Drill Hole No. 2
Collar Elevation
Coordinates
Bearing
Depth
Inclination 90°

Charleston Project
Cochise County Arizona

Scale
Started
Completed

By

Core Recovery	Alteration	Chalcopyrite	Sphalerite	Galena	Ag	Pyrite	Rock Type	Alteration: Sericite, Kaolin, Silica, Chlorite, Garnet, Serpentine, Biotite, K Feldspar

then gray to light greenish gray lime silicates to 1969, then gray to light gray (some lime silicates) to 1996, then purplish siltstone to 2002. At 2002 3" light gray core. Minor py veining in gray and green gray lime silicate rock < 1% sulfide.

2050 2002.3-2027 Dense fine grey siltstone, grades to purplish siltston at 2014, then to fine grey siltstone at 2027.

2032 Qtzite gy silty

2045 Siltstone - val mud? gritty bxt'd buff gray to purplish gy

2082 Siltstone - lithic mud fg tuff not unlike pre entys but more varigated occ flow? banding

2100

2102 Qtzite - fg silty gy green grades from pre enty to better looking qtzite at bot

2157 Siltstone - fg tuff bxt'd occ lg incls and fine frags not as muddy looking as pre thin (1/16") high veins of sphal occ present the sequence from 2045 seems to be more tuffacious than the previous runs of siltstone (from 2145 call it good tuff)

2150

2165 Ditto

2200

2212 Silicified contact bx gy altd rock, prob tuff

2250

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Alteration

	Sericite		Garnet
	Kaolin		Serpentine
	Silica		Biotite
	Chlorite		K Feldspar

2271 Porphyry latite andesitic (Uncle Sam latite por) feldspar qtz fprph dk greenish buff to purple contacts bxt'd and altd composite zone qtz latite porph about 6' at 2222

2290 Qtzite-and tuff? siltstone dk gy qtzite-bxt'd zone w/locally heavy sphal as cs diss clots and high < 1/16" stringers

2300

2323 Qtzite-grades from fg silty to med g sandy 2/calcite cement

2350

2407 Siltstone-variable gy, purple buff, local sandy zones numerous fn calcite stringers last 10' strongly alt'd, bxt'd kaolinized ½" wide replacement stringers of cpy at 2399 cuts core at 15° to axis.

2400

2435 Qtzite siltstone interbedded bxt'd diss sphal 2423 over 8" in a dk gy bxt'd qtzite? some cpy diss

2450

2452 Tuff? dk gy to buff-incls n fg silty mud at bot of enty

2458 Qtzite - pinkish

2490 Siltstone-varigated pk and green bleached borders along epidote zones also runs of dk purple mudstone v fg-hemotitic packing (bedding) 45° to core

2500

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Alteration

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	Kaolin		Serpentine
	Silica		Biotite
	Chlorite		K Feldspar

2553-2572 Siltstone, purplish red, grades into tactite at 2555, f grained, gy, epidote splotches. This in turn grades into qtz at 2560, med gy qtz to 2572

2572-2574.5 Qtz, med gy, grades into banded f gy tactite at 2573. Tactite to 2574.5

2550 2574.5-2626.5 Tactite, metamorphosed calcareous arkose, qtz lenses, mudstones, siltstones, strong epidotized. Diss py at intervals in certain intervals, minor sphal and cpy loc in small veins.

2626.5-2657 Qtz, with chlorite and iron rich cement, epidote & calcite blebs at intervals, minor sphal and cpy 2247-2248.6

2600

2657-2669 Meta-arkose, qtz, epidote and calcite blebs, to 2669

2650 2669-2672 Mudstone, reddish, with epidote spots to 2672

2672-2694 Shale, siltstone to 3688, then qtz to 2694

2694-2704 Shale, dk purplish shale, grading downward to siltstone epidotized in part

2700

2704-2727 Qtz, lt gy in color, f grained grades to med grained

2727-2754 Shale & qtz. F gy shale, loc purple in color to 2731, then f qtz to 2739, then lt gy med f to med grained. Arkosic locally. 2752-2754

2750

Drill Hole No. 2 | Charleston Cochise County Arizona Project | Page 12

Collar Elevation | By

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Core Recovery	Alteration	Chalcopyrite	Sphalerite	Galena	Ag	Pyrite	Rock Type

Alteration

	Sericite		Garnet
	Kaolin		Serpentine
	Silica		Biotite
	Chlorite		K Feldspar

2754-2791 Tactite, qtzt. Lime-silicate (tactite), locally serpentinized, followed by qtzt to 2759. Two feet of shale, the gy mottled qtzt to 2770, thereafter increasing lime silicate (epidote), f grained, dense, hard to 2791

2791-2839 Qtzt, tactite. Fine to med grained qtzt to 2808, lime silicate to 2818, f grained qtzt to 2839

2800

2839-2845 Shale and lime-silicate.

2845-2882 Qtzt, f, gy, dk shale to 2850 grading through siltstone to f qtzt to 2868. Med qtzt for 2', then purple shale, locally epidotized, to 2882.

2850 2882-2902 Qtzt, f gy, grading into med grained epidotized qtz, to 2890. At 2890, 6" interval with cpy. (10% cpy) Below cpy zone, mottled f grained siltstone to 2893, then dk gy f siltstone, becomes lighter with depth and grades into epidotized lime-silicate at 2902

2900 2902-2915 Dark purplish shale, lime-silicate 2905-2908, then shale and qtzt

2915-2973.5 Qtzt, lt gy, f grained, banded with epidote, bedding 60° to axis of core, becoming med grained at 2926. 6" med grained qtzt with cpy at 2929, estimate 5% cpy. Barren shale and lime-silicate below to 2953, then 6" med qtz w/cpy, 7% cpy estimated. Underlain by barren shale and qtz, 30° angle to axis of core. Estimate 25% cpy in this interval, then 6" barren qtz, then 1" solid cpy vein at 30° to axis of core, then barren med grained qtz to 2973.5

2950

2973.5-2997 Qtzt, med to coarse, arkosic, 1/8" cpy vein at 2989, otherwise barren.

3000

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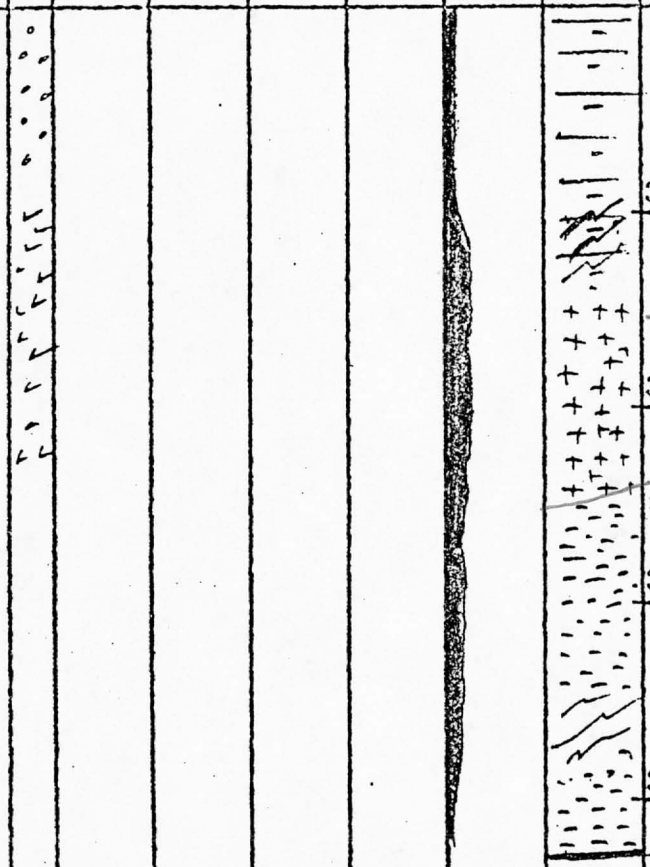
Core Recovery	Alteration	Chalcopyrite	Sphalerite	Galena	Ag	Pyrite	Rock Type

Alteration

	Sericite		Garnet
	Kaolin		Serpentine
	Silica		Biotite
	Chlorite		K Feldspar



2997-3045 Shale, ls-silicate, minor serpentine, epidote bunches, 2' of dk shale 3043-3045

3045-3062 Lime-silicate, shale, (some serpentine), to 3049. 2' dense siltstone, 3049-3051, then lime-silicate. 1" cpy 3051.4. Chert 3054-3054.5, qtz 3057-3061. Fault zone 3061-3062

3050

3062-3072.5 Sericite, argillite, some gouge at 3062, spotted at 3065, py clots and dk angular patches, probably originally a calc-arenaceous rock, sp. 3065.5% py+. Grades downward into quartzitic-looking rock with dark patches, then to 24" dk gy-gr dense hornstone with reddish and greenish patches plus py, to contact with epidotized and pyritized andesite(?) porphyry. Spec. 3074

3100

3072.5-3128.5 Andesite(?) porphyry. Feldspars are epidotized, rock is pyritized. upper contact not cored. Lower contact at 25° to axis of core. Probably a dike.

25°

3128.5-3154 Qtz, very f grained, or tactite, grades into granu. ls-sil w/splotches, very f grained, lt to med ty to 3139.5 (at 3141, bedding at 80° to axis) then darker gy to 3142.5, epidotized zone to 3146, then massive very dk gy siltstone w/qtz. frags (less than 0.5 mm) to 3148. Py & epidote on seams at 3148. Med gy siltstone, minor py on seams. Grades to lt gy tactite with splotches at 3150, then to f lt gy qtz at 3154.

3150

3200

3154-3177 Qtz, massive to 3163, then banded, alternate f to med. Bands (bedding) at 75° to axis. Banded to 3167, then massive med grained, to 3175.5, then coarse grained, arkosic, w/py (2%) to 3177. Gradational contact with tactite.

Bot.

3177-3181.5 Tactite, med gy, v f grained, w/epidote splotches

3250

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Core Recovery	Alteration	Chalcopyrite	Sphalerite	Galena	Ag	Pyrite	Rock Type

Alteration

	Sericite		Garnet
	Kaolin		Serpentine
	Silica		Biotite
	Chlorite		K Feldspar

3181.5-3187 Arkosic qtz. Epidotized. Spots of cpy at 3185, 8" fairly good cpy 3186.5-3187+. Interval not yet split, will run about 10% cpy - 4%± copper.

3187-3193 Tactite, epidote splotches, variable in color, dk gy to lt gy. Spot of cpy 3192.5 in bleached & epidotized spot, grades to very f gy qtz at 3193.

3193-3207 Qtz, f grained, lt gr, impure, locally splotchy w/dk gy spots grades downward into sitlstone. Impure siltstone w/epidote clots after 3201, grading back into more quartzitic material after 3207

3207-3212 Qartzite, light gray, impure, medium grained.

Bottom - Complete

3300

3350

3400

3450

3500

Assay - & Log. Field Use. 107

GENERALIZED DESCRIPTIVE LOG

Charleston Lead Mine — James Stewart Construction Company

HORNE #2 DRILL HOLE

0-10	No core
10-248	Weathered meta-andesite tuff. Fragmental to 123, then fine. At 151, 4" breccia. Fragmental interval 165-168. At 181 - bedding 30° to axis. To 189-1/2, Fragmental to 197. Bedding at 199-65°. Fine to 209, fragmental to 248.
248-394	Fine to 262, fragmental to 270, fine and fragmental mixed to 278. Tuff to 323. Fragmental 323-327, fine to 329, fragmental to 394.
394-506	Meta-andesite tuff-coarsely fragmental, Bedding at 442 - 50° to axis to 437-1/2, bedded tuff to 453, then fragmental to 506.
506-534	Meta-andesite tuff - fragmental in part to 527, strongly fragmental to 534.
534-537	Meta-andesite, bleached, some sericite, fault zone at 536.
537-566	Meta-andesite tuff to 566.
566-567.5	Gouge and breccia - fault zone.
567.5-577.5	Fine grained meta-andesite tuff.
577.5-578.5	Gouge and breccia - fault zone.
578.5-582	Fine grained meta-andesite tuff.
582-591	Fragmental meta-andesite tuff.
591-598	Bleached meta-andesite sericite, specks of galena, some silicification, argillic alt. FeOx stain.
598-603	Crushed zone, clay, sericite.
603-604	Bleached meta-andesite.
604-605	Fault zone.
605-623	Crushed and broken zone, bleached meta-andesite tuff 40° dip to axis(fault).
623-628	Bleached meta-andesite.
628-675.5	Sericitized meta-andesite tuff, grading downward to chloritic meta-andesite tuff.
675.5-699.5	Andesite tuff (?)
699.5-737.5	Meta-andesite tuff (see specimen at 706.5) dark gray, fine grained, feldspars altered, ferromags altered to chlorite, could also be a meta-volcanic tuff. Splotches of epidote. Epidote bands may reflect bedding? (40° to core). On the whole, I would prefer to consider this a tuff. Some fine pyrite with epidote. Small fault, 4" gouge and breccia at 724.
737.5	12" gouge, fault at 30° to axis of core.
737.5-761	Meta-andesite tuff, intercalated bands fine grained medium gray siltstone after 741. Crushed zone, 760-761, thereafter gray siltstone.
761-770	Arkose, granular nondescript, specked with fine pyrite cubes. Sericite
770-781	Coarse conglomeratic arkose to 779-1/2, fine grained light gray siltstone to fault at 781. Bedding at 85° to axis.
781-783	Gouge and breccia, some fine pyrite.
783-912	Quartzite, light grey, medium grained, sericitic. Becomes fine grained after 869 to 877-1/2, then medium again to 912. At 911, bedding 56° to axis.

