

DRILLING REPORT

Deer Park Property

In the Trail Creek Mining Division  
29 Kilometres West of Castlegar, B.C.

NTS 82 E/8

Lat. 49°20'N

Long. 118°02'W

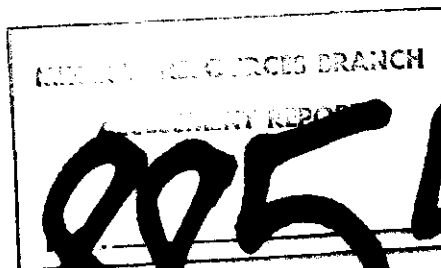
Owned And Operated By

Utah Mines Ltd.

Work Performed Between June 21 - July 21, 1980.

Tom Pollock, M.Sc.A.  
Utah Mines Ltd.

Vancouver, B.C.  
December, 1980.



8854  
part  
of 2

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## INTRODUCTION

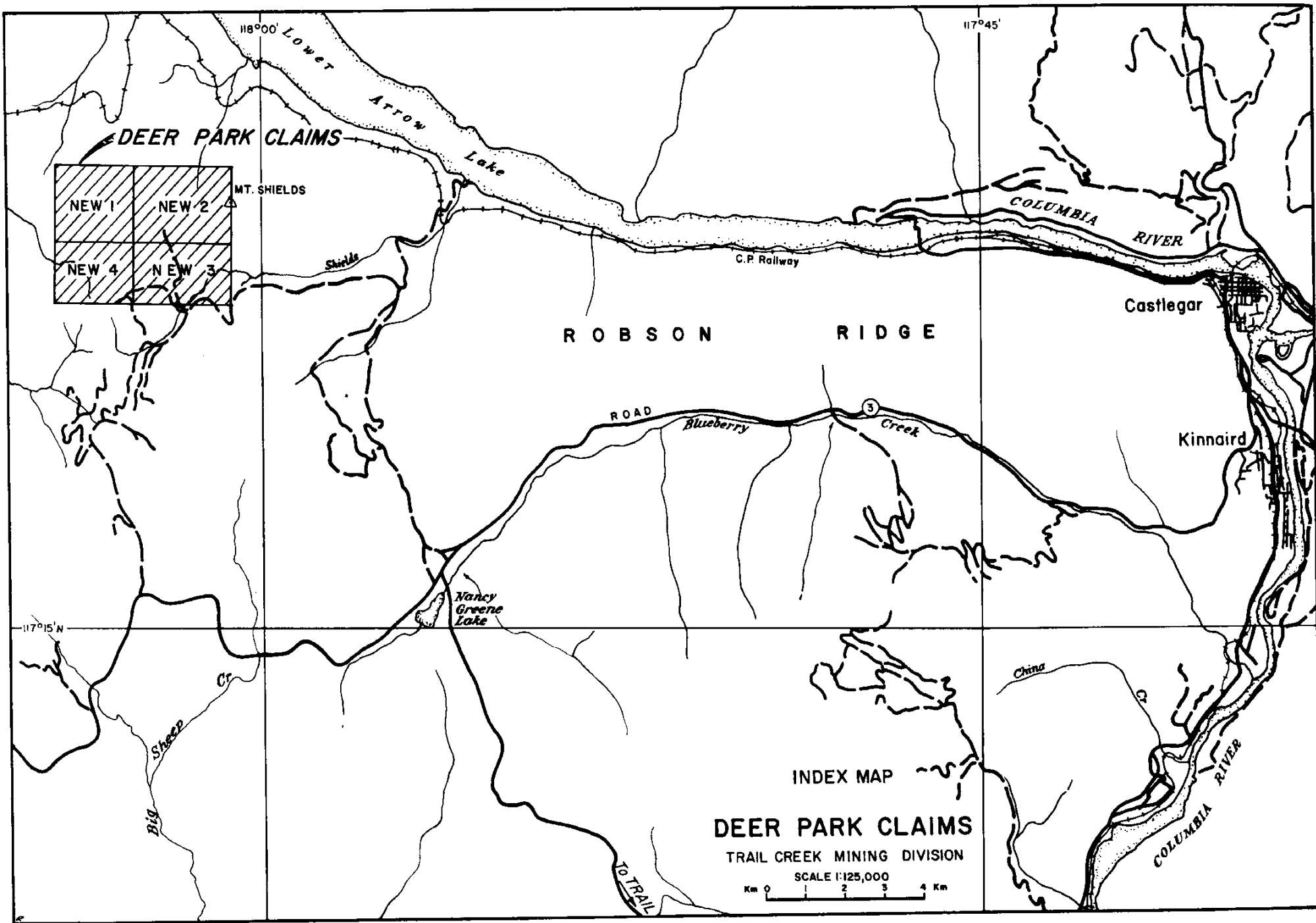
Diamond drilling of one hole was carried out on the Deer Park Property from June 21 to July 21, 1980. The drilling was totally confined to claim New #2. All expenditures on the property for the 1980 summer field season will be claimed as assessment work.

The following Utah Mines Ltd. personnel supervised and performed the geological work for the Deer Park Property. T. Pollock, geologist, and M. Stewart, field assistant.

## LOCATION AND ACCESS

The Deer Park Property is located approximately 29 kilometres west of Castlegar, B.C. within the Kettle River map sheet. The property consists of four claims (63 units) in the moderately forested Monashee Mountains with elevations ranging from 1050 to 1790 metres.

Access to the property can be achieved by driving 41 kilometres west along Highway No. 3 from Castlegar and then 12 kilometres north on a two-wheel drive dirt road.



### DIAMOND DRILLING PROGRAMME

Drilling was performed by Longyear Canada Limited utilizing one Longyear "44" drill equipped to drill NQ core size. The move on to the property began June 18th, with the actual drilling commencing three days later. The drill rig was moved during the job by a D-8 bulldozer owned by Sandners Bros. Transport Ltd. of Christina Lake. Longyear and Utah personnel resided in Castlegar for the duration of the drill programme.

Drilling was completed on July 21st, exactly one month after the starting date. Core was logged in detail by a Utah Mines Ltd. geologist, then split in half, with one-half of the core returning to the core box to be stored on the property. Of the other half, every other three metre section of core was sent for analysis while the other unanalyzed sections were sent to Utah's storage facility in Vancouver. The core that remained on the property was stored in wooden core boxes, then placed in enclosed wooden racks. All core boxes were clearly labelled giving the hole and box number, and the meterage contained within.

One hole was drilled in 1980 to a depth of 762.6 metres (2502 feet). The following table gives the particulars of the hole drilled.

Hole No.	Grid Co-ords N	(m) E	Elev. (M)	Date Start/ Finish	Angle	Azimuth	The Depth (M)
DP-14	8000	7800	1555	June 21/ July 21	-070°	180°	762.6

Data accompanying this drill report are in the Appendices. The data consists of the complete diamond drill log and associated

assay log for the diamond drill hole DP-14 found in Appendices D and E respectively. A statement of qualifications, statement of cost, and major contract invoices are given in Appendices A, B and C respectively.

The diamond drill log submitted in Appendix D was done by T. Pollock. The signature below is to cover all log sheets comprising Appendix D.

T. Pollock  
Geologist

A handwritten signature in cursive script, appearing to read "T. Pollock", is written over a horizontal line.

Vancouver, B.C.

APPENDIX A  
STATEMENT OF QUALIFICATIONS

### STATEMENT OF QUALIFICATIONS

The field work for this report was done by the following person whose qualifications are outlined below:

T. Pollock, Geologist for Utah Mines Ltd., Vancouver, British Columbia. Completed Hon. B.Sc. (geology) at Queen's University, Kingston, Ontario in 1977; completed M.Sc.A. at McGill University, Montreal, Quebec in 1980; employed by the Ontario Geological Survey as an assistant geologist during the 1974 and 1975 summer field seasons; employed by Inco Limited as a field geologist for the 1976, 1977 and 1978 summer field seasons; employed by the Geological Survey of Canada as a geologist, December 1977 to April 1978; employed by Kelvin Energy Ltd. during the 1979 field season as a field geologist; employed by Utah Mines Ltd. from May 1980 to date as a geologist under the supervision of J. B. Richards, P.Eng.



APPENDIX B  
STATEMENT OF COSTS

STATEMENT OF COSTS

	<u>Total Cost</u>	<u>Cumulative Total</u>
Diamond Drilling	\$ 85,507.43	\$ 85,507.43
Wages	16,241.00	101,748.43
Field Supplies	4,185.14	105,933.57
Road Work	3,442.68	109,376.25
Expense Accounts	3,226.81	112,603.06
Chemex Labs Ltd.	1,881.81	114,484.87
Food & Lodging	1,831.75	116,316.62
Truck Rentals	1,809.91	118,126.53
Maps & Reports	1,570.00	119,696.53
Transportation Costs (Sandners Bros.).	1,450.49	121,147.02
Supplies	903.82	122,050.84
Reproductions & Maps	485.96	122,536.80
Telephone	478.92	123,015.72
Other (including drafting supplies)	98.93	<u>123,114.65</u>

APPENDIX C  
MAJOR INVOICES



Longyear Canada Inc.

CONTRACT DRILLING DIVISION

721 Aldford Avenue

Annacis Island, New Westminster, B.C. V3M 5P5

Telephone: 604-524-2511

Telex: 43-51280

10700-10700

7/24/80

Invoice No. 8386

Cust. No. 6051

Job No. 6273

Dest. 062

JUL 13 1980

Utah Mines Limited,  
Exploration Department,  
Suite 1600-1050 West Pender St.,  
Vancouver, British Columbia  
V6G 3S7

Utah Deer Park  
Invoice date: July 10, 1980  
for June 1980

To: Invoice for diamond drilling performed on Deer Park Project near  
Castlegar, British Columbia during period June 18-29, 1980 per  
agreement dated March 21, 1980.

Hole No.	Size	From	To	Total	Rate	Amount
DP14	NQ Wireline	0	876	876	22.75	19,929.00
<u>Mobilization</u>						
Lump Sum						2,670.00
<u>Drilling Mud and Additives - attached</u>						
Thiessen Equipment Ltd.						639.60
Plus 18%						<u>115.13</u>
						754.73
<u>Client Charge - attached</u>						
Gardner Brothers Lumber Co. Ltd.						1,970.00
Plus 18%						<u>354.60</u>
						2,324.60
<u>Client Testing</u>						
Hole DP14	1 hour					75.00
<u>Travel Time</u>						
Hole DP14	96 hours @ 23.00 x 75%					1,656.00
<u>Moves</u>						
<u>Move In To Hole DP14</u>						
32 hours @ 75.00						2,400.00
1 1/2 hours @ 70.00						105.00
54 hours @ 23.00						<u>1,242.00</u>
						3,747.00



Longyear Canada Inc.

CONTRACT DRILLING DIVISION

721 Aldford Avenue

Annacis Island, New Westminster, B.C. V3M 5P5

Telephone: 604-524-2511

Telex: 43-51280

Utah Mines Limited  
Invoice No. 8386  
2...

Reaming

Hole DP14

6 hours @ 75.00

1 NW Shoe E518

1 NQ Bit GR32830

1 NQ Bit GR32838

Prorated recovery-see later invoice

Plus 18%

123.76

431.60

431.60

-

986.96

177.65

450.00

1,164.61

1,614.61

\$

32,770.94



Longyear Canada Inc.

CONTRACT DRILLING DIVISION

721 Aldford Avenue

Annacis Island, New Westminster, B.C. V3M 5P5

Telephone: 604-524-2511

Telex: 43-51280

*7/23/80*

Invoice No. 8553

Cust. No. 6051

Job No. 6273

Dest. 062

Utah Mines Limited,  
Exploration Department,  
Suite 1600-1050 West Pender St.,  
Vancouver, British Columbia  
V6G 3S7

Utah Deer Park  
Invoice date: July 23, 1980  
for July 1980

To: Invoice for diamond drilling performed on Deer Park Project near  
Castlegar, British Columbia during period June 30-July 15, 1980  
per agreement dated March 21, 1980.

Hole No.	Size	From	To	Total	Rate	Amount
DP14	NQ Wireline	876	1000	124	22.75	2,821.00
	NQ Wireline	1000	1500	500	25.00	12,500.00
	NQ Wireline	1500	2000	500	28.00	14,000.00
	NQ Wireline	2000	2086	86	32.00	2,752.00
				1210		32,073.00

Core Boxes - attached  
Halley & Son Ltd. 859.04

Core Splitter  
1 Longyear 9326 Core Splitter ~~478.40~~

Client Testing  
Hole DP14 2 hours @ 75.00 150.00

Lost Circulation  
Hole DP14 2 hours @ 75.00 150.00

Moves  
Move In To Hole DP14 - 5 hours @ 75.00 375.00

Travel Time  
Hole DP14 128 hours @ 23.00 x 75% 2,208.00

Reaming  
Hole DP14  
Prorated recovery re E518, GR32830, GR32838-see later invoice -

\$ ~~36,293.44~~

*\$ 35,815.04*

# AMEX EXPLORATION SERVICES LTD.

A. A. (AB) ABLETT

Confidential Work

BUS. 376-0433  
RES. 376-7490

1714 CLIFFORD AVE.  
V2B 4G6

BOX 286  
KAMLOOPS, B.C.

June 24th 1980.

Utah Mines Ltd  
1600-1050 West Pender Street,  
Vancouver, B.C.

*6/27/80*

Attention: Mr. Andy Schmidt

STATEMENT OF ACCOUNT:

RE: Staking and recording the NEW 1-4 ( 63 units ) staked  
Westerly from Castlegar, B.C., in the Trail Creek Mining Division.

Amex Fees:

Wages 21 days @\$133.00/day	\$2793.00 ✓
Office ( Preparation documents and Secretarial)	107.65
Vehicles 9 days @\$35.00/day	315.00
Gasoline	108.66
Board, Accommodation, Groceries	768.14
Flagging, Tags, Loomis. Phone, Misc	126.55

Recording Fees:

63 units @\$5.00/unit	315.00
-----------------------	--------

**Total Requested** \$4534.00

Respectfully Submitted,

*John McCusack*  
A.A. ABLETT, President  
Amex Exploration Services Ltd

Amex Job Number 80-52

AAA/jm

UTAH MINES LTD. -- EXPLORATION DEPT.					
DISTRIBUTION					
Location	Major	Minor	Act.	Exp.	Amount
00		0	0	0	
00	A336	051	0	0	4534.00
00		0	0	0	
00		0	0	0	
00		0	0	0	
Date Received			Invoice Amount		4534.00
Ext. & Prices			Discount		
Approved by			Amount Payable		
			Check No.		



**SANDNER  
BROTHERS**

*Lumber Co. Ltd.*

P.O. BOX 40,

CHRISTINA LAKE, B.C. V0H 1E0

TELEPHONE 447-9411

TELEX 041-542

*6/9/80*

June 6, 1980

RECEIVED  
JUN 9 - 1980

Utah Mines Ltd.  
1600 - 1050 West Pender Street  
Vancouver, B.C.

TD25C rental on road work from Highway #3 to Shields Mountain

May 27	7½ hours	
May 28	6½ hours	
May 29	6 hours	
May 30	5 hours	
June 2	<u>4½ hours</u>	
	29½ hours @ 80.00	2,360.00
Swamper on days required	total 18½ @ 12.00	222.00
Pick up five days @ 30.00		150.00
Low bed Christina Lake to Summit	2 hours @ 45.00	90.00
1 Culvert		<u>620.68</u>
		<u><u>3,442.68</u></u>

*Don Park Okay T.P.*

*K. G. Sandner*





RECEIVED 11337

AUG 11 1980

TELEX 041-542

LTD.  
BOX 40, CHRISTINA LAKE, B.C.

UTAH  
EXPLO...

TELEPHONE 447-9411

*P/12/80*

Utah Mines  
1600-1050 St. Andrew  
Nanaimo B.C. V1E 3B7

INVOICE NO: 11337

DATE: July 31/80

Acct. 2204

DATE	B/L NO.	DETAILS	WEIGHT	RATE	AMOUNT
<i>July 29 80</i>	<i>1788</i>	<i>July 22. Ford dump - off highway</i>	<i>17.5 hrs</i>	<i>37.50</i>	<i>656.25</i>
		<i>23. Truck &amp; trailer to load dump on</i>	<i>4.5 hrs</i>	<i>40.00</i>	<i>180.00</i>
		<i>23. Hough loader to skid &amp; load rig</i>	<i>13 hrs</i>	<i>45.00</i>	<i>585.00</i>
		<i>To move (loaded) 1450 to and from C Lake to mine 2 trips</i>		<i>110.00</i>	<i>220.00</i>
		<i>24 1 man - secure load snow to highway</i>	<i>3 hrs</i>	<i>40.00</i>	<i>120.00</i>
					<i>#1761.25</i>

*E.H. [Signature]*  
*Dearport 1/2*  
*1450 1/2*

8/12/80

# SANDNER BROTHERS TRANSPORT LTD.

BOX 40, CHRISTINA LAKE, B.C.

