

# Chandalar Mining District

## A Report of Findings and Recommendations, 2005



prepared for

**Little Squaw Gold Mining Company**

by

**James C. Barker, Consulting Geologist**

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# **CHANDALAR MINING DISTRICT: REPORT OF FINDINGS AND RECOMMENDATIONS, 2005**

## **OVERVIEW**

The Chandalar Mining District, located 190 miles north of Fairbanks, is on the south flank of the Brooks Range. It is accessible by aircraft as large as multi-engine transport planes. It is also connected to Coldfoot on the Dalton Highway via a 65 mile-long winter trail that has been used for most of the 20<sup>th</sup> century. At present Little Squaw Gold Mining Company (LSGMC) holds more than 9,993 acres of State of Alaska mining claims; this includes 426.5 acres held as fee simple patented mining claims. The claim area incorporates nearly the entire known district.

LSGMC was incorporated in 1959 then, after 44 years, a management change was effected in 2003. In 2004 the first modern geological exploration was initiated in the district and that effort was continued in 2005. The following report describes the results of the 2005 work.

Gold-bearing quartz veins at Chandalar are controlled by deep-seated, high-angle shear zones that cut Devonian or older greenschist facies metamorphic rocks. Veins are mostly hosted by faults or joints that splay off or intersect the major shear zones. The Chandalar veins can be classed as low-sulfide, metamorphic-related, mesothermal gold deposits. At least 33 named prospects are known; however, of these only four have been explored to any degree in the past. Evidence to-date indicates that additional veins will be identified as more thorough exploration advances along the deep-seated shear zones tentatively defined as a conjugate set of NW and NE structures. Evidence from recent mapping suggests that at least some veins are hosted in sutures that crossover the shear zones. While most auriferous veins trend NW, several veins appear hosted in NE fault structures. The area lies in the arctic permafrost zone and well-developed periglacial features widely obscure bedrock and complicate evaluation.

Work goals in 2005 were to assess the resource development potential of the vein deposits and, as warranted, determine specific recommendations for initial drill testing. The question has been posed by previous operators as to whether the veins are relatively short and likely to feature only a single shoot of significant mineralization, or whether they are longer, regional structures having multiple semi-continuous zones or shoots of auriferous quartz along their length. Evidence to-date suggests the veins have remarkable continuity over strike lengths of at least several thousand feet. Generally they occur in sets of four to six veins of which one or two may be mineralized and contain elevated, albeit sub-economic, gold values (at this stage of exploration) over the known lengths of the veins. High-grade gold values appear confined to smaller structures or zones up to several hundred feet (e.g. Mikado Mine) that can be typically described as 'ore shoots.'

From north to south the vein systems examined and mapped:

- Pallasgreen – Historically an isolated occurrence, the prospect was found in 2005 to host several parallel veins with a traced strike length of 1,000 feet; veins are open in either direction. Mineralization of 12 ppm Au/ton and soil values up to 2 ppm Au/ton were found.
- Drumlummon – A previously vaguely described prospect was found to be a vein likely to have significant strike length.
- Pioneer veins – Veins were traced in float and by soil sampling for 2,000 feet with a possible new mineralized zone identified 500 feet southeast of the old workings. It is now suspected the vein structure continues northwest to include the Grubstake East and the Prospector East sites for a total strike length of about 7,500 feet.
- Little Squaw Mine - Several previously unreported veins were traced in float and by limited soil sampling for 2,000 feet downslope toward the valley bottom. Mineralization is indicated in the vicinity of the lowermost, caved adit. An auriferous parallel vein south of the 100 Level is also inferred from the mapping and past drill results.
- Veins of the Crystal prospect were traced west for about 1,600 feet and are likely the same vein system as those of the Little Squaw Mine.
- Eneveloe area veins - Veins including the Bonanza, Chandalar, Woodchuck, and Jupiter are now traced 3,500 feet farther east, extending under the Rock Glacier prospect, where mineralized quartz is widespread. Additionally, the Eneveloe veins may project another 3,000 feet toward the Uranus veins, however, the intervening area is largely covered. The Eneveloe veins are open to the west.
- Summit veins - Known veins host a high-grade gold-quartz shoot on the 100 Level and gold mineralization near and below the 200 Level adit. Soil and sediment sampling found gold values for 2,400 feet beyond the western-most workings and particularly anomalous gold values were found 700 feet west of the workings. On the east end of the known Summit veins a series of NE-trending gold-bearing veins were identified; however, their inferred intercept with the Summit veins is covered by overburden.
- The Mikado vein has been previously reported on the basis of trench exploration, prospects, and placer mining to have a strike length of 6,000 feet or more. Reconnaissance mapping and sampling were done at the St. Mary's Prospect on the Mikado Shear.

Based on the 2005 findings and considering the particulate nature of the gold (nugget effect) and other factors, an early-exploration level of reverse-circulation drilling is recommended while additional geological and geochemical studies are continued. A total of 31 holes at 11 specific prospects, an estimated 11,500 feet, are proposed.



## **INTRODUCTION**

Little Squaw Gold Mining Company is the principal land holder in the Chandalar Mining District of Northcentral Alaska (Figure 1). Fee simple title is held to 426.5 acres of patented mining claims that are located inside a larger block of unpatented Alaska State mining claims for a total of 9,993 acres, including 160 acres added in 2005. The company holds mineral title to nearly all of the known lode occurrences and most of the known and speculated gold placer resources of the district (Figures 2 & 3).



*Figure 1. The Chandalar Mining District in northern Alaska.*

The Chandalar Mining District is located 190 miles north of Fairbanks and is accessible by aircraft and by winter trail from Coldfoot on the Dalton Highway about 60 miles to the west. A usable 3,000-foot airstrip and about 20 miles of mine roads are on the property. Two other airstrips on the property could be made serviceable if needed.

On April 11, 2005, Alaska's Governor Murkowski announced that the State had filed a lawsuit with the U.S. Department of Interior to seek quiet title to the State's RS 2477 right-of-way to the trails from Coldfoot to Chandalar Lake and from Caro to Coldfoot. Governor Murkowski cited continuous public use since 1906 when the trails first accessed the gold in the Chandalar area. The State holds title to nearly two million acres of surface and mineral estate in the Chandalar region and it is the State's position that it has authority to assert the right of access over existing trails.

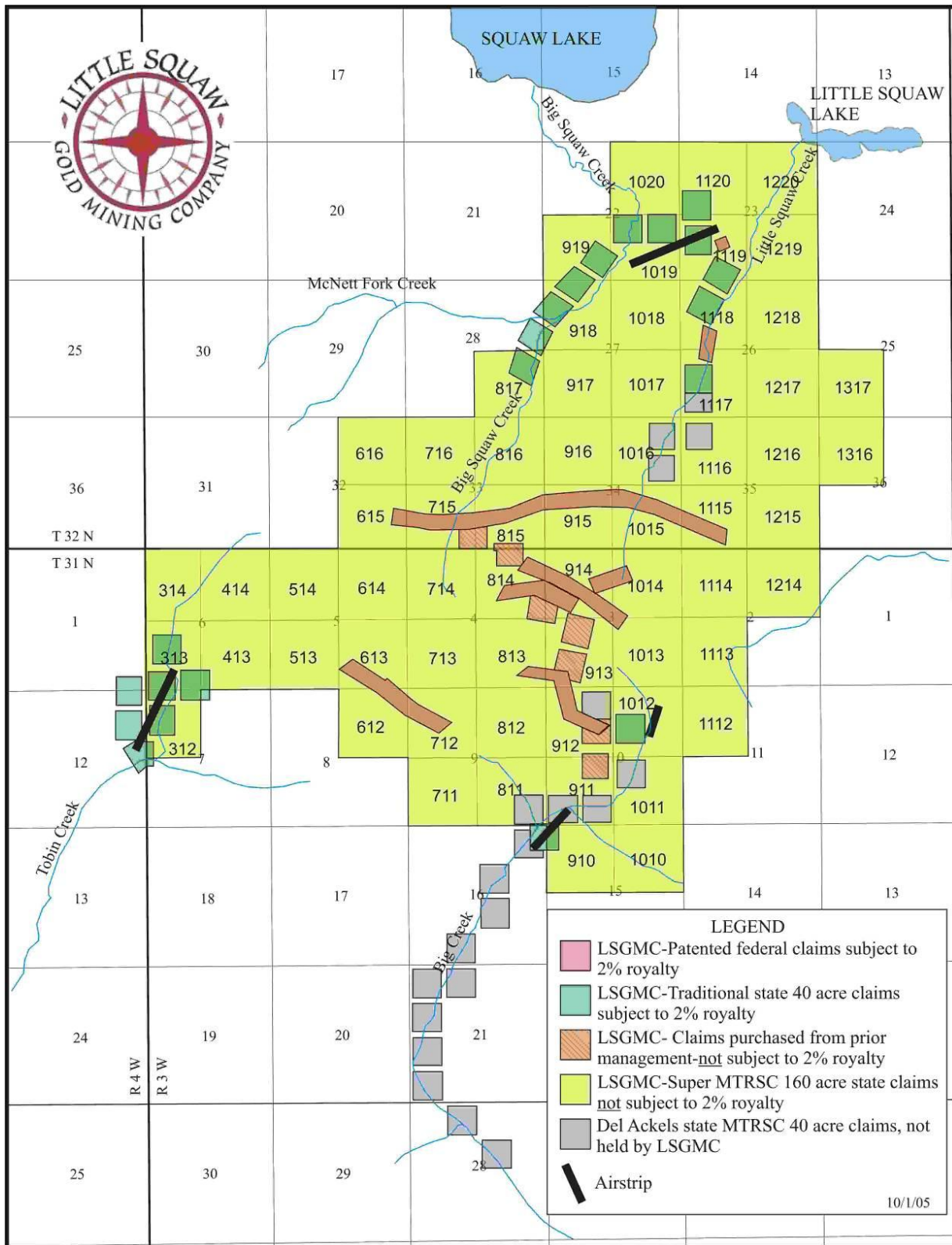


Figure 2. Location of Little Squaw Gold Mining Company claim holdings in the Chandalar Mining District.

Gold was first discovered at Chandalar in 1905. An account of the colorful history of the early operations is given in the May, 2004 report to LSGMC (Barker and Bundtzen, 2004). The current corporate structure was established in 1959. In 2003 there was a complete change in management, including the appointment of a new Board of Directors.

Despite its century-long history, the district has not been subjected to modern geological and/or geophysical exploration. Attention has been concentrated on the several early-year vein discoveries on which small-scale mining operations have been intermittently attempted. Similarly, development of the placer resources has been limited to smaller scale drift mining and family-scale operations using drift mining or open-cut mechanized methods. All total, less than 100,000 oz gold have been reported as recovered; actual total production is unknown.

In 2004 and continuing into 2005 a modest effort initiated the first district-wide mineral exploration. Work by the company in 2004 is reported in the independent technical review (Barker and Bundtzen, 2004)<sup>1</sup> and the Summary of Field Investigations 2004 (Barker, 2004)<sup>2</sup>. The reader is referred to these compilations for additional detail and information that summarizes nearly 150 public and private documents.

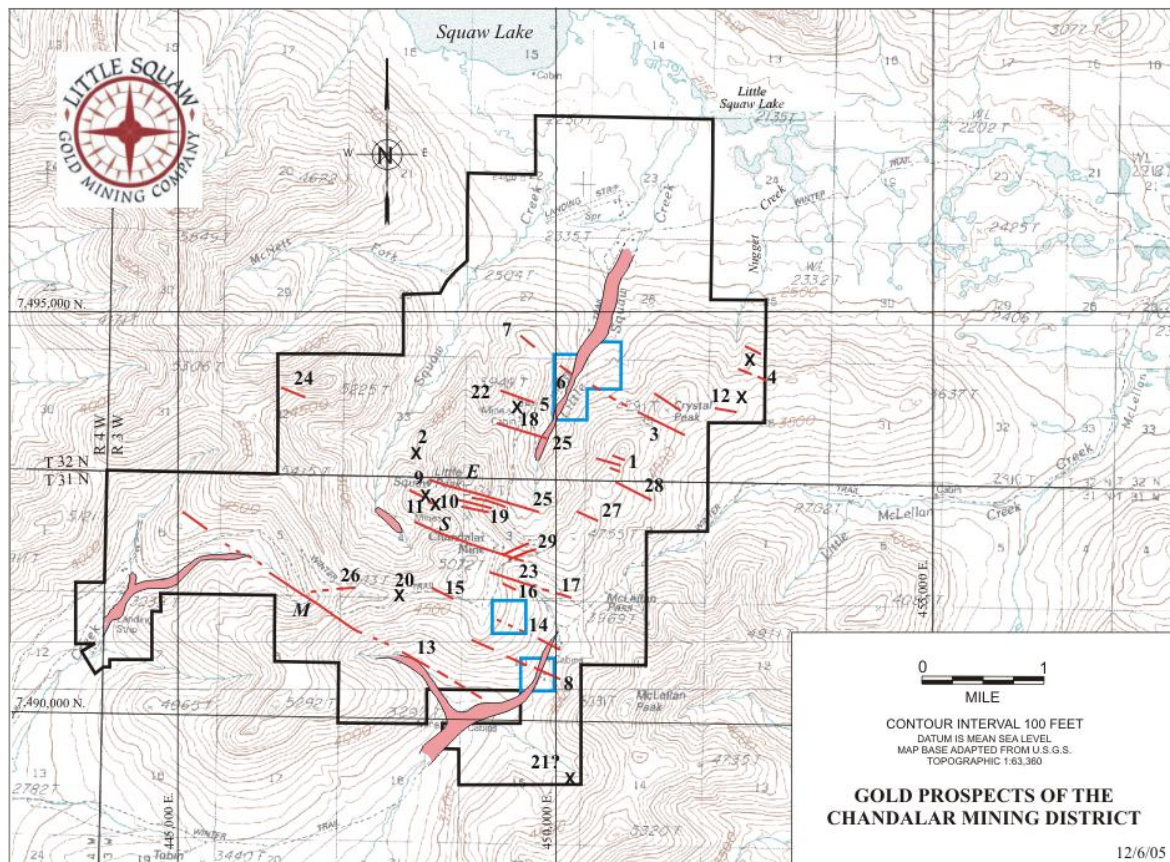


Figure 3a. Location of mines and prospects in the Chandalar Mining District.

<sup>1</sup> Barker, James C., and Bundtzen, Thomas K., 2004, Gold Deposits of the Chandalar Mining District, Northern Alaska: An Information Review and Recommendations.

<sup>2</sup> Barker, James C., 2004, Chandalar Mining District: Summary of Field Investigations 2004, Phase I & Phase II.

LODE PROSPECTS

- |                      |                   |
|----------------------|-------------------|
| 1 CRYSTAL            | 16 SHAMROCK       |
| 2 BIG SQUAW          | 17 WILDCAT        |
| 3 PIONEER            | 18 JACKPOT        |
| 4 PALLASGREEN        | 19 WOODCHUCK      |
| 5 GRUBSTAKE          | 20 LITTLE KISKA   |
| 6 GRUBSTAKE EAST     | 21 PEDRO          |
| 7 PROSPECTOR EAST    | 22 GRUBSTAKE WEST |
| 8 INDICATE - TONAPAH | 23 BIG CREEK BOWL |
| 9 CHANDALAR          | 24 MERCURY        |
| 10 JUPITER           | 25 ROCK GLACIER   |
| 11 BONANZA           | 26 BIG TOBIN      |
| 12 DRUMLUMMON        | 27 URANUS         |
| 13 ST. MARY'S        | 28 McLELLAN       |
| 14 STAR GROUP        | 29 RATCHET RIDGE  |
| 15 STAR NO. 3        |                   |

MINES

- |                 |                      |
|-----------------|----------------------|
| E ENEVELOE MINE | LS LITTLE SQUAW MINE |
| S SUMMIT MINE   | M MIKADO MINE        |

LEGEND





-  Auriferous vein system as traced in float, outcrop and soil sampling; dashed where inferred. Number refers to list of prospects above.
-  Isolated or unevaluated vein occurrence
-  Historic gold placer workings
-  Inlier claims held by others

Figure 3b. Location map legend



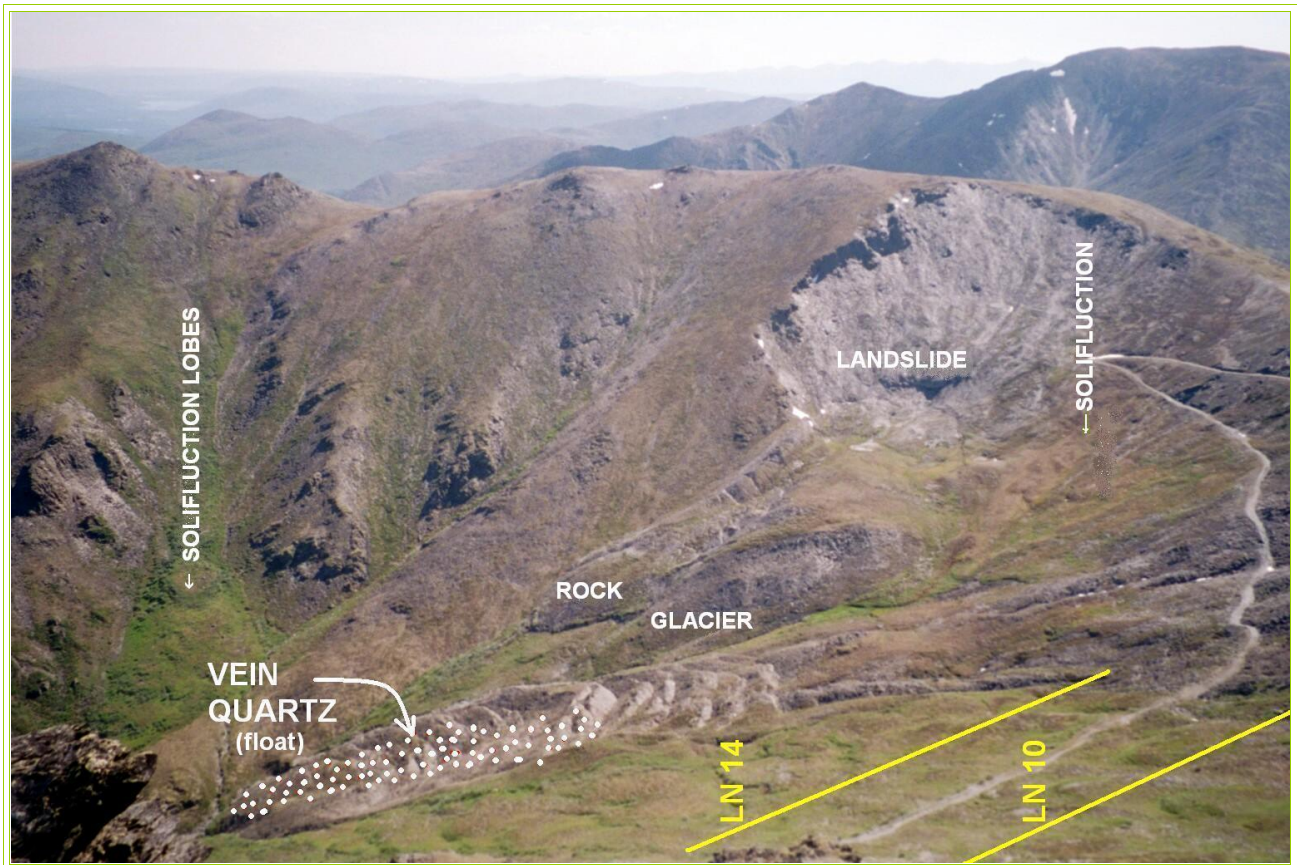
In 2005 the principal objective was to begin reconnaissance mapping (1:4,000 scale) and sampling in the vicinity of known prospects in an effort to build an inventory of proposed drill sites for a 2006 drill program. Emphasis was placed on the old, and somewhat vague, reports of vein showings on the east side of the property where there has been little or no reported evaluation since prospectors first visited these occurrences in the early 20<sup>th</sup> century. These included the Pallasgreen, Drumlummon, Pioneer, Crystal, Uranus, Rock Glacier, Grubstake East, and Prospector East. Elsewhere, additional effort was made to better understand the structural control of the Summit, Little Squaw and Eneveloe veins. Although historic exploration has occurred at each of these latter sites, it was important in 2005 to determine if there is potential for additional strike length and/or they have more mineralized ore shoots than has previously been reported. This report summarizes the relevant findings from 2005, but does not attempt to repeat descriptive data available in the 2004 reports.

Work in 2005 was performed by a party of two, the author and Charlotte Barker, geologist and field assistant, between July 7 and July 31. The project was based out of the company's camp on Mello Bench. For the week of July 24, company president Dick Walters assisted the project. Access to the area was by Wright Air Service Cessna Caravan aircraft to the Squaw Lake airstrip, and ground transportation was by 4x4 ATVs. Samples were prepared by Alaska Assay Company in Fairbanks, and assays were done by BSI Inspectorate of Sparks, Nevada.

The following discussions include measurements reported using English units of measure. This follows the long history of English measurement use by the Company and its predecessors. Mapping in 2005, though, is based on use of GPS readings receiving metric location data conforming to the UTM (Universal Transverse Mercator) projection, Zone 6, as presented on the USGS Chandalar C-3, 1:63,360 map and using NA 27 Alaska horizontal datum.

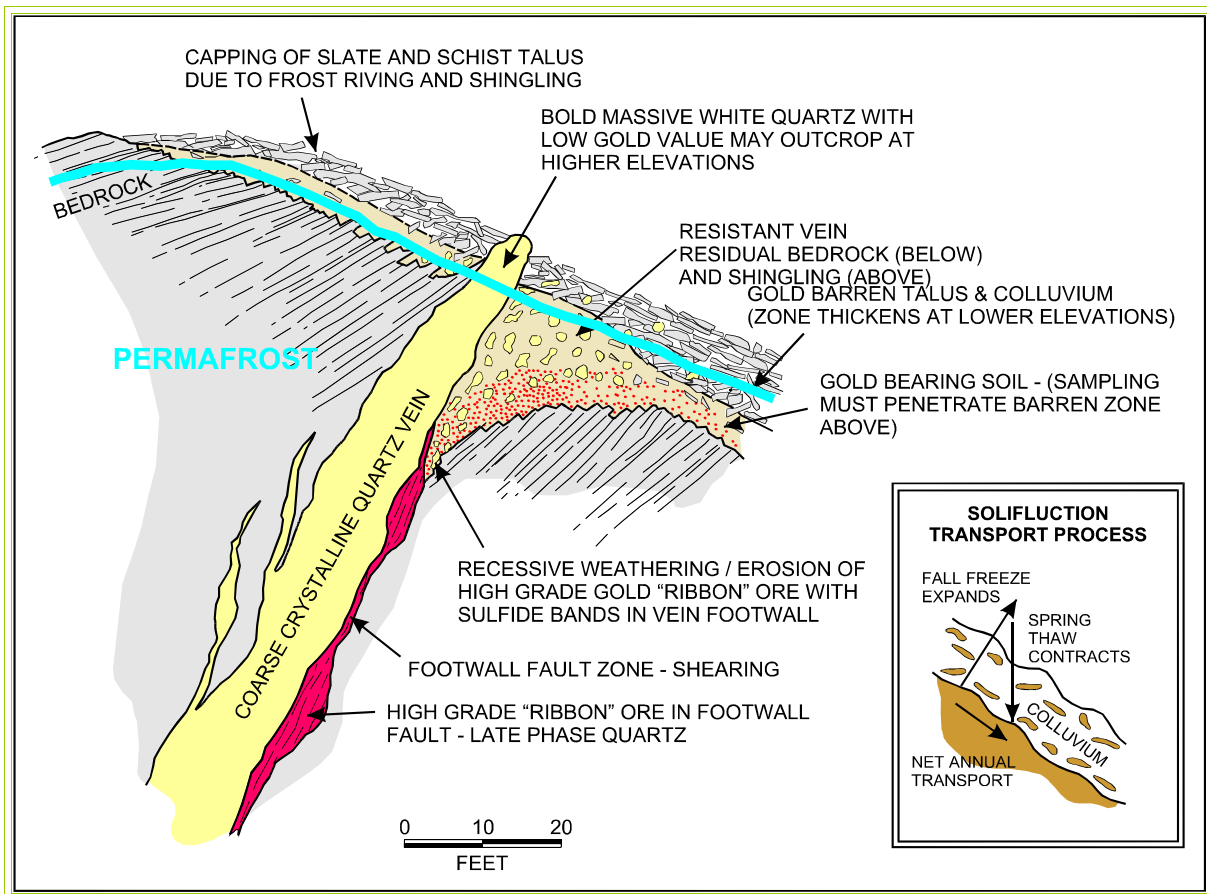
### ***PERIGLACIAL AND PERMAFROST GEOMORPHOLOGY; SOIL AND STREAM SEDIMENT SAMPLING; AND SAMPLING ACCURACY***

The Chandalar Mining District is located at Latitude 67° 30', about 75 miles north of the Arctic Circle and in the region of continuous permafrost. In this area permafrost can be expected to extend to depths of 400-500 feet. Consequently, frozen ground has been encountered in all of the historic underground workings of the district except where partially thawed ground occurs at the rear workings of the lower Eneveloe adit. It is not present under larger bodies of water or active aquifers that create a heat-sink of summer warmth such as lower Little and Big Squaw Creeks. Periglacial features are common in the district and classic examples are seen of solifluction, solifluction lobes, frost boils, extensive frost-riven talus, rock glaciers (Figure 4), and an areal active layer of 4 to 6 feet. At least half the district is steeply sloped hillsides and, because the frost-riven talus is mostly slabby slate and schist, freeze-thaw cycles create a common shingled surface of slabby rock annually in motion down the slopes due to solifluction. Elsewhere, along the north of the property, glacial till mantles the north-facing hills above the broad post-glacial lowlands, and glaciofluvial sediment is interlayered with fluvial sediments in the north-flowing placer gold streams below an elevation of 3,000 feet, a result of repeated glacial advances and retreats. The entire landscape of the district has been created or significantly affected by these processes.



*Figure 4. A rock glacier composed of frozen frost-riven debris, interstitial ice, and a clayey matrix exhibits plasticity as the mass moves down the Little Squaw Creek valley. In the foreground the glacier is gouging bedrock that hosts numerous auriferous quartz veins, and vein quartz material is widely exposed on the southwestern lobe of the glacier. Note also the distortion on the road due to ground flow and crevasses. Solifluction lobes are visible on the lower slope in the background. Soil sampling along lines 10 and 14 successfully delineates veins leading into the valley bottom.*

Traditional exploration techniques of soil and stream sediment sampling can be cautiously used at Chandalar, providing the origin of the sampling medium is noted. Typically after mid-July ridge tops and upper valley slopes are amenable to soil sampling. The steep hillsides in the district, with up to 2,500 feet of relief, are increasingly mantled at lower elevations by ever-thicker accumulations of frost-fractured talus. Talus is underlain by finer material that expands on freezing and shrinks annually, causing step-like transport of the talus into the subsequently incised narrow bottom valleys. For sampling to be effective it must be done under this material where residual bedrock may be found (Figure 5). Generally soil sampling can not be used at lower elevations where accumulations of barren talus and colluvium may exceed 50 feet thickness. Stream sediment sampling was tested in 2005 and found to show anomalies where expected, with values of 50 ppb gold probably representing the anomalous threshold; values up to 450 ppb gold were found below known mineralization such as below the Rock Glacier prospect and below the Summit veins. At Nugget Creek, on the other hand, no values were found below apparent mineralization despite the presence of mineralized float in the stream bed. The stream water in this valley is precipitating



intense iron-oxide and stream water may be too acidic to allow anomalous metal concentrations to form in sediments.

Figure 5. Generalized cross-section of an auriferous gold vein showing the use and limitations of soil sampling.

Because ice-wedges can occur to significant depths as surface water infiltrates natural cracks in the frozen bedrock, large blocks of bedrock can be wedged apart and caused to move on steeper slopes. Movement opens ever-wider fractures and more surface water accelerates the process. At the Chandalar prospect open cracks were observed that are at least 15 feet deep; consequently the prospect now occurs in a block of bedrock several tens of feet across, found to be displaced and rotated over a distance of as much as several hundred feet. Therefore an early 20<sup>th</sup> century prospector's effort to drive an adit from the slope below the apparent 'outcrop' failed to intercept the vein. Location of the *in situ* Chandalar vein is still unknown. Similar movement of bedrock masses and accompanying open or ice-filled fractures were observed in the Mikado area, the Little Squaw 100 Level, and are likely common throughout the district. Core drilling in the early 1980s reported lost circulation in several holes due to open voids, resulting in failed drill holes.

Another common feature in the district is the numerous and prominent shear zones that are typically composed of finely ground frozen rock debris, the alteration products of clayey soil and sericite, plus ice. As visible in an annotated photograph later in this report (Figure 12), large landslide features and a debris fan of this plastic-like material are exhibited where the Little Squaw

shear crosses the Little Squaw Creek valley and on the lower slopes of the Crystal prospect on the opposite east side of the valley. Similarly the ridge cut by the Pioneer shear features multiple frozen landslides on the western slope and solifluction lobes draping the eastern slope. At the Summit west extension, a landslide covers the trace of the shear zone and vein system.