912-1005	Fine grained gray siltstone
1005-1007	Fine grained quartzite with sphalerite, galena, and pyrite, about 5% total sulfide.
1007-1015	Quartzite, medium grained, light grey.
1015-1052	Siltstone, some fine qtz (1/16" veins sphalerite 1019-1020) to pyrite veinlets to 1028, then two or three 1/8" sphalerite veinlets. Siltstone to 1031-1/2. Quartzite with two or three 1/16" sphalerite veinlets to 1034, then darker grey fine grained siltstone, becoming lighter to 1039. medium grained arkosic qtz. after 1039 to fault zone 1052-1056.
1052-1056	Fault zone
1056-1094	Arkose, in part conglomeratic with pebbles up to 3/8" to 1070, then pebbles become larger to base at 1094.
1094-1102	Fine grained gray arkosic siltstone, locally medium grained quartzitic. 1/8" band pyrite and sphalerite at 1099. Fine grained to 1102.
1102-1118	Meta-andesite (?) dike. Thoroughly altered porphyritic dike. Chilled border about 18" 1102-1104, then stony groundmass, epidote alt. of feldspars, chlorite. At contact at 1118, 2' mixed rock, contact irregular, welded at 30° to axis.
1118-1173	Fine grained gray arkosic rock grades into gray quartzite. An occasiona 1/16 vlt of sphalerite and pyrite. Total sulfide per any 10' int. $< 0.1\%$
1173-1187	Changes from grey to light grey at 1173-1175, then conglomeratic and somewhat mineralized from 1175-1187. Vuggy, some calcite, sphalerite galena. Perhaps 2-4% total sulfide.
1187-1196.5	Fine grained silicitized arkose.
1196.5-1202	Sericitized arkose(?) speckled with galena, pyrite and sphalerite, total sulfides about 4-6% to 1200.
1202-1249	Quartzite, fine grained, light gray, grades to medium grained.
1249-1280	Fine grained light gray arkose - has stony look, not much quartz. Beddings locally present, one at 1262.5 40° to axis. Rock becomes mottled 1270.5-1275, then gray granular (about 1mm), grading into quartzite at 1280.
1280-1330	Quartzite to 1281, then back to granular gray arkose, as above, rock gradually becoming more quartzitic, fair qtz. after 1301.
1330-1363	Arkose, dense granular to 1332, then fine grained siltstone with minor sulfide on bedding (less than 1% sulfide), to 1334. Quartzitic arkose to 1347-1/2, then gray granular arkose to 1349-1/2, then quartz-ark. to 1363.
1363-1368.6	Fine grained gray siltstone.
1368.6-1395	Quartzite with sericite, occasional grain of galena or pyrite. At 1397, 10" altered (bleached) shale and qtz. bedding 45° to axis.
1395-1410	Disseminated sulfides in qtz. after 1397. 1/2" py vein at 1401, 25° to axis, 1% total sulfides to 1405, then 5%± to 1406-1/2, then 1% again. Sulfides are galena, sphalerite, minor cpy and pyrite. Sulfide content drops to much less than 1% with rock change (1410)
1410-1416	Dense greenish massive lime silicate rock (diopside?) specimen at 1409
1416	Possible fault at 1416 - no gouge but badly broken core.

1277
1331
1346

1416-1457-1/2	Dense light gray fine grained quartzite. Minor pyrite on seams 1% sulfide. Quartzite gradually becomes coarser, about 1mm at 1454, sulfide content picks up to 2-3%, mostly galena and sphalerite for interval 1454-1457-1/2.
1457-1/2-1477	Dense light gray fine grained quartzite (sericitized). At 1477, bedding plane 50° to core. Sulfide $<$ 1%.
1477-1512	Quartzite - medium grained (less than 1mm but granular) Sulfide $<$1%.
1512-1518.5	Fault zone, minor gouge, poor core
1518.5-1532	Quartzite, somewhat silicified.
1532-1533.6	12" heavy pyrite
1533.6-1543	Quartzite, about 1mm, broken.
1543-1546	Gouge and Breccia - barren
1546-1594	Purplish siltstone to 1549, then bleaching to gray with lime silicate spots, grading to quartzite at 1552. (Fine grained - gray)
1594-1625	Gray siltstone, scattered blebs of pyrite, changing color to light gray and from siltstone to fine quartzite with lime silicate streaks at 1601.
1625-1727	Dense gray silicified siltstone, blobs of lime silicate minerals, some scattered pyrite, still much less than 1% sulfide. This silicified siltstone has a porphyritic look with the quartz grains separate in a dense stony groundmass. Siltstone persists to 1725, then changes to medium grained quartzite, to
1727-1733-1/2	1-2mm quartzite-sericitic, from 1-5% total sulfides, sphalerite, cpy, pyrite, minor galena.
1733-1/2	6" fault gouge
1733-1/2-1820	Quartzite, dense, fine grained, pyrite cubes, less than 1% sulfide Changes from gray to reddish, becoming purplish siltstone at 1748. Purplish siltstone to 1759, then back to dense, fine to coarse cubic pyrite. Minor lime silicate veining. Gray to 1803 then purplish to 1811, then gray as above. Somewhat coarser 1813-1818, denser 1818-1820.
1820-1852	Siltstone, dark gray 1820-1831, then light gray 1831-1837, 1mm quartzite 1837-1839, then purple siltstone followed by dull stony quartzite (?) at 1843 - granular. (probably lime silicates) to 1850, then fine grained siltstone to 1852.
1852-1853	Arkose? with sphalerite and cpy - +15% sulfides
1853-1923	Quartzite, 1-2mm, becoming finer grained, more stony looking. Minor sphalerite - galena, up to 5% for 4" interval, otherwise negligible (less than 1%). Fine grained gray qtz to 1865, then purplish siltstone to 1875. Lighter colored to 1878-1/2, then purplish again to 1892. Dense light gray 1892-1897-1/2, purplish to 1901. Lime silicates vlt at 1901 (1/2", 5% sulfide, mostly sphalerite.) Fine grained light gray to 1905-1/2, becomes granular (fine) more quartzitic to 1923.
1923-1924	Arkose, heavy sphalerite, galena. About 10% Zn, 3% lead, 15-20% total sulfide.

1924-1935	Quartzite with less than 1% sulfide to 1925, then purplish siltstone, becoming dark gray at 1927, then light greenish gray lime silicates with minor pyrite (2% sulfides) to 1928-1/2. Dark gray siltstone grading to purple siltstone, then to greenish dense lime silicates to 1935 -
1935-2002.3	Dense, fine gray siltstone to 1939, greenish gray lime silicates to 1939-1/2, purplish dense siltstone to 1943-1/2, then gray to light greenish gray lime silicates to 1969, then gray to light gray (some lime silicates) to 1996, then purplish siltstone to 2002. At 2002, 3" light gray core - Bedding 47° at 1998. Minor pyrite veining in gray and green gray lime silicate rock $\angle$1% sulfide.
2002.3-2027	Dense fine grey siltstone, grades to purplish siltstone at 2014, then to fine grey siltstone at 2027.

WJW:jc
December 13, 1967

3-11

111

M E M O R A N D U M

Kennicott? Bear Creek M.C.

To: M. S. Horne

Date: September 27, 1968

From: C. A. Cosgrove

Re: Charleston

Call from Jack Phillips regarding Charleston. He requested permission ~~xx~~ which I granted to take the non-assayed portion of Hole 2, core boxes to Tucson for his lab to process, split and assay and make their other studies. He will return the ½ of split core, the pulps and send us copy of the results.

He talked today to the geophysical section of his company.They are working on the data given. The criticism of work is that it does not cover a broad enough zone to balance the district geo magnetics against the ore zone highlights. However, they will do cross sectional work and obtain some findings. They disregard value of government magnetic map.

His subordinates have finished the ground work and filed the reports. HIs study of this brought on the above request.

My impression is he is he is generally favorable but needs more facts.

C. A. Cosgrove

CAC:jm

Peter Dunn Kennecott Birch Ck 112

AREA CHARLESTON T. 20S R. 21E S. 30 TOTAL DEPTH 3209 COLLAR ELEV. _____ LOGGED BY Peter Dunn HOLE NO. 2

Footage From	Footage To	Description	Footage From	Footage To	% Cu.	% Zn.	% Pb.	Oz. Ag.	Oz. Au.
10	39	Andesite, purple - weathered to gray - some fragments up to 2" - abundant chlorite & abundant goethite & manganese staining along fractures - pyrite casts < 1% overall but locally abundant - some thin quartz veins - & some calcite & ankerite? along fractures - heavily altered down to 39'.							
39	175	Andesite flow breccia - matrix is purple, but most fragments are green - appear to be sheared in a direction 40° to core. Manganese stains & dendrites common along fractures - quartz veins 40° to core - fragments becomes more purple down the hole - rocks are flooded with iron staining. Narrow fault @ 152'							
175	213	Tuff, medium-grained, green arkose? - abundant chlorite - weak manganese staining on fractures. Bedding to core angle 70° @ 201'.							
213	284	Andesite flow breccia - purple with green fragments appear to have been sheared - abundant chlorite - irregular calcite between fragments.							
284	329	Tuff, fine-grained green - bedding to core angle 50° @300' - contains abundant purple fragments - very rare quartz veins - chlorite very abundant.							
329	566	Andesite flow breccia, purple with green fragments up to 7" across - chlorite abundant in fragments - some bands up to 8' thick - straight green fine-grained tuff - rare calcite veins. Very weak disseminated pyrite weak goethite stains along some rare fractures - weakly iron-stained shear zone 534'-538' - all goethite abundant clay and/or talc in shear zone - some rock below shear - similar shear zone 542'-546', similar shear zone 560'-562'.							
566	567.5	Tuff - fine-grained, green strongly brecciated -green sed. abundant gouge - weak chlorite and/or epidote - very rare iron staining - probable fault.							
567.5	591	Tuff, fine-grained green - weakly iron stained along fractures - thin calcite & dolomite stringers - becomes more & more purple down the hole - fault 577.5' - 578'.	580		.045			0.4	
591	612	Volcanic - fine-grained white mostly sericite strong goethitic staining on fractures - 2-3% fine-grained fresh pyrite both disseminated and along fractures (veinlets).	598		.03			0.3	

AREA CHARLESTON T. 20S R. 21E S. 36 TOTAL DEPTH 3209 COLLAR ELEV. LOGGED BY Peter Dunn HOLE NO. 2

Footage From	Footage To	Description	Footage From	Footage To	% Cu.	% Zn.	% Pb.	Oz. Ag.	Oz. Au.
612	615	Fault - strongly brecciated white volcanic as above - abundant clay & talc - fine-grained fresh pyrite 1-2%.							
615	617	Tuff - fine-grained, green - abundant clay-some chlorite < 1% pyrite.	620		.04			0.4	
617	626	Fault - strongly brecciated green sediment as above.							
626	742	Tuff, medium-grained, green - epidote veins & clots very abundant - disseminated fine-grained fresh pyrite ≈ 1% . Pyrite along epidote veins - bedding to core angle 70° @700' calcite veinlets up to ¼" thick common - often associated with epidote & pyrite - abundant talc on shears 684'-685'; 690'-691'. Pyrite content decreases below ≈ 665' - < ½% - restricted mostly to epidote veins - fault at 718' 35°angle to core; fault at 741' 30°angle to core.	660		.035			0.3	
742	762	Tuff, very fine-grained, green,epidote very abundant. Pyrite ≈ ½% as disseminated fresh grains - rarely along epidote stringers - pyrite increases up to 1% below 760'.	750		.02		Tr	1.6	
762	781	Tuff, very fine-grained - green as above but with fragments primarily of white clay - weakly calcareous - pyrite 1-1½% as discrete grains - epidote very rare - rare calcite veinlets.	781		.03	0.9		0.6	.01
781	783	Fault - strongly brecciated sediment as above - chloritic (black) gouge - < 1% pyrite.							
783	910	Quartzite, medium-grained, arkosic - rare small discrete pyrite grains - becomes increasingly fine-grained with depth - pyrite content decreases with depth - rare below 855'- locally contains abundant sericite - some bands of fine-grained tuff @867'-872'; 899' - locally brecciated @865'.							
910	1004	Tuff, extremely fine-grained, greenish-gray - bedding to core angle 35° @965- calcite veinlets common - up to 1/8" thick - veinlets possibly parallel to bedding? - contain small amount of epidote - some calcite occurs as small euhedral crystals - no visible pyrite until 946' - very rare pyrite below there. Fresh pyrite veinlets from 955' - along epidote stringers - some talc along shears - pyrite content up to 1-2% - locally brecciated @958' - weakly iron-stained - locally brecciated @963' - weakly iron-stained. These zones include sericite, talc, and calcite veinlets - very thin pyrite-sphalerite veinlet up to ½" - contains very rare chalcopyrite and galena @994'.							
1004	1007	Tuff, fine-grained as above but strongly brecciated - pyrite content up to 2% - galena & sphalerite common where brecciated - rare chalcopyrite.	1005	1008	.43	9.2	4.88		

AREA CHARLESTON T. 20S R. 21E S. 36 TOTAL DEPTH 3209 COLLAR ELEV. _____ LOGGED BY Peter Dunn HOLE NO. 2

Footage From	Footage To	Description	Footage From	Footage To	% Cu.	% Zn.	% Pb.	Oz. Ag.	Oz. Au.
1007	1015	Quartzite, fine-grained white, weakly calcareous - abundant sericite - ½-1% pyrite - very fine grained - well disseminated - bedding to core angle 50° @1010'.							
1015	1017	Tuff, aphanitic, green, abundant chlorite and calcite - no sulfides.							
1017	1039	Quartzite, very fine-grained, white - calcite veinlets common - epidote veinlets common - pyrite abundant (1-2%) both as veinlets & disseminated - very rare chalcopyrite along pyrite veinlets - galena & sphalerite occurs as narrow veinlets associated with epidote & with pyrite some beds of green aphanitic tuff; 1023'-1030' shows thin stringers of chalcopyrite, galena, and sphalerite; 1034'-1039' pyrite with rare chalcopyrite, galena, and sphalerite usually with epidote - not as common here as in clean quartzites.	1028	1032	.07	5.0	.6		
1039	1077	Quartzite, medium-grained, white calcite veinlets common - pyrite < ½% - along calcite or epidote stringers. Fault 1051'-1058' - rare galena and sphalerite in fault zone - epidote common as veinlets and as clots - no sulfides outside of fault.							
1077	1102	Quartzite as above as a breccia - large calcite & epidote clots in the breccia matrix - pyrite content 1-2% - rare galena.							
1102	1115	Tuff, very fine-grained, weakly porphyritic - abundant epidote phenocrysts (after feldspar?) dark aphanitic groundmass < 1% pyrite no other sulfides visible.							
1115	1207	Tuff, fine-grained green with bands of fine white quartzite·calcite veinlets common - pyrite <½% epidote very rare - very rare galena and sphalerite from 1145' - brecciated 1176'-1187' abundant pyrite in breccia below 1180' (up to 10%) with common galena & sphalerite - white quartzite below 1187' - abundant clay - pyrite very rare - rare galena and sphalerite - becomes abundant (3-4% galena & sphalerite)- finely disseminated - pyrite euhedral cyrstals up to 3% from 1195-1198'.	1129		.029	Tr	.02		
			1134		.038	Tr	.02		
			1137		.037	Tr	.02		
			1142		.037	Tr	.44		
			1159.5		.037	Tr	.07		
			1163		.037	Tr	.02		
			1168		.058	Tr	.02		
			1185		1.0	.08	.2		.5
			1175	1185	0.16	1.48	.44		
			1196		0.08	2.17	1.25		
1207	1405	Quartzite, medium-grained, very rare pyrite calcareous - calcite stringers common -rare sphalerite, chalcopyrite & galena at 1296' - sericite locally common rare chlorite or epidote some along shears - bedding to core angle 40° @1275' - rare galena and sphalerite begin @1393' 1½" pyrite stringers @1398'.							

