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Mining District File Summary Sheet

DISTRICT	Rosebud
DIST_NO	4010
COUNTY If different from written on document	Pershing
TITLE If not obvious	Draft 1992 Summary Report, Rosebud Project, Pershing County, Nevada March 1993
AUTHOR	Kuhl, T; Walck, C; Bennett, R; Kenner, K
DATE OF DOC(S)	1993
MULTI_DIST Y / N? Additional Dist_Nos:	
QUAD_NAME	Sulphur 7½'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Lac Minerals (USA) Inc; USMX; Rosebud Project; Equinox; Deerefield; Oscar; Short Shot; Dozer Hill; South Zone; North Zone; East Zone; Valley; Chalcedony
COMMODITY If not obvious	gold; silver
NOTES	Project Summary; Geology; Drill hole summaries; assays; resources; reserves; geologic map; cross section; presentation paper 76p.

Keep docs at about 250 pages if no oversized maps attached
(for every 1 oversized page (>11x17) with text reduce
the amount of pages by ~25)

SS:	DP	7/30/08
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Revised: 1/22/08

1992 SUMMARY REPORT

ROSEBUD PROJECT
Pershing County, Nevada

Timothy O. Kuhl
March, 1993

DRAFT

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SUMMARY

The Rosebud Project, located in northern Pershing County, Nevada, consists of a 11,700 acre claim block covering numerous volcanic hosted epithermal gold-silver prospects.

1989

In 1989, LAC discovered significant high grade gold mineralization in the third drill hole at Dozer Hill. By the end of 1989, 38 drill holes had delineated a northeast trending high grade mineralized zone 700 feet long. A total of 56 drill holes were completed on the Rosebud project during 1989 totalling 28,866 feet of drilling. Six satellite targets were drill tested in 1989.

1990

In 1990, the exploration program continued with initial step-out drilling along the trend at Dozer Hill. A total of 111 core and rotary drill holes totaling 86,332 feet of drilling were completed on the Rosebud project during 1990. By year-end a mineralized trend had been delineated at Dozer Hill which was 2000 feet long and 300 feet wide. Seven satellite targets were also drill tested in 1990.

Preliminary metallurgical testing was also completed during 1990.

1991

In 1991, an additional 83 core and rotary drill holes totalling 58,691 feet were completed on the Rosebud Project. Of this total drilling, 48,846 feet (64 holes) were completed in the Dozer Hill area. Drilling in 5 satellite targets amounted to 9,845 feet in 14 drill holes.

In addition to the drilling, Beacon Hill Consultants completed a pre-feasibility study of the Dozer Hill area in March, 1991. Cedar Creek Consultants completed soils, vegetation, and wildlife baseline studies in the spring of 1991 in preparation for permit applications for an underground project. Hydro-Geo Consultants completed surface and groundwater characterization studies. Monitoring wells were established in the Dozer Hill area and sampling began in October, 1991. Preliminary metallurgical testing was completed on Dozer Hill samples.

1992

In 1992, an additional 56 core and rotary drill holes totalling 35,389 feet were completed on the Rosebud Project. Of this total drilling, 24,280 feet (37 holes) were completed in the Dozer Hill area. Drilling in 6 satellite targets amounted to 11,109 feet in 19 drill holes. The 1992 drilling brought LAC's project totals to 209,278 feet of drilling in 294 drill holes.

During 1992, a pre-feasibility study to determine the viability of a mine at Rosebud was completed by Bharti Engineering Associates (BEA) of Sudbury, Ontario. In this study, it was determined the Rosebud Project contained 1.6 million tons of minable ore (using a 0.100 opt cutoff) at a diluted grade of 0.254 opt gold (using 2.000 opt high cut) yeilding a minable resource of 407,000 ounces. BEA concluded that the Rosebud project has potential to become a viable mining operation.

In December, 1992, LAC completed an re-evaluation of the Rosebud project to determine the economic potential of the project by optimizing grade and minimizing capital and mining costs. This study indicated a high grade minable resource of 681,000 tons grading 0.370 opt gold (250,000 oz.). This high-grade resource contains 61 percent of the ounces in 41 percent of the tonnage. A 50 percent IRR was indicated.

A preliminary open pit reserve was completed in October, 1992 by Pat Downey. Using a cut off of 0.050 opt gold and a $350/oz gold price the pit contained 3.2 million tons at a grade of 0.225 opt gold. The waste to ore ratio (without ramps) was estimated 24:1

The permitting process for an exploration decline was completed during 1992 and permits for the project are expected to be in hand the first quarter, 1993.

INTRODUCTION

The Rosebud project is located in the northern Kamma Mountains approximately 50 miles north of Lovelock, Nevada (figure 1). At least 14 precious metal prospects hosted by Miocene volcanic rocks have been identified on the property.

The property was initially identified by R.E. Bennett in 1987 during a regional reconnaissance program. Since that time, LAC has consolidated a land position constituting approximately 11,700 acres through various agreements and claim staking.

Work on the Rosebud project during 1992 consisted of reverse circulation and core drilling. The drilling was completed in two campaigns; 1) mid February through late May, and early October through mid December, 1992. The reverse circulation drilling was completed by Stevens Drilling (Hinkley, Utah) during the Spring campaign and by Stevens Drilling and Coates Drilling (Carson City, Nevada) during the fall campaign. The core drilling was completed by Coates drilling (Carson City, Nevada). Direct drilling costs averaged $6.25/foot for the reverse circulation drilling and $17.56/foot for the core drilling.

Barringer Labs, Inc., were contracted to complete the analytical work on the drill samples from Rosebud during 1992. In addition Bondar-Clegg were utilized for the drilling on the Oscar property. The laboratory costs for 1992 drill samples were approximately $12/sample during 1992.

During the year, ground magnetics and VLF was completed in the Valley target area and ground magnetic and IP was completed in the School Bus Canyon target.

Total expenditures on the Rosebud property during 1992 were $1,066,903 (net to LAC $834,775). This brings the project to date through year end 1992 expenditures to $6,140,280. Net to LAC expenditures, project to date through year end 1992, are $5,316,875.

PROPERTY STATUS

An additional 50 unpatented lode mining claims (Ice 16 to 65) were located west of the Oscar claim block in August, 1992. These claims cover the area around and west of the Double O or Red Gulch Placer mine. Permission was given to LAC to locate the lode claims over the Atlantis and Star Placer claims by the owner of the Placer claims, John Peterson.

In January, 1992, an agreement was completed with USMX on the Oscar claims which added approximately 700 acres to the Rosebud property.

At year end, 1992, the Rosebud property position consisted of approximately 605 unpatented mining claims and 3 patented mining claims. Approximately 11,700 acres are under LAC control. Refer to figure 2 and Plate: Land Map.

Bland/Peterson

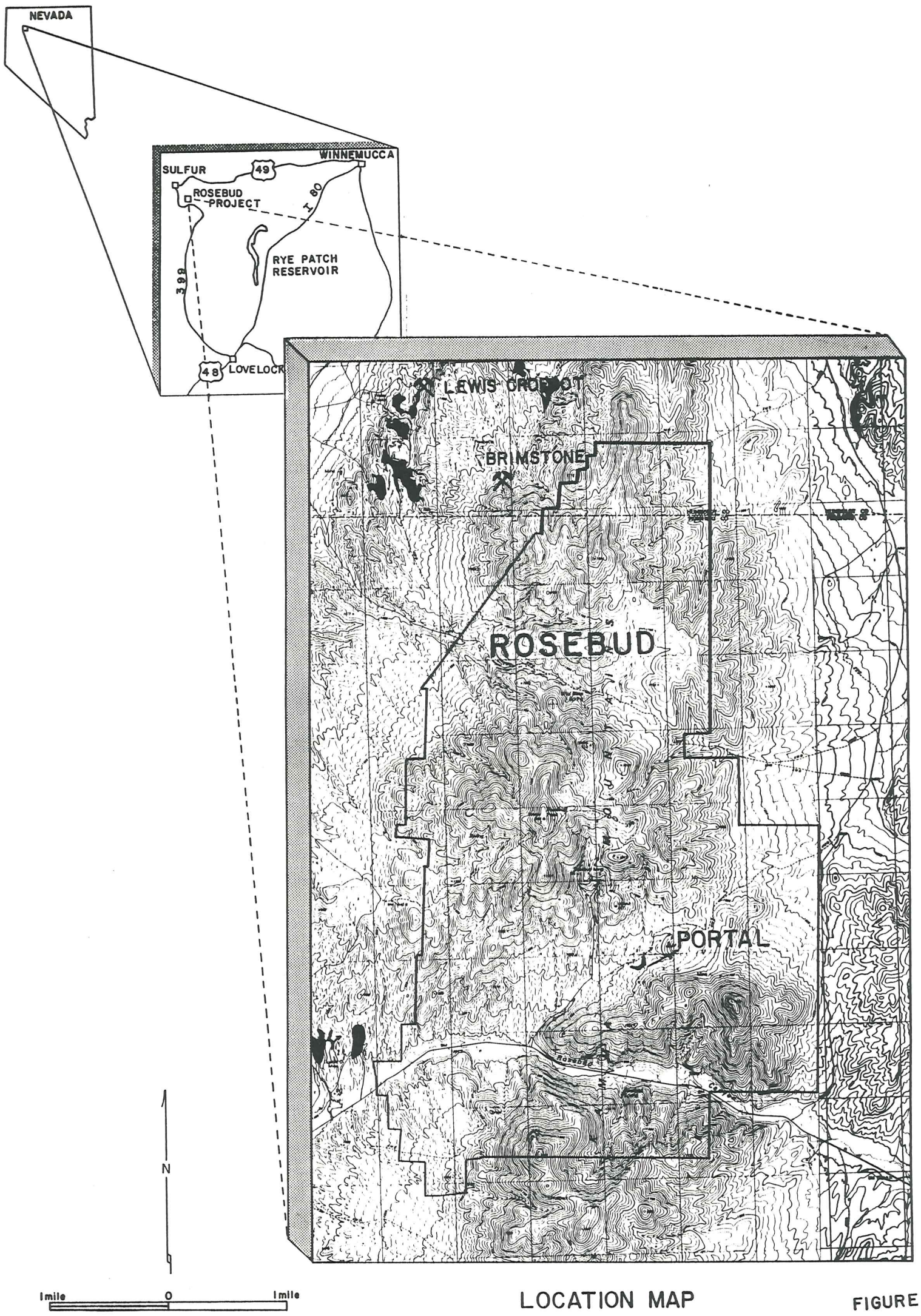
During 1992, one drill hole (RL290) was completed to a depth of 511 feet on the White Alps claims. RL290 tested the down dip extension of the Lucky Boy structure. No significant mineralization was encountered.

Johnson

No work was completed during 1992 on the Dreamland claims.

Chance

In late 1991, the Chance Joint Venture was returned to BEMA Inc. During 1992, a total of $3935 was spent for reclamation on the Chance project.



LOCATION MAP

FIGURE 1.

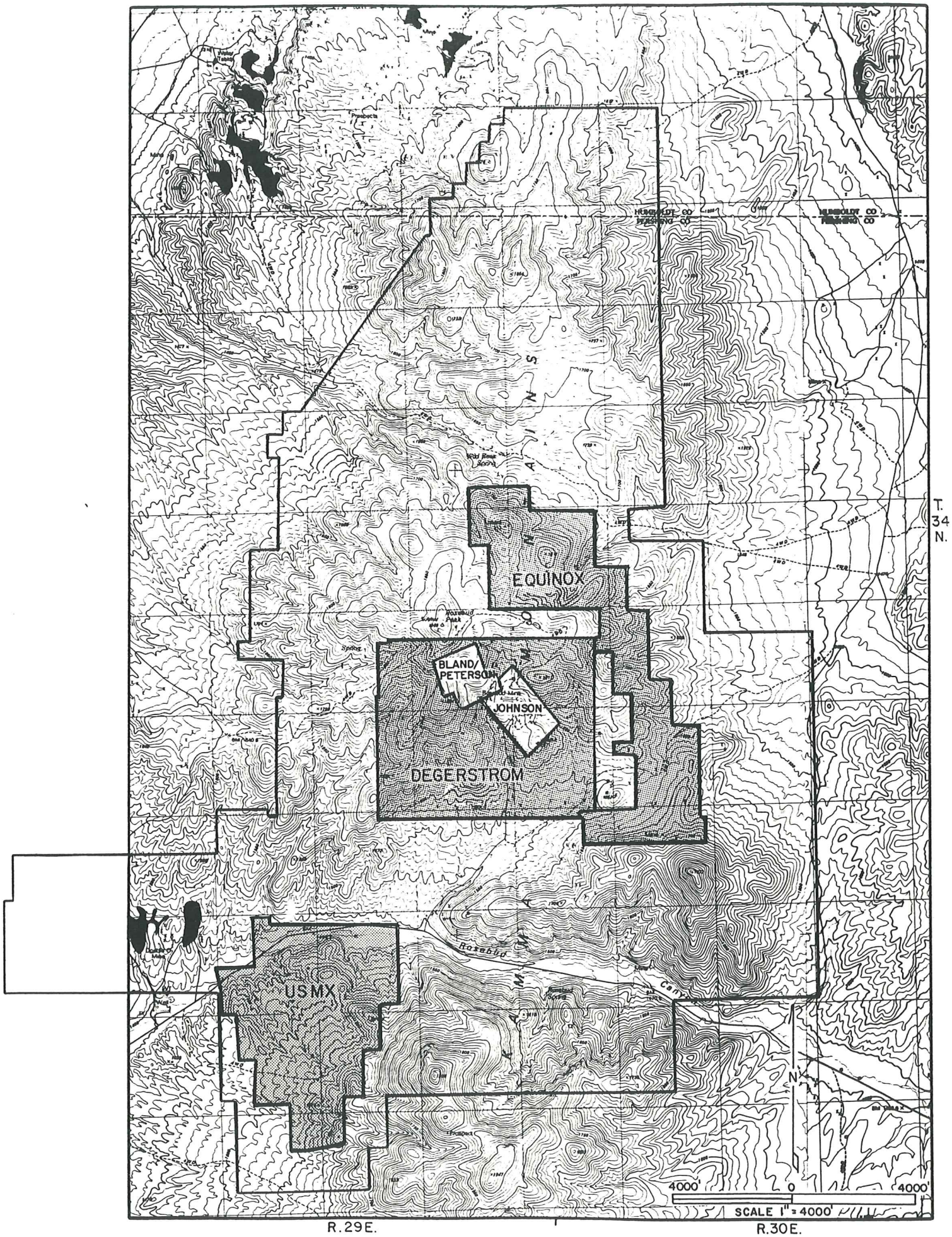


Figure 2: ROSEBUD PROJECT - CLAIM STATUS

100% LAC

PARTIAL INTEREST

Equinox

Equinox continued to contribute 49 percent of expenditures to the LAC-Equinox Joint Venture in the Dozer Hill area. During 1992, $473,730 was spent on the LAC-Equinox Joint Venture. Equinox contribution during 1992 totaled $232,125. During 1992, 30 drill holes (23 RC and 7 Core) were completed on Equinox Joint Venture ground for a total of 20,783 feet (13,697 feet RC and 7,086 feet Core) drilled.

Degerstrom

A total of $84,689 was spent on N.A. Degerstrom's GP claims during 1992. The earn in amount of $500,000 specified in the Degerstrom agreement was met in September and a Joint Venture was formed. In October an agreement was made with Degerstrom to continue the exploration program without the procedural nuances of a Joint Venture meeting. This agreement gave N.A. Degerstrom the option of reviewing the 1992 drill data and contributing to the joint venture expenditures in early 1993. In March, 1993, Degerstrom gave formal notice of their election not to participate in the Joint Venture.

USMX (Oscar)

In January, 1992, an agreement was completed with USMX on the Oscar claims which added approximately 700 acres to the Rosebud property. (A release was received from Edgemont regarding any lode rights on the Peterson Claims).

Expenditures on the Oscar project during 1992 totaled $151,333. During 1992, 11 reverse circulation drill holes were completed on the Oscar property totalling 5,485 feet. This drilling was completed on 1) the Main Oscar Target, and 2) the School Bus Canyon Target.

Short Shot

A total of $4,864 was spent on the Short Shot Project during 1992. A five year option extension was signed by Neil Garrett in January, 1992. No work was completed on the Short Shot during 1992.

GEOLOGY AND MINERALIZATION

The Rosebud project is located in the Kamma Mountains, northern Pershing County, Nevada. The Kamma Mountains are underlain by Miocene age volcanic rocks of felsic to intermediate composition. The volcanic stratigraphy consists of siliceous flows and tuffs with

intercalated fine to coarse fragmental units (Refer to appendix for summary of stratigraphic units as defined by Bennett, 1992). Underlying the volcanic rocks are Jurassic-Triassic black carbonaceous metasedimentary rocks. Tertiary age gravels occur along the flanks of the range. Numerous structurally controlled gold-silver prospects are hosted by the volcanic rocks.

The Kamma Mountains have undergone extensional tectonic deformation creating a complexity of high angle and low angle faults throughout the range. The most prominent structural feature in the Rosebud property is the Rosebud Shear which strikes northeasterly through the southern portion of the project area. The Rosebud shear displays approximately 2000 feet of left lateral displacement and up to 500 feet of north side down displacement. Another prominent feature is the South Ridge fault in the Dozer Hill area which displays up to 1,700 feet of left lateral oblique displacement. The South Ridge Fault is represented on the surface as bold silicic outcrops along the north flank of South Ridge. The fault can be consistently identified and correlated in the subsurface by drilling. The South Ridge Fault dips northerly at approximately 45 degrees. Mineralization in the Dozer Hill area is commonly spatially associated with the South Ridge Fault; either hanging wall or footwall to the South Ridge structure.

An exploration model for mineralization was proposed by N.H. Brewer in 1991. The model proposed gold mineralization to be localized in the brecciated and fractured hanging wall of low-angle structures. Host rocks could be any stratigraphic unit with good cracking characteristics. It was further proposed that some degree of vertical zoning characteristics were represented by the numerous prospects throughout the Rosebud property. Recent geologic interpretations based on detailed geologic cross sections and elevation plans in the Dozer Hill area have further developed this conceptual model for mineralization.

Dozer Hill mineralization can be subdivided into 3 areas. The South, North and East zones. The current model has hanging wall mineralization in the South and North areas controlled by tensional features which are represented by antithetic faults dipping southerly toward the South Ridge Fault. Near vertical(?) northwesterly striking faults in part control mineralization and may act as "feeder zones".

Mineralization in the East zone is localized within the South Ridge Fault zone or its footwall. Footwall mineralization is localized along structural features which are subparallel to the South Ridge Fault. Northwesterly striking faults in part control mineralization and may also represent potential "feeder zones" for mineralization.

Mineralization in the Dozer Hill area consists of a crude stockwork and micro-veining of quartz, calcite, clay, pyrite, marcasite within bleached, clay altered, sericitized, and locally silicified volcanic rocks. Gold and silver is present as electrum, aurian silver, and silver-bearing selenides and sulfosalts with in narrow discontinuous veinlets commonly less than a centimeter in thickness.

RESULTS OF THE 1992 DOZER HILL PROGRAM

Drilling

During 1992, a total 24,280 feet (15,142 feet RC and 9,138 feet core) of drilling was completed in the Dozer Hill area (Table 1). Drill hole locations are presented on the Dozer Hill Plate. Significant intercepts of all drilling listed in the appendices.