Gold in the Chandalar generally occurs as discrete free grains in vein quartz, which poses a sampling problem due to “nugget effect”. In 2005 several mineralized sites were re-sampled to evaluate repeatability of sampling. While results were mostly consistently anomalous, the actual assays can vary by an order of magnitude. For example, at sample site LS1889 (Pallasgreen prospect), a standard 30 g split assayed by fire-assay reported only 0.01 ppm Au, whereas a second split analyzed by a metallic screen assay technique reported 6.83 ppm Au. Similar results were encountered at the Crystal and Chandalar prospects. To minimize this problem it is recommended that: 1) rock sampling generally be processed by metallic screen assay procedures, 2) drilling employ the largest diameter hole practical, and 3) a program of spot panning of soil, outcrop areas, drill cuttings, crushed rock samples, etc., be initiated (Figures 6a and b).



*Figure 6. Nugget effect: a) Fragments of gold shed from vein-quartz ore shoot debris of the Little Squaw vein and recovered by a gold pan; b) gold-bearing quartz from the site of LS1620, which assayed 89.2 oz. Au/ton over 9 inches, the adjoining 7-inch channel sample assayed only 60 ppb. Visible gold grains are up to 3 mm in size in both photos.*

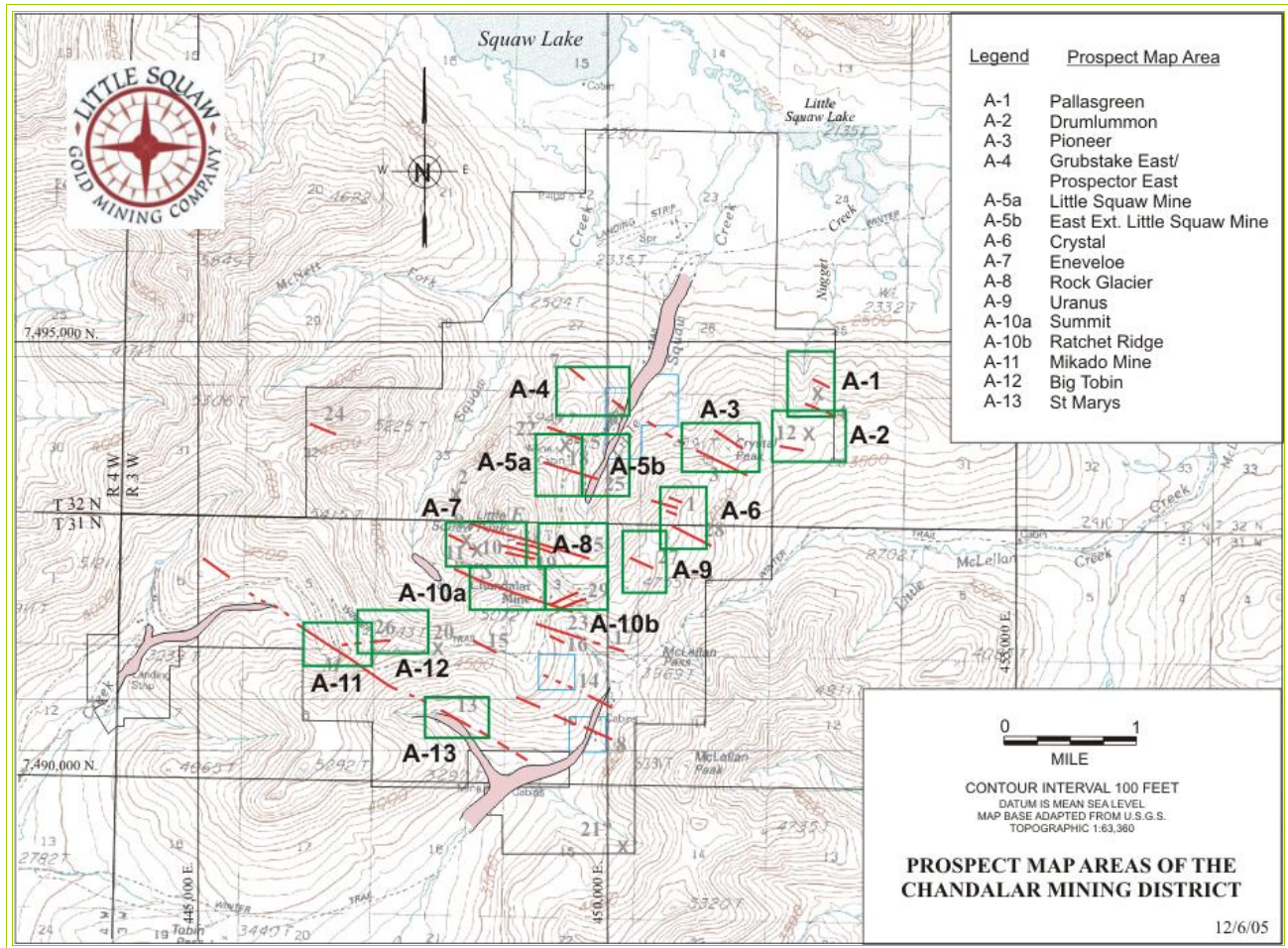
### **PROSPECT-SPECIFIC DISCUSSIONS (north to south)**

**Preliminary Comments** - In 2005 specific investigations were performed on the prospects described in this section, listed north to south. The objective was a preliminary assessment of the potential for tonnage development and to recommend, as appropriate, drill sites for a first phase drill program in 2006. This was an effort to address the question posed by previous operators as to whether the Chandalar veins are relatively short and only likely to feature a single shoot of significant mineralization; or are they longer regional structures having multiple semi-continuous zones or shoots of auriferous quartz along their length.

Each site was mapped at about 1:4,000 scale showing mineralized features, vein projections, old workings, LSGMC sample locations, and anomalous values of stream sediment and soil samples.



The prospect maps are listed in the same order of appearance in Appendix A; sample location, description, and analytical values for Au-Ag-As-Bi-Pb values are tabulated in Appendix B; and 31



proposed drill holes and their orientations are listed for 11 of the prospects in Appendix C. Figure 7 shows the location of the various prospect maps within the Chandalar Mining District.

*Figure 7. Location of prospect area maps in the Chandalar Mining District; maps are shown in Appendix A.*

**Pallasgreen Prospect** - The Pallasgreen is a prominent hogback outcrop of iron-stained quartz (Figure 8), first prospected in the early 1900s. There are several references to a 1946 visit and assay reports of two or three grab samples, but the accounts are vague and location is uncertain. In 2005 the Pallasgreen was relocated and the old workings and general vicinity mapped (Appendix A-1).

The principal outcropping vein is about 25 feet wide and strikes 100-105° with a steep south dip. The vein occurs at or near the contact of a light brown feldspathic schist on the footwall and black graphitic schist on the hanging wall. In thin section the feldspathic footwall rock is characterized as metamorphosed alteration, probably formed by regional metamorphism of massive hydrothermal alteration of an indeterminate protolith and cut by veinlets of ferroan dolomitic calcite and quartz. (Petrography by Spectrum Petrographics, Inc., M. DePlangher, November, 2005).



Figure 8. The original Pallasgreen prospect is a prominent quartz hogback.

Brecciated quartz-limonite zones and numerous joint sets cut the vein with a strike of 160-170° at a northeast dip and are composed of iron-stained quartz shards embayed in limonite. Wispy bands of chlorite and arsenopyrite are common along the footwall and hanging wall zones. Vein samples returned only low assays for gold. Float rock and a prospect pit 300 feet to the west suggest one or more parallel bands or zones of quartz-limonite breccia and quartz vein also cut the graphitic schist. The parallel vein, or veins, was noted to contain grains and clots up to 3 cm of galena and arsenopyrite. Samples contain up to 1.91 ppm gold (LS2020) in soils and 12.12 ppm gold in rock chip samples (LS2022).

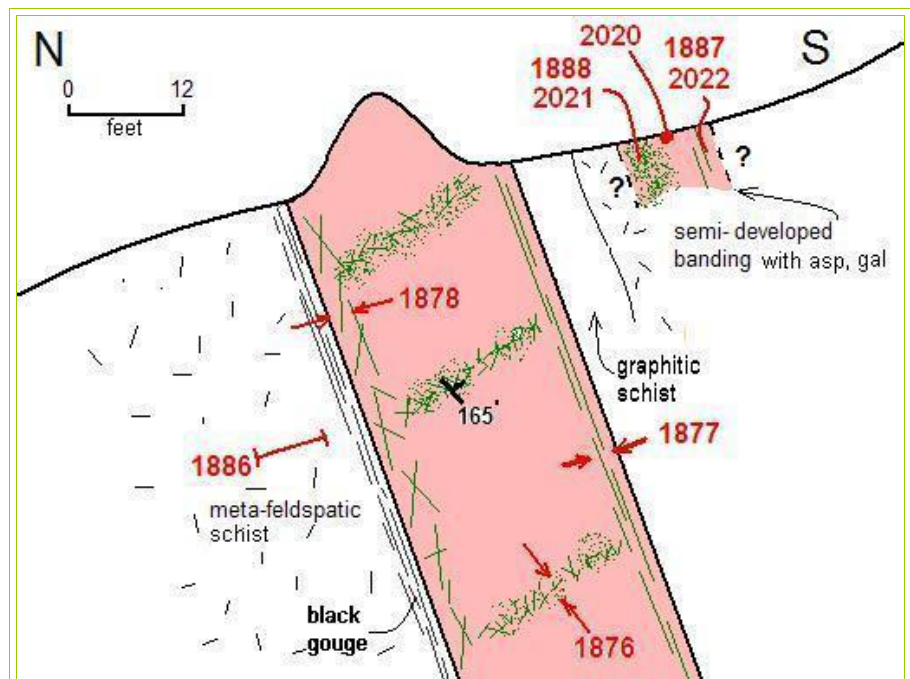


Figure 9. Cross-section of the Pallasgreen prospect, view looking east. Note the south vein may actually be two veins, closely parallel. Samples LS1887 & 1888 (from one sample pit) may be from a different vein than the vein sampled by LS2020-22 (from a near-by sample pit).

Chips of quartz are common as float in the general area and particularly in the tundra-covered area to the northeast, suggesting that the breccia zones and quartz veins may be considerably larger or more numerous than found to-date (Figure 9).

The Pallasgreen veins strike westward to underlie the Nugget Creek valley. A prominent massing of vein quartz boulders occurs where the vein projection would pass under the streambed. Nugget Creek, for one-quarter mile below this westward projection of the Pallasgreen veins, is precipitating a milky yellow to blue-white coating on stream gravels. Below this point the precipitate becomes an intense blood-red limonitic coating. It is suspected that groundwater percolating through a N70E shear zone intersecting the valley at this point may affect the downstream water chemistry, causing the ferric precipitate. None of the stream sediment samples shown on Figure 8 were anomalous in gold or associated metals.

It is recommended that a soil grid at least 1,000 feet N-S by 1,600 feet E-W be established over the prospect area and that a more thorough geologic map be completed of the area shown in Appendix A-1. A series of water samples should be collected from Nugget Creek as well as the drainage to the east and to the west, and compared to samples from below the Rock Glacier, St. Mary's Creek, and elsewhere. Nugget Creek should be investigated for placer gold potential near the mouth of the canyon.

At such time that access is improved to the Pallasgreen, three north-inclined, reverse-circulation drill holes are proposed to intersect and explore the south-dipping veins in the vicinity of the higher assay values reported in 2005 (Appendix D).

**Drumlummon Prospect** - The Drumlummon prospect has been mentioned in company reports but its location and the extent of workings were unclear. In 2005 a brief reconnaissance of the area found a prospect trench in the general vicinity of the reported occurrence; the area was mapped and samples collected (Appendix A-2). The area is mostly a broad tundra-covered ridge with relatively thin residual soils. The ridge forms the divide between McLellan and Lake Creeks.

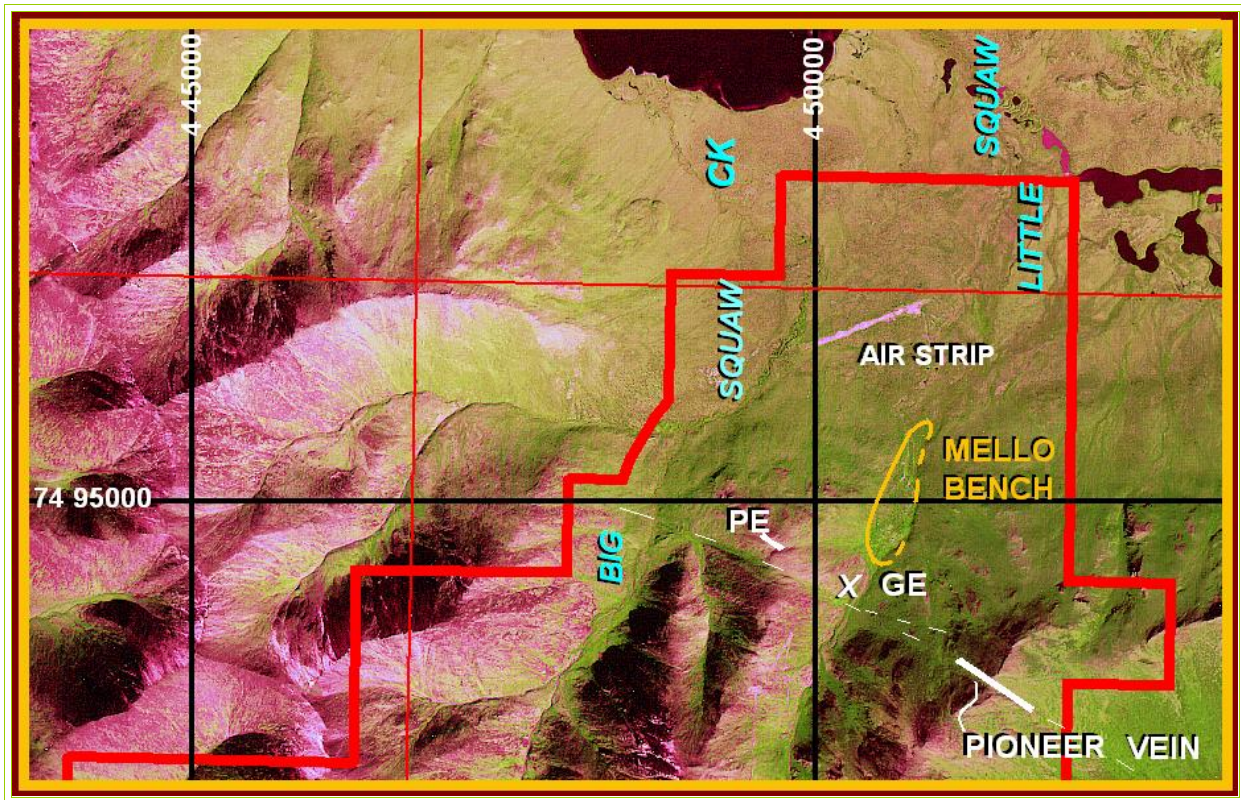
Vein quartz float suggests that several veins are present and that they are composed of both massive quartz and limonitic quartz breccia, similar to the Pallasgreen prospect. Veins do not outcrop, so only float can be examined. Bedrock is mostly graphitic schist. Brown, rusty-weathering, feldspathic schist similar to that described at the Pallasgreen, locally with disseminated iron and lesser or trace arsenic sulfide, is found in the vicinity of the quartz veining. Local areas of sericite-carbonate alteration in the feldspathic schist were also noted. The four rock samples from the area contain up to 1.16 ppm gold.

Additional reconnaissance of the area is recommended. Northeast-oriented soil lines should be established east and west of the prospect site. It is not yet known if the veins extend east of the northwest fault zone shown in the eastern portion of the map area.





**Pioneer Prospect and Shear Zone (including discussion of the Prospector East and Grubstake East prospects)** - Several prospects occur along, and appear related to, a prominent shear zone striking N65-75W. As seen on high altitude imagery (Figure 10), the Pioneer shear (white dashed line) extends about three miles from Big Squaw Creek on the west to McLellan Creek on the east and forms well-incised topographic saddles on the ridges to either side of Little Squaw Creek. Under Little Squaw Creek the shear bifurcates and a north limb of the shear strikes across the eastern ridge where abundant unmineralized quartz was found. The south limb is host to the Pioneer prospect. Where the shear crosses the ridges, particularly the south limb east of Little Squaw Creek, incompetent sheared bedrock and alteration products of clay and sericite have resulted in extensive landslide accumulation and solifluction lobes. These periglacial features effectively mask bedrock at locations greater than one-quarter mile or even less from the ridge summit.



*Figure 10. High altitude image of the Pioneer shear zone and associated Pioneer vein, Grubstake East prospect (GE), and the Prospector East prospect (PE). The Pioneer vein appears to intercept and cross over the south limb of the Pioneer shear east of the ridge.*

**Pioneer Prospect** - At the original Pioneer discovery mineralization occurs as small lenses of high-grade brecciated quartz and clayey pulverized material hosted within the northeast footwall margin of the Pioneer shear (Figure 11). To the southeast the mineralization may become more vein-like, as it lies along the southwest hanging wall margin of the shear. Northwest of the ridge-top trench the relation of the vein trace to the shear is uncertain but the mineralized vein appears to deviate north from the trace of the shear at a slight angle, 3-5°. This projection would therefore align with the prospects on the opposite slope of the valley.

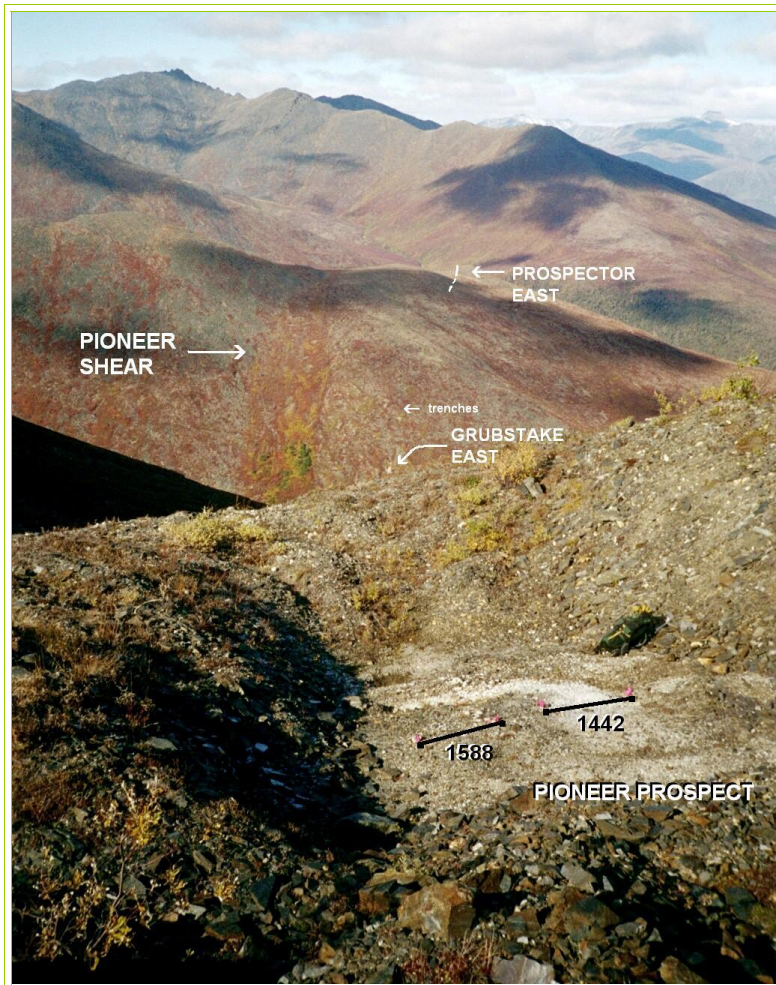


Figure 11. Pioneer shear as seen from the Pioneer prospect; the Grubstake East prospect (GE), and the Prospector East prospect (PE) are visible on the opposite side of Little Squaw Creek. Prospects appear to align with a structure deviating from the shear at an angle of 3-5°.

Altogether, soil gold values and float vein quartz occur along a strike length of 2,000 feet approximately centered over the ridge top Pioneer prospect (Appendix A-3). An attempt was made to collect soil samples and further define the east extension

of the mineralized zone but thick accumulations of slide material and permafrost were encountered. Quartz vein float fragments that were collected at and near LS1950 contained 42.51 ppm gold.

Prospector East - The Prospector East is the only prospect in the Chandalar district that is principally a silver prospect with subordinate gold values. The site (prospect map Appendix A-4) is located on the ridge north of the Little Squaw Mine and lies just north of the Pioneer shear. A single quartz vein contains argentiferous galena and arsenopyrite mineralization that is hosted by a N80W structure, probably a fault. Mineralized quartz can be traced along strike for about 400 feet through a series of six shallow trenches and a short caved adit. The northwest end of the vein appears truncated by a northeasterly fault. Similarly on the southeast the vein is truncated by a prominent shear zone striking N70E. Width of the vein is no longer exposed but was estimated to be about three feet in an early 20<sup>th</sup> century report. Two samples of mineralized material from the old dumps were collected (LS1616 and 1618). These contained 171 and 740 ppm silver and 2.94 and 2.50 ppm gold, respectively. They also contained up to 11.65% lead, 1,120 ppm bismuth, and 104 ppm cadmium. Quartz vein rubble was observed near soil sample LS1617 and may represent a parallel vein; however, the soil analysis indicated insignificant metal values.

Grubstake East - The prospect occurs just west of Little Squaw Creek (Appendix A-4) and consists of a short, now caved, adit that, according to unsubstantiated reports, encountered relatively



coarse gold. Also known as the Trail Adit because it was driven beside the original pack horse trail that led to the early Little Squaw Mine workings, the adit was driven on a composite vein of massive white quartz and a banded scorodite-stained quartz zone. There are also several nearby hand-dug trenches that apparently did not reach bedrock. The area is covered with talus and no bedrock exposures of the vein remain. A single sample (LS1580) of scorodite-stained quartz from the dump contained 5.18 ppm gold.

The Pioneer, Prospector East and Grubstake East prospects possibly align with a concealed structure that deviates from the Pioneer shear zone at an intercept on the ridge east of Little Squaw Creek. Mapping and several soil sample lines oriented northeast should be done in the intervening area between the Prospector East and the Grubstake East prospects. It is of note that the more productive area of the Little Squaw placer deposit begins several hundred feet downstream of the Pioneer vein structure. Early prospectors reported the best grade of auriferous gravels to occur between Claims #2 and #3 Above with gold values falling off both above and below this area. Early company records indicate the adjoining Mello Bench produced about 30,000 oz of gold from a drift mine at a grade of 0.96 oz Au/cubic yard. Future exploration of the placer deposit should evaluate the proximity of the Pioneer vein structure as a source of placer gold.

If a drill can be mobilized to the site in 2006 it is recommended that two north-inclined holes be drilled to intersect the breccia structure of the Pioneer prospect to either side of the ridge top trench.

**Little Squaw Mine** - Several closely spaced south-dipping veins of the Little Squaw Lode are hosted in faults subparallel to or splays off of the Little Squaw shear zone. The principal shear is about 250 feet north of the veins, however, less developed shears can be seen to both the north and south that taken together, form a broad ridge saddle about a quarter-mile wide (Figure 12). The Little squaw veins lie across the south of the saddle and two veins of the Jackpot prospect occur along the north margin. A prominent debris fan of talus overlying sheared, pulverized rock and ice has formed on the saddle's east-facing slope. The talus fan is continuing to subside, causing Little Squaw Creek to divert around it, while additional material is drawn from the saddle area. Projected extension of the shear structures continue across Little Squaw Creek and up the west-facing valley slope but these zones are totally obscured by landslide and another actively forming massive debris fan that has similarly diverted the creek.



Figure 12. Little Squaw Mine area and the prominent shear zone as viewed from the Crystal prospect to the east.



First explored in 1909, a small reserve of about 10,000 tons grading 1.7 oz/ton gold was estimated prior to brief mining in 1982. Probably no more than several hundred ounces of gold were produced. Underground workings include two levels connected by a winze and a 78-foot raise extends to the surface from the 100 Level. A third (caved) adit was located to the east but it did not appear to have reached bedrock. A high-grade shoot of auriferous vein quartz containing visible wire gold mineralization was exposed at the surface and is well exposed at the 100 Level. Gold values are mostly concentrated in a 9-15 inch zone along the footwall, which has a banded ribbon appearance and contains disseminated native gold and thin seams of arsenopyrite (Figures 6, 13).



*Figure 13. Massive white quartz (left), including a banded quartz-gold footwall zone (right) of the Little Squaw vein, is exposed at the 100 Level of the Little Squaw Mine. The banded zone contains multiple oz gold per ton. The vein is about 4 feet thick at this location and the view is along strike looking west. Note the open fracture on the hanging wall, likely due to landslide tension resulting from mass downslope transport of ground to the northeast of the mine site.*

At present, the Little Squaw Lode has been explored underground on the 100 Level for about 240 feet along a vein strike of N80W to N80E with a 55-75° south dip. Past exploration has traced the veins in a series of five trenches to the west where they were lost under talus. Another series of trenches downhill to the east appear to have failed to reach bedrock (see prospect maps, Appendix

A-5a & -5b). Continuity of the individual veins is presently uncertain and it is questionable whether the vein exposed on the 100 Level is the same vein exposed on the 200 Level.

Drill data from 1982 presented in the 2004 Field Investigations Report indicate several auriferous veins are present at the Little Squaw Lode. Locations of these drill holes are shown in Appendix A-5a. Drilling was done with only AQ size core and core recovery is said to have been poor. A mineralized zone of 50-70-foot width was encountered by LS-3 between 15 and 85 feet; this composite interval averages 0.18 oz/ton gold. The zone's projection would lie south of the 100 Level vein. Additionally, from an underground drill station on the 200 Level, drill hole LS-45N appears to cut a vein at the assay interval of 79-89 feet. At 280-290 feet, a high-grade vein intercept is also reported. Drill hole LS 45S intercepted 30 feet of low-grade mineralization between 20 and 50 feet depth. Vein structures are complicated by northwest offset faults dipping 60° NE, with displacements on the order of tens of feet or less.

An objective of the 2005 work was to create an overall map base of the Little Squaw area, trace the presumed extension of the veins to the east, and determine if additional shoots of mineralization may be present. Due to the lack of outcrop below the 200 Level an attempt was made to map the extent of vein quartz float as shown on Figure 12. Soil samples were collected along the switch-back road segment downhill of the 200 Level, however, most sites attempted were too deeply buried by talus.

A mineralized vein, likely offset from the south, is suspected to underlie the slope east-northeast of the 200 Level. Vein quartz float was found concentrated in the vicinity of the lower caved adit and soil sample LS1926 was anomalous in gold. Similarly, vein quartz south of drill site LS 3 may be the surface expression of values reported in that drill hole. A vein can be projected downhill from this location. At sample LS1895 a quartz vein cobble with a dozen grains of free gold was found among vein float.

Additional sampling in the vicinity of the lower caved adit (LS1926) and in the south shear zone area around LS1927 should be done early in 2006. An accurate survey is needed of the mine workings and vein locations of the 100 and 200 Levels, tying them to surface trench exposures and the proposed 2006 drill holes. An assessment of whether the vein on the 200 Level is the same vein as on the 100 Level should be made. Additional mapping and sampling of the Jackpot prospect including northeast-oriented soil sample lines are needed.

Inclined reverse-circulation drill holes are recommended to re-intersect the shallow zone of mineralization reported in 1981 d.d.h. #3. Additional holes to the west and to the east in the vicinity of the 200 Level adit are also suggested. A hole should specifically test the reported high-grade intercept in 1981 d.d.h. LS 45N. Another drill hole will be needed to test the apparent north-offset of the veins below the 200 Level and farther downhill at the lower caved adit. All the proposed drill sites are readily accessible.

**Crystal Prospect (including discussion of the McLellan Prospect)** - The shear zones from the vicinity of the Little Squaw veins can be projected east across the Little Squaw Creek valley but are obscured by solifluction talus and a large debris fan that covers much of the eastern slope. Veins

of the Crystal Prospect occur near the crest of the ridge. Mineralized vein quartz float is encountered beginning at 4,000 feet elevation (LS1898, prospect map Appendix A-6). Quartz float indicates veins occur both north and south of the shear zone forming a topographic saddle at the ridge top, with better gold values in samples from south of the shear.

The Crystal prospect, as described in the 2004 report, consists of at least four, possibly six, parallel quartz veins. Earlier reports described a prospect shaft and short cross-cut that explored a 6.5-9-foot vein with a narrow banded or ribbon-quartz vein that reportedly contained very high-grade gold. Since much of the old workings are now sloughed or covered by slide rock, it is unknown how much of the rich band was cobbled out from surface pits. A 1908 report spoke of 4.5 tons of high-grade material from the Crystal prospect that was processed at the Little Squaw mill site.

The Crystal veins could not be traced southeast of the ridge saddle where massive greenstone was found along a fault contact. The veins are possibly offset 1,000 to 1,200 feet to the southwest, where a similar vein array is known as the McLellan prospect. The McLellan veins are in fault contact with the greenstone body on the northwest and could not be traced west into the Little Squaw valley. Nevertheless no reconnaissance has yet been undertaken downhill of the Crystal exposures to the east of the greenstone; mapping and soil sampling, if possible, are recommended. Soil grids are also needed over the McLellan prospect. The southeastern extent of the McLellan veins remains open and should be followed.

