

5290 0013

P-03

(344)
Item 13

PAN-NEVADA INC.

DIAMOND DRILL HOLE LOG: P-03

Property	Passayank Best Chance Mining Property Hole No. P-03		
Location	Hamilton Area White Pine County Nevada		
Date Started	January 18, 1969.		
Date Completed	May 1, 1969		
Date Logged	April 28 - May 2, 1969.		
Co-ordinates of Collar	2 + 00 N, 1 + 90 E.		
Elevation of Collar	7950 Ft. Approx.		
Bearing	East Dip - 45°, Length - 242 Ft.		
Contractor	E. J. Longyear Co.		
Core Size	NX		
Drill Type	UG Junior (Skid)		
Dip Tests	Eastman, Camera Type		
Dip Test Results	81 ft. - 45° N 86° E	161 ft. - 44° N 87° E	221 ft. - 43° 50' N 89° E
Logged by	Robert H. J. Ritchie		
Approved by	Norman J. Byrne		

From	To	Description	Sample No.
0	6.4	Casing in overburden.	
6.4	7.0	<p>Consists of gray dolomitized limestone with calcite-filled fractures.</p> <p>Here the fractures are at 30° to the core axis plus there also being some cross fractures.</p> <p>Both the red and brown clay is observed but the brown clay is more abundant and contains limonite.</p> <p>The Red clay contains hematite and is in minor amounts here.</p>	
7.0	8.0	The same as above but the % of brown clay on the surface of calcite is higher here.	
8.0	10.3	<p>A brecciated zone is present here and due to it poor core recovery exists.</p> <p>Only on the larger pieces can the grey dolomitized limestone be distinguished.</p> <p>Clay plus hematite is present also.</p>	
10.3	14.0	<p>A badly brecciated zone containing a lot of clay + hematite, mixed.</p> <p>Here also core recovery is poor with the average piece being 1/2" x 1/2" x 1/2".</p> <p>On the larger pieces one can see badly fractured gray dolomitized limestone carrying calcite. Fractures.</p>	
19.5	25.0	<p>Gray dolomitized limestone badly fractured with calcite-filled fractures and cavities.</p> <p>All major fractures carry a lot of clay and hematite mixed.</p>	
23.0	25.0	Dolomitized limestone has a darker gray appearance in this region.	
25.0	27.5	<p>Very badly fractured zone with a lot of clay and hematite mixed.</p> <p>In most places there are small breccia pieces cemented weakly together with a clay-like material.</p>	

From	To	Description	Sample No.
27.0	27.5	Contact at 30° to core axis of gray dolomitized limestone and the brecciated zone described above.	
27.5	29.3	Fracturing here is not as intense as some other places but more fractured than usual. Consists of gray dolomitized limestone and calcite-filled fractures. Also present is a fair amount of clay and hematite. Mixed.	
29.3	30.6	Breccia zone with a lot of clay and hematite mixed on the gray dolomitized limestone. Recovery of core was fair to good. At 29.3 ft. there is a contact of the breccia zone with clay and gray dolomitized limestone and calcite filled fractures. At 29.6 ft. is the end of the contact. 30.0-30.6 ft is a zone of brecciation and clay plus hematite mixed.	
30.6	32.2	Calcite fractures in the gray dolomitized limestone are fairly large - up to 1/4" and are at 30° to 40° to the core axis. All large fractures are heavily coated with clay and hematite.	
32.2	37.4	Recovery is quite small pieces of dolomitized limestone covered with clay and hematite mixed. The rock is very poorly cemented together and contains a lot of calcite filled fractures.	
37.4	37.9	Gray dolomitized limestone with small calcite-filled fractures and clay plus hematite mixed.	
37.9	39.5	Recovery here was good considering how poorly cemented together the gray dolomitized limestone with calcite filled fractures is. Also present are clay and hematite mixed.	

From	To	Description	Sample No.
39.5	43.2	<p>Brecciated zone due to a very high number of calcite filled fractures. The fractures are at 25° - 30° to the core axis.</p> <p>This zone is moderately cemented together.</p>	
43.2	52.0	<p>The average size of pieces recovered here is 1/8" x 1/8" x 1/8". This is due to a badly fractured zone. Which carries a lot of clay and hematite mixed.</p> <p>In the larger pieces one can distinguish gray dolomitized limestone and calcite filled fractures at 30° to the core axis.</p>	
52.0	55.3	<p>Still in the gray dolomitized limestone with calcite fractures of the average size - 1/5".</p> <p>Clay and hematite mixed is present on all large fractures.</p>	
55.3	55.7	<p>Core recovery is only small brecciated pieces due to a badly fractured zone.</p>	
55.7	58.7	<p>Gray dolomitized limestone with calcite-filled fractures and on major fractures the calcite is altered to a light greenish white.</p> <p>Also, the clay and hematite mixed on some fractures has a glossy look to it due to some slipping of the rock.</p>	
58.7	59.0	<p>A brecciated zone in contact with gray dolomitized limestone at 25° to the core axis.</p> <p>The calcite on the exposed fractures is colored a light green white.</p> <p>Present also is a lot of clay and hematite mixed.</p>	
59.0	63.2	<p>Gray dolomitized limestone with calcite fractures at 40° to core axis and calcite cavities along fractures.</p>	

From	To	Description	Sample No.
63.2	63.8	<p>Core recovery is only small pieces of gray dolomitized limestone with average calcite-filled fractures. It is due to a badly fractured zone.</p> <p>There is only a small amount of clay and hematite mixed.</p>	
63.8	68.0	<p>Major fractures are at 38° to the core axis with breccia zones along a few of the major fractures.</p> <p>The calcite-filled fractures here are more in number and larger than the average.</p> <p>The clay and hematite mixed has a deeper color to it due possibly to a more altered zone.</p> <p>Still in gray dolomitized limestone.</p>	
68.0	69.3	<p>This zone is more altered than the one described above.</p> <p>The clay and hematite mixed has a deeper color to it and the major fractures carry most of the clay up to 1/5 ins. thick in some places. Also, this is one of the few zones with the red clay carried as specks on the surface of the dolomitized limestone.</p> <p>The fractures (major) have breccia pieces along them and are at 30° to the core axis.</p>	
69.3	70.6	<p>Brecciated zone which is badly fractured with many calcite filled fractures. This zone is not as altered as above.</p> <p>The clays mixed with hematite and limonite are not as plentiful nor as deep a color here.</p>	
70.6	71.1	<p>Badly fractured gray dolomitized limestone with all fractures containing calcite.</p> <p>Clay and limonite mixed are present in minor amounts.</p>	
Sample		65.6 ft. - 71.0 ft	878

From	To	Description	Sample No.
71.1	73.0	<p>Brecciated gray dolomitized limestone with calcite abundant in both fractures and cavities.</p> <p>Clay and limonite mixed are present and abundant on large fractures.</p> <p>The calcite cavities and clay plus limonite become more abundant closer to 73 ft.</p>	
73.0	75.5	<p>At 73.0 ft. there is a contact of dolomitized limestone with better than the average number of calcite filled fractures, and a dolomitized limestone with minor to no calcite filled fractures.</p> <p>The dolomitized limestone with little to no calcite is altered badly in most places and contains breccia pieces on major fractures.</p> <p>Clay with limonite mixed is abundant on most major fractures.</p> <p>The contact ends at 74.7 ft. and on one side is dolomitized limestone with calcite while on other side is dolomitized limestone with little to no calcite.</p> <p>Besides the contact zone the core is the typical dolomitized limestone with calcite.</p>	
75.5	77.6	<p>A brecciated gray dolomitized limestone which has a great number of calcite filled fractures.</p> <p>Only clay with limonite is present in fractures (major) and the fractures are still at 30° to the core axis.</p>	
77.6	81.0	<p>The fractures begin to carry clay and hematite.</p> <p>There is an alteration zone present which becomes more altered from 77.6 ft. to 78.2 ft. But, the altering is still limited to fractures.</p> <p>From 78.2 ft. to 81.0 ft. a heavily altered zone. But, on larger pieces one can identify dolomitized limestone.</p> <p>From 77.8 ft. to 79.3 ft. is a dolomitized limestone which is a darker gray than the normal. Also, present in this is a black fine grained material which lies parallel to the core axis.</p>	

From	To	Description	Sample No.
		Fractures of calcite are 30° to the core axis and wherever the calcite cuts the black fine-grained material it is evident that the calcite was the last to be intruded.	
		From 79.3 ft. to 79.7 ft there is another zone of alteration containing clay and hematite mixed. This zone resembles the zone encountered before the zone containing the black fine grained material - 77.8 ft. to 79.3 ft.	
		From 79.7 ft. to 81.0 ft. the altered zone becomes weaker and finally ends in gray dolomitized limestone with calcite-filled fractures and clay plus limonite mixed.	
		In the altered zone are breccia pieces.	
81.0	88.0	For the first 2.0 ft. no evidence of black fine grained material. Only gray dolomitized limestone plus calcite fractures. Also, clay and limonite mixed.	
		Black fine grained material is present again at 82.7 ft. At 83.5 ft, 85.2 ft., 86.0 ft., 86.5 ft., 86.9 ft. and 88.0 ft. there are cavities of this black material. In these cavities the black material is in the form of rhombs in some places and does not react to 8% HCl acid.	
		Where the calcite has cut the black, fine grained material it has displaced it as much as 1/5 ins.	
		Sample 76.0 ft - 83.0 ft.	879
88.0	94.9	From 88.0 ft. - 92.0 ft. is a badly altered zone. With the clay and hematite mixed being a dark color.	
		Gray dolomitized limestone with calcite filled fractures and badly fractured.	
		There is less and less alteration the further from 90.0 ft. The clay and hematite mixed gives way to clay and limonite. Also the core is less fractured.	
		In some fractures one can find small breccia pieces.	
		From the start of the altered zone on there is no more evidence of the black fine grained material.	
		Sample 83.0 ft - 91.0 ft.	880

From	To	Description	Sample No.
94.9	97.0	Still in gray dolomitized limestone with calcite filled fractures. Evidence of fossils at 96.6 ft.	
97.0	101	Not as badly fractured as some of the other zones but still more fractured than usual. Calcite cavities are present . From 98.0 ft. - 98.3 ft. the dolomitized limestone has a deeper gray. From 99.0 ft. - 100 ft. the core is more fractured than from 97.0 ft. on. From 99.5 ft. to 101.0 ft. the clay plus hematite mixed gives away to clay plus limonite mixed. Sample 96.9 ft. - 100.0 ft.	881
101	104.8	There are less calcite-filled fractures than usual from 101 ft. to 102.4 ft. The closer to 104.2 ft the more clay and limonite mixed. Minor clay plus hematite mixed is on major fractures. Fractures are at 30° to the core axis. At 103.4 ft. is a large calcite cavity with minor red and brown clay along its border.	
104.8	111.0	Badly fractured zone and one of the most abundant alteration products is clay plus limonite. Most of the fractures (major) have small breccia pieces in them. At 106.0 ft. is a 3 in. seam of brown clay and small breccia pieces. There is a high number of calcite fractures which may have been the result of the fractured zone. The gray dolomitized limestone has a deeper color to it. Plus, there is present the black fine grained material. Sample 103 ft - 108 ft.	882

From	To	Description	Sample No.
111.0	126.0	<p>The core recovery is good and may be a result of there being less than the usual number of calcite fractures.</p> <p>The core is still gray dolomitized limestone which has red and brown clay in major fractures.</p> <p>At 120.8 ft. to 121.5 ft. is a zone of fractured ground with the average recovered piece being 1" x 1" x 1".</p> <p>The closer to 126.0 ft. the more altered and fractured is the core.</p>	
126.0	126.8	<p>From 126.0 ft. - 126.4 ft. core broken fairly badly with the clay and hematite mixture becoming more predominant.</p> <p>From 126.4 ft. - 127.0 ft. is a small zone of badly fractured ground.</p> <p>The clay and limonite mixture covers each piece almost entirely.</p> <p>The most altered zone lies from 126.5 ft. - 126.8 ft.</p>	
126.8	129.5	<p>Core recovery is good and the calcite fractures are quite large up to 1/4 in.</p> <p>Clay and hematite mixed is quite abundant on major fractures.</p> <p>At 129.5 ft. on the surface of one of the major fractures is a small amount of black fine grained material.</p>	
129.5	134.0	<p>Brecciated zone with the core broken up quite badly. All broken pieces have one or more surfaces coated with a good concentration of clay and hematite mixed.</p> <p>There are many calcite fractures in the gray dolomitized limestone.</p> <p>From 132.0 ft. - 133 ft. the clay plus hematite concentration decreases and the brown clay replaces it. But, the core is still as badly broken up.</p> <p>From 133.0 ft. - 134. 0 ft. the core recovery is good probably due to the calcite and fracturing being less.</p>	
Sample		128.7 - 131.0 ft.	883

From	To	Description	Sample No.
		Sample 131.0 ft. - 132.0 ft; 133.7 ft.-134.8 ft.	884
134.0	135.6	<p>Another altered zone with a heavy coating of clay and hematite mixed.</p> <p>134.2 ft. to 135.1 ft. is badly fractured and has breccia pieces on many of the major fractures. The calcite fracture content is quite high and there is a lot of red clay on the larger fractures.</p>	
136.6	141.5	<p>Gray dolomitized limestone slightly altered but has average calcite content and carries brown clay.</p> <p>The fractures are at 40° to the core axis.</p>	
141.5	146.0	<p>Starting at 142.0 ft. the dolomitized limestone has a deeper gray color to it. Also, the brown clay has given way to red clay of a good quantity and color.</p> <p>The core is moderately to badly fractured with the red clay being up to 1/4 in. thick in places.</p> <p>Fossils are also present (Gastropods)</p> <p>The calcite fractures are also quite large -- up to 1/4 ins. thick.</p> <p>Breccia pieces are found in the clays also.</p>	
146	147	<p>The grey dolomitized limestone is lighter gray with the calcite fracturing being normal.</p> <p>Clay plus limonite is present as well as fossils. (Brachiopods)</p> <p>At 147.0 ft. there is a cavity of black fine grained material on a major fracture.</p>	
		Sample 142.4 ft - 146.8 ft.	885
147.0	153.6	<p>The dolomitized limestone is neither the normal dolomite nor the darker dolomite but rather a cross between the two.</p> <p>There are no more than the normal number of calcite fractures but their size is larger than normal.</p> <p>The clay plus hematite is important in this zone due to its concentration and in some places the clay has parallel striations on it due to rock movement. In some places the clay is 1/4 in. thick.</p>	

From	To	Descriptions	Sample No.
		A lot of fractures have breccia pieces (small) in the clay which coats them.	
		Sample 147.0 ft. - 150.5 ft.	886
		Sample 150.5 ft. - 154.0 ft.	887
153.6	156.5	Gray dolomitized limestone with calcite filled fractures. Mostly brown clay.	
156.5	157.8	Altered zone badly fractured containing mostly brown clay but minor red clay. The gray dolomitized limestone has a darker appearance to it, and has the average content of calcite filled fractures. 156.5 ft. to 156.8 ft. is a small clay mud seam.	
		Sample 156.6 ft. - 157.8 ft.	888
157.8	162.0	Gray dolomitized limestone with clay plus limonite on major fractures. Fractures are at 30° - 40° to the core axis. From 159.0 ft. to 160.0 ft. the core is fractured more but the pieces recovered are quite large.	
162.0	163.0	There is a mud seam along a major fracture of the darker than usual dolomitized limestone. The clay here on the major fractures is mixed with hematite.	
163.0	164.0	Fractured fairly badly with the size of the average recovery piece being 1/2" x 1/2" x 1/2" Here is clay mixed with limonite.	
		Sample 161.0 ft. - 164.2 ft.	889

From	To	Description	Sample No.
164.0	166.0	<p>Core recovery of the gray dolomitized limestone is good and the calcite fractures are average size and concentration.</p> <p>There is minor clay and hematite along major fractures.</p> <p>At 164.5 ft. there is some evidence of slipping along a major fracture there.</p> <p>Sample 165.6 ft. - 166.8 ft.</p>	890
166.0	176.0	<p>At 166.0 ft is the outer limits of an altered zone. The fracturing becomes increasingly intense further from the collar.</p> <p>Average size of piece recovered is 3/4"x1/2"x1/2" or smaller. In some places the only recovery is a mud-mixed gravel.</p> <p>The black fine grained material is present.</p> <p>In a few places the calcite is a clear color.</p> <p>A lot of clay and hematite mixed in the fractures as well as small breccia pieces being abundant there also.</p> <p>Sample 168.0 ft. - 174.0 ft.</p> <p>Sample 174.0 ft. - 176.3 ft.</p>	891 892
176.0	180.0	<p>Very badly fractured gray dolomitized limestone.</p> <p>All pieces recovered are coated with a clay and hematite mixture with the average size of recovered piece being 1/4"x1/4"x1/4".</p> <p>Movement of the rock is evident since many pieces of core having slicken siding.</p>	
180.0	184.0	<p>Recovered only 3 in. of core.</p> <p>Drillers said they hit sand for nearly all of the footage.</p> <p>Only piece recovered was gray dolomitized limestone which is badly fractured and heavily coated with clay and hematite mixed.</p>	
184.0	185.1	Same as zone directly preceding the zone of sand.	

