ASSUMED |
| | BLACK LIMEY SHALE, POSSIBLY GYPSIFEROUS & CALCAREOUS GOUGE IN PART | | WELL DEFINED OUTCROP, BEDDING ATTITUDE (APPROXIMATE) |
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APPROXIMATE NORTH BOUNDARY, MAP OG 11