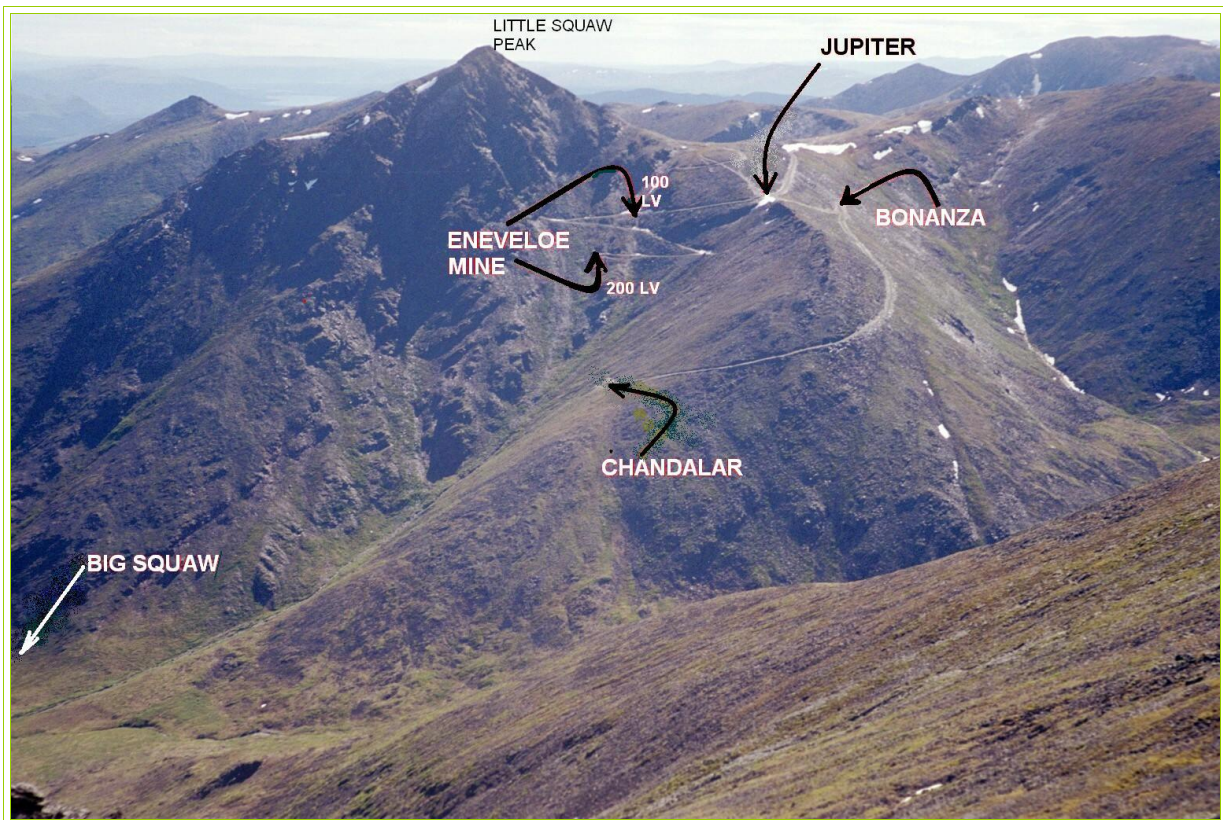
A reverse circulation drill hole should be sited on the steep slope immediately west of the saddle, as possible, to undercut the old reported shaft and cross-cut; and a second, north-oriented hole within the saddle to test the continuity of the Crystal vein set (Appendix C).

**Eneveloe Veins** - The Eneveloe vein system, including the Chandalar, Bonanza, Big Squaw, and Jupiter prospects, visible on Figure 14, are described in the 2004 Field Investigations Report. In 2005 the prospect area and all surface workings were mapped by GPS, as shown on Appendix A-7. As a result of the more detailed mapping it is believed that the two principal Eneveloe veins may project northwest under Robbins Gulch, and that the Jupiter, Bonanza and possibly the Chandalar prospects occur along a single or several closely spaced veins that are sub-parallel to those of the Eneveloe. The Chandalar exposure was found to be hosted in a large, somewhat rotated landslide block of bedrock that has been displaced from the ridge slope to the south. This displaced block, at least several tens of feet across and as much thick, is bounded by open cracks observed to extend 15 vertical feet into the ground. The Jupiter prospect may also be somewhat displaced in a similar manner.

To the east the Eneveloe vein was found to extend several hundred feet farther than previously reported, where it is partially buried by slide rock off Little Squaw Peak and located just north of the north-south trenching that explored for it (see LS1976). All of the veins, including the Woodchuck (out of view in Figure 14) are suspected to be among those that strike eastward into the Little Squaw Creek valley and underlie the Rock Glacier prospect.

*Figure 14. View looking east to the Eneveloe vein system.*





The Eneveloe veins are located along a N65-80W fault that dips steeply north and is closely associated with the Eneveloe shear zones. Several other shear zones appear to be present, located both north and south of the Eneveloe veins. These zones form a broad saddle on the east end of the workings. Numerous parallel faults can be observed in the bedrock on the southwest slope of Little Squaw Peak. A high-grade ore-shoot, exposed in 1981 for 70 feet in the 200 Level, yielded assays of 0.5 to 10.0 oz/ton gold. The 100 Level adit was driven into a massive quartz outcrop in 1982 and also encountered the vertical extension of high-grade (plus-one ounce gold/ton mineralization) found on the lower level. On the 100 Level finely ground quartz with plus-2.0 oz/ton gold occurs on the north side of the massive quartz vein. Access to the high-grade lens on both levels was blocked by caved adits in 2005, nevertheless, a line of soil samples (LS1977-80) was placed across the projected talus-covered surface above the shoot. Note that LS1977 was anomalous with 390 ppb Au.

In the 1980s six diamond drill holes totaling 1,113 feet were drilled, but recovery was a problem. Poor return was achieved for #E-3; though veins were cut at 65-foot and 158-foot intercepts no assays were performed. Intercepts of uncertain thickness were reported on E-5 (0.38 oz Au/ton) and 0.5 oz Au/ton was reported from hole E-4. Nevertheless, the drill data, combined with information from the development sampling on the 200 Level, the 1982 channel sampling on the 100 Level, and the 2005 surface samples all suggest the presence of a plunging mineralized structure that rises to near-surface and incorporates both veins. Both drill stations were re-located in 2005 and found to be accessible for proposed drill testing in 2006. A south-inclined hole at the 100 Level and similarly a drill hole at the upper drill pad are recommended. The upper drill station

should be extended to the north to allow a more proper inclination of the hole. A third drill hole along the road to the 200 Level, at a point to intersect the west projection of the Eneveloe veins, is suggested if time allows. Finally, a drill hole should explore the hill slope south of the Chandalar prospect to intersect the *in situ* position of the vein.

The Eneveloe vein system is open to the west, possibly underlying Big Squaw Creek and extending up the west side of the valley in the vicinity of Caribou Gulch. The Mercury prospect on the ridge top may represent one of these veins. A through reconnaissance of Caribou Gulch is recommended.

**Rock Glacier Prospect Area** - A frozen rock debris feature that can be described as a rock glacier typical of periglacial terrain has gouged out a large amount of vein and altered meta-sedimentary rock that now mantles the glacier's southwest lobe. The feature encompasses several lobes, each derived from individual areas of intense mechanical disintegration, landslide, and erosion at the head of Little Squaw Creek (Figure 4). All rock debris is locally derived from the upper Little Squaw Creek valley and congealed with clayey rock flour, fault gouge, and other fine-sized material. Plastic movement is evident by gravity-stretched lobes and intervening small crevasses. Quartz vein and altered vein breccia are found over an area about 150 feet wide and 800 feet long that begins near the snout of the glacier and extends south along the axis of the lobe.

Investigation in 2005 provided additional evidence that the prospect area overlies the combined extension of the Eneveloe and related veins (Appendix A-8). An exposure of banded, pulverized quartz with graphitic clay and limonite was located at LS2030. Although the host block of bedrock was displaced, the total movement by solifluction was judged to be minimal, probably less than several hundred feet. Numerous cobbles and small boulders of fine-grained massive white vein quartz containing wispy blebs and thin (<2 mm) bands of arsenopyrite and trace-to-minor galena are also present and indicate that a composite vein occurs with the banded pulverized segment. A random chip sample of quartz vein material contained 4.06 ppm gold (LS1447). A channel sample across 24 inches of the banded crushed quartz assayed 0.87 ppm gold.

Little Squaw Creek emanates from the snout of the southwest lobe and flows north, depositing a clayey yellow coating on rock in the stream bed. Stream sediment samples from the area contained up to 442 ppb gold and anomalous arsenic (LS1463, 2028, 2031). The water has a distinctly metallic taste.

Tentative reconstruction of movement on quartz vein rubble that mantles the rock glacier places the origin on the projected trace of the Eneveloe area veins. Two north-south soil sampling lines (Lines 10 and 14, Appendix A-8) were laid out to cross the vein projections and suspected source area of vein float on the glacier. Runs of vein quartz float were mapped across both lines indicating that several vein systems are present. Sampling on Line 14 encountered deeper colluvium and some dilution of the samples with barren surface slide material is suspected, nevertheless nearly all samples on Line 14 were moderately anomalous. Samples were collected between 1- and 5-foot depths at most sites on both lines. Results indicate the Eneveloe veins as well as sub-parallel veins, likely extensions of the Jupiter and Bonanza veins, are present.

Given the large, widespread volume of vein quartz float mineralization and abundant cobble-size fragments of argillized and brecciated schist wall rock observed on the southwest lobe of the rock glacier, it is suggested that a significant undiscovered zone of mineralization may occur on the combined vein traces that extend from the west.

Additional excavation of the exposure at LS 2030 is recommended. Soil sampling was attempted in 2005 on the east valley slope opposite the rock glacier but shingled talus and frozen, transported colluvium made up the surficial cover. Soil samples from several sites (LS1881-1883) located in deeply cut small, dry gullies did assay low-level anomalous gold. Deeper auger sampling may be possible at these sites. Additionally, closely spaced ground magnetic profiles and perhaps induced electrical systems could help pinpoint drill targets by detecting altered quartz and breccia zones in bedrock. A N10E aligned fence of south-inclined, reverse-circulation drill holes is recommended below the road near the margin of the rock glacier with drill collars adjusted according to the geophysical data.

**Uranus Prospect** - A site of old hand-dug trenches, the Uranus prospect was re-discovered in 2004, then mapped and sampled in 2005 (Appendix A-9). The site is a deeply incised saddle in the northeast-trending ridge east of uppermost Little Squaw Creek. Ridge slopes to either side are shingled with talus and solifluction masses. A multiple of faults and a shear zone obviously underlies and controls formation of the saddle. Fault gouge occurs in soil frost boils within the saddle.

Four very old hand trenches expose at least three veins. A fourth vein is indicated by float near LS1955. A vein of highly fractured, iron-stained, brecciated quartz (LS1957, 1958, 2007) is at least ten feet thick and contains several thin seams, 1-4 inches thick, of scorodite clay and pulverized quartz. A continuous chip sample across six feet of the footwall section assayed 12.41 ppm gold. A 1-foot channel across a 4-inch scorodite seam in the hanging wall assayed 1.89 ppm gold. Similar scorodite-stained vein material found on the dump of another pit assayed 45.6 ppm gold (LS1668). Vein quartz is found at several locations on the south of the saddle but assayed only low gold values. Gold content in veins appears to increase closer to the principal shear zone as indicated by soil sample assays.

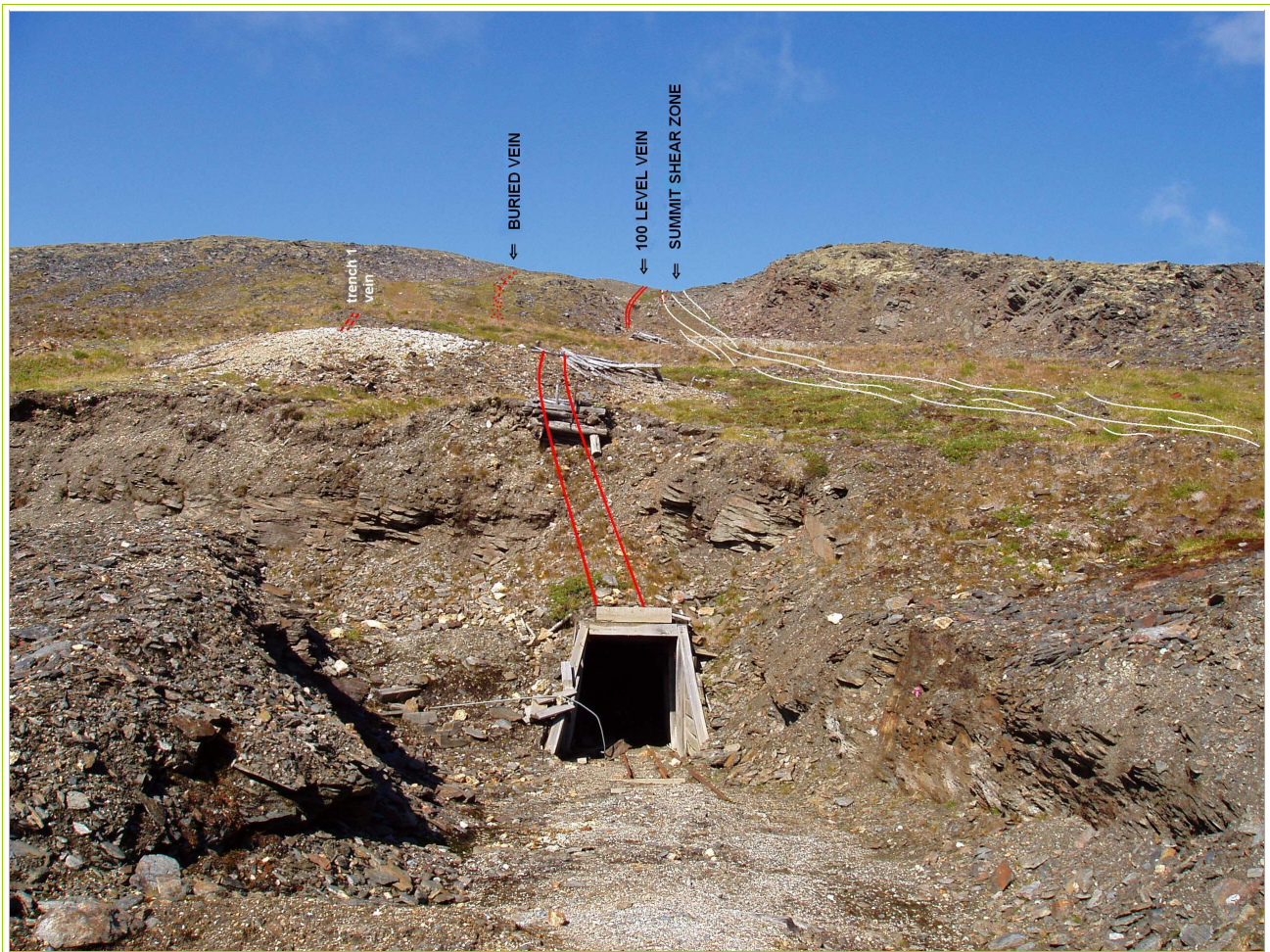
It is recommended that additional northeast-oriented soil sample lines be completed as far to the southeast and northwest of the ridge saddle as talus cover will permit. The Uranus veins are possibly a distant east extension of the Eneveloe system. The saddle area would be an excellent site to test the applicability of geophysical methods to trace the veins; a survey could be broadened to the east and the west if results are positive. The site can be accessed with a small dozer and track-mounted drill in 2006 and a single drill hole is suggested to intercept the vein system at depth.

**Summit Vein System** - The Summit veins comprise one of the four known principal prospects in the Chandalar Mining District. They have been explored in a series of trenches and several AQ-size diamond drill holes for 1,200 feet along the footwall of a northwesterly striking fault zone that dips north. Three adits (all caved) have explored the veins, and significant gold values have been found on the 200 Level, in several shallow drill holes below there, the nearby Shultz discovery adit,



and as an ore shoot on the 100 Level. The ore shoot on the 100 Level generally contains more than 1.0 oz Au per ton with individual assays as high as 90.92 oz Au per ton. A small amount of development production averaging 4.82 oz Au/ton occurred in 1981. At the time it was concluded that at least two veins are present at the Summit and that the vein on the 100 Level is not the same vein as exposed on the 200 Level. The vein system is apparently open in both directions. The limited historic sample assays and data sources are presented in the 2004 Field Investigations Report.

In 2005 prospect mapping shown in Appendix A-10a and -10b agreed with the previous suggestion that there are at least two veins present at the Summit, but it is unclear if the vein on the 100 Level is or is not the same vein as on the 200 Level. The second vein lies buried to the north of the 200 Level where it was intersected by the earlier drilling (Figure 15) There is also evidence of a third vein lying south of the 100 Level adit (see LS1968 and trench #1 where 0.24 oz. Au/ton had been previously reported). Soil sampling (LS1859-64) to replicate the 1975 Noranda sample line



*Figure 15. View looking west-northwest at the 200 Level adit; the original discovery shaft is seen immediately behind the adit. The quartz dump to the left is the early Shultz adit. Drill holes in 1982 appear to have been collared to the left of the 200 Level adit and drilled to the north, intersecting two auriferous veins. The vein on the 100 Level is in the left of the saddle in the background.*

indicates the presence of the first two veins; projection of the third vein suggests it underlies the talus-covered slope marking the footwall of the north-dipping shear zone.

A primary objective of the 2005 investigation was to evaluate evidence for extension of the Summit veins beyond the limits of the historic west and east workings. Soil sampling in 2005 indicates the system continues west-northwest. A series of soil samples collected to replicate the reported soil gold anomalies by Noranda, 1975, returned values up to 732 ppb gold over the projected trace of the vein on the 100 Level and 152 ppb over the suspected parallel vein to the north. Farther to the west, soil sample gold values up to 1088 ppb gold (LS1865) suggest the veins extend under an extensive lobe of active solifluction boulder scree as shown on map A-10a. Stream sediment sample LS1970, located 2,400 feet west and downstream of the western workings, is also anomalous with gold (152 ppb).

East of the eastern-most exposure at Trench 6, the projection of the Summit veins is mantled with frozen scree and colluvium. Immediately north of the east projection a series of short 070°-bearing veins are exposed along Ratchet Ridge (Appendix A-10b). The veins, which dip about 65° southeast, are apparently controlled by reverse faults cutting the ridge, which creates the distinct saw-tooth appearance of the ridge when viewed from a distance. An old shaft, inclined to follow a steep S35E-dipping vein, provides the best view of one of the 070° veins (LS1974). Where exposed the veins are about 2 feet thick and random chip samples indicated gold values of 0.22 to as much as 102.17 ppm Au. At least five similar veins are present. The inferred intercept area of these 070° striking veins with the 105°-bearing Summit veins is covered.

It is recommended that additional mapping and soil sampling be conducted west of the Summit workings to confirm the continuation of the veins in that direction and determine potential drill targets. Heavy mineral sampling may be useful. Additional reconnaissance should be conducted still farther west of Appendix A-10a, particularly where the vein system may be inferred to underlie Big Squaw Creek just above the early 1900's placer mining on the creek (Figure 3). Present data suggest the auriferous veins may actually cross over the Summit shear zone just west of the historic workings, so particular attention should be given to this area. Detailed mapping and more thorough sampling should be conducted to the east of Trench 6 and structural relationship of the 070° auriferous veins should be studied. If possible, soil sampling or trenching across the inferred intercepts of the 070° veins with the Summit vein system should be undertaken.

South-inclined reverse-circulation drill holes should re-test the earlier drilling from the 100 and 200 Level drill sites. A third hole to undercut the old Noranda soil line and a fourth at the western-most accessible point of the saddle area would test the westward extension of the Summit system.

**Mikado Prospect** – The Mikado mine and prospect area were described in the Summary of Field Investigations 2004; no additional work was done in 2005. The only prospect-scale mapping available is given in Appendix A-11.

The 1982 cave-in of the 100 Level and subsequent attempts to open-pit some of the developed reserve mineralization occurred after the existing mapping was completed, consequently surface features have changed. It is recommended that GPS-based mapping be completed and particular



effort made to re-locate previous trenches and sample stations. A soil sampling grid should be established and extended eastward to trace the breccia zone, the North Zone, and veins reported in trench 2E. Sampling should evaluate the projected intercept of the northwest-trending Mikado system with the northeast-striking Big Tobin veins.

Four south-inclined drill holes are proposed to test the Mikado main zone and the north shear zone at depth, as well as, the adjoining alteration halo identified in 2004. These drill holes will be situated to undercut the old mine workings and under trenches #1 and #2 where auriferous veins were reported in the 1980s.

**Big Tobin Prospect** – The prospect was examined in 2004 and additional work attempted in 2005 was interrupted by an intense storm. Data, including the 2005 sample sites, are included in Appendix A-12.

It is recommended that a soil-sampling grid be laid to trace the veins both southwest toward the Mikado shear zone and north and northeast into Big Squaw Creek valley toward the open ends of the Indicate and Star vein systems.

**St. Mary's Prospect** - A brief reconnaissance was made to map and sample the vein quartz exposures on St. Mary's Creek (Appendix A-13). A persistent quartz vein up to 10 feet wide parallels the northeast (hanging wall) side of the Mikado shear for about 600 feet. An adjoining quartz limonite breccia of unknown thickness at sample site LS2032 appears to lie within or south of the shear zone. The vein and shear zone control the location of the creek and the canyon into which it is deeply incised. Only trace gold values were found in the three rock chip samples collected, however, evidence of old hand-placer mining was seen on the prospect map to closely parallel the vein and shear zone. The uppermost hand mining coincides with the divergence of the shear zone into the northeast valley slope. Because reportedly rich gold placer gravel has accumulated in the immediate area of the canyon, it is recommended a more thorough sampling effort be undertaken in 2006.

## ***PROPOSED 2006 DRILL PROGRAM***

Much of the Chandalar Mining District is extensively covered by periglacial and surficial deposits, consequently bedrock exposure is quite limited. Given the limited surface data that can be evaluated at many of the prospects an early-exploration phase, reconnaissance drill program using relatively inexpensive reverse-circulation drilling is recommended. A drill capable of driving a 5.25 inch shoe is required to recover sufficient sample for analyses where particulate gold is present. The following table lists 31 suggested drill sites at 11 different prospects for a total footage estimated at 11,500 feet. Due to the cost of mobilizing a drill at Chandalar, it is advisable to plan as much work for the drill as can be presently justified for the 2006 field season.

For the first season reconnaissance drill program both HQ core drilling and reverse-circulation drilling with compressed air were considered. A drill program utilizing reverse-circulation is recommended at this time for several reasons:

- with consideration of the presence of coarse particulate native gold, the larger RC sample is desirable to minimize “nugget effect”;
- the bulk chip sample can be split and a portion panned for gold values for a rapid qualitative analysis;
- previous core drilling in the 1980s encountered frozen fault gouge and alteration that melted to slimes rather than return as a core;
- several previous core drill hole reports cited “lost circulation” and the holes therefore terminated; it is apparent now that landslide displacement of large masses of bedrock is occurring in the Chandalar and open or ice-filled fractures/crevices will be encountered; and
- water availability for core drilling is very limited, especially in late season when even Little and Big Squaw Creeks were seen to dry up. Water trucking will likely be necessary and roads will need additional up-grading beforehand.

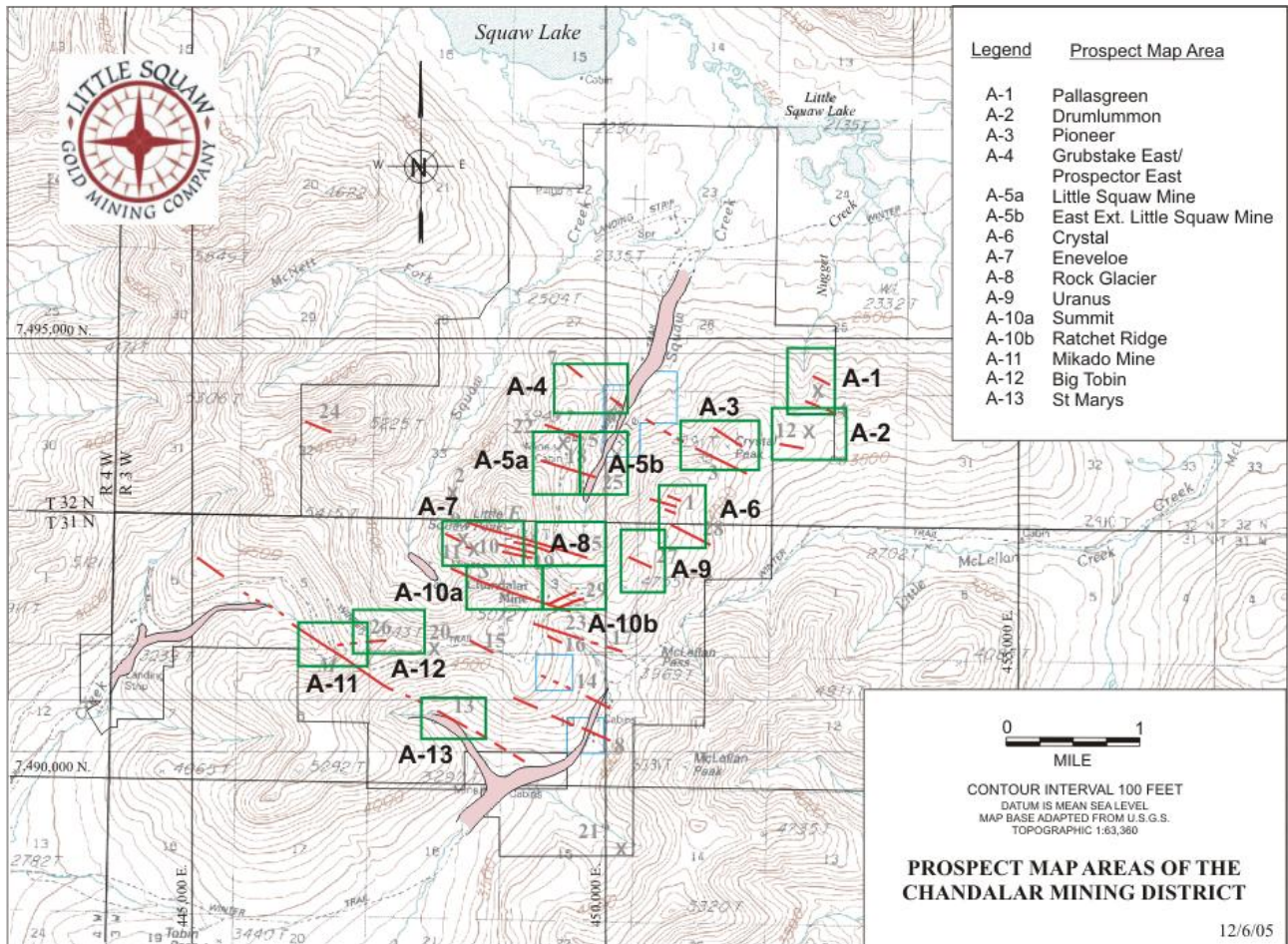
For the first year of drill evaluation, 2006, the proposed machine will be a light-weight track-mounted rig that can be flown onto the Squaw Lake airstrip by cargo plane. A small dozer, a Cat D-4 or equivalent size, will also be flown in to assist the drilling effort. Because most of the Chandalar property can be reached by existing mine roads there will be no need for helicopter services. Personnel transportation will be by ATVs. Upgrades to the airstrip and to the mine road from the Mello Bench camp to the airstrip will be completed in June and the proposed drill program would collar the first hole on or about July 10. Drilling would continue to about the first of September. If initial results warrant, the drill program can be extended till about September 15.