From	To	Description	Sample No.
185.1	188.6	<p>Core recovery good due possibly to calcite fractures being normal in concentration.</p> <p>Clay and hematite mixed only on large fractures and then in minor amounts. Fractures at 30° to core axis.</p> <p>In this zone there is still evidence of rock movement on fractures.</p> <p>Sample 176.3 - 186.6 ft.</p>	893
188.6	190.5	<p>Fracturing here is fair to intense. Size of average piece recovered is 3/4"x1/2"x1/2".</p> <p>Calcite fractures are in an average concentration but there are some calcite cavities.</p> <p>Clay plus hematite in minor amounts on fractures plus small breccia pieces along some of the major fractures.</p> <p>There is a badly fractured zone from 190.0 ft. to 190.3 ft.</p>	
190.5	197.0	<p>Still in gray dolomitized limestone but in a brecciated zone with a lot of calcite fractures and cavities.</p> <p>The black fine grained material is present in some places.</p> <p>Red and brown clay only on major fractures.</p> <p>Sample 191.0 ft - 194.3 ft.</p>	894
197.0	200.2	<p>Gray dolomitized limestone in places grading to the darker dolomitized limestone.</p> <p>There is a lot of fracturing even though the calcite fracture concentration is average. Also there is a lot of clay and hematite mixed.</p> <p>The black fine grained material is present as very thin veinlets.</p>	
200.2	208	<p>A very badly fractured altered zone. Carrying a lot of red clay.</p> <p>The dolomitized limestone is the darker type and is a deeper color than the usual darker type. The deeper color also applies to the red clay.</p> <p>From 202 ft. to 204 ft. only 6 in. of core recovery.</p> <p>Sample 201 ft. - 207 ft.</p>	895

From	To	Description	Sample No.
208	214	<p>Same fractured zone but now it has better cementation and has stayed together relatively well and makes a brecciated zone with the breccia pieces being 1/4"x 1/8"x1/8".</p> <p>Also present is the black fine grained material.</p> <p>Possibly this is a small fault or large fracture zone.</p>	
214.0	217.0	<p>Black fine grained material is still present in the gray dolomitized limestone.</p> <p>The core is still badly fractured but is not as brecciated as the zone above.</p>	
		Sample 210.0 ft. - 217.0 ft.	896
217.0	222.0	<p>Core is not as badly fractured now. The calcite fractures appear average as well as the grey dolomitized limestone being typical.</p> <p>The fractures lie at 40° to core axis and carry a fair amount of clay plus hematite mixed.</p>	
222.0	225.0	<p>Altered zone which is not too badly fractured in some places - 224.0 ft to 224.6 ft.</p> <p>Recovered pieces are quite small and are covered with clay and hematite mixed.</p>	
225.0	234.5	<p>Sand mixed with clay and limonite together (brown clay).</p> <p>Recovery was not too bad 225.8 ft. to 226.8 ft. Remainder was small pieces and from 227.5 ft. to 231.0 ft. The small pieces had sand mixed in with it.</p> <p>Calcite fractures are in a stringer zone grading to a breccia zone.</p> <p>There is no evidence of the black fine grained material after 226.0 ft.</p> <p>Drillers stated they cut sand from 233.0 ft. to 234.5 ft. Sand they cut is in box with core. Core recovery was 6 in.</p> <p>Gray dolomitized limestone with calcite-filled fractures.</p>	
		Sample 233.0 ft. - 234.5 ft.	897

From	To	Description	Sample No.
234.5	237.0	Out of the sand zone into a badly fractured zone. With calcite fractures above average in number. Appears to be grading out of the sand zone back to the dolomitized limestone.	
236.0	237.0	Brecciated zone poorly cemented together but, fair amount of clay and hematite mixed. Altered zone.	
237.0	242.0	Fracturing becomes less intense here and results in better core recovery. Red clay (clay plus hematite) is giving away to the brown clay. The calcite fractures are average in number except from 237.2 ft. to 237.4 ft. where there is lots of calcite.	
242.0	242.0	End of hole, in gray dolomitized limestone.	

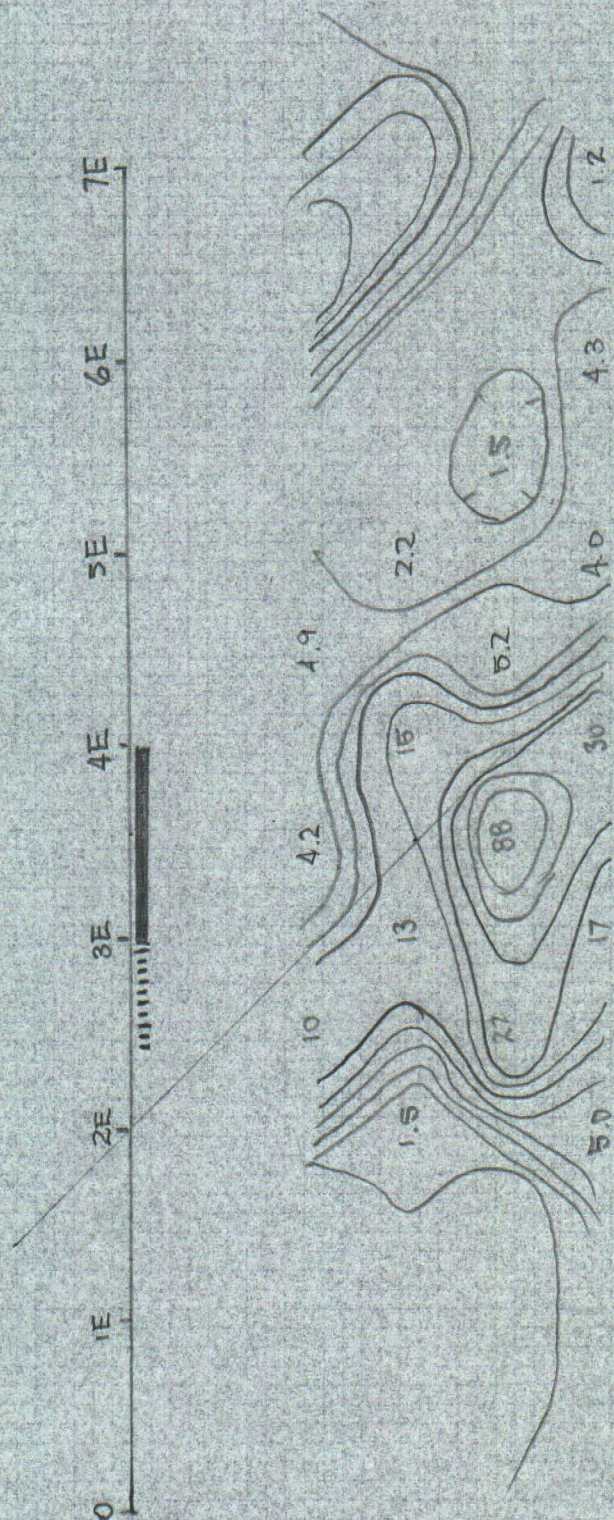
5290 0013

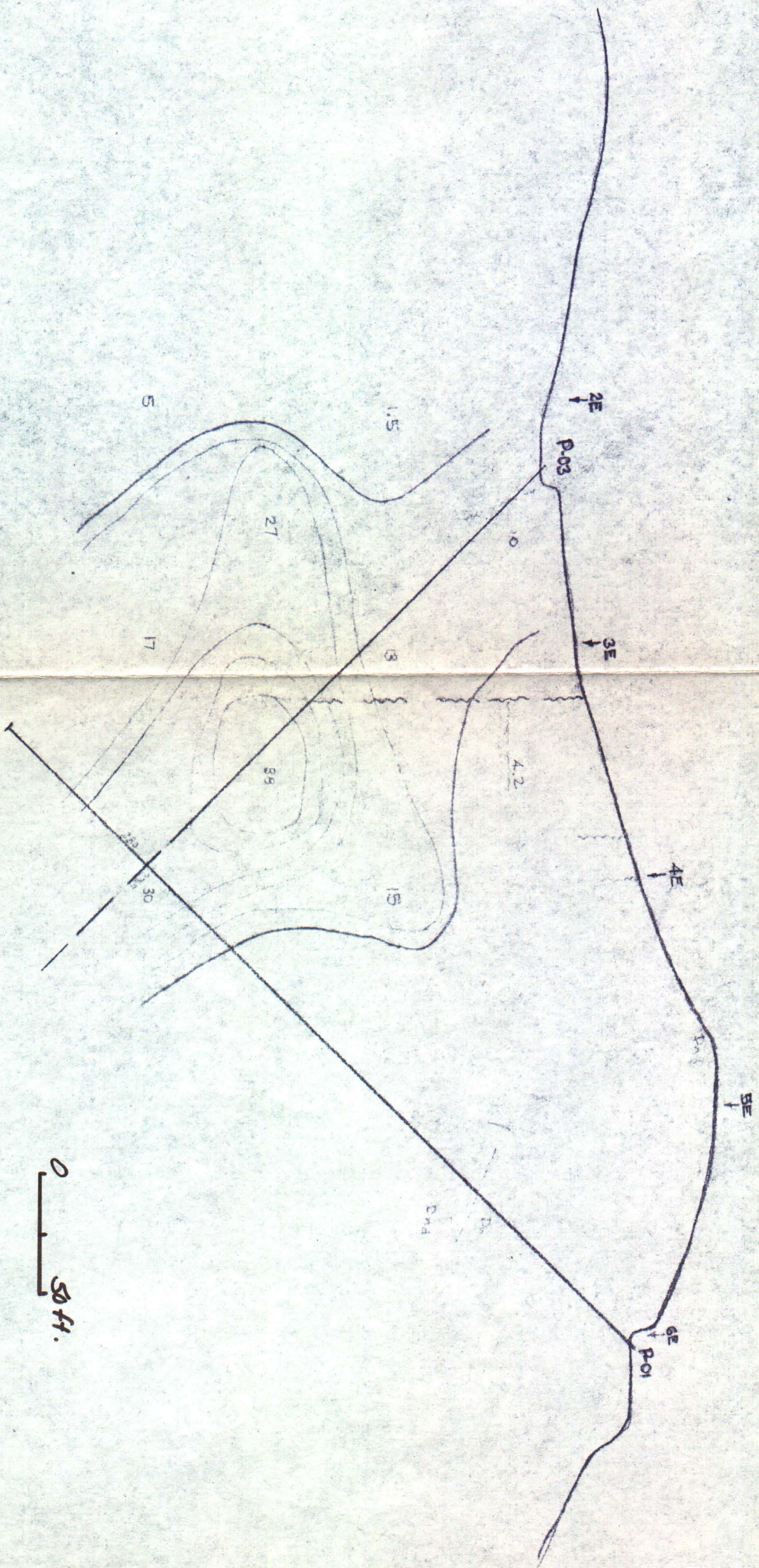
P-03

344

Item 13

P-03

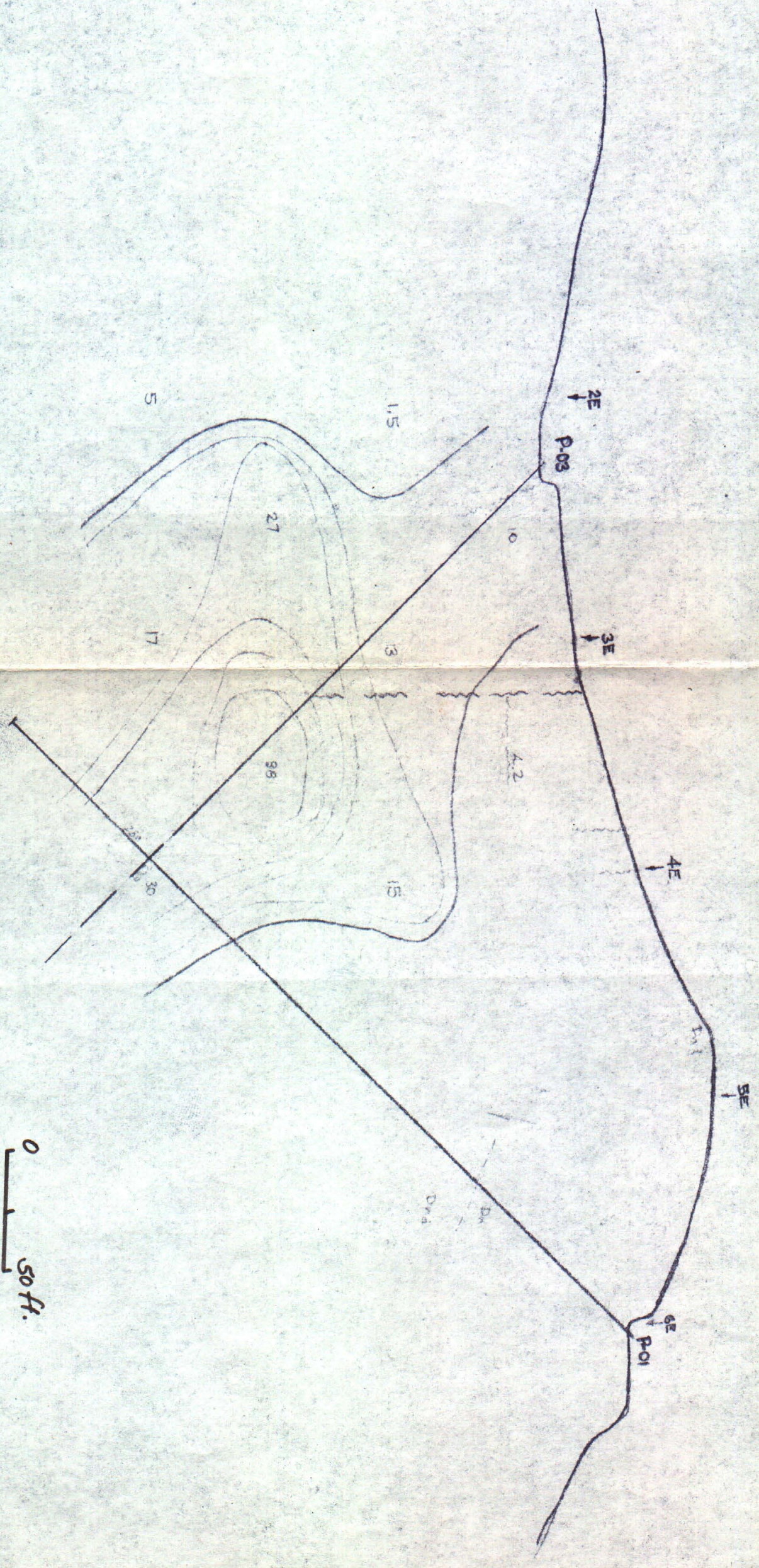




D.D.H. P-01 AND P-03

SCALE: 1" = 50 FT.

NOTE: ASSUMING ABNORMALLY
15.150' DEEP.



D.D.H. P-01 AND P-03

SCALE: 1" = 50 FT.

NOTE: ASSUMING ANOMALY IS 150' DEEP

5290 0013

P-02

(344)

Item 13

PAN - NEVADA INC.

DIAMOND DRILL HOLE LOG

PROPERTY: PASSAYANK, BEST CHANCE PROPERTY

HOLE No. P-02

LOCATION: HAMILTON AREA, WHITE PINE COUNTY, NEVADA

DATE STARTED: DEC. 23, 1968

DATE COMPLETED: JAN. 11, 1969

DATE LOGGED: JAN. 4-14, 1969

LOGGED BY: N. J. BYRNE

BEARING: WEST (EAST)

DIP: 45°

LENGTH: 361 FT.

HORIZ. TRACE: TO BE PLOTTED

VERT. TRACE:

COORDS OF COLLAR: (2400N, 21490E) 3400N, 2430E

ELEVATION OF COLLAR: 7970 (APPROX.)
(7950 ")

CONTRACTOR: E. J. LONGYEAR CO.