AREA CHARLESTON T. 20S R. 21E S. 36 TOTAL DEPTH 3209 COLLAR ELEV. LOGGED BY Peter Dunn HOLE NO. 2 4

Footage From	Footage To	Description	Footage From	Footage To	% Cu.	% Zn.	% Pb.	Oz. Ag.	Oz. Au.
1405	1417	Quartzite as above with abundant sericite and rare chlorite - euhedral pyrite abundant with galena, sphalerite & rare chalcopyrite - contains fragments of fine-grained tuff which contain no sulfides. Sulfides occur both as veinlets & finely disseminated-chlorite becomes abundant from 1409' to 1417' - sulfides rare below 1411'.	1407	1411.5	0.14	2.87	1.45		
			1411.5	1416	0.048	Tr	0.10		
			1416	1422.5	0.029	Tr	0.07		
1417	1451	Quartzite as above - weakly calcareous - sulfides very rare & finely disseminated - sericite becomes increasingly abundant - thin sphalerite veinlets ≈1442' - disseminated galena 1456'-1457'.	1422.5	1429	0.038	0.20	0.10		
			1429	1434	0.047	0.25	0.12		
			1434	1439	0.048	0.05	0.02		
			1439	1444.5	0.049	0.32	0.30		
			1444	1448.5	0.028	0.12	0.25		
			1448	1453	0.038	0.20	0.13		
			1453	1457	0.07	1.40	0.66		
1451	1461	Tuff, fine-grained, green disseminated euhedral pyrite up to 1/16" - some narrow veinlets.							
1461	1541	Quartzite locally with abundant chlorite - weakly calcareous - galena and sphalerite as narrow stringers near 1464' - most core contains no visible sulfides - contain some narrow (< 1') tuff lenses - bedding to core angle 75° @1500'.							
1541	1546	Tuff, green, fine-grained - highly brecciated - very rare pyrite - probable fault.							
1546	1550	Tuff, dark red, fine-grained - thin < 1/32" calcite veinlets common - thin epidote veinlets rare very rare fine disseminated pyrite.							
1550	1624	Quartzite, fine-grained, white - locally calcareous - epidote abundant - occurs as irregular lenses - pyrite rare along epidote veinlets. Dark fine-grained siltstone(?) 1594'-1599' - contains common pyrite clots up to ½" across.							
1624	1725	Quartzite, fine-grained, white to gray, with beds of black siltstone - abundant epidote - pyrite locally abundant. Bedding to core angle 55° @1676' usually associated with epidote - some euhedral pyrite crystals in black siltstone - epidote & pyrite occurs in both rock types - both weakly calcareous - pyrite up to 2-3% - very rare thin veinlets of sphalerite 1717'-1725'.	1656.5	1661	0.038	Tr	Tr		
			1661	1665	0.029	Tr	Tr		
			1665	1670	0.038	Tr	Tr		
			1670	1675	0.029	Tr	Tr		
			1678	1680	0.030	Tr	Tr		
			1680	1685	0.019	Tr	Tr		
			1690	1694.5	.028	.12	.05		
			1694.5	1699	.028	.10	.05		
			1699	1703	.029	.12	.05		
			1703	1708	.027	.12	.03		
			1708	1713	.049	Tr	.06		
			1721.5	1726.5	.038	.60	.36		

AREA CHARLESTON T. 20S R. 21E S. 36 TOTAL DEPTH 3209 COLLAR ELEV. _____ LOGGED BY Peter Dunn HOLE NO. 2 5

Footage From	Footage To	Description
1725	1735	Quartzite, white-medium-grained - abundant sulfides from 1727' - including pyrite & sphalerite with rare chalcopyrite and rare galena - chlorite abundant where quartzite contains sulfides - most sulfides occurs as disseminated euhedral crystals.
1735	1746	Quartzite, very fine-grained, white to dark gray with abundant epidote - pyrite abundant - associated with epidote both as veinlets and as disseminations - calcite crystal locally common - most pyrite crystals - mostly fine-grained < 1/32" - locally up to 1/2" - galena and sphalerite rare.
1746	1761	Tuff, dark red - bedded with thin layers of fine-grained white quartzite, fine-grained disseminated pyrite - weak epidote veinlets. Chlorite abundant from 1753' - pyrite as veinlets associated with epidote.
1761	2164	Quartzite, white, fine-grained to aphanitic - fine-grained disseminated pyrite & epidote veinlets - some pyrite veinlets associated with epidote & chlorite - pyrite abundant at 1771'- dark red fine-grained tuff beds with rare sulfides occur along the following intervals: 1803-1811; 1823-1824; 1840-1841; 1864-1870; 1870-1875; 1880-1892; 1896-1898; 1940-1943; 1963-1965; 1996-2002; 2013-2020' 2103-2113; 2152-2155, chalcopyrite & sphalerite locally abundant 1853-1855' as veinlets mostly as disseminations. Sphalerite abundant veinlets @1857-1863' with rare galena - bedding to core angle 40° @1893'. Sphalerite disseminations & thin veinlets 1923-1927' - galena abundant 1925-1927' with abundant epidote.

Footage From	Footage To	% Cu.	% Zn.	% Pb.	Oz. Ag.	Oz. Au.	
1726	1732	0.10	3.70	.42			
1732	1737	0.047	3.40	.46			
1737	1741.5	0.076	0.17	.03			
1741	1745.5	0.028	0.25	.12			
1745.5	1750.5	0.020	0.30	.07			
1750.5	1755	0.037	0.25	.07			
1755	1759.5	0.028	.05	Tr			
1759.5	1763.5	0.047	.05	Tr			
1763.5	1767.5	0.036	.12	.05			
1767.5	1772	0.029	.12	.03			
1772	1776.5	0.029	Tr	.03			
1776.5	1780	0.037	Tr	.02			
1780.5	1785	0.029	Tr	.03			
1785	1789	0.048	Tr	.05			
1789	1793.5	0.029	Tr	.02			
1793.5	1798.5	0.048	.05	.03			
1798.5	1803	0.037	.07	.03			
1803	1808	0.029	.07	.03			
1808	1812	0.037	0.50	0.14			
1812	1816	0.076	0.40	0.12			
1816	1821.5	0.048	Tr	Tr			
1820		1.9	6.1	.35		.02	MO .1B
1821.5	1826.5	.029	Tr	Tr			
1826.5	1831	.029	Tr	Tr			
1831	1836	.037	Tr	Tr			
1836	1841	.029	Tr	Tr			
1841	1845	0.037	Tr	Tr			
1845.5	1850.5	0.029	.02	.05			
1850.5	1854.5	0.21	1.12	0.92			
1850		0.15			0.2	.01	
1854.5	1858.5	0.087	.12	.10			
1886	1889.5	0.029	Tr	.02			
1893	1896.5	0.057	Tr	Tr			
1896.5	1901	0.029	Tr	Tr			
1901	1905	0.037	Tr	.08			

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AREA CHARLESTON T. 20S R. 21E S. 36 TOTAL DEPTH 3209 COLLAR ELEV. _____ LOGGED BY Peter Dunn HOLE NO. 2 6

Footage From	Footage To	Description	Footage From	Footage To	% Cu.	% Zn.	% Pb.	Oz. Ag.	Oz. Au.
			1905	1910	0.029	Tr	Tr		
			1910	1915.5	0.038	Tr	.02		
			1915.5	1919	0.019	Tr	Tr		
			1923		.05	14.7			
2164	2185	Tuff, fine-grained, dark green, very chloritic - epidote locally abundant - pyrite locally rare as small grains. Pyrite & sphalerite abundant 2173-2174' rare chalcopyrite - ¼" pyrite-sphalerite veinlet @2179' nearly parallel to core - contains epidote & chlorite - similar veins @2181' and 2185'.	2167.5	2172	.03	.07	Tr		
			2172	2176.5	.06	.10	Tr		
			2176.5	2181.5	.06	1.0	Tr		
			2181.5	2185.7	.05	0.9	Tr		
2185	2191	Quartzite, fine-grained - finely disseminated pyrite also veinlets of pyrite with sphalerite and very rare chalcopyrite up to ¼" thick.	2185.7	2189.7	.07	0.4	Tr		
			2189.7	2195	.03	.15	.15		
2191	2199	Quartzite, fine-grained, chloritic very thin veinlets of pyrite with rare sphalerite.	2195	2200	.03	.12	.12		
2199	2212	Quartzite, arkosic, fine-grained disseminated - sphalerite occurs locally - brecciated 2209-2212' - no sulfides in breccia zone.	2200	2205	.04	.07	.05		
			2205	2209.5	.03	.12	.12		
			2209.5	2214	.06	.25	Tr		
2212	2233	Rhyolite (tuff?), fine-grained, abundant chlorite & epidote - small phenocrysts of quartz & biotite - unrecognizable brown grains - thin calcite veinlets - fine-grained - pyrite well disseminated throughout 2-5% - narrow sphalerite-calcite vein @2218' - rare crystals of chalcopyrite @2226' - ¼" chlorite clots abundant below 2233'.	2214	2219	.07	.25	Tr		
			2219	2223	.06	.22	.14		
			2223	2229.5	.11	Tr	Tr		
			2229.5	2236	.10	Tr	Tr		
2233	2256	Dacite porphyry ? - feldspar phenocrysts up to 1/8" in an aphanitic groundmass - altered (weathered) 2233'-2245' - abundant chlorite < 1% pyrite disseminated very fine-grained.	2236	2241	.05	Tr	Tr		
			2241	2246.5	.04	.05	Tr		
			2246.5	2251.5	.05	.05	Tr		
			2251.5	2256.5	.05	Tr	Tr		
2256	2277	Rhyolite (tuff?) chlorite very abundant - 1" chalcopyrite calcite veinlet @2263' with some pyrite - extends to 2266' - calcite very abundant - pyrite disseminated.	2256.5	2261.5	.16	Tr	Tr		
			2261.5	2266.5	3.40	.07	Tr		
			2266.5	2272	3.11	.05	Tr		
			2272	2278	0.28	Tr	Tr		

AREA CHARLESTON T. 20S R. 21E S. 36 TOTAL DEPTH 3209 COLLAR ELEV. LOGGED BY Peter Dunn HOLE NO. 2

Footage From	Footage To	Description	Footage From	Footage To	% Cu.	% Zn.	% Pb.	Oz. Ag.	Oz. Au.
2277	2280	Quartzite, weakly calcareous - barren of sulfides.	2278	2283	0.05	Tr	Tr		
2280	2295	Tuff, fine-grained, green - abundant chlorite and epidote - sphalerite vein 1" thick @2285 with rare chalcopyrite - thinner veinlets up to 2287' - dark red tuff with epidote 2289'-2291' - barren of sulfides.	2283	2288	0.05	1.25	Tr		
2295	2325	Quartzite - calcareous - contains some chlorite-thin calcite veinlets - no visible sulfides - except abundant sphalerite with some chalcopyrite @2324' - associated with calcite veinlet.							
2325	2397	Tuff, fine-grained, green - locally calcareous - locally with abundant epidote - sulfides < 1% - barren in most places - fine-grained disseminated. Dark red tuff 2365-2367'	2332.5 2337 2394	2337 2342 2406	.04 .06 .04	Tr .07 Tr	Tr Tr Tr		
2397	2401	Tuff as above - brecciated and cemented with abundant calcite - 1" chalcopyrite veinlet @2399 with some pyrite and calcite.							
2401	2492	Tuff, fine-grained, green - abundant epidote with some calcite crystals - no visible sulfides - some large epidote bands contain large 1-2' clots of chlorite. Bedding to core angle 62° @2446' - beds of dark aphanitic tuff occur: 2462-2464'; 2470-2482'; 2484-2485'; contains no visible sulfides - contains very rare very narrow (1/32") calcite veinlets - rare irregular small epidote clots.							
2492	2507	Quartzite, white, fine-grained - locally contains enough chlorite to give it a green cast - small euhedral pyrite disseminated << ½%- weakly calcareous.							
2507	2511	Tuff, fine-grained, red - rare chlorite & epidote clots but no visible sulfides.							
2511	2531	Tuff, fine-grained, green, very chloritic - contains up to ½% pyrite as fine disseminated euhedral crystals - becomes more medium-grained and more arkosic - from 2514'-2530'. Weakly calcareous with rare calcite veinlets - chlorite becomes more abundant from 2522'-also epidote. Sphalerite and galena as fine disseminated grains become abundant suddenly @2522' - none above - with rare chalcopyrite but no visible pyrite. Specimen 2526 typical of this stretch. Specimen 2528 not typical - contains more sulfides and more epidote than most - sulfides & epidote locally more abundant 2527' 28'. Sulfides rare except for some pyrite below 2530'							
2531	2533	Tuff, fine-grained red - no visible sulfides - occasional epidote clots - bedding to core angle 50° @2533'.							

AREA CHARLESTON T. 20 S R. 21E S. 36 TOTAL DEPTH 3207 COLLAR ELEV. LOGGED BY Peter Dunn HOLE NO. 2

Footage From	Footage To	Description	Footage From	Footage To	% Cu.	% Zn.	% Pb.	Oz. Ag.	Oz. Au.
2533	2538	Quartzite, fine-grained, white with abundant chlorite & epidote - no visible sulfides except for a narrow 1" band with very abundant chlorite and 3-5% pyrite disseminated crystals up to 1/8" across.							
2538	2555	Quartzite, fine-grained, white contains narrow calcite veinlets and narrow epidote veinlets chlorite common in matrix - no visible sulfides - red tuff beds 2553-54'.							
2555	2563	Tuff, fine-grained, green, very chloritic with abundant epidote - bedding to core angle 68° @2556' - 1" sphalerite-chalcopyrite-calcite veinlet @2557' apparently parallel to bedding - no other visible sulfides - red tuff bed 2558-2560' - disseminated pyrite crystals in chlorite tuff at 2560'.							
2563	2573	Quartzite - medium-grained, white - chlorite increases with depth - very rare fine-grained sulfides in chloritic part below 2569' - no sulfides in white qtz. - grades into underlying tuff.							
2573	2628	Tuff, green, aphanitic - contains abundant epidote as narrow veinlets & 2-3% disseminated euhedral pyrite crystals 2573-2574' - red tuff beds 2574-76'; 87-88'- ½" quartz veinlet @2579' 15° core - rare disseminated pyrite in red tuff. Chlorite locally very abundant - in these patches of high chlorite usually contain abundant sphalerite and chalcopyrite - no pyrite. Sulfides present only where indicated - otherwise barren -- epidote clots abundant in very chloritic tuff 2603-2625'. Abundant sphalerite associated with 2-3% chalcopyrite 2623-2625' and rare galena associated with abundant chlorite and epidote - no visible sulfides above 2623' and only 1% pyrite disseminated below 2625'.							
2628	2656	Quartzite, white, arkosic - sulfides very rare - restricted to euhedral - pyrite in chloritic bands - chloritic bands common up to ¼" thick - 21° to core locally contains epidote or epidote/chlorite clots - bedding to core angle 78° @2656'.							
2656	2704	Tuff, fine-grained, chloritic - locally contains epidote & talc? 1% euhedral pyrite @2656' grades to white fine tuff or fine quartzite @2659' with abundant epidote-but no sulfides. Red tuff siltstone 2669-2672'; 2682-83'; 85-86'; narrow quartz veins @2684to core angle 80°. Fault 2680-82' brecciated white tuffaceous quartzite with abundant talc - talc abundant on shear surfaces down to 2696'.	2640		1.0	26.2	Tr	1.6	
2704	2727	Quartzite, white, arkosic - thin calcite stringers - rare pyrite crystals occur locally - mostly barren.							