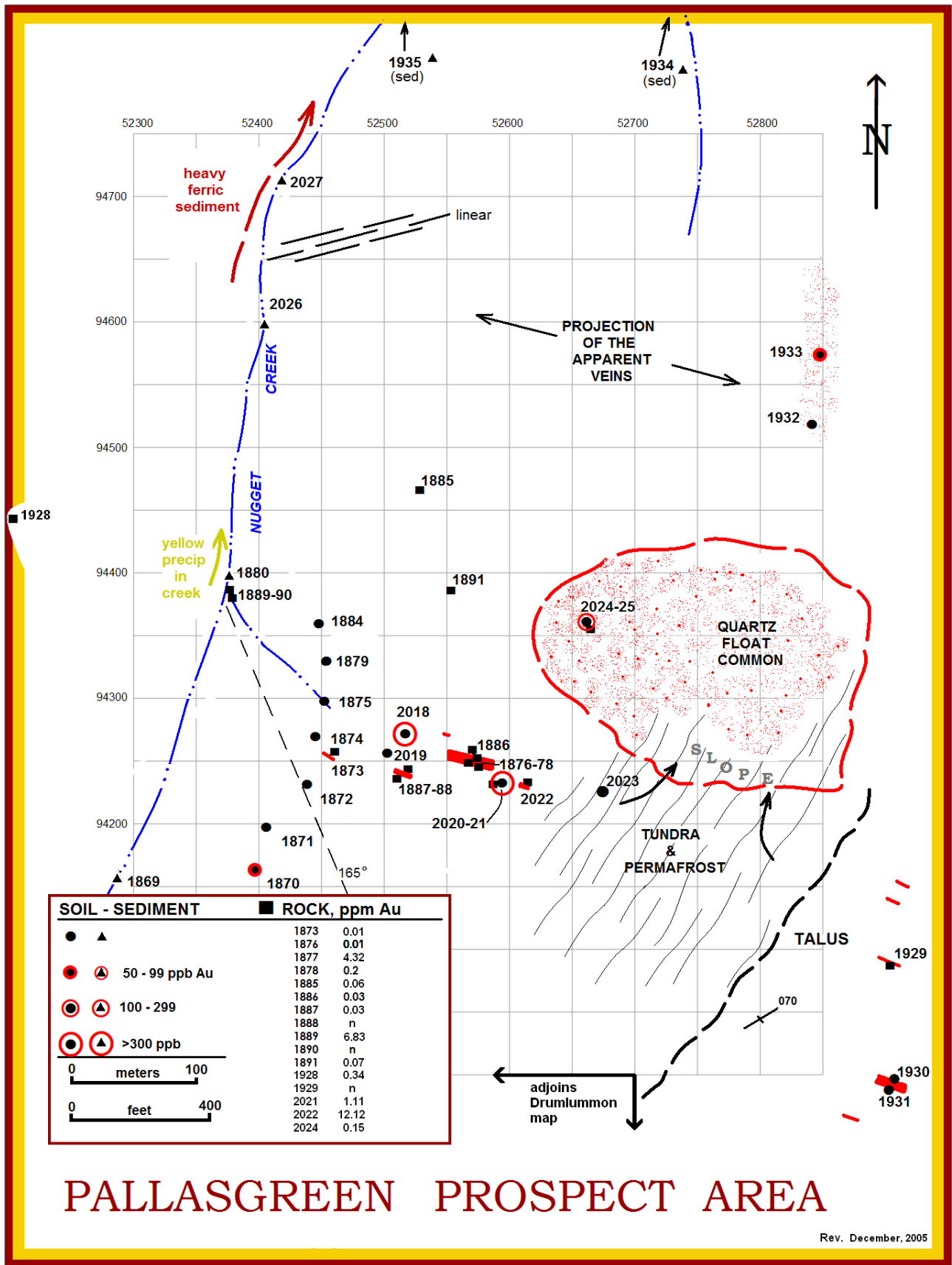
Samples will be split on-site and securely stored until they are shipped to Fairbanks on the weekly supply plane. A geologist will supervise the sample handling and log the hole. Archive splits will be stored on the property. Assay intervals of ten feet will be used in wallrock but will be reduced to 5 feet where appropriate, and metallic screen assay procedures will be specifically requested for intercepts of alteration or vein quartz. Where appropriate panning and a color-count will be done at a centralized facility.

The proposed drill program also includes drill holes on the prospects along East Ridge (Uranus, Crystal, Pioneer, and Pallasgreen), however, this will be dependent on securing permits and construction of a drill road along the top of the ridge. If the drill road is not available in time for the 2006 drill program the equivalent footage will be drilled at the Mikado, Eneveloe, and perhaps the Summit prospects.

A table listing proposed drill sites, orientation, and drill hole depth for each drill site is given in Appendix C. Specific line item costs associated with the drill program are given in the Proposed 2006 Field Operations Budget (Appendix D).

# APPENDIX A: Prospect Area Maps





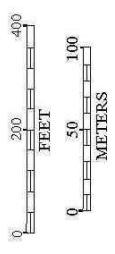
# PALLASGREEN PROSPECT AREA

APPENDIX A-1: Pallasgreen  
APPENDIX A-2: Drumlummon



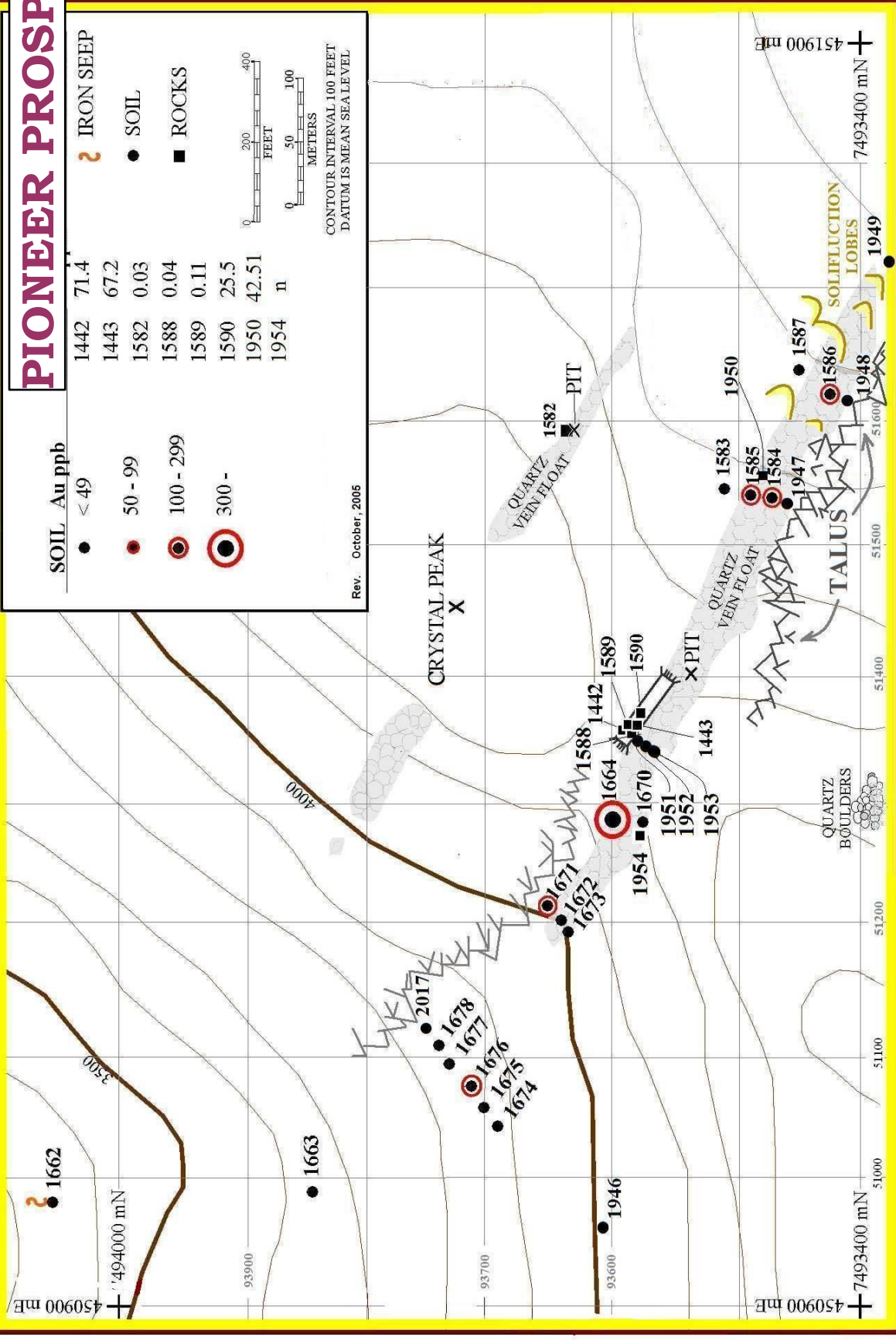
# PIONEER PROSPECT

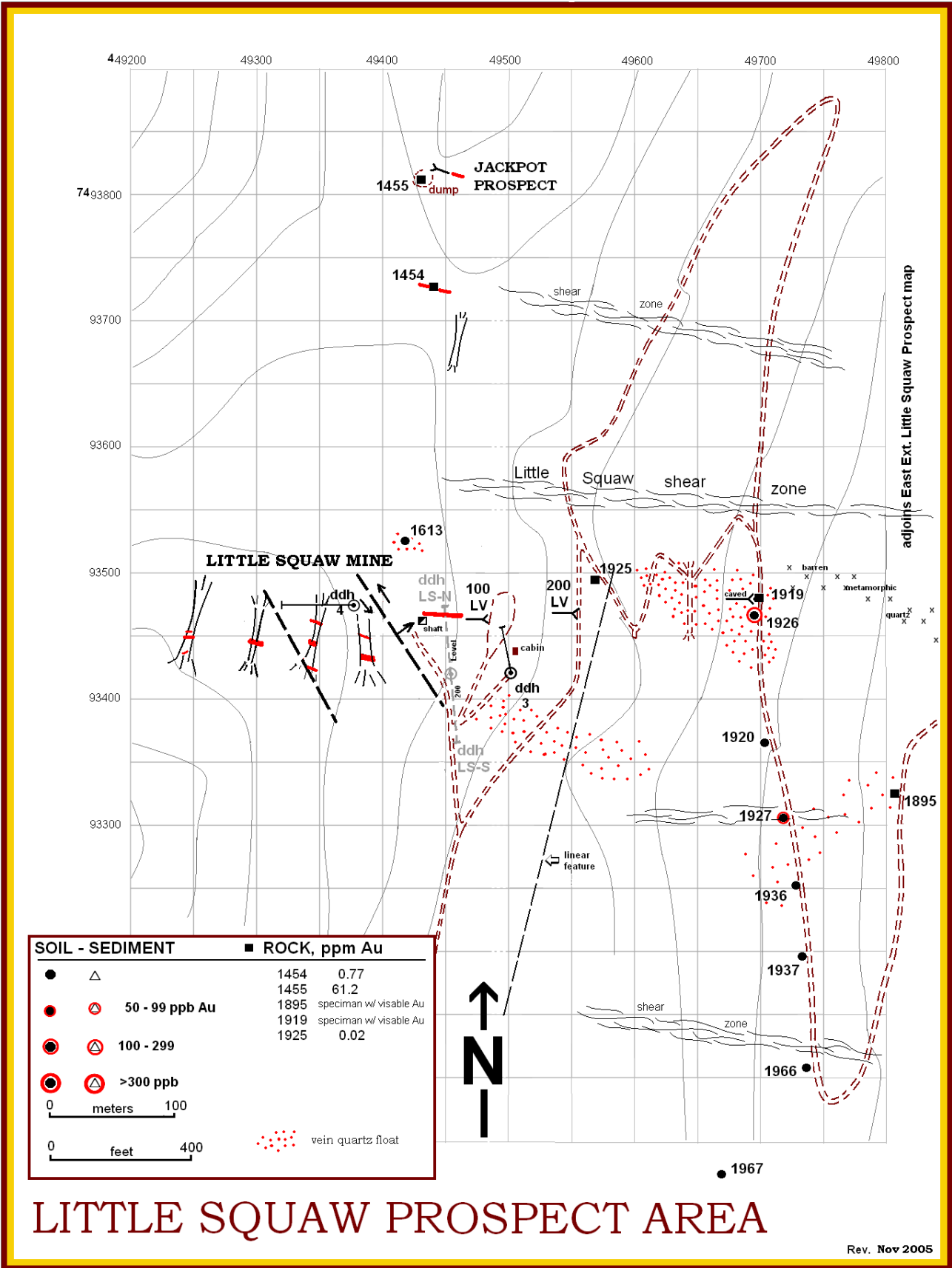
SOIL Au ppb	IRON SEEP
● < 49	1442 71.4
● 50 - 99	1443 67.2
● 100 - 299	1582 0.03
● 300 -	1588 0.04
	1589 0.11
	1590 25.5
	1950 42.51
	1954 n



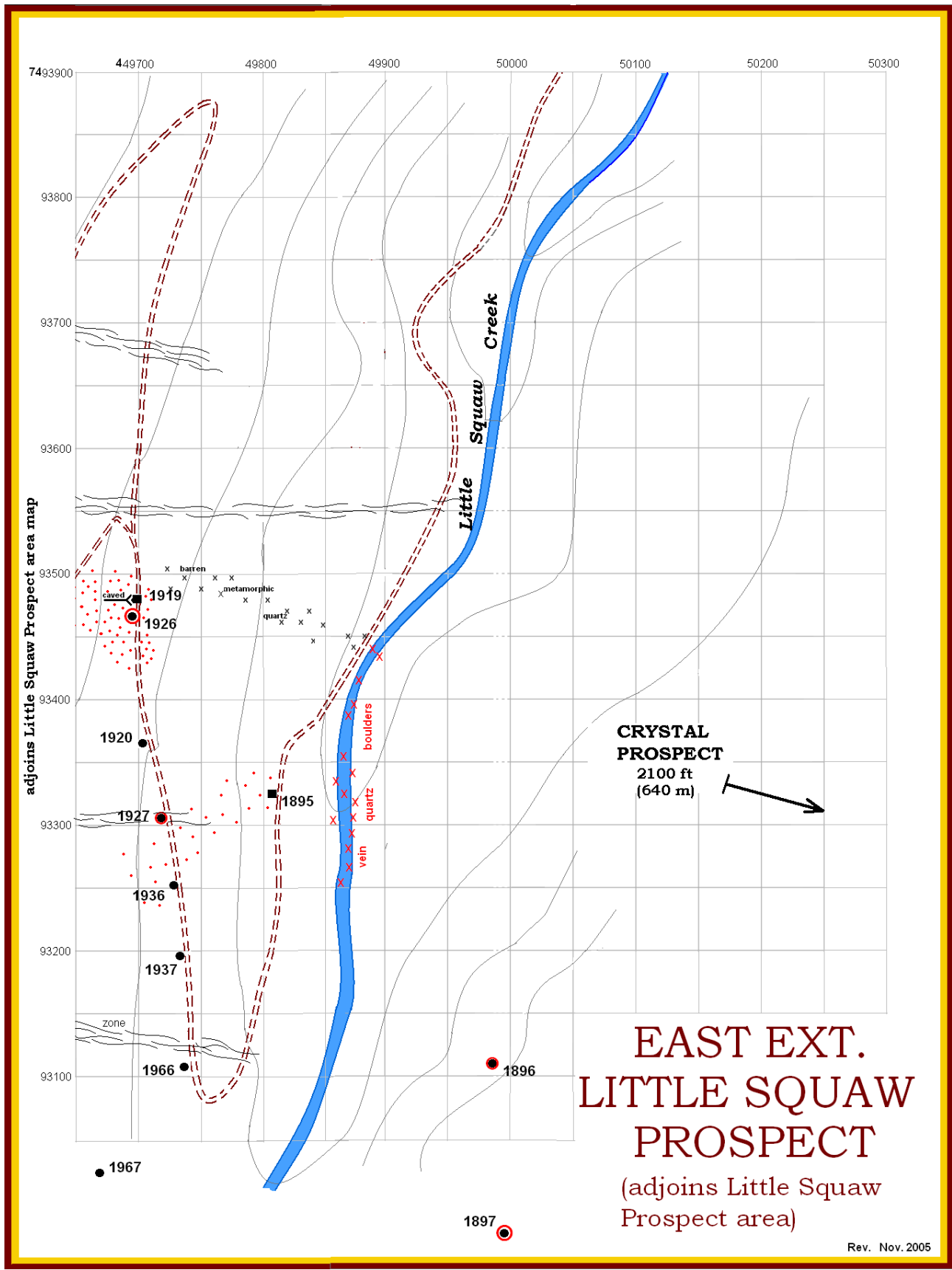
CONTOUR INTERVAL 100 FEET  
DATUM IS MEAN SEA LEVEL

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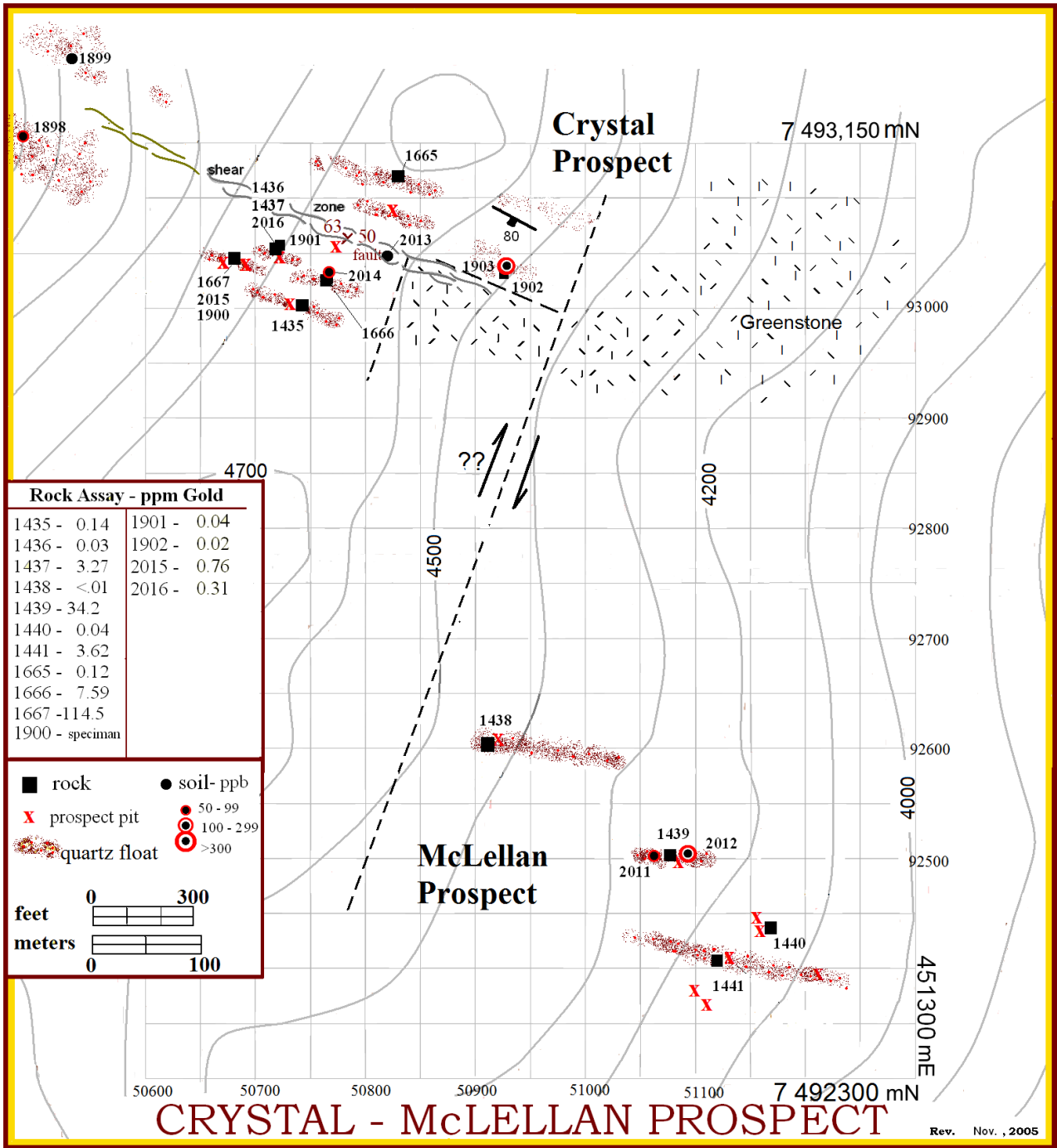