CORE SIZE: NX

DRILL TYPE: UG JUNIOR (SKID)

DIP TESTS: ERTSMAN, CAMERA TYPE

DIP TESTS: 98 FT: 47°, S 88° W

198 FT: 47°, S 88° W

298 FT: 46° S 72° W

358 FT: 46°, —

FROM	TO	DESCRIPTION	SAMPLE No.
0	23.0	CASING IN OVERBURDEN	
23.0	25.0	THE FIRST FEW FRAGMENTS CORED HAD COPPER MINERALIZATION IN THEM BUT THEY ARE PROBABLY FROM THE BASE OF THE MUCK PILE THROUGH WHICH THE HOLE WAS DRILLED. PROBABLY THE FIRST SOLID OUTCROP IS AT 24.0 AND IS GREY DOLOMITIZED LIMESTONE WITH MANY CALCITE-FILLED FRACTURES.	
25.0	36.0	LIGHT BROWN TO REDDISH-BROWN CLAY. TWO ONE-FT. SECTIONS OF SOLID, GREY, DOLOMITIC LIMESTONE ARE AT 31.5 FT. AND 33 FT. CONTACT ARE OBSCURE.	
36.0	55.5	MEDIUM TO DARK GREY DOLOMITIC LIMESTONE. 37.0 FT. TO 42.0 FT. IS MOSTLY LOOSE FRAGMENTS, PROBABLY DUE TO POOR CEMENTATION. LAYERS	

LOGGED BY: N.J. BYRNE

DATE LOGGED: JAN. 4, 1969

FROM	TO	DESCRIPTION	SAMPLE No.
		OF CRINOID STEMS ARE PRESENT AT 51.5 FT. AND 52.5 FT. SHELL FRAGMENTS ARE ALSO EVIDENT FROM 52.0 TO 54.0 FT. BUT CANNOT BE POSITIVELY IDENTIFIED DUE TO INTENSE FRACTURING OF ROCK. FRACTURE PATTERN IS ABOUT 30° TO 45° TO CORE AXIS.	
55.5	61.0	BROWN TO RED CLAY SEAM WITH AN 8-IN. INCLUSION OF SLIGHTLY DOLOMITIC LIMESTONE.	
61.0	68.5	MEDIUM GREY LIMESTONE WITH A CLAYEY SECTION FROM 65.0 TO 65.7 AND A 2-IN. SECTION AT 67.0 FT. WELL DEFINED BRACHIOPODS AND AUSTROPODS SOME GASTROPODS ARE ABUNDANT FROM 65.7 TO 67.2 FT. FRACTURING IS LIMITED TO A FEW ZONES AND IS ABOUT 30°.	
68.5	77.5	APPROXIMATELY 90% BROWN, CLAYEY MATERIAL WITH INCLUSIONS OF GREY LIMESTONE. IT CAN BE NOTED THAT THE CLAY HAS BEEN CUT BY SOME OF THE 30° FRACTURES THAT CUT THE LIMESTONE.	
77.5	96.2	DARK RED CLAY CONTAINING POORLY CEMENTED PIECES OF DOLOMITIC LIMESTONE. ONLY ABOUT 4 FT. OF THIS SECTION IS SOLID ROCK AND EVEN THIS IS INTERMITTENT AND HAS ETCHED ROCK MARKS. THE REST OF THE CORE, WHERE RECOVERED, IS MUD OR SMALL FRAGMENT EXHIBITING MANY FRACTURE FACES.	
96.2	98.0	LIGHT GREY DOLOMITIC LIMESTONE. TWO SETS OF FRACTURES: ONE PARALLEL TO CORE AND FILLED WITH FINE-GRAINED BLACK MINERAL, AND MORE RECENT IRREGULAR FRACTURES WITH WHITE CRYSTALLINE CALCITE AND RED HEMATITE LINING WALLS.	
98.0	116.0	SAMPLE: 96.2 TO 98.0 FT. SIMILAR TO PREVIOUS SECTION BUT WITH ONLY THE WHITE CALCITE STRINGERS AT 30° TO CORE. THREE DARKER DARKER SECTIONS WHICH ARE KRUMBED DUE TO POOR CEMENTATION.	861
116.0	123.0	DARK GREY KRUMBED MATERIAL WITH OLIVE-COLORED SEAMS IN FRACTURES. MANY SMALL GEDDES AT END OF SECTION.	

LOGGED BY: N.J. BYRNE

DATE LOGGED: JAN. 13, 1969

123.0	131.0	MEDIUM GREY, WELL FRACTURED DOLOMITIC LIMESTONE WITH BRECCIA ZONES AT 125.5 FT AND NEAR THE END. TERMINATED BY NARROW RED GOUGE ZONE.
131.0	144.0	THE BEGINNING OF THIS SECTION MAY POSSIBLY BE THE CONTACT BETWEEN NEVADA LIMESTONE AND LONG MOUNTAIN DOLOMITE. LIGHT GREY, FINE-GRAINED DOLOMITE WITH GEODES AND FRACTURES. AT THE BEGINNING BUT BECOMING MORE SOLID AFTER 135.5 FT. A SECTION FROM 134.5 TO 136 FT SHOWS WHAT ARE PROBABLY BEDDING PLANES AT 80° TO CORE. THE PLANES ARE FILLED WITH WHITE CALCITE AND/OR IRON MINERALS. FRACTURING IS MORE PREVALENT NEAR THE END OF SECTION.
144.0	151.0	BRECCIA CONTAINING A VARIETY OF FRAGMENTS FROM BLACK TO BROWN AND CEMENTED BY COARSELY CRYSTALLINE CALCITE. IRON MINERALS IN FRACTURES.
151.0	153.5	MEDIUM GREY, SOLID DOLOMITE WITH ONLY A FEW FRACTURES. A ONE-IN. RED CLAY BAND AT 154.5 FT. THE LAST 10 IN. IS LIGHTER GREY WITH DEFINITE CONTACT AT EITHER END AT 70° AND 85° TO CORE RESPECTIVELY.
153.5	173.0	SIMILAR TO LAST SECTION BUT WITH SOME NARROW BRECCIA ZONES AND MANY SOLUTION GEODES. NO DEFINITE FRACTURE ANGLE.
173.0	178.5	LIGHT GREY DOLOMITE WITH IRON COATED FRACTURES AND GEODES.
178.5	200.5	SIMILAR TO SECTION 153.5 TO 173.0 BUT WITH SOME LARGE GEODES AT 191.0 FT. TERMINATED BY A ONE-FT. BRECCIA ZONE. SOME SMALL FOSSILS WITH AN OVAL-SHAPED CROSS SECTION AT 184.0 FT.
200.5	207.0	SIMILAR TO SECTION 173.0 TO 178.5 FT.
207.0	211.1	DARK GREY, SLIGHTLY ALTERED DOLOMITE. HIGHLY FRACTURED BUT POORLY CEMENTED.
211.1	222.9	VERY DARK (ALMOST BLACK), WELL FRACTURED, ALTERED DOLOMITE. BETTER CEMENTED THAN PREVIOUS SECTION BUT SOME OF THE WHITE CALCITE AND DOLOMITE HAS BEEN LEACHED OUT LEAVING VUGS. MUCH OF THE CALCITE IS CLEAR AND CRYSTALLINE. MOST OF THE OBSERVABLE MINERALIZATION IS HEMATITE. THE

LOGGED BY: N. J. BYRNE

DATE LOGGED: JAN 15, 1969

FROM	TO	DESCRIPTION	SAMPLE No.
		DOLomite loses its GLASSY appearance and takes on a sugary texture near the end. THREE FT. OF CORE LOST NEAR BEGINNING WHERE THE ROCK IS VERY UGGY.	
		SAMPLE 215.0 TO 218.0 FT.	862
		SAMPLE 218.0 TO 220.5 FT.	863
		SAMPLE 220.5 TO 222.9 FT.	864
222.9	241.1	INTERBEDDED, MEDIUM AND DARK GREY DOLomite. MEDIUM GREY ZONES MAKE UP ABOUT MORE THAN 50% OF THE SECTION AND VARY IN WIDTH. BEDDING IS SHOWN THIN AT SOME PLACE IN DARK ZONES AND IS ALMOST PERPENDICULAR TO CORE. THERE IS A SLICKENSIDE SURFACE AT 227.3 WITH A SMALL ACCOMPANYING BRECCIA ZONE. FRACTURING IS MODERATE, ALTERATION SLIGHT AND MINERALIZATION SPARSE.	
241.1	246.4	DARK GREY DOLomite BECOMING LIGHTER TOWARDS THE END. THE BEGINNING AND END EACH HAVE ABOUT 6 IN. OF BRECCIATION. THE BEGINNING IS A LITTLE ALTERED AND HAS HEMATITE AND CALCITE FILLING. SAMPLE 241.1 TO 243.8 FT. SAMPLE 243.8 TO 246.4 FT.	865 866
246.4	293.0	INTERBEDDED MEDIUM AND DARK GREY DOLomite WITH THE DARK ZONES MAKING UP BETTER THAN 60%. SMALL ROUNDED FOSTALS AT 251.0, 272.0 AND 286.5. A SLICKENSIDE SURFACE AT 251.8 FT. (85°) AND AN ACCOMPANYING 3 IN. CALCITE VEIN. FRACTURING IS MODERATE TO SLIGHT AND CEMENTATION IS AOA IN MANY PLACES. THERE IS A ONE-FT. BRECCIA ZONE FROM 286.5 TO 287.5. NO MINERALIZATION EXCEPT FOR A BIT OF HEMATITE.	
293.0	298.0	MEDIUM TO DARK GREY, LIGHTLY MOTTLED DOLomite. SOLID WITH A MINIMUM OF FRACTURING.	

PAGE No. 5

D.D. H. LOG

HOLE No.: P-02

LOGGED BY: N. J. BYRNE

DATE LOGGED: JAN. 15, 1969

FROM	TO	DESCRIPTION	SAMPLE No.
298.0	309.0	MEDIUM GREY DOLOMITE WITH THREE BRECCIA ZONES AT 298.5, 302.0 AND 308.0. THE REST OF THE CORE IS RELATIVELY SOLID. FOSSILS RESEMBLING BRACHIOPODS AT 306.0.	
309.0	317.5	BRECCIA ZONE WHICH BECOMES ALMOST ENTIRELY PINK AND ORANGE DOLOMITIC FILLING. THERE IS A 2-FT. INCLUSION OF MEDIUM GREY DOLOMITE WITH MINOR FRACTURING.	
317.5	322.2	BRECCIA ZONE WITH ONLY THREE SMALL SECTIONS OF MODERATELY FRACTURED DOLOMITE. THE MATRIX IS INTENSELY BRECCIATED AND ALSO EXHIBITS A FRACTURE PATTERN AT 30° TO 40° TO CORE AXIS. CEMENTATION IS GOOD IN 95% OF SECTION AND IS MAINLY WHITE, CRYSTALLINE CALCITE AND DOLOMITE. SOME HEMATITE.	
		SAMPLE: 317.0 TO 321.5 FT.	867
358.2	361.0	FAIRLY WELL FRACTURED, DARK GREY DOLOMITE. FRACTURES ARE 50° TO 60° TO CORE AND FILLED WITH WHITE CALCITE. NO MINERALIZATION.	
361.0		END OF HOLE	

Norman J. Byrne
GEOLOGIST

DIAMOND DRILL HOLE DATA		ASSAYS						DRILL HOLE SECTION		P-03												
PROPERTY: PASSAYANK, BEST CHANCE		SAMPLE No.	GOLD oz/TON	SILVER oz/TON	LEAD %	COPPER %	ZINC %	MERCURY lbs/TON														
LOCATION: HAMILTON AREA WHITE PINE COUNTY, NEVADA		878																				
DATE STARTED: JAN. 18, 1969		879																				
DATE COMPLETED MAY 1, 1969		880																				
DATE LOGGED APR. 28 - MAY 2, 1969		881																				
LOGGED BY R.H.J. RITCHIE		882																				
COORDS OF COLLAR 2+00N, 1195E		883																				
ELEVATION OF COLLAR 7950 (APPROX)		884																				
BEARING OF HOLE EAST		885																				
DIP: 45°		886																				
LENGTH: 242 FT		887																				
HORIZ. TRACE		888																				
VERT. TRACE		889																				
CONTRACTOR: E. J. LONGYEAR Co.		890																				
DRILL TYPE UG JUNIOR (SKID)		891																				
CORE SIZE NX		892																				
DIRECTIONAL TESTS EASTMAN CAMERA		893																				
		894																				
		895																				
		896																				
		897																				
<p>DIP TESTS</p> <table border="1"> <thead> <tr> <th>AT</th> <th>DIP</th> <th>BEARING</th> </tr> </thead> <tbody> <tr> <td>81 FT</td> <td>45°</td> <td>N 86° E</td> </tr> <tr> <td>161 FT</td> <td>44°</td> <td>N 87° E</td> </tr> <tr> <td>221 FT</td> <td>43° 50'</td> <td>N 89° E</td> </tr> </tbody> </table>											AT	DIP	BEARING	81 FT	45°	N 86° E	161 FT	44°	N 87° E	221 FT	43° 50'	N 89° E
AT	DIP	BEARING																				
81 FT	45°	N 86° E																				
161 FT	44°	N 87° E																				
221 FT	43° 50'	N 89° E																				

D. D. H. No. P-02

COORDS: 3+00N,

2+60E

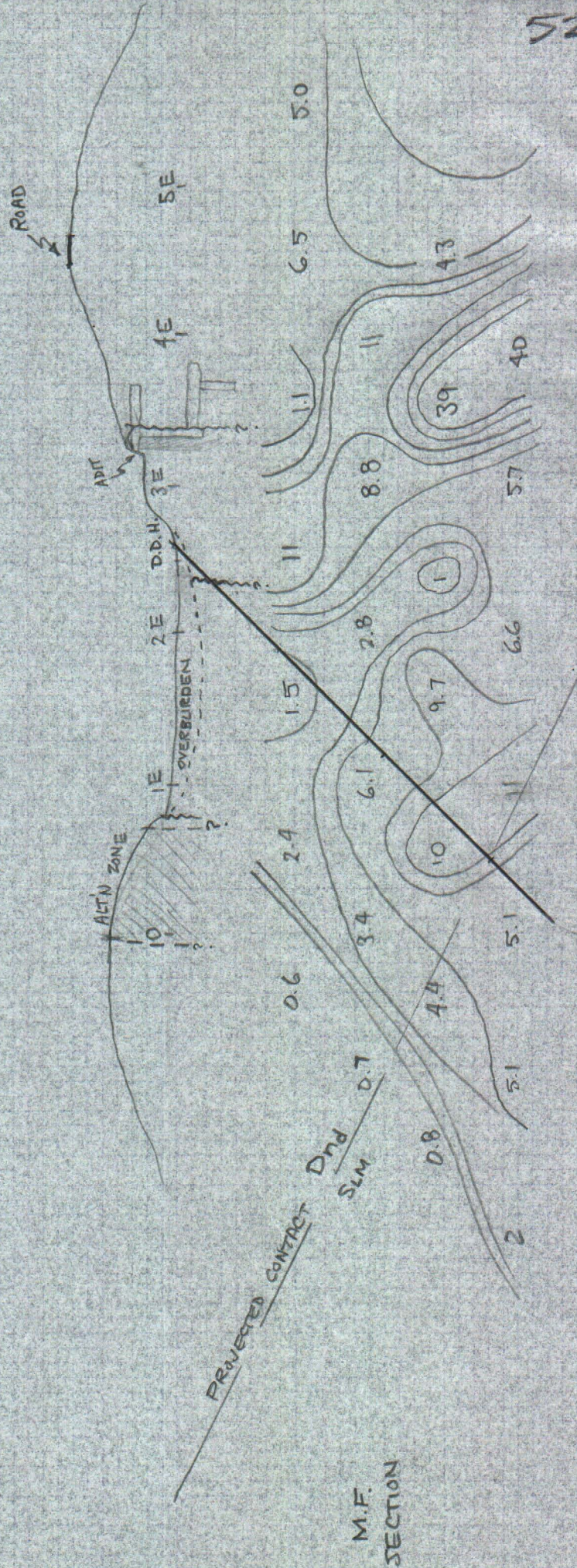
DIP 45°

TARGET: 250' APPROX.

5290 0013

(344)

Item 13



D. D. H. 16. P-02

COARDS: 3+00N,

2+40E

Dip 45°

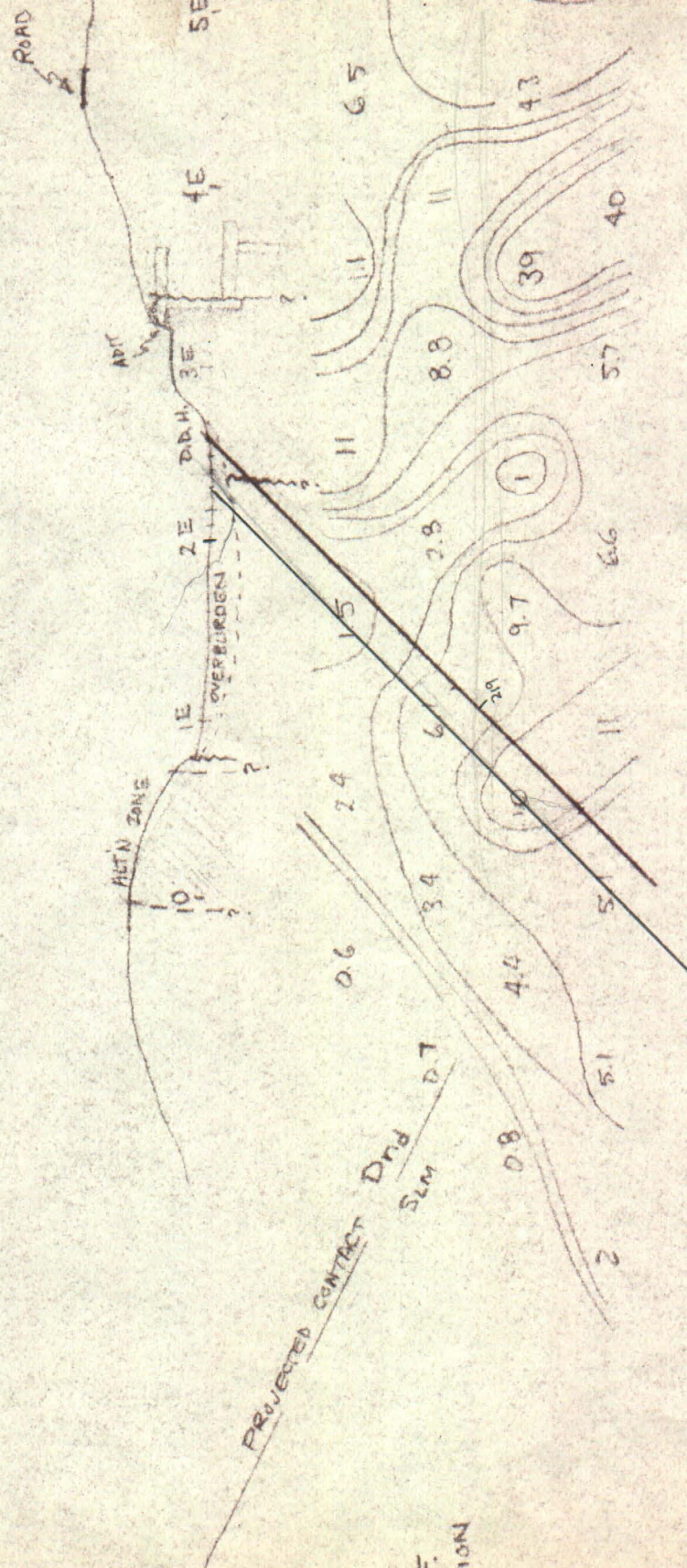
TRIGGER : 250' APPROX.

