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Detailed studies of the Meshaheed gold prospect, Kingdom of Saudi Arabia

by

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DETAILED STUDIES OF THE MESHAHEED GOLD PROSPECT, KINGDOM OF SAUDI ARABIA

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ABSTRACT

The Meshaheed prospect, northeastern Arabian Shield, is in the Hadiyah formation metasediments and metabasalt that were folded, faulted, and subsequently intruded by small diorite-granodiorite plutons. Cooling and crystallization of one small granodiorite pluton caused the exsolution of a separate phase that formed a stockwork containing minor molybdenite. Gold, stibnite, and quartz were later deposited in northeast-striking faults. Large volumes of metasediments and some basalts were hydrothermally altered.

Gold is essentially confined to stibnite-quartz veins, or to zones along diorite-metasediment contacts. A large, northeast-striking, hydrothermally-altered shear zone, was found to contain insignificant gold and accessory elements common to gold deposits in this region.

Placer-type ancient workings adjacent to a basalt ridge, small ancient workings in the basalt, and extensive hydrothermal alteration suggest that gold may have been deposited in the rock. However, sampling at these localities failed to detect significant amounts of gold, and it is concluded that ancient miners were inclined to work placer gravels low in gold content, and that the small workings in basalt are probably prospect pits.

INTRODUCTION

This report covers follow-up studies recommended as a result of previous investigations in the Meshaheed area (Smith and Samater, 1984) that included reconnaissance geologic mapping, and detailed mapping and sampling of ancient mines. An area approximately 10 by 18 kilometers northeast of Jabal Qutn was mapped by reconnaissance methods, but a smaller area about 3 by 5 km proved to contain several ancient mining areas and was studied in greater detail. The present study area, known as Meshaheed (MODS 01266) is located at lat 26°09'32" N., long 42°25'26" E. (fig. 1), or about 14 km northeast of Jabal Qutn in an area of low, sharp hills. Field work by the author was completed during a two-week period in March, 1984.

During the previous studies, it was noted that part of the Meshaheed area included numerous diorite cupolas, gold-bearing quartz veins, quartz stockworks containing molybdenite, and locally intensively, hydrothermally altered areas containing gold. A concurrent, regional wadi-sediment sampling survey (Allen and others, 1984), indicated that the Meshaheed area was also anomalous in copper, lead, boron, and tin. Furthermore, ground geophysical studies using audio-magnetotelluric (AMT) and telluric-electric (TE) methods (Flanigan and Zablocki, 1984) had delineated a broad, deep anomaly that coincided a hydrothermally altered area. From these observations, it was concluded that follow-up studies of hydrothermally altered areas were required. It was known that they contain gold, but grades and extent of the mineralization could not be estimated because of the reconnaissance nature of the studies and the existence of only limited outcrops. In addition, more details of the geology of the area were needed in order to better understand the genesis of the gold and molybdenite deposition.

In the present study, geologic mapping and geochemical sampling were done by use of a grid system covering an area of approximately 1 km^2. North-oriented sampling-mapping lines were set at 100 m intervals with rock-chip sample points every 50 m along the lines. Two-hundred and eighty-three rock chip samples were collected, and geology observed along the lines. In addition, detailed mapping was carried out at Quartz Hill No. 1, and several samples were collected in and near small ancient workings in basalt. Also, brief follow-up studies were made of a telluric-electric anomaly located about 1 km east of the study area.

Four backhoe trenches were dug and sampled in an altered area, three were dug in ancient placer areas and checked for alluvial gold, and four were dug and sampled in the Pluton Southeast ancient workings located 2 km west of the study area (Smith and Samater, 1984). Waiss Issa Asumali was responsible for backhoe operations during trenching.

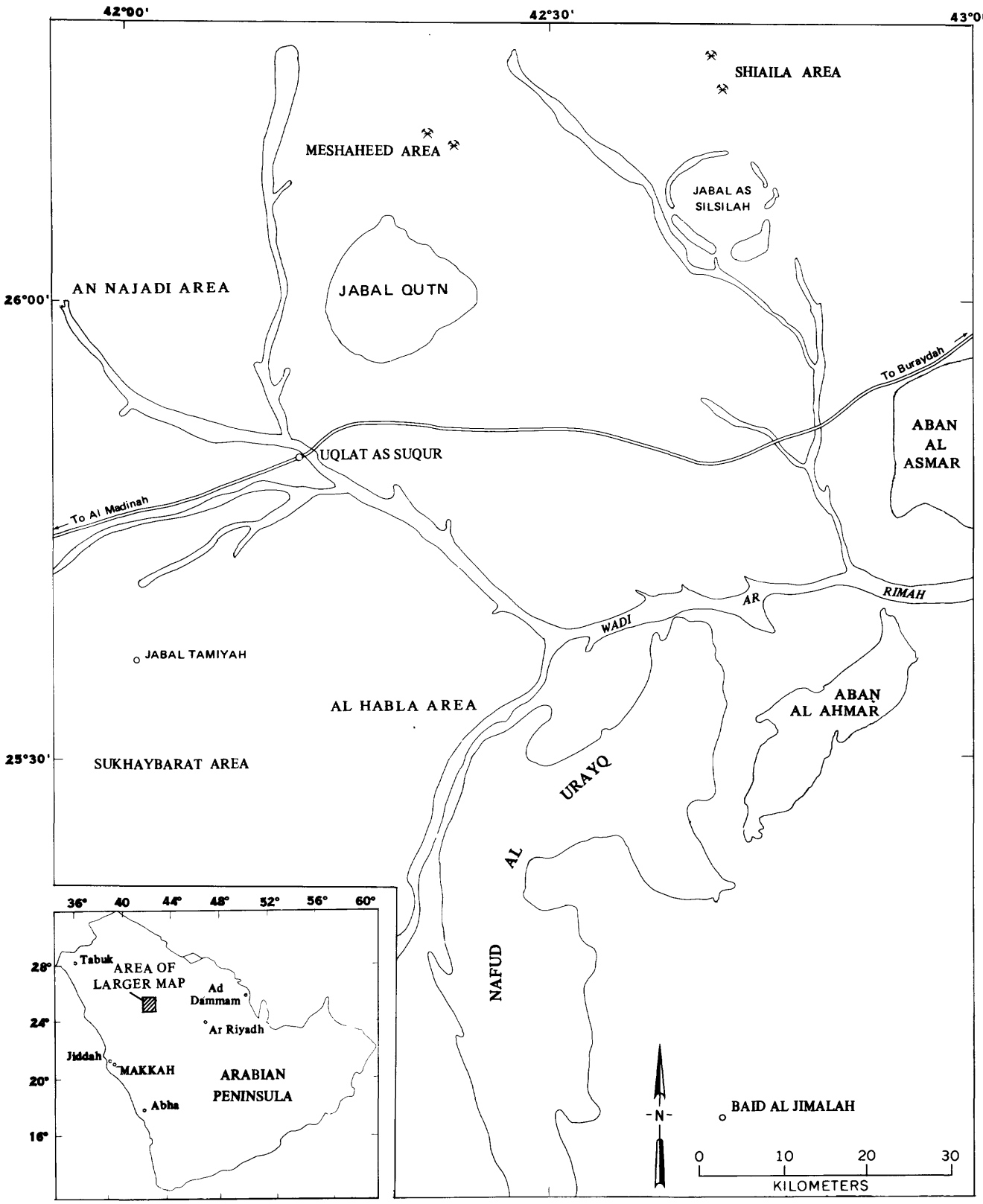

Figure 1.--Index map showing the location of the Meshaheed area

ACKNOWLEDGEMENTS

The author is indebted to W. H. White and R. J. Kamilli, visitors to the area. White made pertinent observations concerning the molybdenite in quartz stockworks at Quartz Hill No. 1, and Kamilli found pillow basalts in the area. Both of these observations helped the author in determining geological relationships. P. L. Williams mapped the geology of the Samirah quadrangle, where the Meshaheed deposits are located, and established the geologic framework for the area.

Samples were assayed in the Jeddah laboratories of the Deputy Ministry for Mineral Resources under the direction of K. J. Curry. Gold and silver were assayed by atomic absorption methods, and twenty-nine other elements were assayed by semi-quantitative spectrographic methods. Thin sections and polished thin sections were made in the USGS laboratories, Jeddah, under the direction of Carl Thornber. All assistance is gratefully acknowledged.

These studies were made in accordance with an agreement between the Ministry of Petroleum and Mineral Resources and the USGS, specifically according to the work plan of the Deputy Ministry for Mineral Resources for 1403/04, sub-project 3.01.35, entitled "Assessment for gold-Meshaheed area".

GEOLOGY

The area studied, 1 km^2, encompasses Quartz Hill No. 1 and a zone south that includes metabasaltic ridges, (fig. 2). For background information concerning a much larger area that includes this study area, the reader is referred to Smith and Samater, 1984.

The geology of this area is complex, and observation is difficult because a large part of the zone is covered by alluvium and talus. Nevertheless, important geological features have been recognized by detailed mapping, such as the interlayering of metabasalt with metasediments, with only a minor part of the basalt being intrusive, contrary to our previous reconnaissance interpretation.

Metasedimentary rocks in the area have been assigned to the Hadiyah formation of the Murdama group (Williams, 1983). The Hadiyah formation rocks within the map area are mainly fine calcareous sandstones with lesser limestone, siltstone, and fine graywacke. These rocks are uniformly dark, brown-gray, calcareous, and contain no marker beds. Near plutonic contacts they are hornfelsic and are dense, fine grained, dark gray to black, and in outcrop are difficult to distinguish from basalt. In some areas near plutonic contacts, the metasediments have been granitized, some outcrops show evidence of progressive granitization ranging from long amphibole needles in sandstone to amphibole-plagioclase crystalline rock. Layering is generally not apparent, and in most of the area the sediments contain finely disseminated pyrite.

Metabasalt, locally a feldspar porphyry, is mostly interlayered with metasediments, is normally dark green to black, and contains 2 to 10 per cent pyrrhotite that is mostly disseminated, but locally occurs as crystallized masses as much as 3 cm in diameter. Younger, black, fine-grained basalt is intrusive as dikes and apophyses. Much of the rock is carbonatized and cut by thin quartz-calcite veinlets. Basalt pillows are well exposed locally on Basalt Hill (fig. 2), and other, more doubtful pillow structures were noted in the area.

Both metasediments and metabasalt are intruded by small diorite plutons. The diorite is medium-grained, consisting of plagioclase, hornblende, biotite, minor quartz, and in places is hydrothermally altered, mainly to kaolin. There are probably several rock types of differing ages ranging from granodiorite to melanocratic diorite in small, geologically complex areas south and east of Quartz Hill No. 1 (fig. 2), but outcrops are limited and areas were mapped according to the dominant rock type. All of the dioritic intrusions at Meshaheed are probably coeval with a great number of similar diorite-granodiorite plutons in the northeastern Arabian Shield (Cole and Hedge, 1985) that are radiometrically dated at 620 Ma to 615 Ma. They are thought to be genetically related to gold deposits in the region (Cole, *in press*; Smith and others, 1984; Smith and Samater; 1984).

Small plutons and dikes of granodiorite range from homogranular to porphyritic. They intrude diorite and older rocks in the central part of the map area (fig. 2), and are light brown to tan in outcrop. In places the rock is slightly sericitized and bears disseminated pyrite. A large diorite dike, intruded into mostly metasedimentary rocks, crosses the map area. A few aplite dikes that represent the last igneous phase in the area are not shown on figure 2.

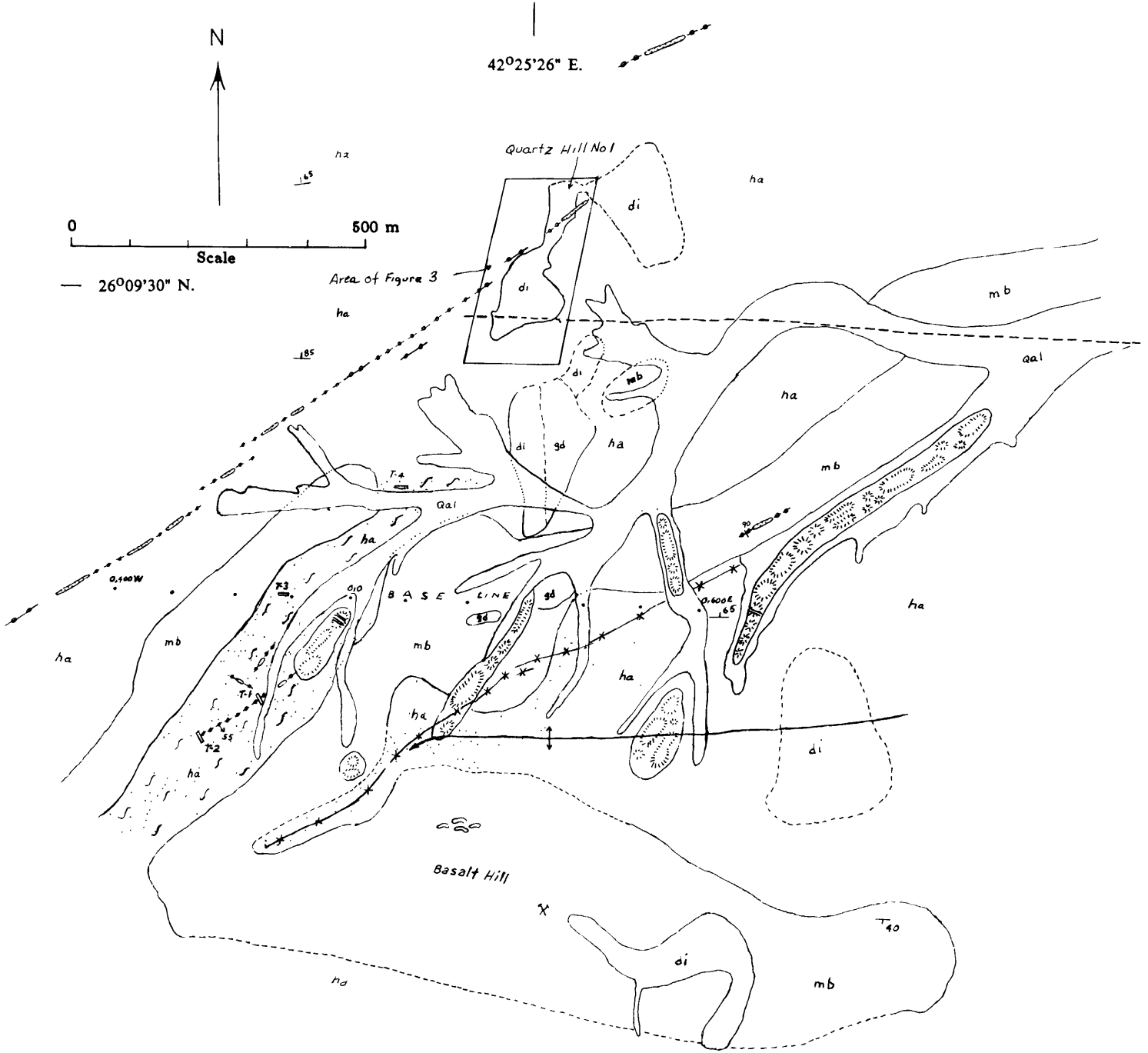

Figure 2.--Geologic map of the Meshaheed area

EXPLANATION OF MAP UNITS

QUATERNARY

Qal — ALLUVIUM

PRECAMBRIAN

INTRUSIVE ROCKS

gd — GRANODIORITE--Medium grained; porphyritic in places with plagioclase phenocrysts as much as 0.5 cm long. Incipient to moderate kaolinization of feldspars; locally pyritized. Weathers light brown to tan.

di — DIORITE--Medium grained, with euhedral plagioclase, light-green hornblende, and minor quartz. Contains minor pyrite and pyrrhotite. Weathers medium to dark gray.

DIORITE DIKES--Kaolinized and pyritized in places

LAYERED ROCKS OF THE MURDAMA GROUP

ha — MARAGHAN FORMATION--Mostly fine, calcareous sandstone with lesser limestone and siltstone. Hornfelsic near plutons. Medium gray brown to black

Smb

ha — METABASALT--Varies from black, dense, fine grained, to green black and slightly coarser grained. Contains pyrrhotite in bands and patches. Displays pillow structure locally. Partially intrusive as dikes and small apophyses.

SYMBOLS

CONTACT--Dashed where approximately located, dotted where concealed

ANTICLINE--Showing trace of axial plane and direction of plunge

FAULT TRACE

55

GOLD-STIBNITE-QUARTZ VEINS--Showing dip where known; dashed where inferred

65

STRIKE AND DIP OF LAYERING

HYDROTHERMAL ALTERATION--Mostly in shear zones in metasediments. Intensity of stippling denotes intensity of alteration

ANCIENT WORKINGS ON GOLD-STIBNITE-QUARTZ VEINS

ANCIENT GOLD PROSPECT IN BASALT

ANCIENT PLACERS--Showing location of trench made during present study

0.0

POINT OF ORIGIN ON GRID SYSTEM

T-4

TRENCH IN BEDROCK--Made during present study showing identification number

STREAM BED

Figure 2.--Continued

Broad, open folds and major faults in the metasedimentary rocks trend northeast and east (Williams, 1984). Regionally, northeast-trending faults are slightly offset by east-trending faults (Smith and Samater, 1984). The map area (fig. 2) indicates the same style of folding and faulting. Within this zone basalt and metasediments are folded to form what is interpreted to be a westerly plunging anticline. This interpretation is based on the drape effect of pillow basalts, layering in basalts, and strike and dip of underlying metasediments. A small diorite pluton is intruded into the axial plane of the fold. The northwestern synclinal limb of the structure has evidently been sheared along the major northeast trending shear zone and intruded by diorite, because a small, isolated basalt segment was mapped in the adjacent southeast area of Quartz Hill No. 1. A major east-trending fault also cuts this part of the fold limb, and the juncture of this fault with a northeast-trending fault served as a control for the intrusion of a small granodiorite pluton at Quartz Hill No. 1.

Williams (1984) has mapped pillow basalts about 5.5 km southeast of Meshaheed, where they are steeply dipping, moderately folded, and interlayered with Hadiyah formation metasediments. The two basalt localities are probably due to two independent extrusive centers because rock displacement has not occurred along northwest-southeast directions in the Meshaheed region. The Meshaheed area seems to have acted as a structurally controlled center where basalt and dioritic magmatism proliferated.

ECONOMIC GEOLOGY

Two periods of mineral deposition are recognized at Meshaheed; the first is represented by a quartz stockwork containing minor molybdenite at Quartz Hill No. 1, and the second is represented by gold-stibnite-quartz veins in northeast-striking faults.

MOLYBDENITE-BEARING QUARTZ STOCKWORKS

A molybdenite-bearing quartz stockwork cuts moderately kaolinized granodiorite on Quartz Hill No. 1, that is partially covered with quartz lag (figs. 2 and 3). The small granodiorite pluton is cut by a quartz stockwork over much of the outcrop area. Veins and veinlets in the stockwork system range in thickness from less than 1 cm to nearly 50 cm, and because of cross-cutting features, some thicker veins appear to have resulted from the final phase of quartz deposition. Stockworks are distributed unevenly throughout the intrusive rock and appear to be concentrated mainly in the areas occupied by the thicker veins. Figure 3 shows the position of the larger veins, but the areal distribution of the total stockwork zones was not mapped. Molybdenite is distributed very sparsely throughout the stockwork veins and veinlets.