APPENDIX A-4: Grubstake and Prospector East  
 APPENDIX A-5a: Little Squaw Mine

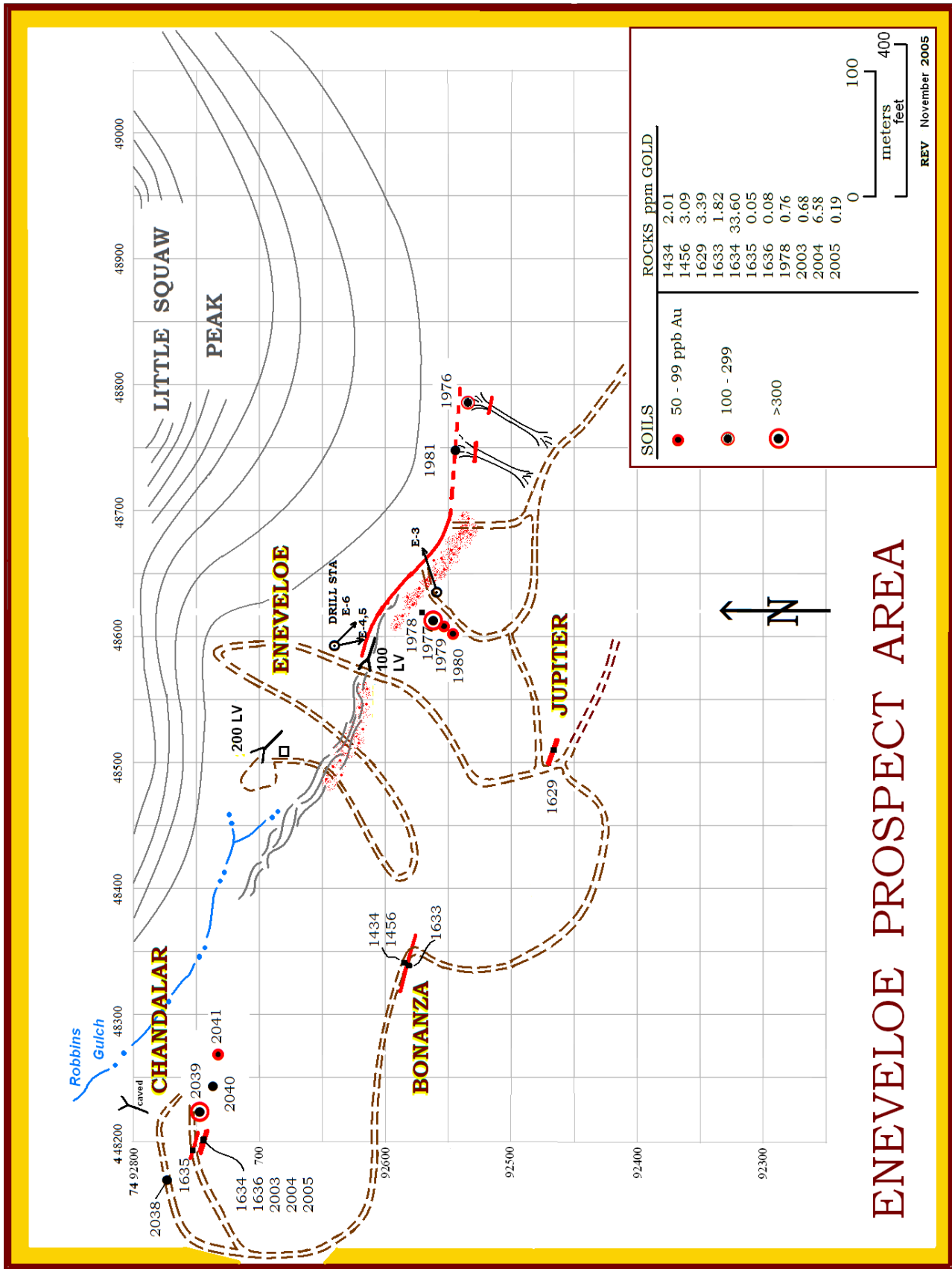


APPENDIX A-5b: Little Squaw East

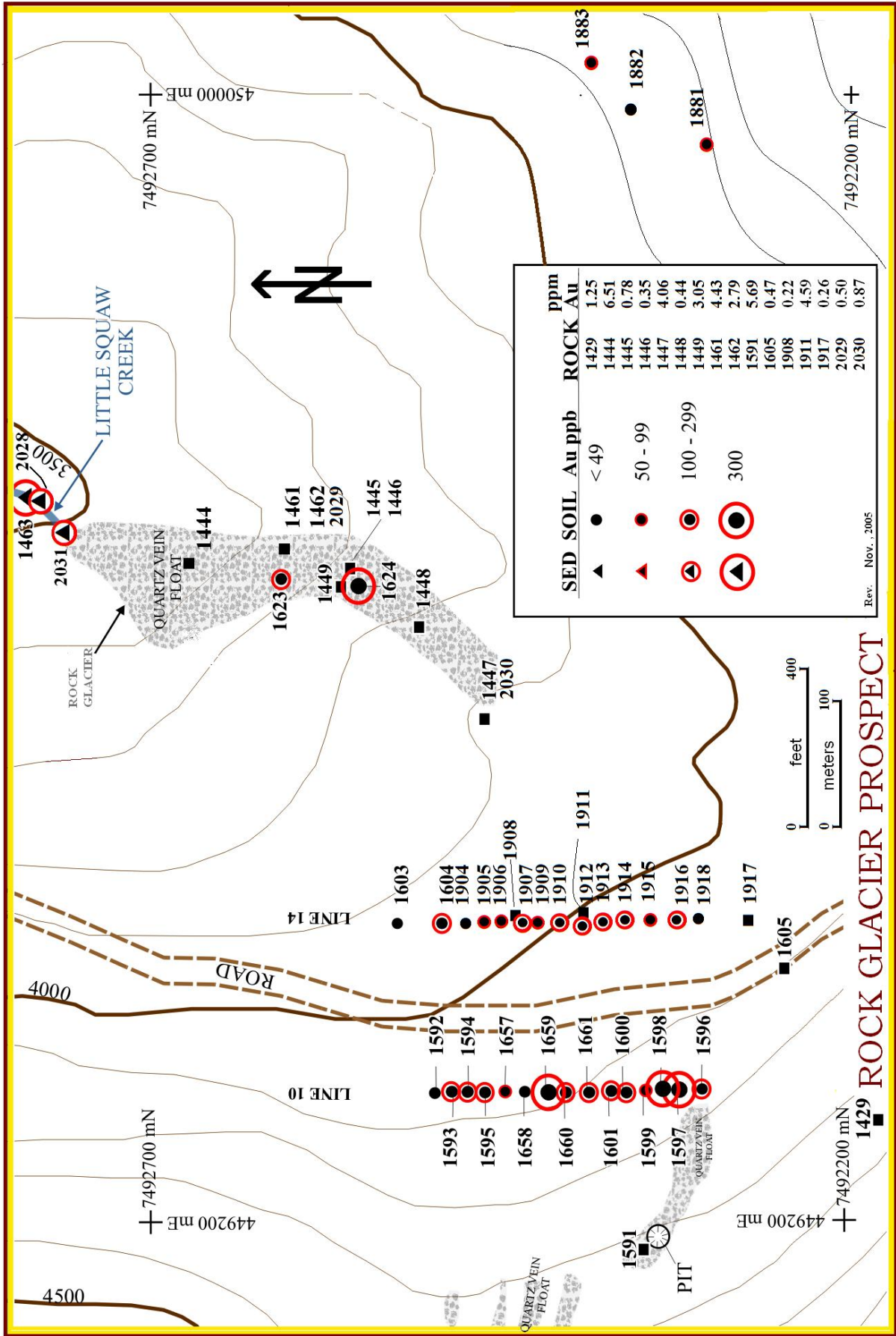


APPENDIX A-6: Crystal



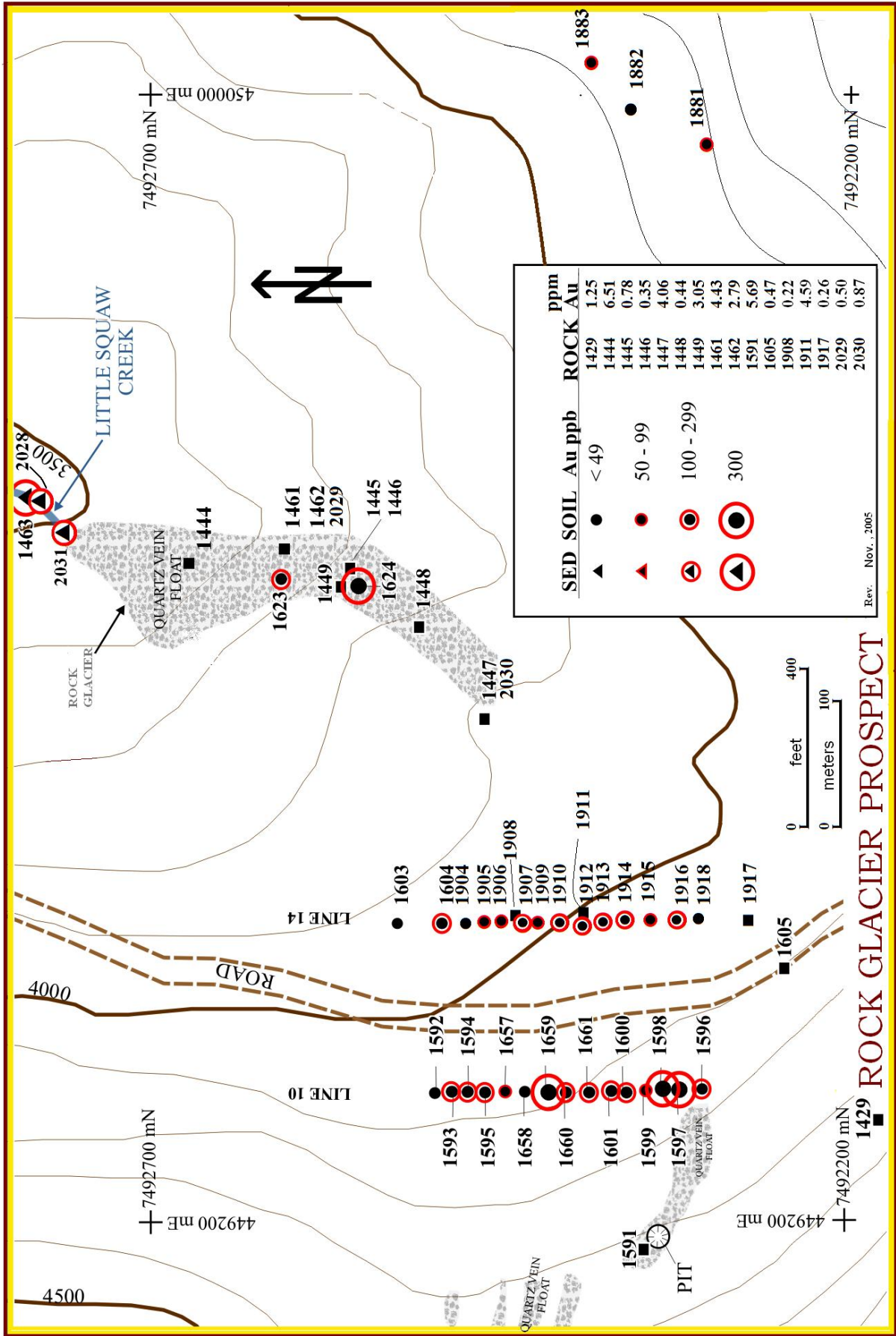


APPENDIX A-7: Eneveloe

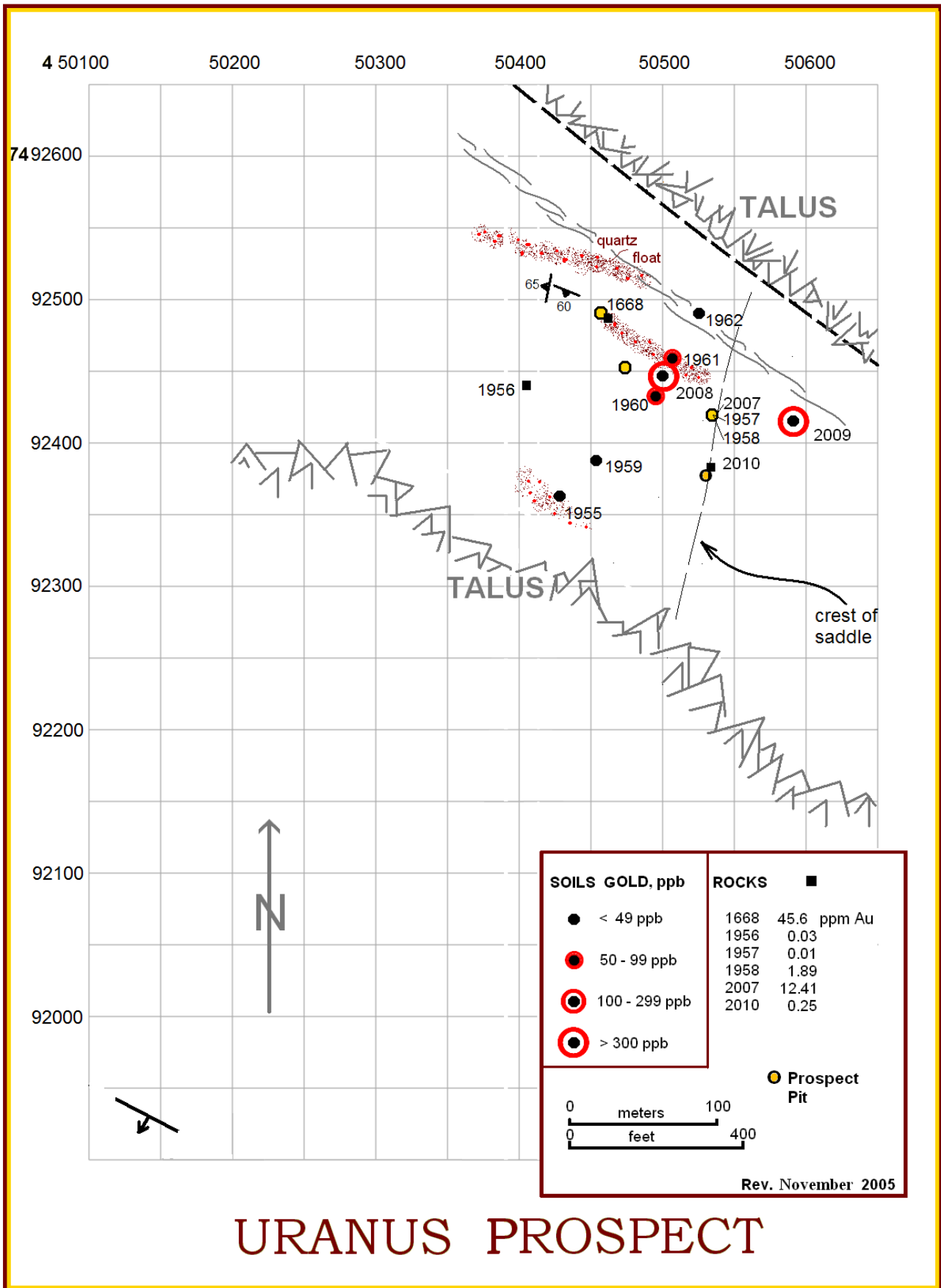


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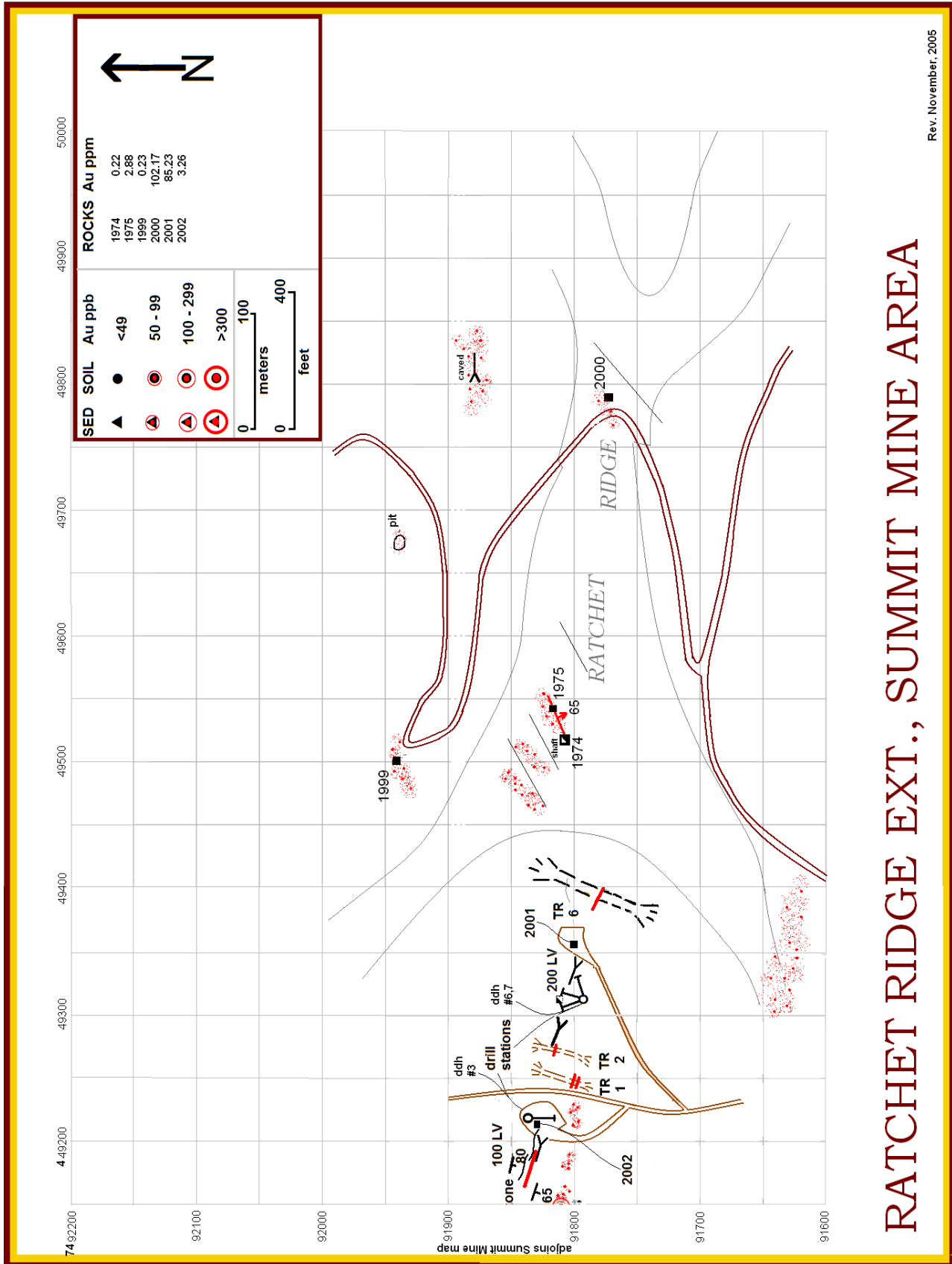
**ROCK GLACIER PROSPECT**



## APPENDIX A-8: Rock Glacier



# URANUS PROSPECT



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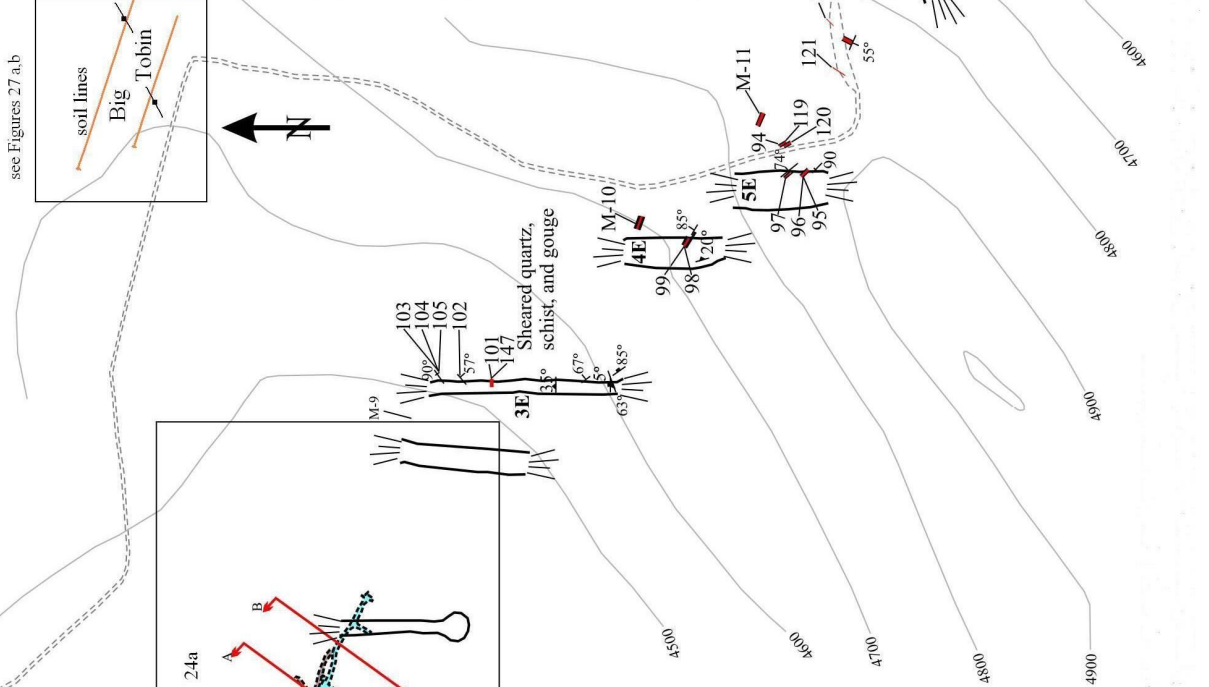
# RATCHET RIDGE EXT., SUMMIT MINE AREA

APPENDIX A-9: Uranus Prospect  
 APPENDIX A-10a: Summit  
 APPENDIX A-10-b: Ratchet Ridge



### 1963 Surface Assays

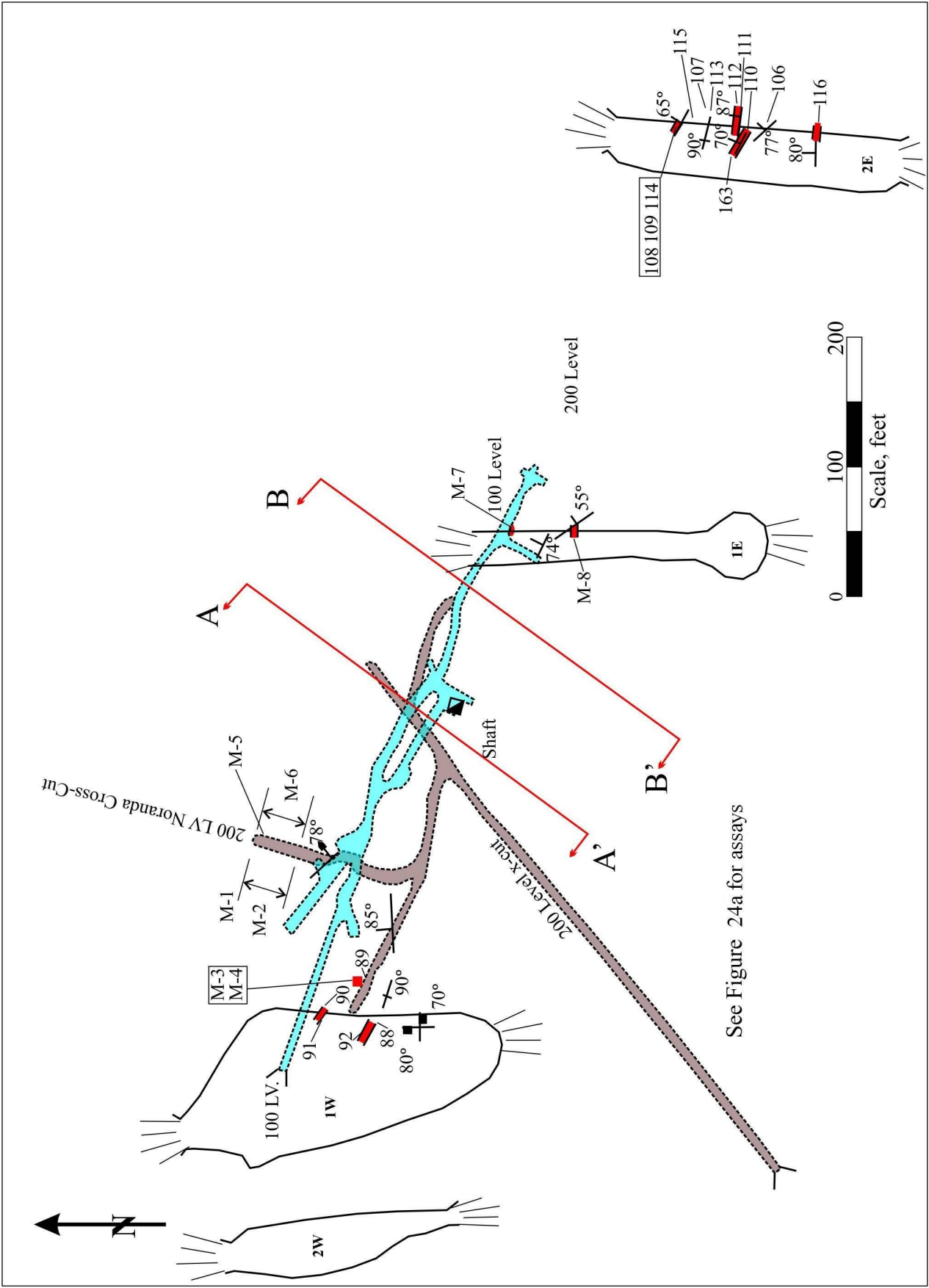
Sample #	Sample Width inches	Au opt	Ag opt	Sample #	Sample Width inches	Au opt	Ag opt
80	60	tr	0.0	104	36	0.02	tr
81	60	0.02	0.12	105	24	0.06	0.14
82	60	0.06	0.0	106	36	0.02	0.20
83	12	0.02	0.0	107	24	0.04	tr
84	12	0.02	0.0	108	6	0.12	tr
85	48	0.10	0.0	109	36	0.04	0.18
86	60	0.20	tr	110	12	0.02	0.0
87	12	0.18	0.16	111	8	15.50	2.97
88	48	0.0	0.0	112	12	10.13	2.09
89	24	0.04	0.0	113	12	7.07	1.98
90	60	0.02	0.0	114	12	0.05	tr
91	36	0.10	tr	115	4	0.05	tr
92	24	3.48	0.80	116	60	0.03	0.0
93	30	0.90	0.20	117	60	0.05	0.0
94	60	0.02	0.0	118	24	0.03	0.0
95	60	0.02	0.0	119	24	0.85	0.18
96	36	0.02	0.16	120	36	0.32	tr
97	60	0.60	tr	121	picked	0.09	tr
98	36	0.02	0.16	122	30	0.04	0.0
99	48	0.14	tr	147	8	0.20	tr
100	36	0.04	0.0	160	36	0.02	0.0
101	36	0.04	0.0	161	12	tr	0.0
102	picked	0.24	0.16	162	24	0.01	0.0
103	24	0.02	0.12	163	6	1.15	0.32

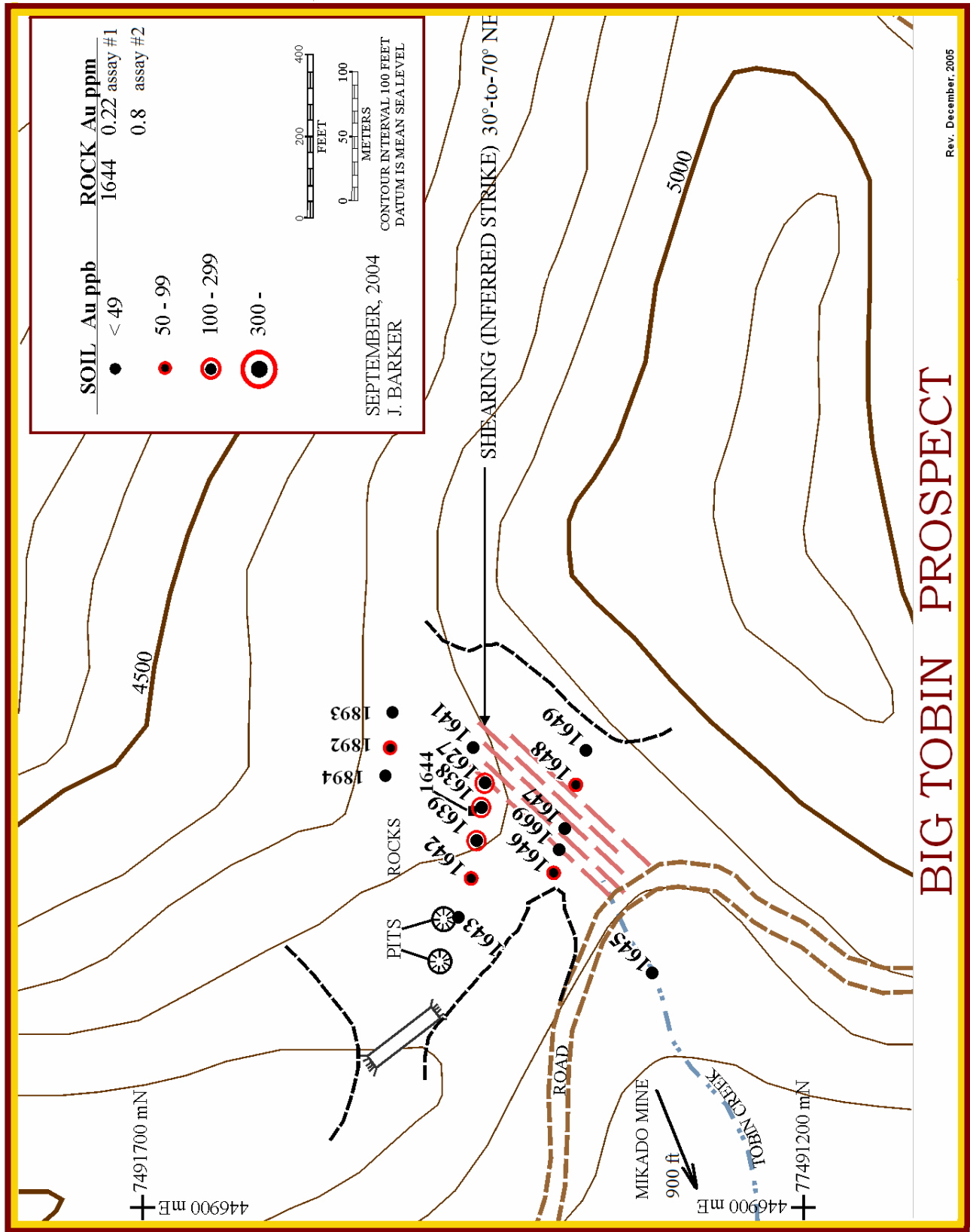


### Other Samples

Sample #	Sample description	Au opt
M-1	200 LV x-cut drift	0.07
M-2	West rib-chip across 36'	1.26
M-3	Bulk Sample	0.05
M-4	6' vein	0.46
M-5	5.25' vein	1.22
M-6	Random face chip sample 200 LV	0.33
M-7	East rib-chip across 36' 200 LV	0.36
M-8	12" vein in trench w/ gouge	0.14
M-9	3' vein and gouge quartz in dump	0.19
M-10	quartz w/ aspy and scordite in dump	0.08
M-11	mixed quartz and schist in dump	0.10
M-12	mineralization w/ scordite	0.42
M-13	4' channel of vein and schist wallrock	trace
M-14	Dump sample chips from 50 S.F. area	3.87

## **APPENDIX A-11a: Mikado Mine and Prospect Area**

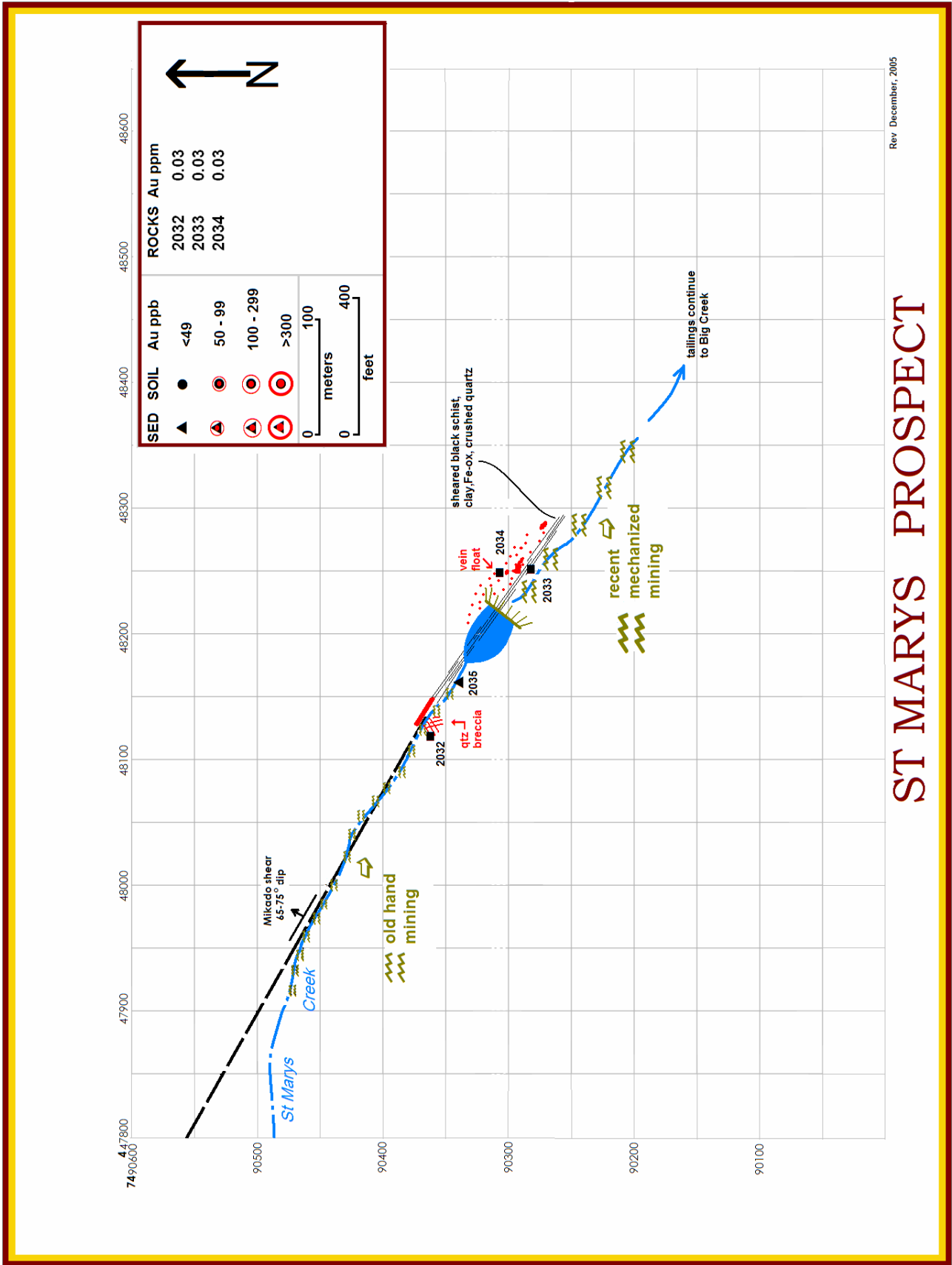




Rev. December, 2005

# BIG TOBIN PROSPECT

APPENDIX A-11b: Mikado Mine area  
APPENDIX A-12: Big Tobin



Rev December, 2005

# ST MARYS PROSPECT

APPENDIX A-13: St. Mary's



## APPENDIX B: Sample Tables for 2004 and 2005

APPENDIX B-1: 2004 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska (location as decimal degrees)												
Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	Lat-Long as ddd.ddddd		Elev'n						
				North	West							
LS1415	rock	<u>retained specimen</u> ; stock of chloritized diorite	Pedro	67.5099	148.17384		Barker	n/a				
LS1418	rock	<u>retained specimen</u> ; fine-grained amphibolite-qtz-sericite-carbonate rock found near Mikado Mine	Mikado	67.529	148.23719		Barker	n/a				
LS1419	rock	<u>random chip</u> ; numerous qtz boulders w/ disseminated wisps, bands Aspy, trace galena	Big Creek Bowl	67.53614	148.18759		Barker	1720				
LS1420	rock	<u>random chip</u> ; possible altered felsic dike	St. Mary's	67.52666	148.21847		Barker	<10				
LS1421	rock	<u>random chip</u> ; qtz vein >2 ft w/ 0.5 ft zone of wispy bands of Aspy & As-ox	Mercury	67.55808	148.25683		Barker	280				
LS1422	rock	<u>channel sample</u> ; 2-ft white qtz vein exposed in prospect trench, no visible mineralization	Mikado	67.5429	148.28633		Barker	<10				
LS1423	rock	<u>channel sample</u> ; 6-ft vein, similar to above, exposed in upper trench	Mikado	67.54295	148.28615		Barker	20				
LS1424	rock	<u>random chip</u> ; >3 ft massive qtz w/ bands of wispy Aspy and Fe-ox & As-ox	Shamrock	67.53536	148.18933		Barker	5330				
LS1425	rock	<u>random chip</u> ; adjacent vein of banded & brecciated zone, vein is pale green w/ As-ox, Aspy common, width appears to be 0.5 ft or less	Big Creek Bowl	67.53536	148.18933		Barker	11600				
LS1426	rock	<u>chips</u> of cemented gouge breccia w/ abundant Aspy & scorodite, float mixed w/ vein qtz in gully	Big Creek Bowl	67.53613	148.18663		Barker	900				
LS1427	rock	<u>continuous chip</u> across 4 ft vein boulder w/ minor disseminated Aspy	Big Creek Bowl	67.53677	148.1897		Barker	470				
LS1428	rock	<u>random chips</u> from white qtz vein boulders to 2 ft w/ wispy Aspy & minor As-ox	Big Creek Bowl	67.53736	148.19018		Barker	50				