5290 0013

P-02

344

Item 13



<u>PROJECTED CONTACT</u>	<u>DTG</u>	<u>SUM</u>	<u>P</u>

M.F.
SECTION

50/50

D.D.H. 16. P-02

COORDS: 3400N,
2460E

DIP 45°

TARGET: 250' APPROX.

5290 0013 P-02

344

Term 13

ROAD

ADIT

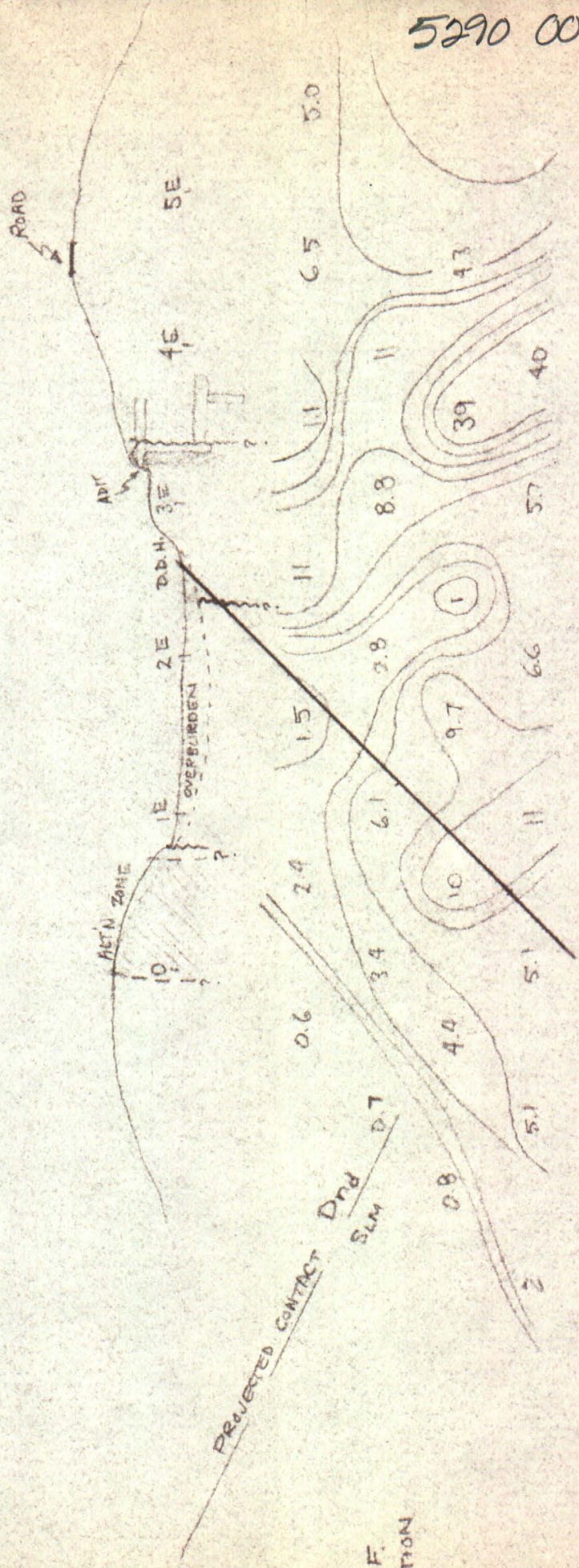
DD.H.

ACT'N ZONE

OVERBURDEN

PROJECTED CONTACT
Dnd
SUN

M.F.
SECTION



CARDS: 3+00N,

2+60E

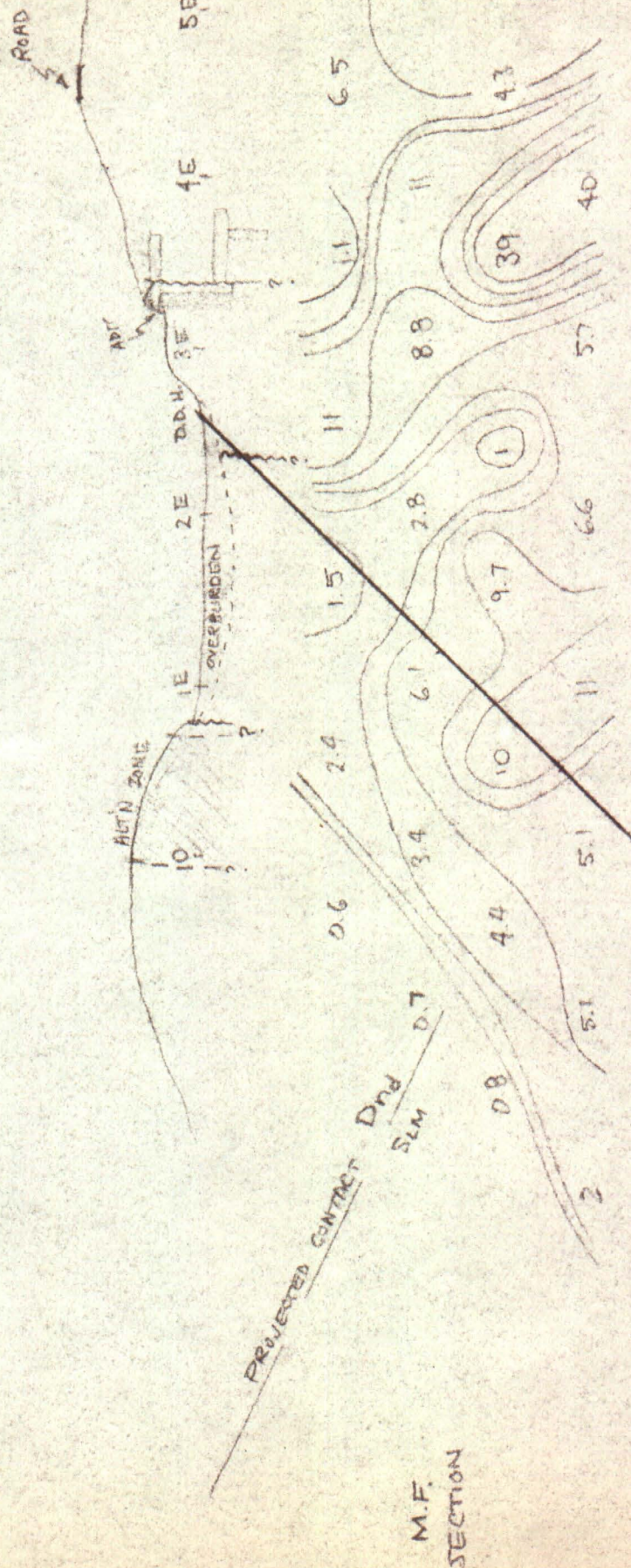
DIP 45°

TARGET: 250' APPROX.

5290 0013 P-02

344

Item 13



5290 0013 P-01

344

Item 13

PAN-NEVADA INC.

DIAMOND DRILL HOLE LOG

LOGGED BY: N. J. BYRNE DATE LOGGED: DEC. 3, 1968

PROPERTY: PASSAYANK, BEST CHANCE HOLE No. P-01

LOCATION: HAMILTON AREA, WHITE PINE COUNTY, NEVADA.

DATE STARTED: 11-30-68

COORDS. OF COLLAR: 2400N, 6+10E

DATE COMPLETED: 12-16-68

ELEVATION OF COLLAR: 7990 FT (APPROX)

BEARING (TRUE): WEST

DIP: 45°

HORIZ. TRACE: 254' VERT. TRACE: 254'

LENGTH: 360 FT.

CONTRACTOR: E. J. LONGYEAR CO.

CORE SIZE: NX

DRILL TYPE: UG Junior (SKID)

DIP TESTS: 100 FT. 45°, S88°W

300 FT. 45°, S87°W

200 FT. 45°, S87°W

350 FT. 45°, S86°W

FROM	TO	DESCRIPTION	SAMPLE NO.
0	2.0	CASING	
2.0	21.0	<p>LIGHT GREY, FINE GRAINED NEVADA LIMESTONE WITH SOLUTION CAVITIES FILLED WITH LIGHT BROWN AND RED CALCAREOUS CLAY.</p> <p>SECTION 6.5' TO 9.0' COULD BE A GOUGE-FILLED FAULT ZONE DUE TO THE PRESENCE OF BRECCIA AND SHEAR PLANES IN THE WALL-ROCK. THE ZONES A 9.5', 13.0' AND 14.0' ARE DEFINITELY CAVITY FILLING SINCE CONTACTS ARE DISRUPTED IRREGULARLY.</p> <p>FRACTURING IS 50° TO 70° TO CORE AXIS AND SLIGHTLY OFFSET SOME IRREGULAR CALCITE STRANGERS. NO MINERALIZATION OTHER THAN HEMATITE.</p>	
21.0	25.2	<p>DUFF-COLOURED ARGILLACEOUS LIMESTONE WITH NO OBVIOUS BEDDING OR PARTING. POOR REACTION TO ACID. THE SECTION BEGINS WITH A HEMATITE COATED FAULT SURFACE (60°) AND SHEAR PLANES FOR NEXT 8 INS. THE REMAINDER IS SOLID BUT CUT BY VERY FINE, CLEAR STRANGERS WHICH CARRY IRON MINERALS. THIS ZONE IS ALSO TERMINATED BY A FAULT AT 40° TO CORE CONTAINING 1 IN. OF GOUGE.</p>	

LOGGED BY: N.J. BYRNE

DATE LOGGED: ~~22.1.1969~~
JAN. 5, 1969

FROM	TO	DESCRIPTION	SAMPLE NO.
25.2	28.5	WELL CEMENTED, COARSE BRECCIA ZONE. FRAGMENTS ARE FROM BITI BUFF AND GREY COLOURED ROCK AND ARE COMPOSED OF COARSELY CRYSTALLINE, WHITE CALCITE.	
28.5	30.5	RUSTY BROWN GOUGE ZONE WITH EACH END HAVING ABOUT 4 IN. OF BRECCIA CONTAINING THE ENCLOSING WALL ROCKS. CONTACTS ARE 25° AND 70° RESPECTIVELY.	
30.5	38.0	*SIMILAR TO SECTION 21.0 TO 25.2'.	
38.0	39.1	*BLACK, SOFT, FRIABLE MATERIAL WITH DEFINITE CONTACTS PERPENDICULAR TO CORE AXIS. MANY CLEAVAGE FACES OR SLIP PLACES PARALLEL TO CONTACTS. FINE GRAINED, CRYSTALLINE SULPHIDES ARE DISSEMINATED AND GROUPED THROUGHOUT THE SECTION. SAMPLE 38.0 TO 39.1	851
39.1	42.3	*SOLID TO FRIABLE, LIGHT GREY LIMESTONE. CALCITE-FILLED FRACTURES SUB-PARALLEL AND AT 20° TO CORE AXIS. SULPHIDES ARE IN TINY FRACTURE NEAR BEGINNING OF SECTION BUT TEND TO BE LIGHTLY DISSEMINATED OR BORDERING CALCITE STRINGS FOR REMAINDER. SAMPLE 39.1 TO 42.3	852
42.3	54.0	LIGHT BROWN LIMESTONE WITH BROWN CLAYEY BEDDINGS CONTAINING FRAGMENT OF BROWN AND GREY LIMESTONE. SECTION NEAR BEGINNING CONTAINS GREY LIMESTONE THAT HAS SIMILAR SULPHIDES TO THAT MENTIONED ABOVE. SAMPLE 42.3 - 44.4	853
54.0	62.0	MOSTLY BRECCIATED MEDIUM GREY TO DARK GREY LIMESTONE, GRADING TO A PURPLE COLOUR TOWARDS THE END DUE ^{TO} HEMITITE CONTENT IN CEMENTING CALCITE. EXCEPT FOR A SECTION LIST FROM 56.0' TO 62.0' AND A ONE-FOOT CLAYEY BEDDING AT 63.0' THE MATERIAL IS HIGHLY FRACTURED TO BRECCIATED WITH CALCITE FILLING IN MOST PLACES OR OPEN CAVITIES WHERE CALCITE HAS BEEN LEACHED.	

Logged by: N. J. BYRNE

DATE LOGGED: JAN 5, 1969

FROM	TO	DESCRIPTION	SAMPLE NO.
82.0	89.5	COARSELY BRECCIATED, DARK GREY LIMESTONE WITH RED-STAINED, BROWN CLAY MAKING UP APPROXIMATELY 50% OF CORE.	
89.5	97.0	ACID TEST SHOWS A CONTACT AT THE BEGINNING WITH THE REST OF THE SECTION BEING DOLOMITIC LIMESTONE. THIS SECTION IS DARK GREY WITH A FINELY CRYSTALLINE TEXTURE. THERE HAS BEEN FAIRLY INTENSE ALTERATION SIMILAR TO PASSAUNK MAIN SURFACE SHOWING. THE ROCK HAS A NETWORK OF HAIR-LINE CALCITE STRINGERS WHICH ARE WHITE TO CLEAR. SOME OF THE STRINGERS IN THE AREA OF 96.5' SHOW MINOR AMOUNTS OF YELLOW COLOURING BUT NO MINERALIZATION IS VISIBLE OTHER THAN HEMATITE.	
		SAMPLE 39.5' - 94.2	354
		SAMPLE 94.2 - 97.0	355
97.0	102.5	RELATIVELY SOLID, ALTERED, DOLOMITIC LIMESTONE. HAIR-LINE STRINGERS ARE LESS ABUNDANT THAN PREVIOUS SECTION THIS IT IS LESS ALTERED. END OF SECTION APPEARS TO BE CAVITY WALL.	
		SAMPLE 97.0' - 100.0'	356
		SAMPLE 100.0' - 102.5'	357
102.5	115.0	NO CORE RECOVERED OTHER THAN A BIT OF DARK BROWN MUD.	
115.0	126.0	SHOWS A WEAKER RESPONSE TO ACID THAN PURE LIMESTONE BUT MORE THAN PRECEDING SECTION. STILL SLIGHTLY ALTERED BUT IT FADES TOWARDS END OF SECTION. SMALL CALCITE STRINGERS ARE STILL PRESENT BUT SEEM TO HAVE LESS EFFECT ON THE ROCK.	
		SAMPLE 115.0' - 118.0'	358
		SAMPLE 118.0' - 121.0'	359
		SAMPLE 121.0' - 125.0'	360
126.0	133.0	PINK TO RED AND GREY CLAY.	
133.0	142.0	SIMILAR TO SECTION 115.0 - 126.0 BUT ALTERED LESS.	
142.0	147.0	PINK TO RED LIMESTONE WITH A 6 IN. SECTION OF DARK GREY LIMESTONE. FRACTURES ARE 30° AND THEIR COMPLIMENT. SOME OPEN UUGS AT 145.5'.	
147.0	156.0	SOFT, RED AND YELLOW CLAY. END CONTACT IS 35° TO CORE AXIS.	

5290 0013

(344)

Item 13

DIAMOND DRILL HOLE DATA

ASSAYS

DRILL HOLE SECTION

P-01

PROPERTY: PASSAYANK, BEST CHANCE

LOCATION: HAMILTON AREA
WHITE PINE COUNTY, NEVADA

DATE STARTED: NOV. 30, 1968

DATE COMPLETED: DEC. 16, 1968

DATE LOGGED: DEC. 6, 1968 - JAN. 5, 1969

LOGGED BY: N.J. BYRNE

COORDS OF COLLAR: 2+00N, 6+10E

ELEVATION OF COLLAR: 7990 FT. (APPROX.)

BEARING OF HOLE: WEST

DIP: 45°

LENGTH: 360 FT.

HORIZ. TRACE: 254 FT.

VERT. TRACE: 254 FT.

CONTRACTOR: E.J. LONGYEAR CO.