Crenulate quartz layers are also common on Quartz Hill No. 1, especially along the periphery of an area of massive quartz. This type of quartz also occurs north and south of the quartz mass (fig. 3). The layered form of the quartz suggests successive episodes of inward quartz growth during formation.

White and others (1981) have described similar crenulate quartz at the Climax and Henderson molybdenum mines in Colorado, U. S. A. The quartz at these mines is associated with alkali- rich granites, forms in the vicinity of pegmatitic rocks, and in places grades into pegmatitic quartz and feldspar. The crenulate form is believed to be the result of plastic deformation. Rhythmic layering of quartz interlayered with porphyritic rock at Henderson was apparently caused by recurring increase and decrease of pressure acting on water-saturated melts containing fluorine. According to Shannon and others (1982), because the crenulate quartz is common near the outer contacts of intrusive masses, exposures of the small granodiorite pluton at Meshaheed may represent its apex.

Mutschler and others (1981) have classified 30 molybdenite stockwork deposits in the western United States as associated with either granodiorite or granite. According to White and others (1981), the granodiorite (quartz monzonite)-type deposits grade between 0.1 and 0.2 % MoS_2 as opposed to grades of 0.3 to 0.45 % for granite-type systems.

Both stockwork and crenulate quartz at Meshaheed contain minor molybdenite in flakes as much as 3 mm in diameter, or as fine crystalline material that causes the quartz to appear spotted blue-gray. Twenty-six samples of the quartz collected in previous studies gave values generally less than 100 parts per million molybdenum (Smith and Samater, 1984).

Figures 2 and 3 show the long, northeast-striking, gold-stibnite-quartz vein system intersecting the north end of the granodiorite pluton with quartz stockwork, which indicates that gold and stibnite were deposited later than the molybdenite. Previous detailed sampling of the the altered granodiorite, quartz stockwork, and gold-stibnite-quartz veins found significant gold only in the northeast-striking quartz veins, or in altered granodiorite on their projection.

GOLD-STIBNITE-QUARTZ VEINS

Gold-stibnite-quartz veins, the largest of which was examined and sampled in previous studies, show that gold, stibnite, and minor chalcopyrite and silver were deposited along with quartz in northeast-striking faults at Meshaheed. Most of the quartz is also rich in arsenic, but arsenic-bearing minerals have not been observed. The longer, northernmost vein system containing numerous ancient workings intersects Quartz Hill No. 1 (figs. 2 and 3), and higher gold grades were obtained from quartz dump sampling adjacent to the small pluton. Veins in this system are probably lenticular and less than 1 m thick.

A shorter and narrower northeast-striking gold-stibnite-quartz vein is in sheared and intensely hydrothermally altered metasedimentary rocks south of the base line at about 100 west (fig. 2). The vein, exposed by trenching in this study, is approximately 10 cm thick, dips 55 degrees south, in places is composed mainly of stibnite, and assays moderately high in gold. The length of the vein is at least 175 m according to exposures in trenches and one ancient pit. Another northeast-striking vein consisting of quartz with moderate stibnite is exposed in an ancient workings in basalt about 200 m northeast of point 600 east on the base line. The vein exposed in the workings is 30 cm thick, dips vertically, and quartz on dumps contains stibnite. The strike length of this vein could not be determined because of cover, but it is probably a short lens. Two assays, one of vein material and one of altered wall rock, are 10.6 and 3.6 ppm gold, respectively.

DIORITE DIKE

A northeast-striking diorite dike intrudes mainly metasediments in the study area (fig. 2). The dike is fine to medium grained and light gray, and mafic minerals have been almost completely altered to chlorite. The gold contents of two samples from two localities of moderately hydrothermally altered sedimentary rocks in selvages of the dike are 0.4 and 8.0 ppm gold.

HYDROTHERMALLY ALTERED SHEAR ZONES

A northeast-striking, hydrothermally altered shear zone crosses the base line at points 0.0 and 100 west, is 150 m wide, extends at least 800 m, and disappears beneath alluvium on the northeast end (fig. 2). It contains the thin gold-stibnite-quartz vein previously described. Metasedimentary rocks within the zone are altered to quartz, sericite, pyrite, kaolin, and carbonate. Original rock textures are completely obliterated by the alteration, and types of alteration vary throughout the zone. Some outcrops show completely silicified and pyritized rock, whereas others are intensely kaolinized. Much of the rock is a quartz-sericite-pyrite-carbonate cut by thin quartz-calcite stringers. Hematite in bands as much as 30 cm thick and manganese oxide associated with siliceous zones are prevalent.

Metasedimentary rocks are similarly hydrothermally altered in the crest of the plunging anticline south and adjacent to the larger altered zone (fig. 2). This area may also be sheared, but definite indications of shearing were not noted.

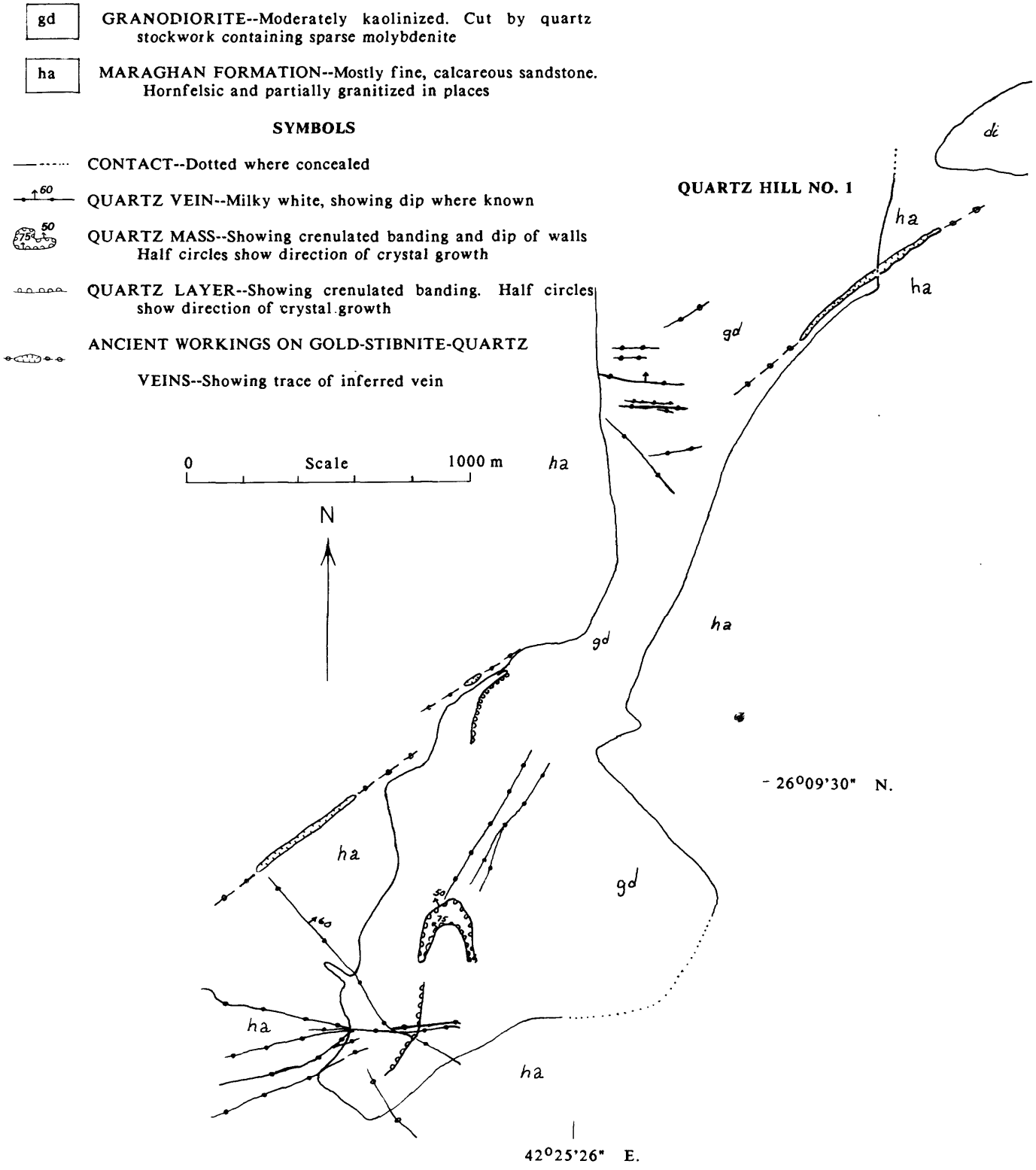

Figure 3.--Geologic map of Quartz Hill No. 1

HYDROTHERMAL ALTERATION OF BASALT

Areas of hydrothermal alteration in basalt are more difficult to define, but it appears that the rock is altered over large areas. Thin sections show fine fractures occupied by quartz, calcite, and pyrrhotite. Carbonatization is the prevalent type of hydrothermal alteration. In places, the rock is locally altered to carbonate around quartz-calcite veinlets, and some rocks are locally carbonatized giving a spotted texture. Other areas show rock totally affected by carbonatization, and in some zones accompanied by pyrrhotite. Precious metals were not detected by sampling in these zones. However, a few spurious high values in tungsten, arsenic, and boron were obtained (fig. 5). A small diorite pluton intrudes basalt in the southern part of the map area (fig. 2), and small ancient workings, probably no more than prospects, are located near its western end. Diorite is not present in the immediate area of the workings, but it is believed that the pluton and accompanying hydrothermal fluids are responsible for the carbonatization and quartz-calcite veinlets in the area. Sampling in the workings area found no gold or silver, and only one sample contained detectable arsenic (700 ppm). Gold deposition may have been very localized and consequently missed by our sampling. There is no doubt that gold is present in the basalt because ancient miners expended a great amount of effort recovering the metal from talus slopes eroding from Basalt Hill.

SUMMARY OF GRID-SAMPLE ANALYTICAL DATA

The primary purpose of the rock chip sampling and geological mapping program was to define, if possible, larger areas of gold mineralization. Hydrothermally altered areas, such as the northeast-striking shear zone in metasediments , carbonatized zones in basalt, and contacts around diorite plutons were believed to have some potential, since previous reconnaissance sampling had found low gold values in some of these rocks. Also, since reconnaissance wadi-sediment sampling had defined Meshaheed as the center of an anomalous zone in lead, copper, boron, and tin (Allen and others, 1984), rock chip sampling by use of a grid system was considered to be a good test of the area. Atomic absorption analyses for gold and silver, and spectrographic analyses for twenty-nine other elements for all of the grid sampling are given in table 1. Sample locations with numbers are shown on figure 4. Plots of gold values 0.2 ppm, or higher; silver values 1.0 ppm, or higher; and notable values of other elements are shown on figure 5. Statistical analyses of the chemical data were not used because most of the critical elements such as Au, Ag, Mo, As, Sb, W, and Bi are in amounts below the detection limits of the analytical methods (atomic absorption with partial digestion for gold and silver, and semi-quantitative spectrographic methods for the remaining elements) in most samples.

Most of the grid sampling detected no gold, and of the few samples in which gold was detected, only two contain more than one part per million (ppm) of that metal. One of these samples (200839) is of hydrothermally altered dump rock from an ancient working on the principal northeast-striking vein system in the area. The other (200772) is of pyritized (metasedimentary ?) rock in the selvage of the large northeast-striking diorite dike that crosses the map area (figs. 2 and 5). Three additional samples containing less than 1 ppm gold are from points near, or on the projection of the principal northeast-striking vein system. Several samples from hydrothermally altered shear zones contain less than 1 ppm gold; otherwise, samples within these zones are gold-free. Two samples from the basalt lens northwest and adjacent to the larger hydrothermally altered zone contain less than 1 ppm gold. This basalt lens is also hydrothermally altered.

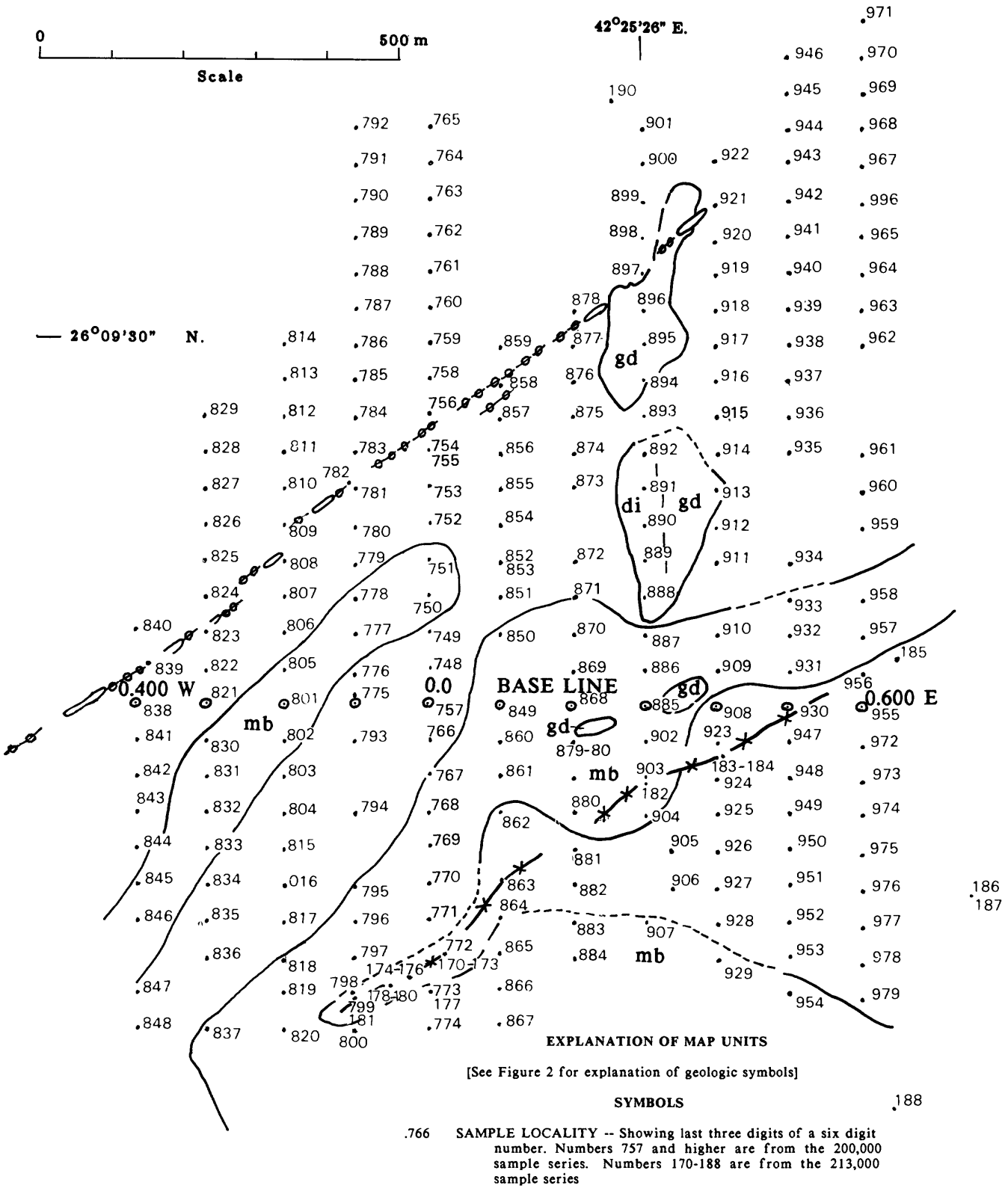

Figure 4.--Sample locality map of the Meshaheed area

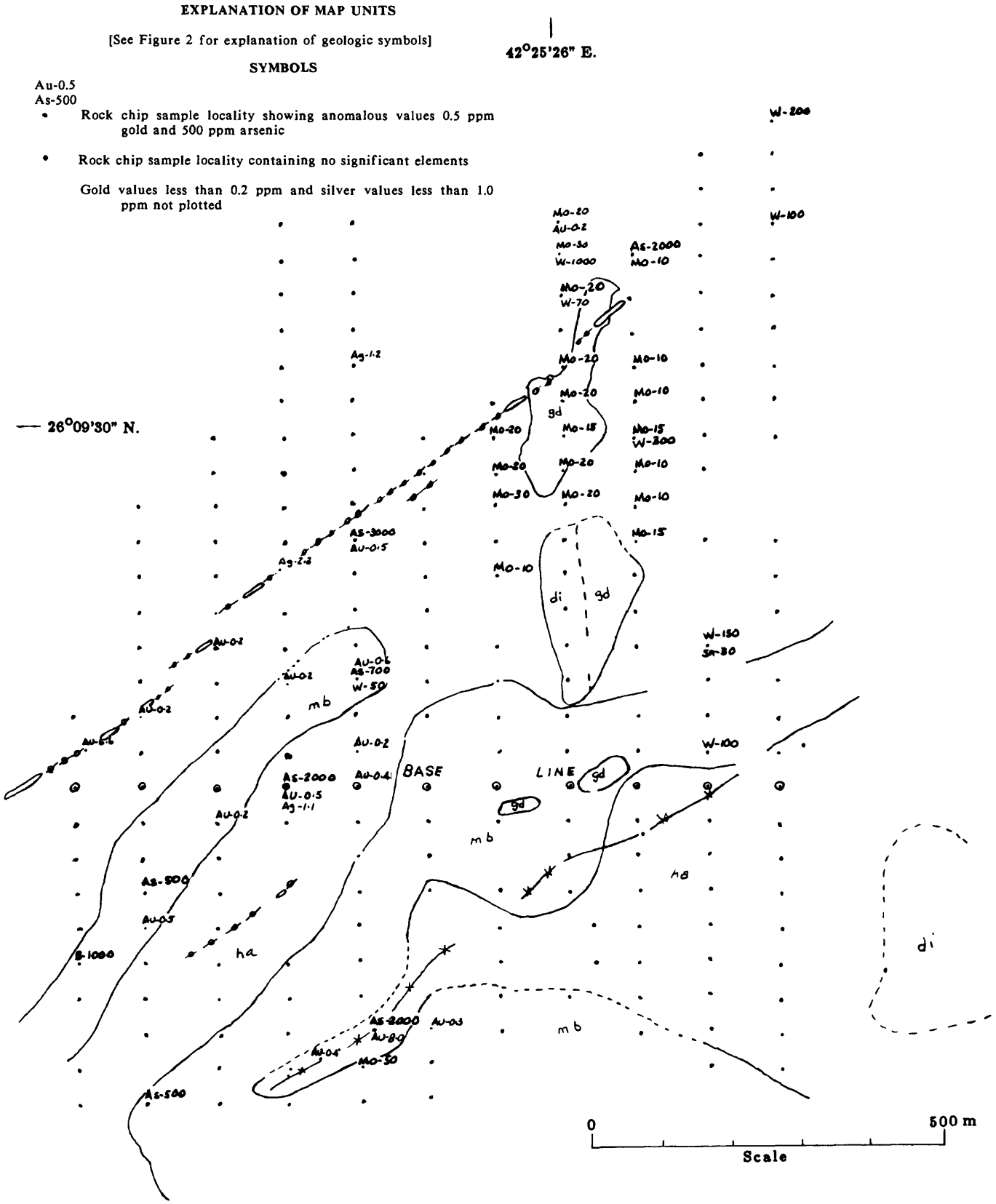

Figure 5.--Geochemical map of the Meshaheed area

Arsenic is present in amounts as much as 3000 ppm as an accessory element in some of the samples where gold was found, but the element is not widespread. Silver in amounts greater than 1 ppm is present in only three samples, and one of these is from ancient dump material. Molybdenum in the 10-20 ppm range was found in samples from the granodiorite and surrounding area at Quartz Hill No. 1, and tungsten in the range 50-1000 ppm is distributed erratically, mostly in contact metamorphosed metasediments in the same area. One sample of basalt from the west part of the map area contains 1000 ppm boron, and one sample of limey metasediments southeast of Quartz Hill No. 1 contains 30 ppm tin.