Table 1: Summary of 1992 Rosebud Drilling by Area.

AREA	CORE HOLES	CORE FOOTAGE	RC HOLES	RC FOOTAGE
DOZER	9	9,138	26	15,142
CHALCEDONY			2	745
DREAMLAND			2	1,057
E.DREAMLAND	1	1,310	1	607
OSCAR			11	5,485
VALLEY			4	1,905
TOTALS	10	10,448	46	24,335

The 1992 drilling in the Dozer Hill area was targeted to discover additional mineralized zones. Several geologic targets/theories, with the potential of significantly increasing the mineral resource were tested.

1) Drilling in the Far East zone was follow up to mineralization encountered in RL220 and RL217 in 1991. The drilling indicated the mineralization in the Far East Zone, though locally of high grade (ie. RL273), lacks continuity and tonnage potential.

2) RL261C and RL264C were drilled to test potential feeders for the high grade East Zone. Potential feeder structures were encountered in the drilling, but the grades encountered did not warrant further follow up.

3) RL262C was drilled as a geologic test of favorable stratigraphy underlying a Bud unit. Favorable host rock was encountered beneath the Bud unit, but a lack of alteration in the target host and along the South Ridge Fault did not warrant a follow up program.

4) RL265C tested for potential offsets of mineralization present at the South end of mineral zone identified at Dozer Hill. Wide Spread alteration was encountered, but gold values were not significant.

5) RL271 and RL272 tested "blind" targets in favorable rock units beneath the South Ridge Fault. RL272 encountered gold mineralization along the South Ridge Fault which warranted follow up drilling. The follow up drill holes indicated this mineralization lacked continuity.

One drill (RL289C) hole was completed into the 900 zone to test for high angle controls to mineralization. The drilling encountered a significant intercept with no indication of high angle structural control for the 900 zone mineralization.

1992 Resource Estimate

In conjunction with the Bharti Engineering Associates' Pre-Feasibility study, a cross sectional resource calculation was generated for the Dozer Hill area to determine a minable resource. Cutoffs of 0.100 and 0.150 opt gold with a minimum drill length of 10 feet were used. This resource calculation was developed using similar sections as used in the 1990 and 1991 resource calculation. These cross-sections are spaced at 100 foot intervals and oriented N55W. In addition, a second set of cross-sections were developed oriented normal to those above (N35E). The purpose of the second orientation was to 1) serve as a check against the initial section orientation and 2) this orientation allowed for a section spacing of 50 feet through the main zone allowing for better definition of the mineralization. Nominal cutoffs of 0.100 opt Au. and 0.150 opt AU over a minimum drill length of 10 feet were used in both resource calculations. Intercepts were picked from the drill hole cross sections and blocks of mineralization were drawn on the cross sections. The assays for the intercepts were accumulated in a Lotus 123 file. As individual sample intervals contain numerous check assays, the average of all assays for a sample interval was used as the assay value for that interval. Drill hole intercepts were then calculated by length weighting all samples comprising the intercept.

The Dozer Hill resource was subdivided into three areas based on continuity and host rock characteristics. The South area comprises sections 00 to 1000N; the North area comprises sections 1100N to 1800N and hanging wall to the South Ridge Fault; and the East area comprises section 1200N to 2000N and footwall to the South Ridge Fault. The resource calculation is presented in tables 2 and 3.

TABLE 2: SUMMARY OF "MINABLE" RESOURCE, ROSEBUD PROJECT, PERSHING COUNTY, NEVADA.
FILENAME TOTAL100.WK3
CUTOFF = 10 FEET OF 0.100 OPT AU.

	TONS	AU OZ'S	2.000 opt CUT AU OZ'S	CUM FREQ CUT AU OZ'S	AG OZ'S	AU GRADE	2.000 opt CUT AU GRADE	CM FQ CUT AU GRADE	AG GRADE
SOUTH ZONE (Northeast Sect. Orientation)									
DRILL INDICATED	643,000	258,710	228,332	195,804	2,249,813	0.402	0.355	0.305	3.50
DRILL INFERRED	9,900	6,805	6,790	5,363	29,660	0.687	0.686	0.542	3.00
INTERNAL DILUTION	88,900	4,137	4,137	4,137		0.047	0.047	0.047	
SUBTOTAL	**741,800**	**269,652**	**239,259**	**205,304**	**2,279,473**	**0.364**	**0.323**	**0.277**	**3.07**
EAST ZONE (Northwest Sect. Orientation)									
DRILL INDICATED	290,700	128,682	113,031	102,024	930,183	0.443	0.389	0.351	3.20
DRILL INFERRED	83,000	24,444	24,444	24,444	181,272	0.295	0.295	0.295	2.18
SUBTOTAL	**373,700**	**153,126**	**137,475**	**126,468**	**1,111,455**	**0.410**	**0.368**	**0.338**	**2.97**
NORTH ZONE (Northeast Sect. Orientation)									
DRILL INDICATED	147,800	35,808	35,194	30,547	1,018,779	0.242	0.238	0.207	6.89
DRILL INFERRED									
SUBTOTAL	**147,800**	**35,808**	**35,194**	**30,547**	**1,018,779**	**0.242**	**0.238**	**0.207**	**6.89**
TOTAL DRILL INDICATED	1,081,500	423,200	376,557	328,375	4,198,775	0.391	0.348	0.304	3.88
TOTAL DRILL INFERRED	92,900	31,249	31,234	29,807	210,932	0.336	0.336	0.321	2.27
TOTAL INTERNAL DILUTION	88,900	4,137	4,137	4,137		0.047	0.047	0.047	
TOTAL RESOURCE	**1,263,300**	**458,586**	**411,928**	**362,319**	**4,409,707**	**0.363**	**0.326**	**0.287**	**3.49**
SOUTH ZONE (Northeast Sect. Orientation)									
LAC ONLY GROUND	141,200	44,176	40,462	34,889	76,370	0.313	0.287	0.247	0.54
LAC INTERNAL DILUTION									
EQUINOX JV GROUND	511,700	221,339	194,660	166,278	2,203,103	0.433	0.380	0.325	4.31
EQUINOX INTERNAL DILUTION	88,900	4,137	4,137	4,137					
SUBTOTAL	**741,800**	**269,652**	**239,259**	**205,304**	**2,279,473**	**0.364**	**0.323**	**0.277**	**3.07**
EAST ZONE (Northwest Sect. Orientation)									
LAC ONLY GROUND	113,900	35,114	35,114	35,114	334,240	0.308	0.308	0.308	2.93
EQUINOX JV GROUND	259,800	118,012	102,361	91,354	777,216	0.454	0.394	0.352	2.99
SUBTOTAL	**373,700**	**153,126**	**137,475**	**126,468**	**1,111,456**	**0.410**	**0.368**	**0.338**	**2.97**
NORTH ZONE (Northeast Sect. Orientation)									
LAC ONLY GROUND	147,800	35,808	35,194	30,547	1,018,779	0.242	0.238	0.207	6.89
EQUINOX JV GROUND									
SUBTOTAL	**147,800**	**35,808**	**35,194**	**30,547**	**1,018,779**	**0.242**	**0.238**	**0.207**	**6.89**
TOTAL RESOURCE	**1,263,300**	**458,586**	**411,928**	**362,319**	**4,409,708**	**0.363**	**0.326**	**0.287**	**3.49**
SUBTOTAL LAC ONLY GROUND	**402,900**	**115,098**	**110,770**	**100,550**	**1,429,389**	**0.286**	**0.275**	**0.250**	**3.55**
SUBTOTAL EQUINOX JV GROUND	**860,400**	**343,488**	**301,158**	**261,769**	**2,980,319**	**0.399**	**0.350**	**0.304**	**3.46**
TOTAL RESOURCE	**1,263,300**	**458,586**	**411,928**	**362,319**	**4,409,708**	**0.363**	**0.326**	**0.287**	**3.49**
LAC SHARE OF OUNCES		**290,277**	**264,361**	**234,052**	**2,949,352**				
EQUINOX SHARE OF OUNCES		168,309	147,567	128,267	1,460,356				
TOTAL OUNCES		**458,586**	**411,928**	**362,319**	**4,409,708**				

TABLE 3: SUMMARY OF "MINABLE" RESOURCE, ROSEBUD PROJECT, PERSHING COUNTY, NEVADA.
FILENAME TOTAL150.WK3
CUTOFF = 10 FEET OF 0.150 OPT AU.

	TONS	AU OZ'S	2.00 OPT CUT AU OZ'S	CUM FREQ CUT AU OZ'S	AG OZ'S	AU GRADE	2.00 OPT CUT AU GRADE	CUM FREQ CUT AU GRADE	AG GRADE
SOUTH ZONE (Northeast Sect. Orientation)									
DRILL INDICATED	499,700	237,736	208,533	174,905	1,929,291	0.476	0.417	0.350	3.86
DRILL INFERRED	9,700	6,889	6,871	5,415	23,736	0.710	0.708	0.558	2.45
INTERNAL DILUTION	95,300	4,296	4,296	4,296	66,735	0.045	0.045	0.045	0.70
SUBTOTAL	**604,700**	**248,921**	**219,700**	**184,616**	**2,019,763**	**0.412**	**0.363**	**0.305**	**3.34**
EAST ZONE (Northwest Sect. Orientation)									
DRILL INDICATED	232,100	115,060	98,007	91,342	865,019	0.496	0.422	0.394	3.73
DRILL INFERRED	83,000	24,444	24,444	24,485	181,271	0.295	0.295	0.295	2.18
SUBTOTAL	**315,100**	**139,504**	**122,451**	**115,827**	**1,046,290**	**0.443**	**0.389**	**0.368**	**3.32**
NORTH ZONE (Northeast Sect. Orientation)									
DRILL INDICATED	128,500	34,049	34,049	28,826	449,883	0.265	0.265	0.224	3.50
DRILL INFERRED									
SUBTOTAL	**128,500**	**34,049**	**34,049**	**28,826**	**449,883**	**0.265**	**0.265**	**0.224**	**3.50**
TOTAL DRILL INDICATED	860,300	386,845	340,589	295,073	3,244,193	0.450	0.396	0.343	3.77
TOTAL DRILL INFERRED	92,700	31,333	31,315	29,900	205,007	0.338	0.338	0.323	2.21
TOTAL INTERNAL DILUTION	95,300	4,296	4,296	4,296	66,735	0.045	0.045	0.045	0.70
TOTAL RESOURCE	**1,048,300**	**422,474**	**376,200**	**329,269**	**3,515,935**	**0.403**	**0.359**	**0.314**	**3.35**
SOUTH ZONE (Northeast Sect. Orientation)									
LAC ONLY GROUND	121,600	42,503	39,962	32,710	70,596	0.350	0.329	0.269	0.58
LAC INT DILUTION	10,500	242	242	242	893	0.023	0.023	0.023	0.09
EQUINOX JV GROUND	387,800	202,122	175,442	147,610	1,882,432	0.521	0.452	0.381	4.85
EQUINOX JV INT DILUTION	84,800	4,054	4,054	4,054	65,842	0.048	0.048	0.048	0.78
SUBTOTAL	**604,700**	**248,921**	**219,700**	**184,616**	**2,019,763**	**0.412**	**0.363**	**0.305**	**3.34**
EAST ZONE (Northwest Sect. Orientation)									
LAC ONLY GROUND	82,600	30,379	30,379	30,379	296,334	0.368	0.368	0.368	3.59
EQUINOX JV GROUND	232,500	109,125	94,918	85,407	749,956	0.469	0.408	0.367	3.23
SUBTOTAL	**315,100**	**139,504**	**125,297**	**115,786**	**1,046,290**	**0.443**	**0.398**	**0.367**	**3.32**
NORTH ZONE (Northeast Sect. Orientation)									
LAC ONLY GROUND	128,500	34,409	34,409	28,385	449,883	0.268	0.268	0.221	3.50
EQUINOX JV GROUND									
SUBTOTAL	**128,500**	**34,409**	**34,409**	**28,385**	**449,883**	**0.268**	**0.268**	**0.221**	**3.50**
TOTAL RESOURCE	**1,048,300**	**422,834**	**379,406**	**328,787**	**3,515,936**	**0.403**	**0.362**	**0.314**	**3.35**
SUBTOTAL LAC ONLY GROUND	**343,200**	**107,533**	**104,992**	**91,716**	**817,706**	**0.313**	**0.306**	**0.267**	**2.38**
SUBTOTAL EQUINOX JV GROUND	**705,100**	**315,301**	**274,414**	**237,071**	**2,698,230**	**0.447**	**0.389**	**0.336**	**3.83**
TOTAL RESOURCE	**1,048,300**	**422,834**	**379,406**	**328,787**	**3,515,936**	**0.403**	**0.362**	**0.314**	**3.35**
LAC SHARE OF OUNCES		**268,337**	**244,943**	**212,622**	**2,193,803**				
EQUINOX SHARE OF OUNCES		**154,497**	**134,463**	**116,165**	**1,322,133**				
TOTAL OUNCES		**422,834**	**379,406**	**328,787**	**3,515,936**				

Cutting Procedures

Two cutting procedures were used to cut the high gold values.

Cumulative Frequency Distribution

To estimate a high cut value for each area, the assay data for the mineralized blocks were accumulated in a Lotus spread sheet. This file was sorted by area and a cumulative frequency distribution was completed on the assay data for each area. Assay data exceeding the value of the 95th percentile for each area were cut to this value. Using this procedure the high cuts for the South, North, and East areas were determined to be 1.000 opt Au, 0.500 opt Au, and 1.200 opt Au respectively.

Geostatistical

In July, 1992, FSS International (FSSI) was contracted to review Dozer Hill drill data to determine a cut value of the high grade assays. FSSI concluded there was no geological or statistical justification for cutting the high values. FSSI recommended that "a detailed 3D geologic model be built for use in limiting the volume over which the high grades are extrapolated" or indicator kriging should be used, possibly in conjunction with the current cross-sectional approach. As an "interim stop-gap" measure a high cut of **2.000 opt** gold could be used.

The results of the resource calculation are presented in tables 2 and 3. The resource is presented with "Uncut", "Cumulative Frequency Cuts", and the "2.000 opt Cut" categories. Using these same categories the division of Dozer Hill resource by property is summarized on table 4.

METALLURGY

No metallurgical work was completed during 1992.

ENGINEERING

Golder Associates

Golder Associates was contracted to give a preliminary geotechnical review of the Dozer Hill area. A geotechnical core logging procedure, including Point Load Testing, was put into place and carried out by LAC personnel. The conclusion of the Golder investigation was that the previous geotechnical interpretations were possibly overly conservative.

Bharti Engineering

A Pre-feasibility study was initiated in May, 1992. This study was be contracted out to Bharti Engineering Inc. of Sudbury, Ontario, Canada under the supervision of Bill Quesnel, LAC, Kirkland Lake. In conjunction with the Bharti study geotechnical investigations were undertaken by Richard Hong (LAC, Kirkland Lake) and Dave West (Bharti Engineering Associates).

LAC Re-evaluation

In December, 1992, LAC completed an re-evaluation of the Rosebud project to determine the economic potential of the project by optimizing grade and minimizing capital and mining costs (Filion, 1993). Using the previously determined geometry and 20 percent dilution, a high grade minable resource of 681,000 tons grading 0.370 opt gold was calculated. Compared to the Bharti pre-feasibility, this high-grade resource contains 61 percent of the ounces in 41 percent of the tonnage. Scenieros of contract mining, custom milling, and a 5 year project life (2 years pre-mining and 3 years mining) indicated a 50 percent IRR.

GEOPHYSICS

Valley

A southwest extension of the detailed magnetic-VLF "Dozer Grid" into the "Valley" target was completed with both VLF and magnetics. A total of 18,000 feet of old grid was resurrected and an additional 28,000 feet was added. Both Annapolis and Seattle stations were used in the VLF survey. These surveys were completed by LAC personnel.

Oscar

An IP-resistivity survey was completed in September, 1992 by BAR Geophysical, Englewood, Colorado. This data was interpreted by LAC's Geophysical Department in Denver.

PERMITTING

Personnel

The permitting of the underground exploration program at Rosebud is under the direction of Karl Burke. Consultants who contributed to the permitting effort were:

Environmental Assessment

Debra Struhsacker, Environmental Consultant, Reno, Nevada.
Document Preparation.

Planning Information Corporation, Denver, Colorado.
Social Economic Study including Transportation, Land Use, and Recreation studies.

Hydro-Geo Consultants, Denver, Colorado.
Surface and Groundwater Characterization.
Mine inflow study.
Infiltration study.

Peek and Associates, Sacramento, California.
Archeology Studies.

Cedar Creek Associates, Fort Collins, Colorado.
Soils, Vegetation, and Wildlife Studies.

DynaTech Engineering, Denver, Colorado.
Site Plan.

WESTEC Inc., Reno, Nevada.
Water Management System.

Plan of Operations

Debra Struhsacker, Environmental Consultant, Reno, Nevada.
Document Preparation.

Water Pollution Control Permit

Karl Burke, LAC Minerals.
Document Preparation.

WESTEC Inc., Reno, Nevada.
Water Management System.

Hydro-Geo Consultants, Denver, Colorado.
Surface and Groundwater Characterization.
Mine inflow study.
Infiltration study.

Reclamation Plan

Karl Burke, LAC Minerals.
Document Preparation.

Air Quality Permits

Karl Burke, LAC Minerals.
Document Preparation.

Artificial Pond Permit

Karl Burke, LAC Minerals.
Document Preparation.

Plan of Operations for Underground

The Plan of Operations for the Rosebud Underground project was submitted to the BLM on March 16, 1992. This document was prepared by Debra Struhsacker, Environmental Consultant. A response to the BLM and NDEP's "request for clarification" was submitted to these agencies in May, 1992. The Plan of Operations will be accepted upon approval of the Environmental Assessment.

Environmental Assessment

A Draft Environmental Assessment (EA) for the Rosebud Underground Exploration Project was submitted to the BLM on June 3, 1992. This document was prepared by Debra Struhsacker, Environmental Consultant. Initial comments of the EA were received from the BLM in July. A revised EA was re-submitted to the BLM in September. The draft EA was submitted to the State Clearing House for review in November. The BLM received comments from the state Clearing House in January, 1993. Minor editorial changes were needed to finalize the document and the final draft of the EA was forwarded to the BLM in late February, 1993.

Water Pollution Control Permit

The Water Pollution Control Permit (WPCP) Application was submitted to the Nevada Division of Environmental Protection (NDEP), Mining Regulatory Branch May 22. Comments of the Document were received from the NDEP in July. A response to these comments was submitted to the NDEP in August. A second round of comments were received from the NDEP in mid-December. A response to these comments was formulated with the assistance of WESTEC and Hydro-Geo Consultants and was hand delivered to the NDEP office on January 6, 1992. At that time the NDEP indicated the permit application was complete and acceptable and the permit would be written.

Air Quality Permits

Surface Disturbance Permit

Surface area disturbance Permit Application was submitted to the Bureau of Air Quality Division of Environmental Protection in April, 1992. This application was amended in May to reflect the modified water management system. A Land Clearing Permit has been issued.

Permit for Emissions from Diesel Generators

Combustion Permit Applications was submitted to the Bureau of Air Quality Division of Environmental Protection in April, 1992. This application was amended in May to reflect the

modified water management system. This permit will be issued at the time of construction.