DRILL TYPE: UG JUNIOR (SKID RIG)

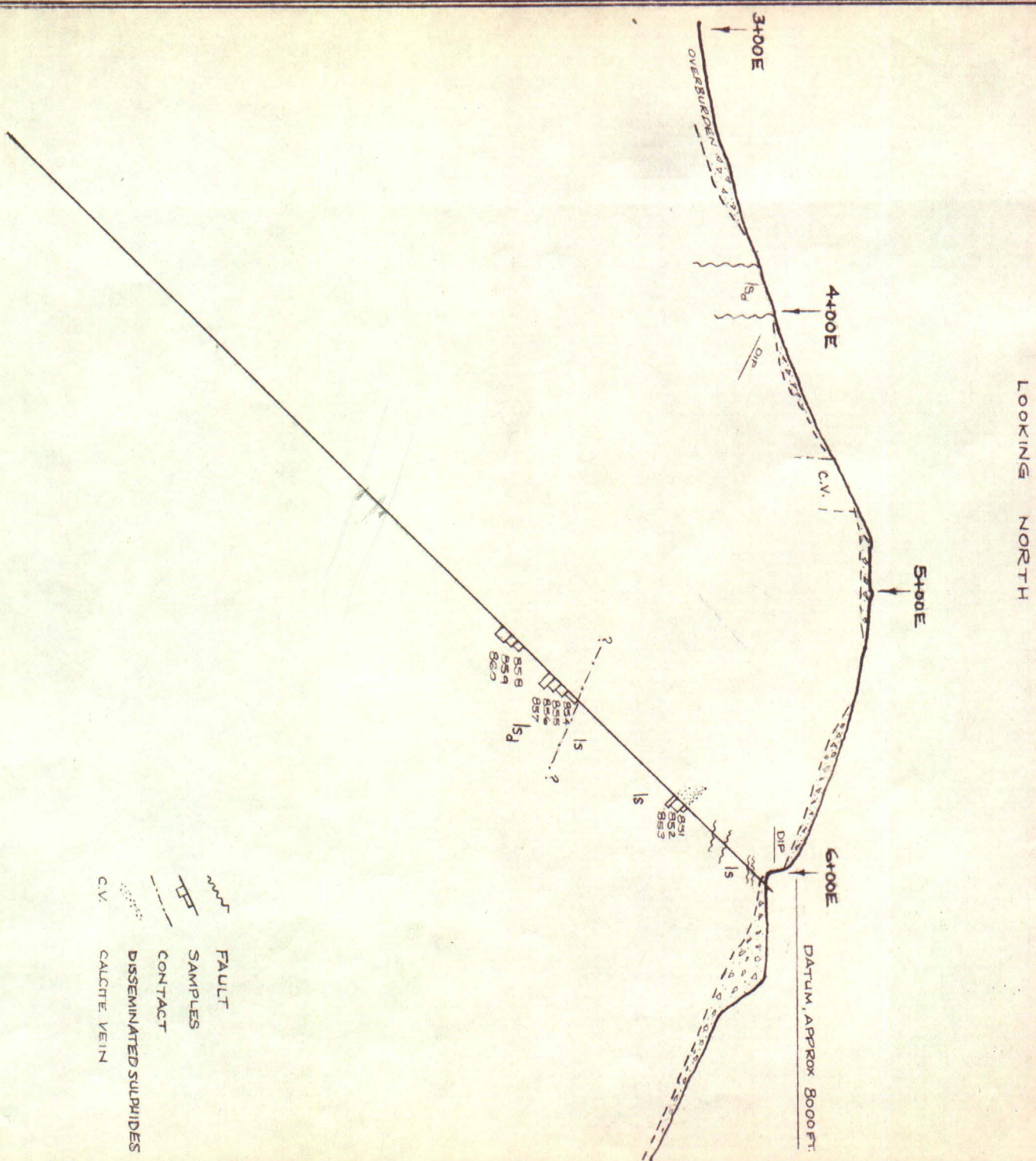
CORE SIZE: NX

DIRECTIONAL TESTS: EASTMAN "CAMERA"

DIP TESTS

AT	DIP	BEARING
100 FT.	45°	S 88° W
200 FT.	45°	S 87° W
300 FT.	45°	S 87° W
360 FT.	45°	S 86° W

SAMPLE No.	GOLD oz./TON	SILVER oz./TON	LEAD %	COPPER %	ZINC %	MERCURY lbs./TON
851	TR.	0.1	NIL	0.01	NIL	NIL
852	TR.	0.1	NIL	NIL	NIL	NIL
853	TR.	NIL	NIL	0.01	NIL	NIL
854	TR.	NIL	NIL	0.01	NIL	NIL
855	TR.	NIL	NIL	0.03	NIL	NIL
856	NIL	NIL	NIL	0.01	NIL	NIL
857	TR.	NIL	NIL	0.01	NIL	NIL
858	TR.	0.1	NIL	0.01	NIL	NIL
859	NIL	0.1	NIL	NIL	NIL	NIL
860	TR.	0.2	NIL	0.01	NIL	NIL

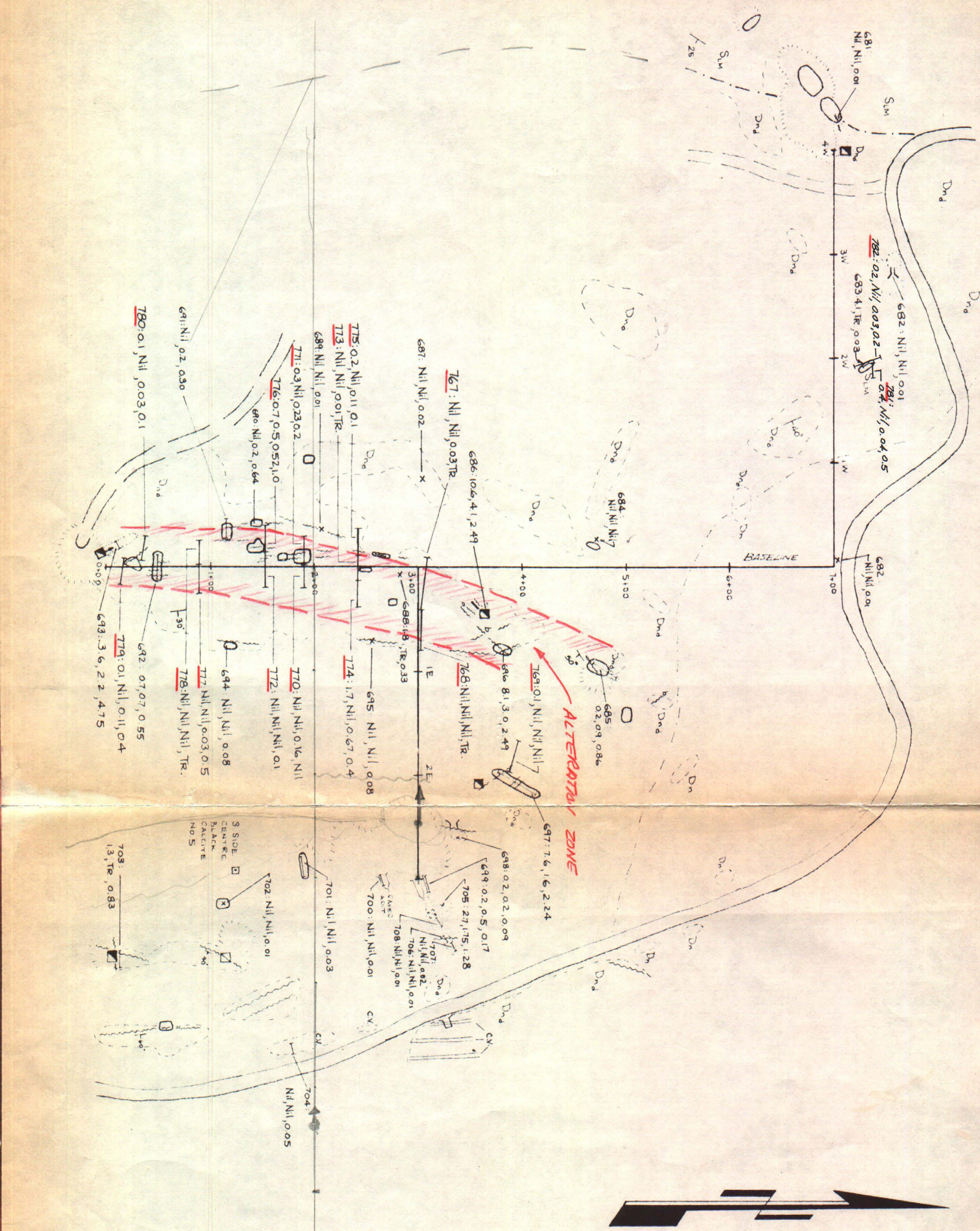


5290 0013

3414

Form 13

DIAMOND DRILL HOLE DATA		ASSAYS							DRILL HOLE SECTION	
PROPERTY: PASSAYANK, BEST CHANCE		SAMPLE No.	GOLD oz./ton	SILVER oz./ton	LEAD %	COPPER %	ZINC %	MERCURY lbs./ton	P-01	
LOCATION: HAMILTON AREA WHITE PINE COUNTY, NEVADA		851	TR.	0.1	N/L	0.01	N/L	N/L	LOOKING NORTH	
DATE STARTED: NOV. 30, 1968		852	TR.	0.1	N/L	N/L	N/L	N/L	3400E	
DATE COMPLETED: DEC. 16, 1968		853	TR.	N/L	N/L	0.01	N/L	N/L	4400E	
DATE LOGGED: DEC. 6, 1968 - JAN. 5, 1969		854	TR.	N/L	N/L	0.01	N/L	N/L	5400E	
LOGGED BY: N.J. BYRNE		855	TR.	N/L	N/L	0.03	N/L	N/L	6400E	
COORDS OF COLLAR: 2+00N, 6+10E		856	N/L	N/L	N/L	0.01	N/L	N/L	DIP	
ELEVATION OF COLLAR: 7990 FT. (APPROX.)		857	TR.	N/L	N/L	0.01	N/L	N/L	DIP	
BEARING OF HOLE: WEST		858	TR.	0.1	N/L	0.01	N/L	N/L	DIP	
DIP: 45°		859	N/L	0.1	N/L	N/L	N/L	N/L	DIP	
LENGTH: 360 FT.		860	TR	0.2	N/L	0.01	N/L	N/L	DIP	
HORIZ. TRACE: 254 FT.									DIP	
VERT. TRACE: 254 FT.									DIP	
CONTRACTOR: E.J. LONGYEAR CO.										
DRILL TYPE: UG JUNIOR (SKID RIG)										
CORE SIZE: NX										
DIRECTIONAL TESTS: EASTMAN "CAMERA"										
DIP TESTS										
AT	DIP	BEARING								
100 FT.	45°	S 88° W								
200 FT.	45°	S 87° W								
300 FT.	45°	S 87° W								
360 FT.	45°	S 86° W								
DRILL HOLE SECTION										
0 50 ft.										
Scale: 1 in = 50 ft										
N.J.B.										



LEGEND

- MAJOR ROAD
- MINOR ROAD
- CLAIM POST
- FAULT
- OUTCROP
- CONTACT
- SHAFT (SHALLOW)
- ADIT
- PIT
- CV
- 690: SAMPLE NO: Ag²⁺, Pb²⁺, Cu²⁺, Zn²⁺
- 5.2, 2.4, 1.20
- NEVADA LIMESTONE
- DOLOMITIZED LIMESTONE
- LONE MOUNTAIN DOLOMITE
- UNDERLINED SAMPLES ARE MOST RECENT.

PAN-NEVADA, INC.

PRELIMINARY SAMPLE PLAN

PASSAYANK SHOWING

HAMILTON VICINITY

WHITE PINE COUNTY, NEVADA

SCALE 1"=100 FT.

Aug 6, 1968

Sept. 15, 1968

NJ BYRNE

DIAMOND DRILL HOLE DATA

PROPERTY: PASSAYANK, BEST CHANCE

LOCATION: HAMILTON AREA
WHITE PINE COUNTY, NEVADA

DATE STARTED: NOV. 30, 1968

DATE COMPLETED: DEC. 16, 1968

DATE LOGGED: DEC. 6, 1968 - JAN. 5, 1969

LOGGED BY: N.J. BYRNE

COORDS OF COLLAR: 2+00N, 6+10E

ELEVATION OF COLLAR: 7990 FT. (APPROX)

BEARING OF HOLE: WEST

DIP: 45°

LENGTH: 360 FT.

HORIZ. TRACE: 254 FT.

VERT. TRACE: 254 FT.

CONTRACTOR: E.J. LONGYEAR CO.

DRILL TYPE: UG JUNIOR (SKID RIG)

CORE SIZE: NX

DIRECTIONAL TESTS: EASTMAN "CAMERA"

ASSAYS

SAMPLE No.	GOLD oz./ton	SILVER oz./ton	LEAD %	COPPER %	ZINC %	MERCURY lbs./ton
851	TR.	0.1	NIL	0.01	NIL	NIL
852	TR.	0.1	NIL	NIL	NIL	NIL
853	TR.	NIL	NIL	0.01	NIL	NIL
854	TR.	NIL	NIL	0.01	NIL	NIL
855	TR.	NIL	NIL	0.03	NIL	NIL
856	NIL	NIL	NIL	0.01	NIL	NIL
857	TR.	NIL	NIL	0.01	NIL	NIL
858	TR.	0.1	NIL	0.01	NIL	NIL
859	NIL	0.1	NIL	NIL	NIL	NIL
860	TR.	0.2	NIL	0.01	NIL	NIL
870	NIL	NIL	NIL	0.01	NIL	NIL
871	NIL	NIL	NIL	0.01	NIL	NIL
872	NIL	NIL	NIL	0.01	NIL	NIL
873	NIL	NIL	0.2	0.01	NIL	NIL
874	NIL	NIL	0.2	NIL	NIL	NIL

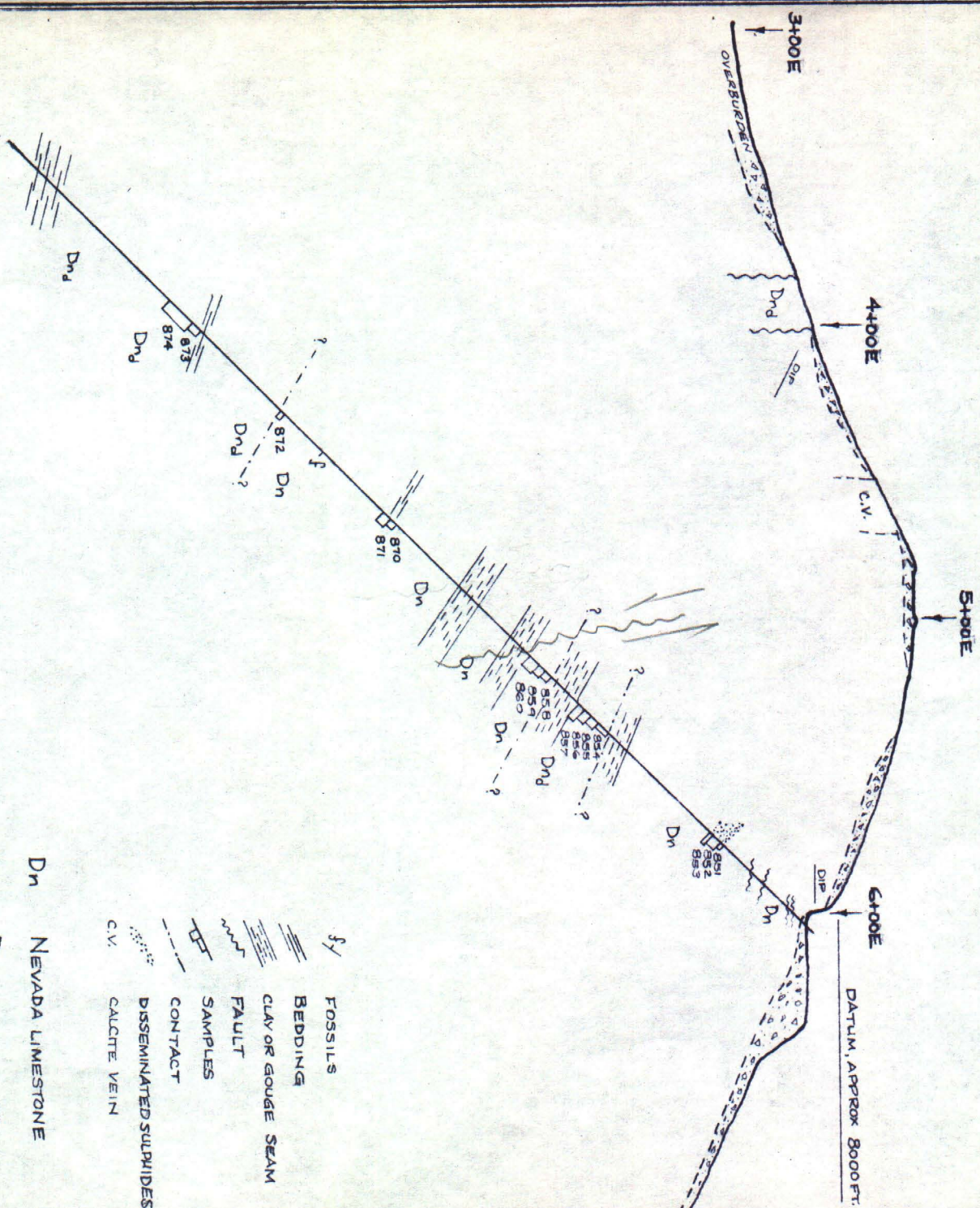
DIP TESTS

AT	DIP	BEARING
100 FT.	45°	S 86° W
200 FT.	45°	S 87° W
300 FT.	45°	S 87° W
360 FT.	45°	S 86° W

DRILL HOLE SECTION

LOOKING NORTH

P-01



Fossils
 Bedding
 Clay or gouge seam
 Fault
 Samples
 Contact
 Disseminated sulphides
 Calcite vein

Dn NEVADA LIMESTONE
 Dnd DOLOMITIC LIMESTONE
 SLM LONE MOUNTAIN DOLOMITE

0 50 ft.

SCALE: 1IN=50FT
 N.J.B.