ANCIENT PLACER WORKINGS

The prominent Basalt Hill in the south part of the map area sheds talus northward over much of the map area and several branches of the wadi drain the talus slopes (fig. 2). During our previous study (Smith and Samater, 1984) ancient workings were found in talus material high up on the slope, as well as downslope in combined talus and wadi gravels. At the time these were considered to have resulted from removal of talus material to work the underlying bedrock. During the present study, however, it was concluded that the workings were the result of a search for gold in placers, since all of the worked areas are adjacent to, or on drainages. However, most of the talus and alluvium, obviously derived from Basalt Hill, is composed of coarse, angular fragments that are relatively unworked by sedimentary processes. From this, it would follow that such material is probably poor in placer gold, unless the source rock is very rich in the element.

Three trenches were excavated to a depth of about 3 m in the placer workings, two south of point 0,0, and one east of 600 east (fig. 2). None of the trenches reached bedrock. Two samples were collected from the walls and bottoms of each of the trenches. Heavy minerals were separated and the magnetic fraction removed. The remaining particles were then examined under a binocular microscope, but no gold was observed.

Ancient miners worked several placer areas in Saudi Arabia, one of which is Jabal Mokhyat in the southern Najd province. Schmidt and others (1981), who very thoroughly trenched and sampled the worked placer gravels at Mokhyat, found that they contain 40 milligrams gold per cubic meter over an area of about 1 km^2 and to a depth of about 1 m. Bagdady and others (1978) trenched and sampled previously worked placer gravels at Mahd adh Dhahab where they calculated 710,910 cubic meters to average 102 milligrams per cubic meter. Ancient placer workers, well aware that free gold in placer material is much more easily recoverd than that enclosed in quartz or rock, were probably inclined to work placer material very low in gold content. As a result, it is concluded that the placers at Meshaheed are of little economic significance. However, they do indicate a gold source from Basalt Hill, only a short distance south.

TRENCHING IN BEDROCK

Four trenches were excavated in the large hydrothermally altered zone, two on a gold-stibnite-quartz vein, and two in hydrothermally altered rock. The four trenches, designated as T-1 through T-4 (fig. 2), are described as follows:

T-1--This trench was excavated on the projection of a vein partially exposed in a small ancient working. The trench, located 40 m southwest of the working, intersected a stibnite vein containing very little quartz. Vein walls are intensely kaolinized and stained with manganese and iron oxides. No additional veins were intersected in the 16-m-long trench. Intensely kaolinized metasedimentary rock is exposed at the south end of the trench, and is more siliceous with abundant disseminated pyrite at the north end. Three samples were chipped along the trench walls and the analyses are shown in table 2.

T-2--This trench is located 125 m southwest of T-1 on the projection of the vein. The trench, 9 m long, cut the top of a vein assumed to be the same as that intersected in T-1. The vein, only a few centimeters of which were exposed in the bottom of the trench, is composed of quartz with only minor stibnite. In the remainder of the trench the rock is variably altered and consists of kaolinized rock interspersed with silicified zones with accompanying manganese oxide. Rocks are highly sheared in the north end of the trench. Five samples were chipped along the trench walls and the analyses are shown in table 2.

T-3--This trench was dug in order to improve exposure of rock alteration. Sheared and kaolinized rock is cut by hematitic bands and late calcite stringers on the west end of the trench. This zone grades into carbonatized rock with abundant disseminated pyrite on the east end. Two samples were collected and analyses are shown in table 2.

T-4--This trench was dug in the altered zone at the point where it passes beneath alluvium to the northeast (fig. 3). Alternating kaolinized zones and manganese-oxide-stained siliceous zones exposed in this trench are similar to those exposed in other trenches. Some of the rock is highly sheared and major faults are stained by manganese or iron oxides. Four samples were chipped along the trench walls and the analyses are shown in table 2.

Four additional trenches were excavated across a series of ancient pits previously named Pluton Southeast ancient workings, located about 2 km west of the study area (Smith and Samater, 1984). Neither workings nor trenches are shown on maps in this report. None of the trenches intersected veins, but 5- to 10-cm-thick fault gouges were cut in two of the excavations. Rocks in the trenches are mostly flinty, black hornfelsic metasediments. This group of ancient workings is 600 m long, as much as 40 m wide, and it appears that much of the effort by ancient miners may have been in prospecting, because our trenches were dug below the bottom of several ancient pits, only to find barren rock. Three samples were collected in the trenches.

Vein samples from trenches T-1 and T-2 indicate that gold probably persists for 175 m along the vein. In trench T-1, a sample of the vein, composed mainly of stibnite, contained 14.4 ppm gold, and a 1.5-m-long sample of the vein walls had 20.6 ppm gold. In trench T-2, the vein was exposed only in the bottom of the trench, but a 2 m sample chipped above and across its projection ran 7.1 ppm

gold. It is possible that the gold found in vein selvages is the result of secondary enrichment, although four samples chipped across hydrothermally altered rock in trench T-2 are in the range 0.1-0.3 ppm gold with arsenic in the range 120-1300 ppm. However, all other trench sampling of altered rock found no gold, minor silver, and only low values in accessory elements.

GROUND FOLLOW-UP STUDIES OF GEOPHYSICAL ANOMALIES

Previous geophysical studies employing audio-magneto-telluric and telluric-electric methods found an anomalous zone coinciding with the northeast-striking hydrothermally altered zone at Meshaheed (Flanigan and Zablocki, 1984; Smith and Samater, 1984). The telluric-electric method also found a zone of extremely low resistivity about one kilometer east of Meshaheed. Rocks in the anomalous area (not shown in fig. 2) were examined and it was found that a small diorite intrusive into metasediments is located a few meters north of the geophysical traverse line and that its southward projection coincides with the anomalous zone. Small, siliceous gossans were found at the contact of the diorite with metasediments, but two samples of the material (200987 and 200988) found no significant metals (table 2). The small pluton is elongated north-south and may have intruded along a fault zone of the same trend. Metasediments along the trend are not obviously hydrothermally altered and the anomaly probably does not represent a zone of hydrothermal alteration with accompanying metallization.

CONCLUSIONS AND RECOMMENDATIONS

The objective of the rock-chip sampling program was to locate extensive areas of gold-bearing rock, but these were not found. Gold deposition at Meshaheed was apparently confined to quartz veins and selvages. Hydrothermally altered areas in both metasediments and basalt are relatively barren of gold. These zones are, in fact, nearly free of trace elements such as silver, copper, lead, zinc, arsenic, molybdenum, or antimony at points removed from the veins.

One sample of altered metasediments in the selvage of the large diorite dike that crosses the map area contained 8.0 ppm gold, but subsequent check sampling along the dike found very little of that element. Gold deposition may have occurred along the contacts of dikes and small plutons with metasediments in the Meshaheed area, but as indicated by these studies, much of the deposition was local and chances of finding large volumes of gold-bearing rock are remote.

Anomalous lead, copper, boron, and tin found by previous wadi sediment sampling in the Meshaheed area were not duplicated by the rock-chip sampling. On the contrary, in general, the rock-chip sampling found only low quantities of these metals. The source of the anomalous metals may have derived from a locality other than the present study area, or from vein erosion, but further exploration would probably not be beneficial and is not recommended.

Previous ground geophysical studies employing audio-magneto-telluric and telluric-electric methods have demonstrated their effectiveness in locating zones of low resistivity that coincide with hydrothermally altered rocks at Meshaheed. Although the altered zones tested by these geophysical methods at Meshaheed are essentially devoid of widespread metallization, in other areas similar studies may be successful in locating altered zones coinciding with such metallization.

Molybdenite-bearing quartz stockworks at Quartz Hill No. 1 are low grade with molybdenum generally assaying less than 100 ppm. The molybdenum content should be ten to twenty times greater for commercial application. Therefore, further exploration for this metal at Quartz Hill No. 1 is not recommended.

A few samples from the vicinity of Quartz Hill No. 1 contain tungsten in the range 70-1000 ppm (fig. 5). Most of the samples containing tungsten are from contact metamorphosed limey metasediments. Tungsten minerals were not recognized during field studies, but it is possible that scheelite may be present; examination of the area by ultra-violet light is advisable.

In conclusion, these studies found that gold in the Meshaheed area is essentially confined to gold-stibnite-quartz veins. The long northeast-trending vein that intersects Quartz Hill No. 1 probably offers the greatest gold potential, but much more work would be required to learn details of its thickness, continuity, and average gold grade. Trenching in the Pluton Southeast group of ancient workings (location not shown in this report) has demonstrated clearly that much of the work performed by the ancients was probably that of prospecting since many of the ancient pits appear to be in barren rock. The Meshaheed area probably does not contain sufficient tonnages of commercial grade gold to stand alone as a mining operation, but may prove viable if combined with mining at nearby deposits.

Table 1.--Analytical data for rock chip sampling in the Meshaheed area

[Values for Fe, Mg, Ca, Ti, and Mn in per cent; all remaining elements in parts per million. S indicates semi-quantitative spectrographic assay; AA indicates atomic absorption assay. For atomic absorption assays, P following element indicates partial digestion of sample. AZ preceding element indicates use of the A to Z method of sample digestion. G indicates element found in greater amounts than value given; L indicates element detected, but in amounts less than value given; N indicates element not detected at value given.]

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SAMPLE	S-FE	S-MG	S-CA	S-TI	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
200748	10.0000	5.0000	7.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000	700.0000
200749	7.0000	1.0000	2.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	300.0000
200750	5.0000	7.0000	5.0000	0.2000	1000.0000	0.5000N	700.0000	10.0000N	20.0000	150.0000
200751	5.0000	7.0000	20.0000	0.2000	2000.0000	0.5000N	200.0000N	10.0000N	20.0000	700.0000
200752	5.0000	5.0000	5.0000	0.2000	1500.0000	0.5000N	200.0000N	10.0000N	50.0000	500.0000
200753	5.0000	10.0000	1.0000	0.3000	700.0000	0.5000N	200.0000N	10.0000N	20.0000	700.0000
200754	5.0000	7.0000	20.0000	0.2000	2000.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200755	2.0000	0.1500	2.0000	0.0200	700.0000	0.5000N	3000.0000	10.0000N	20.0000	150.0000
200756	5.0000	5.0000	5.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200757	5.0000	7.0000	15.0000	0.2000	2000.0000	0.5000N	200.0000N	10.0000N	30.0000	700.0000
200758	5.0000	5.0000	2.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	50.0000	500.0000
200759	5.0000	5.0000	1.0000	0.2000	200.0000	0.5000N	200.0000N	10.0000N	70.0000	700.0000
200760	5.0000	5.0000	5.0000	0.2000	1500.0000	0.5000N	200.0000N	10.0000N	30.0000	700.0000
200761	3.0000	5.0000	20.0000	0.1500	1000.0000	0.5000N	200.0000N	10.0000N	10.0000L	500.0000
200762	7.0000	7.0000	1.5000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200763	5.0000	5.0000	1.0000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	30.0000	1000.0000
200764	5.0000	7.0000	0.7000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	30.0000	700.0000
200765	5.0000	5.0000	0.5000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	50.0000	700.0000
200766	5.0000	5.0000	0.5000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	70.0000	700.0000
200767	7.0000	10.0000	20.0000	0.5000	2000.0000	0.5000N	200.0000N	10.0000N	30.0000	200.0000
200768	10.0000	1.0000	2.0000	0.1500	500.0000	0.5000	200.0000N	10.0000N	20.0000	70.0000
200769	5.0000	10.0000	5.0000	0.3000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	100.0000
200770	5.0000	5.0000	5.0000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	10.0000L	20.0000N
200771	5.0000	5.0000	0.7000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200772	10.0000	0.1000	2.0000	0.0500	150.0000	0.5000L	2000.0000	10.0000N	30.0000	70.0000
200773	15.0000	0.2000	0.5000	0.1000	150.0000	0.5000L	200.0000N	10.0000N	30.0000	100.0000
200774	7.0000	0.5000	3.0000	0.2000	700.0000	0.5000L	200.0000N	10.0000N	10.0000	150.0000
200775	7.0000	0.5000	0.5000	0.2000	500.0000	1.0000	2000.0000	10.0000N	30.0000	500.0000
200776	7.0000	0.5000	1.0000	0.1000	300.0000	1.0000	200.0000N	10.0000N	20.0000	200.0000
200777	5.0000	7.0000	5.0000	0.3000	1000.0000	0.5000L	200.0000N	10.0000N	10.0000L	200.0000
200778	5.0000	5.0000	1.0000	0.2000	500.0000	0.5000L	200.0000N	10.0000N	15.0000	200.0000
200779	5.0000	7.0000	2.0000	0.3000	700.0000	0.5000L	200.0000N	10.0000N	10.0000	700.0000
200780	5.0000	5.0000	1.0000	0.2000	500.0000	0.5000L	200.0000N	10.0000N	30.0000	500.0000
200781	5.0000	5.0000	0.7000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	300.0000
200782	0.5000	0.0500	0.7000	0.0020L	200.0000	2.0000	200.0000N	10.0000N	10.0000	50.0000
200783	1.5000	2.0000	5.0000	0.1500	700.0000	0.5000N	200.0000N	10.0000N	10.0000L	700.0000
200784	5.0000	2.0000	5.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200785	5.0000	2.0000	0.5000	0.2000	200.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200786	5.0000	3.0000	0.5000	0.2000	200.0000	0.5000N	200.0000N	10.0000N	50.0000	500.0000
200787	3.0000	1.5000	5.0000	0.1500	500.0000	0.5000N	200.0000N	10.0000N	10.0000	150.0000
200788	3.0000	3.0000	2.0000	0.2000	200.0000	0.5000N	200.0000N	10.0000N	30.0000	700.0000
200789	5.0000	5.0000	0.5000	0.2000	300.0000	0.5000N	200.0000N	10.0000N	20.0000	700.0000
200790	5.0000	5.0000	0.5000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	700.0000
200791	3.0000	7.0000	20.0000	0.1000	1500.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200792	3.0000	2.0000	20.0000	0.2000	2000.0000	0.5000N	200.0000N	10.0000N	30.0000	700.0000
200793	5.0000	3.0000	0.3000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	150.0000
200794	5.0000	2.0000	0.7000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200795	7.0000	10.0000	5.0000	0.5000	1500.0000	0.5000N	200.0000N	10.0000N	20.0000	100.0000
200796	7.0000	10.0000	5.0000	0.5000	1500.0000	0.5000N	200.0000N	10.0000N	20.0000	200.0000
200797	5.0000	7.0000	7.0000	0.5000	1500.0000	0.5000N	200.0000N	10.0000N	20.0000	150.0000

Table 1.--Analytical data for rock chip sampling--Continued

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SAMPLE	S-BE	S-BI	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI
200748	1.0000	10.0000N	20.0000N	30.0000	150.0000	70.0000	20.0000	5.0000N	20.0000L	70.0000
200749	1.0000	10.0000N	20.0000N	10.0000	150.0000	10.0000	30.0000	5.0000N	20.0000L	50.0000
200750	1.0000	10.0000N	20.0000N	50.0000	150.0000	50.0000	30.0000	5.0000N	20.0000L	70.0000
200751	1.0000	10.0000N	20.0000N	30.0000	1000.0000	15.0000	20.0000	5.0000N	20.0000L	70.0000
200752	1.0000	10.0000N	20.0000N	20.0000	200.0000	15.0000	20.0000	5.0000N	20.0000L	50.0000
200753	1.0000	10.0000N	20.0000N	30.0000	200.0000	50.0000	30.0000	5.0000N	20.0000L	70.0000
200754	1.0000	10.0000N	20.0000N	30.0000	300.0000	5.0000L	30.0000	5.0000N	20.0000L	70.0000
200755	1.0000	10.0000N	20.0000N	5.0000N	300.0000	7.0000	20.0000N	5.0000N	20.0000L	20.0000
200756	1.0000	10.0000N	20.0000N	50.0000	300.0000	15.0000	30.0000	5.0000N	20.0000L	50.0000
200757	1.0000	10.0000N	20.0000N	50.0000	200.0000	10.0000	30.0000	5.0000N	20.0000L	50.0000
200758	1.0000	10.0000N	20.0000N	30.0000	200.0000	20.0000	30.0000	5.0000N	20.0000L	70.0000
200759	1.0000	10.0000N	20.0000N	20.0000	200.0000	30.0000	30.0000	5.0000N	20.0000L	50.0000
200760	1.0000	10.0000N	20.0000N	30.0000	150.0000	20.0000	30.0000	5.0000N	20.0000L	50.0000
200761	1.0000	10.0000N	20.0000N	15.0000	150.0000	15.0000	20.0000	5.0000N	20.0000L	50.0000
200762	1.0000	10.0000N	20.0000N	30.0000	200.0000	50.0000	20.0000	5.0000N	20.0000L	50.0000
200763	1.0000	10.0000N	20.0000N	20.0000	100.0000	30.0000	20.0000	5.0000N	20.0000L	10.0000
200764	1.0000	10.0000N	20.0000N	30.0000	200.0000	50.0000	20.0000	5.0000N	20.0000L	70.0000
200765	1.0000	10.0000N	20.0000N	20.0000	100.0000	30.0000	20.0000	5.0000N	20.0000L	70.0000
200766	1.0000	10.0000N	20.0000N	20.0000	100.0000	50.0000	20.0000	5.0000N	20.0000L	50.0000
200767	1.0000	10.0000N	20.0000N	50.0000	500.0000	20.0000	20.0000	5.0000N	20.0000L	70.0000
200768	1.0000N	10.0000N	20.0000N	20.0000	100.0000	50.0000	20.0000	5.0000N	20.0000N	50.0000
200769	1.0000N	10.0000N	20.0000N	50.0000	500.0000	50.0000	20.0000N	5.0000N	20.0000N	70.0000
200770	1.0000N	10.0000N	20.0000N	20.0000	200.0000	15.0000	20.0000	5.0000N	20.0000N	50.0000
200771	1.0000N	10.0000N	20.0000N	20.0000	70.0000	20.0000	20.0000	5.0000N	20.0000N	10.0000
200772	1.0000N	10.0000N	20.0000N	5.0000L	70.0000	50.0000	20.0000N	5.0000L	20.0000N	15.0000
200773	1.0000N	10.0000N	20.0000N	5.0000L	50.0000	50.0000	20.0000N	50.0000	20.0000N	20.0000
200774	1.0000N	10.0000N	20.0000N	50.0000	500.0000	70.0000	20.0000N	5.0000N	20.0000N	70.0000
200775	1.0000N	10.0000N	20.0000N	15.0000	150.0000	100.0000	20.0000	5.0000N	20.0000N	50.0000
200776	1.0000N	10.0000N	20.0000N	10.0000	100.0000	50.0000	20.0000N	5.0000N	20.0000N	15.0000
200777	1.0000N	10.0000N	20.0000N	50.0000	500.0000	70.0000	20.0000N	5.0000N	20.0000N	70.0000
200778	1.0000N	10.0000N	20.0000N	20.0000	200.0000	30.0000	20.0000N	5.0000N	20.0000N	50.0000
200779	1.0000N	10.0000N	20.0000N	15.0000	300.0000	50.0000	20.0000N	5.0000N	20.0000N	70.0000
200780	1.0000N	10.0000N	20.0000N	20.0000	300.0000	50.0000	20.0000N	5.0000N	20.0000N	50.0000
200781	1.0000N	10.0000N	20.0000N	20.0000	500.0000	30.0000	20.0000N	5.0000N	20.0000N	50.0000
200782	1.0000N	10.0000N	20.0000N	5.0000N	150.0000	50.0000	20.0000N	5.0000N	20.0000N	5.0000
200783	1.0000N	10.0000N	20.0000N	10.0000	150.0000	15.0000	20.0000N	5.0000N	20.0000N	30.0000
200784	1.0000N	10.0000N	20.0000N	30.0000	200.0000	30.0000	20.0000	5.0000N	20.0000N	50.0000
200785	1.0000N	10.0000N	20.0000N	15.0000	100.0000	50.0000	20.0000	5.0000N	20.0000N	50.0000
200786	1.0000N	10.0000N	20.0000N	20.0000	100.0000	70.0000	20.0000	5.0000N	20.0000N	70.0000
200787	1.0000N	10.0000	20.0000N	15.0000	200.0000	50.0000	20.0000L	5.0000N	20.0000N	50.0000
200788	1.0000L	10.0000N	20.0000N	10.0000	150.0000	20.0000	30.0000	5.0000N	20.0000N	70.0000
200789	1.0000L	10.0000N	20.0000N	20.0000	200.0000	30.0000	20.0000	5.0000N	20.0000N	70.0000
200790	1.0000L	10.0000N	20.0000N	20.0000	200.0000	30.0000	20.0000	5.0000N	20.0000N	70.0000
200791	1.0000L	10.0000N	20.0000N	5.0000	150.0000	7.0000	20.0000	5.0000N	20.0000N	30.0000
200792	1.0000L	10.0000N	20.0000N	10.0000	150.0000	10.0000	20.0000	5.0000N	20.0000N	50.0000
200793	1.0000L	10.0000N	20.0000N	10.0000	150.0000	15.0000	20.0000	5.0000N	20.0000N	50.0000
200794	1.0000L	10.0000N	20.0000N	10.0000	200.0000	15.0000	20.0000	5.0000N	20.0000N	50.0000
200795	1.0000L	10.0000N	20.0000N	50.0000	200.0000	50.0000	20.0000	5.0000N	20.0000N	50.0000
200796	1.0000L	10.0000N	20.0000N	50.0000	200.0000	50.0000	20.0000	5.0000N	20.0000N	50.0000
200797	1.0000L	10.0000N	20.0000N	50.0000	200.0000	50.0000	20.0000	5.0000N	20.0000N	70.0000