RECEIVED 11336

AUG 11 1980

UTA  
EXP.

TELEPHONE 447-9411

TELEX 041-542

Utah Mines  
1600-10500th Landing  
Vancouver B.C. V6E 3A7

INVOICE NO: 11336

DATE: July 31/80

Acct 2204

DATE	B/L NO.	DETAILS	WEIGHT	RATE	AMOUNT
July 24 80	15378	Diamond Drill. Lawson Summit - Hudson	50,000	98	490 00
		off highway & general 25 hrs 7 hrs 1/2	16 hrs	40 00	640 00
		1.2% Fuel purchase on 490.00			588
		.6% Fuel purchase on 640.00			384
					<u>\$1139 72</u>

*JK*  
Deerpark's  
Hoff 1/2

DON'T SAY IT WRITE IT

RECEIVED

TO <sup>7/16/80</sup> Utah Mines Ltd.  
Exploration Dept.  
Vancouver.

DATE 9 July

JUL 14 1980

Tom Pollock + M. Stewart

EXPLORATION

2 bedroom Kitchen unit @ 33.00

1 July to 7 July 1980 - 231.00

Rec. by: Tom Pollock  
Mike Stewart TX 11.55

242.55

June 30 Bellamy 693.00  
Flamingo Motel Total 935.55

1660 Columbia Ave

Castlebar, B.C. VIN-149.

DON'T SAY IT WRITE IT

7/25/80

TO Utah Mines Ltd  
Exploration Dept.  
Vancouver B.C.

DATE July 22

Tom Pollock + M Stewart

8 July to 21 July 1980

14 days @ 33.00

462.00

Ty

2310

485.10

OK / ASH  
Deer Park

Mike Stewart  
Tom Pollock

Flamingo Motel  
1660 - Columbia Ave.

JUL 25 1980

Castlegar, B.C.  
VIN-1419

UT:  
EXPL:

DON'T SAY IT WRITE IT

TO Utah Mines Ltd <sup>7/30</sup> DATE 24 July 1980  
Exploration Dept. '80  
Name Tom Pollock & M Stewart

22nd July	23rd July	28.00	56.00
	Deer Park	TY	2.80
			<u>58.80</u>
	Deposit		30.00
			<u>28.80</u>

Flamingo Motel  
1660 - Columbia Ave.  
Cartersville, Ga.  
11N-149.

Tom Pollock  
M Stewart



# WESTMINSTER AUTO LEASING LTD.

210 - 12TH STREET P.O. BOX 520  
NEW WESTMINSTER, B.C.

522-8828

OR

521-7731

"SERVING B.C. FROM THE ROYAL CITY"

1. BILL TO (NAME AND ADDRESS) <i>Utah Mines Exploration</i>		2. NAME AND ADDRESS OF DRIVER OR ADDITIONAL DRIVERS				
PURCHASE ORDER NO.		PHONE NO.				
2. VEHICLE NUMBER <i>77-0388</i>	4. MAKE <i>Chew</i>	22. DATE AND TIME OUT <i>11/04 13/80</i>	23. DATE AND TIME IN			
8. TYPE <i>4x4 3/4 ton Pickup</i>	6. LICENCE PLATE NO. <i>47-11-HK</i>	7. STATION <i>N. West.</i>	24. MILES IN	25. MILES OUT <i>128</i>	* FOUR HOUR MINIMUM CHARGE ON ALL RENTALS * MILEAGE DETERMINED BY READING FACTORY INSTALLED ODOMETER	
8. VEHICLE WILL BE RETURNED NOT LATER THAN		26. TOT. MILES	27. MILES			
9. EXTENDED RENTAL	28. HOURLY CHARGE					
10. VEHICLE WILL BE USED FOR IN PROVINCES OR STATES OF		29. DAILY CHARGE				
11. DRIVERS LICENCE NUMBER	12. PROVINCE	30. WEEKLY CHARGE				
13. EXPIRATION DATE	14. DRIVERS AGE	31. MONTHLY CHARGE	<i>660<sup>00</sup></i>	<i>383</i>	<i>22</i>	
15. SUBSTITUTE VEHICLE						
MILES IN:-		MILES OUT:-		TOTAL:		
16. ADDITIONAL INFORMATION		32. TOTAL TIME AND MILEAGE CHARGES				
17. ALTERNATE CITY DROP CHARGE						
CITY:-		AUTHORIZED BY:-		DROP OFF CHARGE		
18. OPTIONAL EQUIPMENT CHARGE, EQUIPMENT OR VEHICLE DAMAGE CHARGES (DESCRIBE) OTHER CHARGES (DESCRIBE)		<i>Canopy &amp; winch @ 100<sup>00</sup></i>		<i>58</i>	<i>14</i>	
19. THE LESSOR HEREBY LEASES TO THE RENTER ON THE DATE HEREON THE COVENANTS, TERMS AND CONDITIONS STATED IN COPY OF WHICH IS HEREOF TO BE REVERSED OR HEREOF THE MOTOR VEHICLE DESCRIBED HEREON. CUSTOMER IS RESPONSIBLE FOR ALL EXPENSES INCLUDING MAINTENANCE, TIRES AND TUBE REPAIRS, AND DAMAGE TO VEHICLE OCCASIONED WHEN VEHICLE IS TRAVELLING ON ROADS NOT SERVICED BY ANY MUNICIPAL, PROVINCIAL OR FEDERAL GOVERNMENT. RENTER ACKNOWLEDGES RECEIPT OF VEHICLE IN THE FOLLOWING CONDITION. <i>No damage - New Units</i>		33. COLLISION DAMAGE WAIVER <i>500<sup>00</sup></i>	5100.00 DEDUCTIBLE	NIL DEDUCTIBLE	34. TOTAL <i>441</i>	<i>36</i>
		INITIALS	35. TAX <i>17</i>		<i>65</i>	
		DAY 0 WEEK 0 MONTH <i>65<sup>00</sup></i>	36. FUEL TANK LEVEL OUT		37. PLUS OR MINUS GAS OR REPAIRS	
		38. DEPOSIT <i>NIL</i>	39. TOTAL CHARGES <i>496</i>		<i>81</i>	
SIGNATURE OF RENTER <i>+ Tom Pollock</i>		CASH	CHEQUE	40. LESS DEPOSIT		
20. OUT BY <i>R.</i>	21. IN BY	41. METHOD OF PAYMENT <input checked="" type="checkbox"/> CASH <input checked="" type="checkbox"/> CHARGE <input type="checkbox"/> CHEQUE		42. NET AMOUNT DUE		
				43. REC'D REFUND INITIALS		

ALL CORRESPONDANCE MUST SHOW THIS NUMBER →

3281

Deer Park



RENTAL AGREEMENT

WESTMINSTER AUTO LEASING LTD.

210 - 12TH STREET (P.O. BOX 520)  
NEW WESTMINSTER, B.C.

522-8828

OR

521-7731

"SERVING B.C. FROM THE ROYAL CITY"

1. BILL TO (NAME AND ADDRESS) <i>Utah Mines Exploration</i>		2. NAME AND ADDRESS OF DRIVER OR ADDITIONAL DRIVERS  <b>JUL 8 - 1980</b> <b>UTAH MINES LTD.</b> <b>EXPLORATION DEPT.</b>	
PURCHASE ORDER NO.		PHONE NO.	
2. VEHICLE NUMBER <i>12-0388</i>	4. MAKE <i>Chw.</i>	22. DATE AND TIME OUT <i>June 11/80</i>	23. DATE AND TIME IN
5. TYPE <i>4x4 3/4 ton P/U.</i>	6. LICENSE PLATE NO. <i>47-11-HX</i>	7. STATION <i>N. West</i>	24. MILES IN
8. VEHICLE WILL BE RETURNED NOT LATER THAN		25. MILES OUT <i>128</i>	26. TOT. MILES
MO. DAY TIME	27. MILES	* FOUR HOUR MINIMUM CHARGE ON ALL RENTALS	
9. EXTENDED RENTAL	28. HOURLY CHARGE	* MILEAGE DETERMINED BY READING FACTORY INSTALLED ODOMETER	
MO. DAY TIME	29. DAILY CHARGE		
10. VEHICLE WILL BE USED FOR IN PROVINCES OR STATES OF	30. WEEKLY CHARGE		
11. DRIVERS LICENSE NUMBER	12. PROVINCE	31. MONTHLY CHARGE	<i>660.00 660.00</i>
13. EXPIRATION DATE	14. DRIVERS AGE		
15. SUBSTITUTE VEHICLE			
MILES IN:-	MILES OUT:-	TOTAL:	
16. ADDITIONAL INFORMATION.		32. TOTAL TIME AND MILEAGE CHARGES	
17. ALTERNATE CITY DROP CHARGE			
CITY:-	AUTHORIZED BY:-	DROP OFF CHARGE	
18. OPTIONAL EQUIPMENT CHARGE, EQUIPMENT OR VEHICLE DAMAGE CHARGES (DESCRIBE OTHER CHARGES (DESCRIBE)) <i>Canopy / Wrench 100.00</i>		34. TOTAL <i>760.00</i>	
19. THE LESSOR HEREBY LEASES TO THE LESSEE... (small print text)		33. COLLISION DAMAGE WAIVER <i>300</i>	34. TOTAL <i>760.00</i>
RENTER ACKNOWLEDGES RECEIPT OF VEHICLE IN THE FOLLOWING CONDITION: <i>2 Damage - NEW</i>		35. TAX <i>30.40</i>	36. FUEL TANK LEVEL OUT
SIGNATURE OF RENTER <i>OK #3281</i>		37. PLUS FOR GAS OR REPAIRS	38. DEPOSIT <i>NIL</i>
20. OUT BY	21. IN BY	39. TOTAL CHARGES <i>855.40</i>	40. LESS DEPOSIT
CASH	<input checked="" type="checkbox"/> CHARGE	42. NET AMOUNT DUE	43. REC'D REFUND INITIALS

ALL CORRESPONDANCE MUST SHOW THIS NUMBER → 3355

*Deer Park*



RENTAL AGREEMENT

WESTMINSTER AUTO LEASING LTD.

210 - 12TH STREET (P.O. BOX 520)  
NEW WESTMINSTER, B.C.

522-8828  
OR  
521-7731

"SERVING B.C. FROM THE ROYAL CITY"

1. BILL TO (NAME AND ADDRESS) <i>Utah Mines 1/2 Deer Park Haltsoff</i>		2. NAME AND ADDRESS OF DRIVER OR ADDITIONAL DRIVERS <i>AUG 6 - 1980 UTAH MINES LTD. EXPLORATION DEPT.</i>	
PURCHASE ORDER NO.		PHONE NO.	
2. VEHICLE NUMBER <i>12-0388</i>	4. MAKE <i>Ched.</i>	22. DATE AND TIME OUT <i>July 1/80</i>	23. DATE AND TIME IN
5. TYPE <i>4x4 3/4 ton P/U.</i>	6. LICENCE PLATE NO. <i>47-11-HX</i>	7. STATION <i>West.</i>	24. MILES IN
8. VEHICLE WILL BE RETURNED NOT LATER THAN		25. MILES OUT <i>128</i>	26. TOT. MILES
9. EXTENDED RENTAL		27. MILES	28. HOURLY CHARGE
10. VEHICLE WILL BE USED FOR IN PROVINCES OR STATES OF		29. DAILY CHARGE	30. WEEKLY CHARGE
11. DRIVERS LICENSE NUMBER	12. PROVINCE	31. MONTHLY CHARGE	
13. EXPIRATION DATE	14. DRIVERS AGE		
15. SUBSTITUTE VEHICLE			
MILES IN:-		MILES OUT:-	
16. ADDITIONAL INFORMATION		32. TOTAL TIME AND MILEAGE CHARGES	
17. ALTERNATE CITY DROP CHARGE		CITY:-	
18. OPTIONAL EQUIPMENT CHARGES (EQUIPMENT OR VEHICLE DAMAGE CHARGES (DESCRIBE) OTHER CHARGES (DESCRIBE))		AUTHORIZED BY:-	
19. THE LESSEE HEREBY AGREES TO THE TERMS BELOW AND TO THE COVENANTS, TERMS AND CONDITIONS STATED. A COPY OF WHICH IS RETURNED TO THE LESSOR'S OFFICE WITH THIS RENTAL AGREEMENT. CUSTOMER IS RESPONSIBLE FOR ALL EXPENSES OF MAINTENANCE, TIRE AND TUBE REPAIRS, AND DAMAGE TO VEHICLE OCCASIONED WHILE VEHICLE IS TRAVELLING ON ROADS NOT SERVICED BY ANY MUNICIPAL, PROVINCIAL OR FEDERAL GOVERNMENT.		DROP OFF CHARGE	
RENTER ACKNOWLEDGES RECEIPT OF VEHICLE IN THE FOLLOWING CONDITION. <i>Damage - new</i>		33. COLLISION DAMAGE WAIVER \$250.00 DEDUCTIBLE \$100.00 DEDUCTIBLE NIL DEDUCTIBLE	
SIGNATURE OF RENTER <i># 3355</i>		34. TOTAL <i>100.00</i>	
20. OUT BY		35. TAX <i>30.40</i>	
21. IN BY		36. FUEL TANK LEVEL OUT	
		37. PLUS OR MINUS GAS OR REPAIRS	
		38. DEPOSIT <i>NIL</i>	
		39. TOTAL CHARGES <i>855.40</i>	
		40. LESS DEPOSIT	
		41. METHOD OF PAYMENT <i>CASH</i>	
		42. NET AMOUNT DUE	
		43. REC'D REFUND INITIALS	

ALL CORRESPONDANCE MUST SHOW THIS NUMBER → 3423





INVOICE

7/9/80

**CHEMEX LABS LTD.**

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 984-0221  
AREA CODE: 604  
TELEX: 04-352597

- ANALYTICAL CHEMISTS
- GEOCHEMISTS
- REGISTERED ASSAYERS

TO: Utah Mines Ltd.  
1600 - 1050 W. Pender St.  
Vancouver, B.C.  
V6E 3S7  
ATTN: A.J. Schmidt

DEER PARK PROJECT

CERTIFICATE NO. 68759  
INVOICE NO. 36727  
DATE July 8/80

	DESCRIPTION	SUB-TOTAL	TOTAL
3	Assayed for Mo, Zn & WO <sub>3</sub> @ \$20.50 Less 20%	\$61.50 -12.30	\$49.20

TERMS—NET 30 DAYS

78-040

1½% Per Month (18% Per Annum) Charged on Overdue Accounts

12

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
PHONE: 984-0221  
FAX: 984-0221

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 984-0221  
AREA CODE: 604  
TELEX: 04-352597

7/21/80

INVOICE



# CHEMEX LABS LTD.

• GEOCHEMISTS

• REGISTERED ASSAYERS

ANALYTICAL CHEMISTS

TO: Utah Mines Ltd.  
1600 - 1050 W. Pender St.  
Vancouver, B.C.  
V6E 3S7

ATTN: A.J. Schmidt

Deer Park (Bag 1 and Bag 2)

CERTIFICATE NO. 53905  
INVOICE NO. 36814  
DATE July 11/80

DESCRIPTION	TOTAL	
	SUB-TOTAL	TOTAL
7 7 Analysed for Mo, Zn, W & F @ \$9.85 Prepared (rocks) @ \$2.00  Less 20%	\$68.95 14.00  82.95 -16.59	\$66.36

PAID  
JUL 21 1980  
UTAH  
MINES LTD.

TERMS—NET 30 DAYS  
1 1/2% Per Month (18% Per Annum) Charged on Overdue Accounts

26711

S. LTD.  
AVE.

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 984-0221

INVOICE

7/21/80

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 984-0221  
AREA CODE: 604  
TELEX: 04-352597

**CHEMEX LABS LTD.**

ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

TO: Utah Mines Ltd.  
1600-1050 W. Pender St.  
Vancouver, B.C.  
V6E 3S7

CERTIFICATE NO. 53992

ROCKS

INVOICE NO. 36310

ATTN: A.J. Schaidt Deer Park Project

DATE July 11/80

	DESCRIPTION	SUB-TOTAL	TOTAL
19	Analyzed for Mo, Zn, W & F @ \$9.85 Prepared @ \$2.00 Overweight charge @ \$50.00	\$187.15	
19		38.00	
		50.00	
	Less 20%	\$275.15 - 55.03	
			\$220.12

JUL 21 1980

CHEMEX LABS LTD.  
NORTH VANCOUVER, B.C.