**APPENDIX B-1: 2004 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska (location as decimal degrees)**

Sample Number	Sample Type	Description	Location			Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP	
			Prospect	Lat-Long as ddd.ddddd								Elev'n
				North	West							
LS1415	rock	<u>retained specimen</u> ; stock of chloritized diorite	Pedro	67.5099	148.17384		Barker	n/a				
LS1418	rock	<u>retained specimen</u> ; fine-grained amphibolite-qtz-sericite-carbonate rock found near Mikado Mine	Mikado	67.529	148.23719		Barker	n/a				
LS1429	rock	<u>random chip</u> ; qtz vein boulders up to 3 ft, rubble crosses road to this site, a few w/ thin seams & wisps of Aspy	Rock Glacier	67.54264	148.18982		Barker	1250				
LS1430	rock	<u>random chip</u> ; area of Fe- As-stained breccia & gouge float up to 1 ft thick, 50 ft west of LS1428	Big Creek Bowl	67.53736	148.19018		Barker	10				
LS1431	rock	<u>grab sample</u> from white qtz w/ wispy Aspy from dump by prospect shaft	Big Squaw	67.54253	148.19839		Barker	300				
LS1432	rock	<u>continuous chip</u> ; sample across 10-ft white qtz vein in pit, graphite, very little sulfide, lies in Eneveloe Shear zone	Big Squaw	67.55177	148.2198		Barker	270				
LS1433	rock	<u>grab sample</u> from slabby fine-grained sandy qtz matrix (meta-sandstone) w/ euhedral & anhedral py & trc Aspy	Big Squaw	67.54736	148.22523		Barker	10				
LS1434	rock	<u>channel sample</u> across a 2.5-ft banded clay gouge, graphite, qtz shards, common Aspy & scorodite adjacent to 3.5 ft white qtz vein w/ scorodite (see LS1456)	Bonanza	67.54374	148.20958		Barker	2010				
LS1435	rock	random chip from 3+ ft qtz vein in pit, parallel to principal vein (LS1436), very little sulfide present	Crystal	67.55003	148.1584		Barker	140				
LS1436	rock	<u>channel sample</u> across 5-ft massive white qtz vein, exposed in large hand trench, scant sulfide seen, strike 095° w/ steep S dip	Crystal	67.55031	148.15928		Barker	30				
LS1437	rock	<u>grab sample</u> ; chips of finer grain vein w/ minor Aspy, sph, seen in float only adjacent to LS1436	Crystal	67.55031	148.15928		Barker	3270				
LS1438	rock	<u>random chips</u> across 10-ft white qtz vein in large hand trench, very little sulfide present, strike 125°	McLellan Creek	67.54645	148.15416		Barker	<10				

**APPENDIX B-1: 2004 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska (location as decimal degrees)**

Sample Number	Sample Type	Description	Location			Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP	
			Prospect	Lat-Long as ddd.ddddd								Elev'n
				North	West							
LS1415	rock	<u>retained specimen</u> ; stock of chloritized diorite	Pedro	67.5099	148.17384		Barker	n/a				
LS1418	rock	<u>retained specimen</u> ; fine-grained amphibolite-qtz-sericite-carbonate rock found near Mikado Mine	Mikado	67.529	148.23719		Barker	n/a				
LS1439	rock	<u>grab sample</u> from massive qtz vein exposed in 100-ft hand trench, sample is weathered small fragments of banded dark qtz w/ Aspy, galena, sph, mostly oxidized	McLellan Creek	67.54546	148.15051		Barker	34200				
LS1440	rock	<u>random chips</u> from massive white qtz from dump, no sulfides seen, several prospect pits on vein	McLellan Creek	67.54503	148.14877		Barker	40				
LS1441	rock	<u>grab sample</u> from chips of white qtz in dump w/ 1% Aspy, galena; much barren qtz is also present but not included	McLellan Creek	67.54469	148.14928		Barker	3620				
LS1442	rock	<u>channel sample</u> from west end of cat trench, 2.5-ft footwall vein, banded dark qtz, graphite, gouge, As- Fe-ox	Pioneer	67.5553	148.1443		Barker	71400				
LS1443	rock	<u>grab sample</u> of fragments of dark scorodite vein qtz about 15 ft east of LS1442	Pioneer	67.5553	148.1443		Nichols	67200				
LS1444	rock	<u>grab sample</u> from float of banded dark qtz w/ Aspy, black gritty sulfide found among white massive vein qtz	Rock Glacier	67.54707	148.18256		Barker	6510				
LS1445	rock	<u>random chip</u> from numerous float boulders of massive white qtz vein w/ wispy thin bands, blebs of Aspy, galena	Rock Glacier	beginning point			Barker	780				
				67.54575	148.18343							
				ending point								
				67.54623	148.18343							
LS1446	rock	<u>random chip</u> from numerous pieces of sheared phyllite & qtz float w/ white-yellow coatings, Fe- As-ox, found mixed with vein rubble of LS1445	Rock Glacier	same as LS1445			Barker	350				
LS1447	rock	<u>random chip</u> from area of abundant white qtz vein boulder float w/ Aspy & galena wisps and thin seams, similar to LS1445	Rock Glacier	67.54486	148.18602		Barker	4060				

APPENDIX B-1: 2004 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska (location as decimal degrees)												
Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	Lat-Long as ddd.ddddd		Elev'n						
				North	West							
LS1415	rock	<u>retained specimen</u> ; stock of chloritized diorite	Pedro	67.5099	148.17384		Barker	n/a				
LS1418	rock	<u>retained specimen</u> ; fine-grained amphibolite-qtz-sericite-carbonate rock found near Mikado Mine	Mikado	67.529	148.23719		Barker	n/a				
LS1448	rock	<u>grab sample</u> from disintegrated quartz shards and Fe-ox from knoll	Rock Glacier	67.5456	148.18405		Barker	440				
LS1449	rock	<u>grab sample</u> of chips from boulder of brecciated phyllite-qtz w/ graphite & clots Aspy, mostly oxidized	Rock Glacier	67.54579	148.18375		Barker	3050				
LS1450	rock	<u>random chip</u> from 30-ft outcrop massive white qtz, no sulfides noted, old prospect trenching present	Pallasgreen	67.56263	148.11679		Nichols	30				
LS1451	rock	<u>random chip</u> from rubble train of massive white qtz, no sulfides noted	Pallasgreen	67.56141	148.11879		Nichols	<10				
LS1452	rock	<u>random chip</u> from massive white qtz outcrop 10 ft high, 40 ft long, no sulfides seen	Pallasgreen	67.56138	148.11614		Nichols	10				
LS1453	rock	<u>random chip</u> from qtz vein rubble w/ boxwork after py	none	67.56228	148.23866		Barker	<10				
LS1454	rock	<u>random chip</u> from prospect pit, sample of Fe-ox vein qtz and gossan brecciated qtz and sch on dump	Jackpot	67.55621	148.18944		Barker	770				
LS1455	rock	<u>random chip</u> from banded zone in dump at adit, unknown width; qtz weathers rusty, E-W strike w/ S dip, vein in pit 50 ft to W	Jackpot	67.55708	148.18933		Barker	61200				
LS1456	rock	<u>channel sample</u> across 6-ft-wide shattered white qtz vein adjacent to LS1434, some scorodite stain, strike N60W	Bonanza	67.54357	148.20871		Barker	3090				
LS1457	rock	<u>continuous chip</u> across a 3-ft white qtz vein w/ massive Fe-ox on S margin	Indicate	67.52741	148.17918		Barker	60				
LS1458	rock	<u>random chip</u> from hanging wall; sch 30-40 ft up from vein, sch is altered & punky, Fe-stain, qtz veinlets crushed w/ minor boxwork, zone exposed for 400-500 ft	Mikado	67.53378	148.24899		Barker	3930				



**APPENDIX B-1: 2004 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska (location as decimal degrees)**

Sample Number	Sample Type	Description	Location			Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP	
			Prospect	Lat-Long as ddd.ddddd								Elev'n
				North	West							
LS1415	rock	<u>retained specimen</u> ; stock of chloritized diorite	Pedro	67.5099	148.17384		Barker	n/a				
LS1418	rock	<u>retained specimen</u> ; fine-grained amphibolite-qtz-sericite-carbonate rock found near Mikado Mine	Mikado	67.529	148.23719		Barker	n/a				
LS1459	rock	<u>channel sample</u> across 5-ft of same zone as above but 400 ft west	Mikado	67.53417	148.25085		Barker	150				
LS1460	rock	<u>grab sample</u> from chips of sch selected containing qtz veinlets, 10 ft into footwall & 30 ft into hanging wall; veinlets w/ same strike as LS vn	Little Squaw Mine	67.55389	148.18684		Barker	40				
LS1461	rock	<u>grab sample</u> , composite of oxidized chips from float of brecciated qtz and sch w/ up to 50% Aspy, all very weathered	Rock Glacier	67.54647	148.18274		Barker	4430				
LS1462	rock	<u>grab sample</u> of scorodite qtz breccia, some remnant Aspy	Rock Glacier	67.54647	148.18274		Barker	2790				
LS1463	sediment	yellow precipitate coats gravel in Little Squaw creek bed	Rock Glacier	67.54761	148.1815		Barker	442				

**APPENDIX B-2: 2004 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska (location as UTM)**

Sample Number	Sample Type	Description	Location			Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP	
			Prospect	Lat-Long as UTM, NA-27 AK								Elev'n
				East	North							
LS1580	rock	select chips of scorodite qtz from dump	Grubstake East	50195	94210		Barker	5180	0.8	>10000	<2	4
LS1582	rock	random chip from qtz vein, 6x10 ft w/ randomly oriented breccia shears, no sulfides; small hand-dug pit	Pioneer North	51608	93644		Barker	30	<0.2	589	<2	2
LS1583	soil	sample at 2.5 ft, few pieces of qtz vein from hole	Pioneer	51566	93515		Barker	10	0.2	38	<2	18
LS1584	soil	sample at 2 ft, wet clayey soil, pieces of qtz vein in hole	Pioneer	51558	93476		Barker	160	0.4	1750	<2	30
LS1585	soil	sample at 3 ft, sch w/ qtz vein	Pioneer	51561	93496		Barker	100	0.2	303	<2	15
LS1586	soil	sample at 2 ft, wet clayey soil w/ qtz vein	Pioneer	51638	93429		Barker	150	0.3	404	<2	30
LS1587	soil	sample at 2.5 ft, slightly clayey damp soil, minor qtz vein	Pioneer	51660	93455		Barker	20	<0.2	46	<2	16
LS1588	rock	28-inch channel across 4 qtz veinlets cutting sch, 3 ft S of LS1442	Pioneer	51363	93589		Barker	40	0.2	435	<2	17
LS1589	rock	3-ft continuous chip sample across qtz veinlets in carbonaceous sch hanging wall 10 ft N of LS1442, veinlets strike N80°E w/ steep N dip	Pioneer	51363	93592		Barker	110	0.4	692	<2	20
LS1590	rock	3-ft channel of shattered qtz vein or lens w/ As-ox at old CDC sample site about 50 ft E of trench W end	Pioneer	51375	93589		Barker	25500	11.6	>10000	12	642
LS1591	rock	grab sample, scorodite stain & Aspy breccia mixed w/ white qtz	Rock Glacier	49175	92339		Barker	5690	5.2	>10000	<2	81
LS1592	soil	sample at 2.5-4 ft in carbonaceous sch	Rock Glacier	49290	92495		Barker	10	0.2	19	<2	34
LS1593	soil	sample at 2-5 ft, 50 ft S of LS1592	Rock Glacier				Barker	180	0.3	237	<2	29

**APPENDIX B-2: 2004 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska (location as UTM)**

Sample Number	Sample Type	Description	Location			Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP	
			Prospect	Lat-Long as UTM, NA-27 AK								Elev'n
				East	North							
LS1594	soil	sample at 2-4.5 ft, very wet soil, small seep above here, 100 ft S of LS1592	Rock Glacier				Barker	140	0.3	711	<2	29
LS1595	soil	sample at 2-4.5 ft, some Fe-ox & qtz grains, 150 ft S of LS1592	Rock Glacier				Barker	140	0.4	596	<2	26
LS1596	soil	sample at 2-5 ft, hit water at 3 ft	Rock Glacier	49290	92282		Barker	120	0.3	231	<2	31
LS1597	soil	sample at 2-5 ft, very wet, prospect pit 20 ft NE, 45 ft N of LS1596	Rock Glacier				Barker	450	0.5	2210	<2	87
LS1598	soil	sample at 2-4 ft, wet soil, 90 ft N of LS1596	Rock Glacier				Barker	380	0.7	2370	<2	56
LS1599	soil	sample at 2-4 ft, damp soil, 147 ft N of LS1596	Rock Glacier				Barker	90	0.4	322	<2	41
LS1600	soil	sample at 2-4.5 ft, very rocky w/ slide rock, some qtz shards, 200 ft N of LS1596	Rock Glacier				Barker	120	1.5	532	2	101
LS1601	soil	sample at 2-5 ft, very rocky, 253 ft N of LS1596	Rock Glacier				Barker	100	0.4	589	<2	34
LS1602	rock	random chip, bronze weathering qtz-carbonate vein, noticeably heavy; occurs as hillside float S of Summit shear	Summit Mine	48905	91873		Barker	20	<0.2	272	<2	5
LS1603	soil	sample at 2-4.5 ft, clayey soil wet and rocky, 100 ft N of LS1604	Rock Glacier				Barker	10	0.2	80	<2	36
LS1604	soil	sample at 2-4.5 ft in wet clayey and rocky soil	Rock Glacier	49418	92491		Barker	80	0.4	645	<2	31
LS1605	rock	random chips from limonitic fine-grained qtz vein rubble and shards by road	Rock Glacier	49390	92238		Barker	470	0.2	3770	<2	23
LS1606	sediment	aggregate of sch, black slate, & qtz, stream dry, Mikado shear	Mikado	46052	92127		Barker	10	<0.2	58	<2	21
LS1607	sediment	similar to above, some areas of Fe-stn aggregate, dry creek	Mikado	45955	92001		Barker	10	0.4	54	<2	23

**APPENDIX B-2: 2004 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska (location as UTM)**

Sample Number	Sample Type	Description	Location			Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP	
			Prospect	Lat-Long as UTM, NA-27 AK								Elev'n
				East	North							
LS1608	sediment	creek flowing from springs above here, Fe-stain common	Mikado	45786	91842		Barker	10	0.4	44	<2	20
LS1609	sediment	all aggregate Fe-stain, Mikado shear area	Mikado	45585	91845		Barker	10	0.4	49	<2	21
LS1610	rock	<u>random chips</u> of fine-grained & brecciated Fe-stained qtz w/ clay, chlorite, graphite in vein trending 130° in road bed	Mikado	46384	91819		Barker	<10	0.2	44	<2	12
LS1611	rock	4.5-ft <u>channel</u> of gray-black gouge w/ minor qtz shards exposed in trench; second, parallel, covered vein to S	Summit Mine	49061	91848		Barker	1940	1.5	2300	<2	46
LS1612	rock	<u>channel sample</u> across 1-ft shattered qtz vein adjacent to gouge zone, minor As-ox, 85 ft E of LS1611, strike 095°	Summit Mine				Barker	16250	1.2	8960	2	313
LS1613	soil	sample at 2 ft in rocky colluvium in area of vein qtz shards, covered vein, loc'd on CDC soil survey line	Little Squaw	49420	93526		Barker	20	<0.2	343	<2	10
LS1614	rock	<u>random chips</u> from qtz vein in prospect pit, sample of dump, massive white qtz, no sulfide seen	Grubstake	49734	94467		Barker	10	<0.2	42	<2	2
LS1615	soil	small pit wall on east shear slope to saddle, no bedrock found	Prospector East	49727	94621		Barker	10	<0.2	42	<2	22
LS1616	rock	<u>select chips</u> of qtz w/ Fe-ox, galena, Aspy from dump	Prospector East	49653	94620		Barker	2940	171	>10000	276	2.17%
LS1617	soil	dug from frost boil w/ vein qtz fragments	Prospector East	49633	94606		Barker	50	0.2	230	<2	71
LS1618	rock	<u>specimen</u> of qtz vein w/ galena	Prospector East	49653	94620		Barker	2500	740	>10000	1120	11.65%
LS1619	rock	<u>continuous chip</u> ; 1.5 inch Fe-ox stained qtz-carbonate vein about 18 inches in footwall below Little Squaw vein, 115 ft into 100 Level adit	Little Squaw Mine				Barker	210	1.9	399	3	213



**APPENDIX B-2: 2004 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska (location as UTM)**

Sample Number	Sample Type	Description	Location			Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP	
			Prospect	Lat-Long as UTM, NA-27 AK								Elev'n
				East	North							
LS1620	rock	channel of 9.5-inch footwall banded vein w/ VG, Aspy, carbonitic & chloritic clay, 60 ft into 100 Level adit	Little Squaw Mine				Barker	>1000000	493	>10000	<2	18
Duplicate		-						2772000				
LS1621	rock	7-inch channel of semi-banded zone of main Little Squaw vein adjoining LS1620, 60 ft into 100 Level adit	Little Squaw Mine				Barker	60	3	3300	5	400
LS1622	rock	26-inch channel across massive white qtz hanging wall zone adjoining LS1621 & 1620	Little Squaw Mine				Barker	80	0.3	781	<2	30
LS1623	soil	yellow-brown residual weathered soil w/ sch & qtz vein shards	Rock Glacier	49670	92605		Barker	60	0.2	405	<2	49
LS1624	soil	similar to above	Rock Glacier	49663	92550		Barker	930	0.6	>10000	<2	14
LS1625	rock	random chips of gray sch float w/ x-cutting qtz veinlets, most are Fe-stained, found commonly on left limit of rock glacier	Rock Glacier	49629	92574		Barker	50	0.3	285	<2	39
LS1626	rock	continuous chip from fracture & veinlet set w/ gouge striking 105°w/ a shallow N-dip to S-dipping main vein in portal area of 200 Level adit	Summit Mine	49321	91803		Barker	450	0.3	320	<2	26
LS1627	soil	sample at 0-4.5 ft, soil has slight green tint w/ sheared black sch	Big Tobin	47223	91447		Barker	150	0.5	646	<2	44
LS1628	rock	continuous chip across a 2-4 inch qtz vein in hanging wall 5 ft above ore zone X-cuts foliation at 130°, dip 80N	Mikado Mine	46829	91292		Barker	100	0.3	270	<2	24
LS1629	rock	random chip from 10-ft wide qtz vein w/ a few seams w/ Aspy-chlorite-graphite-scorodite	Jupiter	48498	92480		Barker	3390	8.3	>10000	10	600

**APPENDIX B-2: 2004 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska (location as UTM)**

Sample Number	Sample Type	Description	Location			Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP	
			Prospect	Lat-Long as UTM, NA-27 AK								Elev'n
				East	North							
LS1630	rock	channel sample in 200 Level adit, 3.5 ft across clayey crushed qtz, carbonate-sericite-mica wisps & bands, strike 120° w/steep S & N dips	Eneveloe Mine				Barker	3100	1.3	>10000	<2	34
LS1631	rock	channel sample in 200 Level adit, 2-ft vn, 125 ft past X-cut, strike 120° dip 75S; qtz crushed w/ bands carbonate-sericite, minor py & Aspy	Eneveloe Mine				Barker	1960	0.4	>10000	<2	4
LS1632	rock	grab sample in 200 Level adit; black sch footwall w/ 1-2 mm qtz veinlets, strike 200°, 32NE dip; SW of X-cut	Eneveloe Mine				Barker	30	<0.2	193	<2	8
LS1633	rock	channel sample, 0.5 ft hanging wall vein w/ banded Aspy-chlorite-mica-carbonaceous minerals, adjacent to LS1434	Bonanza				Barker	1820	0.6	>10000	<2	5
LS1634	rock	channel sample, 1.5+ ft Fe-stained, crushed qtz upper zone to massive white qtz zone (LS1636), no hanging wall found	Chandalar	48198	92750		Barker	33600	2.2	775	<2	40
LS1635	rock	random chip sample, apparent 2 <sup>nd</sup> vein about 2 ft wide, Fe-stn & parallel to LS1634, vein of crushed white qtz exposed in road bed 7 ft N of LS1634	Chandalar	48198	92750		Barker	50	<0.2	741	<2	<2
LS1636	rock	continuous chip, lower 2 ft of vein composed of massive white qtz, sample adjoins LS1634	Chandalar	48198	92750		Barker	80	<0.2	1535	<2	2
LS1637	rock	random chip, scorodite-stained qtz & white clayey gouge from ore dump	Mikado Mine	46879	91298		Barker	48900	25.9	>10000	6	341

**APPENDIX B-2: 2004 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska (location as UTM)**

Sample Number	Sample Type	Description	Location			Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP	
			Prospect	Lat-Long as UTM, NA-27 AK								Elev'n
				East	North							
LS1638	soil	sample at 1-4 ft, streaks of qtz fragments, some gossan, 1 pc w/ Aspy to either side of site, minor Fe-staining on soil	Big Tobin	47202	91447		Barker	180	0.5	1280	<2	44
LS1639	soil	sample at 1-4 ft in black sch, 75 ft W of LS1638	Big Tobin				Barker	130	0.5	887	<2	46
LS1640	rock	channel sample across boulder w/1.0-ft banded qtz vein	Big Creek Bowl				Barker	110	0.3	2710	<2	33
Duplicate		-						350				
LS1641	soil	sample at 1-4.5 ft, surface soil w/ weak green stain, qtz fragments common, soil more clayey at 3.5 ft, 75 ft E of LS1627	Big Tobin	47249	91458		Barker	20	0.6	297	2	40
LS1642	soil	sample at 1-4.5 ft in gray sch, 75 ft W of LS1639	Big Tobin	47152	91456		Barker	60	0.4	1260	<2	35
LS1643	soil	sample at 1-3.5 ft in gray sch, no sign of mineralization	Big Tobin	47121	91464		Barker	30	0.4	243	<2	30
LS1644	select chip	small select chips of qtz shards w/ gossan, cement gouge, trace scorodite, near LS1638	Big Tobin	47200	91450		Barker	180	<0.2	>10000	<2	11
Duplicate								800				
LS1645	soil	from incised dry NE-trending gully below road, qtz vein float comm	Big Tobin	47130	91347		Barker	30	0.7	196	<2	42
LS1646	soil	sample at 1-4.8 ft, including friable vein qtz at 4.25 ft	Big Tobin	47158	91394		Barker	50	0.5	2300	<2	22
LS1647	soil	sample at 1-5 ft, Fe-stained gouge w/ qtz vein shards at 2.5 ft	Big Tobin	47189	91383		Barker	10	0.6	50	<2	43
LS1648	soil	sample at 1-5 ft, last 0.25 ft in carbonaceous clayey gouge & gossaniferous qtz	Big Tobin	47221	91378		Barker	70	0.4	401	2	36
LS1649	soil	sample at 1-3.5 ft, olive-brown soil w/ numerous pieces vein qtz	Big Tobin	47248	91369		Barker	10	0.4	35	<2	21

**APPENDIX B-2: 2004 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska (location as UTM)**

Sample Number	Sample Type	Description	Location			Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP	
			Prospect	Lat-Long as UTM, NA-27 AK								Elev'n
				East	North							
LS1650	rock	200 Level X-cut, 6.9' <u>channel sample</u> across altered fine-grained carbonate rock, strike 123°, dip 40° S, w/ stockwork qtz veinlets	Little Squaw Mine				Barker	70	<0.2	63	<2	6
LS1651	rock	200 Level X-cut, <u>continuous chip</u> sample across qtz vein 0.5-3 inches thick, strike 80° w/ 28° S dip	Little Squaw Mine				Barker	10	0.2	57	<2	14
LS1652	rock	200 Level X-cut, <u>random chip</u> sample of qtz stringer zone in altered green sch, strike 070° w/63°S dip, bounded by NE fault	Little Squaw Mine				Barker	<10	<0.2	65	<2	6
LS1653	rock	200 Level X-cut, 3.5-ft <u>continuous chip</u> sample across qtz veinlets & 2-inch vein, strike 125°, dip 55°N	Little Squaw Mine				Barker	<10	<0.2	20	<2	5
LS1654	rock	200 Level X-cut, <u>continuous chips</u> of 1-3inch vein following N75° fault dipping 73°S, subparallel qtz stringers not included	Little Squaw Mine				Barker	30	0.2	102	<2	28
LS1655	rock	200 Level X-cut, <u>continuous chips</u> of 1-3 inch vein following N125° fault dipping 45°N, subparallel qtz stringers not included	Little Squaw Mine				Barker	140	<0.2	193	<2	2
LS1656	rock	200 Level, 225 ft from portal, <u>channel sample</u> across 8-inch vein of massive Aspy, strike N80° w/ 67°S dip along fault; qtz, gouge on selvage	Little Squaw Mine				Barker	6220	3.4	>10000	2	6
LS1657	soil	sample at 0-4.5 ft in black sch w/ trace qtz, 50 ft S of LS1595	Rock Glacier	49294	92445		Barker	100	0.4	733	<2	34
LS1658	soil	sample at 0-3 ft, 100 ft S of LS1595	Rock Glacier				Nichols	70	0.2	353	<2	29
LS1659	soil	sample at 0-3 ft, 150 ft S of LS1595	Rock Glacier				Nichols	340	0.3	110	<2	29
LS1660	soil	sample at 0-3 ft, 200 ft S of LS1595	Rock Glacier				Nichols	220	0.4	80	2	43



**APPENDIX B-2: 2004 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska (location as UTM)**

Sample Number	Sample Type	Description	Location			Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP	
			Prospect	Lat-Long as UTM, NA-27 AK								Elev'n
				East	North							
LS1661	soil	sample at 0-5 ft, 250 ft S of LS1595	Rock Glacier				Nichols	150	0.4	431	<2	29
LS1662	soil	sample at 0-3 ft, Fe seep area of gully	Pioneer	50992	93606		Barker	10	0.2	82	2	20
LS1663	soil	sample at 0-5 ft, few inches of green sandy soil w/qtz at 4.5 ft	Pioneer	50992	93846		Barker	10	<0.2	33	<2	22
LS1664	soil	sample at 0-2.5 ft, vein qtz in sample hole	Pioneer	51296	93606		Barker	610	0.4	1705	2	40
LS1665	rock	random chip sample, parallel vein approximately 3 ft wide in rubble, strike 105°, massive white qtz, minimal Fe-staining, thin stockwork veinlets	Crystal	50828	93120		Barker	120	<0.2	2360	<2	3
LS1666	rock	random chip, parallel vein to S in rubble, strike ESE, massive white qtz, minimal Fe-staining, some float w/ gossan	Crystal	50765	93025		Barker	7590	14.6	1045	<2	7
LS1667	rock	random chip, 6-10 inch banded zone of 5-6 ft mid main vein footwall, numerous bands of chlorite ,graphite, minor Aspy	Crystal	50692	93045		Barker	114500	21.3	4090	<2	27
LS1668	rock	random chip: wide qtz vein w/ seam or band (sample) of As-ox clay & qtz, Aspy, seen only in rubble as small pieces	Uranus	50458	92484		Barker	45000	8.7	>10000	6	101
LS1669	soil	sample at 2-4.75 ft in limonitic graphitic qtz gouge, between LS1646 & LS1647	Big Tobin				Barker	40	0.4	293	<2	44
LS1670	soil	sample at 1-4.5 ft	Pioneer	51290	93583		Nichols	10	0.2	71	<2	19
LS1671	soil	sample at 1-4.5 ft	Pioneer	51225	93658		Nichols	120	0.4	548	<2	26
LS1672	soil	sample at 1-4.5 ft	Pioneer	51213	93648		Nichols	10	0.2	96	<2	22
LS1673	soil	sample at 1-4.5 ft	Pioneer	51204	93642		Nichols	<10	0.2	58	<2	28
LS1674	soil	sample at 1-4.5 ft	Pioneer	51046	93695		Nichols	<10	<0.2	57	2	18
LS1675	soil	sample at 1-4.5 ft	Pioneer	51060	93707		Nichols	10	0.2	43	<2	20
LS1676	soil	sample at 1-4.5 ft	Pioneer	51076	93716		Nichols	100	0.3	59	<2	26

**APPENDIX B-2: 2004 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska (location as UTM)**

Sample Number	Sample Type	Description	Location			Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP	
			Prospect	Lat-Long as UTM, NA-27 AK								Elev'n
				East	North							
LS1677	soil	sample at 1-4.5 ft	Pioneer	51095	93731		Nichols	20	0.3	57	<2	20
LS1678	soil	sample at 1-4.5 ft	Pioneer	51112	93741		Nichols	10	0.2	48	<2	23
LS1679		no sample		no sample								
LS1680	rock	channel sample; 1.5 ft sample of qtz veinlets, 0.25 ft massive Aspy vein, strike 100°, dip 64°S	Little Squaw				Barker	1200	1.2	>10000	<2	7

**APPENDIX B-3: 2005 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska**

Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	East	North	Elev						
LS1646	soil	sampled 1-4.8 ft, including friable vein qtz at 4.25 ft; last season's sample	Tobin Creek	47158	91394		Barker	84	0.4	4527	9	30
LS1856	rock	random chip; feldspatic somewhat gneissic fine-grain unit w/qtz carbonate stockwork and oolitic qtz fillings, secondary sericite-carbonate-silica in ground mass	Prospector east to Mello Bench area	50150	94934		Barker	30	0.6	<2	15	11
LS1857	rock	random chip; carbonate, sericite, and chlorite altered margin of shear zone, abundant Fe-ox clots	Prospector east to Mello Bench area	50117	94955		Barker	<5	0.3	<2	7	5
LS1858	soil	sampled to 30 in. on frost; mixed colluvium w/B-horizon; 75 ft S of LS1856, in middle of shear	Prospector east to Mello Bench area	see comment in description			Barker	<5	0.3	71	8	11
LS1859	soil	yellow-brown clayey soil w/sch & qtz shards; sample 1-2 ft, frost at 1.5 ft; 25 ft W of LS1611, center of 5-ft-deep trench	Summit West Extension	49057	91852		Barker	732	1.5	4352	12	198
LS1860	soil	sample 2-4 ft, frost at 3 ft; gray clayey soil and sch and spots of Fe-ox; 30 ft N of LS1859	Summit West Extension	see comment in description			Barker	436	1.2	1677	10	61
LS1861	soil	sample between 2-3 ft, hard frozen at 2.5-3 ft gray clayey soil w/sch fragments; 60 ft N of LS1859	Summit West Extension	see comment in description			Barker	<5	0.4	72	7	25
LS1862	soil	sample at 2-4.3 ft; hit rock chips at 2.5 ft; gray clayey sch; 90 ft N of LS1859	Summit West Extension	see comment in description			Barker	146	0.8	372	8	66
LS1863	soil	numerous pieces of vein qtz at surface; sample between 1-4.5 ft, hard frost at 4.5 ft. Gray clayey soil, qtz chips; 120 ft N of LS1859	Summit West Extension	see comment in description			Barker	152	0.7	337	7	44
LS1864	soil	sample between 1.3 ft, hard frozen at 3 ft; 150 ft N of LS1859, about 45 ft S of the N end of the old Noranda line	Summit West Extension	see comment in description			Barker	36	0.5	102	10	30