5290 0013

344

Item 13

cc Mr. Byrne

P-01

PAN - NEVADA INC.Diamond Drill Hole LogLogged by: N. J. Byrne Date Logged: December 3, 1968Property: Passayank, Best Chance Hole No. P-01Location: Hamilton Area, White Pine County, NevadaDate Started: 11-30-68 Coors. of Collar: 2+00N, 6+10EDate Completed: 12-16-68 Elevation of Collar: 7990ft. (approx.)Bearing: West Dip: 45° Horiz. Trace: 255' Approx. Vert. Trace: 255' approxLength: 360 ft.Contractor: E. J. Longyear Co. Core Size: NXDrill type: UG Junior (Skid)

Dip Tests: 100 ft. 45°, S88°W 300 ft. 45°, S87°W
 200 ft. 45°, S87°W 350 ft. 45°, S86°W

FROM	TO	DESCRIPTION	SAMPLE NO.
0	2.0	Casing	
2.0	21.0	Light grey, fine-grained Nevada limestone with solution cavities filled with light brown and red calcareous clay. Section 6.5' to 9.0' could be a gouge-filled fault zone due to the presence of breccia and shear planes in the wall rock. The zones at 9.5', 13.0' and 14.0' are definitely cavity filling since contacts are dissolved irregularly. Fracturing is 56° to 70° to core axis and slightly off-set some irregular calcite stringers. No mineralization other than hematite.	
21.0	25.2	Buff-coloured argillaceous limestone with no obvious bedding or parting. Poor reaction to acid. The section begins with a hematite coated fault surface (60°) and shear planes for next 8 inches. The remainder is solid	

D.D.H. Log

Hole No. P-01

Logged by: N. J. Byrne

Date Logged: Jan 5, 1969

Sample
No.

but cut by very fine, clear stringers which carry iron minerals. This zone is also terminated by a fault at 40° to core containing one inch of gouge.

25.2 28.5 Well cemented, coarse breccia zone. Fragments are from both buff and grey coloured rock and are cemented by coarsely crystalline, white calcite.

28.5 30.5 Rusty brown gouge zone with each end having about 4 inches of breccia containing the enclosing wall rocks. Contacts are 25° and 70° respectively.

30.5 38.0 Similar to Section 21.0' to 25.2'.

38.0 39.1 Black, soft, friable material with definite contacts perpendicular to core axis. Many cleavage faces or slip planes parallel to contacts. Fine-grained, crystalline sulphides are disseminated and grouped throughout the section.

Sample 38.0 to 39.1

851

39.1 42.8 Solid to friable, light grey limestone. Calcite-filled fractures sub-parallel and at 20° to core axis. Sulphides are in tiny fracture near beginning of section but tend to be lightly disseminated or bordering calcite stringers for remainder.

Sample 39.1 to 42.8

852

42.8 54.0 Light brown limestone with brown clayey sections containing fragment of brown and grey limestone. Section near beginning contains grey limestone that has similar sulphides to that mentioned above.

Sample 42.8 - 44.4

853

D.D.H. Log

Hole No. P-01

Logged by: N. J. Byrne

Date Logged: Jan. 5, 1969.

From	To	Description	Sample No.
54.0	82.0	Mostly brecciated medium grey to dark grey limestone, grading to a purple colour towards the end due ^{to} hematite content in cementing calcite. Except for a section lost from 56.0' to 62.0' and an one-foot clayey section at 63.0' the majority is highly fractured to brecciated with calcite filling in most places or open cavities where calcite has been leached.	
82.0	89.5	Coarsely brecciated, dark grey limestone with red-streaked, brown clay making up approximately 50% of core.	
89.5	97.0	Acid test shows a contact at the beginning with the rest of the section being dolomitic limestone. This section is dark grey with a finely crystalline texture. There has been fairly intense alteration similar to Passayank main surface showing. The rock has a network of hair-line calcite stringers which are white to clear. Some of the stringers in the area of 96.5' show minor amounts of yellow colouring but no mineralization is visible other than hematite.	
		Sample 89.5' - 94.2'	85
		Sample 94.2' - 97.0'	85
97.0	102.5	Relatively solid, altered, dolomitic limestone. Hair-line stringers are less abundant than previous section. Thus it is less altered. End of section appears to be cavity wall.	
		Sample 97.0' - 100.0'	85
		Sample 100.0' - 102.5'	85
102.5	115.0	No core recovered other than a bit of dark brown mud.	

D.D.H. Log

Hole No. P-01

Logged by: N. J. Byrne

Date Logged: Jan. 5, 1969.

From	To	Description	Sample No.
115.0	126.0	Shows a weaker response to acid than pure limestone but more than preceding section. Still slightly altered but it fades towards end of section. Small calcite stringers are still present but seem to have less effect on the rock.	
		Sample 115.0' - 118.0'	858
		Sample 118.0' - 121.0'	859
		Sample 121.0' - 125.0'	860
126.0	133.0	Pink to red and grey clay.	
133.0	142.0	Similar to section 115.0 - 126.0 but altered less.	
142.0	147.0	Pink to red limestone with a 6 in. section of dark grey limestone. Fractures are 30° and their compliment. Some open vugs at 145.5'.	
147.0	156.0	Soft, red and yellow clay. End contact is 35° to core axis.	

Logged by: J. K. Duff

156 2 - 156		Fractured zone in medium gray limestone with calcite crystals in vugs.	
156	199	Medium grey limestone. Dark section from 185'-191', probably due to organic content.	
199	207	Medium grey limestone with fractures at 50° to axis of core at about 205'.	
207	210	Dark grey limestone.	
210	224	Dark grey limestone with calcite and red gouge fracture filling.	
224	225½	Buff to tannish grey limestone with calcite crystals at 224 and medium brown clay at 225.	

D.D.H. Log

Hole No. P-01

Logged by: J. K. Duff

From	To	Description	Sample No.
225½	226½	Dark grey limestone with calcite fracture filling and limonite stain in small fractures at 70° to axis of core.	
226½	227	Light brown limestone with limonitic fracture filling at 70° to axis of core.	
227	227½	Medium grey limestone with calcite and red and yellow fracture filling and vug at 227.	
227½	228½	Light brown limestone with red fracture filling.	
228½	238	Medium grey limestone with calcite and red fracture filling. Vugs with calcite and limonite clay at 229 and 236. No apparent mineralization. Acid tests show limestone-dolomitic limestone contact at about 237'.	
238	244	Medium grey dolomitic limestone with calcite fracture filling. No apparent mineralization.	
244	247½	Dark grey fractured dolomitic limestone.	
247½	252	Intensely fractured and broken up dark grey dolomitic limestone with calcite and red and yellow fracture filling.	
252	254	Dark grey fractured dolomitic limestone.	
254	255	Dolomitic limestone with brown clay.	
255	267	Dark grey fractured dolomitic limestone containing some fossils. Almost complete recovery. (Brachio pods and crinoid stems.).	
267	271	Greyish brown dolomitic limestone with fractures at 70° to axis of core. Brown clay seam at 270'.	
271	272	Brownish red siltstone or shale with fractures at about 70° to axis of core.	

D.D.H. Log

Hole No. P-01

Logged by: J. K. Duff

From	To	Description	Sample No.
272	273	Dark grey dolomitic limestone with some calcite.	
273	278	Highly fractured dolomitic limestone with considerable calcite fracture filling. Shattered at 274' and much calcite at 277 - 278'.	
278	287	Intensely fractured dark grey dolomitic limestone with some red fracture filling at 287'. No apparent mineralization.	
287	292	Core lost due to a mismatch. Pipe brought up but no core. Possibly a clay seam.	
292	298	Dark grey dolomitic limestone. About one foot of recovery. Core broken up and rounded. No apparent mineralization.	
298	300	Medium to light grey dolomitic limestone with some fracturing.	
300	305	Medium to light grey dolomitic limestone with much calcite fracture filling.	
305	306	Grey clay seam.	
306	309	Dark grey fractured dolomitic limestone.	
309	312	Light brownish grey dolomitic limestone with calcite fracture filling.	
312	314	Brownish grey fractured dolomitic limestone.	
314	315	Intensely fractured reddish grey dolomitic limestone.	
315	320	Dark grey fractured dolomitic limestone with calcite fracture filling.	
320	320½	Crumbled dark grey fractured dolomitic limestone.	

D.D.H. Log

Hole No. P-01

Logged by: J. K. Duff

From	To	Description	Sample No.
320½	322½	Dark grey dolomitic limestone with calcite fracture filling.	
322½	326	Dark grey dolomitic limestone with less calcite fracture filling than 320½ - 322½'.	
326	332	Same as above but with some red stain. Broken up at 328'.	
332	335	Crumbled medium dark grey dolomitic limestone with calcite fracture filling. Solid at 333 - 334½'.	
335	338	Dark Grey dolomitic limestone with fractures at 70° to axis of core.	
338	339	Same as above but with more calcite.	
339	341	Same as 338 - 339' but shattered. 341' has much red stain. Approximately 50% recovery.	
341	342½	Solid dark grey dolomitic limestone with calcite fracture filling.	
342½	343	Highly fractured dark grey dolomitic limestone with calcite fracture filling and some red and yellow stain. Possibly a breccia.	
343	346	Dark grey fractured dolomitic limestone about 50% recovery.	
346	348	Dark grey fractured dolomitic limestone with calcite filling along 40° - 45° fractures. Core broken up at 348' with some red gouge present.	
348	360	Lighter grey fractured dolomitic limestone grading into dark grey. Much calcite at 354'.	
360		End of hole.	

FROM	TO	DESCRIPTION	SIM. FILE NO.
156.0	185.0	MEDIUM-GREY LIMESTONE, FRACTURED WITH WHITE CALCITE FILLING AT 20° TO 50° TO CORE AXIS. SECONDARY FRACTURING LESS PROMINENT WITH HEMATITIC CLAY FILLING AT 35° TO 90° TO CORE. HEMATITE IS ALSO IN PARTING IN LAST 4 FT. OF SECTION. WHEN FRESHLY BROKEN ROCK GIVES OFF A SULPHUR ODOR.	
185.0	191.3	CONTACT AT BEGINNING AT 30° TO CORE. BLACK, FINE GRAINED LIMESTONE WITH MINOR FRACTURING AND CALCITE FILLING. ALSO SECONDARY FRACTURES OFF SECTION STRINGERS. FAINT BEDDING, 80° TO CORE. SOME SLIP SURFACES HAVE GRAPHITE COATING. A MINOR AMOUNT OF VERY FINE SYNGENETIC PYRITE. *SPECIMENS TAKE AT 189.5 FOR MCPHAR TESTING. SAMPLE 185.0 TO 188.0 SAMPLE 188.0 TO 191.3	870 871
191.3	224.0	SIMILAR TO SECTION 156.0 - 185.0 BUT WITH NARROW, IRREGULAR DARK ZONES FROM 197.0 TO 199.0 WHICH MAY BE CAUSED BY ALTERATION. FRACTURING LESS INTENSE THAN OTHER SECTION AND VARIES FROM 30° TO 60°. SECTION 207.0 - 212.0 SIMILAR TO 185.0 - 191.3 GRAPHITIC SEAM $\frac{1}{2}$ IN. THICK AT 215.5. MORE HEMATITIC-RICH SEAMS IN FRACTURES PERPENDICULAR TO CORE. TWO BRACHIOPODS AT 218.5 FT. BRECCIATION IN LAST 6 IN. CEMENTED BY WHITE CALCITE AND TERMINATED BY A UUG SURFACE WITH ARAGONITE CRYSTALS.	
224.0	225.5	BUFF-COLOURED MIXTURE OF CLAY AND CALCITE. EIGHT INCHES OF BUGS.	
225.5	227.0	GREY-BROWN DOLOMITIC LIMESTONE WITH SMALL CLAY SEAMS AT EITHER END. (PROBABLY FAULTED-OFF SECTION)	
227.0	237.0	SIMILAR TO SECTION 191.3 - 224.0. BECOMES MORE FRACTURED IN LAST 2 FT. WITH WHITE CALCITE AND A SMALL AMOUNT OF BLACK CALCITE. SHOWS SLIGHT ALTERATION. SAMPLE 235 TO 237.0	
237.0	264.6	SIX INS. OF CORE LOST NEAR BEGINNING (PROBABLY CLAY). CONTACT BETWEEN LIMESTONE AND DOLOMITIC LIMESTONE SHOWN BY ACID TEST. MEDIUM-GREY DOLOMITIC LIMESTONE, HIGHLY FRACTURED UP TO ABOUT 255.0 FT. WITH IRREGULAR CALCITE STRINGERS.	872

FROM	TO	DESC.	SAMPLE NO.
246.6	271.3	SIMILAR TO 225.5 - 227.0 DEFINITE BEDDING AT 270.0, 65° TO CORE. SMALL CLAY SEAMS CONTAINING HEMATITE.	
271.3	293.2	VERY INTENSELY FRACTURED LIGHT TO DARK GREY (DEPENDING ON ALTERATION) DIAGENETIC LIMESTONE. IN SOME PLACES CEMENTED WITH WHITE AND BLACK CALCITE BUT FROM 278.0 TO 292.0 IS VERY POORLY CEMENTED AND IS BADLY KNUBBLED. FIVE FT. OF CORE LOST IN THIS SECTION FROM 287.0 TO 292.0 SAMPLE 273.2 TO 277.5 SAMPLE 277.5 TO 287.0	873 874
293.0	319.0	LIGHT GREY DIAGENETIC LIMESTONE WITH SMALL ZONES OF INTENSE FRACTURING. MINOR AMOUNTS OF GREY TO BLACK CALCITE.	
319.0	360.0	MOSTLY MEDIUM GREY DIAGENETIC LIMESTONE WITH A FEW LIGHTER SECTIONS. FRACTURING IS MODERATE TO INTENSE IN A FEW ZONES. BEDDING IS A CONSTANT 65° TO CORE.	
360.0		END OF HOLE	

D.D.H. No. P-01

COORDS: 2400N,
6410E

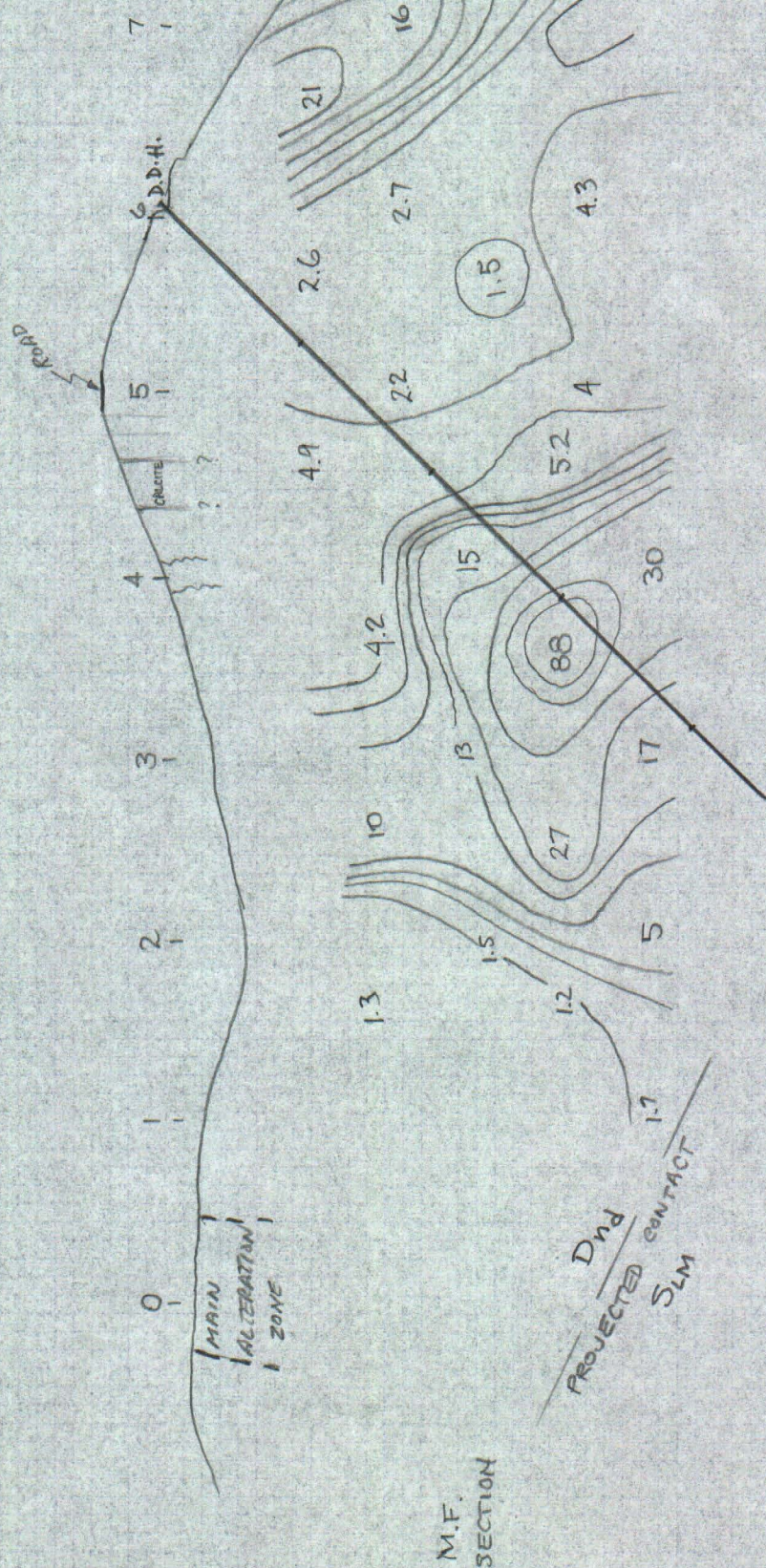
DIP- 45°

TARGET: 300' APPRX.