TERMS—NET 30 DAYS

1½% Per Month (18% Per Annum) Charged on Overdue Accounts

78-040

26711  
REGISTRATION PLATPART GENERAL PURPOSE SALES 590088

80084

220.12

S. LTD.  
CRAVE

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
984-0221

INVOICE

7/17/80



**CHEMEX LABS LTD.**

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 984-0221  
AREA CODE: 604  
TELEX: 04-352597

ANALYTICAL CHEMISTS    •    GEOCHEMISTS    •    REGISTERED ASSAYERS

TO: Utah Mines Ltd.  
1600 - 1050 w. Pender St.  
Vancouver, B.C.  
V6E 3S7

CERTIFICATE NO. 54075

INVOICE NO. 36841

ATTN: A.J. Schmidt    Deer Park Project

DATE July 12/80

	DESCRIPTION	SUB-TOTAL	TOTAL
12	Analysed for Mo, Zn, W & P @ \$9.85	\$118.20	
12	Prepared (rocks) @ \$2.00	24.00	
120 lbs.	Overweight Charge @ \$0.25/lb.	30.00	
	Less 20%	172.20 -34.44	
			\$137.76

TERMS—NET 30 DAYS

1½% Per Month (18% Per Annum) Charged on Overdue Accounts

78-040

26711



INVOICE

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

TO: Utah Mines Ltd.
1600 - 1050 W. Pender St.
Vancouver, B.C.
V6M 3S7

CERTIFICATE NO. 54387

INVOICE NO. 37092

DATE July 21/80

ATTN: A.J. Schmidt Project Deer Park

7/23/80

Table with 4 columns: Description, Sub-Total, Total, and a blank column. Rows include 'Analysed for Mo, Zn, W & F @ \$9.85', 'Prepared (rocks) @ \$2.00', and 'Less 20%'. Totals are \$118.20, 24.00, 142.20, -28.44, and \$113.76.

TERMS-NET 30 DAYS

78-040

1 1/2% Per Month (18% Per Annum) Charged on Overdue Accounts

227- 12054055 F

3 FREIGHT

Form with fields for 'Total Charges', 'FIRM NAME', 'PER', and 'AUTHORIZED REPRESENTATIVE'. Includes a circled number '276 27'.

Vertical form on the right side with handwritten entries: '055 F', 'HURNO', '76', '51', and 'E'.



INVOICE

# CHEMEX LABS LTD.

112 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 984-0221  
AREA CODE: 604  
TELEX: 04-352597

- ANALYTICAL CHEMISTS
- GEOCHEMISTS
- REGISTERED ASSAYERS

TO: Utah Mines Ltd.,  
1030 - 1050 W. Pender St.,  
Vancouver, B.C.  
V6C 2G7  
ATTN: Burr Park

2/5/80

CERTIFICATE NO. 54860

INVOICE NO. 37462

DATE July 31, 1980

A. J. Schmidt

	DESCRIPTION	SUB-TOTAL	TOTAL
30	Analyzed for Mo and Zn @ \$2.35	\$70.50	
30	Analyzed for F @ \$3.75	\$112.50	
30	Analyzed for W @ \$3.75	\$112.50	
30	Prepared @ \$2.00 (rock)	\$60.00	
		\$355.50	
	Less 20%	-\$71.10	
			\$284.40

TERMS—NET 30 DAYS

78-040

1½% Per Month (18% Per Annum) Charged on Overdue Accounts

~~INES LTD~~

8/15/80



# CHEMEX LABS LTD.

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 984-0221  
AREA CODE: 604  
TELEX: 04-352597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

TO: Utah Mines Ltd.,  
1000 - 1050 W. Pender St.,  
Vancouver, B.C.  
V7E 3S7  
ATTN: ~~TYLER PARK~~ A. J. Schmidt

CERTIFICATE NO. 55140  
INVOICE NO. 37786  
DATE August 13, 1980

	DESCRIPTION	SUB-TOTAL	TOTAL
10	Analyzed for Mo, Zn and Fe @ \$3.05	\$30.50	
-	Analyzed for Sn and W @ \$7.00	\$70.00	
10	Prepared @ \$2.00 (rock)	\$20.00	
	100 lbs. overweight @ \$0.25/lb.	\$25.00	
		\$145.50	
	Less 20%	\$29.10	
			\$116.40

UTAH MINES LTD.  
EXPLORATION DEPT.

TERMS—NET 30 DAYS

1½ % Per Month (18% Per Annum) Charged on Overdue Accounts

78-040

APPENDIX D  
DIAMOND DRILL LOG



HOLE NO. 214

COLLAR ELEV.:

COORDINATES:

INCLINATION -70°

GROUND ELEV.:

80100 N 78100E

BEARING 180°

PROJECT: DFEK ARK

DATE STARTED: JUNE 21/80

DATE FINISHED: JULY 21/80

TOTAL DEPTH: 762.6 m.

PAGE NO.: 1 OF 51

REF TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T B. Mack

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	Clay	Chlorite											
0															
1								0-0.9 stopup							
2								0.9-2.7m cdding							
3								2.7-13.4 Coarse grained biotite hornblende monzonite							
4								minor feldspar phenocrysts 3mm diam py mag disse along fractures fracturing to iron staining, white infusions massive homogeneous fl in vgs on fractures localized brecciation.							
5								mod-coarse grained generally homogeneous pink to brown matrix 5% (mainly hornblende minor biotite K-feldspar 45% Mg 40%							
6								1cm vein of py, mt, fl magnetite 2-5%, pyrite 1-2%, minor fluorite.							
7								py + mt fractures (65°) magnetite predominant in fractures + as stockworks pyrite associated w the magnetite + finely disseminated							
8								chl alteration of plag along fractures 2.0-2.1 brecciation pyrite finely disseminated + along fractures fresh looking							
9								fractures 70°, py, mt 2 fractures 30° calcite & fl occasional zones of brecciation or strong stockwork avg 0.1 m wide, fractures filled w py, mt 8.0 meters → numerous fracturing w mag, py, py, minor chlorite, minor hem.							
10															
11								fractures 50°, mt, py, hem minor chl alteration of plag x's + along fractures							
12								numerous mt, py, hem fractures							
13															
14								similar to above, fresh looking, moderate to intense fracturing filled w mainly mt; also py, hem + minor chl.							
15								brecciation fl vein (1mm) chl alteration of plag x's fracturing 60°							

HOLE NO. **DP 14**  
 COLLAR ELEV.:  
 COORDINATES: **80+00 N 78+00 E**  
 INCLINATION: **-70°** BEARING **180°**

PROJECT: **DEER CRK**  
 DATE STARTED: **June 21 1980**  
 DATE FINISHED: **July 21 1980**  
 TOTAL DEPTH: **762.6 m**

PAGE NO.: **2 of 51**  
 REF. TO CLAIM CORNER:  
 SCALE: **1:100**  
 LOGGED BY: **T. Pollack**

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	silice	sericite	clay	chlorite										
15														
16							Fractures 73° 30m -plitic granite Brecciation + Mt stockwork							
17	weak	weak					1-2mm veinlets of qtz, pt, fl + pt, mt strong mt veinlets			16.6				
18							Fractures 40° moderate mt veinlets, veinlets also have py, hm.				91.3			
19							Fractures 50°, trace Mo on fracture							
20														
21							Contact at 50°				100			
22							fractures 60° brecciation due contact @ 30° to strong mt, qtz, minor py veinlets.							
23							contact 500							
24							Fractures 170-45° mt, qtz along fractures porosity 72% vein 50° of mt, minor fl + hm end of porosity							
25	weak-mod													
26							Fractures 170-45° mt, qtz along fractures porosity 72% vein 50° of mt, minor fl + hm end of porosity							
27							Zone of 5% porosity							
28							fractures 65° mt, minor qtz veinlets throughout							
29	weak													
30							Contact 60°							

DESCRIPTIVE GEOLOGY

Coarse grained biotite hornblende monzonite (3)  
 weak saussurite alteration of feldspars  
 generally fresh looking  
 - same composition as above  
 fresh looking  
 minor saussurite  
 20.1-20.4 Dark grey And. Feldspar Syenite Porphyry (13)  
 1cm max feldspar phenocrysts  
 veinlets < 1mm at 30° - contain py, mt  
 qtz, mt + hm along contacts  
 Coarse grained biotite hornblende monzonite (3)  
 slightly porphyritic  
 fresh looking  
 21.1-21.4 Dark grey And. Feldspar Syenite Porphyry (13)  
 Coarse grained biotite hornblende monzonite (3)  
 21.4-22.0 Zone with mod py 3-7% finely  
 disseminated, fine grained, grades over a few cm into  
 monzonite with leucoprite.  
 generally fresh, slight saussurization of some  
 feldspar crystals, coarse grained to slightly  
 porphyritic  
 29.9-30.5 Dark Grey And. Feldspar Syenite  
 Porphyry (13) Mt, chl, hm, trace Mo along fractures

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
16.6	87.5	↑ ↓	15	
19.9	91.3		18	
21.9	100		21	
25.0	96.8		24	
28.0	100		27	
28.0	96.8		29	
			30	

HOLE NO.: 14

COLLAR ELEV.:

COORDINATES: 80+00 N 78+00 E

INCLINATION: -70° BEARING: 180°

GROUND ELEV.:

PROJECT: DEER MARK

DATE STARTED: June 21 1980

DATE FINISHED: July 21 1980

TOTAL DEPTH: 762.6m

PAGE NO.: 3 of 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T Pollock

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	Clay	Chlorite										
30							30.3m - 7mm vein of qtz, mt, fl							
31							Lower Contact Chl alteration of hbl + some feldspars Mt veinlets 7cm apart				96.8			
32							Fractures @ 70°				77.8			
33							fine mt minor qtz veinlets				83.3			
34							Fractures @ 70°				91.7			
35	weak						8cm zone of intense mt + minor py streakwork to brecciation				100			
36							mt, qtz veinlets with minor fl + py mt, qtz veinlets @ 40° vein @ 70°, 3mm wide of Mo + py				93.8			
37							Fracture @ 30° with chl, mt, minor Mo, hem Fractures @ 65°				37.9			
38	weak						Fl along mt, chl veinlets				93.5			
39							veinlet @ 30°, 1-2mm wide of chl, fl minor py hem				41.0			
40	weak						veinlets @ 30° with chl, mt + fl				41.5			
41							contact @ 45°, sharp veinlets @ 30° with mt, chl + hem lower contact at 42°				100			
42							39.98-41.9m Aplitic biotite hornblende monzonite fine grained version of above with ≈ 3-5% feldspar phenocrysts				100			
43							Coarse grained biotite hornblende monzonite				100			
44							42.22-42.37m Latite dike, medium grey, very fine grained, contacts sharp				44.2			
45							Coarse grained biotite hornblende monzonite				96.7			
							90° gradational 44.7-44.8 Latite porphyry dike, brecciation along top contact.							

HOLE NO.: 14

COLLAR ELEV.:

GROUND ELEV.:

COORDINATES: 80700 N

78100 E

INCLINATION: -70°

BEARING: 180°

PROJECT: DEER PARK

DATE STARTED: June 21 190

DATE FINISHED: July 21 190

TOTAL DEPTH: 762.6 m.

PAGE NO.: 4 of 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. Pollock

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	Clay	Chlorite											
45															
46					weak to mod.			95.4-95.7: 3% porosity, mod. fold. alter. Irregular veinlets of mt, py, chl, generally few mt veinlets							
47					weak			Fracture @ 40° with py, Fl, chl + epidote							
48															
49					weak to mod			48.25-48.45m latite dike, very fine grained, pinkish-grey in colour							
50					weak to mod			Coarse grained biotite hornblende porphyry 49.1-50.0m Latite porphyry dike							
51					weak			Upper contact gradational Veinlet @ 45°, 1mm of mt, hm, minor py Lower contact @ 35° - sharp							
52								Fractures @ 65° generally clean Mixed zone of latite porphyry + monzonite. Fractures @ 65° Ring zone of latite + monzonite.							
53					weak			few veinlets of mt compared to the start of the hole, avg. 1 every 10cm, occasional strange rounded mass of alteration or fine grained rock - white to black in colour - up to 1.5 x 2.5cm, py finely disseminated, weakly porphyritic.							
54					weak			Two open veinlets at 40°, 1-3mm of py, hm, Mo, cal. contact 60° veinlet @ 60°, 1-3mm of mt, + brecciated							
55								52.1-53.6 - mixed zone of (3) or Latite porphyry mt veinlets at 70° + 20° in opposite directions, weak saussurite							
56					weak			56.1-56.25 mixed zone of (3) and Latite porphyry							
57					very weak			56.45-58.4m - Zone of strong mt + py + mt stockwork, also present - Fl, hm, also saussurite (pale green) alteration of phg xls.							
58								also alteration of talc + py along py, py + mt veinlets. most veinlets @ 30°							
59					very weak			57.5-57.9m increase stockwork (mt + py) to brecciation, 5% mt, mod. Fl. Fractures @ 55° Veinlet @ 40°, 2mm of mt, py, hm, Fl, Mo Veinlet @ 40°, 2mm of mt							
60								Coarse grained biotite hornblende monzonite, quite fresh weakly porphyritic, pale green alteration along veinlets some with calcite 57-60m - few mt veinlets, also pale green alteration of matrix							



HOLE NO.: P14

COLLAR ELEV.:

COORDINATES: 80+00 N 78+00 E

INCLINATION: -70°

GROUND ELEV.:

BEARING: 180°

PROJECT: DEER PARK

DATE STARTED: JUNE 21/80

DATE FINISHED: JULY 21/80

TOTAL DEPTH: 762.6 m

PAGE NO.: 6 OF 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. Pollock

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	Clay	Chlorite											
75															
76								Veinlets @ 40°, .3mm of gt <sub>2</sub> , mt, py near Mo layer, 12cm, veinlets continue to top of dike below							
77					weak	Mo		Fractures @ 60° - clean - 1 every 15cm							
78					weak	Mo		Upper Contact @ 25° - sharp							
79					weak	Mo		Fractures @ 60° ± 1 every 12cm Most fractures along calcite veinlets 1mm or less wide							
80	weak				weak	Mo		Lower contact @ 25° - sharp Fractures @ 90° mainly contain gt <sub>2</sub> -mt.							
81								Upper Contact @ 45° - sharp Fracture @ 60° - 1 per 15cm (calcite veinlets)							
82					weak			Lower Contact @ 30° - sharp							
83	weak				weak	Mo		Veinlet @ 55°, 2-3 mm of gt <sub>2</sub> , mt them - has silicified up to 5mm on either side							
84					weak	Mo		Fracture @ 40° Vain @ 30°, 5mm of py, gt <sub>2</sub> , trace Mo + brecciated (3)							
85								Veinlets @ 50° - numerous + causing brecciation in some spots							
86	weak							Upper contact @ 50° - sharp							
87								Fracture @ 50° Lower Contact @ 35°							
88								irregular 10cm patch of mt, py + gt <sub>2</sub>							
89	mod. high				weak-strong			Fracture @ 55°, minor dthm.							
90					weak			88.8-88.9m - section of core nothing but gt <sub>2</sub> 60%, chl 30%, py 10%, homogeneous possible small fault zone @ 2 m veinlet @ 30°, .2mm, py							

DESCRIPTIVE GEOLOGY

Coarse grained biotite feldspar monzonite (13) fresh, slightly porphyritic, phenocrysts pink to white cores with pink rims  
py finely disseminate + partly replacing matrics  
mt. finely disseminated

77.55-78.95m Fine grained andesite (5a) very fine grained, dark green with small (1-2mm) clots of calcite + chloritized hornblende. magnetic, clots make up 15% of dike - 20% calcite, 80% hornblende  
rare pink anhedral feldspar phenocrysts  
2mm chill zone. 78.1-78.4 dike on dike here chloritized matrics

Coarse grained biotite hornblende monzonite (13)  
79.09-81.15m Fine grained andesite (5a) similar to above, moderate chloritization at base + top

Coarse grained biotite hornblende monzonite (13) quite fresh  
partial alteration of matrics, pale green (possible weak propylitic)  
- many veinlets have caused silicification of the surrounding rock for a few mm.  
83.6m to top of dike - numerous 1mm or less veinlets of gt<sub>2</sub> + py and mt them, avg. 1 every 1.5cm, also increased propylitic alteration to top of dike - gives rock a mottled green colour