AREA CHARLESTON T. 20S R. 21E S. 36 TOTAL DEPTH 3209 COLLAR ELEV. _____ LOGGED BY Peter Dunn HOLE NO. 2

Footage From	Footage To	Description	Footage From	Footage To	% Cu.	% Zn.	% Pb.	Oz. Ag.	Oz. Au.
2727	2737	Tuff, light green, chloritic-bedding to core angle 82° @2728' - disseminated euhedral pyrite < ½%. Red tuff 2728-2730'.							
2737	2759	Quartzite, white - abundant clay matrix - locally contains chlorite and talc but no visible sulfides.							
2759	2789	Tuff, fine-grained, green,chloritic - epidote clots common - chlorite very common on fracture faces - no visible sulfides - bedding to core angle 72° @2785'.							
2789	2791	Tuff as above, brecciated, probable fault - abundant white clay or talc -							
2791	2804	Quartzite, white - locally rich in chlorite - no sulfides.							
2804	2852	Tuff, fine-grained, green - commonly epidote rich - thin calcite veinlets - locally dark and rich in chlorite - brecciated 2825-2831' - crystalline calcite between some of the breccia fragments. Sulfides very rare - restricted to local rare disseminations of pyrite. Bedding to core angle 75° @2834'.							
2852	2871	Quartzite, white - very fine-grained - chlorite common and some epidote - thin calcite veinlets no sulfides.							
2871	2931	Tuff, fine-grained, green - chlorite and epidote both abundant. Red tuff 2575-2578'; 2902-04'; 13'-15'; & 28-31'. Small bleb of black sphalerite @2881' with rare pyrite first visible sulfides - associated with chlorite rich clot - pyrite up to 3% and rare chalcopyrite associated with epidote 2882-83'. Strong irregular chalcopyrite-chlorite vein @2899' - vein to core angle 24° - about 4" of core here contains ≈ 12% copper as chalcopyrite - no other sulfides. open fractures filled with euhedral calcite crystals @2894'. No other visible sulfides.							
2931	2998	Quartzite,white - bedding to core angle 80° @2933' - very rare fine-grained pyrite occurs locally mostly barren - chlorite becomes more abundant from 2945'-locally with bands of fine-grained tuff - abundant epidote - ≈ 10% chalcopyrite and sphalerite occurs for 4" in a fine-grained quartzite @2949' - rest of rock contains ≈ 1½%. Pyrite as disseminations - Chalcopyrite associated with abundant chlorite and epidote - apparently parallel to bedding. Bedding to core angle 80°. Similar chalcopyrite occurrence with sphalerite 2953-2953'6". Chalcopyrite occurrence 2958' - as chalcopyrite - chlorite-calcite vein nearly parallel to core - extends for a foot - up to 1" thick in another brief 1" chalcopyrite vein @2960'. No other sulfides present.	2962		8.71			2.8	

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AREA CHARLESTON T. 20 S R. 21 E S. 36 TOTAL DEPTH 3209 COLLAR ELEV. LOGGED BY Peter Dunn HOLE NO. 2 10

Footage From	Footage To	Description	Footage From	Footage To	% Cu.	% Zn.	% Pb.	Oz. Ag.	Oz. Au.
2998	3056	Tuff, fine-grained, chloritic, dark gray to green locally with abundant epidote - clay fairly common - no sulfides - red tuff 3042-44'.							
3056	3072	Quartzite, fine-grained, chloritic - probably tuffaceous - very fine pyrite disseminated - < 1% overall - but locally up to 5%. Sericite very abundant below 3061'. Pyrite content ≈ 2% - fine grained. 3066' - 3068' - contains abundant chlorite crystals up to ¼" - fine-grained green matrix with abundant sericite - pyrite content ≈ 2%.							
3072	3073	Dacite, porphyry, very fine-grained - phenocrysts of red altered feldspars ? in a green aphanitic groundmass - 3% pyrite.							
3073	3121	Dacite, porphyry - phenocrysts of plagioclase (1-2%); potash feldspar (3-5%); chlorite and/or biotite (5%); and epidote (15-20%) - pyrite (1-3%) disseminated in green chloritic groundmass rare thin calcite veinlets - pyrite content decreases with depth < 1% below 3115' - no other sulfides.							
3121	3128	Tuff, fine-grained, green, with abundant chlorite - pyrite 1-3% - pyrite-chalcopyrite vein ½" thick nearly parallel to core - 3122' - abundant sericite - some small epidote phenocrysts.							
3128	3152	Tuff, fine-grained, green chlorite & epidote abundant - sericite common - thin calcite veinlets common - pyrite generally absent - locally present ½% as fine euhedral crystals. Red tuff 3141-3148' - no sulfides - bedding to core angle 90° @3148'.							
3152	3178	Quartzite, very fine-grained and white - pyrite very rare - few thin chlorite rock lenses - bedding to core angle @70° @3173'.							
3178	3199	Tuff, very fine-grained, very chloritic - epidote common - disseminated euhedral - pyrite crystals up to 3% - becomes a fine-grained chloritic quartzite - 3181-3187' - contains abundant epidote - no visible sulfides down to 3185' - 3185'-3187', disseminated chalcopyrite and possibly rare primary chalcocite - see specimen @3186' - some rare sphalerite tuff below 3187' - no sulfides.							
3199	3209	Tuff, fine-grained, gray - rare epidote - no visible sulfides.							

END OF HOLE

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Clarence

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DOUGLAS, ARIZONA 85607

TEL. 602-364-8414

March 2, 1968

RECEIVED
MAR 4 1968
JAMES STEWART COMPANY
PHOENIX, ARIZONA

Mr. Clarence Cosgrove
James Stewart Construction Co.
3033 North Central Avenue
Phoenix, Arizona 85012

Dear Mr. Cosgrove:

Attached is a portion of the geologic log for Hole No. 2 of your Charleston drilling. Also attached are the more recent assay results from Holes 2 and 3.

Very truly yours,

R. W. Ludden

R. W. Ludden, Jr.
Chief Geologist

RWL:g

Encls

Mole Morne "C

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2553-2572	Siltstone, purplish red, grades into tactite at 2555, fine grained, grey, epidote splotches. This in turn grades into quartzite at 2560, medium grey quartzite to 2572.
2572-2574½	Quartzite, medium gray, grades into banded fine grey tactite at 2573. Tactite to 2574½.
2574½-2626½	Tactite, metamorphosed calcareous arkose, quartzitic lenses, mudstones, siltstones, strong epidotized. Disseminated pyrite at intervals in certain intervals, minor sphalerite and chalcopyrite locally in small veins.
2626½-2657	Quartzite, with chlorite and iron rich cement, epidote and calcite blebs at intervals, minor sphalerite and chalcopyrite 2247-2248.6.
2657-2669	Metaarkose, quartzitic, epidote and calcite blebs, to 2669.
2669-2672	Mudstone, reddish, with epidote spots to 2672.
2672-2694	Shale, siltstone to 2688, then quartzite to 2694.
2694-2704	Shale. Dark purplish shale, grading downward to siltstone, epidotized in part.
2704-2727	Quarzite, Light grey in color, fine grained grades to medium grained.
2727-2754	Shale and quartzite. Fine grey shale, locally purple in color to 2731, then fine quartzite to 2739, then light grey medium fine to medium grained. Arkosic locally. 2752-2754.
2754-2791	Tactite, quartzite. Lime-silicate (tactite), locally serpentinized, followed by quartzite, to 2759. Two feet of shale, then grey mottled quartzite to 2770, thereafter increasing lime silicate (epidote), fine grained, dense, hard to 2791.
2791-2839	Quartzite, tactite. Fine to medium grained quartzite to 2808, lime silicate to 2818, fine grained quartzite to 2839.
2839-2845	Shale and lime-silicate.
2845-2882	Quartzite, fine, grey, dark shale to 2850 grading through siltstone to fine quartzite to 2868. Medium quartzite for two feet, then purple shale, locally epidotized, to 2882.
2882-2902	Quartzite, fine grey, grading into medium grained epidotized quartzite, to 2890. At 2890, 6" interval with chalcopyrite. (10% cpy) Below chalcopyrite zone, mottled fine grained siltstone to 2893, then dark grey fine siltstone, becomes lighter with depth and grades into epidotized lime-silicate at 2902.
2902-2915	Dark purplish shale, lime-silicate 2905-2908, then shale and quartzite.
2915-2973½	Quartzite, light grey, fine grained, banded with epidote, bedding 60° to axis of core, becoming medium grained at 2926. 6" medium grained quartzite with chalcopyrite at 2929, estimate 5% cpy. Barren shale and lime-silicate below to 2953, then 6" medium quartzite with chalcopyrite, 7% cpy estimated. Underlain by barren shale and quartzite to 2958, then 12" good chalcopyrite in healed breccia zone in quartzite, 30° angle to axis of core. Estimate 25% cpy in this interval, then 6" barren quartzite, then 1" solid chalcopyrite vein at 30° to axis of core, then barren medium grained quartzite to 2973½.

2973½-2997	Quartzite, medium to coarse, arkosic, 1/8" chalcopyrite vein at 2989, otherwise barren.
2997-3045	Shale, ls-silicate, minor serpentine, epidote bunches. Two feet of dark shale 3043-3045.
3045-3062	Lime-silicate, shale, (some serpentine), to 3049. Two feet dense siltstone, 3049-3051, then lime-silicate. 1" cpy 3051½. Chert 3054-3054½, quartzitic 3057-3061. Fault zone 3061-3062. Bottom 2/17/68.

Progressive Report as of
November 28, 1967

H. Clyde? Davis 2-27 (final)

Sheet #1

DDH NO. HORNE #2 State ARIZONA County COCHISE Mining District TOMBSTONE Project

Coordinates N E Collar Elevation Inclination VERTICAL Bearing

Date Started Date Completed Final Depth Drilling Co. BOYLES BROS.

Start	Box #	Stop	L1	L2	% Rec. By Ft.	Lbs. Rec.	% Rec. By Wt.	Assay	Oxide	Sulphide	Mineral	Limestone	Arcose	Quartzite	Granite	Acid	Intermedia	Basic	Diabase	Sericite	Altered	Chloride	Brecciated	Mineral Density No.	Tot. Cu.	Remarks
10	1	20							X		0							X			X					
20	2	30							X		1							X		X						POOR SERICITE 4'
30	3	39							X		1							X		X						VEIN FILLING - 6" SERICITE
39	4	47							X		0							X								VEIN FILLING
47	5	55							X		1							X	X	X						1' SERICITE
55	6	65							X		0								X							VEIN FILLING
65	7	75							X		0								X							VEIN FILLING
75	8	85							X		0								X							
85	9	95							X		0								X							
95	10	105							X		0								X							
105	11	115							X		0								X				X			
115	12	119.5							X		0								X				X			
119.5	13	129							X		0								X				X			
129	14	139							X		0								X				X			
139	15	149							X		0								X							
149	16	159							X		1								X		X		X			6" SERICITE
159	17	169							X		0								X							
169	18	179							X	X	0							X	X							OXIDE STRONG TO 179'
179	19	189							X	X	0							X								VEIN FILLING
189	20	199							X	X	0							X					X			
199	21	209							X	X	0							X								
209	22	215							X	X	0							X								
215	23	224							X	x	0							X								
224	24	233							X	X	0							X								
233	25	242.5							X	X	0							X								
242.5	26	252							X	X	0							X					X			
252	27	263.5							X	X	0							X								
263.5	28	273.5								X	0							X					X			
273.5	29	283.5								X	0							X								
283.5	30	293.5									0							X								

DDH NO. HORNE # 2 State ARIZONA Mining District TOMBSTONE Coordinates _____ N _____ E Date Started _____ Drilling Co. BOYLES BROS.

County COCHISE Project _____ Collar Elevation _____ Date Completed _____

Inclination VERTICAL Bearing _____ Final Depth _____

Start	Box #	Stop	L1	L2	% Rec. By Ft.	Lbs. Rec.	% Rec. By Wt.	Assay	Oxide	Sulphide	Mineral Limestone	Arcose	Quartzite	Granite	Acid	Intermediate	Basic	Diabase	Sericite	Altered	Chloride	Brecciated	Mineral Density No.	Tot. Cu.	Remarks
293.5	31	303.5								X							X					X			
303.5	32	311								X							X					X			
311	33	318								X							X								
318	34	327.5								X							X	X							
327.5	35	337.5								X							X	X							
337.5	36	347.5								X								X							
347.5	37	356								X								X				X			
356	38	365								X								X				X			
365	39	374								X								X							
374	40	383.5								X								X							
383.5	41	394								X								X							
394	42	404								X								X							
404	43	415								X								X							
415	44	424								X								X							
424	45	434								X								X							
434	46	440								X								X				X			
440	47	447								X	Tr							X				X			Minor Minerals Starting
447	48	458.5								X	Tr							X				X			
458.5	49	469								X	Tr							X				X			
469	50	478								X	Tr							X				X			
478	51	486								X	Tr							X				X			Vein Filling
486	52	494								X	Tr							X				X			
494	53	500								X	Tr							X				X			
500	54	509.8								X	Tr						X	X				X			
509.8	55	519.3								X	Tr						X	X				X			
519.3	56	528.8								X	Tr						X	X							
528.8	57	537.8								X	2						X	X	X	X					1' Sericite - Mineral at 531'
537.8	58	546.8							X	X	3						X	X	X	X		X			Oxide is in Vein Filling
546.8	59	558							X	X	2						X	X				X			
558	60	566.5							X	X	4						X		X			X			3' Sericite

DDH NO. HORNE #2 | State ARIZONA | County COCHISE | Mining District TOMBSTONE | Project | Coordinates ____ N ____ E | Collar Elevation | Inclination VERTICAL | Bearing | Date Started | Date Completed | Final Depth | Drilling Co. BOYLES BROS.