**APPENDIX B-3: 2005 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska**

Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	East	North	Elev						
LS1865	soil	soil from steep, shingled hillside, just below the projected W strike of vein	Summit West Extension	40879	91918		Barker	1088	1.9	1617	13	49
LS1866	soil	downhill 120 ft of LS1865; small chips of vein qtz common in area mixed in w/ graphitic sch; a few pcs vein breccia	Summit West Extension	48886	91954		Barker	232	1	925	7	49
LS1867	soil	some Fe-ox stained sch & metamorphic qtz in area	Summit West Extension	48881	91891		Barker	<5	0.4	250	5	42
LS1868	sediment	aggregate of sch, gray & black, greenstone, qtz; this gulch drains the Pioneer area	Pioneer Gulch	50779	94649	2809	Barker	12	0.4	53	3	17
LS1869	sediment	gneissic diorite w/chl gray sch, a few pieces of barren white qtz; from upper Nugget Creek	Pallasgreen	52292	94160		Barker	<5	0.4	28	8	13
LS1870	soil	gray to graphitic sch mixed w/fine-grained altered diorite; shards & pieces of white vein qtz	Pallasgreen	52398	94167		Barker	52	0.6	37	12	25
LS1871	soil	sample from 1-2.5 ft, hard frozen; spots of Fe-ox & qtz chips in sample	Pallasgreen	52405	94196		Barker	<5	0.4	25	8	21
LS1872	soil	sample is from 1-3.5 ft, frost at 3.0 ft	Pallasgreen	52435	94228		Barker	<5	0.7	32	9	26
LS1873	rock	random chip; old prospect on 18-in. qtz vein, limonite stained; strike 125°; no banding present, no mineralization seen; a few pieces show breccia fabric	Pallasgreen	52458	94251		Barker	10	<0.1	266	4	4
LS1874	soil	gray sch w/minor qtz veining, leaves hands greasy, probably graphite; sample depth 1-3.5 ft	Pallasgreen	52444	94264		Barker	<5	0.6	109	10	61
LS1875	soil	cored through a qtz cobble; frozen at 1 ft, sample 1-3 ft; a lot of rusty qtz in sample; vein(s) may control this little SW gully--??	Pallasgreen	52451	94298		Barker	24	0.8	291	13	46
LS1876	rock	continuous chip across 160° Fe-cemented breccia zone within vein	Pallasgreen	52573	94246		Barker	12	0.2	2302	3	4

**APPENDIX B-3: 2005 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska**

Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	East	North	Elev						
LS1877	rock	continuous chip across 12-in. semi-banded zone w/scorodite & Aspy near hanging wall of vein	Pallasgreen	52573	94246		Barker	4322 <sup>M</sup>				
LS1878	rock	random chip, from 2- to 4-ft zone of the footwall of Fe-stn qtz breccia w/a few wispy bands of Aspy	Pallasgreen	52573	94246		Barker	197	0.1	3565	6	5
LS1879	soil	frozen at 6 inches; sample is from 6 inches to 2 ft	Pallasgreen	52454	94326		Barker	36	0.6	268	7	26
LS1880	sediment	yellow ppt on gravel; boulders of vein qtz; a ferricrete, vegetation-rich soil forms sheets of solidified masses in streambank	Pallasgreen	52373	94397		Barker	32	0.3	51	12	19
LS1881	soil	mostly graphitic sch, metamorphic qtz common; sample 2-2.5 ft, frozen at 2 ft.	east Little Squaw valley slope to Rock Glacier	49955	92301		Barker	56	0.5	133	7	33
LS1882	soil	only metamorphic qtz was found, mostly muscovite- & chlorite-sch, plus a few pieces greenstone	east Little Squaw valley slope to Rock Glacier	49971	92349		Barker	32	0.3	93	8	36
LS1883	soil	small gulch; some flowing water w/muddy gravelly sed; pieces of white qtz in gully, but none show mineralization	east Little Squaw valley slope to Rock Glacier	50033	92388	4043	Barker	52	0.4	87	4	28
LS1884	soil	frozen at 1.4 ft, sampled to 2 ft; greasy, clayey, graphitic soil, a few little chips of qtz	Pioneer Gulch	52448	94365		Barker	30	0.4	80	6	29
LS1885	rock	random chip; discontinuous Fe-ox qtz veins up to 4 in. cutting sericite-chl sch, causing Fe stain on cliff; Nugget Creek is highly Fe-stained below here	Pallasgreen	52528	94463		Barker	65	0.3	9	7	22
LS1886	rock	5-ft continuous chip sample of Fe-stained, fine-grained feldspatic foot wall of Pallasgreen vein	Pallasgreen				Barker	27	0.4	406	6	10



**APPENDIX B-3: 2005 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska**

Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	East	North	Elev						
LS1887	rock	Sample is <u>select pieces of</u> qtz containing galena and black sulfide (sphalerite?). Clots of galena up to 2 cm; float run is parallel to Pallasgreen vein, about 50-75 ft S of it. Part of this vein is an Fe-stained qtz breccia (foot wall), see sample LS1888.	Pallasgreen	52517	94234		Barker	28	44.3	566	65	5445
LS1888	rock	<u>random chip</u> of vein, 3-10 ft wide, not exposed. Footwall is sulfide-bearing Fe-stained gneissic feldspatic rock; footwall side of vein is mostly Fe-stained breccia.	Pallasgreen	52517	94234		Barker	<5	0.4	1039	6	28
LS1889	rock	<u>random chips</u> from several boulders w/Aspy, chl banding in side tributary to Nugget Creek	Pallasgreen	52384	94382		Barker	6825 <sup>M</sup>	0.5	2669	4	9
LS1890	rock	<u>random chip</u> ; creek substrate ferricrete cemented mat in side tributary to Nugget Creek; solidified mat w/open spaces coated w/Mn-ox; fragments of qtz veins; surrounding area consists of ferricreted-vegetative soil	Pallasgreen	52384	94382		Barker	<5	0.3	4	30	19
LS1891	rock	<u>random chips</u> from a 5-ft vein outcrop; about 50% of vein is breccia--no sulfides, no As-ox seen, all Fe-stained; vein not exposed, all rubble trends 105°	Pallasgreen	52555	94380		Barker	70	0.2	393	3	7
LS1892	soil	sampled 1-4.5 ft; blk sch	Big Tobin Pass	47260	91523		Barker	52	0.8	634	10	62
LS1893	soil	sampled 1-4.5 ft; some qtz at bottom of hole	Big Tobin Pass	47284	91522		Barker	26	0.5	57	7	35
LS1894	soil	sampled 1-4 ft, red-orange and greenish gouge and clay at 3.5 ft w/some qtz shards	Big Tobin Pass	47241	91528		Barker	32	1.1	351	9	81
LS1895	rock	<u>retained specimen</u> ; hillside float w/ visible Au (~dozen grains) above road just below projected trace of Little Squaw vein; a concentration of vein cobbles exposed by the road cut here	Little Squaw to Crystal	49807	93324		Barker	n/a	n/a	n/a	n/a	n/a

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Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	East	North	Elev						
LS1896	sediment	from small dry gulch above alluvial fan; on projected trace of Crystal vein, only metamorphic qtz seen here	Crystal	49986	93109	3509	Barker	96	0.3	194	7	26
LS1897	soil	from swale of gray sch, carb-altered greenstone, and a single golf-ball-size piece of massive Aspy and qtz breccia	Crystal	49996	92958	3679	Barker	134	0.5	441	9	29
LS1898	soil	several qtz boulders w/wisps of Aspy nearby	Crystal	50483	93155	4027	Barker	60	0.4	217	5	23
LS1899	soil	small swale w/numerous cobbles and bouldrs of vein qtz; sample hole to 2.5 ft, 5 ft x 4 ft vein qtz boulders nearby	Crystal	50520	93262	4078	Barker	22	0.6	208	6	26
LS1900	rock	<u>retained specimen</u> ; plausible old shaft site; specimen is banded qtz vein	Crystal	50681	93043	4509	Barker	n/a	n/a	n/a	n/a	n/a
LS1901	rock	<u>random chips</u> of Fe-ox stained, banded, footwall vein of LS1437; vein is somewhat brecciated, has secondary sericite, Mn-ox clots	Crystal				Barker	44 <sup>M</sup>	0.2	460	1	14
LS1902	rock	<u>random chips</u> of fine-grained & partially crushed Fe-stained qtz; float only; minor relic specks of sulfide	Crystal	50929	93037	4541	Barker	24	0.1	107	3	5
LS1903	soil	soil; same location as LS1902	Crystal	50929	93037	4541	Barker	110	0.9	578	8	41
LS1904	soil	sampled 1-5 ft	Rock Glacier	49418	92472	3966	Barker	44	0.5	315	7	32
LS1905	soil	sampled 1-5 ft; a lot of water in these sample sites; qtz shards at bottom of hole	Rock Glacier	49417	92461	3972	Barker	88	0.3	134	6	33
LS1906	soil	no free water; sample from 1-5 ft	Rock Glacier	49419	92447	3976	Barker	72	0.4	356	6	37
LS1907	soil	free water again; sampled 1-5 ft; saw qtz shards in sample. See LS1908 for vicinity description.	Rock Glacier	49419	92433	3995	Barker	142	0.5	535	4	38
LS1908	rock	<u>continuous chip</u> ; sampled across 2 ft x 8 in. boulder of vein qtz w/ 4 bands of Aspy-scorodite	Rock Glacier	49419	92433	3995	Barker	220 <sup>M</sup>	0.1	1510	2	3
LS1909	soil	sampled 1-5 ft; hit frost at 5 ft	Rock Glacier	49419	92413	4000	Barker	60	0.5	476	9	49
LS1910	soil	free water near hole bottom; sampled 1-5.5 ft	Rock Glacier	49420	92399	4014	Barker	244	0.6	1529	8	45

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Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	East	North	Elev						
LS1911	rock	random chips from Aspy-scorodite qtz breccia found in vicinity of soil LS1912	Rock Glacier	49420	92385		Barker	4594 <sup>g</sup>	3.9	>10000	121	121
LS1912	soil	sample wet, not as much qtz seen in this sample; sampled 1-5 ft	Rock Glacier	49420	92385	4030	Barker	140	0.5	1445	7	58
LS1913	soil	sampled 1-5 ft; some qtz; several pieces of the Aspy-scorodite qtz breccia found in the vicinity	Rock Glacier	49419	92369	4020	Barker	252	0.6	1528	6	63
LS1914	soil	sampled 1-5 ft	Rock Glacier	49420	92352	4024	Barker	206	0.5	1018	7	41
LS1915	soil	wet sample; sampled 1-5 ft	Rock Glacier	49420	92342	4035	Barker	88	0.4	733	6	40
LS1916	soil	sampled 1-5 ft; site is 20 ft N of S end monument	Rock Glacier	49421	92326	4043	Barker	118	0.4	830	5	38
LS1917	rock	random chips of qtz vein mat'l that have wisps and bands of Aspy and scorodite; a run of white, massive qtz boulders occurs here	Rock Glacier	49438	92262		Barker	256	0.1	7844	2	9
LS1918	soil	hit frost at 4.5 ft; sampled to 5 ft	Rock Glacier	49425	92301	4018	Barker	38	0.5	160	4	53
LS1919	rock	retained specimen; old, failed adit; considerable qtz float, no bedrock exposed, two pcs w/weak banding and finely disseminated Aspy, possible visible Au	Little Squaw east ext'n	49692	93477		Barker	n/a	n/a	n/a	n/a	n/a
LS1920	soil	from road cut bank, dug to 2.5 ft; site is located on linear feature striking up hill	Little Squaw east ext'n	49723	93364	3408	Barker	<5	0.3	65	7	20
LS1921	soil	sampled 2-4.5 ft in light brown clayey soil; located on linear feature striking toward head of Mello Bench from Prospector East	Prospector East area	50193	94789		Barker	<5	0.3	52	5	29
LS1922	soil	sampled 1-4 ft, frozen at 3.5 ft; light brown clayey soil, black sch chips in sample, some Fe stained	Prospector East area	50179	94762	3100	Barker	<5	0.4	23	5	26
LS1923	soil	sampled 1-4 ft; frozen at 3.0 ft; similar to LS1922	Prospector East area	50168	94731	3084	Barker	<5	0.4	12	7	29
LS1924	soil	sampled 1-4 ft; very rocky and wet	Prospector East area	50167	94660		Barker	<5	0.4	15	6	29

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Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	East	North	Elev						
LS1925	rock	random chips of anastomosing qtz±carb (dolomite) veinlets cutting fine-grain rock that weathers pink and consists of sericite-qtz-carbonate-feldspar, and cut by veins 1-2 in. w/py and trace scorodite, which are included in the sample. There is a lot of this rock on the NE corner of the dump.	Little Squaw east ext'n	49575	93504		Barker	23	0.8	5666	12	10
LS1926	soil	3 ft deep, lots of vein qtz, qtz shards in sample; located below old adit	Little Squaw east ext'n	49701	93470	3488	Barker	282	0.4	502	6	24
LS1927	soil	2.5-3 ft deep on linear feature; wet, clayey olive-brown	Little Squaw east ext'n	49727	93305		Barker	54	0.2	118	5	19
LS1928	rock	random chips of fine-grained felsic qtz-feldspar, noncalcareous rock; there are some clots of fine-grained gray sulfides, surrounding rubble is mostly angular greenstone boulders from the N	Pallasgreen	52186	94444	3295	Barker	342	0.2	119	1	9
LS1929	rock	random chips of 5-ft qtz vein; strikes 112°, S dip, ~75°; Fe-stained qtz breccia is irregularly invading footwall of meta-feldspatic rock	Pallasgreen	52936	94078		Barker	<5	0.2	2732	4	6
LS1930	soil	soil from the northside of 15-30 ft vein, poorly exposed as numerous qtz boulders up to 5-ft dimensions; no mineralization seen	Pallasgreen	52899	93996	3794	Barker	<5	0.3	11	3	17
LS1931	soil	opposite south side of vein described above	Pallasgreen	see comment in description			Barker	<5	0.1	10	4	12
LS1932	soil	clayey soil w/chlorite & carbonaceous sch and qtz shards; dug in frost boil to 30 inches; numerous vein qtz boulders about 150 ft downhill	Pallasgreen	52846	94513	3263	Barker	36	0.3	164	7	27

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Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	East	North	Elev						
LS1933	soil	among boulders of qtz and flaggy sch; dug to 3 ft; there is much qtz for 300 ft below here	Pallasgreen	52844	94574	3218	Barker	54	0.5	159	6	28
LS1934	sediment	small stream w/abundant white qtz and sch gravel	Pallasgreen	52760	95143		Barker	<5	0.3	35	4	22
LS1935	sediment	Nugget Crk; quite a bit of qtz, greenstone, gneiss, sch; located below the till level and many rounded boulders here are foreign. Creek is ~4 ft wide and totally coated w/Fe-ox.	Pallasgreen	52491	95146	2562	Barker	<5	0.8	16	27	23
LS1936	soil	sampled at 5 ft; qtz shards in sample	Little Squaw east ext'n	49732	93249	3385	Barker	<5	0.2	22	5	20
LS1937	soil	sampled at 5 ft; qtz cobbles in area	Little Squaw east ext'n	49734	93196		Barker	<5	0.4	4	7	26
LS1938	sediment	Gold Creek; mostly sch, 5-10% qtz	Pioneer/Grubstake West	49124	94093	3195	Barker	18	0.5	66	4	26
LS1939	sediment	Gold Creek; sch w/minor greenstone, less than 5% qtz	Pioneer/Grubstake West	49053	94430	2950	Barker	<5	0.6	78	4	28
LS1940	rock	random chips, 2.5 to 3 ft qtz vein w/Aspy wisps, blebs, bands; vein strikes 098° w/73° S dip; highly fractured Fe-stained white qtz	Grubstake West	49339	94074		Barker	98	0.6	3712	4	27
LS1941	rock	continuous chips taken as handfuls of finer debris across vein; included a little clay and finer material; abundant qtz stringers in the footwall w/ chl-musc sch	Grubstake West	no GPS signal			Barker	43	1.2	4331	9	54
LS1942	soil	from chute w/ one or several buried veins; similar to LS1940	Grubstake West	49303	94155		Barker	52	1.4	922	9	96
LS1943	rock	random chips of banded zone within 2 ft vein; striking ~100° exposed in old caved workings. Vein includes a well-banded zone 4-8 in. thick w/ a seam of massive Aspy up to 1 inch thick; slicks on band surfaces	Grubstake West	49284	94186		Barker	1339 <sup>M</sup>	0.4	>10000	15	7



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Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	East	North	Elev						
LS1944	soil	from the lowest drainage area of the Pioneer location; not frozen	Pioneer Shear Zone/Grubstake West	49201	94599	3058	Barker	<5	0.8	52	7	32
LS1945	sediment	immediately below Little Squaw Shear crossing Gold Creek	Little Squaw west ext.	49099	93820	3321	Barker	<5	0.4	72	5	31
LS1946	soil	area of Fe-stained carb-silica fine-grained rock w/some qtz veining as <1 cm vns; sample 1-3 ft, hit permafrost	Pioneer	50974	93610		Barker	<5	0.3	<2	8	7
LS1947	soil	located 35 ft SWS of LS1584; sample 1-4.5 ft (on frost); limonitic silty clayey w/chips of carbonate, qtz, and sch	Pioneer	51547	93471		Barker	<5	0.7	89	13	12
LS1948	soil	located 50 ft SW of LS1586; taken among talus of greenstone and sch; not much color in soil; 1-4 ft	Pioneer	51625	93423	3968	Barker	<5	0.4	74	8	15
LS1949	soil	along strike from LS1948; 1-4 ft on frost; clay soil w/sch; some qtz shards on surface here	Pioneer	51715	93375		Barker	<5	0.4	143	5	27
LS1950	rock	random chips of qtz vein w/seams and thin bands of chl-graphitic-Aspy	Pioneer	51560	93481		Barker	42513 <sup>6</sup>	142.6	4281	246	9248
LS1951	soil	reddish-clayey w/qtz & gray sch, sample to 5 ft	Pioneer	51368	93575		Barker	<5	0.3	30	13	9
LS1952	soil	very little qtz, sample to 5 ft	Pioneer	51363	93565		Barker	<5	0.5	359	9	26
LS1953	soil	no qtz seen; red colored, Fe-stained sch, sample to 5 ft	Pioneer	51360	93555		Barker	12	0.5	498	12	18
LS1954	rock	random chip sample; altered meta-feldspatic rock(?), similar to Pallasgreen and LS1856 sites; qtz, sericite, traces of scorodite	Pioneer	51343	93570		Barker	<5	2.8	88	14	98
LS1955	soil	qtz and sch chips in a grayish-green clayey soil; hit bedrock at 4 ft; a run of qtz cobbles coming downhill here, wisps & thin seams of Aspy	Uranus	50422	92355	4603	Barker	<5	0.4	128	6	30

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Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	East	North	Elev						
LS1956	rock	grab sample of small float boulder of meta-sandstone--all silica w/disseminated & abundant py-pyrrhotite, some patches of scorodite. Qtz veins cut the rock, only 2 pcs of this found in float. Weathers distinctly rusty.	Uranus	50406	92443	4509	Barker	34	0.2	36	5	37
LS1957	rock	continuous chip across south-half of crushed Fe-qtz vein, 15-20 ft-wide, dipping N. Qtz is highly fractured, no As minerals seen.	Uranus	50530	92415	4543	Barker	18	0.8	2104	4	6
LS1958	rock	1-ft channel sample across contact of enveloped sch mass in N half of the vein described above; contact is a narrow and irregular gouge zone of greenish-blue clay w/crushed qtz. Relationships unclear, suspect small offset fault? or several closely spaced veins w/ thin zones of sch and contact zones between them.	Uranus	50530	92415	4543	Barker	1892 <sup>M</sup>	0.7	>10000	31	26
LS1959	soil	sample 2-4.5 ft	Uranus	50455	92384	4611	Barker	<5	0.3	130	9	23
LS1960	soil	sample 2-3 ft, frozen at 2 ft; chl sch & a few chips of qtz; about 20 ft above vein of LS1668.	Uranus	50493	92430		Barker	78	0.4	459	8	19
LS1961	soil	about 40-50 ft below vein sampled as LS1668; qtz chips in the area, may be another vein here. Hit frost at 4 ft. Sampled 1.5-4 ft. Red color starts at 3.25 ft.	Uranus	50512	92461	4544	Barker	82	0.6	697	9	39
LS1962	soil	sch, Fe stn; sampled 2-4 ft, frost at 4 ft	Uranus	50525	92483		Barker	<5	0.4	30	10	42
LS1963	sediment	metamorphic qtz w/ mostly muscovite- & chlorite-sch, plus a few pieces greenstone	LM 1999	52012	94896	2874	Barker	124	0.3	85	8	17
LS1964	sediment	gully more deeply incised than LS1963; found a chip of vein qtz	LM 1999	51952	94937	2844	Barker	58	0.3	38	6	16

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Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	East	North	Elev						
LS1965	pan conc	dug 2 ft deep in silty gravel; some vein qtz shards, nothing recognizable as till, all looks to be local in origin; old placer shafts on left limit, just downstream of here; 1 flour Au in pan	Pioneer Gulch	50806	94600	2847	Barker	n/a	n/a	n/a	n/a	n/a
LS1966	soil	composite of 3 holes in the immediate area; sampled 1-4.5 ft; shards of gray chl-muscovite-graphitic sch	Little Squaw east ext'n	49741	93113	3375	Barker	34	0.4	141	4	29
LS1967	soil	sampled 1-4.5 ft, composite of 2 holes; rusty qtz at 3.5 ft	Little Squaw east ext'n	49667	93073	3445	Barker	<5	0.2	38	6	32
LS1968	soil	vein qtz shards, some w/traces of As; old Cat trail lying ~60 ft S of 100 Level vein	Summit - West Ext'n	49147	91815		Barker	204	0.7	1193	7	36
LS1969	soil	15 ft N of Noranda's end monument, Fe-stained sch & very small grains of qtz; sampled 1-3.5 ft; hit frost	Summit - West Ext'n	49055	91845		Barker	<5	0.5	11	8	34
LS1970	sediment	below break in slope & narrow point in the valley w/ constricted stream flow, a few pieces of vein qtz w/ Fe-staining	Summit - West Ext'n	48378	92148	3998	Barker	152	0.7	233	8	38
LS1971	soil	a few vein qtz chips, no mineralization seen; 1-5 ft	Summit - West Ext'n	48779	92036	4538	Barker	68	0.6	291	6	43
LS1972	soil	chl gray sch, some qtz stringers in the sch; about 100 ft N from LS1971; 1-4.5 ft	Summit - West Ext'n	48793	92061	4547	Barker	118	0.4	194	5	33
LS1973	soil	a little more vein qtz in this sample; 1-5 ft; a lot of coarser rock in sample	Summit - West Ext'n	48765	92014	4542	Barker	244	0.5	598	4	33
LS1974	rock	random chips of dump at old cribbed shaft; float traced NE at 070° to LS1975; shaft inclined to about 145°; vein not exposed but likely <2 ft thick. Sampled chips range from white Fe-stained fractured qtz to scorodite-Aspy qtz breccia	Rachet Ridge-Summit area	49522	91810	4556	Barker	222 <sup>M</sup>	0.3	>10000	10	11
LS1975	rock	random chip representative of Aspy - As-ox vein material, all float here, mostly breccia	Rachet Ridge-Summit area	49538	91819		Barker	2876	0.8	>10000	26	17

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Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	East	North	Elev						
LS1976	soil	sample at 2-4.5 ft, frozen at 4 ft; considerable Fe-stained vein qtz in the sample	Eneveloe	4873	92530	4754	Barker	176	0.3	1390	10	24
LS1977	soil	sample at 1-3.5 ft, on frost; mostly chl-muscovite sch w/ some qtz, no staining. It appears that the vein lies 15 ft N of this spot.	Eneveloe	48619	92565		Barker	390	0.7	771	9	45
LS1978	rock	random chips of qtz, clay sericite qtz, ± country rock breccia	Eneveloe	48622	92568		Barker	760	0.4	1065	5	42
LS1979	soil	sample from 1-4 ft; chl-musc sch	Eneveloe	48610	92551		Barker	86	0.5	533	8	29
LS1980	soil	sample from 1-3 ft; chl-musc gray sch	Eneveloe	48603	92541		Barker	56	0.6	130	7	55
LS1981	soil	vein qtz on hillslope in vicinity & pieces in sample; sample from 1-4 ft, frozen at bottom	Eneveloe	48742	92533		Barker	<5	0.5	165	9	35
LS1982	sediment	sample w/tube from 0.5 - 4.5 ft, hit frost; a few pieces of qtz in creek	S Fork, Pioneer Gulch	50835	94405	2947	Barker	<5	0.3	60	4	20
LS1983	soil	sample 2-3.5 ft, frozen hard	Prospector East area	50238	94589		Barker	<5	0.4	14	5	22
LS1984	soil	frost at 4 ft; shingled sch down to ~2.75 ft, fine-grained sed below that. Very wet.	Prospector East area	50222	94633		Barker	<5	0.3	8	4	23
LS1985	soil	shingled sch to 2 ft, browner colored fine-grained sed/soil below; some rusty zones in soil	Prospector East area	50234	94683		Barker	14	0.3	24	4	25
LS1986	soil	composite of 4 holes; 1-3.5 ft deep, gray sch	Grubstake West	4999	94071	3851	Barker	10	0.3	311	5	20
LS1987	soil	sample 1-4 ft, gray sch	Grubstake West	49504	94042	3857	Barker	36	0.3	136	5	21
LS1988	soil	random chips of qtz vein float; also greenstone in float; frozen at 3.5 ft, sampled 1-4 ft w/ Fe-ox at bottom of hole, near trace of Drumlummon Shear	Drumlummon	51346	94108	3655	Barker	24	0.4	40	9	18
LS1989	rock	retained specimen; feldspar-amph-chl, fine-grained granitic w/some chl replacement of the amphibole & chl replacement of the feldspar; occurs as large, blocky, angular boulders	Drumlummon	51684	94157	3814	Barker	n/a	n/a	n/a	n/a	n/a

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			Prospect	East	North	Elev						
LS1990	soil	numerous float chips of Fe-stn fractured qtz; on or near Drumlummon Vein; fractured black graphitic sch bdrk at 3 ft; sampled 1-3 ft	Drumlummon	52155	93746	3884	Barker	24	0.6	15	6	32
LS1991	soil	from frost boil that had numerous pieces of Fe-stained qtz & Fe-stained gossan float; drove to 3.5 ft (sampled 1-3.5 ft); this sample is ~50 ft S of the vein projection of LS1990.	Drumlummon	52205	93728	3874	Barker	<5	0.7	45	5	39
LS1992	rock	random chips of float at LS 1991	Drumlummon	52205	93728	3874	Barker	823	0.3	165	8	18
LS1993	rock	random chips of Fe-stn qtz breccia in frost boil area	Drumlummon	52259	93691	3834	Barker	1157	0.4	60	21	14
LS1994	rock	random chips of float cobbles of qtz breccia and vein qtz 100 ft south of old pit; host rock is meta-feldspatic unit; a couple pieces showed minor traces of Fe- & As-sulfide	Drumlummon	52384	93835	3770	Barker	28 <sup>M</sup>	0.3	320	9	9
LS1995	soil	graphitic sch w/vein qtz chips & shards; sample 1-4.5 ft	Drumlummon	52207	93706	3877	Barker	160	0.6	16	5	25
LS1996	soil	same description as LS1995. Sampled 1-3.5 ft, graphitic sch bdrk at 3.25 ft	Drumlummon	52212	93689	3871	Barker	52	0.5	10	5	23
LS1997	rock	random chip; boulders of rusty, fractured qtz in a swale of a NE linear	Drumlummon	52034	93862	3910	Barker	790	0.1	30	2	7
LS1998	soil	on the Drumlummon Shear, pieces Fe-stained qtz, highly fractured; sampled 1-3.5 ft	Drumlummon	51867	93903	4024	Barker	30	0.6	48	10	13
LS1999	rock	random chip of As-ox, Aspy disseminated and thin seams, in white qtz, trace galena, py; vein not exposed, likely 1-2 ft thick	Summit area	49500	91943		Barker	230	2.2	1333	5	179
LS2000	rock	random chip; similar to LS1999, exposure limited to Cat scraping	Summit area	49789	91770		Barker	102169 <sup>G</sup>	2.1	>10000	18	23
LS2001	rock	random grab of vein material from dump area at 200 Level vein; highly fractured white qtz w/some massive Aspy and trace to minor galena	Summit area	49313	91791		Barker	85233 <sup>G</sup>	46.5	>10000	100	3595