85.22-86.4m Fine grained andesite (5a) upper 10cm more chloritized than lower, chloritization 1mm into (13). 85.6 - dike on dike contact magnetic, slight chloritization of matrics, minor calcite veinlets, little py

Coarse grained biotite hornblende monzonite (13)  
87.2-87.0m - highly silicified 5-85% gt<sub>2</sub> sections of core up to 33cm of 80% gt<sub>2</sub>, other spots alternating bands of monzonite + (13)  
propylitic alteration at the rims of some of the feldspar phenocrysts  
disseminated mt, -py, little veining of these two  
quite porphyritic - white cores, thin pink with fine white rim

%	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
75	75			75	
18	18				
78	78			78	
96.7	96.7				
81.1	81.1			81	
100	100				
84.1	84.1			84	
100	100				
87.2	87.2			87	
99.4	99.4				
89.0	89.0				
83.3	83.3			90	

HOLE NO: P14

COLLAR ELEV.:

COORDINATES: 80100

INCLINATION: -70°

GROUND ELEV.:

N. 78100 E E

BEARING: 180°

PROJECT: DEE PARK

DATE STARTED: JUNE 21/80

DATE FINISHED: JULY 21/80

TOTAL DEPTH: 762.6 m

PAGE NO.: 7 of 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. Pollock

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	Clay	Chlorite											
90															
91	very weak				very weak		Fractures 1 vary 15cm avg. Fracture @ 60°, py along some next to no veinlets	Coarse grained biotite hornblende monzonite (3) moderately porphyritic, phenocrysts up to 1cm <sup>2</sup> + have white cores, then pink with fine white rims., partial replacement of matrix with py + rare epidote, quite fresh							
92						mt, py	Veinlet @ 25°, 2mm of mt, minor hornblende			1-1.5% mt, trace py	1.2% py	96.8	NQ		
93					very weak										
94	very weak				very weak		Veinlet @ 60°, 1mm of mt + stz	fresh, less porphyritic than above, zoning of phenocrysts not so obvious, in large phenocrysts white centers pink rims.							
95	very weak				weak	mt, py	Fractures at 60° + 30° in opposite directions Low angle fractures have py, sometimes mt, chl + epidote	Veinlets few + very thin (.1mm)				100.			
96					very weak		Fracture @ 70° - 1 per 3m - clean	97.5-97.75m - moderately altered, 5-10% porosity slightly sugary, higher mt. content than above or below trace Fl							
97	very weak				mod	mt, py, trace Fl						96.3			
98										1% mt	0.5% py	100			
99							Upper Contact @ 60° - sharp	98.6-100.45 Fine grained andesite (5a)		1% mt	0.5% py	99.4			
100					weak	mt	Fracture @ 60°, clean, 1 per 15cm.	Dark green, very fine grained, with chloritized matrix (2mm) clots. some smaller calcite clots near center of dike, magnetic, no pyrite.							
101							Lower Contact @ 40° - sharp	more chloritized near base of dyke.							
102					weak	mt, py, trace Fl	2mm chill zone at bottom	2mm chill zone at bottom		2% mt	1% py	100			
103					weak		Veinlets @ 30°, 1mm of chl, mt, calcite trace Fl, py	Coarse grained biotite hornblende monzonite (3)							
104					weak		Fractures @ 60°	101.4-102.4m - moderately altered, mottled green + pink white colour - center 30cm: 5-7% mt, 1.5% py, 2% porosity, green alteration - chlorite, not porphyritic. top of alteration zone sharp; lower gradual.							
105					weak		Veinlet @ 40°, 1mm of stz								
106							Fractures @ 35° + 55° py + Fl in some fractures	fresh, moderately porphyritic, phenocrysts up to 1cm <sup>2</sup> , white centers, pink rims, phenocrysts often jagged.		1% mt	0.5% py	96.8			













HOLE NO.: 14

COLLAR ELEV.:

COORDINATES: 80+00

INCLINATION: -70°

GROUND ELEV.:

N. 78+00 E.

BEARING: 180°

PROJECT: DEER PARK

DATE STARTED: JUNE 21/80

DATE FINISHED: JULY 21/80

TOTAL DEPTH: 762.6 m.

PAGE NO.: 13 of 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. POLLOCK

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS: Quartz content increasing, avg. composition quartz monzonite. Fine Mo-Qtz veinlets 193.0-193.7	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP INT.
	Silica	Sericite	Clay											
180														
181						Vein? @ 45°, 5cm of dark grey fine grained matrix small (avg 3mm) feldspar phenocrysts	Coarse grained biotite hornblende monzonite (3) fresh, 15-20% phenocrysts, biotite visible, trace epidote, slightly magnetic, slight pyritization of matrix			1816	96.7		180	
182				low	mt, py	veinlet @ 50°, 2mm of mt-qtz	182.5-182.65 - Vein-like structure (contacts at 45°) where matrix is aphanitic + pink; only 25% of the area is phanitic			1823	85.7			
183						Two sets of fractures @ 40-65°, ±100° apart, clean.	1 oval shaped area (5x2.5cm) at 183m of granodiorite composition - area is white with ± 20% qtz.				91.7		183	
184	weak				mt, py	vein @ 20°, 2-3mm of mainly qtz minor py	rock roughly 10% qtz			1847				
185				low	mt, py	Upper Contact @ 60°, sharp, 2-5mm chill zone	185.0-187.65m Fine grained andesite (5), dark green, occasional round feldspar phenocryst, minor calcite veining, .5-2mm wide around 187m.			1857				
186				mod ind.		Most fractures @ 50°	low magnetite content, locally up to 1% py near base of dike				96.7		186	
187					mt, py	Vein @ 50°, 5mm of calcite.								
188	weak			weak	mt, py	Lower Contact @ 35°, sharp	Coarse grained biotite hornblende monzonite (13) to quartz monzonite.			1878				
189	weak					Vein @ 30°, 4mm of qtz, minor py + calcite	189.5-189.95m - Breccia, matrix is mainly qtz (clear + milky) sometimes with a pale green tint (chlorite?).				100.0		189	
190	moderate			weak	Mo	Fractures @ 70° + 35° in opposite directions, minor calcite.	lower contact @ 30° + sharp, upper contact - gradational							
191	moderate			weak	mt, py, Fl, Mo	Vein @ 23°, 2mm of qtz	fragments are of the surrounding rock type + very angular.				190.8			
192				weak	mt, py, Fl, Mo	Vein @ 15°, ±1mm wide of mainly chlorite, minor cubic (1mm) py + hem fragments of (3).	190.8-190.5m - apatite							
193				weak		Fracture @ 75°, minor calcite	191.15-191.4m - Breccia, matrix mainly mt, minor qtz, chl, py + Fl.				100.0		192	
194	moderate			weak	Mo	Veinlets @ 25°, .1-3mm, mainly qtz with Mo, veinlets parallel	coarse grained, faintly porphyritic							
195				weak	mt, py, Fl, Mo	Fracture @ 70°, minor clay	qtz-Mo veinlets - 193.0-193.7 highest density 1 per 8mm, lowest 1 per 20mm. some disseminated Mo. Qtz monzonite to Granite composition.			193.9	100.0		195	

HOLE NO.: 14

PROJECT: DEER ARK

PAGE NO.: 14 of 51

COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: JUNE 21/80

REF TO CLAIM CORNER:

COORDINATES: 80+00

N. 78+00 E.

DATE FINISHED: JULY 21/80

SCALE: 1:100

INCLINATION: -70°

BEARING: 180

TOTAL DEPTH: 762.6 m.

LOGGED BY: T Pollock

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS: Good Mo in dikes.	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	clay	Chlorite											
195							Fracture @ 65°, minor calcite	Quartz monzonite, fresh, coarse grained slightly porphyritic, phenocrysts both calcic-sodic also zoned.						195	
196							Fracture @ 15°, mainly chl, trace Mo	15% qtz, 5% matias, 40 K-feldspar, 30% plag. trace chl + epidote.				100.			
197					weak	mt, py	Fracture @ 60°, clean	198.3 - 197.7m alternating zones of qtz monzonite, analite, & patches of fine grained dark grey areas with feldspar crystals & qtz grains.		.5% mt	.5-12.21				
198							Veinlet @ 35°, 1mm of mt, minor qtz + py, dark grey alteration around veinlet.							198	
199					weak	mt, py		minor chl + epidote,							
200					weak	mt, py				1.0 mt	.5% py				
201					weak	mt, py, fl	Upper Contact @ 45°, sharp Veinlet @ 40°, 1mm of qtz + Mo, major epidote surrounding vein, minor py	200.2 - 203.2m - seems to be a gradational dike		1.0 mt	.5% py			201	
202					weak	mt, py, fl	Fractures @ 20° + 70° shallow fractures - chl + Mo, steep - Ca?	200.2 - 200.7m - Porphyritic feldspar biotite andesite (5c)							
203					weak	mt, py, fl	Fracture @ 65°	200.7 - 202.15m - Pink/Grey Feldspar Qtz Syenite, Pink phenos., 1/2 Mo, (12)							
204							Lower contact @ 20°, irregular	202.15 - 202.9m - porphyritic feldspar biotite andesite (5c), weak chl, more matie more mt. in dike.							
205								202.9 - 203.2m - fine grained andesite (5), sharp contact.		1.0 mt	.5% py				
206					weak	mt, py, fl	Veinlets @ 20°, 1mm of mt, qtz + py	Coarse grained biotite hornblende monzonite to quartz monzonite		1.0 mt	.5% py				
207					weak to mod.	mt, trace py, fl	Fracture @ 55°	Highly altered + 1-2% py for .5m below dike.		2-3% minor chl	6.5% py				
208							Fractures @ low angles, coated mainly with chl + mt, minor py + hem.	205.5 - 208m - weak - moderately altered, pink-white in color, high mt content in veinlets + disseminated form mt veinlets up to 8mm,							
209					weak	mt, py, fl	Fractures @ 70° (clean) + 20° - chlorite, qtz + fl	fresh, trace chl + epidote weakly porphyritic							
210					weak	mt, py, fl	Fracture @ 60°, clean	increasing qtz		1.0 mt	.5% py				

HOLE NO.: D, 1  
 COLLAR ELEV.:  
 COORDINATES: 80700  
 INCLINATION: -70°

GROUND ELEV.:  
 N. 78+00  
 BEARING: 180°

PROJECT: DEER MARK  
 DATE STARTED: JUNE 21/80  
 DATE FINISHED: JULY 21/80  
 TOTAL DEPTH: 762.6m.

PAGE NO.: 15 OF 51  
 REF. TO CLAIM CORNER:  
 SCALE: 1:100  
 LOGGED BY: T. Pollock

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS: Coarse grained biotite hornblende monzonite.	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.
	Silica	Sericite	Clay	Chlorite										
210														
211							Fractures @ 70° (clean) + 20° chl + hem. Veinlet @ 10°, 1mm of mt + qtz				96.7			
212														
213							Fracture @ 45°, minor chl.							
214							Fractures @ 20° with mt, chl + hem + at 65° - clean. Veinlet @ 35°, 1mm of mt + qtz.				96.7			
215														
216														
217							Upper Contact @ 45°, sharp							
218							216.7 - 217.2 - vein, ± 11 to the core, 2mm of chl. minor calcite Lower Contact @ 65°, sharp				100			
219														
220							Veinlet @ 10°, 1-8mm of mt + qtz minor chl, Fl, hem.				96.7			
221							Fractures @ 20° mt + epidote also at 35° with epidote + chl. two sets ± 90° apart.							
222							Fracture @ 60°, minor chlorite.				100.			
223							Fractures @ 65° some clay + @ 45° minor chl + ep.							
224							Veinlet @ 30°, 1mm of qtz minor mt, ep. alteration along veinlet.				91.7			
225											100			

DESCRIPTIVE GEOLOGY

Coarse grained biotite hornblende monzonite to qtz monzonite  
 minor propylitic alteration of mafics. + along veinlets  
 ± 10% qtz

Fracture @ 45°, minor chl.

Fractures @ 20° with mt, chl + hem + at 65° - clean.  
 Veinlet @ 35°, 1mm of mt + qtz.

Upper Contact @ 45°, sharp  
 216.7 - 217.2 - vein, ± 11 to the core, 2mm of chl. minor calcite  
 Lower Contact @ 65°, sharp

Veinlet @ 10°, 1-8mm of mt + qtz  
 minor chl, Fl, hem.  
 Fractures @ 20° mt + epidote  
 also at 35° with epidote + chl.  
 two sets ± 90° apart.  
 Fracture @ 60°, minor chlorite.  
 Fractures @ 65° some clay + @ 45° minor chl + ep.

Veinlet @ 30°, 1mm of qtz minor mt, ep. alteration along veinlet.

216.6 - 218.45 Monzonite - Qtz monzonite porphyry, fine grained pink matrix with 20-25% pink anhedral feldspar phenocrysts.  
 bottom + top 10cm of dyke go from grey to black aphanitic matrix, slight chloritization in centers of phenocrysts, more mt. at ends of dike.

fresh, slightly porphyritic, 7-10% qtz  
 occasional light grey alteration patch.  
 slight propylitic alteration of mafic minerals

Coarse grained biotite hornblende monzonite  
 5-10% qtz  
 weakly porphyritic, weak propylitic alteration of mafics, occasional rounded grey patch of alteration

5-10% qtz, weakly porphyritic, quite fresh  
 fine disseminated magnetite.

rare aplite patches.

HOLE NO.: 14

COLLAR ELEV.:

COORDINATES: 80+00

INCLINATION: -70°

GROUND ELEV.:

N. 78100 E.

BEARING: 180

PROJECT: DEER PARK

DATE STARTED: JUNE 21/80

DATE FINISHED: JULY 21/80

TOTAL DEPTH: 762.6m

PAGE NO.: 16 OF 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. Pollock

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.
	Silica	Sericite	Clay	Chlorite										
225														
226														
227														
228														
229														
230														
231														
232														
233														
234														
235														
236														
237														
238														
239														
240														

Veinlet @ 30°, 1mm of qtz + py  
 Fractures @ 75°, clean, + at 30° minor chl.  
 228.2-228.7 - Fracture-veinlet minor coating of mt, chl, hem, Fl + Mo  
 Fractures @ 60°, clean, 1 per 15cm  
 Fractures @ 65° minor clay, + at 25°, 2mm zone of mainly py qtz + mt, minor hem, ep + Mo  
 Fractures @ 75°, clean, 1 per 1km  
 Veinlets @ 65°, 1mm or less of qtz + clay, 1 per km, some fractures follow veinlets  
 Fracture @ 60°, minor chl  
 237.55-235.3 - low angle fracture veinlet, 1-2mm of mt + py minor qtz, Fl, hem + calcite  
 Fracture @ 15°, chl, mt rep.  
 Fractures @ 75° + 45°  
 Veinlet @ 27°, 1mm of qtz, py + mt  
 Veinlets @ 70°, 2mm of chl, ep, qtz  
 Veinlet @ 20°, 2mm of chl + ep.  
 Fracture @ 60°, minor chlorite,

Coarse grained biotite hornblende monzonite. fresh except for 227.-227.6 where the rock has about 2% porosity, high mt content. plus minor chl, py + hem. feldspars have a white pink colour  
 ~10% qtz.  
 quite fresh, 5-10% qtz, weakly porphyritic moderate alteration of mafics by chl + ep plus mt. mt is fine disseminated.  
 rare grey alteration patch. ~10% qtz, locally to 15%, 5% mafics pink-grey colour  
 235.9 - 13cm vein-like zone of apalite  
 quite fresh, slightly porphyritic, 10% qtz, mt finely disseminated + along fractures  
 occasional patches of fine grained alteration? like a grey patch of apalite.  
 5% mafics, 5-10% qtz, 55% K-feldspar, 30% plag., minor chl epidote around mafics, along with mt., weakly porphyritic - phenocrysts are mainly pink but often broken up with plag. little veining.

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.
225				
227	100.	NQ		
228				
230.1	96.3			
233.2	96.7			
236.2	93.3			
239.3	90.3			
240	100.			





HOLE NO.: P 14

COLLAR ELEV.:

GROUND ELEV.:

PROJECT: DEER PARK

PAGE NO.: 18 of 51

DATE STARTED: JUNE 21, 1980

REF. TO CLAIM CORNER:

DATE FINISHED: JULY 21, 1980

SCALE: 1:100

TOTAL DEPTH: 762.6 m.