Table 1.--Analytical data for rock chip sampling--Continued

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SAMPLE	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
200748	10.0000L	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	20.0000	200.0000N	70.0000
200749	10.0000	100.0000N	10.0000	10.0000N	500.0000	100.0000	50.0000N	15.0000	200.0000N	100.0000
200750	10.0000L	100.0000N	50.0000	10.0000N	150.0000	200.0000	50.0000	20.0000	200.0000N	70.0000
200751	10.0000L	100.0000N	20.0000	10.0000N	500.0000	100.0000	50.0000L	30.0000	200.0000N	150.0000
200752	10.0000	100.0000N	20.0000	10.0000N	500.0000	100.0000	50.0000N	20.0000	200.0000N	200.0000
200753	10.0000	100.0000N	30.0000	10.0000N	300.0000	150.0000	50.0000N	20.0000	200.0000N	200.0000
200754	10.0000L	100.0000N	20.0000	10.0000N	700.0000	150.0000	50.0000N	30.0000	200.0000N	200.0000
200755	10.0000L	100.0000N	5.0000N	10.0000N	150.0000	30.0000	50.0000N	10.0000L	200.0000N	20.0000
200756	10.0000	100.0000N	20.0000	10.0000N	500.0000	150.0000	50.0000N	20.0000	200.0000N	150.0000
200757	10.0000L	100.0000N	15.0000	10.0000N	700.0000	150.0000	50.0000N	20.0000	200.0000N	150.0000
200758	10.0000L	100.0000N	20.0000	10.0000N	150.0000	100.0000	50.0000N	15.0000	200.0000N	150.0000
200759	10.0000	100.0000N	20.0000	10.0000N	100.0000N	150.0000	50.0000N	30.0000	200.0000N	200.0000
200760	10.0000L	100.0000N	20.0000	10.0000N	500.0000	150.0000	50.0000N	30.0000	200.0000N	200.0000
200761	15.0000	100.0000N	15.0000	10.0000N	700.0000	70.0000	50.0000N	20.0000	200.0000N	100.0000
200762	10.0000	100.0000N	20.0000	10.0000N	500.0000	150.0000	50.0000N	30.0000	200.0000N	200.0000
200763	10.0000	100.0000N	15.0000	10.0000N	700.0000	100.0000	50.0000N	20.0000	200.0000N	200.0000
200764	10.0000	100.0000N	15.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	200.0000
200765	10.0000L	100.0000N	15.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	200.0000
200766	10.0000L	100.0000N	15.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	200.0000
200767	10.0000L	100.0000N	50.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000	200.0000N	150.0000
200768	20.0000	100.0000N	10.0000	10.0000N	100.0000N	150.0000	50.0000N	10.0000	200.0000N	50.0000
200769	10.0000L	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000	200.0000N	30.0000
200770	10.0000N	100.0000N	15.0000	10.0000N	100.0000N	150.0000	50.0000N	10.0000	200.0000N	100.0000
200771	10.0000	100.0000N	10.0000	10.0000N	300.0000	100.0000	50.0000N	10.0000	200.0000N	20.0000
200772	10.0000L	100.0000N	5.0000L	10.0000N	150.0000	150.0000	50.0000N	10.0000L	200.0000N	20.0000
200773	15.0000	100.0000N	5.0000L	10.0000N	100.0000L	50.0000	50.0000N	10.0000L	200.0000N	70.0000
200774	10.0000L	100.0000N	30.0000	10.0000N	150.0000	150.0000	50.0000N	20.0000	200.0000N	50.0000
200775	10.0000	100.0000N	10.0000	10.0000N	200.0000	70.0000	50.0000N	15.0000	200.0000N	100.0000
200776	15.0000	100.0000N	10.0000	10.0000N	300.0000	50.0000	50.0000N	10.0000N	200.0000N	50.0000
200777	10.0000N	100.0000N	30.0000	10.0000N	300.0000	150.0000	50.0000N	30.0000	200.0000N	70.0000
200778	10.0000N	100.0000N	15.0000	10.0000N	150.0000	150.0000	50.0000N	20.0000	200.0000N	100.0000
200779	10.0000L	100.0000N	20.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000	200.0000N	100.0000
200780	10.0000L	100.0000N	15.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	70.0000
200781	10.0000N	100.0000N	15.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000	200.0000N	100.0000
200782	50.0000	100.0000N	5.0000N	10.0000N	100.0000N	20.0000	50.0000N	10.0000N	200.0000N	10.0000N
200783	10.0000L	100.0000N	10.0000	10.0000N	200.0000	50.0000	50.0000N	10.0000	200.0000N	50.0000
200784	10.0000	100.0000N	15.0000	10.0000N	300.0000	100.0000	50.0000N	15.0000	200.0000N	100.0000
200785	10.0000	100.0000N	15.0000	10.0000N	100.0000L	100.0000	50.0000N	15.0000	200.0000N	150.0000
200786	10.0000	100.0000N	15.0000	10.0000N	100.0000	150.0000	50.0000N	20.0000	200.0000N	150.0000
200787	10.0000N	100.0000N	10.0000	10.0000N	200.0000	100.0000	50.0000N	10.0000	200.0000N	50.0000
200788	10.0000L	100.0000N	15.0000	10.0000N	150.0000	150.0000	50.0000N	20.0000	200.0000N	150.0000
200789	10.0000L	100.0000N	15.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	150.0000
200790	10.0000L	100.0000N	15.0000	10.0000N	500.0000	100.0000	50.0000N	20.0000	200.0000N	150.0000
200791	10.0000L	100.0000N	15.0000	10.0000N	500.0000	70.0000	50.0000N	15.0000	200.0000N	50.0000
200792	10.0000L	100.0000N	10.0000	10.0000N	150.0000	100.0000	50.0000N	15.0000	200.0000N	100.0000
200793	10.0000L	100.0000N	15.0000	10.0000N	200.0000	100.0000	50.0000N	15.0000	200.0000N	150.0000
200794	10.0000L	100.0000N	15.0000	10.0000N	200.0000	70.0000	50.0000N	15.0000	200.0000N	200.0000
200795	10.0000L	100.0000N	10.0000	10.0000N	200.0000	150.0000	50.0000N	30.0000	200.0000N	100.0000
200796	10.0000L	100.0000N	50.0000	10.0000N	200.0000	200.0000	50.0000N	30.0000	200.0000N	100.0000
200797	10.0000L	100.0000N	50.0000	10.0000N	150.0000	200.0000	50.0000N	30.0000	200.0000N	100.0000

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	AA-AU-P	AZ-AG
200748	0.1600	0.1500
200749	0.0500N	0.1700
200750	0.5600	0.2700
200751	0.0500N	0.1000L
200752	0.0500N	0.1000L
200753	0.0500N	0.1000N
200754	0.0500N	0.1000
200755	0.5200	0.4700
200756	0.0500L	0.1100
200757	0.3800	0.1500
200758	0.0500N	0.1000L
200759	0.0500N	0.1000L
200760	0.0600	0.1000L
200761	0.0500N	1.1600
200762	0.0500N	0.1000
200763	0.0500L	0.1000L
200764	0.0500N	0.1000L
200765	0.1000	0.1000L
200766	0.0500N	0.1000L
200767	0.0500N	0.1000L
200768	0.0500N	0.8700
200769	0.0600	0.1000L
200770	0.0500N	0.1000N
200771	0.0500N	0.1000L
200772	8.0000	0.5000
200773	0.0500N	0.3400
200774	0.0500N	0.1600
200775	0.4800	1.0600
200776	0.0500N	0.8400
200777	0.0500N	0.1000L
200778	0.1800	0.1800
200779	0.0500N	0.1000L
200780	0.0500N	0.1000L
200781	0.0500N	0.1000L
200782	0.0500L	2.3300
200783	0.1000	0.1000
200784	0.0500L	0.1000L
200785	0.0500N	0.1100
200786	0.0800	0.1000L
200787	0.0800	0.1800
200788	0.1000	0.1000L
200789	0.1200	0.1400
200790	0.0500N	0.1000L
200791	0.0500N	0.1200
200792	0.0500N	0.1000L
200793	0.0500N	0.1000N
200794	0.0800	0.1000L
200795	0.0500N	0.3200
200796	0.0500N	0.1400
200797	0.0500L	0.5200

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	S-FE	S-MG	S-CA	S-TI	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
200798	5.0000	10.0000	5.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	200.0000
200799	5.0000	2.0000	0.7000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	700.0000
200800	3.0000	0.7000	0.5000	0.2000	200.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200801	5.0000	7.0000	5.0000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	20.0000	200.0000
200802	5.0000	1.5000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	50.0000	500.0000
200803	7.0000	0.2000	0.7000	0.1500	200.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200804	2.0000	2.0000	5.0000	0.1000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200805	5.0000	7.0000	5.0000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	20.0000	300.0000
200806	5.0000	3.0000	5.0000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	30.0000	1000.0000
200807	5.0000	3.0000	5.0000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200808	5.0000	7.0000	0.7000	0.5000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	500.0000
200809	5.0000	5.0000	10.0000	0.3000	1000.0000	0.5000N	200.0000N	10.0000N	30.0000	1500.0000
200810	5.0000	10.0000	3.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	30.0000	2000.0000
200811	5.0000	5.0000	5.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	50.0000	1500.0000
200812	5.0000	7.0000	5.0000	0.5000	1500.0000	0.5000N	200.0000N	10.0000N	50.0000	2000.0000
200813	5.0000	5.0000	3.0000	0.5000	1500.0000	0.5000N	200.0000N	10.0000N	50.0000	1500.0000
200814	5.0000	5.0000	20.0000	0.3000	2000.0000	0.5000N	200.0000N	10.0000N	50.0000	700.0000
200815	5.0000	5.0000	5.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200816	7.0000	2.0000	2.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	500.0000
200817	5.0000	1.5000	1.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200818	5.0000	7.0000	7.0000	0.5000	2000.0000	0.5000N	200.0000N	10.0000N	20.0000	300.0000
200819	7.0000	10.0000	5.0000	0.7000	2000.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200820	10.0000	10.0000	10.0000	1.0000G	2000.0000	0.5000N	200.0000N	10.0000N	30.0000	100.0000
200821	7.0000	5.0000	2.0000	0.5000	700.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200822	5.0000	5.0000	5.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	30.0000	1500.0000
200823	7.0000	5.0000	1.0000	0.5000	500.0000	0.5000N	200.0000N	10.0000N	50.0000	700.0000
200824	5.0000	5.0000	1.5000	0.5000	500.0000	0.5000N	200.0000N	10.0000N	100.0000	1500.0000
200825	7.0000	5.0000	1.0000	0.5000	700.0000	0.5000N	200.0000N	10.0000N	50.0000	1000.0000
200826	7.0000	5.0000	1.0000	0.5000	700.0000	0.5000N	200.0000N	10.0000N	30.0000	1500.0000
200827	7.0000	7.0000	7.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000	1500.0000
200828	5.0000	7.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	700.0000
200829	5.0000	5.0000	0.7000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	300.0000
200830	5.0000	10.0000	7.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	200.0000
200831	5.0000	10.0000	5.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000	150.0000
200832	5.0000	7.0000	7.0000	0.5000	1000.0000	0.5000N	500.0000	10.0000N	30.0000	200.0000
200833	3.0000	7.0000	7.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	30.0000	100.0000
200834	3.0000	1.0000	1.0000	0.2000	200.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200835	2.0000	0.7000	0.7000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	300.0000
200836	5.0000	1.0000	0.7000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200837	7.0000	10.0000	5.0000	1.0000	1000.0000	0.5000N	5000.0000	10.0000N	30.0000	100.0000
200838	5.0000	5.0000	7.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	30.0000	700.0000
200839	5.0000	1.0000	0.7000	0.2000	100.0000	0.5000N	200.0000N	10.0000N	70.0000	500.0000
200840	5.0000	1.0000	10.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	50.0000	700.0000
200841	5.0000	0.3000	10.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	70.0000	300.0000
200842	3.0000	2.0000	5.0000	0.2000	1500.0000	0.5000N	200.0000N	10.0000N	30.0000	200.0000
200843	5.0000	2.0000	20.0000	0.2000	1500.0000	0.5000N	200.0000N	10.0000N	20.0000	200.0000
200844	5.0000	7.0000	10.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	1000.0000	150.0000
200845	5.0000	7.0000	5.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	150.0000
200846	7.0000	10.0000	5.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	150.0000
200847	5.0000	2.0000	1.0000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	50.0000	700.0000