**APPENDIX B-3: 2005 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska**

Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	East	North	Elev						
LS2002	rock	random chips representative of Summit vein from dump at 100 Level; Fe-stained, highly fractured to breccia qtz	Summit area	49218	91816		Barker	3259 <sup>M</sup>	1.7	3030	7	161
LS2003	rock	channel samples LS2003-LS2005 are a series; not sure if we reached the hanging wall contact w/LS2003, this sample is 7 in. gouge w/ graphitic clay and As-ox	Chandalar Lode	48210	92744		Barker	680 <sup>M</sup>	0.6	1835	3	15
LS2004	rock	channel samples LS2003-LS2005 are a series, LS2004 is 24 in. granulated white qtz	Chandalar Lode	48210	92744		Barker	6583 <sup>G</sup>	2.2	426	2	14
Duplicate								6787 <sup>M</sup>				
LS2005	rock	channel samples LS2003-LS2005 are a series; LS2005 is 24 in. of shattered, argillic white qtz w/ thin scorodite seams	Chandalar Lode	48210	92744		Barker	189	0.2	1172	1	17
LS2006	rock	grab chips of 100-Level dump; scorodite crushed qtz w/semi-massive Aspy; clay, sericite in groundmass	Mikado	46726	91321		Barker	29554 <sup>G</sup>	6	>10000	62	64
Duplicate								22208 <sup>M</sup>				
LS2007	rock	continuous chip of S half of Fe-stained qtz vein, including thin single seam of clay, Aspy, As-ox; sample adjoins LS1957	Uranus	50530	92415		Barker	12411 <sup>G</sup>	3.2	>10000	8	14
LS2008	soil	sample at 1-4.5 ft, frost at 4.25, rusty qtz & black clay at 4.0 ft	Uranus	50501	92446		Barker	300	0.9	825	8	46
LS2009	soil	sample at 1-5.0 ft, micaceous sch & qtz shards	Uranus	50592	92446		Barker	365	0.6	1307	10	33
LS2010	rock	random chip from dump of old pit exposing 12 in. qtz vein w/ Aspy	Uranus	50537	92379		Barker	247	0.1	>10000	8	8
LS2011	soil	sample to 4.25 ft, brown soil w/ muscovite-chl sch & qtz; located 20 ft from old trench	McLellan	51065	92502		Barker	66	0.3	272	7	35
LS2012	soil	sample to 3 ft in heavy talus	McLellan	51094	92505		Barker	260	0.2	579	8	30
LS2013	soil	sample to 5.0 ft in sericite clay gouge shear	Crystal	50820	93050		Barker	<5	0.3	7	7	4
LS2014	soil	sample to 3.5, cut cobble of rusty qtz, located 20 ft from LS1666	Crystal	50763	93029		Barker	76	1.5	129	9	98

**APPENDIX B-3: 2005 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska**

Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	East	North	Elev						
LS2015	rock	random chips of 10 in. ribbon-banded zone of 3+ ft qtz vein, see LS1667 from same area	Crystal	50688	93036		Barker	762 <sup>M</sup>	0.2	1577	2	4
LS2016	rock	random chips specifically of a 0.25 ft seam of coarser grain qtz w/ open space vugs & secondary qtz xtals within the banded zone; located near LS1437	Crystal	see comment in description			Barker	311 <sup>M</sup>	0.2	563	<1	12
LS2017	soil	sample to 5 ft, black sch w/ minor Fe-staining at 3.5 ft	Pioneer	51151	93760		Barker	<5	0.5	315	8	40
LS2018	soil	sample to 4.5 ft in mica sch w/ abundant vein qtz	Pallasgreen	52516	94258		Barker	732	1.1	5521	10	33
LS2019	soil	sample to 4.75 ft, bottomed in rusty vein qtz & blk sch	Pallasgreen	52503	94258		Barker	40	2.2	>10000	14	70
LS2020	soil	sample to 3.5 ft in black graphitic gouge, sch, & vein qtz; side zone to main vein	Pallasgreen	52590	94238		Barker	1912	1.1	524	13	17
LS2021	rock	random chips of sidehill scree of qtz breccia at location of LS2020	Pallasgreen	52590	94238		Barker	1113 <sup>M</sup>				
LS2022	rock	random chips of qtz vein w/disseminations & seams of Aspy, minor galena, trace py, exposed in old pit; vein width exceeds 5 ft, no contacts seen	Pallasgreen	52617	94229		Barker	11348 <sup>G</sup>	46.6	9408	9	156
LS2023	soil	sample to 3 ft in frozen sandy silt	Pallasgreen	52672	94227		Barker	<5	0.4	15	10	22
LS2024	rock	random chips of qtz vein float, some w/ Aspy	Pallasgreen	52661	94362		Barker	150	0.3	364	1	28
LS2025	soil	sample to 3.5 ft in clayey graphitic sch w/ a few qtz shards	Pallasgreen	52661	94362		Barker	192	1.1	958	7	115
LS2026	sediment	from Nugget Creek near head of intense Fe-stained zone	Pallasgreen	52408	94600		Barker	<5	0.5	50	21	23
LS2027	sediment	from Nugget Creek immediately below where intense Fe-staining begins	Pallasgreen	52412	94720		Barker	<5	0.5	43	22	23
LS2028	sediment	Little Squaw Creek below Rock Glacier near LS1463	Rock Glacier	49773	92764		Barker	170	0.7	852	7	40
LS2029	rock	random chip from numerous pieces of vein quartz across Rock Glacier prospect; general area sample	Rock Glacier	see comment in description			Barker	503	0.3	>10000	10	12

**APPENDIX B-3: 2005 Sample Report for Little Squaw Gold Mining Co., Chandalar District, Alaska**

Sample Number	Sample Type	Description	Location				Sampler	Au (ppb) FAA	Ag (ppm) ICP	As (ppm) ICP	Bi (ppm) ICP	Pb (ppm) ICP
			Prospect	East	North	Elev						
LS2030	rock	vertical 24 in. <u>channel sample</u> of banded clayey gouge, graphite, limonite, qtz vein shards	Rock Glacier	49572	92453		Barker	874	0.3	>10000	10	39
LS2031	sediment	from Little Squaw Creek immediately at base of snoot where creek emanates	Rock Glacier	49743	92726		Barker	286	0.7	1809	10	38
LS2032	rock	<u>random chip</u> from numerous boulders of vein qtz & qtz breccia forming footwall section to massive white qtz vein (not included in sample)	St Mary's Creek	48122	90354		Barker	31	2.2	189	8	17
LS2033	rock	<u>channel sample</u> across 3.5 ft of gouge, crushed qtz, sheared black sch, and clayey zones in the Mikado Shear	St Mary's Creek	48261	90271		Barker	29 <sup>M</sup>				
LS2034	rock	<u>random chips</u> of qtz breccia in hanging wall section of shear zone	St Mary's Creek	48232	90305		Barker	33	0.1	31	3	5
LS2035	sediment	from St Mary's Creek just above the extent of mechanical mining	St Mary's Creek	48162	90337		Barker	<5	0.8	40	6	19
LS2036	rock	<u>random chips</u> of scorodite-stained qtz breccia w/ clay, sericite, Aspy from buried vein	Mikado	47440	90793		Barker	3391 <sup>M</sup>	1.3	>10000	33	12
LS2037	rock	<u>random chips</u> of Fe-ox staining to light yellow breccia from old trench	Mikado	47426	90867		Barker	56	0.6	1355	5	30
LS2038	soil	sample from 1-5 ft in gray sch talus	Chandalar	48154	92757	3979	Barker	<5	0.4	49	7	23
LS2039	soil	sample from 1-5 ft in gray sch talus, highly fractured Fe-stained qtz at 4.5 ft	Chandalar	48221	92744	3968	Barker	660	0.7	717	8	34
LS2040	soil	sample at 2.5 - 5 ft, a few qtz shards	Chandalar	48244	92736	3974	Barker	<5	0.3	66	6	34
LS2041	soil	sample at 2.5 - 4 ft, all sch	Chandalar	48264	92738		Barker	56	0.5	52	7	51
LS2042	rock	<u>random chips</u> from Touissant Mill dump	Indicate	50005	90575	3749	Barker	22902 <sup>G</sup>	7.9	3814	10	321
LS2043	rock	<u>random chips</u> from trench on 10-ft-wide Fe-stained fractured qtz vein	Indicate	49915	90440		Barker	191	0.5	1838	2	19

## APPENDIX C: Proposed Drill Target Summary, as of September, 2005<sup>1</sup>

Map No.	Prospect Name	Status R-ready PM-pending final site mapping	Hole Location <sup>2</sup>	Hole No.	Rec'd Inclination (from horizontal)	Rec'd Depth <sup>3</sup> (feet)	Drill Hole Objectives
	Little Squaw Mine	R	4 49497 E 74 93424 N	LS 05-1	-45° N	300	Reconfirm 1981 d.d.h. LS #3 that reported 70 ft of 0.18 oz Au/ton (inc 10 ft that assayed 0.6 oz Au/ton); hole to also test for parallel vein to north as reported to the west in 1981 d.d.h. LS 45N. Drill hole to be from the access road to the site of 1981 LS #3.
		R	49550 E 93400 N	LS 05-2	-45° N	300	Drill test for east extension of targets described above, hole is to be collared on road south of the 200 Level portal.
		R	49460 E 93380 N	LS 05-3	-45° N	400	Reconfirm numerous lower grade (0.4-0.10 oz Au/ton) intercepts found in 1981 d.d.h.s LS 45N and upper intercepts of LS 45S. Hole is also projected to test deeper intercept from d.d.h.-LS45N that reported 0.46 oz Au/ton. Drill station to be southwest of 100 Level portal.
		R	49345 E 93380 N	LS 05-4	-45° N	400	Drill test for west extension of target zones described above and the main ore shoot followed on the 100 Level. Drill site to be located west of offset on the Little Squaw veins due to northwest fault zone.
		R	49580 E	LS 05-5	-45° N	325	Test north possible offset of veins below the 200 Level; drill site from old cat trench.
		R	49700 E 93450N	LS 05-6	-45° N	350	Test vein in vicinity of caved adit near soil sample LS 1926. Drill site to be on mine road.
		R	49735 E 93285 N	LS 05-7	-45° N	350	Test possible shear zone and parallel quartz veins as suggested by hillside float and soil sample LS 2027. Sample 1895 contained significant visible gold.

Map No.	Prospect Name	Status R-ready PM- pending final site mapping	Hole Location <sup>2</sup>	Hole No.	Rec'd Inclination (from horizontal)	Rec'd Depth <sup>3</sup> (feet)	Drill Hole Objectives
	Eneveloe Mine	R	48635 E 92600 N	E 05-8	-45° S20W	300	Test reported (1982) ore shoot between the 100 and 200 Levels. Ore shoot reportedly contains 0.5-10.0 oz Au/ton but is now mostly inaccessible. At least two veins are believed to be present. Drilling in 1982 with small diameter drill failed to return core sample. Hole will be attempted from cat trail on hill slope north of vein with access from dozer trenching in saddle area.
		R	48610 E 92650 N	E 05-9	-45° S	300	Reconfirm 1982 drill intercepts from d.d.h.'s E-4 & 5 that reported vein intercepts with 0.5 and 0.38 oz Au/ton (core recovery was very poor). Proposed hole to use former drill site near the 100 Level adit.
9	Chandalar	PM	48198 E 92750 N	C 05-10	-80° S20W	150	A parallel vein to the Eneveloe veins, old assays report up to 50 oz Au/ton, may be an extension of the Bonanza Vein. Drill hole to undercut surface exposure. Consider 2 <sup>nd</sup> hole to southeast as warranted. Examination in 2005 indicates the exposure is displaced from the SE.



<b>Map No.</b>	<b>Prospect Name</b>	<b>Status</b> R-ready PM-pending final site mapping	<b>Hole Location<sup>2</sup></b>	<b>Hole No.</b>	<b>Rec'd Inclination</b> (from horizontal)	<b>Rec'd Depth<sup>3</sup></b> (feet)	<b>Drill Hole Objectives</b>
	Summit Mine	R	49190 E 91865 N	S 05-11	-45° S10W	300	Test reported 100 Level ore shoot extending from portal to 105 ft inside. Assays from this shoot were as high as 90.9 oz Au/ton. Attempt to also intersect parallel vein followed on the 200 Level. Drill site to be accessed from existing mine road and cat trail.
		R	49330 E 91835 N	S 05-12	-45° S10W	300	Reconfirm 1982 drill intercepts in d.d.h.'s 82-6 & -7 on the 200 Level. Core recovery was poor but reported 15 ft. of 0.1 oz and 10 ft. of 0.14 oz Au/ton in 82-6 and 5 ft. of 1.0- and 2 ft. of 0.34- oz Au/ton in 82-7. Same drill station to be used in 2005.
		R	49080 E 91875 N	S 05-13	-45° S10W	300	Test west extension of 100 Level veins where assay of 0.51 oz Au/ton was reported in 2004. Area is within 1975 Noranda soil gold-arsenic anomaly. Drill site is accessed by existing dozer trail.
		R	48990E 91915N	S 05-14	-45° S10W	300	Test veins indicated by sampling 70m to the E at proposed hole S 05-13. Drill site located at west end of saddle accessible by cat trail.

Map No.	Prospect Name	Status R-ready PM- pending final site mapping	Hole Location <sup>2</sup>	Hole No.	Rec'd Inclination (from horizontal)	Rec'd Depth <sup>3</sup> (feet)	Drill Hole Objectives
	Mikado Mine	R	46800 E 91345 N	M 05-15	-45° S30W	350	Test north shear zone and altered wall rock values at depth. The north shear zone was identified shortly before the mine flooded and iced up, thus it was not evaluated. Several assays reported up to 1.26 oz Au/ton. Sampling in 2004 of the alteration surrounding the Mikado Mine assayed up to 0.1 oz Au/ton. Drill site will have to be cut on slope northwest of the mine pit.
		R	ditto	M 05-16	-70° S10W	300	Same proposed site as Hole M05-15 above, but this hole will be inclined steeper to cut the Mikado system at greater depth. Core drilling was attempted in 1981 near this location, however, the effort was a failure and no core was returned.
		R	46960 E 91330 N	M 05-17	-45° S30W	400	Test east extension of the north shear and main Mikado shear zones; hole to undercut Trench 1E where several veins are exposed (old assays of 0.14-0.36 oz Au/ton). Drill site to be accessed from existing dozer trail.
		R	47050 E 91290 N	M 05-18	-45° S30W	400	Hole to intercept high grade gold veins exposed in trench 2E; there are at least four veins with assays up to 15.50 oz Au/ton. Hole is in vicinity of projected intersection with the Big Tobin shear zone from the northeast. A drill road will have to be cut about 400 ft from existing dozer trail.
1	Crystal	PM	50675 E 92950 N	CS 05-19	-45° N	400	Hole is to intercept vein exposed by old prospect pit that assays up to 43.2 oz Au/ton in a banded footwall zone of the vein. The hole will also cut three or more parallel veins that contain at least low levels of gold in surface samples. A drill road is proposed to extend 1.5 mile north along ridge from the divide between Little Squaw and Big Creeks.
		PM	50800 E 92975 N	CS 05-20	-45° N10E	250	Test east extension of veins described above at an accessible station 350 ft. east.

Map No.	Prospect Name	Status R-ready PM-pending final site mapping	Hole Location <sup>2</sup>	Hole No.	Rec'd Inclination (from horizontal)	Rec'd Depth <sup>3</sup> (feet)	Drill Hole Objectives
3	Pioneer	PM	51175 E 93540 N	P 05-21	-45° N	300	Hole is to intersect shear zone hosted mineralization partially exposed 175 ft. to the east in dozer trench in ridge top saddle. Previous assays are reported to have contained up to 10.3 oz Au/ton. Access for drilling will be by extending the proposed dozer trail north from the Crystal prospect.
		PM	51225 E 93530 N	P 05-22	-45° N10E	300	Hole will test the same target as above 150 ft to the east and undercut the existing trench.
	Mikado West (optional)	PM	45590 E 91860 N	MW 05-23	-70° S30W	100	One or several shallow holes are proposed to test the valley bottom area of the intersection of the Mikado shear zone with a northeast linear. The area lies just upstream of the Tobin bench placer deposit, which has produced 21,000 oz of gold.
25	Rock Glacier	R	49360E 92510N	RG 05-24	-45° S10W	300	The following four holes are to compose a fence of south oriented holes to test the multiple of north dipping veins underlying the west lobe of the rock glacier feature and as depicted by soil lines #10 and #14. Drill sites will be from the existing road.
		R	49360E 92435N	RG 05-25	-45° S10W	300	do.
		R	49360E 92370N	RG 05-26	-45° S10W	300	do.
		R	49360E 92315N	RG 05-27	-45° S10W	300	do.
27	Uranus	PM	50485 92380	U 05-28	-45° S10W	325	Pending final assay data. Hole to test apparent three parallel veins cutting saddle. Mineralization found in 2004 and confirmed by soil data in 2005.
Total Recommended Drill Footage						9600	

<b>Map No.</b>	<b>Prospect Name</b>	<b>Status</b> R-ready PM-pending final site mapping	<b>Hole Location<sup>2</sup></b>	<b>Hole No.</b>	<b>Rec'd Inclination</b> (from horizontal)	<b>Rec'd Depth<sup>3</sup></b> (feet)	<b>Drill Hole Objectives</b>
Contingency Footage (20% of above total)						1900	Contingency footage to allow additional hole depth or extra holes, as warranted, while drill operation is mobilized on site.
<b>TOTAL DRILL PROGRAM</b>		<b>Drill test</b> 11 <b>Prospects</b>	<b>Drill 31 proposed holes</b>			<b>Total footage planned 11,500 feet</b>	

<sup>1</sup> Additional prospects are expected to be developed into 2006 drill targets during June-July 2006 exploration Phase 1 investigations.

<sup>2</sup> Locations are approximate, scaled from field maps; therefore, all drill sites should be surveyed from known features prior to drilling.

<sup>3</sup> Recommended depth needs to be field adjusted according to site elevation, as topographic control is presently limited to USGS 1:63,360

# APPENDIX D: Proposed 2006 Field Operations Budget

## APPENDIX D-1: Chandalar Geological, Geochemical, and Geophysical Program - 2006

Rev. December 3, 2006

### ASSUMPTIONS

- The following budget provides for incidental overnights in Fairbanks; it does not include rental of a furnished apartment or office.
- The soil sampling program will not be attempted until July 15, when sufficient ground thaw has occurred, however, it will continue until freezing weather.
- Samplers/labor personnel will also assist in camp construction and de-mobe, airstrip improvements, and other duties as needed.
- The company's Mello Bench camp will be upgraded and utilized by various short term geological contract services as needed.
- No provision is included for LSGMC management & Board member travel or other corporate visitation expenses.
- All cost totals are rounded to the nearest \$1,000.
- ATV's and assorted smaller equipment will be 100% expensed during the 2006 program, no residual value is included in budget.
- All personnel will be provided one 10-day break to Fairbanks with the travel expense paid providing they stay till project completion.

CATEGORY	ITEM COST	UNITS	TOTAL COST
Recruitment, contacts, etc	concurrent w/ Drilling Program	15 days	\$9,000
Travel, airfare, lodging in Fairbanks	unknown		10,000
Geological program & project manager	contract @ \$550/day	100 days	55,000
Geologist-senior level	\$400/day plus 25% overhead benefits	75 days	38,000
Geologists-junior level	\$325/day plus 25% overhead benefits	2 each, 70 days	57,000
Samplers/labor	\$200/day plus 25% overhead costs	2 each, 100 days	50,000
Structural mapping specific to vein control	contract, \$25,000. incl. report	40 days (field time)	25,000
Surface geophysical	contract \$25,000; 2 person team	28 days	25,000



orientation tests		(field time)	
Vein analysis and petrography	contract \$8000	8 days (field time)	8,000
aerial topo mapping & orthophoto set	contract	2 days (field time)	45,000
Camp & catering	\$154/day/person	513 days	79,000
Expediting service	\$55/hr	100 hrs	6,000
Fuel – camp generator	diesel @ \$5.00 gal	620 gal	3,000
Fuel – ATV, misc	regular @ \$4.75 gal	250 gal	1,000
Fuel – helicopter	AvGas @ \$5.00 gal	550 gal	3,000
Assays	std. FA-AA @ \$24.50	2800	44,000
Assays	metallic screen @ \$43.00	400	17,000
Misc analyses, water samples, petrography, etc.			5,000
ATV	300 cc @\$4,500 ea	5	23,000
Helicopter - R-44	Contract @ \$2000/day -dry	10 days	20,000
Misc. equipment inc. GPS, sample storage tent, radios, sample bags, lap top computer and software, office supplies, soil auger, steamer, hand tools, bldg materials			14,000
Claim staking recording fees	160 ac claims MTRSC @ \$120 ea	20 claims	2,000
Air transport-mob/de-mob camp, camp weekly flight	C-123 \$3,500 hr	4 r.t from CFT, 6 hr	21,000
	Caravan @ \$2,500 r.t.	8 r.t.	20,000
Trucking	Fairbanks to Coldfoot @ \$2,500	5 r.t.	13,000
Final Report	merged with drill report & geological studies, contract studies geochemical results etc.		25,000
Basic total			575,000
Contingency	unexpected weather, medical, labor problems	10% of budget	58,000
<b>TOTAL GEOLOGICAL PROGRAM</b>			<b>\$701,000</b>

**APPENDIX D-2: Chandalar Drilling Budget – 2006**

Rev October 12, 2006

Assumptions:

- Reverse circulation drilling only
- Budget is for 45 day program beginning with 1<sup>st</sup> collar on July 10
- Target is for 11,500 ft of drilling
- If proposed drill targets on East Ridge are not accessible the equivalent footage will be re-assigned to other targets inc, Star and Indicate-Tonopah
- All equipment will be track-mounted and air transportable to the Squaw Lake airstrip
- At least a D-4, or equivalent, will be available prior to- and throughout the drill program; dozer will be delivered as soon as airstrip is dry & brushed
- There will be double 10 hour shifts until August 10; a single shift will be continued to complete follow-up or unfinished sites
- Drill crews will be quartered in a Taiga-style catered camp located on the airstrip
- The airstrip will be cleared of brush, dragged, and old equipment removed from the end of the strip prior to drill contract, soil samplers will assist
- Lower Squaw Creek road will be bermed and culverts installed
- Assay interval in wall rock will be 10 ft; it will be =/<5 ft when in alteration or vein intercepts. Assays of strong alteration or quartz veining will be by metallic screen assays; all samples will be also analyzed by multi-element ICP
- ATV's and assorted smaller equipment will be 100% expensed during the 2006 program, no residual value is included in budget
- A drill program manager will direct the program, oversee airstrip and road repairs, environmental concerns, survey drill collars, revise drill targets as appropriate, compile drill results, assure sample integrity, supervise prospect site mapping, and write the drilling final report
- All personnel except drill crews will be provided one 10-day break to Fairbanks with the travel expense paid to Fairbanks providing they stay till project completion
- Clean-up of mercury contamination at Tobin Mill will be undertaken by dozer operator as time permits or in the event of extended drill breakdown
- All costs are rounded to the nearest \$1000

<b>CATEGORY</b>	<b>ITEM COST</b>	<b>UNITS</b>	<b>TOTAL COST</b>
Permitting, recruitment, contracts, etc	concurrent w/ geological program	15 days	\$9,000
Travel, airfare, lodging in Fairbanks	unknown		6,000

Drill cost	\$3150 per 10 hr (on site) shift includes overhead, crew	30 days of double shift	189,000
		5 days of single shift	16,000
	stand by rate @\$210/hr	10 days, includes mob & de-mob	21,000
Drill program manager	contract @ \$550/day	100 days	55,000
Drill geologists	\$325/day plus 25% overhead benefits	2 each, 50 days	41,000
Dozer operator	\$360/day plus 25% overhead benefits	100 days	45,000
Laborer	\$200/day plus 25% overhead benefits	40 days	10,000
Camp & catering	\$154/day/person	450 days	69,000
Fuel	diesel @ \$5.00 gal drill, est 100gal/shift	7,000 gal	35,000
	dozer	2,500 gal	13,000
	regular @ \$4.75 gal	250 gal	1,000
Fuel Trailer	capable of hauling 500 gal	1 unit	3,000
Assays	std. FA-AA @ \$24.50	1400	34,000
Assays	metallic screen @ \$43.00	250	11,000
ATV	300 cc @\$4,500	4	18,000
Cat D-4 (or equiv)	rent @ \$3500/mo	3.5 months	12,000
Misc. equipment inc. sample splitter, GPS, sample prep tent, bi-noc scope, radios, sample bags, buckets, lap top computer and software, office supplies, ATV trailer, 2 culverts			9,000
Repair and start-up of Ford backhoe			2,000
Air transport	C-123 \$3,500 hr	6 r.t from CFT, 15 hr	52,000
	Caravan @ \$2,500 r.t.	8 r.t.	21,000
Trucking	Fairbanks to Coldfoot @ \$2,500	8 r.t.	18,000
Drilling Final Report	with drill logs, assay intervals, sectional graphics, and individual prospect maps		12,000
Basic total			702,000
Contingency	unexpected weather, medical, labor problems	10% of budget	70,000
<b>TOTAL DRILL PROGRAM</b>			<b>\$772,000</b>

**APPENDIX D-3: Chandalar 2006 Heavy Dozer Acquisition (Cat D-8 or D-9 or equivalent)**

Rev. October 2, 2006

- Note all cost estimates are subject to significant variables
- We should keep in mind several ancillary factors pertinent to an expanded heavy equipment program: we have no facility at present where service and cold weather start-up can be performed and none budgeted for, additionally we will need to transport and erect a fueling station at the Little Squaw airstrip
- Transport to Fairbanks is from Seattle dock, source Lyndon Transport
- Transport from Fairbanks to Chandalar includes low-boy tractor-trailer, 1 pilot car, 2 operators, fuel
- Note all cost estimates are subject to significant variables

<b>CATEGORY</b>	<b>ITEM COST</b>	<b>UNITS</b>	<b>TOTAL COST</b>
Dozer purchase, semi-U blade, ripper, enclosed cab, cold weather pkg (low hours)	\$200,000 to \$350,000		\$200,000 to \$350,000
Market search & mech. evaluation	\$10,000		10,000
Transport to Fairbanks			18,000 est
Transport Fairbanks to Chandalar	\$17,000	assumes trail is open to Big Creek, and good weather	15,000 to 100,000
	\$100,000	assumes trail must be opened, poor weather (e.g.,2005)	
extra fuel not in present budget	diesel, @ \$5.00 gal	2,500 gal	13,000
extra operator time not in present budget	\$360/day plus 25% overhead benefits	10 days	5,000
Maintenance, lubes, supplies, de-mob,			2,000
less rental and transport of D-4 as budgeted			(26,000)
<b>TOTAL – DOZER ACQUISITION</b>			

## APPENDIX E:

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### 1QUALIFICATION STATEMENT -- JAMES C. BARKER

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*The undersigned hereby certifies that:*

I am an independent consulting geologist with an office located at the following address:

James C. Barker  
Cathedral Rock Ranch  
35940 Highway 19  
Kimberly, Oregon 97848

tele 541 934-2970  
fax 541 934-2027  
e-mail jcbarker@oregontrail.net

I have prepared the December, 2005 report "Chandalar Mining District: A Report of Findings and Recommendations, 2005", for Little Squaw Gold Mining Company. I am familiar with the property and have conducted these investigations as reported. Sample results reported herein were collected under my supervision.

My qualifications:

- Since 1991 I have been certified by the American Institute of Professional Geologists as a Professional Geologist (AIPG # 8205).
- Since 1991 I have been licensed by the State of Alaska as a Professional Geologist (license # G-262).
- Since 1966 I have been employed in the mining, metallurgical and petroleum industries.
- I hold a B.S. Degree of Mineral Engineering from University of Alaska.
- Between 1975 and 1991, as Supervisor of the Fairbanks Office of the U.S. Bureau of Mines, I conducted studies throughout Alaska and authored numerous reports and publications describing Alaskan mineral deposits. Several of these studies concerned deposits in the eastern Brooks Range in the vicinity of the Chandalar Mining District.
- I am a member of the Society of Economic Geology (membership #51047).
- I am a member of the B.C. and Yukon Chamber of Mines
- Since 1975 I have been a member of the Alaska Miners Association and have served on the Board of Directors and as Statewide Vice-President.

I have had no prior interest in nor have I ever held stock in the Little Squaw Gold Mining Co., or ownership in any of the Chandalar properties. I am not employed by Little Squaw Gold Mining Co. other than on a contractual basis as a geological consultant.



I am not aware of any material fact or material change with respect to the subject matter of this Report that the omission to disclose would make the Report misleading.

I consent to the filing of this Report with any stock exchange or other regulatory authority and the publication or public release by them or as authorized by Little Squaw Gold Mining Co.

Signed \_\_\_\_\_ January 7, 2006

James C. Barker, Consulting Geologist