LOGGED BY: T. Pollock

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.
	Silica	Sericite	Clay	Chlorite										
255							Fracture @ 55°, clean.							
256							2cm zone of mt veinlets @ 15° Veinlet @ 7°, 2mm of mt + py minor gtz							
257							Vein @ 7°, from 257.-257.45 max. 1cm of mt, minor py gtz + brecciated (3)							
258														
259														
260							Fracture @ 65°, minor mt.							
261														
262							Veinlet @ 40°, 1mm of gtz, arg 1 per 30cm.							
263							Fracture @ 60°, clean, 1 per 10cm Veinlet @ 35°, 1mm of gtz + mt. Veinlet @ 20°, 2mm of gtz + mt.							
264														
265							Upper Contact @ 75°, 4mm chill zone, uneven contact Fractures @ 45°, coated with clay. Lower Contact very irregular.							
266														
267							Upper Contact @ 40° quite sharp, 5mm chill zone. Fractures @ 65°, mt, py + fl + @ 50°, clean, 1 per 7m. Fractures @ 65° + 30°, steep fractures have clay. also some fractures splitting the core, these have mt, py chl, fl, hum							
268														
269														
270														

## DESCRIPTIVE GEOLOGY

Coarse grained biotite hornblende monzonite (3)  
255.8-256.0 m - slightly altered, 2% mt  
disseminated

very weakly altered, high mt content - in veins + dis-  
seminated  
occasional grey rounded patch of alteration, low  
K-feldspar

weak chlorite + epidote formation on matrix  
slightly porphyritic

fresh, except for weak to mod. alteration of  
matrix by chl + ep.

7% gtz,  
weak chloritization of matrix

264.8-266.85 m - Porphyritic Andesite (5b)  
dark grey to green aphanitic matrix with 20%  
pink (K-feldspar) phenocrysts + anhedral to  
anhedral.  
Slightly magnetic

Coarse grained biotite hornblende monzonite.  
weak chloritization of matrix.

Andesite porphyry (5b)  
Similar to above but with .1% fine disseminated  
py + along fractures with mt.  
dike becomes lighter toward the center as does  
the py content.  
middle 30cm - trachyte porphyry - pink-berge matrix.  
py 1%, mt low.



HOLE NO.: 219

COLLAR ELEV.:

COORDINATES: 80 100

INCLINATION: -70°

GROUND ELEV.:

N. 78+00 E.

BEARING: 180°

PROJECT: DEER PARK

DATE STARTED: JUNE 21, 80

DATE FINISHED: JULY 21, 80

TOTAL DEPTH: 762.6m.

PAGE NO.: 20 of 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. Pollock

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP INT.
	Silica	Ser. etc	Clay	Chlorite											
285								Contact @ 40°, quite sharp, 6mm chill zone.			285.3	100.		285	
286								Contact @ 40°, irregular							
287								Contact @ 30°, sharp. Fracture @ 55°, clean.			100.				
288								Contact @ 25°, quite sharp			288.3			288	
289								Fractures @ 50°+70°, clean.							
290								Fractures @ 65° clean. Low angle fracture from 289.15-289.6, mainly qtz + mt, minor Fl.			96.7				
291								Fractures @ 55°, clean, 1 per 12cm.			291.4			291	
292								Veinlet @ 20°, lm of qtz + py., other finer veinlets run $\approx$ parallel to the core.			100.0				
293								Fractures @ 80°, irregular, clean			294.7			294	
294								few fractures, steep angles + free of minerals.							
295								Fracture @ 70°, clean			297.5			297	
296								Fractures @ 65°+35°, minor clay on both.			297.5				
297								Lower Contact @ 15°			100.				
298								Fracture @ 70°							
299															
300															

20% subhedral pink feldspar phenocrysts, dark grey-green matrix, slightly magnetic, local patches of hem.

Coarse grained biotite hornblende monzonite (3), weakly altered, 5% mt in veinlets + patches, weak chl. + py

286.95-288.17 Fine grained Andesite (5) dark green, more magnetic than porphyry dikes

288.17-288.6m Andesite porphyry dikes.

Coarse grained biotite hornblende monzonite 3/10% qtz  
289.6-290.4- weakly altered, quite magnetic, local 1% porosity, weak chloritization of matrix, numerous irregular veinlets of qtz, qtz + mt.

290.7-291.2 Andesite porphyry. dark grey aphanitic matrix, pinkish-grey in the matrix, 1% biotite.

15-20% phenocrysts, at top of dike, they have grey centers + pink rims, in the center of the dike they are all pink; in center as well there is a greater variety of sizes plus a higher percentage of phenocrysts.

Biotite increases towards center of dike - dike here may be called porphyritic feldspar biotite andesite. (6).

298.95 - matrix of dike suddenly becomes lighter - a beige colour. fine disseminated py appears. also centers of pink phenocrysts become more altered by chlorite.

3-10mm chill zone, Fracture @ chill zone - high clay  
Coarse grained biotite hornblende monzonite (3) right at top - numerous qtz veinlets.



HOLE NO.: 14

COLLAR ELEV.:

COORDINATES: 80100

INCLINATION: -70°

GROUND ELEV.:

N. 78100 E.

BEARING: 180

PROJECT: DEER, ARK

DATE STARTED: JUNE 21/80

DATE FINISHED: JULY 21/80

TOTAL DEPTH: 762.6 m

PAGE NO.: 22 OF 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. Pollock

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.
	Silica	Sericite	Clay	Chlorite											
315															
316	weak to mod.														
317	weak to mod.		moderate			mt, py									
318															
319	weak		weak near start.												
320			weak-mod.			mt, py									
321															
322			weak			mt									
323			very weak												
324															
325	weak		weak			Mo, py									
326															
327			weak			mt, py									
328															
329			weak			Mo, mt, py, Fl									
330															

## DESCRIPTIVE GEOLOGY

Coarse grained biotite hornblende monzonite (3)  
 316.6 - 317.45: moderate propylitic (chlorite) -  
 argillic (clay) alteration, rock has a pale pink-  
 green colour, feldspars easily scratched. occasional  
 phenocryst - solid chlorite. 1 gtz veinlet, 1.5mm H.C.  
 core from 316.7 - 317.25.  
 rest of core slightly altered, harder, more pink in colour

319.4 - 320.35 - Magnetite-gtz veinlets @ 47°, avg. 1-2  
 mm wide, ≥ 3cm apart. Also high mt content throughout  
 rock including a greenish colour to the rock from  
 chlorite.

quite fresh, 6-7% gtz, slight chlorite alteration  
 of matrix, cannot be scratched.  
 fine mt veinlets common,

Fractures @ 70° clean, + @ 30,  
 fracture along veinlet of calcite, py  
 minor Mo.

Contact @ 45°, sharp but irregular  
 gtz, mt, minor hem along contact.  
 Fracture @ 45°, calcite coating.

Contact 35°, sharp & very siliceous.

Vein @ 55°, 1-5mm of mt, chl, minor  
 hem, py + Fl

Fracture @ 60°, abaa.

Veinlet @ 15°, 1mm of gtz, mt, minor Fl

Vein & open vug @ 15°, 1-1.5cm of  
 calcite with Fl cubes to 6mm<sup>2</sup>, with Mo, py, + gtz.

323.02 - 325.8 Dacite porphyry, red-brown aphanite  
 matrix, 25% subhedral pink (K-feldspar) phenocrysts,  
 minor (4%) disseminated pyrite, no magnetism.  
 325.5 → matrix is light grey green + soft. phenocrysts  
 the same. pyrite 19%, + 1% cross-cut by numerous  
 gtz veinlets. 325.2 - 325.4 - zone in core max 4cm  
 wide of calcite, gtz + Mo.

Coarse grained biotite hornblende monzonite (3)  
 30cm past dike, moderately altered by clay + chlorite.  
 326.5 - 326.8m alternating dacite porphyry + 3.  
 dikes are 1.5 - 5cm wide. much mt, py, minor hem,  
 gtz at contacts.

quite fresh, slightly magnetic, 5% gtz.

HOLE NO.: L 4

COLLAR ELEV.:

COORDINATES: 80100

INCLINATION: -70°

GROUND ELEV.:

N 79100 E

BEARING: 180°

PROJECT: DEER PARK

DATE STARTED: JUNE 21/80

DATE FINISHED: JULY 21/80

TOTAL DEPTH: 762.6 m

PAGE NO.: 23 OF 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. Pollock

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT
	Silica	Sericite	Clay	Chlorite										
330														
331						Fracture @ 35°, slight coating of chl, mt + Fl.	Coarse grained biotite her blanda magnetite (S) quite fresh, cannot scratch, 5-20% ptz, 5-7% matrix weakly porphyritic, fine mt veinlets common.				100.			
332														
333						Fracture @ 16°, coated with mt, py, chl + Fl.	fresh, 4% ptz, slightly porphyritic, locally some chlorite.				96.7			
334						Fracture @ 20°, chl, mt, py minor Fl, + Mo.	mt veinlet @ 15°; from 333.8 - 334.2, 1mm wide, plag content ≥ 30%							
335						Fracture @ 50°, minor calcite.								
336						Fractures @ 50° + 65°, minor chl on each.					100.			
337						Veinlet @ 15°, 1.5mm of mt, minor py. Other veinlets parallel to this.	fresh, cannot scratch, numerous mt veinlets, often spaced closely locally.							
338														
339						Veinlets, 338.45-338.7m, parallel 1mm or less veinlets of mt, .5-2cm apart.	ptz < 5%, slightly porphyritic. largest phenocrysts 1mm.				100.			
340						Fracture @ 20°, mt, minor hem, py + chl.								
341						Fracture @ 60°, clean.								
342							fresh, dark pink colour, very hard, slightly to mod. porphyritic, K-feldspar + plag phenocrysts (subhedral to euhedral).				100.			
343						Fracture @ 75°, clean.	trace epidote							
344						Veinlet @ 15°, 1mm of mt, py minor Fl.								
345						Fracture @ 15°, light coating of chl, mt, ep, Fl + Mo					96.7			





HOLE NO.: 114  
 COLLAR ELEV.:  
 COORDINATES: 80+00  
 INCLINATION: -70°

GROUND ELEV.:  
 N 78150 E  
 BEARING: 180°

PROJECT: DEER PARK  
 DATE STARTED: JUNE 21/80  
 DATE FINISHED: JULY 21/80  
 TOTAL DEPTH: 762.6 m.

PAGE NO.: 24 of 51  
 REF. TO CLAIM CORNER:  
 SCALE: 1,100  
 LOGGED BY: T. Pollock.

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT
	Silica	Sericite	Clay	Chlorite										
345														
346							Veinlet @ 15°, 2mm of mt, trace py Fracture @ 50°, clean.							
347							Fracture @ 50°, minor chl + py.							
348														
349							Fractures 55-60°, minor clay,							
350							Vein @ 50°, 3mm of calcite,							
351							Fracture @ 60°, broken along a 3mm calcite vein.							
352														
353							Veinlets (2) one at 35° + one at 20°, 1mm of py.							
354							Fractures = vertical.							
355														
356							Fractures = vertical, rough surface							
357														
358							Veinlet @ 40°, 2mm of calcite, chl + gtz Fracture @ 40°, thin coating of chl, minor py, calcite + Mo.							
359														
360							Fractures @ 45-65°, minor coating of calcite + py.							

DESCRIPTIVE GEOLOGY

Coarse grained hornblende monzonite (3).  
 - fresh, dark pink, 5% gtz.  
 rare grey rounded alteration patch.

348.3 - 348.6 - weakly altered, pale pink colour slightly scratched, mainly clay alteration, some chlorite.

350.3 - 351.1 - moderate alteration by clay + chlorite, pale white-green colour, rock easily scratched. between these two intervals the rock is quite fresh.

352 - 355.4 - weakly to moderately altered, not easily scratched. all matrices have been chloritized while feldspars have been partly altered to clay. rock has a mottled pale green - pale pink colour. 12% py, mt nil, phenocrysts more obvious from alteration.

355.4 → quite fresh, locally weak alteration, dark pink, cannot scratch,

mt hardness is inversely proportional to the colour + py content.

highly altered → light colour, visible py, soft  
 no alteration → dark pink, magnetic, hard,  
 gtz 5%, fine grained grey alteration patches common.

359.3 - 360, mt veinlet @ 5%, .5mm thick.

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT
346.3	100.	NQ	345	
347.8	100.		348	
349.3	100.		351	
352.3	100.		354	
355.4	100.		357	
358.4	96.7		358	
358.4	96.7		360	

HOLE NO.: 4  
 COLLAR ELEV.:  
 COORDINATES: 78100  
 INCLINATION: -70°

GROUND ELEV.:  
 N. 80100 E.  
 BEARING: 180°

PROJECT: DEER PARK  
 DATE STARTED: JUNE 21/80  
 DATE FINISHED: JULY 21/80  
 TOTAL DEPTH: 762.6 m

PAGE NO.: 26 OF 51  
 REF. TO CLAIM CORNER:  
 SCALE: 1:100  
 LOGGED BY: T. Pollock.

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS: Good Mo in monzonite around siliceous mafic + mafic dikes	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.	
	Silica	Sericite	Clay	Chlorite												
375																
376					weak		Veinlets @ 25°, 1mm or less of mt, minor py. Also calcite veinlets @ 35°, 1mm or less, 1 per 2cm (2 only).	Coarse grained biotite hornblende monzonite (3). fresh, dark pink, 7% matrics, very hard, slightly porphyritic.			100.			375		
377					weak		Fracture @ 65°, clean.	376.9 - 378.2 5m - Monzonite but few matrics (2/%) also light pink (salmon) colour with 1-2% py. matrics concentrated instead in large patches (dacite comp?). high py + Mo concentrated in the monzonite around patches, no mt.					NQ			
378														378		
379	mod.						Upper contact gradational. Veinlet @ 15°, irregular boundaries. 2-8mm of py, minor Mo.	378.25 - 379.4. Dacite dike? mottled whitish green - dark green, nephelitic, siliceous, very hard. 5% py disseminated, minor disseminated cp, mo, Fl, trace hematite. Contacts gradational - upper over 30cm, lower over 2cm. Most Mo at ends of dikes in monzonite								
380					weak		Fracture @ 55°. Lower Contact @ 0°									
381							Veinlet @ 25°, 1mm or less of stg py calcite, minor Fl + Mo.	Monzonite. - light pink colour, coarse grained, slightly porphyritic, 2% disseminated py, little if any magnetite, less than 1% matrics, minor disseminated mo, cp + Fl. fine py veinlets common.						381		
382							Veinlet @ 20°, 2mm of mt, minor stg.									
383					weak		Fracture @ 70°, breaks along calcite veinlets, 1mm or less, 1 per 30cm.	381.4 -> Coarse grained biotite hornblende monzonite (3) dark pink, fresh, 5% matrics, py nil, slightly magnetic, 5% stg, weakly porphyritic, most phanocryptic plag.								
384							Fracture @ 65°, clean.									
385							Veinlet @ 20°, 1mm of stg + minor py.							384		
386					mod		Contact @ 20°, quite sharp	384.8 - 386.0m Biotite Andesite (5a) dark green, quite hard, 5% biotite. 5% disseminated epidote, also concentrations along contacts, slightly magnetic. fine disseminated Mo at dike contacts.								
387					weak		Fractures @ 70°, minor calcite + 95% minor chlorite.									
388							Contact @ 15°, quite sharp.							387		
389							Veins (2), 1mm + 3mm, py + Mo, minor Fl + stg.									
390							Fracture @ 70°, clean.	Coarse grained biotite hornblende monzonite (3) Dark pink, very hard, fresh, stg 5%, matrics 5%. magnetic, very little py. slightly porphyritic trace epidote								

HOLE NO.: P14  
 COLLAR ELEV.:  
 COORDINATES: 78+00 N 80+00 E  
 INCLINATION: -70° BEARING: 180°

PROJECT: DEER PARK  
 DATE STARTED: JUNE 21/80  
 DATE FINISHED: JULY 21/80  
 TOTAL DEPTH: 762.6 m.

PAGE NO.: 27 of 51  
 REF. TO CLAIM CORNER:  
 SCALE: 1:100  
 LOGGED BY: T. Pollock.