Start	Box #	Stop		L1	L2	% Rec. By Ft.	Lbs. Rec.	% Rec. By Wt.	Assay	Oxide	Sulphide	Mineral	Limestone	Arcose	Quartzite	Granite	Acid	Intermediate	Basic	Diabase	Sericite	Altered	Chloride	Brecciated	Mineral Density No.	Tot. Cu.	Remarks
566.5	61	575								X	X	3							X		X	X		X			3' Sericite
575	62	584									X	3							X		X	X		X			3' Sericite
584	63	593	5							X	X	4							X		X	X		X			3' Sericite
593.5	64	601	2							X	X	4							X		X	X		X			Vein System - 4' Sericite
601.2	65	609								X	X	4							X		X	X		X			
609	66	617								X	X	4							X		X	X		X			
617	67	628								X	X	4						X	X		X	X		X			
628	68	635									X	5						X				X					
635	69	639									X	5						X									
639	70	645	8								X	5						X									
645.8	71	659									X	5						X									
659	72	667									X	5						X									
667	73	675	5								X	5						X									
675.5	74	683	5								X	5						X				X					
683.5	75	691	5								X	5						X				X					
691.5	76	699	5								X	5						X				X					
699.5	77	706	5								X	4								X							(Check for nickel)
706.5	78	714									X	4								X							" " "
714	79	717	5								X	4								X							" " "
717.5	80	720									X	4								X	X	X					
720	81	742									X	5							X		X	X					2' Sericite
742	82	752									X	5							X								
752	83	762									X	5						X									
762	84	772									X	6						X			X	X					
772	85	779									X	6						X			X	X					
779	86	789									X	6/3		X	X			X			X						
789	87	799									X	3			X						X	X					
799	88	809									X	3			X						X	X					
809	89	818									X	3			X						X	X					
818	90	826									X	3			X						X	X					

DDH NO. HORNE #2 State ARIZONA Mining District TOMBSTONE Coordinates ____ N ____ E Date Started ____ Drilling Co. BOYLES BROS.

County COCHISE Project ____ Collar Elevation ____ Date Completed ____

Inclination VERTICAL Bearing ____ Final Depth ____

Start	Box #	Stop	L1	L2	% Rec. By Ft.	Lbs. Rec.	% Rec. By Wt.	Assay	Oxide	Sulphide	Mineral	Limestone	Arcose	Quartzite	Granite	Acid	Intermediate	Basic	Diabase	Sericite	Altered	Chloride	Brecciated	Mineral Density No.	Tot. Cu.	Remarks
826	91	835								X	3			X												
835	92	844								X	3			X												
844	93	854								X	3			X												
854	94	864								X	3			X												
864	95	874								X	3			X												
874	96	884								X	4			X			X									
884	97	893							X	X	4			X			X									Vein Material
893	98	903							X	X	4			X			X									
903	99	909								X	4							X			X					
909	100	918								X	4							X			X					
918	101	927								X	4							X			X					
927	102	937								X	4							X			X					
937	103	945								X	4							X			X					
945	104	954								X	4							X			X					
954	105	964								X	4							X			X					
964	106	974								X	4							X			X					
974	107	984								X	4							X			X					
984	108	994								X	4							X	X		X					
994	109	1004?								X							X	X								
1004	110	1014								X	9						X	X								Lead and Copper
1014	111	1019								X	5						X	X								
1019	112	1028								X	5						X									
1028	113	1037								X	5						X	X								
1037	114	1047								X	5						X	X								
1047	115	1055								X	5						X					X				
1055	116	1064								X	6						X				X	X				
1064	117	1073								X	6						X				X	X				
1073	118	1080								X	6						X				X		X			Red Mineral - Apparent
1080	119	1087								X	7						X						X			
1087	120	1099								X	7						X						X			

DDH NO. HORNE #2 State ARIZONA Mining District TOMBSTONE Coordinates ____ N ____ E Date Started ____ Drilling Co. BOYLES BROS.

County COCHISE Project ____ Collar Elevation ____ Date Completed ____

Inclination VERTICAL Bearing ____ Final Depth ____

Start	Box #	Stop	L1	L2	% Rec. By Ft.	Lbs. Rec.	% Rec. By Wt.	Assay	Oxide	Sulphide	Mineral	Limestone	Arcose	Quartzite	Granite	Acid	Intermediate	Basic	Diabase	Sericite	Altered	Chloride	Brecciated	Mineral Density No.	Tot. Cu.	Remarks
1099	121	1109							X	X	6						X		X			X				Dike - Diabase Chloride Porphyry
1109	122	1119							X	X	6							X	X			X				Fault zone
1119	123	1129								X	5							X	X							Vein filling
1129	124	1137							X	X	9							X				X				
1137	125	1147								X	9							X	X							
1147	126	1155								X	9							X	X							
1155	127	1163								X	9							X								
1163	128	1173								X	9							X								
1173	129	1180								X	9						X	X								Heavy metal - vein filling
1180	130	1187								X	9						X									
1187	131	1196								X	9						X									
1196	132	1207								X	9						X									
1207	133	1214								X	3		X	X												
1214	134	1226.5								X	3			X												
1226.5	135	1238								X	3			X												
1238	136	1242								X	3			X												
1242	137	1247								X	3			X												
1247	138	1254								X	3			X												Vein filling
1254	139	1262.5								X	3			X												
1262.5	140	1270.5								X	3			X												
1270.5	141	1280.5							X	X	5							X				X	X			
1280.5	142	1287								X	5						X	X								
1287	143	1295.5								X	5						X									
1295.5	144	1305								X	6						X				X					1'
1305	145	1314								X	3			X			X									
1314	146	1323								X	3			X												
1323	147	1331								X	4			X			X				X					
1331	148	1338								X	4			X			X									
1338	149	1347.5								X	5					X	X	X								Quartz Latite
1347.5	150	1357.5								X	5					X	X									Quartz Latite

DDH NO. HORNE #2 State ARIZONA County COCHISE Mining District TOMBSTONE Project

Coordinates ____ N ____ E Collar Elevation Inclination VERTICAL Bearing

Date Started Date Completed Final Depth

Drilling Co. BOYLES BROS.

Start	Box #	Stop	L1	L2	% Rec. By Ft.	Lbs. Rec.	% Rec. By Wt.	Assay	Oxide	Sulphide	Mineral	Limestone	Arcose	Quartzite	Granite	Acid	Intermediate	Basic	Diabase	Sericite	Altered	Chloride	Brecciated	Mineral Density No.	Tot. Cu.	Remarks
1357.5	151	1368								X	8					X	X									
1368	152	1377								X	9					X	X									
1377	153	1387.5								X	10					X	X									
1387.5	154	1396								X	10					X	X									Heavy Metal
1396	155	1407								X	10					X	X									
1407	156	1416								X	10					X	X									
1416	157	1429								X	10						X									
1429	158	1439								X	5						X									
1439	159	1448								X	7						X									Veins
1448	160	1457								X	7						X									
1457	161	1467								X	7						X	X								
1467	162	1476								X	4			X				X								
1476	163	1485.5								X	5						X	X				X				Latite
1485.5	164	1494.5								X	5						X					X				
1494.5	165	1503								X	5						X					X				
1503	166	1512								X	4			X			X			X	X					Veins - Sericite
1512	167	1527								X	5			X			X			X	X					Veins
1527	168	1536								X	8					X	X	X								Heavy Pyrite (5')
1536	169	1545.5							X	X	7					X				X						Oxide Vein Gouge - (4' Sericite)
1545.5	170	1555								X	4			X					X			X				4' Diabase
1555	171	1563								X	5					X	X					X				Heavy Core
1563	172	1572.5							X	X	5					X	X									Vein Oxide - Heavy Core
1572.5	173	1582								X	4			X			X					X				
1582	174	1591								X	5					X	X					X				
1591	175	1600.5								X	6					X	X	X				X				Heavier Metals
1600.5	176	1607.5								X	5					X	X					X				
1607.5	177	1620								X	5			X			X									
1620	178	1628.5								X	8					X	X	X								Yellow Apple White
1628.5	179	1627.5								X	8					X	X	X								
1627.5	180	1647								X	8					X	X	X								

DDH NO. HORNE # 2 State ARIZONA County COCHISE Mining District TOMBSTONE Project

Coordinates ____ N ____ E Collar Elevation Inclination VERTICAL Bearing

Date Started Date Completed Final Depth

Drilling Co. BOYLES BROS.

Start	Box #	Stop	L1	L2	% Rec. By Ft.	Lbs. Rec.	% Rec. By Wt.	Assay	Oxide	Sulphide	Mineral	Limestone	Arcose	Quartzite	Granite	Acid	Intermediate	Basic	Diabase	Sericite	Altered	Chloride	Brecciated	Mineral Density No.	Tot. Cu.	Remarks
1647	181	1656.6								X	7			X			X	X								
1656.6	182	1665.5								X	5							X								
1665.5	183	1675								X	5							X								
1675	184	1685								X	6						X	X								
1685	185	1694.5								X	5							X								
1694.5	186	1703								X	6							X								
1703	187	1713								X	7							X				X				Vein Filling

BRIGHAM YOUNG UNIVERSITY Clyde Davis F-2-25

DDH No. HORNE #2 State ARIZONA County Cochise Mining District Tombstone Project

Coordinates N E Collar Elevation Inclination Bearing

Date Started Date Completed Final Depth Drilling Co.

Core Box#	FOOTAGE		L1	(-) L2	% Rec. by ft.	Lbs. Rec.	Oxide	Ox Cu	(S) Cu	Tot. Cu	MOS2	Pb	Zn			↓	core size	Samp. No.	Altered	Ch-Epi	Serich	Breccia	Sh-Slide	Lm	Qtz-SS	Acid Igneous	Intermed	Basic	REMARKS
1	10	20	10				✓									0	NX		✓								✓		Andesite-Tuff
2	20	30	10				✓									1	✓		✓		✓	✓					✓		4' Ser.
3	30	39	9				✓									1	"		✓								✓		vein
4	39	47	8				✓									0	"		✓								✓		vein
5	47	55	8				✓									1	"				✓	✓					✓		1' Ser.
6	55	65	10				✓									0	"										✓		vein filling
7	65	75	10				✓									0	"										✓		" "
8	75	85	10				✓									0	"		✓	✓							✓		fragmented
9	85	95					✓									0	"		✓	✓							✓		
10	95	105					✓									0	"		✓	✓							✓		
11	105	115					✓									0	"		✓	✓							✓		
12	115	119.5					✓									0	"										✓		
13	119.5	129					✓									0	"										✓		
14	129	139					✓									0	"										✓		
15	139	149					✓									0	"										✓		
16	149	159					✓									1	"				✓						✓		6" Ser.
17	159	169					✓									0	"										✓		
18	169	179					✓		✓							0	"		✓		-					✓	✓		
19	179	189					✓		✓							0	"		✓		-					✓			oxides strong to 178' Tuff-Acid
20	189	199					✓		✓							0	"		✓		-					✓			vein filling
21	199	209					✓		✓							0	"		✓		-					✓			
22	209	215					✓		✓							0	"		✓		-					✓			
23	215	224					✓		✓							0	"		✓		-					✓			
24	224	233					✓		✓							0	"		✓		-					✓			Tuff
25	233	242.5					✓		✓							0	"									✓			"
26	242.5	252					✓		✓							0	"									✓			"
27	252	263.5					✓		✓							0	"									✓			
28	263.5	273.5							✓							0	"									✓			pyrite on seams
29	273.5	283.5							✓							0	"												
30	283.5	293.5							✓							0	"												
									✓																				

BRIGHAM YOUNG UNIVERSITY

DDH No. HORNE #2 State ARIZONA County Cochise Mining District Tombstone Project

Coordinates ____ N ____ E Collar Elevation Inclination ____ Bearing ____

Date Started ____ Drilling Co. Date Completed ____ Final Depth ____

Core Box#	FOOTAGE		L1	(-) L2	% Rec. by ft.	Lbs. Rec.	Ox Cu	(S) Cu	Tot. Cu	MOS2	core size	Samp. No.	AIT	Ch-Ep	Sericite	Breccia	Lm.	Sh-Slate	SS-Otz	Acid	Int.	Base	REMARKS
31	293.5	303.5	10					✓			NX		✓			✓							
32	303.5	311						✓			to		✓			✓							
33	311	318						✓			400'		✓										
34	318	327.5						✓			NX		✓										
35	327.5	337.5						✓					✓										
36	337.5	347.5						✓					✓										
37	347.5	356						✓					✓			✓							
38	356	365						✓					✓			✓							
39	365	374						✓					✓			✓							
40	374	383.5						✓					✓										
41	383.5	394						✓					✓										
42	394	404						✓					✓										
43	404	415						✓			BX		✓										
44	415	424						✓			BX		✓										
45	424	434						✓															
46	434	440						✓					✓			✓							
47	440	447						✓			Tr		✓			✓							Minor Mineralization - pyrite - Stack
48	447	458.5						✓			Tr		✓			✓							"
49	458.5	469						✓			Tr		✓			✓							
50	469	478						✓			Tr		✓			✓							
51	478	486						✓			Tr^2		✓			✓							
52	486	494						✓			Tr^3		✓			✓							Vein
53	494	500						✓			Tr^2		✓			✓							
54	500	509.8						✓			Tr^2		✓			✓							
55	509.8	519.3						✓			T^2		✓										
56	519.3	528.8						✓			T^2		✓										
57	528.8	537.8						✓			3		✓		✓	✓							Conglomerate 1" Sericite
58	537.8	546.8					✓	✓			3		✓			✓							
59	546.8	558					✓	✓			T2		✓			✓							
60	558	566.5					✓	✓			4		✓		✓	✓							3" Sericite

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DDH No. HORNE #2 State ARIZONA County COCHISE Mining District TOMBSTONE Project

Coordinates ____ N ____ E Collar Elevation Inclination ____ Bearing

Date Started Date Completed Final Depth Drilling Co.