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	S-BE	S-BI	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI
200798	1.0000L	10.0000N	20.0000N	50.0000	200.0000	15.0000	20.0000	5.0000N	20.0000N	70.0000
200799	1.0000L	10.0000N	20.0000N	30.0000	150.0000	20.0000	20.0000	5.0000N	20.0000N	70.0000
200800	1.0000L	10.0000N	20.0000N	5.0000L	150.0000	15.0000	20.0000	5.0000N	20.0000N	15.0000
200801	1.0000L	10.0000N	20.0000N	50.0000	100.0000	20.0000	20.0000	5.0000N	20.0000N	100.0000
200802	1.0000L	10.0000N	20.0000N	20.0000	200.0000	20.0000	20.0000	5.0000N	20.0000N	50.0000
200803	1.0000L	10.0000N	20.0000N	5.0000N	150.0000	15.0000	20.0000	5.0000N	20.0000N	20.0000
200804	1.0000L	10.0000N	20.0000N	5.0000	150.0000	5.0000	20.0000	5.0000N	20.0000N	30.0000
200805	1.0000L	10.0000N	20.0000N	50.0000	1000.0000	15.0000	20.0000	5.0000N	20.0000N	100.0000
200806	1.0000L	10.0000N	20.0000N	20.0000	1000.0000	15.0000	20.0000	5.0000N	20.0000N	70.0000
200807	1.0000L	10.0000N	20.0000N	20.0000	200.0000	15.0000	20.0000	5.0000N	20.0000N	50.0000
200808	1.0000L	10.0000N	20.0000N	20.0000	500.0000	50.0000	30.0000	5.0000N	20.0000N	70.0000
200809	1.0000L	10.0000N	20.0000N	30.0000	500.0000	70.0000	20.0000	5.0000N	20.0000N	70.0000
200810	1.0000L	10.0000N	20.0000N	30.0000	700.0000	100.0000	20.0000	5.0000N	20.0000N	100.0000
200811	1.0000L	10.0000N	20.0000N	20.0000	500.0000	100.0000	30.0000	5.0000N	20.0000N	150.0000
200812	1.0000L	10.0000N	20.0000N	30.0000	200.0000	100.0000	30.0000	5.0000N	20.0000N	100.0000
200813	1.0000L	10.0000N	20.0000N	20.0000	200.0000	70.0000	20.0000	5.0000N	20.0000N	100.0000
200814	1.0000L	10.0000N	20.0000N	20.0000	200.0000	50.0000	20.0000	5.0000N	20.0000N	50.0000
200815	1.0000L	10.0000N	20.0000N	5.0000	300.0000	50.0000	20.0000	5.0000N	20.0000N	50.0000
200816	1.0000L	10.0000N	20.0000N	20.0000	200.0000	100.0000	20.0000	5.0000N	20.0000N	20.0000
200817	1.0000L	10.0000N	20.0000N	50.0000	150.0000	100.0000	20.0000	5.0000N	20.0000N	70.0000
200818	1.0000L	10.0000N	20.0000N	50.0000	300.0000	50.0000	20.0000N	5.0000N	20.0000N	70.0000
200819	1.0000L	10.0000N	20.0000N	70.0000	300.0000	100.0000	20.0000N	5.0000N	20.0000N	70.0000
200820	1.0000L	10.0000N	20.0000N	20.0000	700.0000	100.0000	20.0000N	5.0000N	20.0000N	100.0000
200821	1.0000L	10.0000N	20.0000N	20.0000	500.0000	100.0000	20.0000N	5.0000N	20.0000N	150.0000
200822	1.0000L	10.0000N	20.0000N	20.0000	500.0000	100.0000	20.0000	5.0000N	20.0000N	70.0000
200823	1.0000L	10.0000N	20.0000N	20.0000	500.0000	100.0000	20.0000	5.0000N	20.0000N	150.0000
200824	1.0000L	10.0000N	20.0000N	20.0000	200.0000	100.0000	20.0000	5.0000N	20.0000N	70.0000
200825	1.0000L	10.0000N	20.0000N	20.0000	700.0000	100.0000	20.0000	5.0000N	20.0000N	100.0000
200826	1.0000L	10.0000N	20.0000N	20.0000	200.0000	50.0000	20.0000	5.0000N	20.0000N	70.0000
200827	1.0000L	10.0000N	20.0000N	20.0000	1000.0000	50.0000	20.0000	5.0000N	20.0000N	70.0000
200828	1.0000N	10.0000N	20.0000N	30.0000	500.0000	50.0000	20.0000	5.0000N	20.0000N	70.0000
200829	1.0000N	10.0000N	20.0000N	20.0000	150.0000	30.0000	20.0000	5.0000N	20.0000N	50.0000
200830	1.0000N	10.0000N	20.0000N	50.0000	200.0000	70.0000	20.0000L	5.0000N	20.0000N	70.0000
200831	1.0000N	10.0000N	20.0000N	50.0000	700.0000	50.0000	20.0000L	5.0000N	20.0000N	50.0000
200832	1.0000N	10.0000N	20.0000N	50.0000	700.0000	30.0000	20.0000L	5.0000N	20.0000N	70.0000
200833	1.0000N	10.0000N	20.0000N	30.0000	100.0000	30.0000	20.0000L	5.0000N	20.0000N	50.0000
200834	1.0000N	10.0000N	20.0000N	7.0000	100.0000	10.0000	20.0000L	5.0000N	20.0000N	20.0000
200835	1.0000N	10.0000N	20.0000N	20.0000	100.0000	20.0000	20.0000L	5.0000N	20.0000N	50.0000
200836	1.0000N	10.0000N	20.0000N	20.0000	100.0000	20.0000	20.0000L	5.0000N	20.0000N	30.0000
200837	1.0000N	10.0000N	20.0000N	50.0000	200.0000	50.0000	20.0000L	5.0000N	20.0000N	70.0000
200838	1.0000N	10.0000N	20.0000N	20.0000	300.0000	15.0000	30.0000	5.0000N	20.0000N	70.0000
200839	1.0000N	10.0000N	20.0000N	10.0000	200.0000	20.0000	20.0000	5.0000N	20.0000N	30.0000
200840	1.0000N	10.0000N	20.0000N	10.0000	200.0000	15.0000	20.0000L	5.0000N	20.0000N	30.0000
200841	1.0000N	10.0000N	20.0000N	10.0000	200.0000	10.0000	20.0000	5.0000N	20.0000N	50.0000
200842	1.0000N	10.0000N	20.0000N	10.0000	150.0000	15.0000	20.0000L	5.0000N	20.0000N	50.0000
200843	1.0000N	10.0000N	20.0000N	10.0000	150.0000	10.0000	20.0000L	5.0000N	20.0000N	30.0000
200844	1.0000N	10.0000N	20.0000N	30.0000	150.0000	10.0000	20.0000L	5.0000N	20.0000N	30.0000
200845	1.0000N	10.0000N	20.0000N	50.0000	1000.0000	50.0000	20.0000L	5.0000N	20.0000N	70.0000
200846	1.0000N	10.0000N	20.0000N	50.0000	500.0000	70.0000	20.0000L	5.0000N	20.0000N	50.0000
200847	1.0000N	10.0000N	20.0000N	20.0000	100.0000	5.0000	20.0000L	5.0000N	20.0000N	7.0000

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
200798	10.0000L	100.0000N	50.0000	10.0000N	200.0000	200.0000	50.0000N	30.0000	200.0000N	100.0000
200799	10.0000L	100.0000N	50.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	200.0000
200800	10.0000L	100.0000N	15.0000	10.0000N	200.0000	100.0000	50.0000N	10.0000	200.0000N	200.0000
200801	10.0000L	100.0000N	15.0000	10.0000N	200.0000	150.0000	50.0000N	30.0000	200.0000N	100.0000
200802	10.0000L	100.0000N	50.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	100.0000
200803	30.0000	100.0000N	10.0000	10.0000N	200.0000	50.0000	50.0000N	10.0000	200.0000N	100.0000
200804	10.0000L	100.0000N	10.0000	10.0000N	200.0000	70.0000	50.0000N	10.0000	200.0000N	50.0000
200805	10.0000L	100.0000N	10.0000	10.0000N	500.0000	150.0000	50.0000N	30.0000	200.0000N	100.0000
200806	10.0000L	100.0000N	30.0000	10.0000N	500.0000	100.0000	50.0000N	20.0000	200.0000N	200.0000
200807	10.0000L	100.0000N	20.0000	10.0000N	500.0000	150.0000	50.0000N	20.0000	200.0000N	200.0000
200808	10.0000L	100.0000N	20.0000	10.0000N	200.0000	150.0000	50.0000N	30.0000	200.0000N	200.0000
200809	15.0000	100.0000N	20.0000	10.0000N	500.0000	150.0000	50.0000N	20.0000	200.0000N	200.0000
200810	10.0000L	100.0000N	20.0000	10.0000N	500.0000	150.0000	50.0000N	20.0000	200.0000N	200.0000
200811	10.0000L	100.0000N	15.0000	10.0000N	150.0000	150.0000	50.0000N	30.0000	200.0000N	200.0000
200812	10.0000L	100.0000N	15.0000	10.0000N	100.0000	150.0000	50.0000N	20.0000	200.0000N	200.0000
200813	10.0000L	100.0000N	15.0000	10.0000N	500.0000	150.0000	50.0000N	20.0000	200.0000N	150.0000
200814	10.0000	100.0000N	15.0000	10.0000N	500.0000	150.0000	50.0000N	20.0000	200.0000N	100.0000
200815	10.0000L	100.0000N	15.0000	10.0000N	500.0000	100.0000	50.0000N	20.0000	200.0000N	100.0000
200816	50.0000	100.0000N	10.0000	10.0000N	500.0000	100.0000	50.0000N	10.0000	200.0000N	150.0000
200817	10.0000N	100.0000N	10.0000	10.0000N	200.0000	100.0000	50.0000N	10.0000	200.0000N	150.0000
200818	10.0000N	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	30.0000	200.0000N	70.0000
200819	10.0000N	100.0000N	50.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000	200.0000N	70.0000
200820	10.0000N	100.0000N	50.0000	10.0000N	200.0000	300.0000	50.0000N	30.0000	200.0000N	70.0000
200821	10.0000L	100.0000N	15.0000	10.0000N	200.0000	200.0000	50.0000N	20.0000	200.0000N	150.0000
200822	10.0000L	100.0000N	20.0000	10.0000N	300.0000	200.0000	50.0000N	20.0000	200.0000N	150.0000
200823	10.0000L	100.0000N	20.0000	10.0000N	200.0000	200.0000	50.0000N	20.0000	200.0000N	200.0000
200824	10.0000L	100.0000N	15.0000	10.0000N	150.0000	200.0000	50.0000N	20.0000	200.0000N	150.0000
200825	10.0000L	100.0000N	20.0000	10.0000N	500.0000	200.0000	50.0000N	20.0000	200.0000N	150.0000
200826	10.0000L	100.0000N	20.0000	10.0000N	500.0000	200.0000	50.0000N	20.0000	200.0000N	100.0000
200827	10.0000L	100.0000N	20.0000	10.0000N	500.0000	200.0000	50.0000N	20.0000	200.0000N	150.0000
200828	15.0000	100.0000N	20.0000	10.0000N	300.0000	100.0000	50.0000N	20.0000	200.0000N	150.0000
200829	10.0000N	100.0000N	15.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	150.0000
200830	10.0000N	100.0000N	30.0000	10.0000N	300.0000	150.0000	50.0000N	30.0000	200.0000N	100.0000
200831	10.0000N	100.0000N	50.0000	10.0000N	300.0000	150.0000	50.0000N	30.0000	200.0000N	100.0000
200832	10.0000N	100.0000N	30.0000	10.0000N	500.0000	150.0000	50.0000N	30.0000	200.0000N	100.0000
200833	10.0000N	100.0000N	30.0000	10.0000N	200.0000	100.0000	50.0000N	30.0000	200.0000N	50.0000
200834	10.0000N	100.0000N	10.0000	10.0000N	500.0000	70.0000	50.0000N	10.0000	200.0000N	150.0000
200835	10.0000N	100.0000N	10.0000	10.0000N	500.0000	70.0000	50.0000N	20.0000	200.0000N	150.0000
200836	10.0000N	100.0000N	15.0000	10.0000N	200.0000	70.0000	50.0000N	20.0000	200.0000N	200.0000
200837	10.0000N	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	30.0000	200.0000N	100.0000
200838	10.0000N	100.0000N	20.0000	10.0000N	500.0000	100.0000	50.0000N	30.0000	200.0000N	200.0000
200839	10.0000N	100.0000N	15.0000	10.0000N	100.0000N	150.0000	50.0000N	10.0000	200.0000N	150.0000
200840	10.0000N	100.0000N	15.0000	10.0000N	500.0000	100.0000	50.0000N	15.0000	200.0000N	100.0000
200841	10.0000N	100.0000N	20.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	100.0000
200842	10.0000N	100.0000N	15.0000	10.0000N	500.0000	100.0000	50.0000N	15.0000	200.0000N	100.0000
200843	10.0000N	100.0000N	10.0000	10.0000N	700.0000	100.0000	50.0000N	10.0000	200.0000N	100.0000
200844	10.0000N	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000	200.0000N	100.0000
200845	10.0000N	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	30.0000	200.0000N	100.0000
200846	10.0000N	100.0000N	50.0000	10.0000N	150.0000	200.0000	50.0000N	30.0000	200.0000N	100.0000
200847	10.0000N	100.0000N	7.0000	10.0000N	700.0000	100.0000	50.0000N	10.0000	200.0000N	100.0000

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	AA-AU-P	AZ-AG
200798	0.0500N	0.1000L
200799	0.0500N	0.1000L
200800	0.0500N	0.1000N
200801	0.0500N	0.2200
200802	0.0500N	0.1200
200803	0.0500N	0.7200
200804	0.0500L	0.1000L
200805	0.1600	0.1000N
200806	0.0500L	0.1000L
200807	0.0500N	0.1000L
200808	0.1200	0.1000N
200809	0.0500N	0.1000L
200810	0.0500N	0.1000L
200811	0.0600	0.1200
200812	0.0500L	0.2800
200813	0.0500L	0.1000L
200814	0.0500N	0.1000L
200815	0.0500N	0.1000
200816	0.0500L	0.3100
200817	0.0500N	0.1000
200818	0.0800	0.1000L
200819	0.0500N	0.1000L
200820	0.0500N	0.1000N
200821	0.0500N	0.1000L
200822	0.0500N	0.1000L
200823	0.2200	0.1800
200824	0.0500N	0.1000L
200825	0.0500L	0.1000L
200826	0.0500N	0.1000N
200827	0.0800	0.1000L
200828	0.0500N	0.1000N
200829	0.0500N	0.1000N
200830	0.0500N	0.1000N
200831	0.0500N	0.1000N
200832	0.0500N	0.1000L
200833	0.4800	0.5400
200834	0.0500N	0.2700
200835	0.0500N	0.2100
200836	0.0500N	0.1000
200837	0.0500N	0.1000N
200838	0.1000	0.1000L
200839	6.6000	0.6800
200840	0.1000	0.1000L
200841	0.0600	0.1000L
200842	0.0500N	0.1000N
200843	0.0600	0.1200
200844	0.0500N	0.5000
200845	0.0500N	0.5000
200846	0.0500N	0.5000
200847	0.0500N	0.1000L

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	S-FE	S-MG	S-CA	S-TI	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
200848	2.0000	2.0000	0.5000	0.2000	200.0000	0.5000N	200.0000N	10.0000N	10.0000	200.0000
200849	5.0000	3.0000	3.0000	0.3000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000	100.0000
200850	5.0000	5.0000	3.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000	70.0000
200851	2.0000	2.0000	5.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000L	700.0000
200852	3.0000	0.5000	0.7000	0.2000	200.0000	0.5000N	200.0000N	10.0000N	10.0000	300.0000
200853	2.0000	1.0000	0.5000	0.2000	300.0000	0.5000N	200.0000N	10.0000N	10.0000	300.0000
200854	5.0000	2.0000	0.7000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000L	300.0000
200855	5.0000	2.0000	0.7000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	700.0000
200856	5.0000	2.0000	0.5000	0.2000	200.0000	0.5000N	200.0000N	10.0000N	10.0000	100.0000
200857	5.0000	2.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	500.0000
200858	5.0000	2.0000	0.7000	0.2000	300.0000	0.5000N	200.0000N	10.0000N	50.0000	700.0000
200859	5.0000	2.0000	0.7000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	300.0000
200860	7.0000	5.0000	2.0000	0.3000	1000.0000	0.5000N	200.0000N	10.0000N	15.0000	100.0000
200861	7.0000	7.0000	5.0000	0.3000	1000.0000	0.5000N	200.0000N	10.0000N	15.0000	200.0000
200862	2.0000	2.0000	0.5000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	200.0000
200863	2.0000	1.0000	0.5000	0.2000	200.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200864	5.0000	5.0000	3.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	15.0000	70.0000
200865	5.0000	5.0000	5.0000	0.3000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	70.0000
200866	7.0000	5.0000	3.0000	0.3000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000	100.0000
200867	7.0000	7.0000	3.0000	0.3000	1500.0000	0.5000N	200.0000N	10.0000N	10.0000	100.0000
200868	7.0000	10.0000	5.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000	100.0000
200869	5.0000	7.0000	5.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000	100.0000
200870	5.0000	5.0000	2.0000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	50.0000	700.0000
200871	5.0000	10.0000	5.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000	150.0000
200872	5.0000	7.0000	7.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000	150.0000
200873	5.0000	5.0000	1.0000	0.3000	700.0000	0.5000N	200.0000N	10.0000N	10.0000	1000.0000
200874	5.0000	5.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	500.0000
200875	5.0000	5.0000	0.7000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	500.0000
200876	5.0000	5.0000	0.7000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	200.0000
200877	5.0000	5.0000	0.7000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	1000.0000
200878	5.0000	7.0000	1.0000	0.3000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200879	10.0000	0.7000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	50.0000	300.0000
200880	2.0000	1.0000	0.7000	0.2000	300.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200881	7.0000	0.2000	0.7000	0.2000	100.0000	0.5000N	200.0000N	10.0000N	20.0000	300.0000
200882	7.0000	0.1000	0.5000	0.0070	150.0000	0.5000N	200.0000N	10.0000N	10.0000	70.0000
200883	10.0000	7.0000	5.0000	1.0000	1500.0000	0.5000N	200.0000N	10.0000N	50.0000	200.0000
200884	10.0000	7.0000	5.0000	1.0000	2000.0000	0.5000N	200.0000N	10.0000N	10.0000	300.0000
200885	3.0000	1.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	500.0000
200886	7.0000	0.7000	5.0000	0.3000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	100.0000
200887	7.0000	0.7000	5.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	50.0000	100.0000
200888	3.0000	2.0000	2.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	700.0000
200889	3.0000	2.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	50.0000	700.0000
200890	7.0000	10.0000	7.0000	0.2000	1500.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200891	7.0000	7.0000	5.0000	0.3000	1500.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200892	7.0000	7.0000	5.0000	0.3000	1500.0000	0.5000N	200.0000N	10.0000N	10.0000	500.0000
200893	5.0000	7.0000	1.0000	0.3000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	700.0000
200894	5.0000	5.0000	0.2000	0.2000	300.0000	0.5000N	200.0000N	10.0000N	30.0000	700.0000
200895	3.0000	1.0000	1.0000	0.2000	200.0000	0.5000N	200.0000N	10.0000N	70.0000	500.0000
200896	3.0000	0.5000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	50.0000	700.0000
200897	3.0000	0.3000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	50.0000	700.0000