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS:	AVE CORE RECY / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% RECY SAMP. INT.
	Silica	Sericite	Clay	Chlorite										
390														
391							Veinlet @ 25°, 5mm of py, minor sp. Mo. Fracture @ 70°, coating of chl, py, mt trace Mo							
392							Fracture @ 70°							
393							Veinlet @ 20°, 2mm of chl, py + calcite.							
394														
395							Veinlet @ 25°, 2mm of mt, trace sp. Mt veinlets @ 30° Fracture @ 70°, trace calcite.							
396							Fracture @ 70°, clean.							
397														
398							Small dike? @ 45°, apilitic, 1.5cm. Fracture @ 60°, thin coating of calcite.							
399														
400							Fracture @ 60°, minor calcite Apilitic vein @ 40° in a granitic zone vein 1cm wide. Mo often found in these zones							
401							Fracture @ 55°, minor clay							
402							Fracture @ 15°, weak coating by chlorite							
403							Apilitic vein, 1cm							
404							Veinlets @ 5° + 45°, 0.5-1mm, mt, minor Mo, sp., chl. Fracture @ 65°, minor calcite trace Mo							
405														

DESCRIPTIVE GEOLOGY

Coarse grained biotite hornblende monzonite (3) dark pink, fresh, very hard, trace py - mainly in hairline veinlets  
 slightly porphyritic, most phenocrysts have plagioclase with K-feldspar rims; some zoned.  
 trace chl, little veining except for the occasional hair size py vein.

mt veinlets common, trace sp in mt veinlets. occasional grey alteration patch.

light pink to dark pink. locally looks like granite. mt veinlets not as large as above section but still common. occasional py veinlet.

Mo disseminated in local (low) rock change - a granite.

monzonite with alternating patches rock with a granite texture: homogeneous, equigranular, coarse grained, non-porphyritic, slightly less than 10% Qtz. minor chl. both rock types equally magnetic

403-403.7m - monzonite - granitic texture, equigranular, approaching 10% Qtz, weak chloritization + epidiotization of matrix  
 403.7m - monzonite.

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% RECY SAMP. INT.
390-391	100		390	
391-392				
392-393				
393-394				
394-395				
395-396	100		396	
396-397				
397-398	96.7		398	
398-399				
399-400	96.7		399	
400-401				
401-402	100		402	
402-403				
403-404	100		404	
404-405	83.3		405	

HOLE NO.: DM14

COLLAR ELEV.:

COORDINATES: 78+00

INCLINATION: -70°

GROUND ELEV.:

N. 80100 E.

BEARING: 180°

PROJECT: DEER PARK

DATE STARTED: JUNE 21/80

DATE FINISHED: JULY 21/80

TOTAL DEPTH: 762.6 m

PAGE NO.: 28 of 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. Pollock

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS:	AVE CORE RECY / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% RECY. SAMP INT.
	Silice	Sericite	Clay	Chlorite										
405														
406							Fracture @ 70°, clean.							
407					weak		Veinlets 405.7-408.9 - avg 1mm wide, mainly contain mt & qtz, occasionally contain py, sp, Mo, ep.				100.			
408							Veinlets always are surrounded by a zone of granite: light pink feldspars, 3-10% qtz. some for a thin veinlet is seen on either sides.							
409					weak		Fracture @ 20°, chl, mt, py, trace Mo.							
410							Vein @ 30°, 2.5cm mainly py + lesser chl, also mt, Fl + Mo + qtz. 1 per Veinlet @ 30°, py, mt + Mo.							
411							From 408.95-409.5 (large vein in the center) monzonite, salmon pink colour, alteration of deep red monzonite to this rock is caused by the vein including the introduction of the Mo, matics 12% py 2%, Mo disseminated.							
412					weak		Veinlets (2) spaced 10cm apart, 1-3mm of mt, minor py + Mo.							
413							Veinlets @ 30°, from 411.6-412.5m irregular but 1-5mm wide of mt + py, minor Mo + chl. 1 per 4cm.							
414							Fracture @ 75°, clean. Aplitic vein, 1mm-very fine grained.							
415					very weak		Fracture @ 65°, clean.							
416							Fracture @ 35° minor coating of chl, ep + py, trace Fl + Mo.							
417							Veinlet @ 35°, 5mm of py + qtz + trace Mo.							
418					very weak		Very fine Fractures.							
419							Fracture @ 70°, clean.							
420														

## DESCRIPTIVE GEOLOGY

Coarse grained biotite hornblende monzonite (3) fresh, dark red colour, slightly porphyritic locally to distinguish grains except by colour. slightly magnetic.

Veinlets always are surrounded by a zone of granite: light pink feldspars, 3-10% qtz. some for a thin veinlet is seen on either sides.

From 408.95-409.5 (large vein in the center) monzonite, salmon pink colour, alteration of deep red monzonite to this rock is caused by the vein including the introduction of the Mo, matics 12% py 2%, Mo disseminated.

generally dark red, fresh, however area around numerous veinlets have been changed to a salmon pink colour. equigranular + higher qtz content than dark red monzonite. Also little Mo in rock around veinlets unlike above (408.95-409.5m).

But 5% matics in these changed zones unlike above.

Coarse grained biotite hornblende monzonite (3) salmon pink + dark red colour. few phenocrysts quite equigranular. magnetic, minor epidote coarse grained. occasional dark grey alteration patch  
415 → Coarse grained biotite hornblende monzonite rock all very similar, dark red anhedral phenocrysts in a light pink (salmon) medium grained homogeneous matrix.

phenocrysts 20% avg size 4x6mm - mainly k-feldspar matrix 30-40% plagioclase feldspar. 3% matics k-biotite, disseminated mt, py nil. locally qtz up to 5%. minor ep, trace ep. very few veinlets.

HOLE NO.: 14  
 COLLAR ELEV.:  
 COORDINATES: 78100 N 80+00 E  
 INCLINATION: -70° BEARING: 180°

PROJECT: DEER PARK  
 DATE STARTED: JUNE 21/80  
 DATE FINISHED: JULY 21/80  
 TOTAL DEPTH: 762.6 m.

PAGE NO.: 29 of 51  
 REF TO CLAIM CORNER:  
 SCALE: 1:100  
 LOGGED BY: T. Pollock

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	Clay	Chlorite										
420							Fracture @ 70°, clean; sometimes along a calcite vein.						420	
421														
422							Fracture @ 60°, 7.5 mm coating of pale green calcite.							
423							No veinlets							
424							Fracture @ 75°, quite clean.							
425							No veinlets							
426							Fracture @ 75°, minor calcite + chlorite.							
427							No veinlets.							
428							Fracture @ 65°, very thin coating of chl. + calcite.							
429							Veinlets @ 25°, 1 cm at st, + py.							
430							Fracture @ 60°, minor calcite							
431							Veinlets @ 23°, 1 cm at st, py + chl.							
432							Apitic dike, 2 cm wide @ 30° very fine grained + equigranular. has disseminated mt, trace Mo + py.							
433							Apelite dike @ 30°, similar to above with minor Mo.							
434							Fracture @ 60°, minor chl + py							
435														

DESCRIPTIVE GEOLOGY

Coarse grained biotite hornblende monzonite (3), exactly the same as above. no veinlets.  
 Dark pink anhedral phenocrysts, composing between 10-50% of the rock, generally phenocrysts all dark pink but sometimes have a thin 3-.5 mm ring of white (plag?) followed by an external ring of dark pink (K-feldspar). most phenocrysts 80% K-feldspar (pink vs. white).  
 Matrix is equigranular, salmon pink in colour and looks like a granite.  
 Matrix is medium grained with 3-5% matrix (mainly hornblende, minor mt, chl + biotite), 5% st, 45% K-feldspar + 45% plag.  
 Rare fine grained oval patch with 20% matrix.  
 429.45-429.9 m - slightly altered, weak clay + chlorite alteration, not easily scratched, white-salmon pink colour, mt nil, py 2.5%, py seems to be after the chlorite which after the phenocrysts only 2-12% of all phenocrysts fully altered by chlorite.  
 locally above aplite material occurs as elongated patches in the core. eg 432.0-431.6 aplite with disseminated mt, py, Fl, trace epidote  
 rare angular fragments of diorite porphyry. sharp contact with host, 5% K-feldspar phenocrysts 2mm or less in size. matrix fine grained, diorite composition, fragment size 2x1cm.

DEPTH (m)	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
420						
422.5	10% mt, 10% chl		100.	NQ		
425.5	10% mt, 10% chl		100.			
428.5	10% mt, 10% chl		100.			
431.6	10% mt, 10% chl		96.8			
432.0	10% mt, 10% chl		96.7			
434	10% mt, 10% chl		100.			





HOLE NO.: P 14

COLLAR ELEV.:

COORDINATES: 78700

INCLINATION: -70°

GROUND ELEV.:

N 80+00 E.

BEARING: 180°

PROJECT: DEER PARK

DATE STARTED: JUNE 21/80

DATE FINISHED: JULY 21/80

TOTAL DEPTH: 762.6m

PAGE NO.: 32 OF 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. Pollock

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	Clay	Chlorite										
465							Fracture @ 65°, clean.							465
466														
467							Vein @ 20°; 8mm of mt (center) + Qtz (out sides) - minor Fl. Mo concentrated along the edges.							
468							Veins, 2-5mm of Qtz, minor chl, Fl + trace Mo. veins (2) @ 50°							
469							fracture @ 75°, clean.							
470							No veinlets							
471							Fracture @ 65°, clean.							
472							No veinlets							
473							Fracture @ 45°, coated with calcite, trace Fl.							
474							Fracture @ 55°; minor chl							
475							Veinlet @ 27°; lam of mt, Qtz, Mo, minor ep.							
476							Fracture @ 40°; minor chl + mt, trace Fl + @ 55°; minor calcite + chl,							
477							476-476.35: 3 veinlets @ 15°-30°; avg 1.5mm of Qtz + mt, minor Mo, trace ep.							
478							Fractures @ 55°; quite clean.							
479							478.75m - monzonite - diorite oval fragment 18x5cm, 15-20% matrix							
480							Veinlet @ 25°; Qtz, base mt, minor Mo, ep + Fl.							

## DESCRIPTIVE GEOLOGY

Coarse grained biotite hornblende monzonite (3) similar to above. dark pink phenocrysts in a granitic matrix.

aplite zone or vein crosscuts large Qtz mt vein,

similar to above: 25% subhedral phenocrysts in a equigranular matrix.

phenocrysts: size - from 3mm<sup>2</sup> to 10x6mm, generally dark pink with minute rings or wisps of white (plagi). occasionally twinning can be seen (Carlsbad - a phenocrysts are in two halves). Matrix: salmon pink colour, medium grained,

approaching 10% Qtz (in matrix), 3 roughly equal proportions of K-feldspar + plagi. matrix 3-12, mainly hbl which has been slightly altered by ep. + chl.

mt. is disseminated in .5-1mm patches.

trace disseminated Mo, + rare. granodiorite-diorite fragment (1cm<sup>2</sup>), partially exsolved.

473.3m - Broken vein of Qtz + mt plus minor Fl, max 8mm wide, mt in center Qtz on outside. vein is in the center of a 1.3m aplite dike.

similar to above, except occasionally there is the concentration of matrix - it is coarse grained and has 10% Qtz. there is also common patches of monzonite aplite. these patches generally oval (ca 7x4cm) to irregular with gradual boundaries.

Qtz increasingly slightly, going to granite. trace Mo in Qtz.



HOLE NO.: DP 14

COLLAR ELEV.:

COORDINATES: 78700

INCLINATION: -70°

GROUND ELEV.:

N. 80700 E.

BEARING: 180°

PROJECT: DEER PARK

DATE STARTED: JUNE 21/80

DATE FINISHED: JULY 21/80

TOTAL DEPTH: 762.6 M

PAGE NO.: 33 OF 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. Pollock

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	Clay	Chlorite											
480														480	
481															
482					weak			Veinlet @ 30°, 1.5 mm of ptz, minor ep, Mo + Fl Fractures @ 60° broken along calcite? (anhydrite) veinlet, minor chl + Fl also @ 27°, minor coating of chl.				100		480-483	
483															
484					weak			Fracture @ 60°, minor chl, trace hum.							
485					weak			Fracture @ 55°, trace chl					100		
486								Veinlets @ 60°, 1mm or less of ptz + chl, fractures common along veinlets.							
487					very weak			few veinlets							
488													96.7		
489								Fracture @ 70°, minor calcite + chl No veinlets							
490					weak										
491								Veinlet @ 20°, 2mm of ptz + epidote, minor py, Mo + hum.							
492								Fracture @ 60°, quite clean.							
493															
494	locally fracture				weak			Fracture @ 30°, minor calcite + chl							
495	locally fracture							494.9 - fragment 112cm, ephanitic, dark green grey colour, py 2%							

DESCRIPTIVE GEOLOGY

Similar to above, this zone seems to be the transition zone from monzonite to granite (possibly ptz monzonite).  
 rock still has dark pink subhedral phenocrysts in a granite looking matrix, however proportion of matrix is increasing, often sections of core 10cm with very few phenocrysts - matrix is coarse grained mainly K-feldspar + ~10% ptz. rounded fragments avg 3cm<sup>2</sup> (granodiorite comp) fairly common.

very fresh + hard, very few veinlets, weakly magnetic, no pyrite, composition approaching a granite

488.1m - fragment 4.5 x 4cm - granodiorite, fine grained, looks as if it has surrounded some K-feldspar around its rim to give some K-feldspar phenos. small K-feldspar, -play phenos throughout, no Mo. high mafic content.  
 minor chloritization of matrix, mt finely disseminated.

rock is increasingly becoming a coarse grained granite with large K-feldspar K's + phenocrysts. the large dark pink phenocrysts are turning to a salmon colour, ptz is between the K's, ptz content ~10%, original matrix partially turned to mt.

HOLE NO.: UP 14

COLLAR ELEV.:

COORDINATES: 78400

INCLINATION: -70°

GROUND ELEV.:

N 80+00 E

BEARING: 180°

PROJECT: DEEK PARK

DATE STARTED: JUNE 21/80

DATE FINISHED: JULY 2/180

TOTAL DEPTH: 762.6 m

PAGE NO.: 34 of 57

REF TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. Pollock

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT
	Silica	Sericite	Clay	chlorite										
495							Venlet @ 60°, 1mm of gtz, minor chl. Fracture @ 35°, minor chl, 1 per 8m							495
496							Venlet @ 1-3mm of gtz + st, minor py + hum.							NQ
497							Venlet @ 45°, 1mm of gtz. Venlets (2) @ 55°, 1mm of gtz, minor Fl Fracture @ 25°, quite clean.				100			
498														498
499							Venlets .75mm bcs @ 45°, of gtz.							
500														501
501							Fracture @ 40°, minor calcite							
502							fractures @ 80°, weak contng of chl, py, Mo + @ 15° moderate chl fracture @ 45°, coated with chl + py minor Mo							504
503							Fracture @ 20° + crosscutting veinlets minerals - chl, MnO <sub>2</sub> , py, qz, Mo							
504														507
505							Fracture @ 55°, minor chl + calcite							
506							Fracture @ 10° along thin chl. veinlet.							507
507							Fracture @ 65°, clean.							
508														510
509							Fracture @ 60°, weak calcite + chl.							
510							Venlet @ 25°, 2mm of gtz, minor clay.							

## DESCRIPTIVE GEOLOGY

Pink granite (9) mainly salmon pink colour, medium to coarse grained, dark pink phenocrysts still common - make up to 10% of the rock. These phenocrysts will change to the salmon colour.

equigranular, fresh, unscratched, 10% gtz, 5% mafics (hbl, mt + microbiotite), trace Mo in the hbl. gtz veinlets (1mm or less) common.

very weak chloritization of mafics (hbl).

502.35 - Fracture that possibly might be a thin fault zone, 1-3mm of mainly MnO<sub>2</sub>, chl - ground granite, minor py, trace Mo.

502.95 - 503.5: many fractures + irregular veinlets with minerals listed to the right. weak chloritization of hbl.

pink coarse grained granite with 15% dark pink K-feldspar X<sub>2</sub>'s, avg. K-feldspar grain size = 3-4mm. coarse K-feldspar grain clay + chlorite altered, weak chl alteration of hbl, mafics 4%, .5% disseminated mt, py, qz, gtz veinlets (<1mm) - chl veinlets (.2mm) common, trace epidote coarse groundite (1mm or less) fragment.

509.5 - 512.4: weak to moderately altered by clay + chlorite only = .5% of mafics remaining. py 1%, gtz has also been slightly altered, rock can be scratched fairly easily granite coarse grained, equigranular + salmon pink with a white tinge.