Core Box#	FOOTAGE	L1	(-) L2	% Rec. by ft.	Lbs. Rec.	Oxide Ox Cu	Sulph. (S) Cu	Tot. Cu	MOS2	Pb	Zn		J	core size	Samp. No.	Alt	Ch	Ep	Sericite	Breccia	Lim	Sil-Sl	Ss	Chert	Acid Igneous	Intr.	Base	REMARKS
61	566.5 – 575					✓	✓						4	BX		✓			✓	✓			✓					3' Ser.
62	575 – 584						✓	.045					4			✓			✓	✓			✓					3 Ser
63	584 – 593.5					✓	✓						4			✓			✓	✓		✓	✓					3 Ser –
64	593.5 – 601.2					✓	✓	.03					4			✓			✓	✓			✓					vein – 4' Ser
65	601.2 – 609					✓	✓						4			✓				✓			✓					
66	609 – 617					✓	✓						4			✓				✓			✓					
67	617 – 628						✓	.04					4			✓				✓			✓					
68	628 – 635						✓						5			✓				✓			✓					felsite
69	635 – 639						✓						5										✓					"
70	639 – 645.8						✓						5			✓							✓					"
71	645.8 – 659						✓						5			✓							✓					"
72	659 – 667						✓	.035					5			✓							✓					"
73	667 – 675.5						✓						5										✓					
74	675.5 – 683.5						✓						5										✓					
75	683.5 – 691.5						✓						5										✓					
76	691.5 – 699.5						✓						5										✓					
77	699.5 – 706.5						✓						4									✓						
78	706.5 – 714						✓						4									✓						
79	714 – 717.5						✓						4									✓						
80	717.5 – 720						✓						4			✓						✓						
81	720 – 742						✓						5			✓				✓			✓					2' Ser
82	742 – 752						✓						5			✓							✓					
83	752 – 762						✓						5			✓							✓					
84	762 – 772						✓						6			✓							✓					ARKose - Calic
85	772 – 779						✓						6			✓							✓					"
86	779 – 789						✓	.03		Tr.		.90	6/3			✓				✓			✓					"
87	789 – 799						✓						3			✓				✓		✓						
88	799 – 809						✓						3							✓		✓						
89	809 – 818						✓						3									✓						
90	818 – 826						✓						3									✓						

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DDH No. HORNE #2 | State ARIZONA | County COCHISE | Mining District TOMBSTONE | Project | Coordinates ____ N ____ E | Collar Elevation | Inclination ____ Bearing ____ | Date Started | Date Completed | Final Depth | Drilling Co.

Core Box#	FOOTAGE		L1	L2	% Rec. by ft.	Lbs. Rec.	Ox Cu (Oxide)	(S) Cu (Sulphide)	Tot. Cu	MOS2	Pb	Zn			✓	core size	Samp. No.	Alt	Ser	Prop	Sp-Sil	SS-Qtz	Acid	Int	Bas	REMARKS
91	826	835						✓							3											quartzite
92	835	844						✓							3											"
93	844	854						✓							3											"
94	854	864						✓							3											"
95	864	874						✓							3											"
96	874	884						✓							4											"
97	884	893					✓	✓							4											" vein material
98	893	903					✓	✓							4											"
99	903	909						✓							4											"
100	909	918						✓							4											"
101	918	927						✓							4											ARROSE
102	927	937						✓							4					✓						
103	937	945						✓							4					✓						
104	945	954						✓							4					✓						
105	954	964						✓							4					✓						
106	964	974						✓							4					✓						
107	974	984						✓							4					✓						
108	984	994						✓							4					✓						
109	994	1004						✓												✓						
110	1004	1014						✓	.43		4.88	9.2			9					✓						
111	1014	1019						✓							5					✓						
112	1019	1028						✓							5					✓						
113	1028	1037						✓	.07		.60	5.0			5					✓						
114	1037	1047						✓							5					✓						
115	1047	1055						✓							5					✓						
116	1055	1064						✓							6			cl		✓						
117	1064	1073						✓							6			cl	✓	✓						
118	1073	1080						✓							6			cl	✓	✓						red mineral - ox
119	1080	1087						✓							7			cl	✓	✓						
120	1087	1099						✓							7				✓	✓						

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DDH No. HORNE #2 | State ARIZONA | County COCHISE | Mining District TOMBSTONE | Project | Coordinates ____ N ____ E | Collar Elevation | Inclination ____ Bearing ____ | Date Started | Date Completed | Final Depth | Drilling Co.

CORE																							GEOLOGY								REMARKS
Core Box#	FOOTAGE		L1	(-) L2	% Rec. by ft.	Lbs. Rec.	OXIDE	Ox Cu	SULFIDE	(S) Cu	Tot. Cu	MOS_2	Pb	Zn					core size	Samp. No.	Alt	Sec	Breccia	Lim	Sh-Slate	Mass-Ch.	Reid Tort.	Bade	
121	1099	1109							✓										6		CB								ARCOSIC
122	1109	1119					✓		✓										6		a					✓			"
123	1119	1129							✓		.08		.37	.55					5		E				✓				"
124	1129	1137					✓		✓		.029		.02	Tr					9		a				✓				" CuFeS2, Zn, PbS
125	1137	1147							✓		.038		.02	Tr					9						✓				" " " "
126	1147	1155							✓		.037		.02	Tr					9						✓				" " " "
127	1155	1163							✓		.037		.44	Tr					9						✓				" " " "
128	1163	1173							✓		.05		.07	Tr					9						✓				" " " "
129	1173	1180							✓		.037		.02	Tr					9						✓				" " " "
130	1180	1187							✓		.037		.02	Tr					9						✓	SS			" " " "
131	1187	1196							✓		.058		.02	Tr					9						✓				" " " "
132	1196	1207							✓		.16		.44	1.40					9						✓				" " " "
133	1207	1214							✓		.50								9						✓				" " " "
134	1214	1226.5							✓										9						✓				
135	1226.5	1238							✓		.08		1.25	2.17					9						✓				
136	1238	1242							✓										3						✓	Qtz			Quartzite
137	1242	1247							✓										3						✓				
138	1247	1254							✓										3						✓				
139	1254	1262.5							✓										3						✓				
140	1262.5	1270.5							✓										3						✓				
141	1270.5	1280.5							✓										3						✓				
142	1280.5	1287							✓										3						✓				
143	1287	1295.5							✓										3						✓				
144	1295.5	1305							✓										3						✓				Unconsolidated
145	1305	1314							✓										3						✓				
146	1314	1323							✓										3						✓				
147	1323	1331							✓										5		✓✓		✓		✓				
148	1331	1338							✓										5						✓				
149	1338	1347.5							✓										4					✓	✓				
150	1347.5	1357.5							✓										4		✓				✓	Qtz			
																			5					✓	✓				Qtz
																			5		✓			✓	✓				Qtz.

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DDH No. HORNE #2 State ARIZONA County COCHISE Mining District TOMBSTONE Project

Coordinates ____ N ____ E Collar Elevation Inclination ____ Bearing

Date Started Date Completed Final Depth Drilling Co.

Core Box#	FOOTAGE		L1	(-) L2	% Rec. by ft.	Lbs. Rec.	Oxide Ox Cu	Sulfide (S) Cu	Tot. Cu	MOS_2	Pb	Zn	✓	core size	Samp. No.	Alt	Sil-Bx	Sil-Sh	Lim	Sil-Sh	SS-Cgl	Arg	Tuff	Intrusive	REMARKS
151	1357.5	1368						✓					8						*						mineralized
152	1368	1377						✓					9												"
153	1377	1387.5						✓					10												"
154	1387.5	1396						✓					10												"
155	1396	1407						✓	.08 .07		.20 .81	.55 3.42	10												"
156	1407	1416						✓	.14 .048		1.45 .10	2.87 .55	10			✓		✓							" Colcanite
157	1416	1429						✓	.029 .038		.07 .10	.20	10			✓		✓							" " "
158	1429	1439						✓	.047 .048		.12 .02	.25 .05	5			✓		✓							gtz
159	1439	1448						✓	.049 .028		.32 .12	.30 .25	7												
160	1448	1457						✓	.038 .07		.13 .66	.20 1.40	7												
161	1457	1467						✓					7						✓						DARK Gray
162	1467	1476						✓					4						✓						" "
163	1476	1485.5						✓					5						✓						" "
164	1485.5	1494.5						✓					5						✓						" "
165	1494.5	1503						✓					5							✓					
166	1503	1512						✓					4							✓					
167	1512	1527						✓					5							✓					
168	1527	1537						✓					8							✓					
169	1536	1545.5					✓	✓					7							✓					
170	1545.5	1555						✓					4						✓	✓					
171	1555	1563						✓					5						✓						A' Diabase
172	1563	1572.5					✓	✓					5							✓					vein oxide
173	1572.5	1582						✓					4							✓					
174	1582	1591						✓					5						✓	✓					
175	1591	1600.5						✓					6						✓	✓					Heavier Metals
176	1600.5	1607.5						✓					5							✓					
177	1607.5	1620						✓					5							✓					
178	1620	1627.5						✓					8				✓			✓					metal Breccia
~~179~~	~~1628.5~~	~~1627.5~~						✓					8				✓		✓	✓					
180	1627.5	1647						✓					8			✓	✓		✓	✓					

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DDH No. HORNE #2 | State ARIZONA | County COCHISE | Mining District TOMBSTONE | Project | Coordinates ____ N ____ E | Collar Elevation | Inclination | Bearing | Date Started | Date Completed | Final Depth | Drilling Co.

Core Box#	FOOTAGE		L1	L2	% Rec. by ft.	Lbs. Rec.	Oxide Ox Cu	(S) Cu	Tot. Cu	MOS2	Pb	Zn			✓	core size	Samp. No.	GEOLOGY	REMARKS
181	1647	1656.5						✓							7				ARKOSIC
182	1656.6	1665.5						✓	.038 .029		Tr	Tr Tr	Tr Tr		5				
183	1665.5	1675						✓	.039 .029		Tr	Tr Tr	Tr Tr		5				
184	1675	1685						✓	.030 .019		Tr	Tr Tr	Tr Tr		6				
185	1685	1694.5						✓	.028	Nil	.05	.12			5				
186	1694.5	1703						✓	.028	Nil	.05	.10			6				
187	1703	1713						✓	.029 .027	Nil Nil	.05 .03	.12 .12			7			d	Vein filling
188	1713	1721						✓	.049	Nil	.06	Tr.			6				pyrite-good
189	1721	1732						✓	.038 .100	Nil Nil	.36 .47	.60 3.70			5				" "
190	1732	1741						✓	.047 .076	Nil Nil	.46 .03	3.40 .17			5				" "
191	1741	1750.5						✓	.028 .020		.12 .07	.25 .30			7			d	
192	1750.5	1759.5						✓	.037 .028		.07 Tr	.25 .05			6				
193	1759.5	1767						✓	.047 .036		Tr .05	.05 .12			6				
194	1767	1776.5						✓	.029 .029		.03 .03	.12 Tr			6				
195	1776.5	1785						✓	.037 .029		.02 .03	Tr Tr			6				
196	1785	1793.5						✓	.048 .029		.05 .02	Tr Tr			6				Hornfelsed - Calcic Qtz
197	1793.5	1803						✓	.048 .037		.03 .03	.05 .07			5				
198	1803	1812						✓	.029 .037		.03 .14	.07 .50			5				purple mudstone ARKOSIC
199	1812	1821						✓	.076 .048		.12 Tr	.40 Tr			5				
200	1821	1831						✓	.029 .029		Tr Tr	Tr Tr			6			E	
201	1831	1841						✓	.037 .029		Tr Tr	Tr Tr			3			C	
202	1841	1850						✓	.037 .029		Tr .02	Tr .05			3			E	
203	1850	1858						✓	.210 .087		.92 .10	1.12 .12			3			C	✓ Eq.
204	1858	1867						✓							5			C	
205	1867	1876						✓							5			C	
206	1876	1886						✓							4			C	
207	1886	1893						✓	.029 .037		Tr .02	.07 Tr			6			C	Sugary Qtz.
208	1893	1901						✓	.057 .029		Tr Tr	Tr Tr			6			C	
209	1901	1910						✓	.037 .029		.08 Tr	Tr Tr			7				
210	1910	1919						✓	.038 .019		.02 Tr	Tr Tr			5				
211	1919	1928						✓	.05		14.5				5				

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CORE																														GEOLOGY									REMARKS
Core Box#	FOOTAGE				L1		(-) L2		% Rec. by ft.		Lbs. Rec.		Oxide Ox	Cu	Sulfide (S)	Cu	Tot. Cu	MOS2		Pb		Zn					✓	core size	Samp. No.	A/A	Cl-Ep	Sst	Brecc	Lmc	Sil. Sh	Qtz	Rcin	Cut	Rose	
212-13	1928		1937	5											✓												7			-			✓		✓					Arkosic - pyrite
214	1937	.5	1946	5											✓												5			✓			✓		✓					
215	1946	5	1956												✓												5			✓			✓		✓					
216	1956		1965	5											✓												6			-			✓		✓					
217	1965	5	1974												✓												6								✓					
218	1974		1983	6											✓												6			✓	C		✓							
219	1983	6	1996												✓												6			✓	C									
220	1996		2002	3											✓												4			✓	C		✓							
221	2002	3	2011												✓												5			✓	C		✓							
222	2011		2021												✓												4			✓	CG		✓							Pyrite.
223	2021		2027												✓												6			✓	CG									
224	2027		2036												✓	1.00	1.00			TR	26	20					6								✓				Arkosic -
225	2036		2045												✓												6								✓					
226	2045		2054	5											✓												7								✓					
227	2054	5	2063	5											✓												7								✓					
228	2063	5	2073	5											✓												6								✓					
229	2073	5	2082	5											✓												6								✓	Qtz				Qtz. light. red
230	2082	5	2092	5											✓												4									Qtz				Qtz. " "
231	2092	5	2102	8											✓												4													
232	2102	8	2113	5											✓												4													
233	2113	5	2121												✓												4													
234	2121		2130	5											✓												4													
235	2130	5	2139	2											✓												4													
236	2139	2	2149												✓												5			-	C		✓							
237	2149		2157	8											✓												5			✓	CG		✓		✓					Arkosic
238	2157	8	2167	5											✓												5			✓	CG		✓		✓					
239	2167	5	2176	5											✓		.03 .06			TR TR		.07 .10					5			✓	CG		✓		✓					
240	2176	5	2185	7											✓		.06 .05			TR TR		1.00 .90					5			✓	CG		✓		✓					
241	2185	7	2195												✓		.01 .03			TR .15		.40 .15					5			✓	CG		✓		✓					
242	2195		2205												✓		.03 .04			.12 .05		.12 .07					5			✓	CG				✓					
243	2205		2214										✓		✓		.03 .06			.12 TR		.12 .25					6			✓	C				✓					FeOx

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DDH No. Horne #2 | State Arizona | County Cochise | Mining District Tombstone | Project | Coordinates ____ N ____ E | Collar Elevation | Inclination ____ Bearing ____ | Date Started | Date Completed | Final Depth | Drilling Co.