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	S-BE	S-BI	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI
200848	1.0000N	10.0000N	20.0000N	10.0000	150.0000	20.0000	20.0000L	5.0000N	20.0000N	50.0000
200849	1.0000N	10.0000N	20.0000N	50.0000	200.0000	30.0000	20.0000L	5.0000N	20.0000N	50.0000
200850	1.0000N	10.0000N	20.0000N	50.0000	200.0000	50.0000	20.0000L	5.0000N	20.0000N	70.0000
200851	1.0000N	10.0000N	20.0000N	15.0000	150.0000	10.0000	20.0000	5.0000N	20.0000N	50.0000
200852	1.0000N	10.0000N	20.0000N	10.0000	100.0000	15.0000	20.0000	5.0000N	20.0000N	20.0000
200853	1.0000N	10.0000N	20.0000N	20.0000	150.0000	15.0000	20.0000	5.0000N	20.0000N	50.0000
200854	1.0000N	10.0000N	20.0000N	20.0000	150.0000	50.0000	20.0000	5.0000N	20.0000N	70.0000
200855	1.0000N	10.0000N	20.0000N	20.0000	150.0000	30.0000	20.0000	5.0000N	20.0000N	50.0000
200856	1.0000N	10.0000N	20.0000N	20.0000	150.0000	20.0000	20.0000	5.0000N	20.0000N	50.0000
200857	1.0000N	10.0000N	20.0000N	20.0000	200.0000	30.0000	20.0000	5.0000N	20.0000N	70.0000
200858	1.0000N	10.0000N	20.0000N	30.0000	200.0000	50.0000	20.0000	5.0000N	20.0000N	70.0000
200859	1.0000N	10.0000N	20.0000N	20.0000	150.0000	30.0000	30.0000	5.0000N	20.0000N	50.0000
200860	1.0000N	10.0000N	20.0000N	50.0000	200.0000	30.0000	20.0000	5.0000N	20.0000N	70.0000
200861	1.0000N	10.0000N	20.0000N	50.0000	200.0000	30.0000	20.0000L	5.0000N	20.0000N	50.0000
200862	1.0000N	10.0000N	20.0000N	20.0000	200.0000	30.0000	30.0000	5.0000N	20.0000N	50.0000
200863	1.0000N	10.0000N	20.0000N	20.0000	150.0000	70.0000	30.0000	5.0000N	20.0000N	100.0000
200864	1.0000N	10.0000N	20.0000N	30.0000	500.0000	30.0000	20.0000	5.0000N	20.0000N	70.0000
200865	1.0000N	10.0000N	20.0000N	50.0000	200.0000	50.0000	20.0000	5.0000N	20.0000N	70.0000
200866	1.0000N	10.0000N	20.0000N	50.0000	150.0000	30.0000	20.0000	5.0000N	20.0000N	70.0000
200867	1.0000N	10.0000N	20.0000N	50.0000	100.0000	30.0000	20.0000	5.0000N	20.0000N	70.0000
200868	1.0000L	10.0000N	20.0000N	30.0000	200.0000	50.0000	20.0000	5.0000N	20.0000N	50.0000
200869	1.0000L	10.0000N	20.0000N	50.0000	200.0000	50.0000	20.0000	5.0000N	20.0000N	50.0000
200870	1.0000L	10.0000N	20.0000N	10.0000	100.0000	5.0000L	30.0000	5.0000N	20.0000N	5.0000L
200871	1.0000L	10.0000N	20.0000N	50.0000	200.0000	50.0000	20.0000	5.0000N	20.0000N	50.0000
200872	1.0000L	10.0000N	20.0000N	50.0000	200.0000	50.0000	20.0000	5.0000N	20.0000N	50.0000
200873	1.0000L	10.0000N	20.0000N	30.0000	200.0000	20.0000	30.0000	10.0000	20.0000N	50.0000
200874	1.0000L	10.0000N	20.0000N	20.0000	150.0000	30.0000	30.0000	5.0000N	20.0000N	50.0000
200875	1.0000L	10.0000N	20.0000N	20.0000	150.0000	50.0000	20.0000	30.0000	20.0000N	50.0000
200876	1.0000L	10.0000N	20.0000N	20.0000	150.0000	30.0000	20.0000	20.0000	20.0000N	50.0000
200877	1.0000L	10.0000N	20.0000N	20.0000	150.0000	50.0000	30.0000	20.0000	20.0000N	70.0000
200878	1.0000L	10.0000N	20.0000N	30.0000	150.0000	50.0000	20.0000	5.0000N	20.0000N	100.0000
200879	1.0000L	10.0000N	20.0000N	5.0000	100.0000	50.0000	20.0000	5.0000N	20.0000N	50.0000
200880	1.0000L	10.0000N	20.0000N	5.0000	150.0000	10.0000	20.0000L	5.0000N	20.0000N	15.0000
200881	1.0000L	10.0000N	20.0000N	5.0000N	150.0000	20.0000	20.0000	5.0000N	20.0000N	10.0000
200882	1.0000L	10.0000N	20.0000N	5.0000N	100.0000	7.0000	20.0000	5.0000N	20.0000N	5.0000
200883	1.0000L	10.0000N	20.0000N	70.0000	100.0000	50.0000	20.0000L	5.0000N	20.0000N	15.0000
200884	1.0000L	10.0000N	20.0000N	70.0000	150.0000	50.0000	20.0000L	5.0000N	20.0000N	15.0000
200885	1.0000L	10.0000N	20.0000N	5.0000	150.0000	10.0000	20.0000L	5.0000N	20.0000N	15.0000
200886	1.0000L	10.0000N	20.0000N	50.0000	200.0000	50.0000	20.0000	5.0000N	20.0000N	70.0000
200887	1.0000L	10.0000N	20.0000N	50.0000	200.0000	50.0000	20.0000	5.0000N	20.0000N	70.0000
200888	1.0000L	10.0000N	20.0000N	10.0000	150.0000	50.0000	20.0000	5.0000	20.0000N	10.0000
200889	1.0000L	10.0000N	20.0000N	10.0000	200.0000	50.0000	20.0000	5.0000	20.0000N	5.0000
200890	1.0000L	10.0000N	20.0000N	50.0000	1000.0000	30.0000	30.0000	5.0000N	20.0000N	70.0000
200891	1.0000L	10.0000N	20.0000N	50.0000	1000.0000	10.0000	30.0000	5.0000N	20.0000N	70.0000
200892	1.0000L	10.0000N	20.0000N	50.0000	300.0000	50.0000	30.0000	5.0000N	20.0000N	50.0000
200893	1.0000L	10.0000N	20.0000N	30.0000	500.0000	50.0000	30.0000	20.0000	20.0000N	70.0000
200894	1.0000L	10.0000N	20.0000N	30.0000	500.0000	50.0000	50.0000	20.0000	20.0000N	100.0000
200895	1.0000L	10.0000N	20.0000N	5.0000	500.0000	50.0000	20.0000	15.0000	20.0000N	10.0000
200896	1.0000L	10.0000N	20.0000N	5.0000	500.0000	50.0000	30.0000	20.0000	20.0000N	10.0000
200897	1.0000L	10.0000N	20.0000N	5.0000	150.0000	20.0000	30.0000	20.0000	20.0000N	10.0000

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
200848	10.0000N	100.0000N	20.0000	10.0000N	200.0000	50.0000	50.0000N	10.0000	200.0000N	100.0000
200849	10.0000N	100.0000N	20.0000	10.0000N	200.0000	300.0000	50.0000N	20.0000	200.0000N	100.0000
200850	10.0000N	100.0000N	10.0000	10.0000N	200.0000	300.0000	50.0000N	20.0000	200.0000N	70.0000
200851	10.0000N	100.0000N	5.0000	10.0000N	500.0000	100.0000	50.0000N	20.0000	200.0000N	150.0000
200852	10.0000N	100.0000N	5.0000	10.0000N	300.0000	50.0000	50.0000N	10.0000	200.0000N	100.0000
200853	10.0000N	100.0000N	10.0000	10.0000N	200.0000	50.0000	50.0000N	15.0000	200.0000N	200.0000
200854	10.0000N	100.0000N	15.0000	10.0000N	150.0000	100.0000	50.0000N	15.0000	200.0000N	100.0000
200855	10.0000N	100.0000N	10.0000	10.0000N	200.0000	100.0000	50.0000N	15.0000	200.0000N	150.0000
200856	10.0000N	100.0000N	10.0000	10.0000N	150.0000	70.0000	50.0000N	15.0000	200.0000N	100.0000
200857	10.0000N	100.0000N	10.0000	10.0000N	200.0000	100.0000	50.0000N	15.0000	200.0000N	150.0000
200858	10.0000N	100.0000N	10.0000	10.0000N	100.0000N	100.0000	50.0000N	20.0000	200.0000N	200.0000
200859	10.0000N	100.0000N	30.0000	10.0000N	150.0000	100.0000	50.0000N	15.0000	200.0000N	200.0000
200860	10.0000N	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	20.0000	200.0000N	100.0000
200861	10.0000N	100.0000N	10.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000	200.0000N	50.0000
200862	10.0000N	100.0000N	10.0000	10.0000N	200.0000	100.0000	50.0000N	15.0000	200.0000N	200.0000
200863	10.0000N	100.0000N	30.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	100.0000
200864	10.0000N	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000	200.0000N	50.0000
200865	10.0000N	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	20.0000	200.0000N	50.0000
200866	10.0000N	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000	200.0000N	70.0000
200867	10.0000N	100.0000N	30.0000	10.0000N	150.0000	150.0000	50.0000N	30.0000	200.0000N	50.0000
200868	10.0000N	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	30.0000	200.0000N	100.0000
200869	10.0000N	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	30.0000	200.0000N	100.0000
200870	10.0000	100.0000N	10.0000	10.0000N	500.0000	100.0000	50.0000N	20.0000	200.0000N	100.0000
200871	10.0000N	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	20.0000	200.0000N	100.0000
200872	10.0000N	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	20.0000	200.0000N	70.0000
200873	10.0000	100.0000N	10.0000	10.0000N	500.0000	100.0000	50.0000N	15.0000	200.0000N	150.0000
200874	10.0000L	100.0000N	10.0000	10.0000N	300.0000	100.0000	50.0000N	20.0000	200.0000N	100.0000
200875	10.0000L	100.0000N	10.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	150.0000
200876	10.0000N	100.0000N	10.0000	10.0000N	200.0000	100.0000	50.0000N	15.0000	200.0000N	150.0000
200877	10.0000N	100.0000N	10.0000	10.0000N	150.0000	100.0000	50.0000N	20.0000	200.0000N	200.0000
200878	10.0000N	100.0000N	10.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000	200.0000N	200.0000
200879	10.0000N	100.0000N	5.0000	10.0000N	200.0000	70.0000	50.0000N	10.0000L	200.0000N	70.0000
200880	15.0000	100.0000N	5.0000L	10.0000N	500.0000	50.0000	50.0000N	10.0000L	200.0000N	150.0000
200881	10.0000N	100.0000N	7.0000	10.0000N	300.0000	150.0000	50.0000N	10.0000L	200.0000N	100.0000
200882	10.0000N	100.0000N	5.0000N	10.0000N	100.0000N	150.0000	50.0000N	10.0000L	200.0000N	10.0000N
200883	10.0000N	100.0000N	30.0000	10.0000N	300.0000	500.0000	50.0000N	30.0000	200.0000N	100.0000
200884	10.0000N	100.0000N	50.0000	10.0000N	200.0000	300.0000	50.0000N	30.0000	200.0000N	100.0000
200885	10.0000	100.0000N	5.0000	10.0000N	500.0000	70.0000	50.0000N	10.0000L	200.0000N	100.0000
200886	10.0000N	100.0000N	15.0000	10.0000N	150.0000	100.0000	50.0000N	30.0000	200.0000N	100.0000
200887	10.0000N	100.0000N	30.0000	10.0000N	200.0000	100.0000	50.0000N	30.0000	200.0000N	100.0000
200888	10.0000L	100.0000N	5.0000	10.0000N	700.0000	70.0000	50.0000N	10.0000L	200.0000N	150.0000
200889	10.0000L	100.0000N	5.0000	10.0000N	500.0000	50.0000	50.0000N	10.0000L	200.0000N	200.0000
200890	10.0000N	100.0000N	30.0000	10.0000N	500.0000	200.0000	50.0000N	20.0000	200.0000N	150.0000
200891	10.0000N	100.0000N	30.0000	10.0000N	700.0000	150.0000	50.0000N	20.0000	200.0000N	150.0000
200892	10.0000N	100.0000N	20.0000	10.0000N	700.0000	150.0000	50.0000N	20.0000	200.0000N	100.0000
200893	10.0000N	100.0000N	30.0000	10.0000N	300.0000	150.0000	50.0000N	20.0000	200.0000N	200.0000
200894	10.0000	100.0000N	30.0000	10.0000N	100.0000	200.0000	50.0000N	20.0000	200.0000N	200.0000
200895	10.0000L	100.0000N	5.0000L	10.0000N	100.0000	50.0000	50.0000N	10.0000	200.0000N	200.0000
200896	10.0000L	100.0000N	5.0000L	10.0000N	200.0000	50.0000	50.0000N	10.0000	200.0000N	200.0000
200897	10.0000L	100.0000N	5.0000L	10.0000N	200.0000	50.0000	50.0000N	15.0000	200.0000N	200.0000

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	AA-AU-P	AZ-AG
200848	0.0500N	0.1000N
200849	0.0500N	0.1000N
200850	0.0500N	0.1500
200851	0.0500N	0.1000N
200852	0.0500N	0.1000N
200853	0.0500N	0.1000N
200854	0.0500N	0.1000N
200855	0.0500N	0.1000N
200856	0.0500L	0.1000N
200857	0.0800	0.1000N
200858	0.0500	0.1000N
200859	0.0500N	0.1000N
200860	0.0500N	0.1000N
200861	0.0500N	0.1000L
200862	0.0500N	0.1000N
200863	0.0500N	0.1000N
200864	0.0500N	0.1000N
200865	0.2700	0.2000
200866	0.0500N	0.1000L
200867	0.0500N	0.1000L
200868	0.0500N	0.1000N
200869	0.0500N	0.1000N
200870	0.0500N	0.1000N
200871	0.0500N	0.1000N
200872	0.0500N	0.1000L
200873	0.0500N	0.1000N
200874	0.0500N	0.1000N
200875	0.0500N	0.1000N
200876	0.0500N	0.1000N
200877	0.0500N	0.1000
200878	0.0500N	0.1000N
200879	0.0500N	0.2000
200880	0.0500N	0.1000N
200881	0.0500N	0.1500
200882	0.0500N	0.1000N
200883	0.0500N	0.1000L
200884	0.0500N	0.1000N
200885	0.0500N	0.1000N
200886	0.0500N	0.1000N
200887	0.0500N	0.1000N
200888	0.0500N	0.1000N
200889	0.0500N	0.1000N
200890	0.0500N	0.1000N
200891	0.0500N	0.1000N
200892	0.0500N	0.1000N
200893	0.0500N	0.1000N
200894	0.0500N	0.1000N
200895	0.0500L	0.1000N
200896	0.0500N	0.1000N
200897	0.0500N	0.1000N

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	S-FE	S-MG	S-CA	S-TI	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
200898	5.0000	7.0000	3.0000	0.3000	700.0000	0.5000N	200.0000N	10.0000N	20.0000	700.0000
200899	5.0000	5.0000	2.0000	0.3000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	300.0000
200900	5.0000	2.0000	3.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	30.0000	1000.0000
200901	5.0000	1.0000	2.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	50.0000	700.0000
200902	5.0000	1.0000	2.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	30.0000	1500.0000
200903	7.0000	5.0000	2.0000	1.0000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000L	500.0000
200904	5.0000	5.0000	2.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	1000.0000
200905	5.0000	2.0000	10.0000	0.2000	1500.0000	0.5000N	200.0000N	10.0000N	10.0000	200.0000
200906	5.0000	2.0000	1.5000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	15.0000	1000.0000
200907	10.0000	10.0000	7.0000	1.0000	200.0000	0.5000N	200.0000N	10.0000N	10.0000	300.0000
200908	5.0000	7.0000	20.0000	0.2000	2000.0000	0.5000N	200.0000N	10.0000N	10.0000L	700.0000
200909	5.0000	2.0000	1.0000	0.3000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	700.0000
200910	3.0000	1.5000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	700.0000
200911	5.0000	3.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	700.0000
200912	5.0000	10.0000	15.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200913	5.0000	7.0000	1.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200914	3.0000	2.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200915	5.0000	10.0000	10.0000	0.3000	1000.0000	0.5000N	200.0000N	10.0000N	15.0000	500.0000
200916	7.0000	10.0000	10.0000	0.2000	1500.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200917	5.0000	5.0000	1.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000	500.0000
200918	5.0000	7.0000	1.0000	0.3000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	700.0000
200919	5.0000	7.0000	1.0000	0.5000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	500.0000
200920	5.0000	7.0000	1.0000	0.3000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	700.0000
200921	5.0000	7.0000	3.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	700.0000
200922	3.0000	1.0000	1.0000	0.2000	500.0000	0.5000N	2000.0000	10.0000N	50.0000	700.0000
200923	5.0000	5.0000	1.0000	0.3000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	1000.0000
200924	5.0000	5.0000	1.0000	0.3000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200925	5.0000	5.0000	0.7000	0.5000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	200.0000
200926	5.0000	7.0000	2.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	50.0000	2000.0000
200927	5.0000	7.0000	1.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	30.0000	700.0000
200928	5.0000	2.0000	7.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	700.0000
200929	7.0000	10.0000	7.0000	0.3000	1500.0000	0.5000N	200.0000N	10.0000N	10.0000	100.0000
200930	5.0000	5.0000	20.0000	0.2000	2000.0000	0.5000N	200.0000N	10.0000N	10.0000	200.0000
200931	7.0000	10.0000	10.0000	0.5000	2000.0000	0.5000N	200.0000N	10.0000N	10.0000	150.0000
200932	7.0000	10.0000	10.0000	0.5000	2000.0000	0.5000N	200.0000N	10.0000N	20.0000	70.0000
200933	5.0000	10.0000	10.0000	0.5000	2000.0000	0.5000N	200.0000N	10.0000N	10.0000	300.0000
200934	5.0000	5.0000	15.0000	0.2000	2000.0000	0.5000N	200.0000N	10.0000N	15.0000	700.0000
200935	7.0000	1.0000	15.0000	0.5000	2000.0000	0.5000N	200.0000N	10.0000N	20.0000	150.0000
200936	10.0000	7.0000	15.0000	0.5000	1500.0000	0.5000N	200.0000N	10.0000N	20.0000	150.0000
200937	5.0000	5.0000	1.0000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	20.0000	150.0000
200938	5.0000	5.0000	1.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000	500.0000
200939	5.0000	7.0000	1.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200940	5.0000	7.0000	5.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200941	7.0000	10.0000	5.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	30.0000	200.0000
200942	5.0000	5.0000	3.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200943	5.0000	5.0000	5.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	300.0000
200944	5.0000	5.0000	0.3000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	50.0000	700.0000
200945	3.0000	1.0000	1.5000	0.1500	500.0000	0.5000N	200.0000N	10.0000N	30.0000	700.0000
200946	5.0000	7.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200947	5.0000	5.0000	10.0000	0.2000	200.0000	0.5000N	200.0000N	10.0000N	20.0000	700.0000