HOLE NO.: 214

COLLAR ELEV.:

COORDINATES: 78700

INCLINATION: -70°

GROUND ELEV.:

N. 80700 E.

BEARING: 180°

PROJECT: DEER PARK

DATE STARTED: JUNE 21/80

DATE FINISHED: JULY 21/80

TOTAL DEPTH: 762.6m

PAGE NO.: 35 OF 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. Pollock

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	Clay	Chlorite											
510															
511			weak - med		weak			Fracture @ 10° along a chl veinlet min. ser py + Fl. 511.3m: Possible Fault zone @ 20° 2/1cm wide & composed of chl ground granite, Slapy 12 fls. Veinlet @ 35°, 2cm of py							
512			weak - med		weak										
513					weak			Pink granite with >20% dark pink k-feldspar Xc's. 513.25m - Fragment 2x5cm, diorite porphyry matrix v. f. g., black with 15% round 2mm k-feldspar phenocrysts (centers slightly altered & ep.) 16 No.							
514					weak			Fractures @ 65° clay + @ 10° coated with chl + mt.							
515					weak			Fracture @ 60°, quite clean.							
516					weak			Pink granite, however up to 20% dark pink k-feldspar grains, as they increase the qty content decreases.							
517					weak			516.6 - 517.1: weakly altered, most matrix altered to clay rock is salmon colour from the k-feldspar Xc's small aphanitic black fragments (1cm or less) occasionally seen.							
518					weak			Fracture @ 65°, clean.							
519					weak			Veinlet @ 35°, 1cm of stz, 1pr 23cm							
520					weak			520.4 - 519.8m: weakly altered, mainly clay minor chlorite, all hb1 altered to clay, just mineral left. magnetism can just be barely detected.							
521					weak			No veinlets							
522					weak			522.8 - 523.4: weakly altered, mainly matrix							
523					weak			Fracture @ 55°, quite clean.							
524					weak			pink granite, fresh, med. to coarse grained, hard (except where altered - see above). qty content around 10%, locally dark pink phenocrysts increase to >20% + qty content drops.							
525					weak			Fracture @ 80°, clean							

HOLE NO. 214  
 COLLAR ELEV.:  
 COORDINATES: 78400 N. 80450 E.  
 INCLINATION: -70° BEARING: 170°

PROJECT: DEER PARK  
 DATE STARTED: JUNE 21/80  
 DATE FINISHED: JULY 21/80  
 TOTAL DEPTH: 762.6m

PAGE NO.: 36 OF 51  
 REF TO CLAIM CORNER:  
 SCALE: 1:100  
 LOGGED BY: T. P. Hink

SECTION	ALTERATION			FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	% SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT
	Silica	Serpentine	Clay											
25														
26				weak			Fracture @ 65°, clean.							
27				weak			No veinlets							
28				weak										
29				weak			Fracture @ 25°, trace chl + calcite.							
30				weak			No veinlets							
31				weak			Fracture @ 20°, minor chl + calcite							
32				weak			Veinlet @ 15°, .3mm of chl + gtz							
33				weak			Veinlet @ 20°, .3mm of chl, minor calcite							
34				weak			Fracture along a veinlet @ 15°, .5mm fnt + chl.							
35				weak			Fracture @ 80° clean.							
36				weak			No veinlets, very few fractures.							
37				weak			537.05m - 7x2m oval shaped ring fnt.							
38				weak			Veinlet @ 60°, 537.5 - 538.2m, 1mm gtz + op Fracture @ 75°, clean.							
39				weak			Few fractures, no veinlets.							
40				weak										

DESCRIPTIVE GEOLOGY

Pink Granite - Salmon pink colour with ~20% dark pink subhedral k-feldspar crystals. The rest of the feldspars are salmon coloured k-feldspar crystals. rock is coarse grained (avg k-feldspar  $12 \times 3mm^2$ ) fresh, 2% matrix - hbl, bio + mt, ~10% gtz hbl has been weakly altered by chl + ap. rock characteristically has very little if any veining rock is weakly magnetic, locally weakly altered. 525.6 - 526.2m salmon pink k-feldspar  $12 \times 3mm^2$  with some clay alteration, hbl + bio altered to chlorite, 5% pyrite. occasional (2cm<sup>2</sup> or less) aplite fragment (granodiorite composition?). 532.5m - oval shaped granodiorite fragment, area ~1.25m<sup>2</sup>, 10% biotite, no rto. fresh, coarse grained, weak chloritization of chl + bio. ~20% dark pink k-feldspar  $12 \times 3mm^2$ , little veining, weakly magnetic, trace epidote + chlorite 3% matrix minerals, gtz easily visible. 537.05m - 7x2m oval shaped ring fnt. fresh, medium to coarse grained, ~equal proportions of dark + salmon pink k-feldspar crystals. dark pink  $12 \times 3mm^2$  often much larger often with a thin white (plag) ring. ~3% matrix, 5% of this disseminated mt, gtz ~10% or slightly less, very few fractures + veinlets.

DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL
525.6 - 526.1	100.	1.58 mt	525
526.1 - 529.1	100.	2.38 mt	528
529.1 - 531.1	100.	1.58 mt	531
531.1 - 532.2	100.	1.42 mt	537
532.2 - 535.2	100.	1.48 mt	537
535.2 - 538.3	100.	1.59 mt	537

HOLE NO.: 5-14  
 COLLAR ELEV.:  
 COORDINATES: 78100 N. 20150 E.  
 INCLINATION: -70° BEARING: 180

PROJECT: DEER PARK  
 DATE STARTED: JUNE 21/80  
 DATE FINISHED: JULY 21 1980  
 TOTAL DEPTH: 762.6 m

PAGE NO.: 37 of 51  
 REF. TO CLAIM CORNER:  
 SCALE: 1:100  
 LOGGED BY: T. Pollock

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE RECY / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT	M
	Silica	Sericite	Clay	Chlorite												
540																
541							Fracture @ 65°, clean No veinlets.				540.7	100.		540		
542					weak	mt.	Fracture @ 80°, clean.				541.3		NG			
543											542.8			543		
544					weak	mt.	Aplite → Fracture @ 18°, minor chl + mt.				543.4					
545					weak	mt.	Aplite vein, contacts @ 35°, 2.5cm wide, pink in colour				544.1					
546							No fractures.				544.8	100.		546		
547			locally weak		weak		Veinlet @ 50°, 1cm of gtz K-feldspar, contacts @ 55°, 2.5cm wide				545.5					
548					weak		dark grey in colour, white pink ms above				546.2					
549					weak		Veinlets @ 38°, 1-2mm of gtz/chl some clay, par 7cm, fractures along these occasionally.				546.9	100.		549		
550											547.6					
551					weak	mt, trace Fl	Fracture @ 60°, clean. Veinlets @ 35-40°, .5-3mm of gtz + chl.				548.3					
552											549.0			552		
553							Veinlets w/ @ 25°, some cross-cutting 1-2mm of gtz, calcite + chl.				549.7					
554					weak	mt, trace Fl	Fracture @ 75°, clean,				550.4	100.				
555											551.1			555		

Pink granite (7), fresh, medium to coarse grained,  
 equal volumes of dark pink + salmon K-feldspar,  
 gtz 10%, max 5% mafics, mainly hbl which has  
 been slightly altered to chlorite, 5% feldspar is  
 mt after hbl.

543.8-544.18m: Aplite, upper contact @ 30°, lower @ 40°  
 contacts sharp, fine grained, 8mm chill zone @ contacts,  
 slightly porphyritic from K-feldspar xls, some colour  
 as matrix.

Pink granite: fresh, slightly more gtz than above,  
 > 10%, locally over 10cm are patches with no dark  
 pink K-feldspars, here the rock has 15-20% gtz  
 - hbl is between large salmon K-feldspar xls -  
 hbl is partially altered to chlorite.  
 - occasional dark grey aplite fragments, no Mo.

548.3-548.95m - porphyritic grey aplite.

Pink granite, similar to above but with the  
 common appearance of gtz, calcite + chlorite veinlets.  
 There is also local weak clay alteration of the  
 dark pink K-feldspar crystals.

fine grained dark grey to black aplite fragments  
 (< 1cm?) common. No Mo.

HOLE NO.: 14

PROJECT: DEER PARK

PAGE NO.: 38 OF 51

COLLAR ELEV.:

GROUND ELEV.:

DATE STARTED: JUNE 21/80

REF. TO CLAIM CORNER:

COORDINATES: 78100

N. 80100 E.

DATE FINISHED: JULY 21/80

SCALE: 1:100

INCLINATION: -70°

BEARING: 180°

TOTAL DEPTH: 762.6 m

LOGGED BY: T. POLLOCK.

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Saricite	Clay	Chlorite											
555								Veinlet @ 20°, 2mm of chl.							555
556								Fracture @ 60°, clean.				100.			
557					weak	mt		Fracture @ 45°, clean.				100.			
558								Fractures @ 15°, minor mt, chl + py							
559					weak	mt, minor pxip		Veinlet @ 15°, 1mm of gtz + chl, trace sp.							
560								Fracture @ 75°, clean.							
561					weak at contact / locally weak			No veinlets				100.			
562					weak	mt, trace Mo, Fl		weak clay alteration of k-feldspar.							
563								Upper Contact @ 7°, low chillzone. Offset-cutting contact 35° for 1m.							
564								Lower Contact @ 30°							
565					very weak	mt, Mo.		Fracture @ 75°, clean.							
566								Fracture @ 39°, moderate coating of chl + mt.							
567								No veinlets							
568					very weak	mt.		Few fractures.							
569								Fracture @ 85°, clean							
570								No veinlets							
								Fracture @ 75°, clean.							

## DESCRIPTIVE GEOLOGY

Pink granite (g), fresh, hard, med. to coarse grained, dark pink k-feldspar crystals (almost phenocrysts - subhedral) ~30%, rest of k-feldspar salmon pink, 10% gtz, py, sil, weakly magnetic, weak chloritization of hbl.

559.4m: hbl-biotite altered to chlorite, very weak clay alteration of feldspars, there also is minor chalcopyrite + malachite, ends 560 m.

Pink granite: 25% dark pink k-feldspar subhedral phenocrysts (avg size > 6mm) in a matrix of smaller salmon coloured k-feldspar crystals with ~10% gtz + 3-5% mpy. subrounded, blackish fragments common, avg lum + granodiorite to diorite in composition.

563.6 - 564.95m: Good granite aplite, fine grained grain size ~1mm, very homogeneous, pink, fresh. 70% k-feldspar, 20% gtz, 10% mt with minor Fl, chl. Parallel to the lower contact is a 3mm vein of gtz, mt, Fl with minor chlorite, trace Mo at upper contact.

562.99 - 563.15, patch (4.5m wide) of grey aplite, very fine grained, (monzonite range?) possibly contains fine disseminated Mo.

Pink granite similar to above, weak chloritization of hbl, no veinlets, few fractures, no pyrite, Mo ~ Ni, mt ~ 5% finely disseminated after hbl., locally 1% epidote in patches that have no dark pink k-feldspar Xls.

HOLE NO.: P14

COLLAR ELEV.:

COORDINATES: 80+00

INCLINATION: -70°

GROUND ELEV.:

N 78+00 E

BEARING: 180°

PROJECT: DEER ARK

DATE STARTED: JUNE 21/80

DATE FINISHED: JULY 21/80

TOTAL DEPTH: 762.6 m

PAGE NO.: 39 of 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. Pollock

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT
	Silice	Sericite	Clay	Chlorite											
570															
571															
101															
572					weak	nt.		Fracture @ 45°, minor chlorite trace hem.				100.			
573								Veinlet @ 25°, .5mm of chlorite.							
574								Fracture @ 50°, moderate coating by chlorite.							
575					weak	nt, Fl, py		Aplite dike, upper contact @ 30°, veinlet + lower @ 26°, veinlet, 5mm of py, nt, minor Fl, Mo + ep.							
576								Veinlet @ 45°, 1mm of white py.				100.			
577								Fracture @ 50°, clean.							
102					weak	nt.		No veinlets.				95.2			
578								Fracture @ 50°, minor chlorite.							
579															
580								Fractures @ 50°, minor chl + @ 45°, minor clay				100.			
581					weak	py, nt, Fl, Mo									
582		mod.			weak			Fracture @ 15°, 1mm coating of chl, minor Fl.							
103					weak										
583															
584		mod.			weak										
585								Fracture @ 20°, minor coating of chl, ep, + py.							

## DESCRIPTIVE GEOLOGY

Pink granite (g) 20% dark pink subhedral K-feldspar crystals in a matrix of salmon pink subhedral K-feldspar crystals, 10% py = 4% naties. Mafas mainly hb1 which has been slightly altered to chlorite. Mt + biotite = 1.0%. rock is very fresh, has somewhat crowded porphyry texture, rare epidote.

574.93-575.12 m - Aplite: pink, fine grained, granite composition, veinlet described at right occurs at the base of the dike.

10% py.

similar to above.

580.6 - 588.6: moderate clay alteration weak chlorite alteration, feldspars salmon pink, all naties except nt turned to clay, 1% disseminated py, 1% of K-feldspar crystals have their centers altered to chlorite.

10% white py in altered rock, large blotches of 13mm<sup>2</sup> have minor Fl + Mo.









HOLE NO.: P 14  
 COLLAR ELEV.:  
 COORDINATES: 80+00  
 INCLINATION: -70°

GROUND ELEV.:  
 N. 78+00  
 BEARING: 180°

PROJECT: DEER PARK  
 DATE STARTED: JUNE 21 / 80  
 DATE FINISHED: JULY 21 / 80  
 TOTAL DEPTH: 762.6 m

PAGE NO.: 43 OF 51  
 REF. TO CLAIM CORNER:  
 SCALE: 1:100  
 LOGGED BY: T. Pollock

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y	SAMP INT
	Silica	Sericite	Clay	Chlorite											
630															
631			locally mod.				Fracture @ 45°, clean.								
632			locally weak				Fracture along a vein @ 23°, 7mm of chl + calcite?, minor py.								
633							Fracture @ 25°, coated with clay + chlorite. Veinlet @ 13°, 1.5mm of chl.								
634															
635															
636							Fractures @ 15°, clean, + @ 40°, minor chl.								
637							Fracture @ 20° coated with chl + epidote.								
638							Veinlet @ 60°, 1mm of qtz + chl. Fracture @ 50°, mod. coating by chl + ep.								
639															
113															
640			locally weak				Fractures + veinlets (chl, ep + MnO <sub>2</sub> ) @ 25°.								
641			locally weak				Vein @ 25° 5mm of siliceous green material.								
642			moderate				Vein @ 30°, 8mm of qtz + chlorite (pale green).								
643							Fracture @ 60°, minor clay.								
644															
114															
645							Siliceous green vein @ 25°, 1cm wide.								

DESCRIPTIVE GEOLOGY

Pink Granite (P). coarse grained, fresh, but local clay alteration, ± 20% dark pink K-feldspar which may be formed by replacement of salmon colored K-feldspar  
 632.3 - 632.7 m; moderate clay alteration, weak chlorite alteration

similar to above, chlorite veinlets common, colour variations depend mainly on the degree of alteration, the higher the alteration (generally clay) the whiter the rock.

Pink granite similar to above: fresh, quite homogeneous, dark grey to pink colour, has a bit of a cloudy appearance weak to mod clay + chlorite alteration associated with the siliceous pale green dikes described to the left; fractures always occur along these veins. rare grey aplite patches.

NQ

HOLE NO.: DP 14

COLLAR ELEV.:

COORDINATES: 80+00 N. 78+00 E.

INCLINATION: -70° BEARING: 180

PROJECT: DEER PARK

DATE STARTED: JUNE 21/80

DATE FINISHED: JULY 21/80

TOTAL DEPTH: 762.6 m.

PAGE NO.: 44 of 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. Pollock

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS: Strong clay alteration.	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y. SAMP. INT.
	Silice	Sericite	Clay	Chlorite											
645								Fractures @ 25-40°, 1 per 3m.							
646					high			locally core is broken up.							
647								Fractures @ 45-65°, 1 per 3m.							
648					high			Contact @ 65° Contact @ 70° Veinlet @ 13°, 1.5mm of gtz.	647.04 - 647.2m: Porphyritic Andesite (5b) dark green with 20% subhedral 14.5um pink feldspars.	1.9% pt. 1.5% mar. dca.		100.	NQ	645	
649					high			Zone of gtz veining + brecciation @ 30° Minor Ms.	647.55 - 648.4m: weakly altered, just barely scratchable, pale pink-green colour.						
450	weak.		moderate to high	weak.	high			Siliceous zone @ 35°, 1cm wide.	648.4 moderate to strong clay alteration, weak porphyritic, pale white-green feldspars with 10-15% interstitial gtz + 1.5% py. easily scratched.			84.6			
651					py, Mo.			Siliceous zone @ 15°, 4cm, white to dark grey gtz with brecciated p, py + Mo.	locally extremely clay alteration, also gtz veining common. locally crumbly						
652	weak.		moderate	weak.	moderate			Fracture @ 40°, minor chl.	650.8m - 652.7m: weakly altered.						
653	weak.		moderate	weak.	moderate			little alteration.	652.7 - 653.3m: moderate to strong alteration weak to moderate chlorite alteration (strongest at top + bottom of zone. colours green to white. strongest clay near unter.						
654					py			Fractures @ 55°, clay coated.							
655								Zone @ 55°, 1cm of MnO <sub>2</sub> ? py + Mo. Much gtz around zone.	Composition: 78% clay altered feldspars (white to pale green, with 15-20% gtz mainly interstitial but numerous siliceous veins do exist, 1-1.5% py.						
656	weak to mod.		strong	weak to mod.	low			Siliceous zone @ 33°, 1cm of grey gtz, minor py.	654.9m: rectangular shaped fragment (3x1.5cm) light green, v.f. grained, 4% py, contains sericite flakes dacite?			100.			
657					py			Two siliceous veins with central stockwork, @ 30°, total zone 10cm.							
658								Veinlet + minor brecciation @ 13° 2mm of grey gtz. Note weak clay chlorite alteration surrounding vein.							
659								Fracture @ 45°, clean.	Pink granite, fresh, crowded porphyry texture, 4% mafics, max 10% gtz, med. pink colour.						
660								Aplite zone @ 10°, 1.5cm with minor Mt, gtz, Mo, chl + Fl.							