5290 0013

344

Item 13



M.F.
SECTION

D.D.H. No. P-01

COORDS: 2100N,
6+10E

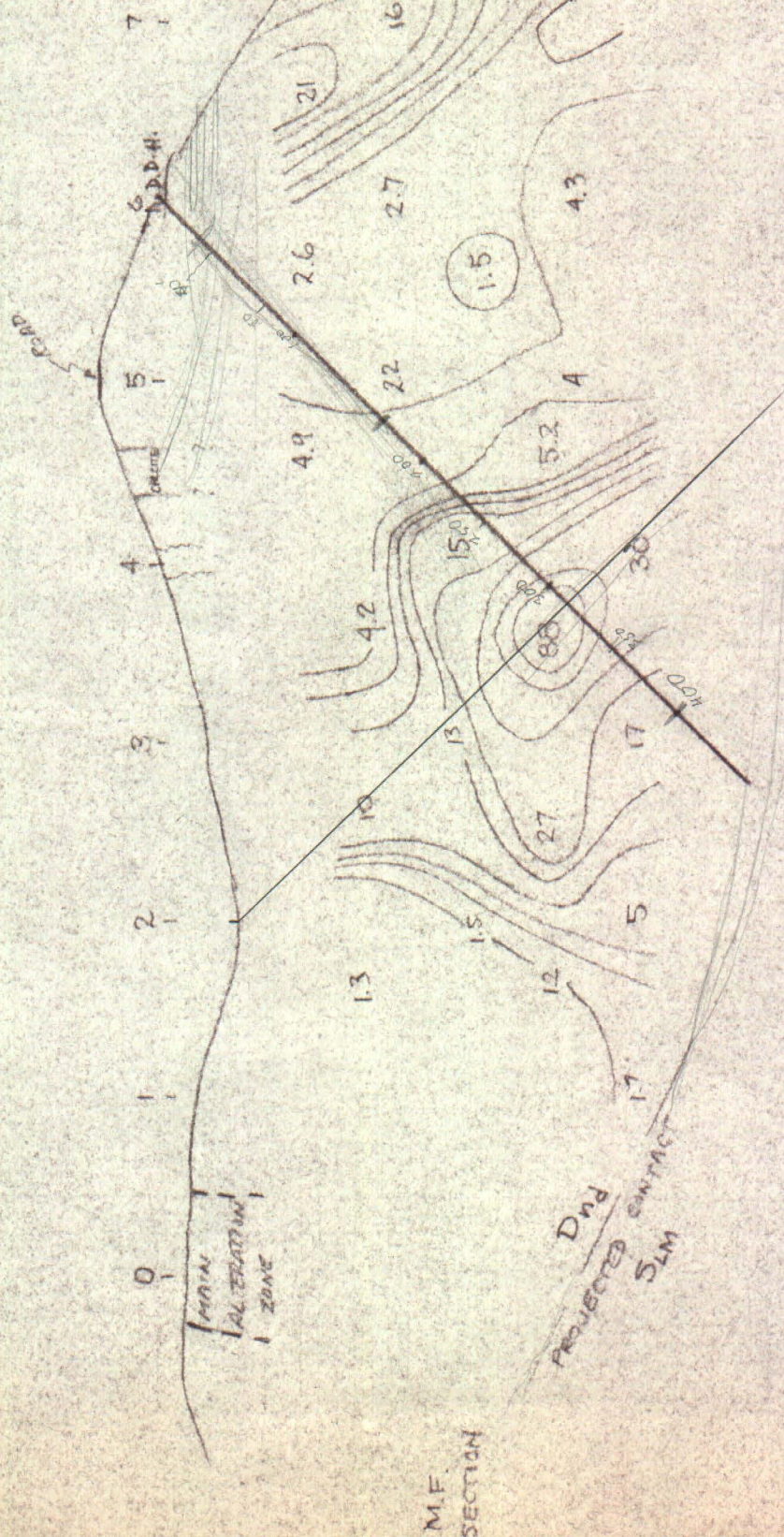
DIP: 45°

TARGET: 300' APPROX.

5290 0013

344

Item 13



D.D.H. No. P-01

COORDS: 2100N,
6110E

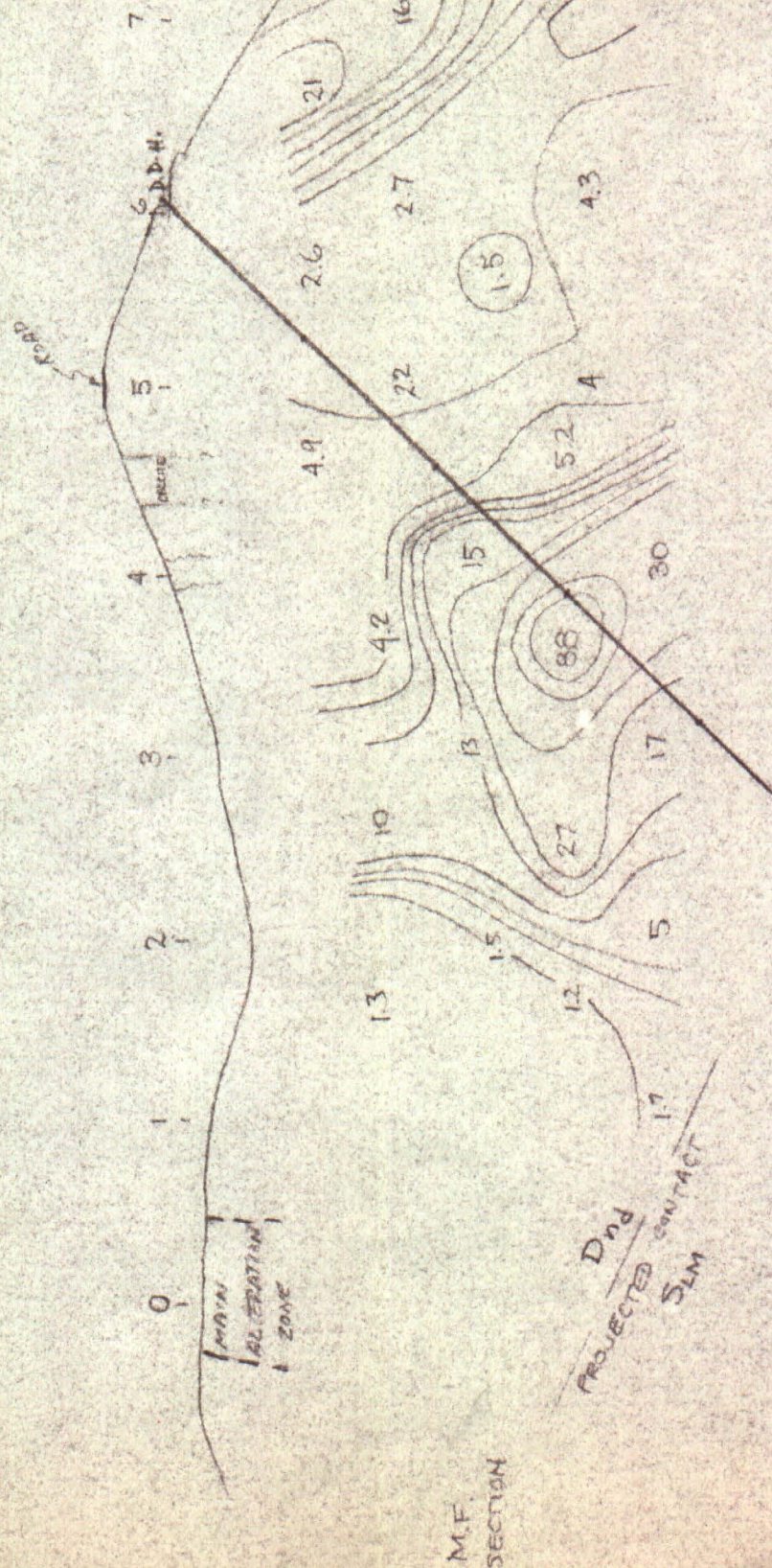
DIP: 45°

TARGET: 300' APPROX.

5290 0013

344

Item 13



D.D.H. No. P-01

COORDS: 2100N,
6410E.

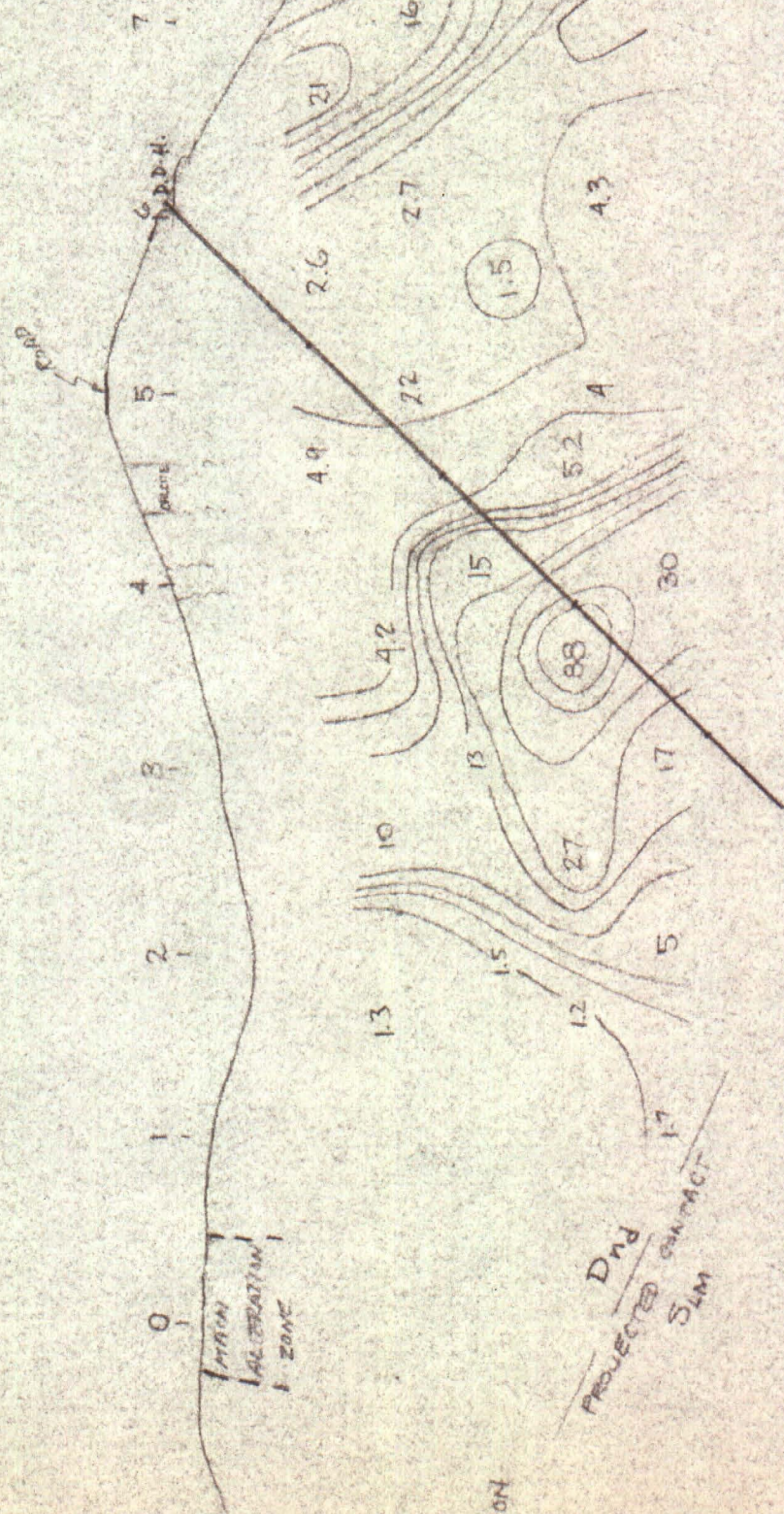
DIP: 45°

TARGET: 300' APPROX.

5290 0013

344

Item 13



DIAMOND DRILL HOLE P-01
BEST CHANCE PROPERTY
HAMMINGTON AREA
WHITE PINE COUNTY, NEVADA

GENERAL

The hole was drilled in the period between Nov. 30, 1968 and Dec. 16, 1968. The first 156 ft. of the hole was logged and sampled in Dec. and Jan. with no significant results. In Feb., when snow conditions in the core storage area allowed, the second half of the hole was re-logged and additional samples and test ^{core} specimens taken. Assay results for the subsequent samples were discouraging. ~~At this time~~ No results have been received from Mr. Phares examination of the test specimens.

Details on the hole are shown in the drill section and the format of the drill log.

GEOLOGICAL

Proceeding down the hole from 0 to ⁵²⁰~~500~~ ft. (see drill hole section) many fault and fracture zones were encountered in the ~~limestone~~ Nevada limestone. Many of the zones are not pictured on in the drill

hole section and the attitude of the fault shown is arbitrary. One section in the limestone from 38.0 to 44.4 contains pyrite which for the most part is finely disseminated but in places is concentrated in tiny fractures. The presence of these sulphides could have caused the weak, most easterly anomaly but no values are associated with the zone (samples 351 to 353).

In the section from 82.0 to 156.0 four prominent clay or gouge zones were encountered. Three of these enclosed enclosed two zones of interest. Section 89.5 to 102.5 was labeled dolomitic limestone because of its relative inertness when tested with acid. Alteration of this zone gives it an appearance not unlike the main surface show but no mineralization is present and no values were turned up in the four sample taken here (354 to 357). ~~The~~ Section 115.0 to 123.0 is very much like the above mentioned but shows a gradation in alteration from medium to light. These zones seems to be correctly located stratigraphically according to surface indications (location of Dns on surface and its dip) whereas the limestone encountered in the hole below this

is out of sequence and is ~~prob~~ probably displaced downward. The boundaries of the downward displaced block are possible to subtle to detect among the many fractures in the core but one could be around 126.0 and the lower one would have to be below the contact at 237.0

From footage 156.0 to 237.0 the rock was fairly uniform except for a black fine-grained zone from 185.0 to 191.3. A few specks of pyrite were noted in the rock ~~but~~ assays returned from samples 870 and 871 showed no ~~of~~ values.

Section 237.0 to 300 ft. is mostly massive dolomitic limestone which has fairly consistent bedding shown in some places. Samples were taken from ~~273.2~~ ^{273.2} to 287.0 because some gray to black calcite was present ~~in~~ in fractures but no value were shown in the assays.

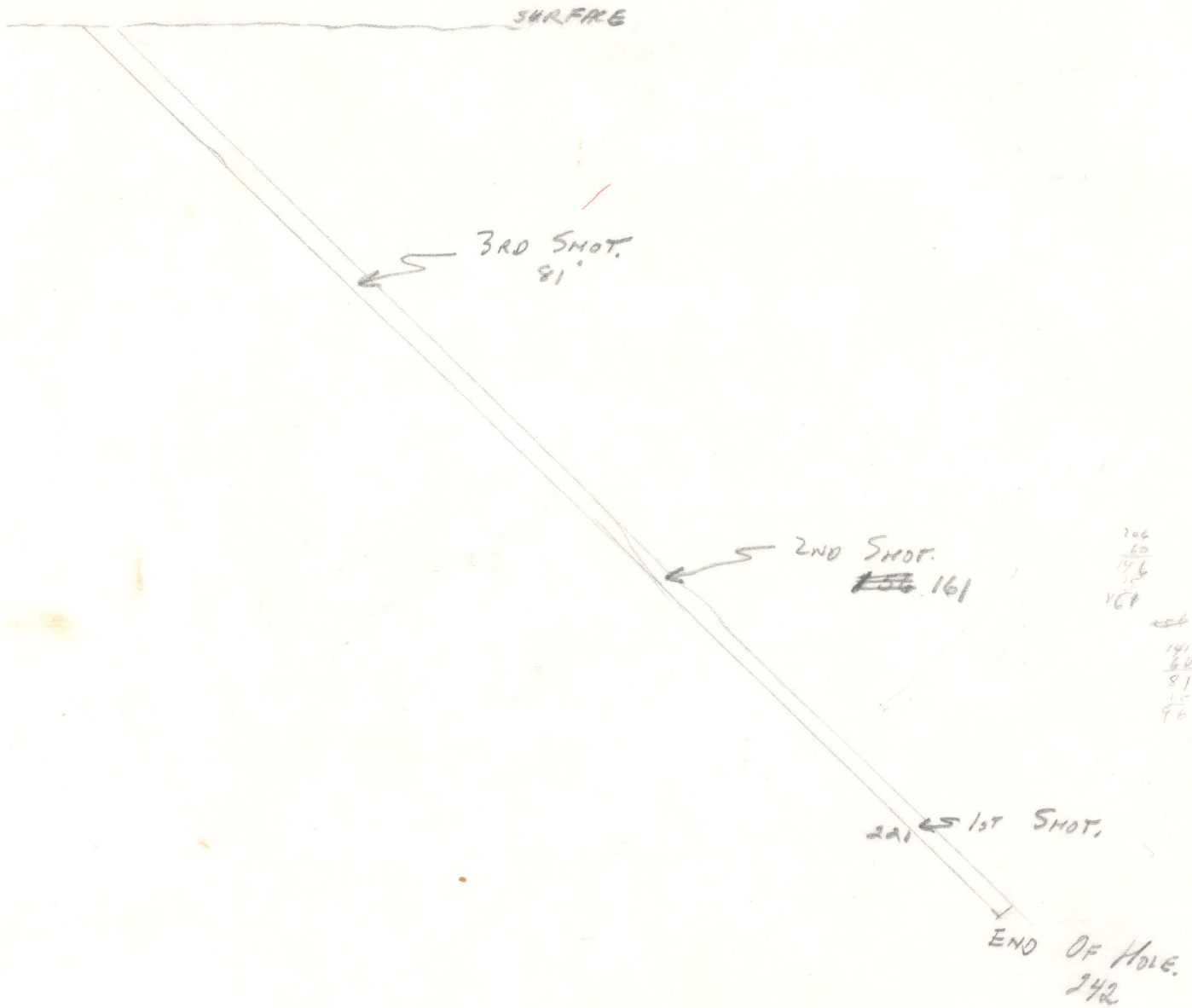
CONCLUSIONS

- 1) A cause for the extreme east anomaly was found in the core in the form of pyrite
- 2) Although the hole should have passed through

the probable location of the strong central anomaly no indication was found in the core of a conductive material

- 3) Core specimens sent to McPhar ^{Geophysics} way contain a subtle cause for the I.P. response.
- 4) If the centre anomaly is limited in vertical extent and not at the ^{200 to 250 ft.} ~~200 to 250 ft.~~ horizon as plotted by McPhar the drill hole might have passed under or over the conductor, if present.
- 5) From the core obtained no zones of economic interest were encountered.