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	S-BE	S-BI	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI
200898	1.0000L	10.0000N	20.0000N	30.0000	200.0000	50.0000	20.0000	5.0000N	20.0000N	100.0000
200899	1.0000L	10.0000N	20.0000N	20.0000	500.0000	50.0000	30.0000	20.0000	20.0000N	70.0000
200900	1.0000L	10.0000N	20.0000N	20.0000	700.0000	70.0000	20.0000	30.0000	20.0000	70.0000
200901	1.0000L	10.0000N	20.0000N	10.0000	200.0000	50.0000	30.0000	20.0000	20.0000N	20.0000
200902	1.0000L	10.0000N	20.0000N	20.0000	50.0000	20.0000	100.0000	5.0000N	30.0000	5.0000N
200903	1.0000L	10.0000N	20.0000N	50.0000	70.0000	20.0000	20.0000	5.0000N	20.0000N	70.0000
200904	1.0000L	10.0000N	20.0000N	30.0000	700.0000	20.0000	30.0000	5.0000N	20.0000N	100.0000
200905	1.0000L	10.0000N	20.0000N	20.0000	200.0000	20.0000	30.0000	5.0000N	20.0000N	50.0000
200906	1.0000L	10.0000N	20.0000N	20.0000	200.0000	50.0000	20.0000	5.0000N	20.0000N	70.0000
200907	1.0000L	10.0000N	20.0000N	50.0000	500.0000	70.0000	20.0000	5.0000N	20.0000N	70.0000
200908	1.0000L	10.0000N	20.0000N	20.0000	200.0000	20.0000	30.0000	30.0000	20.0000N	50.0000
200909	1.0000L	10.0000N	20.0000N	10.0000	150.0000	50.0000	20.0000	30.0000	20.0000N	15.0000
200910	1.0000L	10.0000N	20.0000N	10.0000	200.0000	30.0000	20.0000	5.0000	20.0000N	15.0000
200911	1.0000L	10.0000N	20.0000N	20.0000	200.0000	20.0000	20.0000	5.0000N	20.0000N	50.0000
200912	1.0000L	10.0000N	20.0000N	50.0000	500.0000	50.0000	20.0000	5.0000N	20.0000N	70.0000
200913	1.0000L	10.0000N	20.0000N	30.0000	500.0000	20.0000	20.0000	5.0000N	20.0000N	70.0000
200914	1.0000L	10.0000N	20.0000N	20.0000	200.0000	50.0000	30.0000	15.0000	20.0000N	50.0000
200915	1.0000L	10.0000N	20.0000N	50.0000	1000.0000	20.0000	20.0000L	10.0000	20.0000N	200.0000
200916	1.0000L	10.0000N	20.0000N	50.0000	200.0000	20.0000	20.0000L	10.0000	20.0000N	50.0000
200917	1.0000L	10.0000N	20.0000N	20.0000	200.0000	30.0000	20.0000	15.0000	20.0000N	50.0000
200918	1.0000L	10.0000N	20.0000N	30.0000	200.0000	50.0000	20.0000N	10.0000	20.0000N	50.0000
200919	1.0000L	10.0000N	20.0000N	30.0000	200.0000	20.0000	20.0000N	10.0000	20.0000N	50.0000
200920	1.0000L	10.0000N	20.0000N	30.0000	500.0000	30.0000	20.0000L	5.0000	20.0000N	70.0000
200921	1.0000L	10.0000N	20.0000N	50.0000	200.0000	20.0000	20.0000	5.0000N	20.0000N	100.0000
200922	1.0000L	10.0000N	20.0000N	10.0000	300.0000	15.0000	20.0000	10.0000	20.0000N	15.0000
200923	1.0000L	10.0000N	20.0000N	30.0000	1000.0000	10.0000	20.0000L	5.0000N	20.0000N	150.0000
200924	1.0000L	10.0000N	20.0000N	30.0000	300.0000	30.0000	20.0000L	5.0000N	20.0000N	100.0000
200925	1.0000L	10.0000N	20.0000N	20.0000	500.0000	20.0000	20.0000	5.0000N	20.0000N	70.0000
200926	1.0000L	10.0000N	20.0000N	20.0000	500.0000	30.0000	20.0000	5.0000N	20.0000N	100.0000
200927	1.0000L	10.0000N	20.0000N	30.0000	500.0000	20.0000	20.0000	5.0000N	20.0000N	70.0000
200928	1.0000L	10.0000N	20.0000N	30.0000	300.0000	20.0000	30.0000	5.0000N	20.0000L	70.0000
200929	1.0000L	10.0000N	20.0000N	50.0000	200.0000	50.0000	20.0000	5.0000N	20.0000L	70.0000
200930	1.0000L	10.0000N	20.0000N	20.0000	150.0000	15.0000	20.0000	5.0000N	20.0000L	50.0000
200931	1.0000L	10.0000N	20.0000N	50.0000	500.0000	30.0000	20.0000	5.0000N	20.0000L	50.0000
200932	1.0000L	10.0000N	20.0000N	50.0000	500.0000	50.0000	20.0000	5.0000N	20.0000L	70.0000
200933	1.0000L	10.0000N	20.0000N	50.0000	200.0000	50.0000	20.0000L	5.0000N	20.0000L	50.0000
200934	1.0000L	10.0000N	20.0000N	20.0000	700.0000	20.0000	30.0000	5.0000N	20.0000L	30.0000
200935	1.0000L	10.0000N	20.0000N	50.0000	150.0000	7.0000	20.0000	5.0000N	20.0000L	50.0000
200936	1.0000L	10.0000N	20.0000N	50.0000	500.0000	50.0000	20.0000	5.0000N	20.0000L	50.0000
200937	1.0000L	10.0000N	20.0000N	20.0000	500.0000	50.0000	20.0000	5.0000N	20.0000L	50.0000
200938	1.0000L	10.0000N	20.0000N	20.0000	200.0000	20.0000	20.0000	5.0000N	20.0000L	50.0000
200939	1.0000L	10.0000N	20.0000N	20.0000	200.0000	20.0000	20.0000	5.0000N	20.0000L	50.0000
200940	1.0000L	10.0000N	20.0000N	30.0000	200.0000	30.0000	20.0000	5.0000N	20.0000L	50.0000
200941	1.0000L	10.0000N	20.0000N	50.0000	200.0000	20.0000	20.0000	5.0000N	20.0000L	50.0000
200942	1.0000L	10.0000N	20.0000N	30.0000	500.0000	30.0000	20.0000	5.0000N	20.0000L	50.0000
200943	1.0000L	10.0000N	20.0000N	30.0000	200.0000	20.0000	20.0000	5.0000N	20.0000L	50.0000
200944	1.0000L	10.0000N	20.0000N	30.0000	200.0000	30.0000	30.0000	5.0000N	20.0000L	50.0000
200945	1.0000L	10.0000N	20.0000N	10.0000	200.0000	20.0000	20.0000L	5.0000N	20.0000L	50.0000
200946	1.0000L	10.0000N	20.0000N	20.0000	300.0000	20.0000	20.0000N	5.0000N	20.0000L	50.0000
200947	1.0000L	10.0000N	20.0000N	20.0000	500.0000	20.0000	30.0000	5.0000N	20.0000L	50.0000

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	S-FE	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
200898	50.0000	100.0000N	15.0000	10.0000N	200.0000	200.0000	50.0000N	20.0000	200.0000N	100.0000
200899	10.0000L	100.0000N	15.0000	10.0000N	200.0000	200.0000	70.0000	20.0000	200.0000N	150.0000
200900	10.0000L	100.0000N	15.0000	10.0000N	200.0000	150.0000	1000.0000	15.0000	200.0000N	100.0000
200901	10.0000L	100.0000N	5.0000	10.0000N	200.0000	70.0000	50.0000N	15.0000	200.0000N	200.0000
200902	10.0000L	100.0000N	5.0000	10.0000N	300.0000	20.0000	50.0000N	50.0000	200.0000N	500.0000
200903	10.0000L	100.0000N	15.0000	10.0000N	500.0000	150.0000	50.0000N	15.0000	200.0000N	150.0000
200904	30.0000	100.0000N	15.0000	10.0000N	700.0000	100.0000	50.0000N	10.0000	200.0000N	150.0000
200905	10.0000L	100.0000N	15.0000	10.0000N	500.0000	100.0000	50.0000N	20.0000	200.0000N	100.0000
200906	10.0000L	100.0000N	15.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000	200.0000N	100.0000
200907	10.0000N	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	30.0000	200.0000N	100.0000
200908	10.0000N	100.0000N	15.0000	10.0000N	700.0000	100.0000	50.0000N	20.0000	200.0000N	100.0000
200909	10.0000	100.0000N	15.0000	10.0000N	500.0000	100.0000	50.0000N	20.0000	200.0000N	150.0000
200910	10.0000N	100.0000N	5.0000	10.0000N	500.0000	70.0000	50.0000N	10.0000	200.0000N	150.0000
200911	10.0000N	100.0000N	15.0000	10.0000N	500.0000	100.0000	50.0000N	20.0000	200.0000N	200.0000
200912	10.0000N	100.0000N	50.0000	10.0000N	500.0000	200.0000	50.0000N	30.0000	200.0000N	100.0000
200913	10.0000N	100.0000N	20.0000	10.0000N	300.0000	150.0000	50.0000N	30.0000	200.0000N	150.0000
200914	10.0000N	100.0000N	10.0000	10.0000N	200.0000	100.0000	50.0000N	15.0000	200.0000N	200.0000
200915	10.0000N	100.0000N	30.0000	10.0000N	500.0000	200.0000	50.0000N	20.0000	200.0000N	100.0000
200916	10.0000N	100.0000N	20.0000	10.0000N	500.0000	150.0000	50.0000N	15.0000	200.0000N	100.0000
200917	10.0000N	100.0000N	15.0000	10.0000N	500.0000	150.0000	300.0000	20.0000	200.0000N	150.0000
200918	10.0000N	100.0000N	15.0000	10.0000N	500.0000	150.0000	50.0000N	20.0000	200.0000N	150.0000
200919	10.0000N	100.0000N	15.0000	10.0000N	300.0000	150.0000	50.0000N	20.0000	200.0000N	150.0000
200920	10.0000N	100.0000N	15.0000	10.0000N	500.0000	150.0000	50.0000N	20.0000	200.0000N	150.0000
200921	10.0000N	100.0000N	15.0000	10.0000N	700.0000	200.0000	50.0000N	20.0000	200.0000N	150.0000
200922	10.0000N	100.0000N	5.0000L	10.0000N	150.0000	70.0000	50.0000N	10.0000	200.0000N	100.0000
200923	10.0000N	100.0000N	10.0000	10.0000N	500.0000	100.0000	50.0000N	10.0000	200.0000N	150.0000
200924	10.0000N	100.0000N	15.0000	10.0000N	500.0000	200.0000	50.0000N	20.0000	200.0000N	150.0000
200925	10.0000N	100.0000N	15.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000	200.0000N	150.0000
200926	10.0000	100.0000N	15.0000	10.0000N	500.0000	200.0000	50.0000N	30.0000	200.0000N	150.0000
200927	10.0000N	100.0000N	15.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000	200.0000N	150.0000
200928	10.0000N	100.0000N	20.0000	10.0000N	500.0000	100.0000	50.0000N	20.0000	200.0000N	150.0000
200929	10.0000N	100.0000N	50.0000	10.0000N	200.0000	200.0000	50.0000N	30.0000	200.0000N	100.0000
200930	10.0000N	100.0000N	10.0000	10.0000N	700.0000	100.0000	50.0000N	15.0000	200.0000N	100.0000
200931	10.0000N	100.0000N	50.0000	10.0000N	300.0000	200.0000	100.0000	50.0000	200.0000N	100.0000
200932	10.0000N	100.0000N	50.0000	10.0000N	200.0000	200.0000	50.0000N	30.0000	200.0000N	150.0000
200933	10.0000N	100.0000N	50.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000	200.0000N	100.0000
200934	10.0000N	100.0000N	15.0000	30.0000	500.0000	100.0000	150.0000	20.0000	200.0000N	100.0000
200935	10.0000N	100.0000N	50.0000	10.0000N	500.0000	150.0000	50.0000N	50.0000	200.0000N	100.0000
200936	10.0000N	100.0000N	50.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000	200.0000N	100.0000
200937	10.0000N	100.0000N	20.0000	10.0000N	300.0000	150.0000	50.0000N	20.0000	200.0000N	200.0000
200938	10.0000N	100.0000N	15.0000	10.0000N	300.0000	150.0000	50.0000N	20.0000	200.0000N	200.0000
200939	10.0000N	100.0000N	20.0000	10.0000N	300.0000	150.0000	50.0000N	20.0000	200.0000N	200.0000
200940	10.0000N	100.0000N	20.0000	10.0000N	500.0000	150.0000	50.0000N	20.0000	200.0000N	200.0000
200941	10.0000N	100.0000N	30.0000	10.0000N	500.0000	150.0000	50.0000N	20.0000	200.0000N	150.0000
200942	10.0000N	100.0000N	20.0000	10.0000N	300.0000	150.0000	50.0000N	20.0000	200.0000N	150.0000
200943	10.0000N	100.0000N	30.0000	10.0000N	500.0000	200.0000	50.0000N	20.0000	200.0000N	150.0000
200944	10.0000N	100.0000N	20.0000	10.0000N	500.0000	200.0000	50.0000N	30.0000	200.0000N	200.0000
200945	10.0000N	100.0000N	5.0000	10.0000N	300.0000	50.0000	50.0000N	10.0000L	200.0000N	100.0000
200946	10.0000N	100.0000N	15.0000	10.0000N	500.0000	150.0000	50.0000N	20.0000	200.0000N	150.0000
200947	10.0000N	100.0000N	20.0000	10.0000N	1000.0000	100.0000	50.0000N	30.0000	200.0000N	150.0000

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	AA-AU-P	AZ-AG
200898	0.0500N	0.1000N
200899	0.0600	0.1000N
200900	0.0700	0.1700
200901	0.1800	0.1000N
200902	0.0500N	0.1000N
200903	0.0500N	0.1000N
200904	0.0500N	0.1000N
200905	0.0500N	0.1000N
200906	0.0500N	0.1000N
200907	0.0500N	0.1000N
200908	0.0500N	0.1000N
200909	0.0500N	0.1000N
200910	0.0500N	0.1000N
200911	0.0500N	0.1000N
200912	0.0500N	0.1000N
200913	0.0500N	0.1000N
200914	0.0500	0.1000
200915	0.0500N	0.1000N
200916	0.0500N	0.1200
200917	0.0500L	0.1000L
200918	0.0500N	0.1000N
200919	0.0500N	0.1000N
200920	0.0500N	0.1000N
200921	0.0500N	0.1000N
200922	0.0500L	0.2800
200923	0.0500N	0.1000N
200924	0.0500N	0.1000N
200925	0.0500N	0.1000N
200926	0.0500N	0.1000L
200927	0.0500N	0.1000N
200928	0.0500N	0.1000N
200929	0.0500N	0.1000N
200930	0.0500L	0.4000
200931	0.0500N	0.1000N
200932	0.0500N	0.1000N
200933	0.0500N	0.1000N
200934	0.0500N	0.1000N
200935	0.0500N	0.1000L
200936	0.0500L	0.1000N
200937	0.0500N	0.1000N
200938	0.0500N	0.1000N
200939	0.0500N	0.1000N
200940	0.0500N	0.1000N
200941	0.0500L	0.1000L
200942	0.0500N	0.1000N
200943	0.0500N	0.1000N
200944	0.0500N	0.6000
200945	0.0500N	0.1000
200946	0.0500N	0.1000N
200947	0.0500N	0.1000L

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	S-FE	S-MG	S-CA	S-TI	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
200948	5.0000	5.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	300.0000
200949	5.0000	5.0000	0.7000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200950	5.0000	5.0000	0.7000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200951	5.0000	5.0000	2.0000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	20.0000	300.0000
200952	5.0000	5.0000	2.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	200.0000
200953	5.0000	7.0000	3.0000	0.3000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000	70.0000
200954	3.0000	3.0000	1.5000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	100.0000
200955	3.0000	5.0000	10.0000	0.2000	2000.0000	0.5000N	200.0000N	10.0000N	10.0000L	1000.0000
200956	3.0000	5.0000	5.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	10.0000	700.0000
200957	7.0000	7.0000	5.0000	0.5000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	200.0000
200958	5.0000	5.0000	5.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	100.0000
200959	5.0000	5.0000	7.0000	0.2000	1000.0000	0.5000N	200.0000N	10.0000N	15.0000	1500.0000
200960	5.0000	5.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	700.0000
200961	5.0000	2.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	300.0000
200962	5.0000	5.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	15.0000	500.0000
200963	5.0000	2.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	500.0000
200964	5.0000	5.0000	2.0000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200965	5.0000	5.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200966	5.0000	5.0000	1.0000	0.3000	700.0000	0.5000N	200.0000N	10.0000N	20.0000	500.0000
200967	5.0000	5.0000	1.0000	0.3000	500.0000	0.5000N	200.0000N	10.0000N	20.0000	300.0000
200968	5.0000	5.0000	2.0000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	10.0000	500.0000
200969	5.0000	5.0000	0.3000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000L	200.0000
200970	5.0000	5.0000	0.5000	0.2000	300.0000	0.5000N	200.0000N	10.0000N	10.0000	300.0000
200971	5.0000	5.0000	5.0000	0.2000	1500.0000	0.5000N	200.0000N	10.0000N	10.0000	700.0000
200972	5.0000	5.0000	0.5000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	500.0000
200973	5.0000	5.0000	10.0000	0.2000	2000.0000	0.5000N	200.0000N	10.0000N	10.0000L	700.0000
200974	5.0000	5.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	500.0000
200975	5.0000	5.0000	1.0000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	30.0000	500.0000
200976	5.0000	5.0000	0.7000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	30.0000	700.0000
200977	5.0000	5.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	300.0000
200978	5.0000	5.0000	1.5000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	20.0000	200.0000
200979	5.0000	7.0000	2.0000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	20.0000	100.0000

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	S-BE	S-BI	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI
200948	1.0000L	10.0000N	20.0000N	20.0000	200.0000	30.0000	20.0000	5.0000N	20.0000N	70.0000
200949	1.0000L	10.0000N	20.0000N	30.0000	150.0000	50.0000	30.0000	5.0000N	20.0000N	70.0000
200950	1.0000L	10.0000N	20.0000N	30.0000	100.0000	10.0000	20.0000	5.0000N	20.0000N	20.0000
200951	1.0000L	10.0000N	20.0000N	20.0000	150.0000	20.0000	20.0000	5.0000N	20.0000N	50.0000
200952	1.0000L	10.0000N	20.0000N	30.0000	100.0000	30.0000	20.0000	5.0000N	20.0000N	50.0000
200953	1.0000L	10.0000N	20.0000N	50.0000	150.0000	50.0000	20.0000	5.0000N	20.0000N	70.0000
200954	1.0000L	10.0000N	20.0000N	20.0000	100.0000	70.0000	20.0000	5.0000N	20.0000N	50.0000
200955	1.0000L	10.0000N	20.0000N	20.0000	100.0000	10.0000	30.0000	5.0000N	20.0000N	50.0000
200956	1.0000L	10.0000N	20.0000N	20.0000	150.0000	10.0000	30.0000	5.0000N	20.0000N	50.0000
200957	1.0000L	10.0000N	20.0000N	30.0000	100.0000	20.0000	20.0000L	5.0000N	20.0000N	50.0000
200958	1.0000L	10.0000N	20.0000N	30.0000	150.0000	20.0000	20.0000L	5.0000N	20.0000N	50.0000
200959	1.0000L	10.0000N	20.0000N	20.0000	200.0000	10.0000	30.0000	5.0000N	20.0000N	50.0000
200960	1.0000L	10.0000N	20.0000N	20.0000	200.0000	20.0000	30.0000	5.0000N	20.0000N	50.0000
200961	1.0000L	10.0000N	20.0000N	20.0000	200.0000	20.0000	30.0000	5.0000N	20.0000N	50.0000
200962	1.0000L	10.0000N	20.0000N	20.0000	150.0000	30.0000	30.0000	5.0000N	20.0000N	50.0000
200963	1.0000L	10.0000N	20.0000N	15.0000	200.0000	20.0000	30.0000	5.0000N	20.0000N	50.0000
200964	1.0000L	10.0000N	20.0000N	20.0000	150.0000	30.0000	30.0000	5.0000	20.0000N	50.0000
200965	1.0000L	10.0000N	20.0000N	20.0000	150.0000	30.0000	20.0000	5.0000L	20.0000N	50.0000
200966	1.0000	10.0000N	20.0000N	30.0000	200.0000	70.0000	20.0000	5.0000L	20.0000N	70.0000
200967	1.0000L	10.0000N	20.0000N	20.0000	150.0000	50.0000	20.0000	5.0000L	20.0000N	70.0000
200968	1.0000L	10.0000N	20.0000N	30.0000	700.0000	20.0000	20.0000	5.0000N	20.0000N	70.0000
200969	1.0000L	10.0000N	20.0000N	20.0000	200.0000	20.0000	20.0000L	5.0000N	20.0000N	70.0000
200970	1.0000L	10.0000N	20.0000N	20.0000	200.0000	50.0000	20.0000L	5.0000N	20.0000N	50.0000
200971	3.0000	10.0000N	20.0000N	15.0000	150.0000	10.0000	20.0000L	5.0000N	20.0000N	30.0000
200972	1.0000L	10.0000N	20.0000N	20.0000	200.0000	20.0000	20.0000	5.0000N	20.0000N	70.0000
200973	1.0000N	10.0000N	20.0000N	20.0000	200.0000	20.0000	20.0000L	5.0000N	20.0000N	70.0000
200974	1.0000L	10.0000N	20.0000N	20.0000	300.0000	20.0000	20.0000	5.0000N	20.0000N	50.0000
200975	1.0000L	10.0000N	20.0000N	30.0000	100.0000	20.0000	20.0000L	5.0000N	20.0000N	20.0000
200976	1.0000N	10.0000N	20.0000N	20.0000	150.0000	30.0000	20.0000	5.0000N	20.0000N	70.0000
200977	1.0000N	10.0000N	20.0000N	20.0000	200.0000	20.0000	20.0000L	5.0000N	20.0000N	70.0000
200978	1.0000N	10.0000N	20.0000N	20.0000	200.0000	20.0000	20.0000L	5.0000N	20.0000N	50.0000
200979	1.0000N	10.0000N	20.0000N	50.0000	200.0000	50.0000	20.0000L	5.0000N	20.0000N	50.0000