HOLE NO.: DP14

COLLAR ELEV.:

COORDINATES: 80100 N. 78100 E.

INCLINATION: -70° BEARING: 180°

PROJECT: DEER PARK

DATE STARTED: JUNE 21 180

DATE FINISHED: JULY 21 180

TOTAL DEPTH: 762.6 m

PAGE NO.: 45 of 51

REF. TO CLAIM CORNER:

SCALE: 1:100

LOGGED BY: T. Pollock.

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS: Some gtz stockwork with py + minor Mo 673.0-673.6m.	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT.
	Silica	Sericite	Clay	Chlorite										
660														
661														
117														
662														
663														
664														
665														
666														
667														
118														
668														
669														
670														
671														
672														
119														
673														
674														
675														

COMMENTS: Some gtz stockwork with py + minor Mo 673.0-673.6m.

AVE CORE REC'Y / HOLE

DESCRIPTIVE GEOLOGY

Veinlet @ 20°, 1mm of gtz minor py + chl?

Pink granite (1): fresh, coarse grained, minor chloritization of mafics. Trace disseminated Mo

Veinlet @ 30°, 1mm of gtz + Mo.

661.5m: irregular shaped diorite? fragment ≈ 5x3cm. No Mo.

Vein @ 30°, 2-3mm of gtz + mt, minor Mo.

gtz vein @ 45°, 4mm of grey gtz.

664.2-664.5m: grey aplite porphyry, pale pink phenocrysts

Fracture @ 40°, minor chl + py.

Vein @ 30°, 5mm of mt + gtz, minor py + Mo.

Pink granite similar to above but Mo disseminated Mo. locally weak alteration.

Fracture @ 60°, minor chl.

2.5cm zone of gtz, py + brecciated (9) @ 30°.

5% mafics, coarse grained, feldspars homogeneous in colour.

Vein @ 25°, 4mm of gtz + mt, minor Fl, py + chl, trace Mo. this vein offset 5mm by veinlet @ 20°, 1mm gtz, minor py.

671.35-677.6m: Highly altered but still very hard, rock is white with a pale pink colour. py 2%, gtz 10%, trace disseminated Mo. fine gtz veinlets common.

Fracture @ 20°, coated with Mo + py  
Fracture along vein @ 30° 5mm of Mo, py + gtz

673.-673.6m: Moderate gtz stockwork with py + minor Mo. Prominent sets ⊥ @ 25° + 35°

softness of rock is increasing with increasing clay alteration.

Fracture @ 30° along 2cm. clay zone.

SULPHIDES

DRILLING INTERVAL

% CORE RECOVERED

CORE SIZE

SAMPLE INTERVAL

% REC'Y SAMP INT.

660.2

663.2

663.9

663.9

666.3

667.3

669.6

672.1

672.1

672.1

660

663

666

669

672

675

93.3

100.

100.

100

100.

96.7

100.

NQ

HOLE NO.: **DP14**  
 COLLAR ELEV.:  
 COORDINATES: **80+00 N. 78+00 E.**  
 INCLINATION: **-70°** BEARING: **180°**

PROJECT: **DEER PARK**  
 DATE STARTED: **JUNE 21/80**  
 DATE FINISHED: **JULY 21 80**  
 TOTAL DEPTH: **762.6 M**

PAGE NO.: **46 OF 51**  
 REF. TO CLAIM CORNER:  
 SCALE: **1:100**  
 LOGGED BY: **T. Pollack**

SECTION	ALTERATION				FRACTURING	MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silice	Saricite	Clay	Chlorite											
675															
676								Qtz + brecciated (A) zone @ 30°; 2cm wide minor py.							
677								Veinlet @ 23°; 1mm gtz + py.							
678								Fracture @ 10°, macheloy, just before this (20cm) one has minor Mo.							
679								Fracture @ 65°, along a 5mm gtz vein							
680								Veinlet @ 30°, 2mm of py, Mo, -gtz							
681								Qtz veinlets @ 35°, avg 1mm of gtz minor py, 1 per 6.5m.							
682								Fracture @ 70°, clean.							
683								Contact @ 25°, sharp							
684								Contact @ 25°, sharp							
685								Qtz veinlets @ 27°, avg 1.5mm, 1 per 2cm. minor py.							
686								Fracture @ 34°, coated with Mo + py							
687								few veinlets.							
688								Fracture @ 70°, clean.							
689								Fractures @ 30°, some with py + trace Mo?, one with black clay; irregular micro gtz veinlets.							
690															

Moderate to strongly clay altered granite: white to pale green, easily scratched, gtz veinlets common.

677.6 - 678.2m little alteration, fresh, pink, gradation above + below with clay alteration.

678.9 - 679.5m: little alteration, pink.

weak clay alteration but the rock is still white with a pale pink colour, rock not easily scratched. locally areas with little or no alteration (pink). avg 1.5-2% py after hblt nt? trace disseminated Mo.

682.95 - 683.55m: zone of brecciation - fragments are angular clay altered & of the host rock: 60% matrix is grey gtz with ~1% py, trace Mo.

similar to above.

687.4 - 688.5m: little alteration, pink.

white to pale pink, not to hard to scratch. few gtz veinlets.

675  
 ↑  
 678  
 ↓

681

684

687

690

HOLE NO.: P14  
 COLLAR ELEV.:  
 COORDINATES: 80+00 N 78+00 E  
 INCLINATION: -70° BEARING: 180°

PROJECT: DEER PARK  
 DATE STARTED: JUNE 21/80  
 DATE FINISHED: JULY 21/80  
 TOTAL DEPTH: 762.6 m

PAGE NO.: 47 of 51  
 REF. TO CLAIM CORNER:  
 SCALE: 1:100  
 LOGGED BY: T Pollack

SECTION	ALTERATION				MINERAL GEOLOGY	COMMENTS	DRIVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT
	Silica	Sericite	Clay	Chlorite									
690													
691			mod.	weak		Siliceous vein @ 20°, 5mm of gtz minor py.			690.7	100			
692						Fracture @ 70°, clean.				100	NG		
693													
694			locally weak	weak		Veinlet @ 16°, 2mm of gtz, minor chl.			693.3				
695			locally weak	weak		Siliceous vein @ 15°, 5-6mm, minor brecciation rpy.				100			
123													
696													696
697			locally weak	weak		Fracture @ 10°, along a 1mm gtz veinlet.							
698						Fracture @ 40°, quite clean.				100			
699													699
700			locally weak	very weak		Veinlet @ 13°, 1mm of gtz + py.							
701	Trace					Veinlet @ 15°, 1mm of gtz + py.				100			
702						Fracture @ 55°, minor gtz.							702
703						703.1: aphanitic light grey fragment 4x4cm, 12py, little k-feldspar?							
704						Veinlet @ 10°, .5mm of py + gtz				100			
705						Fracture @ 70°, clean.							
						Fracture @ 15°, minor clay.							705







HOLE NO: P14  
 COLLAR ELEV.:  
 COORDINATES: 80+00 N. 78700 E.  
 INCLINATION: -70° BEARING: 180°

PROJECT: JEFF PARK  
 DATE STARTED: JUNE 21/80  
 DATE FINISHED: JULY 21/80  
 TOTAL DEPTH: 762.6 M

PAGE NO.: 50 OF 51  
 REF. TO CLAIM CORNER:  
 SCALE: 1:100  
 LOGGED BY: T. Pollock.

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP INT
	Silica	Sericite	Clay	Chlorite										
735														
736							Fracture along hairline py veinlet @ 18°.				100			
737							Fracture @ 35°, quite clean.							
738											100			
739														
740							Fracture @ 10°, minor py & calcite.							
741							Fracture @ 55°, minor Mo.				96.8			
742							Qtz veinlets @ 10°, irregular, lma.							
743														
744							Fracture @ 55°, minor Qtz.				100			
745							No veinlets.							
746							Fracture @ 55°, clean.							
747							No veinlets				100			
748							Fracture @ 65°, minor clay.							
749							Fracture @ 65°, clean.							
750											100			

DESCRIPTIVE GEOLOGY

Quartz - Feldspar Porphyry Dike. (17a)  
 736.4 - 738.3 m: pale green matrix, 3-4% rounded Qtz eye + 5% feldspar phenocrysts fine 1% disseminated py, minor sericite.  
 738.3 - 740.0 m: matrix colour begins to darken again to a pink-brown colour, feldspar phenos increase to 15% (avg. 1.5 x 4mm) from colour matrix is high in K feldspar. Contact with next variation @ 15°, gradational over lens.

Feldspar to Qtz - feldspar porphyry.  
 generally medium green in colour, 15% white + pink subhedral phenocrysts (avg 1.5 x 3mm).  
 phenos grade down into the fine grained to aphanitic groundmass. avg 1% rounded calcite patches (avg < 2mm) but locally they may reach 2+cm. nil py, mt + Mo., nil veinlets.  
 locally dark green patches of the same rock exist.

K-feldspar phenocryst almost grade into the matrix.  
 minor Qtz.

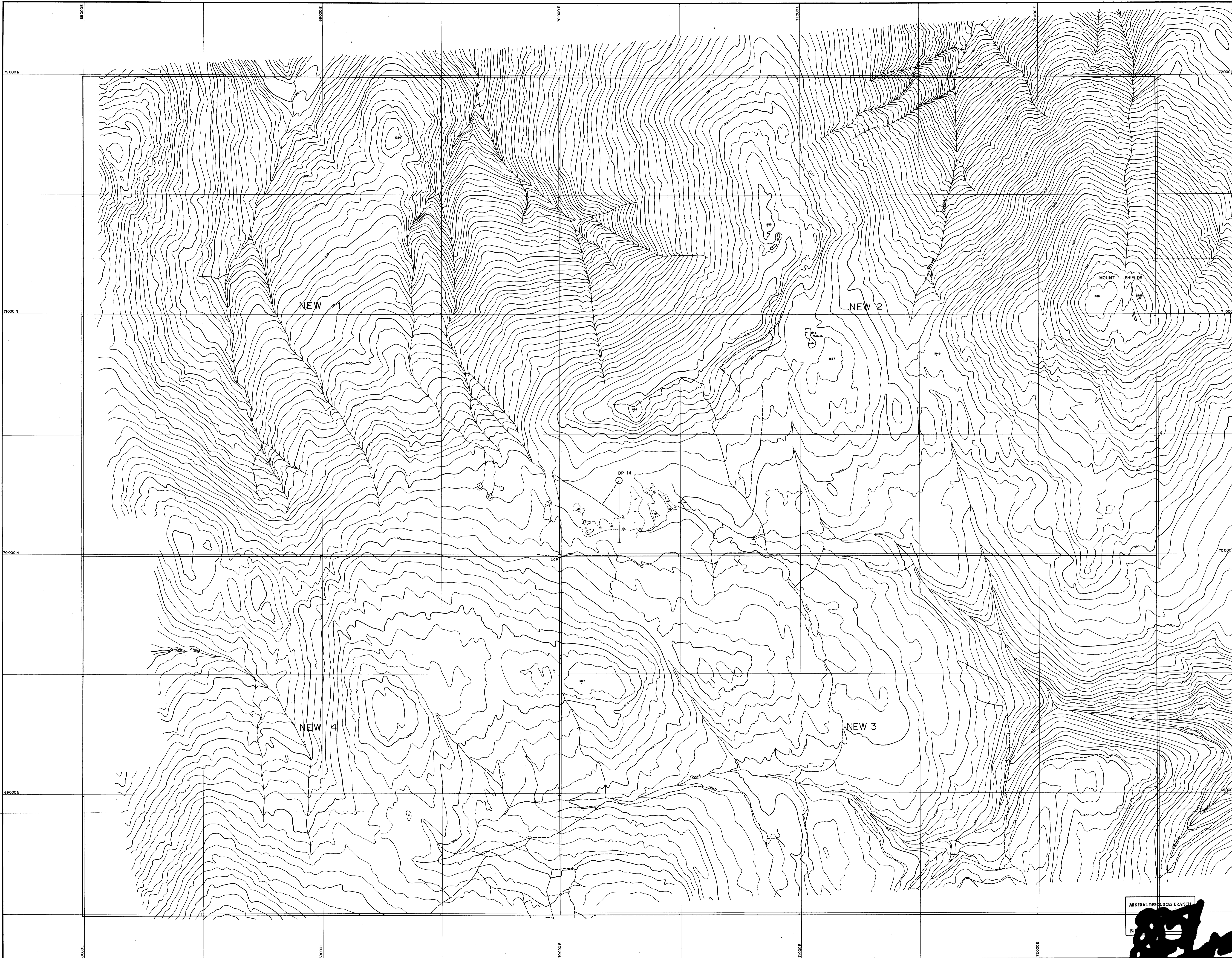
the calcite seems to have replaced in some cases the centers of some feldspar phenos.  
 dark green patches common, avg 1x2 cm

HOLE NO.: 114  
 COLLAR ELEV.:  
 COORDINATES: 80+00 N. 78+00 E.  
 INCLINATION: -70° BEARING: 180°

PROJECT: ODER PARK  
 DATE STARTED: JUNE 21 1980  
 DATE FINISHED: JULY 21 1980  
 TOTAL DEPTH: 762.6 m

PAGE NO.: 51 of 51  
 REF. TO CLAIM CORNER:  
 SCALE: 1:100  
 LOGGED BY: T. Pollock

SECTION	ALTERATION				MINERAL	GEOLOGY	COMMENTS:	AVE CORE REC'Y / HOLE	SULPHIDES	DRILLING INTERVAL	% CORE RECOVERED	CORE SIZE	SAMPLE INTERVAL	% REC'Y SAMP. INT.
	Silica	Sericite	Clay	Chlorite										
750							Fracture @ 85°, clean.							
751							751.7: Pink Granite xenolith 4x6mm.				16.7		750	
752							No veinlets or fractures.							
753														
754							Vertical fractures, 1 or 5 cm for 20cm.				100		753	
755							Contact @ 20°, gradational over 10mm							
756							Mainline calcite veinlet @ 70°							
757							Fracture @ 70°, clean.				100		756	
758							5mm zone of weak chloritization. No veinlets.							
759							Fracture @ 60°, clean.							
760							Calcite veinlet @ 75°, 1mm wide.							
761							Veinlet @ 75° 1.5mm of Qtz minor chl + Mo.							
762							irregular horline py veinlets							
763							Qtz-feldspar porphyry: similar to above but phenos are white plagi, matrix is becoming pale green, more siliceous plus fine disseminated py chaling up.				94.7		759	
							End of Hole 762.6 m.						762	
							= 2502'							



**LEGEND**

- Road or trail
- ~ River or creek
- Contours (V1 = 10m)
- Claim boundary
- ▲ Elevation control point
- DP-14 1980 Diamond drill hole
- LCP Legal corner post

**NOTES:**  
 1. Contour Interval: 10 metres  
 2. 70000 EAST and NORTH Meridians are identified to 10000 EAST and NORTH feet grid  
 3. Date of photography: 30th July, 1988 (I.C. Gov. air photos)  
 Recent information has been added  
 4. Datum: C.S.C.

MINERAL RESOURCES BRANCH

**UTAH MINES LTD.**  
 EXPLORATION DEPARTMENT  
 Vancouver British Columbia

**DEER PARK Mo PROSPECT**

**DIAMOND DRILL HOLE  
 COLLAR LOCATION PLAN**

Work by: T.R.P.	Date: Dec 1980	NTS Ref: 82-E-8
Drawn by: Ram N. Gopal	Revised:	

SCALE 1:5000  
 METRES 0 100 200 300 400 METRES