CORE																								GEOLOGY								REMARKS
Core Box#	FOOTAGE				L1	L2	% Rec. by ft.	Lbs. Rec.	Ox Cu	(S) Cu	Tot. Cu	MOS2	Pb	Zn			✓	core size	Samp. No.	Alt	Cl-Sp	Ser.	Breccia	Qtz	Sh-Sh	SS-hole	Acid	Int	Base	
244	2214		2223							✓	.07 .06		Tr .14	.25 .22			6			✓	C				✓					
245	2223		2236							✓	.11 .10		Tr Tr	Tr Tr			6			✓	C				✓					
246	2236		2242	5						✓	.05 .04		Tr Tr	Tr .05			7			✓					✓			✓		porphyry granodiorite
247	2242	5	2256	5						✓	.05 .05		Tr Tr	.05 Tr			8			✓	C	S						✓		" "
248	2256	5	2266	5						✓	.16 .40		Tr Tr	Tr .07			8			✓		✓						✓		"
249	2266	5	2278							✓	3 .11 3 .28		Tr	.05 Tr			8			✓	C				✓			✓		"
250	2278		2288							✓	.05 .05		Tr Tr	Tr 1 .25			7											✓		"
251	2288		2295	7						✓							6													"
252	2295	7	2306							✓							6								✓					calic Qtz good Value
253	2306		2314	3						✓							6								✓					
254	2314	3	2323	5						✓							6				C				✓					
255	2323	5	2332	5						✓							8				C				✓	✓				Calic Qtz good Value
256	2332	5	2342							✓	.04 .06		Tr Tr	Tr .07			7				C				✓	✓				
257	2342		2351	5						✓							6				C				✓					
258	2351	5	2361	5						✓							7				C				✓					
259	2361	5	2371							✓							5				C				✓					
260	2371		2380							✓							5				EC				✓					
261	2380		2388							✓							5				EC				✓					
262	2388		2397	5						✓							7					S		✓	✓	✓				
263	2397	5	2407							✓		.04	Tr	Tr			10							✓	✓	✓				
264	2407		2417							✓							4.5				C			✓	✓	✓				
265	2417		2426	5						✓							5									✓		✓		Porphyry mixed
266	2426	5	2436	7						✓							4									✓		✓		
267	2436	7	2445	9						✓							4								✓					
268	2445	9	2456	4						✓							4				C				✓					
269	2456	4	2464							✓							3				C				✓					
270	2464		2474							✓							5				C				✓					
271	2474		2483	1						✓							5									✓				
272	2483	1	2492	5						✓							5									✓				
273	2492	5	2502							✓							5									✓				
274	2502		2512	1						✓							5							✓		✓				

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DDH No. HORNE #2 State ARIZONA County COCHISE Mining District TOMBSTONE Project

Coordinates ____ N ____ E Collar Elevation Inclination ____ Bearing ____

Date Started ____ Drilling Co. Date Completed ____ Final Depth ____

Core Box#	FOOTAGE		L1	(-) L2	% Rec. by ft.	Lbs. Rec.	Oxide Ox Cu	Sulfide (S) Cu	Tot. Cu	MOS2	Pb	Zn			✓	core size	Samp. No.	GEOLOGY Alt	Ca Ep	Sep	Brecc	Ore	Sh-Sulphide	Ss-Sulphide	Acid Igneous	Tuf.	Bond	REMARKS
275	2512 1	2517 6						✓							6	BY		✓					✓					
276	2517 6	2581 3						✓							7			✓					✓					
277	2531 3	2541						✓							5			✓					✓					
278	2541	2546						✓							5			✓					✓					
279	2546	2555						✓							5			✓					✓					
280	2555	2565						✓							4			✓					✓					
281	2565	2574 5						✓							6			✓					✓					Gooy
282	2574 5	2583					✓	✓							10			✓					✓					
283	2583	2593						✓							4			✓				✓	✓	✓				
284	2593	2603						✓							5			✓				✓	✓	✓				
285	2603	2610						✓							5			✓				✓	✓	✓				
286	2610	2620						✓							4			✓					✓	✓				ZnS, pyrite, chalcopyrite
287	2620	2630						✓							6									✓				" " " "
288	2630	2639						✓							5									✓				" " " "
289	2639	2648 6						✓							5									✓				" " " "
290	2648 6	2657 4						✓							4									✓				" " " "
291	2657 4	2666 7						✓							7									✓				" " " "
292								✓																✓				" " " "
293								✓																✓				" " " "
294								✓																✓				" " " "
295								✓																				
296								✓																				
297								✓																				
298								✓																				
299								✓																				
300								✓																				
301								✓																				
302								✓																				
303								✓																				
304								✓																				
305								✓																				

BRIGHAM YOUNG UNIVERSITY

DDH No. HORNE #2 State ARIZONA County COCHISE Mining District TOMBSTONE Project

Coordinates ____ N ____ E Collar Elevation Inclination ____ Bearing

Date Started Date Completed Final Depth Drilling Co.

Core Box#	FOOTAGE		L1	(-) L2	% Rec. by ft.	Lbs. Rec.	Ox Cu	(S) Cu	Tot. Cu	MOS2					✓	core size	Samp. No.	GEOLOGY (Sed-metal/Igneous): Alt Cr Ep	Ser	Breccia	Lm	Sh-Slate	ss-Otz	Acid	Int	Bas	REMARKS
306								✓								8Y											
307								✓																			
308								✓																			
309								✓																			
310								✓																			
311																											
312																											
313	2854		2862					✓							4							ss					
314	2862		2871					✓							3						✓						
315	2871		2880	5				✓							3			✓cl			✓						
316	2880	5	2889					✓							3			✓cl			✓	✓					
317	2889		2898					✓							3½						✓	✓				chlorpyrite	
318								✓							2						✓	✓					
319								✓							5							✓					
320								✓							5						✓	✓					
321								✓							4							✓					
322								✓							7✓							✓				Chlorpyrite	
323								✓							7½							✓					
324								✓							10½							✓				Strong Mineral gouge	
325								✓							5½							✓				Otz	
326								✓							6							✓					
327								✓							4							✓					
328								✓							2							✓					
329								✓							4							✓					
330								✓							4							✓					
331								✓							5			✓cl			✓	✓					
332								✓							5			✓cl			✓	✓					
333								✓							5			✓cl			✓	✓					
334								✓							5			✓cl			✓	✓					
335								✓							6							✓					
336								✓							7	✓		✓	–							granodiorite prg.	

BRIGHAM YOUNG UNIVERSITY

DDH No. HORNE #2 State ARIZONA County COCHISE Mining District TOMBSTONE Project

Coordinates N E Collar Elevation Inclination Bearing

Date Started Date Completed Final Depth Drilling Co.

Core Box#	FOOTAGE	L1	(-) L2	% Rec. by ft.	Lbs. Rec.	Ox Cu	(S) Cu	Tot. Cu	MOS2								core size	Samp. No.	Alt	Ep	Sulf	Breccia	Qtz	Sh-Slate	ss-Qtz	Acid	Int	Basic	REMARKS
337							✓										7		✓		✓						✓		granodiorite phr.
338							✓										7		✓		✓						✓		"
339							✓										7		✓		✓						✓		"
340							✓										7		✓		✓						✓		"
341							✓										7		✓		✓						✓		"
342							✓										7		✓		✓						✓		"
343							✓										4								✓				
344							✓										5							✓	✓				
345							✓										5								✓				
346							✓										5						✓		✓				qtz
347							✓										5						✓		✓				qtz
348	3175		3181				✓										5						✓		✓				qtz
349	3181																												
350																													
351																													
352																													
353																													
354																													
355																													
356																													

D.D. #2 ASSAYS

125

Hole #c

Shop No. 109
File No. 2031 ST

Date 26 FEB 1968

VALUES
Latest Quotation

1 oz. Gold.....
1 oz. Silver.....
1 lb. Copper.....
1 lb. Lead.....
1 lb. Zinc.....

THIS CERTIFIES
Samples submitted for assay contain as follows:

Arizona Assay Office

815 NORTH FIRST STREET
Phone: 253-4001

Phoenix, Arizona 85001
P. O. BOX 1148

JAMES STEWART CO
PHOENIX ARIZONA

Short Ton ..... 2000 Lbs.
Short Ton Unit ..... 20 Lbs.
Long Ton ..... 2240 Lbs.
Long Ton Unit ..... 22.4 Lbs.

MARKS	SILVER PER TON Ozs.	SILVER PER TON Tenths	VALUE PER TON	GOLD PER TON Ozs.	GOLD PER TON 100ths	VALUE PER TON	TOTAL VALUE PER TON of Gold & Silver	PERCENTAGE COPPER	REMARKS
2962 CHARLESTON # 2	2	.8	$ 4.20	TRACE				8.71	
29X CHARLESTON # 2		.8	$1.20	TRACE				1.50	
2920 CHARLESTON # 2		.8	$1.20	TRACE				0.035	
1375 CHARLESTON # 3		.4	$.60	TRACE				0.035	
1460 CHARLESTON # 3		.4	$.60	TRACE				0.035	
1470 CHARLESTON # 3		.4	$.60	TRACE				0.035	
1480 CHARLESTON # 3		.4	$.60	.01		$.35		0.03	

REGISTERED ASSAYER
CERTIFICATE EXPIRES
JACK E. A. STONE
DEC. 31, 19
ARIZONA, U.S.A.

Charges $ 45.50

Assayer.....
JACK STONE REG. NO. 5479

ANDY CHUKA, PRINT

1/70 S2 126

will follow when complete

RECEIVED

SEP 4 1979

JAMES STEWART COMPANY
PHOENIX, ARIZONA

Send copy to Clyde + Floyd

ANDY CHUKA – PHONE: 258-6508
PRINTING - LITHOGRAPHING - ENGRAVING - PICTURE FRAMING

121

Shop No. 1172 ST

File No.

Date 3 SEPT 1969

Assays on Hole #2 Charleston

VALUES
Latest Quotation

1 oz. Gold $41.10
1 oz. Silver $ 1.65
1 lb. Copper
1 lb. Lead
1 lb. Zinc

THIS CERTIFIES
Samples submitted for assay contain as follows:

Arizona Assay Office

815 NORTH FIRST STREET
Phone: 253-4001

Phoenix, Arizona 85001
P.O. BOX 1148

RECEIVED
SEP 4 1969
JAMES STEWART COMPANY
PHOENIX, ARIZONA

JAMES STEWART CO
707 MAYER CENTRAL BUILDING
3033 N. CENTRAL AVE
PHOENIX AZ. 85012

Short Ton ..... 2000 Lbs.
Short Ton Unit ..... 20 Lbs.
Long Ton ..... 2240 Lbs.
Long Ton Unit ..... 22.4 Lbs.

MARKS	SILVER PER TON Ozs.	SILVER PER TON Tenths	VALUE PER TON		GOLD PER TON Ozs.	GOLD PER TON 100ths	VALUE PER TON		TOTAL VALUE PER TON of Gold & Silver		PERCENTAGE COPPER	PERCENTAGE ZINC			REMARKS
1323 - 1331					0.	01					0.01	1.50			
1333.5 - 1337.5					0.	01					0.02	1.10			
1175 - 1185					0.	02									
1726.5 - 1732					0.	02									
2266.5 - 2272	0.	70			0.	02									
2947 - 2949					0.	02						0.70			
2959.8 -2961					0.	03						0.90			

REGISTERED ASSAYER
CERTIFICATE EXPIRES
JACK STONE
5479
DEC. 31, 19
ARIZONA, U.S.A.

Charges $ 43.00

Copy to Stewart & Davis Clyde 9/5/69

Assayer

JACK STONE Reg. No. 5479

ANDY CHUKA, PRINT

Shop No. 1172 Date 3 SEPT 1969

File No.

VALUES
Latest Quotation

1 oz. Gold
1 oz. Silver
1 lb. Copper
1 lb. Lead
1 lb. Zinc

THIS CERTIFIES
Samples submitted for assay contain as follows:

Arizona Assay Office

815 NORTH FIRST STREET
Phone: 253-4001

Phoenix, Arizona 85001
P. O. BOX 1148

RECEIVED
SEP 5 1969
JAMES STEWART COMPANY
PHOENIX, ARIZONA

JAMES STEWART CO
707 MAYER CENTRAL BLDG
3033 N. CENTRAL
PHOENIX AZ. 85012

Short Ton ..... 2000 Lbs.
Short Ton Unit ..... 20 Lbs.
Long Ton ..... 2240 Lbs.
Long Ton Unit ..... 22.4 Lbs.

MARKS	SILVER PER TON Ozs.	SILVER PER TON Tenths	VALUE PER TON	GOLD PER TON Ozs.	GOLD PER TON 100ths	VALUE PER TON	TOTAL VALUE PER TON of Gold & Silver	PERCENTAGE MOLYBDENUM	REMARKS
1323 - 1331								0.0021	
1333.5 - 1333.5								0.0023	
1175 - 1185								0.0028	
1726.5 - 1732								0.0024	
2266.5 - 2272								0.0066	
1028 - 1032								0.0021	
1850.5 - 1854								0.0025	
2512 - 2515								0.0027	
2516 - 2512 (?) - 25-30			(?)					0.0029	
2947 - 2949								0.0027	
2949 - 2951								0.0028	
2953 - 2955								0.0018	
2955 - 2957								0.0021	
2959 - 2961								0.0020	
2639.5 - 2641								0.0021	

Charges $ 120.00 - Mo
165.00 - Total

Copy To
Hallie -
Clyde Dave
9/5/69

Assayer

JACK STONE Reg. No. 9

REGISTERED ASSAYER
CERTIFICATE EXPIRES
JACK STONE
5479
DEC. 31, 1969
ARIZONA, U.S.A.

BY CHUKA, PR

129

February 13, 1970

Hawley & Hawley
P. O. Box 5934
Tucson, Arizona 85703

Gentlemen:

Enclosed are two samples on which we would appreciate having the following assays run:

#2-2953-2955 - Assay for Copper

#2-1028-1032 - Assay for Zinc

Please mail the results to our Phoenix office with invoices.

Thank you very much.

Very truly yours,

C. A. Cosgrove

CAC:ef
Encls.

ASSAYERS AND CHEMISTS, INC.
1700 W. GRANT RD. • BOX 5934 • 622-4836
TUCSON, ARIZONA 85703

BRANCHES EL PASO, TEXAS
AMARILLO, TEXAS

IDENTIFICATION	GOLD OZS	SILVER OZS	LEAD %	COPPER %	ZINC %	MO. %	IRON %		
# 2 - 2953 - 2955				0.33					
# 2 - 1028 - 1032					1.25				

RECEIVED
FEB 20 1970
JAMES STEWART COMPANY
PHOENIX, ARIZONA

CC: James Stewart Company
ADD: 707 Mayer Central Bldg.
CITY: 3033 N. Central Ave
DD: Phoenix, Arizona 85012
CITY:

REMARKS: Verified determination

ANALYSIS CERT. BY

REGISTERED ASSAYER CERTIFICATE NO. 6734 H. E. RICHARD Data Stamp Arizona U. S. A.