Permit to Construct

Permit to Construct Application was submitted to the Bureau of Air Quality Division of Environmental Protection in April, 1992. This application was amended in May to reflect the modified water management system. A permit to construct has been issued.

Artificial Pond Permit

The Artificial Pond Permit Application was submitted to the Nevada Department of Wildlife in April, 1992. The Artificial Pond permit was issued in June, 1992.

MONITORING

Monitoring of 4 wells in the Dozer Hill area was initiated in October, 1991 and was continued at quarterly intervals (January, April, July, 1993). The July sampling completed one year of baseline sampling. The water samples were submitted to AZI Laboratories, Golden, Colorado for analysis.

As a condition of the WPCP, a monitoring program of Rabbit Hole Spring will be required. This should be initiated in 1993.

ROCK CHARACTERIZATION/METEORIC MOBILITY TESTING/ACID GENERATING

Rock Characterization, Meteoric Mobility, and acid generating tests were completed on representative core samples from the Dozer Hill area as baseline data for the EA.

SURFACE AND GROUND WATER CHARACTERIZATION STUDY

A surface and ground water characterization study was completed by Hydro-Geo Consultants, Denver, Colorado to fullfill the requirements of the EA.

RECLAMATION PLAN

The reclamation plan was revised in November to correspond with the EA submitted to the State Clearing House. A draft permit was issued in November, 1992.

WATER APPROPRIATIONS

A "portal" water appropriations survey map was completed and submitted to the State Engineers Office in May, 1992. Water Appropriation Permit (No. 55516) was granted by the Nevada Division of Water Resources for the well located near Dozer Hill in July, 1993. Water

appropriations has not yet been received for the portal.

OTHER

A presentation describing the proposed Underground Exploration Program was given to the Pershing County Commissioners by Karl Burke in May, 1992. The County representatives were very supportive of the project. The major county concerns included road use and housing availability.

RESULTS OF THE 1992 EXPLORATION PROGRAM

During 1992, a total of six satellite targets were drill tested. The drilling is summarized in table 4.

TABLE 4: Summary of exploration drilling by property.

PROPERTY	# OF RC HOLES	FOOTAGE DRILLED
CHALCEDONY	2	745
DREAMLAND	2	1,057
EAST DREAMLAND	2	1,917
VALLEY	4	1,905
OSCAR	11	5,485
TOTALS	21	11,109

CHALCEDONY

Two drill holes were completed in the Chalcedony target during 1992. RL280 was completed to a depth of 275 feet, but was abandoned because of high water in flows. No significant gold mineralization was encountered. RL281 was drilled on the southwest side of the Chalcedony target. No significant gold mineralization was encountered. The hole was drilled northwesterly within the inferred northwest trending mineralized zone in an attempt to cut a favorable stratigraphic target within the mineralized trend. The drill hole penetrated favorable TMB rocks which displayed quartz-clay alteration in the form of quartz-chalcedony veinlets. Little pyrite was noted. It was interpreted that the drill hole encountered high level alteration and to adequately test this area would require drilling in excess of 1000 feet.

DEGERSTROM

During 1992, six drill holes were completed on the GP claims. RL250 and RL251 were drilled in the Dozer Hill area to test down dip extensions of the Shaft Fault.

RL262C was completed in the Dozer Hill area to test down dip of the 900 Zone.

RL276 was completed in the Dreamland area to test down dip potential.

RL293 and RL294C were completed in the East Dreamland area to tested the Northwest mineral corridor between Dozer Hill and Dreamland at what was considered to be the optimum elevation interval. The drilling encountered favorable altered host rocks of the Wildrose sequence, but gold values were only weakly anomalous.

EAST DREAMLAND

Two drill holes were completed in the East Dreamland target during 1992. RL293 is a reverse circulation (-45) drill hole which encountered significant alteration throughout is 617 foot length, but only weakly anomalous gold values were encountered. It was interpreted that this drill hole encountered high level alteration and did not penetrate the elevation interval most favorable for deposition of gold mineralization. RL294C was completed from the same drill pad at a steeper angle (-70) to test the favorable elevation interval (4200 to 5200 feet). Though this drill hole encountered altered host rocks in the favorable elevation interval only weakly anomalous gold values were present. The downhole survey for this drill hole indicates the hole may not have adequately tested this target.

DREAMLAND

Two drill holes were completed in the Dreamland area during 1992. RL276 was drilled the downdip southwest extension of the "Low Angle" fault present in the Dreamland mine workings. The hole was drilled to a depth of 511 feet and encountered zones of weak to moderated alteration. The target fault was encountered in the interval 400 to 465 feet. Only trace amounts of gold were detected in the drill hole.

OSCAR

During 1992, 11 reverse circulation drill holes totalling 5,485 feet were completed on the Oscar Property testing 2 targets.

Main Oscar Target

Seven drill holes (O13, O14, O15, O16, O18, O19, O20) were completed in the main Oscar target during 1992. Though the drilling was geologically encouraging and indicated a widespread alteration, the lack of significant gold values preclude further work on this target.

School Bus Canyon

Initially three drill holes were completed near the mouth of School Bus Canyon to test an IP anomaly which corresponds with the inferred northeast trending White Alps structure. O17 encountered weakly altered and mineralized zones in the middle and upper Bud and Lower and Upper TMB units. This drill hole was lost at 510 feet because of excessive water inflow. O21 encountered weakly altered and mineralized zones in the middle and upper Bud and Lower and Upper TMB units. This drill hole also encountered high water inflows resulting in excessive down hole contamination. Drill hole O22 encountered 585 feet of conglomerate followed by weakly altered TMB. Gold was only weakly anomalous in these three drill holes. It was concluded that none of these drill holes reached the White Alps zone. O23 was completed in the School Bus Canyon target and penetrated the White Alps structure. The zone was weakly altered but contained no significant mineralization.

VALLEY

RL260 was completed in the Valley target within the Rosebud shear. The drill hole was completed to test an IP anomaly. The drilling did not encounter significant gold values, but did penetrate significant alteration.

RL274 is a reverse circulation drill hole which is a twin of KM9 (a drill hole completed by Freeport Exploration). Assay information from KM9 indicated the drill hole was encountered gold values of the 0.0X magnitude at the bottom of the drill hole (345 feet). RL274 was completed to further test this potential mineralization. No significant gold values were encountered.

RL291 and RL292 were drilled in the southwest side of the Rosebud shear in the Valley target. These drill holes tested a northwest trending resistivity high anomaly within a corresponding phase-high anomaly. Both drill holes encountered favorable alteration. RL291 contained significant downhole contamination and the interval 175 to 395 feet contained gold values in 0.00X range.

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Appendix 1:

ROSEBUD PROJECT
FREEPORT DRILLING SUMMARY
1985–1986

HOLE NO.	T.D. FEET	BEARING/ INCLINATION	INTERCEPT FROM–TO/WIDTH	AU OPT	AG OPT
Phase I (1985):					
KM–1	605	S12W/–75	NIL		
KM–2	605	VERT.	100–105'/5'	0.020	~0.05
			390–400'/10'	0.014	1.04
			590–605'/15'	0.012	0.29
KM–3	600	VERT.	15–25'/10'	0.094	0.06
			115–120'/5'	0.093	0.39
			430–435'/5'	0.026	0.05
			450–470'/20'	0.011	0.06
			490–495'/5'	0.011	0.15
			555–560'/5'	0.011	0.04
			575–585'/10'	0.018	0.07
			595–600'/5'	0.013	0.09
KM–4	600	VERT.	160–170'/10'	0.018	0.07
			175–180'/5'	0.021	~0.04
			250–255'/5'	0.041	~0.03
			530–540'/10'	0.117	0.03
KM–5	400	VERT.	NIL		
KM–6	400	VERT.	275–280'/5'	0.025	0.02
KM–7	340	VERT.	NIL		
KM–8	600	S40E/–50	235–240'/5'	0.019	0.08
			265–270'/5'	0.010	0.04
			285–290'/5'	0.039	0.03
			320–325'/5'	0.076	~0.05
			540–550'/10'	0.016	0.07
			560–565'/5'	0.049	~0.04
			590–600'/10'	0.019	–0.02
KM–9	365	VERT.	165–170'/5'	0.016	ND
			180–190'/10'	0.018	ND
			325–335'/10'	0.053	ND
			350–365'/15'	0.027	ND

Appendix 1 cont.

KM-10	380	VERT.	70-75'/5'	0.025	ND
KM-11	405	S46E/-60	180-185'/5'	0.046	ND
KM-12	445	N75E/-60	NIL		

Phase 2 (1986):

RB-1	500	N05E/-70	255-260'/5'	0.019	ND
			355-360'/5'	0.032	ND
RB-2	660	N05E/-60	0-5'/5'	0.013	ND
RB-3	460	N35W/-70	NIL		
RB-4	405	VERT.	25-30'/5'	0.010	ND
			75-80'/5'	0.010	ND
			120-125'/5'	0.013	ND
RB-5	425	VERT.	0-5'/5'	0.042	ND
			35-40'/5'	0.010	ND
			115-135'/20'	0.027	ND
			175-190'/15'	0.014	ND
			205-220'/15'	0.015	ND
RB-6	405	VERT.	NIL		
RB-7	305	S07E/-60	NIL		
RB-8	300	VERT.	NIL		
RB-9	305	VERT.	75-105'/30'	0.099	ND
			including		
			75-90'/15'	0.186	ND
RB-10	485	S85E/-60	NIL		

TOTAL: 9,995 22 Holes

Appendix 2:

ROSEBUD PROJECT
1989 DRILLING SUMMARY

HOLE NO.	T.D.	BEARING/ INCLINATION	INTERCEPT FROM–TO/WIDTH	AU OPT	AG OPT
DOZER HILL:					
RL–1	565	VERT.	15–20'/5'	0.036	–0.10
			25–30'/5'	0.096	0.11
			275–280'/5'	0.046	–0.10
			325–335'/10'	0.015	–0.10
			345–375'/30'	0.016	0.08
			385–390'/5'	0.019	–0.10
RL–2	820	VERT.	50–55'/5'	0.013	–0.10
			315–320'/5'	0.010	0.27
			385–390'/5'	0.016	0.15
RL–3	505	VERT.	35–40'/5'	0.011	–0.10
			95–100'/5'	0.015	–0.10
			175–180'/5'	0.010	–0.10
			220–355'/135'	0.064	0.15
			including		
			220–275'/55'	0.119	0.26
			225–250'/25'	0.224	0.47
RL–4	585	S40E/–60	5–10'/5'	0.012	–0.10
			155–160'/5'	0.010	–0.10
			175–180'/5'	0.010	–0.10
			195–200'/5'	0.016	0.10
			205–230'/25'	0.040	0.55
			270–275'/5'	0.016	–0.10
			285–290'/5'	0.026	–0.10
			310–315'/5'	0.047	–0.10
			320–325'/5'	0.012	0.30
RL–5	780	S05E/–58	225–230'/5'	0.020	0.10
			360–365'/5'	0.013	0.11
			370–525'/155'	0.168	3.13
			including		
			375–435'/60'	0.176	4.24
			525–780'/255'	0.073	1.86
			(Poss. Contam. 435–525')		
			(Prob. Contam. 525–780')		

Appendix 2 cont.

RL-6	492	S13W/-59	80-85'/5'	0.013	-0.10
	Lost		180-185'/5'	0.023	-0.10
			445-485'/40'	0.016	0.11
RL-7	620	S39E/-58	40-45'/5'	0.020	-0.10
RL-8	680	S08E/-58	30-35'/5'	0.014	-0.10
			110-115'/5'	0.089	0.12
			150-160'/10'	0.012	-0.10
			260-265'/5'	0.067	-0.10
			285-290'/5'	0.011	0.10
			430-435'/5'	0.015	0.10
			445-510'/65'	0.036	0.34
			530-535'/5'	0.011	-0.10
			575-585'/10'	0.013	0.11
			600-605'/5'	0.012	-0.10
RL-9	700	VERT.	125-130'/5	0.014	-0.10
			305-310'/5'	0.049	0.80
RL-10C	832	S36E/-58	325-330'/5'	0.011	-0.10
	(232' core)		335-340'/5'	0.014	-0.10
			400-405'/5'	0.041	0.10
			425-430'/5'	0.014	-0.10
			455-460'/5'	0.011	0.10
			475-480'/5'	0.012	-0.10
			510-595'/85'	0.020	0.02
			including		
			525-540'/15'	0.047	0.06
RL-11	480	S00E/-60	465-480'/15'	0.036	0.07
E. DREAMLAND:					
RL-12	405	N05E/-58	30-45'/15'	0.027	1.51
			365-370'/5'	0.013	-0.10
RL-13	385	N00E/-60	NIL		
RL-14	285	N00E/-60	NIL		
DREAMLAND:					
RL-15	445	N19W/-60	NIL		
RL-16	300	NO5E/-66	NIL		

Appendix 2 cont.

DOZER HILL:

RL-17C	1065 (460' core)	S36E/-67	215-225'/10'	0.013	0.01
			260-265'/5'	0.034	0.19
			510-515'/5'	0.013	0.18
			530-535'/5'	0.046	0.24
			639-654'/15'	0.02	0.07
			722.5-726'/3.5'	0.016	-0.1
			740-795'/55'	0.049	0.16
			including		
			765-790'/25'	0.075	0.24
			833-838.5'/5.5'	0.047	0.17

WHITE ALPS:

RL-18	465 Lost	N49W/-61	275-285'/10'	0.021	1.87
RL-19	445 Lost	N70W/-60	20-25'/5'	0.016	0.25
			75-80'/5'	0.013	0.52
			120-135'/15'	0.016	1.13
			195-215'/20'	0.052	1.04
RL-20	625	VERT.	150-155'/5'	0.010	1.24
			375-380'/5'	0.011	0.50
			395-400'/5'	0.016	0.36
RL-21	645	N41W/-58	550-555'/5'	0.015	-0.10
			560-565'/5'	0.012	-0.10
			570-575'/5'	0.011	-0.10

DOZER HILL:

RL-22	700	VERT.	265-270'/5'	0.041	0.16
			355-360'/5'	0.023	-0.10
			370-375'/5'	0.017	0.27
			395-540'/145'	0.075	1.93
			including		
			395-450'/55'	0.159	4.62
			410-445'/35'	0.231	7.04
			565-580'/15'	0.012	0.09
RL-23	660	VERT.	175-180'/5'	0.013	0.13
			340-345'/5'	0.014	-0.10
			360-420'/60'	0.028	0.85
			including		
			390-405'/15'	0.084	1.77

Appendix 2 cont.

RL–23 cont.			445–490'/45'	0.023	–0.10
			525–535'/10'	0.029	0.13
			555–560'/5'	0.014	0.50
RL–24	480	S02W/–58	35–40'/5'	0.024	–0.10
			110–115'/5'	0.033	–0.10
			395–410'/15'	0.034	0.60
			435–450'/15'	0.013	0.12
			465–480'/15'	0.026	0.33
RL–25	640	VERT.	0–5'/5'	0.030	0.44
			70–75'/5'	0.017	–0.10
			270–345'/75'	0.051	0.24
			including		
			325–340'/15'	0.149	0.79
			360–365'/5'	0.012	–0.10
			420–425'/5'	0.014	–0.10
			435–485'/50'	0.019	0.05
			515–520'/5'	0.013	0.18
			535–540'/5'	0.010	0.14
			560–570'/10'	0.020	0.09
			620–625'/5'	0.010	–0.10
RL–26	405	S02E/–58	50–55'/5'	0.033	0.18
			90–95'/5'	0.015	0.13
			300–310'/10'	0.012	0.45
RL–27	580	VERT.	405–520'/115'	0.076	1.15
			including		
			435–480'/45'	0.130	2.69
			555–560'/5'	0.010	–0.10
			575–580'/5'	0.032	–0.10
RL–28	485	S02E/–58	245–250/5'	0.061	0.96
			265–275'/10'	0.016	0.54
			410–415'/5'	0.010	–0.10
RL–29	505	S02W/–59	290–295'/5'	0.010	–0.10
RL–30	365	S02W/–59	20–25'/5'	0.010	–0.10
			110–115'/5'	0.028	–0.10
RL–31	512	VERT.	265–270'/5'	0.018	–0.10
			395–400'/5'	0.048	0.23
			480–490'/10'	0.011	0.38

Appendix 2 cont.

RL–32	405	S02E/–60	110–115'/5'	0.046	–0.10
			160–165'/5'	0.011	–0.10
			245–250'/5'	0.034	0.15
RL–33	465	VERT.	110–115'/5'	0.012	0.58
			120–170'/50'	0.022	0.38
			including		
			135–145'/10'	0.062	1.40
			185–190'/5'	0.010	0.42
			200–215'/15'	0.010	0.42
			225–240'/15'	0.016	0.08
			285–290'/5'	0.010	–0.10
			445–450'/5'	0.014	–0.10
			455–560'/5'	0.020	–0.10
RL–34	300	S03E/–59	NIL		
RL–35	625	VERT.	205–210'/5'	0.013	0.28
	Lost		315–320'/5'	0.013	–0.10
			345–350'/5'	0.011	–0.10
			385–435'/50'	0.056	0.87
			including		
			405–420'/15'	0.120	1.41
			475–545'/70'	0.020	0.44
			580–585'/5'	0.019	–0.10
RL–36	500	VERT.	75–80'/5'	0.010	–0.10
			130–135'/5'	0.012	–0.10
			435–465'30'	0.026	0.05
RL–37	495	VERT.	20–30'/10'	0.025	–0.10
			35–40'/5'	0.011	–0.10
			75–80'/5'	0.018	–0.10
			175–180'/5'	0.013	–0.10
			200–205'/5'	0.013	–0.10
			225–230'/5'	0.015	–0.10
			305–315'/10'	0.033	0.28
			325–340'/15'	0.014	–0.10
			400–410'/10'	0.025	–0.10
			460–485'/25'	0.033	0.14
RL–38	296	VERT.	NIL		
	Lost				
RL–39	370	VERT.	55–60'/5'	0.015	–0.10
			125–130'/5'	0.011	–0.10
			135–140'/5'	0.014	–0.10
			155–160'/5'	0.010	0.11

Appendix 2 cont.

RL–40C	610	S04E/–58	395–400'/5'	0.020	0.46
			411–466.5'/55.5'	0.055	1.31
			including		
			439.5–463'/23.5'	0.105	2.06
			510.5–513.5'/3'	0.010	–0.10
RL–41C	624	S65E/–67	416.5–483'/66.5'	0.233	7.26
			including		
			416.5–436'/19.5'	0.271	13.18
			474–483'/9'	1.090	28.88
			523–528'/5'	0.013	–0.10
			553–558'/5'	0.013	0.16
			563–573'/10'	0.308	2.77
			573–576.5'/3.5'	0.016	–0.10

SOUTH RIDGE:

RL–42	450	VERT.	NIL		
RL–43	310	N76E/–60	NIL		
RL–44	430	S44W/–60	40–55'/15'	0.017	0.02
RL–45	490	S46W/–61	55–65'/10'	0.028	0.02
			240–245'/5'	0.014	0.04

DERGERSTROM:

RL–46	430	N31E/–61	70–90'/20'	0.013	–0.10
RL–47	490	N81E/–61	165–170'/5'	0.010	–0.10
RL–48	440	VERT.	30–55'/25'	0.034	0.10
RL–49	545	S25E/–61	500–505'/5'	0.010	0.14

DOZER HILL:

RL–50	510	VERT.	145–150'/5'	0.025	0.11
			185–190'/5'	0.015	0.12
			200–205'/5'	0.030	–0.10
RL–51	510	VERT.	305–310'/5'	0.018	0.11
			335–345'/10'	0.113	0.32
			390–395'/5'	0.015	0.31
			400–405'/5'	0.017	0.13

Appendix 2 cont.