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
200948	10.0000L	100.0000N	10.0000	10.0000N	300.0000	100.0000	50.0000N	20.0000	200.0000N	100.0000
200949	10.0000L	100.0000N	15.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	150.0000
200950	10.0000L	100.0000N	10.0000	10.0000N	500.0000	70.0000	50.0000N	15.0000	200.0000N	100.0000
200951	10.0000L	100.0000N	10.0000	10.0000N	300.0000	100.0000	50.0000N	15.0000	200.0000N	150.0000
200952	10.0000L	100.0000N	15.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	100.0000
200953	10.0000L	100.0000N	30.0000	10.0000N	200.0000	200.0000	50.0000N	20.0000	200.0000N	70.0000
200954	10.0000L	100.0000N	10.0000	10.0000N	100.0000	50.0000	50.0000N	10.0000	200.0000N	100.0000
200955	10.0000L	100.0000N	10.0000	10.0000N	1000.0000	70.0000	50.0000N	15.0000	200.0000N	100.0000
200956	10.0000L	100.0000N	10.0000	10.0000N	500.0000	70.0000	50.0000N	15.0000	200.0000N	100.0000
200957	10.0000L	100.0000N	30.0000	10.0000N	300.0000	200.0000	50.0000N	30.0000	200.0000N	70.0000
200958	10.0000L	100.0000N	20.0000	10.0000N	200.0000	150.0000	50.0000N	30.0000	200.0000N	70.0000
200959	10.0000L	100.0000N	10.0000	10.0000N	500.0000	100.0000	50.0000N	20.0000	200.0000N	100.0000
200960	10.0000L	100.0000N	10.0000	10.0000N	200.0000	100.0000	50.0000N	15.0000	200.0000N	150.0000
200961	10.0000L	100.0000N	10.0000	10.0000N	200.0000	100.0000	50.0000N	15.0000	200.0000N	150.0000
200962	100.0000	100.0000N	15.0000	10.0000N	200.0000	100.0000	50.0000N	15.0000	200.0000N	150.0000
200963	10.0000L	100.0000N	10.0000	10.0000N	300.0000	100.0000	50.0000N	15.0000	200.0000N	150.0000
200964	10.0000	100.0000N	10.0000	10.0000N	500.0000	100.0000	50.0000N	15.0000	200.0000N	150.0000
200965	10.0000L	100.0000N	10.0000	10.0000N	200.0000	100.0000	50.0000N	15.0000	200.0000N	150.0000
200966	10.0000	100.0000N	15.0000	10.0000N	300.0000	100.0000	50.0000N	20.0000	200.0000N	150.0000
200967	10.0000L	100.0000N	10.0000	10.0000N	300.0000	100.0000	50.0000N	20.0000	200.0000N	150.0000
200968	10.0000N	100.0000N	15.0000	10.0000N	300.0000	100.0000	100.0000	15.0000	200.0000N	150.0000
200969	10.0000N	100.0000N	10.0000	10.0000N	300.0000	100.0000	50.0000N	15.0000	200.0000N	200.0000
200970	10.0000N	100.0000N	10.0000	10.0000N	200.0000	100.0000	50.0000N	15.0000	200.0000N	150.0000
200971	10.0000N	100.0000N	10.0000	10.0000N	500.0000	100.0000	200.0000	15.0000	200.0000N	100.0000
200972	10.0000N	100.0000N	15.0000	10.0000N	200.0000	200.0000	50.0000N	15.0000	200.0000N	100.0000
200973	10.0000N	100.0000N	10.0000	10.0000N	700.0000	100.0000	50.0000N	20.0000	200.0000N	70.0000
200974	10.0000	100.0000N	15.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	100.0000
200975	10.0000L	100.0000N	15.0000	10.0000N	500.0000	100.0000	50.0000N	15.0000	200.0000N	100.0000
200976	10.0000	100.0000N	15.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	70.0000
200977	10.0000N	100.0000N	15.0000	10.0000N	200.0000	100.0000	50.0000N	20.0000	200.0000N	100.0000
200978	10.0000N	100.0000N	15.0000	10.0000N	200.0000	100.0000	50.0000N	15.0000	200.0000N	100.0000
200979	70.0000	100.0000N	30.0000	10.0000N	200.0000	150.0000	50.0000N	20.0000	200.0000N	100.0000

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	AA-AU-P	AZ-AG
200948	0.0500N	0.1000L
200949	0.0500L	0.1500
200950	0.0500N	0.1000L
200951	0.0500N	0.1100
200952	0.0500N	0.1000L
200953	0.0500N	0.1000L
200954	0.0500N	0.1000L
200955	0.0500N	0.1500
200956	0.0500N	0.1000L
200957	0.0500L	0.1000
200958	0.0500N	0.1000L
200959	0.0500L	0.1700
200960	0.0500N	0.1000L
200961	0.0500N	0.1000L
200962	0.0500N	0.1000
200963	0.0500N	0.1000L
200964	0.0500N	0.1000
200965	0.0500N	0.1100
200966	0.0500N	0.1000L
200967	0.0500N	0.1500
200968	0.0500N	0.1000L
200969	0.0500N	0.1000L
200970	0.0500N	0.1500
200971	0.0500N	0.1000
200972	0.0500N	0.1000L
200973	0.0500N	0.1600
200974	0.0500N	0.1000L
200975	0.0500N	0.1000L
200976	0.0500N	0.1000L
200977	0.0500N	0.1000L
200978	0.0500N	0.1000L
200979	0.0500N	0.1100

SAMPLE	S-FE	S-MG	S-CA	S-TI	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
213170	2.0000	1.5000	0.7000	0.1500	300.0000	0.5000N	200.0000N	10.0000N	20.0000	300.0000
213171	1.0000	0.3000	20.0000	0.0300	1000.0000	0.5000N	200.0000N	10.0000N	10.0000N	50.0000
213172	1.5000	1.5000	0.5000	0.1500	300.0000	0.5000N	200.0000N	10.0000N	10.0000L	150.0000
213173	2.0000	3.0000	1.0000	0.1500	300.0000	0.5000N	200.0000N	10.0000N	10.0000	200.0000
213174	1.5000	2.0000	2.0000	0.1500	700.0000	0.5000N	200.0000N	10.0000N	15.0000	100.0000
213175	2.0000	2.0000	0.5000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	20.0000	300.0000
213176	2.0000	5.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000N	500.0000
213177	2.0000	2.0000	0.5000	0.1500	500.0000	0.5000N	200.0000N	10.0000N	10.0000L	200.0000
213178	5.0000	0.2000	0.5000	0.1000	100.0000	0.5000N	200.0000N	10.0000N	10.0000L	100.0000
213179	1.5000	2.0000	5.0000	0.1500	500.0000	0.5000N	200.0000N	10.0000N	10.0000L	150.0000
213180	1.5000	1.0000	0.3000	0.1500	300.0000	0.5000N	200.0000N	10.0000N	10.0000L	150.0000
213181	5.0000	0.1500	1.0000	0.1500	100.0000	0.5000N	200.0000N	10.0000N	10.0000L	150.0000
213182	3.0000	3.0000	0.2000	0.3000	200.0000	0.5000N	200.0000N	10.0000N	50.0000	500.0000
213183	5.0000	2.0000	2.0000	1.0000	700.0000	0.5000N	200.0000N	10.0000N	10.0000N	200.0000
213184	2.0000	2.0000	0.5000	0.2000	200.0000	0.5000N	200.0000N	10.0000N	20.0000	200.0000
213185	2.0000	1.5000	0.7000	0.1500	500.0000	0.5000N	200.0000N	10.0000N	20.0000	200.0000

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	S-BE	S-BI	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI
213170	1.0000N	10.0000N	20.0000N	5.0000L	20.0000	10.0000	20.0000N	5.0000N	20.0000N	5.0000N
213171	1.0000N	10.0000N	20.0000N	5.0000N	30.0000	5.0000	20.0000N	5.0000N	20.0000N	15.0000
213172	1.0000N	10.0000N	20.0000N	10.0000	50.0000	10.0000	20.0000N	5.0000N	20.0000N	30.0000
213173	1.0000N	10.0000N	20.0000N	20.0000	100.0000	10.0000	20.0000N	5.0000N	20.0000N	50.0000
213174	1.0000N	10.0000N	20.0000N	10.0000	100.0000	7.0000	20.0000N	5.0000N	20.0000N	30.0000
213175	1.0000N	10.0000N	20.0000N	5.0000	15.0000	5.0000	20.0000N	5.0000N	20.0000N	15.0000
213176	1.0000N	10.0000N	20.0000N	15.0000	70.0000	15.0000	20.0000N	5.0000N	20.0000N	50.0000
213177	1.0000N	10.0000N	20.0000N	7.0000	20.0000	10.0000	20.0000N	5.0000N	20.0000N	7.0000
213178	1.0000N	10.0000N	20.0000N	5.0000N	30.0000	20.0000	20.0000N	5.0000N	20.0000N	7.0000
213179	1.0000N	10.0000N	20.0000N	7.0000	50.0000	10.0000	20.0000N	5.0000N	20.0000N	20.0000
213180	1.0000N	10.0000N	20.0000N	7.0000	50.0000	30.0000	20.0000N	5.0000N	20.0000N	20.0000
213181	1.0000N	10.0000N	20.0000N	5.0000N	30.0000	50.0000	20.0000N	5.0000N	20.0000N	7.0000
213182	1.0000L	10.0000N	20.0000N	10.0000	50.0000	20.0000	20.0000N	5.0000N	20.0000N	30.0000
213183	1.0000L	10.0000N	20.0000N	20.0000	15.0000	15.0000	20.0000N	5.0000N	20.0000L	15.0000
213184	1.0000L	10.0000N	20.0000N	5.0000N	70.0000	15.0000	20.0000N	5.0000N	20.0000N	20.0000
213185	1.0000N	10.0000N	20.0000N	5.0000L	20.0000	5.0000L	20.0000N	5.0000N	20.0000N	5.0000L

SAMPLE	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
213170	10.0000L	100.0000N	5.0000	10.0000N	150.0000	70.0000	50.0000N	10.0000	200.0000N	70.0000
213171	10.0000N	100.0000N	5.0000L	10.0000N	1000.0000	20.0000	50.0000N	10.0000	200.0000N	10.0000L
213172	10.0000L	100.0000N	5.0000	10.0000N	100.0000	50.0000	50.0000N	10.0000L	200.0000N	100.0000
213173	10.0000L	100.0000N	7.0000	10.0000N	200.0000	70.0000	50.0000N	10.0000L	200.0000N	100.0000
213174	10.0000L	100.0000N	7.0000	10.0000N	200.0000	50.0000	50.0000N	10.0000L	200.0000N	100.0000
213175	10.0000L	100.0000N	7.0000	10.0000N	300.0000	50.0000	50.0000N	10.0000	200.0000N	150.0000
213176	10.0000L	100.0000N	7.0000	10.0000N	500.0000	70.0000	50.0000N	10.0000L	200.0000N	100.0000
213177	10.0000L	100.0000N	10.0000	10.0000N	300.0000	70.0000	50.0000N	10.0000	200.0000N	70.0000
213178	20.0000	100.0000N	5.0000	10.0000N	100.0000	50.0000	50.0000N	10.0000L	200.0000N	70.0000
213179	10.0000N	100.0000N	10.0000	10.0000N	100.0000	50.0000	50.0000N	10.0000	200.0000N	100.0000
213180	10.0000N	100.0000N	10.0000	10.0000N	200.0000	50.0000	50.0000N	10.0000	200.0000N	100.0000
213181	10.0000L	100.0000N	7.0000	10.0000N	300.0000	50.0000	50.0000N	10.0000	200.0000N	100.0000
213182	10.0000N	100.0000N	15.0000	10.0000N	100.0000N	100.0000	50.0000N	20.0000	200.0000N	150.0000
213183	10.0000N	100.0000N	15.0000	10.0000N	500.0000	100.0000	50.0000N	30.0000	200.0000N	150.0000
213184	10.0000N	100.0000N	10.0000	10.0000N	100.0000N	70.0000	50.0000N	10.0000	200.0000N	100.0000
213185	10.0000L	100.0000N	7.0000	10.0000N	500.0000	50.0000	50.0000N	10.0000	200.0000N	100.0000

Table 1.--Analytical data for rock chip sampling--Continued

PRINTOUT FOR SPEC/AA

SAMPLE	AA-AU-P	AZ-AG
213170	0.0500N	0.0000B
213171	0.0500N	0.0000B
213172	0.1000	0.0000B
213173	0.0500N	0.0000B
213174	0.0500N	0.0000B
213175	0.0500N	0.0000B
213176	0.0500N	0.0000B
213177	0.0500N	0.0000B
213178	0.3800	0.0000B
213179	0.0500N	0.0000B
213180	0.0600	0.0000B
213181	0.1000	0.0000B
213182	0.0500	0.0000B
213183	0.0500N	0.0000B
213184	0.1600	0.0000B
213185	0.0500N	0.0000B

SAMPLE	S-FE	S-MG	S-CA	S-TI	S-MN	S-AG	S-AS	S-AU	S-B	S-BA
213185	2.0000	1.5000	0.7000	0.1500	500.0000	0.5000N	200.0000N	10.0000N	20.0000	200.0000
213186	3.0000	3.0000	1.5000	0.2000	700.0000	0.5000N	200.0000N	10.0000N	10.0000	300.0000
213187	2.0000	3.0000	1.0000	0.2000	500.0000	0.5000N	200.0000N	10.0000N	10.0000	200.0000
213188	3.0000	5.0000	1.5000	0.3000	1000.0000	0.5000N	200.0000N	10.0000N	20.0000	150.0000

SAMPLE	S-BE	S-BI	S-CD	S-CO	S-CR	S-CU	S-LA	S-MO	S-NB	S-NI
213185	1.0000N	10.0000N	20.0000N	5.0000L	20.0000	5.0000L	20.0000N	5.0000N	20.0000N	5.0000L
213186	1.0000N	10.0000N	20.0000N	15.0000	20.0000	10.0000	20.0000N	5.0000N	20.0000N	5.0000
213187	1.0000N	10.0000N	20.0000N	5.0000N	20.0000	15.0000	20.0000N	5.0000N	20.0000N	7.0000
213188	1.0000N	10.0000N	20.0000N	20.0000	100.0000	15.0000	20.0000N	5.0000N	20.0000N	50.0000

SAMPLE	S-PB	S-SB	S-SC	S-SN	S-SR	S-V	S-W	S-Y	S-ZN	S-ZR
213185	10.0000L	100.0000N	7.0000	10.0000N	500.0000	50.0000	50.0000N	10.0000	200.0000N	100.0000
213186	10.0000N	100.0000N	15.0000	10.0000N	500.0000	70.0000	50.0000N	10.0000	200.0000N	70.0000
213187	10.0000N	100.0000N	10.0000	10.0000N	300.0000	50.0000	50.0000N	15.0000	200.0000N	100.0000
213188	10.0000N	100.0000N	15.0000	10.0000N	500.0000	100.0000	50.0000N	20.0000	200.0000N	150.0000

SAMPLE	AA-AU-P	AZ-AG
213185	0.0500N	0.0000B
213186	0.0500	0.0000B
213187	0.0500N	0.0000B
213188	0.0500N	0.0000B

Table 2—Atomic-absorption analytical data for trench sampling in the Meshaheed area

[Leaders indicate none detected; < = less than, > = greater than value indicated. Values in parts per million]

Sample	Length (m)	Description and trench number	Au	Ag	As	Sb
		Trenching in hydrothermally altered zone				
200149	1.5	Vein walls of stibnite-quartz vein, intensely kaolinized. (T-1)	20.6	2.9	1200	40000
200150	5.5	Metasediments ?, intensely kaolinized, scattered FeO and MnO. (T-1)	-	-	160	50
200151	9.0	Metasediments ?, mostly siliceous with quartz-sericite. Abund. pyrite. (T-1)	-	-	100	25
200152	0.1	Stibnite-quartz vein. (T-1)	14.4	4.1	120	280000
200153	2.0	Across projection of quartz vein in bottom of trench. (T-2)	7.2	0.3	3500	280
200154	1.0	Siliceous, with manganese oxide. (T-2)	0.3	0.2	1300	167
200155	1.5	Kaolinized, with much secondary calcite. (T-2)	0.3	0.2	340	45
200156	2.5	Siliceous, vuggy, manganese oxide stained. (T-2)	0.1	0.1	120	110
200157	2.0	Moderately kaolinized. (T-2)	0.1	0.1	650	25
213002	2.5	Intensely pyritized. (T-3)	0.05	0.1	10	5
213003	1.0	Quartz-calcite shear veins. (T-3)	0.05	0.2	30	5
200158	2.5	Siliceous with brown FeO. (T-4)	-	0.1	10	85
200159	7.0	Siliceous with wedges of kaolin. (T-4)	-	0.2	20	5
200160	0.3	Hematite. (T-4)	-	0.7	50	5
200161	0.5	Manganese oxide, with silica. (T-4)	-	-	10	5
200162	2.5	Kaolinized, with streaks of manganese oxide. (T-4)	-	0.2	60	5
		Trenching in Pluton Southeast ancient workings				
200163	6.0	Metasediments, black, indurated.	-	-	10	5
200164	0.1	Fault gouge.	0.1	-	1000	49
200165	0.05	Fault gouge.	1.4	-	800	550
		Rock chip sampling in and around small ancient workings in basalt				
200980		Dark gray quartz pod adjacent to workings.	-	-		
200981		Quartz-calcite veinlets in basalt.	-	-		
200982		Across back of small workings-fractured basalt with quartz-calcite.	-	-		
200983		Across 50 cm of quartz veinlets.	.05	-	700	
200984		Quartz, black, with calcite, 15 cm.	-	-		
200985		Quartz, in portal of workings.	-	-		
200986		Basalt with pyrrhotite.	-	-		
		Geophysical anomaly east of Meshaheed				
200987		Hematitic gossan, dense, flinty.	-	0.2		
200988		Gossan, dark brown, dense.	-	0.9		

DATA STORAGE

Petrographic descriptions, sample locations, thin sections, and results of chemical analyses are stored in Data-file USGS-DF-04-09 (Smith, 1984) in the Jeddah office of the U. S. Geological Survey Saudi Arabian Mission.

Data on mineral occurrences in the Meshaheed area have been updated for the following MODS number:

1266	Meshaheed	Au	updated 11/84

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