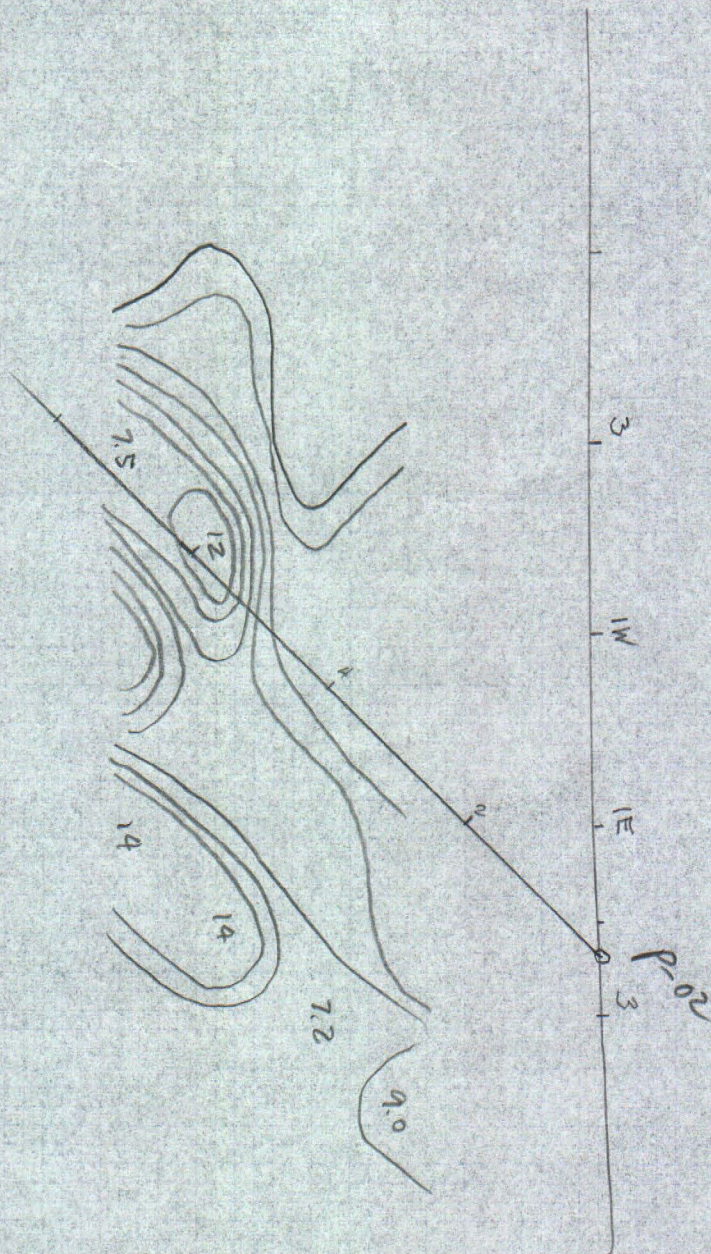
5290 0013



222
161
60
141
81
81

5290 0013

200' SPREADS



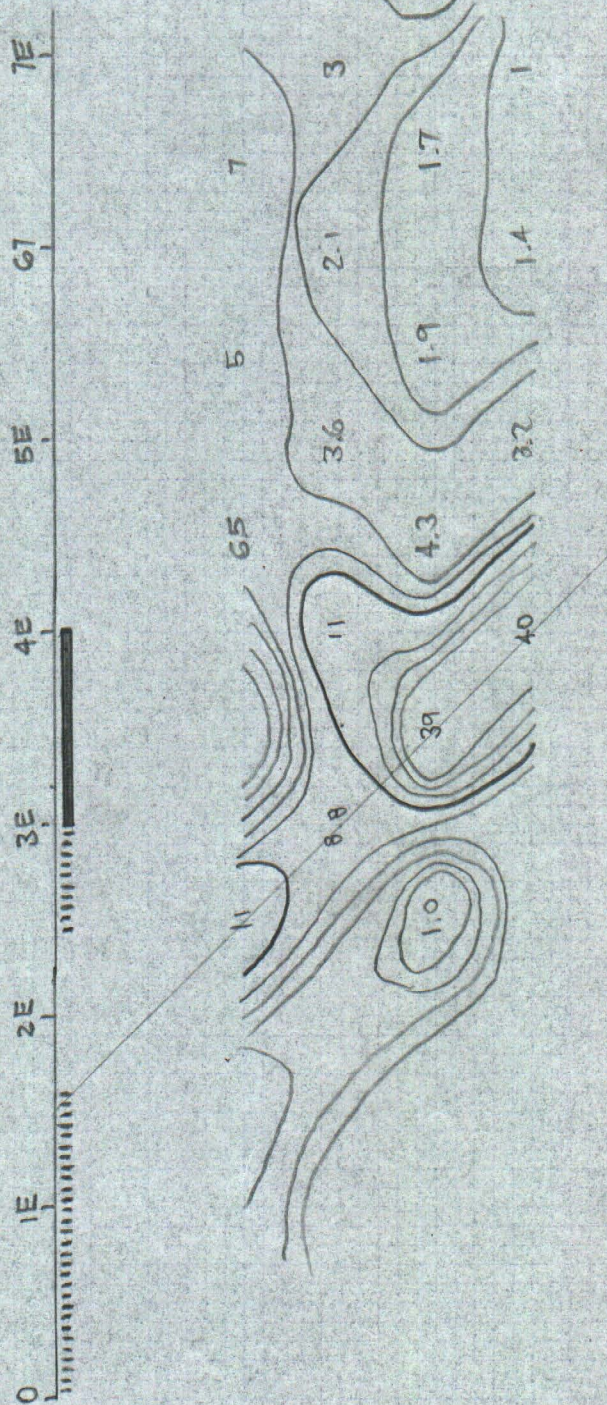
5290 0013

P-04

344

Item 13

P-04



From.	To	DESCRIPTION.	SAMPLE No.
0	6.4	CASING IN OVERBURDEN.	
6.4	8.0	GREY DOLOMITIZED LIMESTONE AMOUNT OF CaO FILLED FRACTURES FAIR. FRACTURES @ 30° + CROSS FRACTURES. MOSTLY BROWN CLAY BUT A LITTLE RED CLAY RED CLAY CARRIES IRON OXIDE (HEMATITE) BROWN CLAY ON SURFACE OF CaO. CARRIES LIMONITE	
7.0	8.0	% OF BROWN CLAY ON SURFACE OF CaO HIGHER	
8.0	10.3	BRECCIATED ZONE CORE RECOVERY ONLY SMALL PIECES. RED CLAY PRESENT. + HEMATITE. FEW LARGER PIECES CAN DISTINGUISH DOLOMITIZED CRACK FRACTURES. LIMESTONE.	
10.3	14.0	BADLY BRECCIATED ALOT OF RED CLAY + HEMATITE A FEW LARGER PIECES CARRY BADLY FRACTURED DOLOMITIZED LIMESTONE + CaO FRACTURES. AVERAGE SIZE OF RECOVERED PIECE IS. $\frac{1}{2}'' \times \frac{1}{2}'' \times \frac{1}{2}''$ SMALL FOSSILS DISTINGUISHABLE IN SOME PIECES.	
19.5	25.0	GREY DOLOMITIZED LIMESTONE VERY HEAVILY FRACTURED WITH CaO FILLED FRACTURES + CaO FILLED CAVITIES ALL FRACTURE (MAJOR) CARRY ALot RED CLAY + HEMATITE.	
23.0	25.0	DOLOMITIZED LIMESTONE HAS A DARKER GREY APPEARANCE HERE.	
25.0	27.5	VERY BADLY FRACTURED ZONE ALot RED CLAY + HEMATITE IN MOST PLACES THERE IS SMALL BRECCIA PIECES CEMENTED WEAKLY TOGETHER WITH CLAY LIKE MATERIAL.	

From.	To.	DESCRIPTION.	SAMPLE No.
27.0	27.5	CONTACT OF GREY DOLOMITIZED LIMESTONE. & BRECCIATED ZONE DESCRIBED ABOVE CONTACT = 30°	
27.5	29.3.	IS HETTER MORE FRACTURED THAN THE AVERAGE. BUT IT IS FAIRLY WELL INTACT BOTH. GREY DOLOMITIZED LIMESTONE & CALCITE FILLED FRACTURES. FAIR AMOUNT OF RED CLAY + HEMATITE	
29.3	30.6	BRECCIATED ZONE. ALOT OF RED CLAY ON GREY DOLOMITIZED LIMESTONE. RECOVERY OF THIS ZONE IS NOT TO BAD.	
	29.3'	CONTACT OF BRECCIATED ZONE WITH CLAY AND GREY DOLOMITIZED LIMESTONE	
	29.6	END OF CONTACT.	
	30.0 ↓ 30.6	ZONE OF BRECCIATION + RED CLAY + HEMATITE.	
30.6	32.2.	GREY DOLOMITIZED LIMESTONE. CALCITE FILLED FRACTURES FAIRLY LARGE FOR HERE - UP TO 1/4" THEY ARE AT 30°-40° ALL LARGE FRACTURES HEAVILY COATED. WITH RED CLAY + HEMATITE	
32.2	37.4.	QUITE SMALL PIECES OF DOLOMITIZED LIMESTONE COVERED WITH RED. CLAY & HEMATITE. VERY POORLY CEMENTED. TOGETHER ALOT OF CALCITE FILLED FRACTURES.	
37.4	37.9.	GREY DOLOMITIZED LIMESTONE. SMALL CALCITE FILLED FRACTURES AND RED CLAY + HEMATITE.	
37.9	39.5	RECOVERY FAIR. GREY DOLOMITIZED LIMESTONE CALCITE FILLED FRACTURES. RED CLAY + HEMATITE PRESENT. POORLY CEMENTED TOGETHER	

From.	To.	DESCRIPTION.
39.5	43.2	BRECCIATED ZONE WITH VERY HIGH CEMENTATION CONCENTRATION OF CALCITE FILLED FRACTURES MODERATELY CEMENTED TOGETHER. FRACTURES 25°-30° WITH CORE AXIS.
43.2	52.0	BADLY FRACTURED. ALOT OF RED CLAY AND HEMATITE. BRECCIA PIECES ARE PRESENT SIZE $\frac{1}{8}'' \times \frac{1}{8}'' \times \frac{1}{8}''$ IN THE LARGER PIECES BETTER. HELD TOGETHER ONE CAN DISTINGUISH GREY DOLOMITIZED LIMESTONE & CALCITE FILLED FRACTURES. FRACTURES AT 30° WITH CORE AXIS.
52.0	55.3	GREY DOLOMITIZED LIMESTONE CALCITE FRACTURES AVERAGE SIZE $\frac{1}{5}''$ RED CLAY + HEMATITE ON MAJOR FRACTURES
55.3	55.7	BADLY FRACTURED POOR CORE RECOVERY ONLY SMALL PIECES VERY SMALL BRECCIATED PIECES.
55.7	58.7	GREY DOLOMITIZED LIMESTONE. RED CLAY & HEMATITE ON MAJOR FRACTURES. CALCITE HERE IS ALTERED TO A LIGHT GREENISH WHITE ON SOME MAJOR FRACTURES. RED CLAY IN SOME PLACES HAS A GLOSSY LOOK TO IT DUE TO A BIT OF SLIPPING OF THE ROCK.
58.7	59.0	BRECCIATED ZONE CONTACTS WITH GREY DOLOMITIZED LIMESTONE CONTACT 25° ALOT RED CLAY HEMATITE AND LITTLE HEMATITE. CALCITE ON FRACTURES COLORED LIGHT GREEN. WHITE.

From.	To	DESCRIPTION
59.0	63.2	GREY DOLOMITIZED LIMESTONE. CALCITE FRACTURES AT 40° TO CORE AXIS. CALCITE CAVITIES ALONG FRACTURES THE
63.2	63.8	CORE RECOVERY ONLY SMALL PIECES. GREY DOLOMITIZED LIMESTONE. CALCITE FILLED FRACTURES AVERAGE. BADLY FRACTURED. A SMALL AMOUNT OF RED CLAY + HEMATITE.
63.8	68.0	MAJOR FRACTURES AT 38° TO CORE AXIS. BRECCIATED ZONES ALONG A FEW OF THE FRACTURES ARE (MAJOR) A HIGHER CONCENTRATION OF CALCITE THE CALCITE FRACTURES ARE LARGER HERE RED CLAY AND HEMATITE HAS A DEEPER COLOR TO THEM. THIS MORE ALTERATION THAN USUAL. STILL IN: GREY DOLOMITIZED LIMESTONE
68.0	69.3	THIS ZONE MORE ALTERED. RED CLAY + HEMATITE A DEEPER COLOR. GREY DOLOMITIZED LIMESTONE FRACTURE PLANES CARRY MOST OF RED CLAY UP TO $\frac{3}{10}$ " ALSO FEW SPECKS ON THE SURFACE OF DOLOMITIZED LIMESTONE. FRACTURE PLANES CARRY BRECCIA PIECES FRACTURES AT 30°
69.3	70.6	BRECCIATED ZONE BADLY FRACTURED \therefore MANY CALCITE. FILLED FRACTURES. NOT AS ALTERED AS ABOVE. GREY DOLOMITIZED LIMESTONE. RED CLAY NOT AS PLENTIFUL NOR AS DEEP A COLOR. SAME WITH HEMATITE.
70.6	71.1	BADLY FRACTURED GREY DOLOMITIZED LIMESTONE. ALL FRACTURES CONTAIN CALCITE. LIGHT BROWN CLAY + LIMONITE IN. MINOR AMOUNTS.

From. To.

DESCRIPTION.

71.1 73.0

BRECCIATED DOLOMITIZED LIMESTONE
CALCITE ABUNDANT IN BOTH FRACTURES
AND CAVITIES
BROWN CLAY ABUNDANT ON LARGE
FRACTURES ~~THE~~
CALCITE CAVITIES AND BROWN CLAY
BECOME MORE ABUNDANT THE
CLOSER YOU GET TO 73.0'

73.0 75.5

AT 73.0 CONTACT OF DOLOMITIZED
LIMESTONE WITH BETTER THAN
AVERAGE CALCITE FILLED
FRACTURES.

AND

DOLOMITIZED LIMESTONE WITH
MINOR TO ~~NO~~ CALCITE.
FILLED FRACTURES.

DOLOMITIZED LIMESTONE WITH ~~THE~~
LITTLE TO NO CALCITE IS
ALTERED BADLY IN MOST PLACES.
ALSO IT CONTAINS BRECCIA
PIECES ON MAJOR FRACTURES
ALSO ABUNDANT IS BROWN CLAY

CONTACT CONTINUES TO 74.7' AND.
ON ONE SIDE IS DOLOMITIZED
LIMESTONE WITH CALCITE. WHILE
ON OTHER SIDE IS DOLOMITIZED
LIMESTONE WITH LITTLE TO NO
CALCITE.

BESIDES THE CONTACT ZONE THE
REST OF THE CORE IS GREY
DOLOMITIZED LIMESTONE WITH
CALCITE FILLED FRACTURES AND
BROWN CLAY AND LITTLE HEMATITE.

75.5 77.6

BRECCIATED GREY DOLOMITIZED
LIMESTONE HAS ~~THE~~ HIGH
CONCENTRATION OF CALCITE FILLED
FRACTURES

BROWN CLAY ONLY NO RED CLAY.
FRACTURES ARE MAINLY AT 30° TO
CORE AXIS.

FROM.

TO.

DESCRIPTION.

77.6

81.0

STILL GREY DOLOMITIZED LIMESTONE.
BUT FRACTURES NOW CARRY
RED CLAY AND HEMATITE.

THE ALTERATION ZONE INCREASES.
FROM 77.6 \rightarrow 78.2 STILL ALTERATION
LIMITED TO FRACTURES.

FROM 78.2 \rightarrow 81.0 IS A HEAVILY
ALTERED ZONE.

CAN ONLY DISTINGUISH DOLOMITIZED
LIMESTONE ON LARGER PIECES

FROM 77.8 \rightarrow 79.3 THE DOLOMITIZED
LIMESTONE IS A DARKER GREY
COLOR. ALSO PRESENT IS A
BLACK FINE GRAINED ROCK AND
RUNS PARALLEL TO CORE AXIS.

- CALCITE FRACTURES AT 30° TO CORE AXIS
CALCITE CUTS BLACK FINE GRAINED
MATERIAL, THEREFORE, CALCITE
WAS LAST TO BE INTRODUCED