RL–52C	570	S79E/–64	367–453'/86'	0.069	0.98
			including		
			387–428'/41'	0.132	1.97
			399–423'/24'	0.155	2.56
RL–53	470	VERT.	325–330'/5'	0.010	–0.10
			335–340'/5'	0.010	–0.10
			360–470'/110'	0.028	0.25
			405–470'/65'	0.037	0.32
RL–54	625	VERT.	170–175'/5'	0.017	0.25
			215–220'/5'	0.011	0.10
			240–245'/5'	0.018	0.14
			255–265'/10'	0.022	–0.10
			280–305'/25'	0.015	–0.10
			325–330'/5'	0.018	–0.10
			365–370'/5'	0.014	–0.10
			395–400'/5'	0.015	–0.10
RL–55C	692	S52E/–76	290–300'/10'	0.057	–0.10
			335–340'/5'	0.044	0.25
			355–360'/5'	0.021	0.16
			378–382'/4'	0.010	–0.10
			396–447'/51'	0.034	0.07
			including		
			396–412'/16'	0.050	0.06
			427–447'/20'	0.047	0.12
			455–460'/5'	0.024	0.13
			514–549'/35'	0.259	2.05
			including		
			524–544'/20'	0.467	3.36
VALLEY:					
RL–56	450	VERT.	55–105'/50'	0.014	0.82
			145–150'/5'	0.015	–0.10
			285–295'/10'	0.046	–0.10

SUBTOTALS:

1989	28,866 Feet	56 Holes
1990	692 Feet	(2 core ext. in 1990)
TOTAL:	29,558 Feet	56 Holes

Note:
1) Intercepts composited @ >5'/0.010 opt Au
2) Dozer Hill composites @ 0.05 opt Au cut–off in bold–italics
3) "C" suffix on Hole No. = core hole

Appendix 3:

ROSEBUD PROJECT
1990 DRILLING SUMMARY

HOLE NO.	T.D. FEET	BEARING/ INCLINATION	INTERCEPT FROM–TO/WIDTH	AU OPT	AG OPT
DOZER HILL:					
RL–57	745	S55E/–61	225–230'/5'	0.016	–0.10
			410–415'/5'	0.028	–0.10
			450–470'/20'	0.039	–0.10
			520–650'/130'	0.220	0.35
		including	550–585'/35'	0.714	1.27
			675–695'/20'	0.016	–0.10
RL–58	645	S55E/–45	185–190'/5'	0.011	–0.10
			255–270'/15'	0.016	0.05
			320–325'/5'	0.010	–0.10
			355–365'/10'	0.026	0.16
			430–435'/5'	0.035	0.14
			480–490'/10'	0.014	–0.10
			505–600'/95'	0.025	0.41
RL–59	405	S55E/–63	245–250'/5'	0.015	0.48
	Lost		285–290'/5'	0.011	–0.10
			300–320'/20'	0.014	0.13
			345–385'/40'	0.017	0.03
RL–60	615	S55E/–63	330–335'/5'	0.017	2.20
			380–450'/70'	0.074	0.44
		including	415–430'/15'	0.261	1.85
			475–480'/5'	0.015	–0.10
			505–575'/70'	0.036	1.08
RL–61	945	N55W/–63	325–355'/30'	0.015	0.02
			385–410'/25'	0.030	0.05
			425–440'/15'	0.014	0.07
			460–465'/5'	0.014	–0.10
			510–515'/5'	0.023	–0.10
			620–625'/5'	0.010	0.12
			675–780'/105'	0.024	0.08
			including		
			705–720'/15'	0.066	0.11
			800–830'/30'	0.015	0.07
			855–860'/5'	0.010	–0.10
			890–900'/10'	0.083	0.12
			915–920'/5'	0.024	–0.10
			930–935'/5'	0.031	–0.10

Appendix 3:

RL–62	510	S55E/–45	165–175'/10'	0.035	0.06
			290–295'/5'	0.011	–0.10
			345–355'/10'	0.014	0.15
			440–445'/5'	0.026	0.32
			485–490'/5'	0.026	–0.10
			495–500'/5'	0.016	–0.10
RL–63	325	S31E/–45	115–120'/5'	0.052	–0.10
			170–180'/10'	0.050	0.51
RL–64	335	S70E/–50	175–190'/15'	0.013	–0.10
RL–65	580	S55E/–65	335–420'/85'	0.038	0.75
		including	355–375'/20'	0.076	0.43
			450–560'/110'	0.020	0.25
RL–66	525	S52E/–61	370–375'/5'	0.011	–0.10
			380–385'/5'	0.010	–0.10
			400–480'/80'	0.045	1.69
		including	400–415'/15'	0.151	6.63
RL–67	805	N55W/–69	140–145'/5'	0.010	–0.10
			210–215'/5'	0.011	–0.10
			230–235'/5'	0.015	–0.10
			450–455'/5'	0.013	3.31
			560–595'/35'	0.020	0.03
			615–640'/25'	0.022	–0.10
			685–700'/15'	0.012	–0.10
			750–790'/40'	0.013	–0.10
RL–68	715	N55W/–60	175–180'/5'	0.012	–0.10
			450–455'/5'	0.031	0.11
			525–530'/5'	0.011	–0.10
			535–540'/5'	0.011	–0.10
			555–605'/50'	0.016	0.02
RL–69	240	N55W/–62	225–230'/5'	0.012	–0.10
	Lost				
RL–69A	1179	N55W/–62	100–105'/5'	0.010	0.18
	(174' core)		245–250'/5'	0.010	0.93
			445–455'/10'	0.014	0.17
			670–680'/10'	0.093	0.24
			700–715'/15'	0.079	0.06
			725–735'/10'	0.013	1.64
			760–1000'/240'	0.043	0.22
		including	775–845'/70'	0.082	0.19
			930–955'/25'	0.070	0.28
			1162–1166'/4'	0.011	1.08
			1171–1176'/5'	0.018	0.13

Appendix 3:

RL–70C	1012	S55E/–69	580–585'/5'	0.019	–0.10
			635–660'/25'	0.032	0.04
			685–741'/56'	0.022	0.03
			800–805'/5'	0.010	0.13
			810–815'/5'	0.010	0.12
			855–865'/10'	0.053	–0.10
RL–71C	887	S51E/–53	197–202'/5'	0.010	–0.10
			262–328'/66'	0.110	0.57
		including	272–314.5/42.5'	0.156	0.80
			397–402'/5'	0.010	0.13
RL–72C	802	S59E/–63	20–25'/5'	0.010	0.26
			200–205'/5'	0.010	–0.10
			295–305'/10'	0.039	–0.10
			325–345'/20'	0.058	–0.10
			460–464'/4'	0.022	–0.10
			509–513'/4'	0.011	–0.10
			532–550'/18'	0.043	0.12
RL–73	415	S55E/–50	220–225'/5'	0.011	–0.10
VALLEY:					
RL–74	945	N55W/–60	140–145'/5'	0.013	–0.10
			270–275'/5'	0.015	–0.10
			320–325'/5'	0.095	–0.10
			415–420'/10'	0.039	–0.10
			455–460'/5'	0.021	–0.10
			495–500'/5'	0.012	0.11
			525–530'/5'	0.079	0.44
			635–665'/30'	0.014	–0.10
			675–680'/5'	0.011	–0.10
			705–715'/10'	0.022	–0.10
			835–840'/5'	0.017	–0.10
			855–860'/5'	0.030	–0.10
			875–880'/5'	0.031	–0.10
			910–915'/5'	0.016	–0.10
DOZER HILL:					
RL–75C	1071	S55E/–72	95–100'/5'	0.010	0.13
			305–315'/10'	0.126	–0.10
			325–335'/10'	0.019	–0.10
			400–415'/15'	0.040	0.22
			500–520'/20'	0.023	0.05
			530–535'/5'	0.038	0.33
			695–720'/25'	0.025	0.22
			735–745'/10'	0.052	0.20
			775–820'/45'	0.076	0.05

Appendix 3:

RL75C cont.		including	775–785'/10'	0.218	0.13
			810–820'/10'	0.087	0.08
			855–860'/5'	0.149	0.20
			865–870'/5'	0.012	0.39
			880.5–892'/11.5'	0.131	0.17
			922–932'/10'	0.018	–0.10
			952–972'/20'	0.016	0.03
			1047–1052'/5'	0.012	–0.10
			1062–1067'/5'	0.016	–0.10
VALLEY:					
RL–76	625	S55E/–60	100–105'/5'	0.012	0.69
			160–165'/5'	0.016	–0.10
			175–180'/5'	0.011	–0.10
			335–355'/20'	0.014	–0.10
RL–77	765	N55W/–60	125–130'/5'	0.027	0.34
			140–155'/15'	0.032	0.05
			165–170'/5'	0.011	–0.10
			235–245'/10'	0.032	0.16
			495–500'/5'	0.012	0.11
			570–600'/30'	0.012	0.07
			665–675'/10'	0.016	–0.10
RL–78	745	N55W/–60	230–235'/5'	0.014	0.16
			300–305'/5'	0.017	0.21
			420–430'/10'	0.011	–0.10
			515–525'/10'	0.016	0.26
WHITE ALPS:					
RL–79	705	N44W/–70	260–265'/5'	0.012	0.13
			290–300'/10'	0.011	0.89
			490–505'/15'	0.014	1.47
RL–80	675	N54W/–45	265–270'/5'	0.010	0.77
			295–300'/5'	0.012	1.11
RL–81	805	N45W/–45	nil		
DOZER HILL:					
RL–82C	1065	S55E/–65	345–350'/5'	0.019	–0.10
			435–455'/20'	0.020	–0.10
			507–531'/24'	0.019	–0.10
			594–599'/5'	0.012	–0.10
			604–609'/5'	0.010	–0.10
			644–682'/38'	0.453	0.57
			698–703'/5'	0.017	–0.10
			718–723'/5'	0.014	0.72

Appendix 3:

RL–82C cont.			733–817'/84'	0.061	0.13
		including	798–807'/9'	0.364	0.19
			837–842'/5'	0.010	–0.10
WHITE ALPS:					
RL–83	815	N15W/–60	410–415'/5'	0.010	–0.10
N. EQUINOX:					
RL–84	620	N30E/–45	nil		
	Lost				
RL–85	530	N01W/–75	405–420'/15'	0.010	0.07
	Lost		425–430'/5'	0.010	0.13
RL–86	665	N00E/–60	65–80'/15'	0.010	0.19
			105–110'/5'	0.011	–0.10
			140–175'/35'	0.012	–0.10
			200–205'/5'	0.015	0.18
			265–270'/5'	0.035	–0.10
			305–310'/5'	0.012	–0.10
			410–415'/5'	0.011	–0.10
RL–87	845	N30W/–60	nil		
DOZER HILL:					
RL–88C	962	S55E/–53	85–90'/5'	0.013	0.10
			350–360'/10'	0.015	–0.10
			390–405'/15'	0.025	0.08
			420–425/5'	0.012	0.17
			455–460'/5'	0.020	–0.10
			665–670'/5'	0.077	0.37
			720–775'/55'	0.176	0.78
			including		
			745–775'/30'	0.305	1.18
			795–825.7'30.7'	0.168	3.89
RL–89C	1152	N54W/–60	115–120'/5'	0.015	0.20
			400–405'/5'	0.031	0.12
			460–470'/10'	0.037	0.01
			540–545'/5'	0.015	–0.10
			585–590'/5'	0.018	–0.10
			837–841.8/4.8'	0.012	–0.10
			852–862'/10'	0.056	1.30
			882–887'/5'	0.010	–0.10
			892–1098.2'/206.:	0.142	0.24
		including	941–1092'/151'	0.181	0.28

Appendix 3:

RL–89C cont.			1024–1092'/68'	0.314	0.54
			1132–1135'/3'	0.024	1.35
			1149–1152'/3'	0.011	1.21
RL–90C	1012	S55E/–63	5–10'/5'	0.010	–0.10
			55–75'/20'	0.013	0.08
			225–230'/5'	0.012	–0.10
			295–340'/45'	0.020	0.09
			355–365'/10'	0.012	0.10
			445–450'/5'	0.019	0.31
			503–507.7'/4.7'	0.072	0.15
			533–543'/10'	0.020	0.27
			583–587'/4'	0.016	–0.10
			839–859.8/20.8'	0.031	0.15
			873–883'/10'	0.014	–0.10
			897–906'/9'	0.017	–0.10
RL–91C	1150	S55E/–60	145–150'/5'	0.049	0.14
			295–300'/5'	0.022	–0.10
			711–713.9'/2.9'	0.012	–0.10
			985–995'/10'	0.010	–0.10
			1033.5–1035.5/2'	0.021	–0.10
			1070–1075/5'	0.045	0.10
RL–92C	1281	S55E/–49	175–180'/5'	0.015	0.21
			190–195'/5'	0.011	0.21
			210–220'/10'	0.075	0.26
			270–290'/20'	0.012	–0.10
			685–690'/5'	0.024	–0.10
			1046–1055/9'	0.023	0.10
			1070–1075/5'	0.012	–0.10
			1180–1190'/10'	0.028	0.05
			1215–1220/5'	0.029	0.10
			1230–1270/40'	0.035	0.36
		including	1240–1257.5/17.5'		0.45
RL–93C	1082	S55E/–60	45–50'/5'	0.031	–0.10
			130–140'/10'	0.020	0.08
			150–165'/15'	0.035	0.14
			195–200'/5'	0.047	0.30
			425–430'/5'	0.015	0.21
			460–462'/2'	0.101	0.42
			560–563'/3'	0.023	0.27
			830–835'/5'	0.021	–0.10
			860–865'/5'	0.032	–0.10
			876–880'/4'	0.013	–0.10
			920–1050'/130'	0.189	0.43
		including	945–1044'/99'	0.242	0.52

Appendix 3:

RL–93C cont.			1010–1030'/20'	0.649	1.06
RL–94C	1199	S55E/–60	100–105'/5'	0.032	–0.10
			450–455'/5'	0.054	0.13
			585–590'/5'	0.010	1.33
			600–605'/5'	0.014	–0.10
			635–640'/5'	0.013	–0.10
			670–675'/5'	0.019	0.12
			695–700'/5'	0.012	0.10
			845–855'/10'	0.019	0.17
			890–903'/13'	0.013	0.11
			915–975'/60'	0.061	0.20
		including	940–965'/25'	0.112	0.38
			995–1010'/15'	0.044	1.45
			1020–1025'/5'	0.022	0.28
			1045–1065'/20'	0.205	0.50
		including	1050–1060'/10'	0.367	0.60
			1140–1145'/5'	0.083	2.22
			1195–1199'/4'	0.038	0.48
RL–95C	1270	S55E/–60	560–565'/5'	0.013	–0.10
			966–977'/11'	0.017	–0.10
			1192.6–1193.1'/0.5'	0.014	–0.10
RL–96C	1192	S55E/–60	60–70'/10'	0.013	–0.10
			145–175'/30'	0.060	0.17
			860–865'/5'	0.023	–0.10
			1147–1152'/5'	0.020	0.72
			1177–1182'/5'	0.012	0.20
RL–97C	1252	S55E/–63	240–245'/5'	0.017	–0.10
			445–450'/5'	0.011	0.18
			833–995'/162'	0.056	0.51
			including		
			833–850'/17'	0.118	0.21
			913–940'/27'	0.100	0.82
RL–98C	1061	S55E/–63.5	270–275'/5'	0.160	0.64
			910–945'/35'	0.018	0.86
			955–960'/5'	0.010	–0.10
RL–99C	1242	S55E/–58.5	235–240'/5'	0.039	–0.10
			320–330'/10'	0.056	0.08
			365–370'/5'	0.010	–0.10
			395–400'/5'	0.016	0.18
			512–517'/5'	0.024	–0.10
			837–842'/5'	0.053	–0.10
			862–867'/5'	0.021	–0.10
			892–1062/170'	0.015	0.50
		including	965–980'/15'	0.030	0.11

Appendix 3:

RL–100C	1168.5	S55E/–60	350–355'/5'	0.026	0.12
			887–916'/29'	0.075	–0.10
			930.5–1027/96.5'	0.215	11.78
		including	930.5–965/34.5'	0.284	0.38
			976–1001.5/25.5'	0.240	1.50
			1011.5–1022/10.5	0.252	96.32
			1072–1087/15'	0.033	2.84
			1127–1132/5'	0.015	2.62
RL–101C	1123.5	S54E/–59	577–582'/5'	0.036	0.27
			587–597'/10'	0.017	0.10
			612–617'/5'	0.044	0.29
			662–667'/5'	0.012	0.44
			687–692'/5'	0.139	–0.10
			732.6–735.8/3.2	0.136	0.46
			762–777'/15'	0.091	0.23
			807–813'/6'	0.010	0.11
			904–909'/5'	0.010	–0.10
			977–982'/5'	0.023	–0.10
			997–1063.8/66.8'	0.045	1.08
		including	1023–1044'/21'	0.064	0.19
RL–102C	1092	S56E/–59.5	35–40'/5'	0.010	–0.10
			195–205'/10'	0.014	0.14
			275–280'/5'	0.051	1.38
			375–380'/5'	0.023	0.28
			410–415'/5'	0.020	–0.10
			430–451'/11'	0.012	–0.10
			456–461'/5'	0.017	–0.10
			492–497'/5'	0.019	–0.10
			507–552'/45'	0.020	0.10
			567–582'/15'	0.028	0.05
			670–676'/6'	0.011	0.12
			760.5–766'/5.5'	0.013	0.10
			801.5–920'/118.5	0.066	0.11
		including	892–920'/28'	0.232	0.27
RL–103	295	VERT.	45–50'/5'	0.011	–0.10
			190–195'/5'	0.022	–0.10
			240–245'/5'	0.013	–0.10
RL–104C	1087	S55E/–60	527–567'/40'	0.014	0.02
			742–922'/180'	0.136	0.26
		including	742–872'/130'	0.210	0.34
			754–782'/28'	0.323	0.56
			807–872'/65'	0.206	0.39
			937–954.5/17.5'	0.030	0.28
			967–982'/15'	0.011	0.04
			1007–1026.3'/19.3	0.060	0.07

Appendix 3:

RL–105C	1062	S55E/–60	110–115'/5'	0.017	–0.10
			120–125'/5'	0.011	0.23
			145–150'/5'	0.021	–0.10
			200–205'/5'	0.022	–0.10
			594–599'/5'	0.011	0.13
			809–814'/5'	0.029	1.52
			823–828'/5'	0.013	0.16
			838–842'/4'	0.012	0.16
RL–106C	1237	S51E/–60	287–292'/5'	0.032	–0.10
			302–307'/5'	0.013	–0.10
			327–332'/5'	0.014	–0.10
			347–352'/5'	0.031	–0.10
			411.5–417'/5.5'	0.035	–0.10
			702–707'/5'	0.011	–0.10
			983–992'/9'	0.148	2.12
			1007–1012'/5'	0.024	0.51
			1022–1067'/45'	0.038	0.16
		including	1047–1067'/20'	0.085	0.22
			1087–1102'/15'	0.023	0.12
			1147–1152'/5'	0.010	–0.10
			1162–1212'/50'	0.064	5.62
		including	1187–1202'/15'	0.109	7.03
RL–107C	1030	S52E/–55	275–280'/5'	0.016	0.21
			305–320'/15'	0.058	–0.10
			345–350'/5'	0.030	–0.10
			395–420'/25'	0.044	0.16
			667–672/5'	0.016	0.20
			678–682'/4'	0.025	–0.10
			777–782/5'	0.023	1.30
			840–845'/5'	0.025	–0.10
			850–855'/5'	0.014	0.19
			905.5–910.5/5'	0.013	–0.10
RL–108C	1107	S51E/–60	437–442'/5'	0.021	–0.10
			472–477'/5'	0.016	0.24
			937–942'/5'	0.019	0.12
			972–1037/65'	0.103	0.24
		including	992–1027/35'	0.137	0.41
			1037–1107/70'	0.012	3.51
		including	1062–1082/20'	0.032	9.01
RL–109C	1247	S51E/–60	889–1015.5/126.5	0.050	1.17
		including	967–988'/21'	0.162	2.19
			1062–1068/6'	0.011	–0.10
			1102–1107/5'	0.033	–0.10
			1122–1132/10'	0.013	1.36
			1201.5–1205.5/4'	0.016	6.32

Appendix 3:

RL–109C cont.			1232–1237/5'	0.014	–0.10
RL–110C	1232	S55E/–55	185–190'/5'	0.010	–0.10
			195–200'/5'	0.021	2.72
			245–250'/5'	0.016	0.44
			355–360'/5'	0.010	0.18
			380–385'/5'	0.013	0.12
			390–395'/5'	0.012	–0.10
			1193.5–1202/8.5'	0.048	0.11
VALLEY:					
RL–111C	957	S00E/–45	252–257'/5'	0.039	0.21
			587–592'/5'	0.012	0.28
			879–884'/5'	0.034	–0.10
			907–912'/5'	0.025	–0.10
			922–927'/5'	0.068	0.11
DOZER HILL:					
RL–112C	1229.5	S45E/–58	35–40'/5'	0.010	0.10
			85–110'/25'	0.036	0.38
			475–508'/33'	0.013	0.15
			517–522'/5'	0.019	0.26
			522–527'/5'	0.012	0.29
			546–552'/6'	0.028	0.11
			857–862'/5'	0.073	–0.10
			927–937'/10'	0.043	0.47
			947–952'/5'	0.022	–0.10
			972–977'/5'	0.021	0.19
			997–1002'/5'	0.038	–0.10
			1017–1022/5'	0.010	–0.10
			1027–1069/42'	0.068	0.72
		including	1032–1052'/20'	0.086	1.24
			1085.8–1094.5/8.	0.013	8.14
			1105–1130.5/25.5	0.014	1.04
			1145.5–1156/10.5	0.012	2.12
			1171.9–1199/27.1	0.027	1.23
CHANCE TARGET:					
RL–113	800	S10W/–45	325–350'/25'	0.020	0.09
			395–700'/305'	0.029	0.03
		including	510–670'/160'	0.043	0.03
		including	530–565'/35'	0.086	0.06
			710–715'/5'	0.013	–0.10
			720–725'/5'	0.012	–0.10
			740–755'/15'	0.018	–0.10
			785–795'/10'	0.036	–0.10

Appendix 3:

RL–114	800	S10W/–45	nil		
RL–115	715	S10W/–60	nil		
RL–116	510	S10W/–60	500–505'/5'	0.010	0.15
RL–117	600	S10W/–60	nil		

WILD ROSE:

RL–118	640	N35E/–45	nil		
RL–119	500	S00E/–45	nil		
RL–120	495	N19E/–60	40–45'/5'	0.035	–0.10
			110–125'/15'	0.015	0.09
			155–175'/20'	0.015	0.06
			265–270'/5'	0.042	0.27

EAST DREAMLAND:

RL–121	300	N20W/–45	nil		
RL–122	400	N20W/–65	245–265'/20'	0.015	5.62
			325–350'/25'	0.019	–0.10

DOZER HILL:

RL–123C	698	S55E/–60	255–260'/5'	0.025	–0.10
			421.5–477/55.5'	0.015	0.22
			502–507'/5'	0.022	0.20
			532–572'/40'	0.405	7.21
		including	542–572'/30'	0.558	9.57
			582–587'/5'	0.012	–0.10
			607–617'/10'	0.078	0.12
			632–667'/15'	0.031	0.24
			671–692'/11'	0.011	0.16
RL–124C	972	S55E/–60	95–100'/5'	0.014	–0.10
			175–180'/5'	0.110	0.38
			812–817'/5'	0.010	–0.10
RL–125C	662	S55E/–65	160–165'/5'	0.013	–0.10
			285–295'/10'	0.015	0.06
			432–437'/5'	0.015	0.12
			457–462'/5'	0.019	1.14
			457–542'/85'	0.149	4.24
		including	487–527'/40'	0.373	8.39

Appendix 3:

RL–125C cont.			572–596'/24'	0.056	1.05
		including	572–582'/10'	0.110	1.18
RL–126C	781	S55E/–60	85–90'/5'	0.012	0.22
			105–110'/5'	0.026	0.16
			210–215'/5'	0.016	–0.10
			280–285'/5'	0.030	0.21
			310–315'/5'	0.010	0.30
			515–520'/5'	0.011	0.18
RL–127C	610.5	S55E/–60	385–390'/5'	0.010	–0.10
			407–412'/5'	0.011	0.19
			487–492'/5'	0.020	0.10
			502–542'/40'	0.092	1.72
		including	502–517'/15'	0.176	1.43
			550–555'/5'	0.014	0.27
RL–128C	667	S55E/–60	220–225'/5'	0.013	0.14
			334–337.5'/3.5'	0.010	–0.10
			346–351'/5'	0.012	0.26
RL–129C	442	S54E/–60	80–85'/5'	0.016	0.22
			110–115'/5'	0.012	–0.10
			263–267'/4'	0.012	0.22
			302.5–392/89.5'	0.106	0.15
		including	321.5–362/40.5'	0.216	1.46
RL–130C	712	S55E/–59	225–250'/25'	0.016	0.71
			452–462'/10'	0.120	0.11
			551.1–612/60.9'	0.282	2.86
		including	572–607'/35'	0.508	4.68
RL–131C	1078	VERTICAL	0–5'/5'	0.020	–0.10
			280–285'/5'	0.031	0.14
			290–295'/5'	0.047	0.13
			667–672'/5'	0.011	2.00
			677–681'/4'	0.015	5.07
			760–807'/47'	0.200	0.03
		including	765–770'/5'	1.670	1.37
			848–852'/4'	0.038	–0.10
			897–901.5'/4.5'	0.097	0.12
			965.5–971'/5.5'	0.021	0.24

EAST DREAMLAND:

RL–132	200	N20E/–45	nil		
RL–133	300	N00E/–45	70–75'/5'	0.011	0.19
			95–100'/5'	0.015	–0.10

Appendix 3:

RL–134	145	N20E/–45	10–15'/5'	0.013	0.51
RL–135	300	N20E/–45	95–100'/5'	0.013	0.35
RL–136	660	N45W/–45	135–140'/5'	0.010	0.19
			295–300'/5'	0.016	–0.10
			405–420'/15'	0.010	0.27
RL–137	400	S10E/–45	nil		

DOZER HILL:

RL–138	1040	S55E/–60	50–55'/5'	0.017	–0.10
			70–85'/15'	0.011	–0.10
			220–225'/5'	0.012	0.20
			290–295'/5'	0.010	–0.10
			380–385'/5'	0.010	–0.10
			645–650'/5'	0.020	–0.10
RL–139	800	S55E/–60	145–160'/15'	0.023	–0.10
			195–200'/5'	0.011	0.13
			215–220'/5'	0.010	–0.10
			230–240'/10'	0.017	0.17
			335–360'/25'	0.011	0.02
			395–405'/10'	0.077	0.16
			430–435'/5'	0.024	0.12
RL–140	1050	S55E/–60	105–110'/5'	0.021	–0.10
			135–140'/5'	0.017	–0.10
			270–275'/5'	0.015	–0.10
RL–141	1155	S55E/–60	775–780'/5'	0.047	0.16
			930–940'/10'	0.028	1.22
			985–995'/10'	0.019	0.35
			1010–1025/15'	0.018	0.45
RL–142	845	S55E/–60	260–265'/5'	0.012	–0.10
			320–325'/5'	0.010	0.46
			335–345'/10'	0.040	0.44
			375–380'/5'	0.041	0.56
			385–390'/5'	0.010	–0.10
			405–410'/5'	0.010	0.21
			555–580'/25'	0.029	0.08
			620–625'/5'	0.012	–0.10
			685–710'/25'	0.032	0.29
RL–143	1005	S55E/–60	375–380'/5'	0.013	1.03

Appendix 3:

RL–144	625	S55E/–60	115–125'/10'	0.016	0.05
			590–595'/5'	0.015	–0.10
			605–610'/5'	0.011	–0.10
RL–145	700	S55E/–60	140–145'/5'	0.017	–0.10
			420–430'/10'	0.030	2.70
			445–450'/5'	0.011	0.35
			465–470'/5'	0.012	–0.10
			505–510'/5'	0.029	–0.10
			540–550'/10'	0.013	1.12
			605–610'/5'	0.047	1.85
			615–620'/5'	0.035	0.91
			640–700'/60'	0.158	0.08
		including	640–685'/45'	0.202	0.10
RL–146	665	S55E/–60	160–180'/20'	0.046	2.09
			270–275'/5'	0.016	–0.10
			325–330'/5'	0.062	–0.10
			345–350'/5'	0.012	–0.10
			450–470'/20'	0.014	0.03
			490–495'/5'	0.011	–0.10
			575–595'/20'	0.029	0.68
			610–630'/20'	0.011	0.19
RL–147	605	S55E/–60	335–340'/5'	0.028	–0.10
			365–370'/5'	0.020	–0.10
RL–148	645	S55E/–45	125–130'/5'	0.028	0.18
			375–380'/5'	0.010	0.35
			525–530'/5'	0.012	–0.10
			630–635'/5'	0.012	0.12
RL–149	545	S40E/–60	260–265'/5'	0.010	–0.10
			305–335'/30'	0.019	0.06
			400–430'/30'	0.014	–0.10
VALLEY:					
RL–150	700	S55E/–60	585–600'/15'	0.018	0.17
DEGERSTROM:					
RL–151	500	N30E/–60	170–180'/10'	0.013	0.09
			205–210'/5'	0.030	0.27
			240–250'/10'	0.040	0.09
			275–290'/15'	0.011	0.25
RL–152	700	N50E/–45	nil		

Appendix 3:

CHANCE:

RL–153	600	VERTICAL	425–525'/100'	0.036	0.08
			including		
			455–505'/50'	0.059	0.06
			540–545'/5'	0.032	–0.10
			560–565'/5'	0.018	0.21
			580–585'/5'	0.011	–0.10
RL–154	645	S20E/–45	55–65'/10'	0.013	–0.10
RL–155	505	S20E/–45	nil		
RL–156	405	S20E/–45	5–15'/10'	0.032	0.19

WILD ROSE:

RL–157	405	N20E/–60	60–65'/5'	0.012	–0.10
			320–360'/40'	0.010	–0.10

DOZER HILL:

RL–158C	650	VERTICAL	50–55'/5'	0.015	–0.10
			155–160'/5'	0.012	0.18
			195–200'/5'	0.015	–0.10
			250–255'/5'	0.012	–0.10
			280–285'/5'	0.014	–0.10
			354–359'/5'	0.011	–0.10
			542–547'/5'	0.018	–0.10
			595–602'/7'	0.027	2.64
			614–624'/10'	0.011	0.19
			634–647'/13'	0.015	0.30
RL–159C	852	S55E/–70	170–175'/5'	0.033	–0.10
			225–240'/15'	0.017	0.08
			260–270'/10'	0.040	0.16
			362–367'/5'	0.038	–0.10
			387–392'/5'	0.012	–0.10
			412–417'/5'	0.013	–0.10
			427–432'/5'	0.028	–0.10
			452–467'/15'	0.017	0.05
			502–777/275'	0.370	0.10
		including	527–697'/170'	0.559	1.44
			732–777'/45'	0.112	0.23
RL–160	400	S10E/–50	150–225'/75'	0.024	0.24
			350–355'/5'	0.018	–0.10
RL–161	405	S45E/–45	105–145'/40'	0.035	0.09
		including	105–115'/10'	0.099	0.17

Appendix 3:

RL–162	445	S55E/–45	10–15'/5'	0.011	0.23
			90–95'/5'	0.027	–0.10
			105–125'/20'	0.026	–0.10
			190–200'/10'	0.035	0.05
			340–345'/5'	0.024	–0.10
			360–365'/5'	0.018	–0.10
RL–163	600	S55E/–60	75–80'/5'	0.014	0.24
			175–180'/5'	0.017	–0.10
			275–280'/5'	0.028	0.21
			285–290'/5'	0.013	0.20
			300–305'/5'	0.016	0.16
			345–365'/20'	0.022	–0.10
			375–380'/5'	0.020	0.71
			425–430'/5'	0.011	–0.10
			495–500'/5'	0.013	0.14
			520–530'/10'	0.011	0.78
			550–570'/20'	0.028	2.44
			585–595'/10'	0.025	–0.10
RL–164	545	VERTICAL	nil		
RL–165C	1032	S55E/–75	384–389'/5'	0.053	–0.10
			603.5–608.5/5'	0.031	0.26
			649–655'/6	0.031	0.35
			723–731'/8'	0.011	0.07
			802–829.5/27.5'	0.017	0.03
			844–854'/10'	0.014	0.06
			859.5–870.5/11'	0.027	0.14
			906–911'/5'	0.024	0.15
			937–947'/10'	0.019	0.12
RL–166	1100	S55E/–68	80–85'/5'	0.015	–0.10
			95–115'/20'	0.027	–0.10
			750–755'/5'	0.022	–0.10
			840–855'/15'	0.028	0.37
			1095–1100/5'	0.015	–0.10
RL–167	800	VERTICAL	185–205'/20'	0.017	0.20

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SUB–TOTALS:

85,640 Feet 111 Holes
692 Feet (2 extensions)

TOTALS: 86,332 Feet

1989 – 1990 PROJECT TOTALS:

115,198 Feet 167 holes

Note:
1) Intercepts composited @ >5'/0.010 opt Au
2) Dozer Hill composites @ 0.050 opt Au cut–off in bold italics.
3) "C" suffix on Hole No. = core

APPENDIX 4

ROSEBUD PROJECT
1991 DRILLING SUMMARY 1/11/92

HOLE NO.	T.D. FEET	BEARING/ INCLINATION	INTERCEPT FROM–TO/WIDTH	AU OPT	AG OPT
DOZER HILL					
RL168	740'	VERTICAL	135–140'/5'	0.011	0.10
			190–195'/5'	0.013	0.06
			520–525'/5'	0.016	0.07
			545–720'/175'	0.288	0.56
	Includes (0.05 cutoff)		550–590'/40'	1.146	2.10
	Includes (0.10 cutoff)		555–590'/35'	1.303	2.34
RL169	780'	VERTICAL	395–400'/5'	0.025	0.07
			450–435'/5'	0.013	0.10
			470–480'/10'	0.022	0.05
			595–780'/185'	0.055	0.92
	Includes (.05 Cutoff)		595–615'/20'	0.164	5.39
	Includes (.100 Cutoff)		600–615'/15'	0.200	6.94
	Includes (.05 Cutoff)		635–680'/45'	0.077	0.64
	Includes (.100 Cutoff)		645–650'/5'	0.165	0.50
RL170	665'	VERTICAL	580–665'/85'	0.076	4.25
	Includes (.05 Cutoff)		595–655'/60'	0.102	5.18
	Includes (0.10 cutoff)		615–650'/35'	0.134	0.74
RL171	860'	VERTICAL	315–320'/5'	0.010	0.04
			395–400'/5'	0.123	0.14
			420–455'/35'	0.015	0.07
			470–840'/370'	0.186	0.55
	Includes (.05 Cutoff)		520–715'/195'	0.274	0.84
	Including (0.10 cutoff)		535–585'/50'	0.725	2.18
	Including (0.10 cutoff)		655–695'/40'	0.313	0.61
	Includes (.05 Cutoff)		765–800'/35'	0.368	0.58
	Including (0.10 cutoff)		775–785'/10'	1.109	1.65
RL172	375'	VERTICAL	40–55'/15'	0.030	0.07
RL173	200'	VERTICAL	NO INTERCEPT		
RL174	500'	VERTICAL	390–405'/15'	0.028	0.04
			410–415'/5'	0.015	0.00
RL175	600'	VERTICAL	135–150'/15'	0.022	0.72
RL176		VERTICAL	310–325'/15'	0.147	0.19
RL177	445'	VERTICAL	100–105'/5'	0.010	0.08
			195–210'/15'	0.011	0.06
			220–225'/5'	0.015	0.18
			235–255'/20'	0.021	0.16
			375–380'/5'	0.018	0.03
RL178	860'	VERTICAL	25–30'/5'	0.011	0.00
			210–215'/5'	0.013	0.10
			230–235'/5'	0.011	0.07
			270–280'/10'	0.020	0.14
			290–295'/5'	0.037	0.10

RL178 cont.			300–305'/5'	0.013	0.07
			325–330'/5'	0.010	0.06
			340–375'/35'	0.022	0.01
			400–415'/15'	0.010	0.02
			425–445'/20'	0.019	0.04
			580–595'/15'	0.017	0.10
			610–625'/15'	0.011	0.09
			660–695'/35'	0.012	0.10
			720–735'/15'	0.014	0.10
			745–770'/25'	0.017	0.04
			780–795'/15'	0.026	0.01
RL179	1020'	VERTICAL	420–425'/5'	0.019	0.42
			525–540'/15'	0.012	0.19
			565–600'/35'	0.024	3.20
			665–975'/310'	0.027	0.28
	Including (0.05 cutoff)		680–690'/10'	0.109	0.17
	Including (0.10 cutoff)		680–685'/5'	0.168	0.19
	Including (0.05 cutoff)		740–745'/5'	0.085	0.43
	Including (0.10 cutoff)		870–880'/10'	0.120	3.90
	Including (0.05 cutoff)		925–930'/5'	0.088	0.03
	Includes (0.10 cutoff)		940–945'/5'	0.137	0.28
			1005–1020'/15'	0.038	0.16
	Includes (0.05 cutoff)		1010–1020'/10'	0.056	0.15
RL180	685'	VERTICAL	265–270'/5'	0.021	0.09
			325–330'/5'	0.027	0.11
			340–375'/35'	0.027	0.05
			380–385'/5'	0.010	0.08
			415–445'/30'	0.013	0.18
			475–480'/5'	0.012	0.11
			490–495'/5'	0.020	0.14
			575–595'/20'	0.017	0.26
			605–650'/45'	0.035	0.09
	Includes (0.10 cutoff)		645–650'/5'	0.138	0.17
			660–675'/15'	0.031	0.09
RL181	935'	VERTICAL	665–690'/25'	0.014	0.21
			700–705'/5'	0.010	0.05
RL182	785'	VERTICAL	275–280'/5'	0.012	0.08
			285–290'/5'	0.011	0.01
			350–355'/5'	0.010	0.08
			445–450'/5'	0.064	0.22
			540–565'/25'	0.022	0.11
			585–590'/5'	0.013	0.09
			605/685'/80'	0.031	0.09
	Includes (0.10 cutoff)		650–655'/5'	0.236	0.24
			695–710'/15'	0.018	0.01
			730–735'/5'	0.096	0.08
RL183	600'	VERTICAL	350–365'/15'	0.011	0.13
			505–570'/65'	0.029	0.13
			580–600'/20'	0.035	0.09

RL184	900'	VERTICAL	415–420'/5'	0.014	0.07
RL185	1000'	VERTICAL	325–330'/5'	0.011	3.03
			450–460'/10'	0.018	0.07
			475–480'/5'	0.010	0.06
			495–500'/5'	0.011	0.06
			535–545'/10'	0.022	0.09
			655–660'/5'	0.014	–0.02
			670–675'/5'	0.061	0.09
			690–790'/100'	0.037	0.98
	Includes (0.05 cutoff)		720–725'/5'	0.064	0.63
	Includes (0.10 cutoff)		770–780'10'	0.174	0.29
			820–825'/5'	0.013	0.06
			850–885'/35'	0.017	7.96
			905–920'/15'	0.044	2.75
			950–960'/10'	0.060	0.43
			985–990'/5'	0.030	0.15
RL186	840'	VERTICAL	425–430'/5'	0.010	0.13
			575–840'/265'	0.086	0.69
	Includes (0.05 cutoff)		645–710'/65'	0.215	0.55
	Includes (0.10 cutoff)		645–705'/60'	0.225	0.56
	Includes (0.05 cutoff)		725–765'/40'	0.145	0.29
	Includes (0.10 cutoff)		730–740'/10'	0.401	0.52
RL187	750'	VERTICAL	485–520'/35'	0.024	0.13
			495–500'/5'	0.066	0.17
			540–645'/105'	0.337	0.65
	Includes (0.10 cutoff)		555–600'/45'	0.706	1.02
	Includes (0.05 cutoff)		620–625'/5'	0.055	0.15
	Includes (0.10 cutoff)		640–645'/5'	0.484	1.49
RL188	685'		165–170'/5'	0.018	0.05
			235–240'/5'	0.012	0.07
			290–295'/5'	0.012	0.11
			375–420'/45'	0.017	0.13
			470–485'/15'	0.011	0.12
			505–675'/170'	0.030	0.69
	Includes (0.10 cutoff)		540–555'/15'	0.133	7.62
RL189	675'		245–250'/5'	0.018	0.10
			340–445'/105'	0.020	0.13
	Includes (0.10 cutoff)		415–420'/5'	0.106	0.21
			470–475'/5'	0.020	0.08
			630–640'/10'	0.017	0.12
RL190	635'		190–195'/5'	0.010	0.10
			230–240'/10'	0.021	0.14
			250–265'/15'	0.104	0.25
	Includes (0.10 cutoff)		250–255'/5'	0.235	0.35
			315–320'/5'	0.015	0.09
			395–410'/15'	0.018	0.06
			430–435'/5'	0.012	0.04
			470–485'/15'	0.027	0.09

RL190 cont.			545–550'/5'	0.012	0.23
			585–625'/40'	0.024	0.52
RL191C	903'	VERTCAL	607–735'/128'	0.134	1.34
	Includes (0.05 cutoff)		612–645'/33'	0.320	0.98
	Includes (0.10 cutoff)		620–645'/25'	0.403	1.25
	Includes (0.10 cutoff)		675–700'/25'	0.205	1.30
			780–803'/23'	0.025	0.08
			823–828'/5'	0.014	0.06
RL192C	715'	VERTICAL	25–30'/5'	0.023	0.05
			270–275'/5'	0.010	0.03
			383–408'/25'	0.015	0.57
			448–453'/5'	0.033	3.80
			468–523'/55'	0.118	3.10
	Includes (0.10 cutoff)		483–493'/10'	0.529	9.57
			538–583'/45'	0.255	3.14
	Includes (0.10 cutoff)		543–578'/35'	0.317	3.54
			659–664'/5'	0.041	0.14
			636–639.8'/3.8'	0.017	0.41
			659–678.3\19.3'	0.041	0.14
	Includes (0.10 cutoff)		659–664'/5'	0.112	0.12
			685–685.3'/0.3'	0.015	0.08
RL193C	840'	VERTICAL	10–15'/10'	0.013	0.03
			335–355'/20'	0.043	0.17
	Includes (0.10 cutoff)		350–355'/5'	0.133	0.21
			468–473'/5'	0.013	0.04
			488–498'/10'	0.012	0.11
			523–528'/5'	0.022	0.12
			538–743'/205'	0.639	2.06
	Includes (0.05 cutoff)		538–716'/178'	0.715	2.29
	Includes (0.10 cutoff)		538–543'/5'	0.128	0.03
	Includes (0.10 cutoff)		538–558'/20'	1.211	0.47
	Includes (0.10 cutoff)		608–633'/25'	3.218	5.73
	Includes (0.10 cutoff)		648–653'/5'	0.243	0.53
	Includes (0.10 cutoff)		668–716'/48'	0.251	0.45
			753–758'/5'	0.011	0.05
			773–778'/5'	0.012	0.03
			798–803'/5'	0.010	0.05
			826–831'/5'	0.012	0.00
RL194C	895'	VERTICAL	145–150'/5'	0.019	0.04
			578–583'/5'	0.016	0.04
			643–648'/5'	0.010	0.04
			683–743'/60'	0.016	0.11
			763–820'/57'	0.078	0.03
	Includes (0.05 cutoff)		773–798'/25'	0.137	0.19
	Includes (0.10 cutoff)		778–798'/20'	0.154	0.19
RL195C	913'	VERTICAL	10–15'/5'	0.025	0.13
			300–305'/5'	0.011	0.04
			310–315'/5'	0.025	0.05

RL195C cont.			480–485'/5'	0.010	0.07
			490–495'/5'	0.010	0.05
			593–663'/70'	0.147	0.26
	Includes (0.10 cutoff)		608–613'/5'	0.288	0.58
	Includes (0.10 cutoff)		623–658'/35'	0.221	0.36
			668–673'/5'	0.010	0.35
			678–854.1'/176.1	0.059	0.19
	Includes (0.10 cutoff)		833–854.1'/21.1'	0.211	0.45
RL196C	543'	VERTICAL	412–417'/5'	0.010	0.10
			458–500.5'/42.5	0.083	1.81
	Includes (0.05 cutoff)		458–491.5'/33.5'	0.101	2.29
	Includes (0.10 cutoff)		458–463.7'/5.7'	0.255	9.03
	Includes (0.10 cutoff)		482–487.5'/5.5'	0.152	0.36
RL197C	1109'	VERTICAL	0–10'/10'	0.046	0.08
			120–125'/5'	0.015	0.15
			280–285'/5'	0.085	0.13
			570–585'/15'	0.018	0.20
			630/635'/5'	0.010	0.06
			845–875'/30'	0.045	0.68
	Includes (0.05 cutoff)		860–870'/10'	0.092	0.44
	Includes (0.10 cutoff)		865–870'/5'	0.114	0.75
			900–905'/5'	0.012	0.12
			935–945'/10'	0.012	0.05
			985–990'/5'	0.010	–0.02
			1035–1040'/5'	0.043	0.15
			1055–1090'/35'	0.025	0.89
RL198C	745.5'	VERTICAL	310–315'/5'	0.016	0.04
			360–365'/5'	0.039	0.09
			390–400'/10'	0.022	0.12
			460–465'/5'	0.010	0.09
			520–605'/85'	0.702	0.86
	Includes (0.10 cutoff)		535–545'/10'	0.235	0.22
	Includes (0.10 cutoff)		565–600'/35'	1.621	1.85
			625–630'/5'	0.056	0.09
			650–685'/35'	0.063	0.08
			695–745.5'/60.5'	0.022	0.07
RL199C	1277'	N57W/–65	155–160'/5'	0.032	0.08
			370–375'/5'	0.026	1.71
			385–390'/5'	0.012	0.87
			410–415'/5'	0.018	0.10
			445–450'/5'	0.010	0.09
			455–470'/15'	0.010	0.09
			490–495'/5'	0.010	0.01
			530–535'/5'	0.010	0.06
			638–639.2'/1.2'	0.019	0.09
			850–885'/35'	0.023	0.12
			899–903'/4'	0.023	0.08
			938–943'/5'	0.015	0.06

RL199C cont.			1028–1033'/5'	0.182	0.16
			1053–1058'/5'	0.013	0.07
			1090.6–1096'/5.4'	0.014	0.04
			1156–1161'/5'	0.016	–0.02
			1171–1176'/5'	0.020	0.03
KM3C	974.5'	VERTICAL	635–640'/5'	0.010	0.06
			708–713'/5'	0.040	0.03
			733–743'/10'	0.048	0.16
			768–773'/5'	0.029	0.05
			783–788'/5'	0.014	0.12
			818–823'/5'	0.033	0.05
			838–893'/55'	0.024	0.14
	Includes (0.05 cutoff)		853–858'/5'	0.059	0.25
RL200C	873'	VERTICAL	175–180'/5'	0.013	0.14
			200–205'/5'	0.017	0.25
			260–265'/5'	0.023	0.46
			600–631.5'/31.5'	0.076	0.13
	Includes (0.05 cutoff)		609–626'/17'	0.124	0.17
	Includes (0.10 cutoff)		609–617'/8'	0.194	0.24
			668.5–688'/19.5'	0.026	0.05
	Includes (0.05 cutoff)		678–683'/5'	0.054	0.05
			698–712.5'/14.5'	0.043	0.10
	Includes (0.05 cutoff)		698–703'/5'	0.060	0.11
			727.5–737'/9.5'	0.014	0.10
			863–873'/10'	0.018	0.06
RL201C	881'	VERTICAL	225–230'/5'	0.010	0.16
			300–310'/10'	0.019	0.07
			350–355'/5'	0.013	0.13
			410–415'/5'	0.018	0.11
			590–595'/5'	0.018	0.09
			675–733'/58'	0.331	0.36
	Includes (0.10 cutoff)		675–708'/38'	0.486	0.48
			743–748'/5'	0.018	0.11
			758.6–762'/3.4'	0.014	0.13
			788–826.5'/38.5'	0.033	0.17
			838–843'/5'	0.011	0.16
			848.5–854'/5'	0.012	0.16
			873–877'/5'	0.073	0.09
RL202C	802'	VERTICAL	563–573'/10'	0.011	0.08
			593–597'/5'	0.017	0.02
			602–607'/5'	0.038	–0.02
			748–753'/5'	0.016	0.05
RL203C	860'	VERTICAL	368–373'/5'	0.012	0.07
			488–493'/5'	0.433	0.61
			498–508'/10'	0.017	0.10
			518–523'/5'	0.010	0.13
			553–583'/30'	0.016	0.11
			598–608'/10'	0.021	0.13

RL203C cont.			623–653'/30'	0.851	0.89
	Includes (0.10 cutoff)		633–648'/15'	1.684	1.71
			673–683'/10'	0.016	0.09
			693–708'/15'	0.018	0.07
			723–792.5'/75.4'	0.091	0.27
	Includes (0.10 cutoff)		768–787.6'/19.6'	0.291	0.52
RL204C		VERTICAL	505–520'/25'	0.013	0.11
			686–713'/27'	0.024	2.06
			723–728'/5'	0.018	1.48
			748–778'/30'	0.037	0.21
RL205C		VERTICAL	80–90'/10'	0.019	0.1
			245–255/10'	0.019	0.1
			275–380'/105'	0.022	0.16
	Includes (0.05 cutoff)		275–280'/5'	0.054	0.15
	Includes (0.10 cutoff)		340–345'/5'	0.130	0.16
			375–380'/5'	0.050	0.13
			433–438'/5'	0.016	0.12
			468–478'/10'	0.010	0.10
			547–551/5'	0.015	0.09
			608–613'/5'	0.011	0.07
			628–638'/10'	0.017	0.09
			648–668'/20'	0.024	0.10
	Includes (0.05 cutoff)		663–668'/5'	0.056	0.16
			698–708/10'	0.033	0.08
RL206C	878.5'	VERTICAL	50–55'/5'	0.020	4.33
			165–170'/5'	0.020	0.21
			383–388'/5'	0.010	0.10
			493–498'/5'	0.016	0.05
			518–523'/5'	0.012	0.07
			577–582'/5'	0.017	0.07
			655–660'/5'	0.012	0.07
			672–747.7'/75.5'	0.044	2.31
	Includes (0.10 cutoff)		691–708'/17'	0.104	3.43
	Includes (0.05 cutoff)		742.5–747.5'/5.5	0.075	0.17
			767.5–818'/50.5'	0.064	0.32
	Includes (0.10 cutoff)		777.5'–787.5'/10'	0.243	0.92
	Includes (0.05 cutoff)		813–815'/5'	0.055	0.19
			828–833'/5'	0.010	0.05
			853–858'/5'	0.016	0.04
RL207C	1020'	VERTICAL	503–508'/5'	0.013	0.05
			513–518'/5'	0.010	0.04
			523–528'/5'	0.013	0.06
			608–613'/5'	0.031	0.06
			653–683'/30'	0.027	0.17
	Includes (0.05 cutoff)		663–668'/5'	0.074	0.10
			692–696'/4'	0.010	0.14
			700–705'/5'	0.011	0.12
			749.4–759'/9.6'	0.019	0.17

RL207C cont.			769–813'/44'	0.028	0.21
	Includes (0.05 cutoff)		769–778'/9'	0.056	0.17
			828–833'/5'	0.012	0.07
			853–858'/5'	0.025	0.86
			988–993'/5'	0.015	0.03
RL208C	692'	VERTICAL	443–453'/10'	0.020	0.66
			477–616'/139'	0.075	1.56
	Includes (0.10 cutoff)		523–558'/35'	0.190	5.39
	Includes (0.10 cutoff)		573–588'/15'	0.148	0.78
	Includes (0.05 cutoff)		602.5–607'/4.5'	0.057	0.26
			626–630'/4'	0.012	0.04
			649–652'/3'	0.014	–0.02
RL209C	593'	VERTICAL	345–349'/4'	0.023	0.12
			363–424.5'/61.5'	0.026	0.17
	Includes (0.05 cutoff)		388–398.5'/10.5'	0.074	0.24
			439.5–491'/51.5'	0.111	4.62
			521–526'/5'	0.024	0.77
			550–572.5'/22.5'	0.116	0.46
RL210C	583'	VERTICAL	280.5–285'/4.5'	0.015	0.07
			393–453'/60'	0.070	2.38
	Includes (0.05 cutoff)		405–444'/39'	0.099	3.35
	Includes (0.10 cutoff)		410–420'/10'	0.218	2.07
			517–547'/30'	0.051	0.14
	Includes (0.10 cutoff)		522–527'/5'	0.191	0.30
			562–566.4/4.4'	0.012	–0.02
RL211	680'	VERTICAL	145–150'/5'	0.010	0.06
			170–180'/10'	0.023	0.16
			190–200'/10'	0.013	0.08
			215–265'/50'	0.026	0.07
			280–285'/5'	0.017	0.08
			305–310'/5'	0.014	0.05
			345–350'/5'	0.035	0.12
			365–375'/10'	0.018	0.08
			420–425'/5'	0.015	0.08
			450–455'/5'	0.013	0.28
			480–485'/5'	0.043	–0.02
			495–500'/5'	0.019	0.03
			510–515'/5'	0.041	–0.02
			570–575'/5'	0.010	–0.02
			605–610'/5'	0.034	0.06
RL212	1065'	VERTICAL	135–140'/10'	0.030	0.08
			315–320'/5'	0.014	0.09
			355–360'/5'	0.099	0.08
			390–395'/5'	0.028	0.05
			470–475'/5'	0.011	–0.02
			570–575'/5'	0.021	0.11
			595–600'/5'	0.021	0.17
			650–655'/5'	0.015	0.06

RL212 cont.			680–690'10'	0.019	0.18
			720–740'/20'	0.016	0.05
			800–805'/5'	0.020	0.09
RL213	865'	VERTICAL	735–800'/65'	0.065	0.84
	Includes (0.10 cutoff)		765–780'/15'	0.252	2.72
			810–815'/5'	0.012	–0.02
			825–845'/20'	0.018	0.05
RL214	1000'	VERTICAL	35–40'/5'	0.012	0.06
			65–70'/5'	0.038	0.11
			165–170'/5'	0.014	0.02
			195–200'/5'	0.011	0.26
			335–340'/5'	0.044	0.10
			450–470'/20'	0.018	0.26
			500–505'/5'	0.014	0.04
			550–555'/5'	0.047	0.09
			585–590'/5'	0.021	0.04
			645–650'/5'	0.015	1.66
			755–760'/5'	0.023	–0.02
			835–995'/160'	0.048	0.16
	Includes (0.10 cutoff)		835–850'/15'	0.329	0.31
	Includes (0.05 cutoff)		960–965'/5'	0.063	0.25
	Includes (0.05 cutoff)		980–985'/5'	0.058	0.06
RL215	825'	VERTICAL	260–375'/115'	0.019	0.08
	Includes (0.05 cutoff)		325–330'/5'	0.073	0.12
	Includes (0.10 cutoff)		345–350'/5'	0.104	0.16
			390–405'/15'	0.010	0.08
			630–635'/5'	0.017	0.44
			660–665'/5'	0.076	0.17
			735–745'/10'	0.022	0.10
			785–790'/5'	0.014	0.09
RL216	600'	VERTICAL	65–70'/5'	0.014	0.23
			180–185'/5'	0.014	–0.02
			255–265'/10'	0.014	0.05
			295–300'/5'	0.011	0.06
			310–315'/5'	0.016	0.15
			355–360'/5'	0.013	0.07
			410–425'/15'	0.012	0.15
			485–490'/5'	0.015	0.08
RL217	825'	VERTICAL	105–110'/5'	0.011	0.21
			615–825'/210'	0.102	2.75
	Includes (0.10 cutoff)		720–745'/25'	0.447	0.73
RL221	935'	VERTICAL	720–885'/170'	0.025	0.43
			750–755'/5'	0.150	0.44
			915/920'/5'	0.013	0.83
RL222	1000'	VERTICAL	510–515'/5'	0.015	0.07
			610–615'/5'	0.015	0.1
			755–760'/5'	0.010	2.53
			785–790'/5'	0.014	0.05

RL222 cont.			795–800'/5'	0.010	0.08
			810–815'/5'	0.012	0.06
			900–905'/5'	0.010	0.11
DREAMLAND					
RL223	700'	VERTICAL	NO INTERCEPTS		
RL224	465'	VERTICAL	NO INTERCEPTS		
NORTH ROSEBUD PEAK					
RL225	630'	N.80E./–60	NO INTERCEPTS		
RL226	245'	VERTICAL	NO INTERCEPTS		
RL227	585'	VERTICAL	NO INTERCEPTS		
CHANCE					
RL228	600'	VERTICAL	NO INTERCEPTS		
RL229	620'	S.85E./–70	285–290'/5'	0.040	
			305–310'/5'	0.012	–0.02
RL230	630'	S.60E./–60	45–50'/5'	0.011	–0.02
			60–65'/5'	0.010	–0.02
RL231	500'	S.90E./–45	NO INTERCEPTS		
RL232	595'	S.60E./–45	415–420'/5'	0.011	–0.02
RL233	640'	VERTICAL	NO INTERCEPTS		
DEGERSTROM					
RL234	700'	VERTICAL	NO INTERCEPTS		
RL235	525'	N.90W./–63	NO INTERCEPTS		
RL236	365'	VERTICAL	NO INTERCEPTS		
RL237	445'	VERTICAL	5–15'/10'	0.020	0.06
			80–95'/15'	0.015	–0.02
			135–140'/5'	0.026	0.02
SHORT SHOT					
RL238	500'		NO INTERCEPTS		
RL239	525'		NO INTERCEPTS		
RL240	375'		NO INTERCEPTS		
DOZER HILL					
RL241C	541'	VERTICAL	164–210'/46'	0.040	0.20
	Includes (.05 Cutoff)		178.2–197'/18.8'	0.076	0.31
			298–303'/5'	0.022	0.05
RL242C	698'	VERTICAL	60–65'/5'	0.013	0.17
			513–516.5'/3.5'	0.016	0.20
			526–580'/54'	0.021	0.30
			595–615.3'/20.3'	0.021	0.05
			640–659.2/19.2'	0.032	0.04
	Includes (.10 Cutoff)		653–656.5'/3.5'	0.116	0.06
			674–689'/15'	0.013	–0.02
RL243C	798'	VERTICAL	665–753'/89'	0.032	0.10
	Includes (.05 Cutoff)		672.5–674.8'/2.3'	0.051	0.07
	Includes (.05 Cutoff)		703–708'/5'	0.057	0.14
	Includes (.10 Cutoff)		720'–723'/3'	0.186	0.32

SHORT SHOT					
RL244	200'		NO INTERCEPT		
DOZER HILL					
RL245	900'	VERTICAL	NO INTERCEPT		
RL246	245'	S.41E./-61	75-80'/5'	0.016	0.06
			100-115'/15'	0.026	0.18
RL247	625'	VERTICAL	120-130'/10'	0.015	0.05
			145-150'/5'	0.013	0.07
			170-175'/5'	0.018	1.46
			185-190'/5'	0.066	0.09
			210-215'/5'	0.012	0.29
			330-335'/5'	0.019	0.12
			350-390'/40'	0.145	2.10
	Includes (.05 Cutoff)		350-385'/35'	0.161	2.37
	Includes (.10 Cutoff)		350-375'/25'	0.203	2.99
			425-430'/5'	0.031	0.06
			455-535'/80'	0.089	0.37
	Includes (.05 Cutoff)		460-500'/40'	0.149	0.47
	Includes (.10 Cutoff)		460-490'/30'	0.174	0.42
RL248		VERTICAL	135-140'/5'	0.010	0.04
			150-155'/5'	0.028	0.08
			175-180'/5'	0.024	0.10
			240-245'/5'	0.011	1.45
			260-265'/5'	0.010	0.08
			270-275'/5'	0.023	2.83
			280-285'/5'	0.024	0.40
			290-310'/20'	0.018	0.80
RL249	785'	VERTICAL	NO INTERCEPT		

APPENDIX 5

ROSEBUD PROJECT
1992 DRILLING SUMMARY

HOLE NO.	T.D. FEET	BEARING/ INCLINATION	INTERCEPT FROM–TO/WIDTH	AU OPT	AG OPT
DOZER HILL					
RL250		VERTICAL	240–245'/5'	0.010	0.032
			290–305'/15'	0.010	0.054
			375–385'/10'	0.012	0.060
RL251	400'	VERTICAL	200–205'/5'	0.010	0.076
			290–295'/5'	0.013	0.041
RL252	500'	VERTICAL	75–80'/5'	0.024	0.091
			95–100'/5'	0.012	0.073
			295–300'/5'	0.013	0.047
RL253	560'		205–210'/5'	0.025	0.502
RL254	380'		275–280'/5'	0.022	0.088
			285–290'/5'	0.047	0.191
			305–310'/5'	0.023	0.047
			325–330'/5'	0.010	0.022
RL255	500'		20–25'/5'	0.015	0.044
			50–55'/5'	0.051	0.085
			115/120'/5'	0.014	0.126
			155–165'/5'	0.028	1.137
RL256	600'		65–70'/5'	0.010	0.175
			275–280'/5'	0.011	0.318
			295–300'/5'	0.010	0.102
			400–410'/10'	0.014	0.050
RL257	800'		25–35'/10'	0.012	0.205
			430–490'/70'	0.069	0.612
Including (0.10 cutoff)			440–450'/10'	0.253	2.122
			500–515'/15'	0.012	0.114
			550–610'/60'	0.013	0.135
			700–705'/5'	0.012	0.126
			745–755'/10'	0.030	0.054
RL258	900'	VERTICAL	180–185'/5'	0.037	0.067
			225–230'/5'	0.010	0.105
			240–245'/5'	0.161	1.750
			245–250'/5'	0.016	0.190
			260–265'/5'	0.030	0.076

HOLE NO.	T.D. FEET	BEARING/ INCLINATION	INTERCEPT FROM–TO/WIDTH	AU OPT	AG OPT
RL258 cont.					
			305–310'/20'	0.078	1.126
Including (0.10 cutoff)			305–315'/10'	0.130	1.644
			465–470'/5'	0.016	0.899
			655–685'/30'	0.035	0.176
			730–740'/10'	0.030	0.954
			745–750'/5'	0.012	0.111
RL259	920'	VERTICAL	560–570'/10'	0.012	0.055
			575–580'/5'	0.014	0.054
			585–635'/50'	0.031	1.689
			695–700'/5'	0.055	0.078
			715–720'/5'	0.011	0.093
			725–730'/5'	0.013	0.152
			780'790'/10'	0.066	0.222
			805–830'/25'	0.020	0.040
			840'845'/5'	0.010	0.038
			855–860'/5'	0.010	0.032
VALLEY					
RL260	800'	VERTICAL	40–45'/5'	0.024	0.053
			325–330'/5'	0.010	0.131
DOZER					
RL261C	1210'		135–140'/5'	0.014	0.058
			150'155'/5'	0.014	0.070
			460/465'/5'	0.012	0.052
			643–817'/174'	0.088	0.483
Including (0.10 cutoff)			651–661'/10'	0.125	1.952
Including (0.10 cutoff)			671–711'/40'	0.252	0.445
Including (0.10 cutoff)			815–817'/2'	0.144	0.222
CHECK THESE			863–868'/5'	0.012	0.035
CHECK THESE			881–886'/5'	0.036	0.096
CHECK THESE			893–908'/15'	0.025	0.076
CHECK THESE			962–974'/12'	0.019	0.109
CHECK THESE			1028–1038'/10'	0.052	0.103
RL262C	1139'	VERTICAL	NO INTERCEPT		
RL263C			392–397'/5'	0.014	0.079
			488–493'/5'	0.018	0.096
			510–515'/5'	0.012	0.076
			539–544'/5'	0.011	0.093
			684–694'/10'	0.017	0.101
RL264C	1003'		690–769'/79'	0.033	0.097
			788–793'/5'	0.020	0.070
			838–853'/15'	0.022	0.102
			858–863'/5'	0.013	0.079
			953–958'/5'	0.012	0.076

HOLE NO.	T.D. FEET	BEARING/ INCLINATION	INTERCEPT FROM–TO/WIDTH	AU OPT	AG OPT
RL265C	857.1		125–130'/5'	0.010	0.108
			142–148'/11'	0.027	0.146
RL266	700		30–35'/5'	0.016	0.038
			55–60'/5'	0.016	0.029
			65–75'/10'	0.013	0.035
			85–95'/10'	0.068	0.078
			120–130'/10'	0.024	0.089
			150–190'/40'	0.173	17.197
Including (0.10 cutoff)			160–180'/20'	0.321	31.967
			195–200'/5'	0.016	0.286
			570–595'/25'	0.023	0.260
			665–670'/5'	0.041	2.365
RL267			35–40'/5'	0.012	0.055
RL268	345		65–70'/5'	0.010	0.213
RL269	550		35–40'/5'	0.011	0.111
			215–220'/5'	0.014	0.161
			280–285'/5'	0.018	0.207
			290–300'/10'	0.013	0.156
			375–385'/10'	0.015	0.189
			415–420'/5'	0.014	0.120
			425–455'30'	0.035	0.340
			460–465'/5'	0.011	0.091
			480–485'/5'	0.011	0.149
			510–525'/15'	0.020	0.186
			540–545'/5'	0.010	0.166
RL270C	933'		45–50'/5'	0.010	0.093
			171–176'/5'	0.017	0.041
			258–263'/5'	0.595	4.614
			268–273'/5'	0.010	0.108
			345–351'/6'	0.069	0.418
			433–443'/10'	0.024	0.273
			838–843'/5'	0.026	0.473
RL271	800'		730–735'/5'	0.017	0.041
RL272	640'		300–305'/5'	0.011	0.091
			340–345'/5'	0.013	0.146
			360–395'/35'	0.181	0.360
Including (0.10 cutoff)			360–380'/20'	0.282	0.529
			435–440'/5'	0.018	0.067
			510–515'/5'	0.013	0.047

HOLE NO.	T.D. FEET	BEARING/ INCLINATION	INTERCEPT FROM–TO/WIDTH	AU OPT	AG OPT
RL273	700'		95–120'/25'	0.140	0.847
Including (0.10 cutoff)			100–115'/15'	0.223	1.370
			180–185'/5'	0.035	0.123
			235–340'/5'	0.012	0.093
			280/285'/5'	0.375	1.577
			320'/330'/10'	0.015	0.107
			385–390'/5'	0.014	0.412
			395–405'/10'	0.022	0.186
			465–700'/235'	0.092	0.377
Including (0.10 cutoff)			505–580'/75'	0.166	0.692
Including (0.10 cutoff)			615/625'/10'	0.105	0.380
Including (0.10 cutoff)			650–655'/5'	0.216	0.675
Including (0.10 cutoff)			660–665'/5'	0.100	0.356
Including (0.10 cutoff)			690–695'/5'	0.201	0.610
RL274	600'		165–170'/5'	0.037	0.108
			175–180'/5'	0.032	0.079
			195–205'/10'	0.013	0.043
			375–380'/5'	0.012	0.108
			410–415'/5'	0.024	0.032
			440–445'/5'	0.014	0.088
			480–485'/5'	0.010	0.044
			495–500'/5'	0.018	0.067
			505–510'/5'	0.022	0.093
			515–520'/5'	0.012	0.067
			525–530'/5'	0.013	0.067
			555–560'/5'	0.017	0.041
VALLEY					
RL275	400'		100–105'/5'	0.030	0.070
			185–190'/5'	0.011	0.088
			225–230'/5'	0.010	0.079
			335–340'/5'	0.012	0.114
			350–360'/10'	0.014	0.118
			375–380'/5'	0.082	0.336
DREAMLAND					
RL276	610'	VERTICAL	NO INTERCEPT		
DOZER					
RL277	500'		55–60'/5'	0.025	0.053
			335–340'/5'	0.016	0.134
			390–415'/25'	0.020	0.274
RL278	605'		170–175'/5'	0.010	0.050
			225–230'/5'	0.013	0.067
			270–275'/5'	0.013	0.193
			315–320'/5'	0.036	0.117
			325–335'/10'	0.162	5.631
Including (0.10 cutoff)			330–335'/5'	0.258	9.782

HOLE NO.	T.D. FEET	BEARING/ INCLINATION	INTERCEPT FROM–TO/WIDTH	AU OPT	AG OPT
RL278 cont.					
			345–375'/30'	0.041	0.212
Including (0.10 cutoff)			365–370'/5'	0.116	0.377
			385–390'/5'	0.063	1.434
			435–440'/5'	0.016	0.333
			455–470'/15'	0.013	0.570
			505–510'/5'	0.010	0.312
RL279	805'		70–75'/5'	0.021	0.085
			115–135'/20'	0.018	0.201
			140–145'/5'	0.016	0.277
			155–160'/5'	0.037	0.914
			290–295'/5'	0.011	0.050
CHALCEDONY					
RL280	275'		NO INTERCEPT		
RL281			NO INTERCEPT		
DOZER					
RL282	405'		295–300'/5'	0.010	0.123
			345–355'/10'	0.062	0.075
Including (0.10 cutoff)			345–350'/5'	0.103	0.114
RL283	425'		40–55'/15'	0.015	0.070
			150–155'/5'	0.011	0.076
RL284			85–90'/5'	0.012	0.050
			100–105'/5'	0.010	0.061
			315–320'/5'	0.011	0.076
			345–350'/5'	0.012	0.096
			515–520'/5'	0.022	0.102
			540–555'/15'	0.023	0.058
RL285	725'		95–105'/10'	0.015	0.054
			110–115'/5'	0.014	0.047
			605–685'/80'	0.046	0.141
RL286			225–230'/5'	0.010	0.064
			255–260'/5'	0.011	0.061
RL287	345'		NO INTERCEPT		
RL288			90–100'/10'	0.014	0.203
			125–130'/5'	0.010	0.035
RL289C	1037'		265–270'/5'	0.011	0.070
			472–482'/10'	0.012	0.072
			521–537'/16'	0.039	0.102
			572–597'/30'	0.199	0.284
			602–607'/5'	0.019	0.140

HOLE NO.	T.D. FEET	BEARING/ INCLINATION	INTERCEPT FROM–TO/WIDTH	AU OPT	AG OPT
RL289C cont.					
			622–777'/155'	0.718	1.925
Including (0.10 cutoff)			627–632'/5'	0.154	2.511
Including (0.10 cutoff)			642–737'/95'	1.132	2.531
Including (0.10 cutoff)			752–757'/5'	0.245	0.381
			782–797'/15'	0.138	0.713
			827–832'/5'	0.014	0.088
			837–867'/30'	0.031	0.097
			872–932'/60'	0.162	0.210
			967–972'/5'	0.013	0.327
DREAMLAND					
RL290	550'		410–415'/5'	0.024	–0.020
VALLEY					
RL291	405'	S45E;–45	365–370'/5'	0.012	0.067
RL292	305'	S45E;–45	NO INTERCEPT		
EAST DREAMLAND					
RL293	610'	N45E;–50	450–455'/5'	0.012	0.082
			460–465'/5'	0.022	0.146
RL294C	1310'	N45E;–75	182.5–187'/4.5'	0.015	0.108
			347–357'/10'	0.029	0.108
			422–427'/5'	0.028	0.117
			472–477'/5'	0.024	0.382
OSCAR					
O13	245'	VERTICAL	65–175'/110'	0.010	0.190
Including			105–110'/5'	0.033	0.060
O14	565	VERTICAL	125–140'/15'	0.009	0.690
			185–275'/90'	0.006	0.370
			420'530'/110'	0.014	0.480
Including			450–455'/5'	0.031	0.710
			465–470'/5'	0.034	0.340
			495–500'/5'	0.016	2.140
O15	505	VERTICAL	190–220'/30'	0.007	0.190
			275–330'/55'	0.005	0.100
			375–460'/85'	0.008	0.210
O16	460	VERTICAL	305–340'/35'	0.006	0.220
			365–380'/15'	0.007	0.400
O17	510	VERTICAL	195–200'/5'	0.022	0.030
			435–445'/10'	0.019	0.030
			475–500'/25'	0.008	0.070
O18	505	VERTICAL	NO VALUES		
O19	635	N45E/–50	420–495'/75'	0.005	0.170

HOLE NO.	T.D. FEET	BEARING/ INCLINATION	INTERCEPT FROM–TO/WIDTH	AU OPT	AG OPT
O20	555	N45E/–50	ALL VALUES < OR = 0.004 OPT AU		
O21	535	N60W/–50	45–50'/5'	0.007	0.000
O22	685	N60W/–60	600–615'/15'	0.007	0.050
O23	285	N60W/–60	NO VALUES		

DISCOVERY AND GEOLOGY OF GOLD MINERALIZATION AT THE ROSEBUD PROJECT PERSHING COUNTY, NEVADA

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Discovery and Geology of Gold Mineralization at the Rosebud Project, Pershing County, Nevada.

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Abstract

The Rosebud district is located in the Kamma Mountains, southeast of the townsite of Sulphur, Nevada. Since discovery in 1989, LAC Minerals, in joint venture with Equinox Resources, has delineated a resource containing approximately 570,000 ounces of gold and 5,500,000 ounces of silver. The deposit is of the volcanic-hosted epithermal quartz-sericite type. Mineralization occurs in tabular zones in and along the hanging wall of the South Ridge fault, and in cross-cutting high-angle structures. Multiple stages of discontinuous stockwork gold- and silver-bearing quartz-calcite-clay veins cut variably clay-altered, silicified, and sericitized rhyolitic Miocene volcanic rocks.

Introduction

The Rosebud project is located in northern Pershing County, approximately 50 miles NNW of Lovelock, Nevada (Figure 1). The Rosebud district was discovered in 1906, and has a recorded production of 3,700 ounces Au and 116,000 ounces Ag between 1908 and 1947 (Johnson, 1984). Most of the production was from the Dreamland mine, located approximately 3000 feet northwest of the current resource at Dozer Hill. Modern gold exploration in the district began in the late 1970's, and several major mining companies conducted exploration programs prior to LAC's involvement in the district.

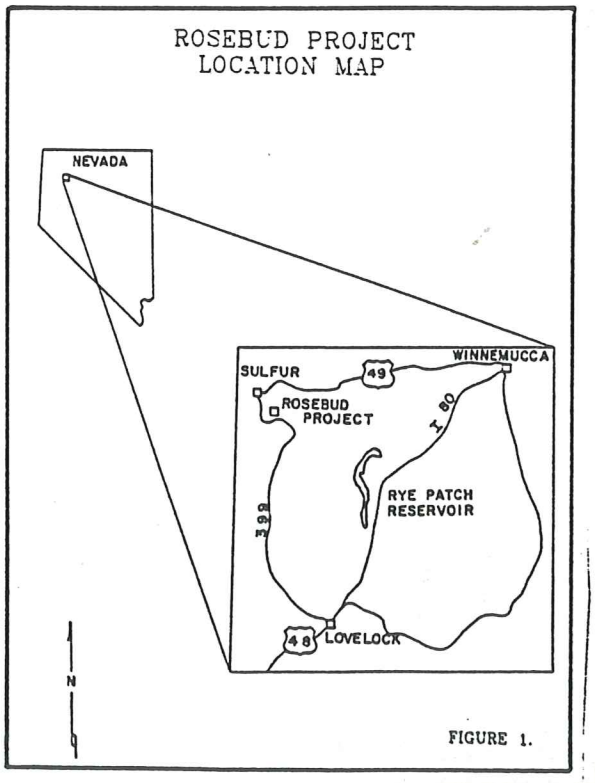

FIGURE 1.

LAC's interest in the region was generated out of a regional reconnaissance program in 1987. In 1988 LAC Minerals began acquiring a land position

in the district through claim staking and various property agreements, including the joint venture with Equinox Resources. Currently LAC controls approximately 10,000 acres, covering most of the northern Kamma Mountains. Evaluation of the property began in 1988 with geologic mapping, soil and rock chip geochemical sampling, and geophysical surveys, including airborne magnetics and IP. Initial drilling in 1989 was targeted on the basis of a multi-element soil anomaly in a previously untested area southwest of Dozer Hill. Ore-grade mineralization was encountered in the hanging wall of the South Ridge fault in the third hole (55 feet at 0.120 opt Au). Drilling has continued to the present, with a total of 235 holes in the Dozer Hill area, which have outlined a geologic resource of 570,000 ounces of gold at a 0.1 opt cut-off.

Regional Geologic Setting

The Kamma Mountains are located on the southeast side of the Black Rock Desert, in a region of Tertiary basin and range extension. The Tertiary-age Kamma volcanics were deposited in a north-trending caldera-like subsiding trough developed in a Jurassic-Triassic basement sequence of pelitic metasediments. The Kamma Mountains are bounded on the east by the Kamma fault, which juxtaposes the youngest volcanics next to the basement rocks. On the west side of the range, the Kamma Mountains are bounded by NNE trending rangefront faults.

The oldest rocks in the district are folded and faulted Jurassic-Triassic carbonaceous metasedamentary rocks of the Auld Lang Syne Formation (Johnson, 1977). Unconformably overlying the metasediments, the Kamma volcanic sequence is composed of a thick section (>7000′) of flows, pyroclastic, and epiclastic rocks, generally of quartz-latite to rhyolite composition (Figure 2). LAC geologists have broken the undifferentiated Kamma volcanics into mappable stratigraphic units, these unit names will be described and used throughout this paper. At the bottom of the volcanic pile is the Oscar Sequence, which grades upwards from Triassic pebble conglomerates interbedded with tuffaceous sediments, into a series of andesitic flows. The Oscar Sequence thins to the north, and is onlapped by the Dozer Formation. The Dozer Formation consists of a rhyolitic fine-grained flow dome complex, and varies in thickness from approximately 800 to 1800 feet. Flow dome breccias, probably equivalent to the Dozer Formation, occur locally. Considerable topographic relief was developed on top of the Dozer Formation before the volcanics of the Kamma Formation were deposited.

The Kamma Formation can be subdivided into three units; from base to top these are: the Wildrose, the Bud, and the Chocolate Members. These volcanic units are all similar in composition, consisting of quartz-latite to rhyolite flows, volcanic breccias, and tuffs with interbedded water-lain pyroclastics, often green in color. The Wildrose unit consists of an approximately 1300 foot thick sequence of dense dark fine-grained flows, tuffs, and volcanic breccias, locally with interbedded green clastic units. In the Dozer Hill area, the upper part of the Wildrose is the main

host for mineralization. The Wildrose is transitional into the overlying Bud unit. The Bud is a key marker unit, generally displaying a distinctive green color. Bud volcanics consist of water-lain bedded pyroclastic breccias and epiclastics (with a celadonite/ glauconite clayey matrix), interbedded with fine-grained flows. Individual beds within the Bud are often discontinuous, having been deposited in local depressions. The contact between the Bud and the overlying Chocolate Member is gradational. The Chocolate unit consists of at least 1500 feet of porphyritic quartz-latite flows, tuffs, and volcanic breccias, and is the uppermost unit in the Kamma Formation. Unconformably overlying the Kamma Formation is the Badger Formation, a thick pile of volcaniclastic sediments with a red silt matrix.

Late Tertiary extensional tectonics have tilted the range to the east, and created a complex pattern of NE, NW, and E-W low- to high-angle faults. The most prominent regional structure is the Rosebud Shear zone, which trends N60E, appears to dip moderately to the northwest, and has about 5000′ of apparent left lateral displacement. Part of the left lateral movement on the eastern side of the range is taken up by the South Ridge fault, which strikes east-west and dips 25° to 45° to the north.

Geology and Mineralization of the Dozer Hill Area

The Dozer Hill area is bounded on the north by the Rosebud Shear zone and on the south by the South Ridge fault (Figure 3). Mineralization is hosted by the Wildrose Member of the Kamma Formation, and is localized in structural zones associated with the South Ridge fault. The South Ridge fault is expressed at the surface by a series of intensely silicified ribs; at depth the fault varies from calcite-rich to clay-rich to strongly silicified breccias. Mineralization occurs near the intersection of the South Ridge fault with high angle NE and NW structures, in favorable stratigraphy.

Dozer Hill mineralization can be divided into two areas: the Main zone and the East zone. Mineralization in the Main zone occurs in the hanging wall of the South Ridge fault, and is confined to the upper Wildrose unit, 10 to 200 feet below the contact with the overlying Bud unit (Figure 4). The Main zone is 1800 to 2000 feet long, and averages 250 to 300 feet wide and 25 to 45 feet thick. The orebody plunges 20° to 25° N35E (the orebody is 200 feet below the surface at the SW end, and 900 feet deep at the NE end). The NNE trend of the Main zone is defined by the intersection of the favorable hanging-wall wedge of the Wildrose unit (N15E, 42°E) with the north-dipping low-angle South Ridge fault. The Wildrose is a hard, dense unit, and fractures brittlely, creating open spaces for ore deposition. Mineralization is localized within tabular, shallow to moderately dipping bodies, probably in tensional fractures antithetic to the South Ridge fault. The overlying Bud unit is relatively soft with a green clayey matrix, which deforms ductilely. Possibly the Bud has acted as an aquiclude to confine and concentrate mineralizing fluids in

the Wildrose. Dense, weakly altered fine-grained flows of the Dozer Formation occupy the footwall of the South Ridge fault in the main zone.

The East zone ore body is tabular, approximately 400 feet by 600 feet in plan, and 15 to 45 feet thick. The zone dips slightly to the north, and is elongate in a northwest direction. Mineralization is localized within, and in the footwall of the South Ridge fault. In the East zone, the footwall is the Wildrose unit, and it is often mineralized for up to 100 feet below the fault, generally along low-angle fractures sub-parallel to the South Ridge fault. Chocolate volcanics occupy the hanging wall in this area, and contain only narrow mineralized fractures.

Alteration in the Dozer Hill area is characterized by widespread bleaching and sericitization. Local areas are variably clay-altered, silicified, and brecciated. The ore is characterized by a crude stockwork and micro-veining of quartz, calcite, clay, pyrite, and marcasite. Gold and silver minerals include electrum, aurian silver, and silver-bearing selenides and sulfosalts, which are generally contained in narrow discontinuous veinlets (less than 1 cm. thick) or in strongly clay altered rocks. Silver to gold ratios are highly variable, but average 10:1 overall. Elevated levels of Hg, Se, As, and Sb have been correlated with mineralization.

Currently, a total of 155,613 feet has been drilled in 235 holes in the Dozer Hill area. Fifty percent of the drilling has been core (78 holes totalling 54,173 feet), the rest were reverse-circulation. Using a cut-off of 0.1 opt gold, the drill-indicated geologic resource as of January 1992 is 1,746,000 tons containing 570,000 ounces of gold with an average grade of .326 opt Au, and 5,500,000 ounces of silver, at 3.15 opt Ag. Exploration activities are continuing on the Rosebud project, and permitting is currently in progress.

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EXPLANATION

Quat

Alluvium, Colluvium

Tsc — Camel Conglomerates

Tbg — Badger

Tertiary

Kamma Volcanics:

Tc — Chocolate

Tbv — Bud

Twr — Wild Rose

Td — Dozer

Jurassic

Tos — Oscar

JRa — Auld Lang Syne

Dreamland Mine

1. Dozer Hill

2. South Ridge Fault

3. Rosebud Shear Zone

4. Kamma Fault

N

2000 0 2000

SCALE IN FEET

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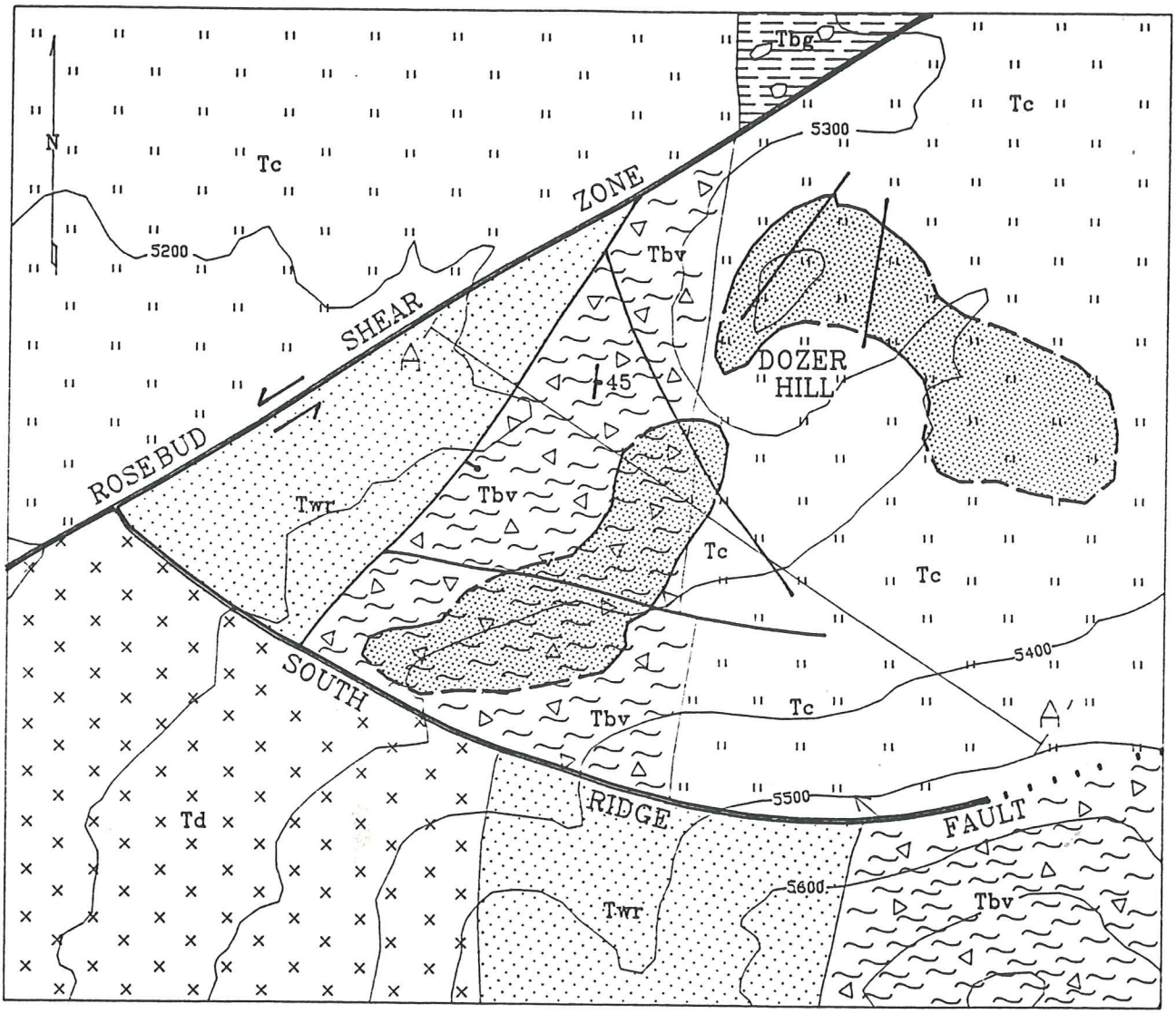
ROSEBUD PROJECT
GENERALIZED GEOLOGY MAP
CENTRAL KAMMA MOUNTAINS
FIGURE 2.



SURFACE PROJECTION OF ZONE OF ≥ 0.05 Au

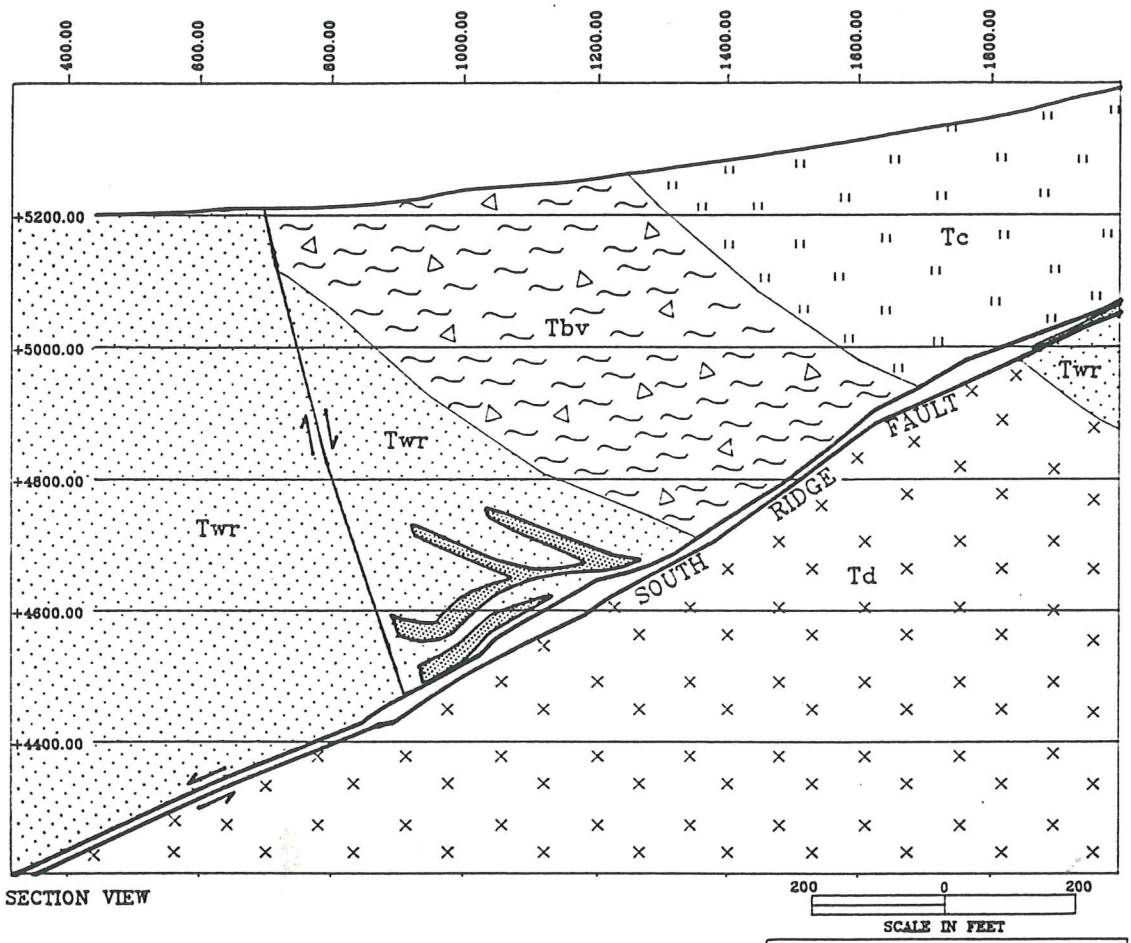
500 0 500

SCALE IN FEET

NOTE: For explanation of rock types see Figure 2.

DOZER HILL GEOLOGIC MAP

FIGURE 3.



SECTION VIEW

200 0 200

SCALE IN FEET

Au Mineralization > 0.1 opt

Note: For explanation of rock types see Figure 2.

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ROSEBUD PROJECT
GENERALIZED GEOLOGIC CROSS SECTION, LOOKING N35E THROUGH MAIN ZONE

FIGURE 4.

The Dirt Biker's Guide to ROSEBUD STRATIGRAPHY

(yet another prototype)

****

	Qal	alluvial deposits
	Qc	colluvial deposits
	Qlb	lake bed deposits
QUATERNARY	Qls	land side deposits
(0-6 ma. ?)	Qpg	pediment gravel deposits
	Qog	older gravel deposits

PERIOD OF EXTENSION AND REGIONAL TILTING, DEVELOPMENT OF THE BLACK ROCK STRUCTURAL BASIN, CONTINUED EROSION OF THE ANTELOPE AND KAMMA MOUNTAINS, IN-FILL OF THE BLACK ROCK BASIN, **AND LIKELY PERIOD DURING WHICH ROSEBUD, OSCAR, (SULPHUR?), SAWTOOTH KNOB, AND LANTERN WERE ALTERED AND MINERALIZED.**

	Trd	Rhyolite dikes which cut Camel conglomerate at Sulphur (Wallace = Thd).
LATE TERTIARY		
(6-12 ma ?)	Ths	Hot springs sinter deposits
	Teb	Eruptive breccia sequence at Oscar = Twb white breccia unit of Wallace.

	Tcc	Camel conglomerate = tilted, pebble conglomerates composed of well rounded clasts of Jurassic-Triassic and Cretaceous rocks including phyllite, slate, quartzite, granitic to mafic intrusive rocks, and bull quartz.
TERTIARY		
(12-15 ma ?)	Tfb	fissure basalt flows, thin basalt flows found at the northeast end of the Kamma Mountains.
	Tts	Tuffaceous sediments, clay rich, mainly siltstones and mudstones (probably lake bed sediments) as found at "Wiggle" survey control point (NE of Gator) and the small patch found southeast of KM-7.

Tbf Badger Formation which consists of a thick pile of volcaniclastic sediments including debris flows, laharic breccias, and epiclastic sediments.

Tli Latite dikes and plugs

Tcv Chocolate volcanics which generally consists of a thick pile of porphyritic quartz-latite to alkali rhyolite flows and pyroclastic breccia units which locally can be divided into three members:

- **Tcu** Upper Chocolate flow and pyroclastic breccia member.
- **Tcm** Middle Chocolate green pyroclastic breccia member.
- **Tcl** Lower Chocolate flow and pyroclastic breccia member.

Tbv Genuine Bud volcanics is composed of up to 5 (or perhaps more?) members which commonly include three green pyroclastic breccia members separated by two fine-grained rhyolite flow members:

TERTIARY
(12-15 ma ?)

- **Tbup** Upper Genuine Bud a generally thin bedded, green pyroclastic breccia member.
- **Tbuf** Upper marker flow member
- **Tbmp** Middle green pyroclastic breccia member
- **Tblf** Lower marker flow member
- **Tblp** Lower green pyroclastic breccia member

Twrv Wild Rose volcanics consist of at least three members including the upper and lower, flow and pyroclastic breccia members, and two discontinuous, thin bedded, green predominantly pyroclastic breccia members:

	Twruf	Upper flow and pyroclastic breccia member
	Twrmp	Middle green pyroclastic breccia member
	Twrlf	Lower flow and pyroclastic breccia member
	Twrlp	Lower green, thin bedded pyroclastic breccia member
	Tdv	Dozer volcanics probably represent an early rhyolitic flow dome complex. It appears that a considerable topographic relief was developed on top of the Dozer before the Wild Rose and later volcanic units were deposited.
	Tfdb	Flow dome breccia similar in nature to the Dozer flow dome sequence; however, are composed dominantly of monolithic dome-related breccia bodies and some related near vent flows and flow breccias. The best exposures of these rocks occur at the east end of Rosebud Canyon.
TERTIARY (12-15 ma ?)	**Tof**	Oscar Formation consists of a series of intermediate to mafic but predominantly andesitic volcanic flows and subordinate interbedded conglomerate (Jurassic-Triassic-Cretaceous clasts) and tufaceous sediment interbeds.
	Ts	sedimentary rocks generally consisting of sands, silts, grits and conglomerates which at Dozer Hill directly overlie the JTRa basement rocks and are presumed to be equivalent to the sedimentary portions of the Oscar Formation (Tof).
PRE-TERTIARY	**JTRa**	Auld Lang Syne Group

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