OK

PREPARATION $
ANALYSIS $ 7.75

ACC: JAMES STEWART COMPANY | DATE SPL. RECEIVED 2/16/70 | DATE COMPL 2/19/70 | PHO 344026 | $ 7.75

#31

February 18, 1970

Hawley & Hawley
P. O. Box 5934
Tucson, Arizona 85703

Gentlemen:

Enclosed are two samples, both #2-1726[5] - 1732. Please assay both samples for zinc, noting the pulp and reject status.

Thank you very much.

Very truly yours,

JAMES STEWART COMPANY

CAC (ef)

C. A. Cosgrove

CAC:ef
Encl.

* Verifies V.D.
Int. Nickel Wrong

HAWLEY & HAWLEY
ASSAYERS AND CHEMISTS, INC.
1700 W. GRANT RD. • BOX 5934 • 622-4836
TUCSON, ARIZONA 85703

6 BRANCHES
DOUGLAS, ARIZONA
HAYDEN, ARIZONA
EL PASO, TEXAS
AMARILLO, TEXAS

IDENTIFICATION	GOLD OZS	SILVER OZS	LEAD %	COPPER %	ZINC %	MO. %	IRON %		
# 2 - 1726^{5}-1732					3.58				
# 2 - 1726^{5}-1732 Pulp sample					3.64				

RECEIVED
FEB 25 1970
JAMES STEWART COMPANY
PHOENIX, ARIZONA

There were no rejects left, but there is remaining pulp of both samples.

REGISTERED ASSAYER CERTIFICATE NO. 6784 H. E. RICHARD Date Tucson Arizona U. S. A.

CC: James Stewart Company
ADD: 707 Mayer Central Bldg.
CITY: 3033 N. Central Ave., Phoenix, Arizona
DD:
CITY:

REMARKS: Verified determination

ANALYSIS CERT. BY H. E. Richard

PREPARATION $ 1.00
ANALYSIS $ 9.50

ACC: JAMES STEWART COMPANY | DATE SPL. RECEIVED 2/19/70 | DATE COMPL 2/24/70 | PHO 344040 | $ 10.50

133

PHELPS DODGE CORPORATION

WESTERN EXPLORATION OFFICE
DRAWER 1217
DOUGLAS, ARIZONA 85607

TEL. 602-364-8414

May 14, 1968

Mr. Clarence Cosgrove
James Stewart Construction Company
3033 North Central Avenue
Phoenix, Arizona 85012

Dear Mr. Cosgrove:

Enclosed are assay slips for the intervals sampled of hole Horne #3. The logs of the holes have not been brought to date. I hope to visit Charleston sometime this week to log #3 to date. At that time I will also visit the Bertha area and log B-1.

Very truly yours,

W. J. Walker

W. J. Walker

WJW:j
cc: Mr. Horne w/encls.
Encls.

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218 PHONE 364-8092
DOUGLAS, ARIZONA - 85607

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

CERTIFICATE OF ASSAY

Name Western Exploration Office Address Drawer 1217 Douglas, Arizona

Mr. W.J. Walker	GOLD OZS	SILVER OZS	COPPER %	LEAD %	MoS_2 %	WO_3 %	Hole No.	DEPTH From	DEPTH To
Lab 23307 B-12090			0.039		James Stewart		JSO #2	2737.5	2742
23308 B-12091			0.028		Company			2742	2747
23309 B-12092			0.026					2747	2752
23310 B-12093			0.025					2752	2757
23311 B-12094			0.057					2757	2762
23312 B-12095			0.039					2762	2767
23313 B-12096			0.048					2767	2772
23314 B-10097			0.027					2772	2777
23315 B-12098			0.048					2777	2782
23316 B-12099			0.036					2782	2787
23317 B-10535			0.027					2787	2791
23318 B-10536			0.078					2791	2796
23319 B-10537			0.037					2796	2801
23320 B-10538			0.026					2801	2806
23321 B-10539			0.018					2806	2809.5
23322 B-10540			0.018					2809.5	2814
23323 B-10541			0.016					2814	2819
23324 B-10542			0.037					2819	2824
23325 B-10543			0.055					2824	2827.5
23326 B-10544			0.010					2827.5	2832
23327 B-10545			0.016					2832	2835.5
23328 B-10546			0.018					2835.5	2840
23329 B-10547			0.018					2840	2845

REGISTERED ASSAYER CERTIFICATE No. 4073 H. C. ROCHIN Date Signed ARIZONA, U.S.A.

REMARKS:

DATE: May 6, 1968

CHARGES: $ Prep. $ 46.00
5.75
$ 51.75

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218 PHONE 364-8092
DOUGLAS, ARIZONA - 85607

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

135

CERTIFICATE OF ASSAY

Name WESTERN EXPLORATION OFFICE Address Drawer 1217.-Douglas, Arizona.

	GOLD OZS	SILVER OZS	COPPER %	LEAD %	NAME		HOLE NO.	DEPTH FROM	DEPTH TO:
23330.-B-10548.			0.016		James	Tenant	JSC#2	2845	2850
23331.-B-10549			0.027		Company			2850	2854
23332.-B-10550			0.028					2854	2857.5
23333.-B-10551			0.026					2857.5	2862
23334.-B-10552			0.017					2862	2866.5
23335.-B-10553			0.025					2866.5	2871
23336.-B-10554			0.016					2871	2876
23337.-B-10555			0.023					2876	2880.5
23338.-B-10556			0.027					2880.5	2884.5
23339.-B-10557			0.016					2884.5	2889
23340.-B-10558			0.620	✓				2889	2894
23341.-B-10559			0.027					2894	2898
23342.-B-10560			0.016					2898	2903
23343.-B-10561			0.048					2903	2907.5
23344.-B-10562			0.027					2907.5	2912
23345.-B-10563			0.016					2912	2916
23346.-B-10564			0.010					2916	2920
23347.-B-10565			0.010					2920	2926.5
23348.-B-10566			0.019					2926.5	2930
23349.-B-10567			0.018					2930	2935.5
23350.-B-10568			0.010					2935.5	2940
23351.-B-10569			0.039					2940	2945
23352.-B-10570			0.058					2983.5	2988

REGISTERED ASSAYER CERTIFICATE NO. 4073 ARIZONA

REMARKS:

DATE: 6 May 68

CHARGES: $ 46.00
5.75
$ 51.75

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218 PHONE 364-8092
DOUGLAS, ARIZONA - 85607

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

36

CERTIFICATE OF ASSAY

Name Western Exploration Office Address Drawer 1217 Douglas, Arizona

	GOLD OZS	SILVER OZS	COPPER %	LEAD %	NAME		HOLE NO.	DEPTH From	DEPTH To:
Lab 23353 B-10571			0.039		James	Stewart	JS08	2988	2991
23354 B-10572			0.067		Company			2991	2996
23355 B-10573			0.049					2996	3000
23356 B-10574			0.050					3000	3005
23357 B-10575			0.048					3005	3010
23358 B-10576			0.051					3010	3015
23359 B-10577			0.049					3015	3018
23360 B-10578			0.019					3018	3022
23361 B-10579			0.029					3022	3027
23362 B-10580			0.058					3027	3032
23363 B-10581			0.018					3032	3037
23364 B-10582			0.039					3037	3042
23365 B-10583			0.040					3042	3045.5
23366 B-10584			0.16					3045.5	3050
23367 B-10585			0.15					3050	3054.5
23368 B-10586			0.019					3138.5	3142
23369 B-10587			0.028					3143	3148.5
23370 B-10588			0.020					3148.5	3153
23371 B-10589			0.029					3153	3157
23372 B-10590			0.019					3157	3162
23373 B-10591			0.020					3162	3166
23374 B-10592			0.010					3166	3171
23375 B-10593			0.021						

REGISTERED ASSAYER CERTIFICATE NO. 4073 H. C. ROCHIN Date Signed ARIZONA, U.S.A.

REMARKS:

DATE: 6 May 68

CHARGES: $ 46.00
5.75
$ 51.75

137

MEMORANDUM January 8, 1968

TO: M. S. Horne

RE: Charleston Mine - Hole #2 - Phelps Dodge

Attached is a record of core split sample preparation. Items under Column marked P.D. were given to Bud Walker of Phelps Dodge on 1-5-68. They will prepare samples, assay and return excess pulps to us.

In addition, they took samples as listed:

1005' to 1008'
1028' to 1032'
1119' to 1125'
1175' to 1185'
1196' to 1202'

and a number of specific samples to spectograph.

Mr. Walker delivered to us a spectroanalysis of samples taken on Hole #1 and the upper 2000 feet of Hole #2. These were given to Clyde. He is to use and send us a xerox copy.

Generally: Phelps Dodge is out of touch for this and the following week because of company scheduled events. He feels 75,000,000 tons of ore will be their minimum interest. Their usual cut off point for ore (although each deposit varies) is 4/10% cu. They would like in excess of 1000 acres to operate in.

Samples were returned from U of A by Clyde. We now have them ~~i~~ on hand. Two sets of each I will deliver to the Mine. ???

C. A. Cosgrove

CAC:ef
Attachment - U of A Sample Preparation

12-280

U of A Sample Prep - Drill Hole # 2

File Assays Hole 2 Charles

Bag #	Box #	Footage		To U of A	Rec fr U of A		To PO	Assay Rcvd
1	189	1726½	1732	x	x		x	x
2	189	1721½	1726	x	x		x	x
3	190	1737	1741	x	x		x	x
4	190	1732	1737	x	x		x	x
5	188	1717	1721.5	x	x			
6	188	1713	1717	x	x			
7	187	1708	1713	x	x		x	x
8	187	1703	1708	x	x		x	x
9	186	1699	1703	x	x		x	x
10	186	1694.5	1699	x	x		x	x
11	185	1690	1694.5	x	x		x	x
12	185	1685	1690	x	x			
13	124	1134	1137	x	x			
14	124	1129	1134	x	x			
15	125	1142	1147	x	x			
16	125	1137	1142	x	x			
17	126	1150	1155	x	x			
18	126	1147	1153	x	x			
19	127	1154	1159		x			
20	127	1159½	1163	x	x			
21	128	1168	1173	x	x	/		
22	128	1163	1168	x	x			
23	200	1826.5	1831	x	x	/		
24	200	1821.5	1826.5	x	x	/		
25	199	1816	1821.5	x	x			
26	199	1812	1816	x	x			
27	203	1831	1858.5	x	x	/		
28	203	1850.5	1854	x	x			
29	202	1850.5	1845	x	x			
30	202	1841	1845	x	x			
31	201	1836	1841	x	x			
32	201	1831	1836	x	x			
33	198	1808	1812	x	x			
34	197	1798 1803	1808 1803	x	x			
35	197	1793.5	1798	x	x			
36	196	1785	1789	x	x			
37	196	1789	1793.5	x	x			
38	195	1780.5	1785	x	x			
39	195	1776.5	1778.5	x	x			
40	194	1772	1776.5	x	x			
41	194	1767	1772	x	x			
42	193	1763.5	1767	x	x			
43	193	1759.5	1763.5	x	x			
44	192	1755	1759.5	x	x			
45	192	1750.5	1755	x	x			
46	191	1745.5	1750.5	x	x			
47	—	—	—					
48	—	—	—					
49	—	—	—					

Material ground & seperated by U of A Mr ~~Rosere~~ Roseveare

Bag #	Box #	Footage		To UofA	Rcvd from UofA
50	191	1741	1745.5	x	
51	184	1680	1685	x	
52	184	1678	1680	x	
53	183	1620	1675	x	
54	193	1665	1670	x	
55	182	1661	1665	x	
56	182	1656	1661	x	
57	209	1905	1910	x	
58	209	1901	1905	x	✓
59	208	1896	1901	x	✓
60	208	1893	1896	x	
61	207	1889	1893	x	
62	207	1886	1893	x	
63	210	1910	1915.5	x	
64	210	1915.5	1919	x	
65	212	1931.5	1935		
66	212	1928	1931		
67	213	1935	1937.5		
68	211	1923.5	1928		
69	211	1919	1923.5		
70	225	2040.5	2045		
71	225	2036	2040		
72	224	2031.5	2036		
73	224	2027	2031.5		
74	223	2024	2027		
75	223	2021	2024		
76	222	2015	2021		
77	222	2011	2015		
78	231	2097	2102.5		
79	231	2092.5	2097		
80	230	2087	2092.5		
81	230	2082.5	2087		
82	229	2078	2082.5		
83	229	2073.5	2078		
84	238	2162.5	2167.5		
85	238	2157.5	2162.5		
86	237	2154	2157.5		
87	237	2149	2154		
88	236	2144	2149		
89	236	2139.5	2144		
90	235	2135.5	2139.5		
91	235	2130.5	2135.5		
92	234	2125.5	2130.5		
93	234	2121	2125.5		
94	233	2116.5	2121		

Bag #	Box #	Footage		PD	
95	233	2113.5	2116.5		
96	232	2107	2113.5		
97	232	2	2107		
98	228	2068.5	2073.5		
99	228	2063.5	2068.5		
100	254	2318.5	2323.5		
101	254	2314.5	2318.5		
102	253	2309.5	2314.5		
103	253	2306	2309.5		
104	252	2301	2306		
105	252	2295.7	2301		
106	251	2291.5	2295.7		
107	251	2288	2291.5		
108	250	2283	2288	+	✓
109	250	2278	2283	+	✓
110	258	2356.5	2361.5		
111	258	2351.5	2356.5		
112	257	2347	2351.5		
113	257	2342	2347		
114	256	2337	2342	+	✓
115	256	2332.5	2337	+	✓
116	255	2328	2332.5		
117	255	2323.5	2328		
118	249	2272	2278	+	✓
119	249	2266.5	2272	+	✓
120	248	2261	2266.5	+	✓
121	248	2256.5	2261.5	+	✓
122	247	2251.5	2256.5	+	✓
123	247	2246.5	2251.5	+	✓
124	246	2241	2246.5	+	✓
125	246	2236	2241	+	✓
126	245	2229.5	2236	+	✓
127	245	2223	2229.5	+	✓
128	244	2219	2223	+	✓
129	244	2214	2219	+	✓
130	243	2209.5	2214	+	✓
131	243	2205	2209.5	+	✓
132	242	2200	2205	+	✓
133	242	2195	2200	+	✓
134	241	2189.7	2195	+	✓
135	241	2185.7	2189.7	+	✓
136	240	2181.1	2185.7	+	✓
137	240	2176.5	2181.1	+	✓
138	239	2172	2176.5	+	✓
139	239	2167.5	2172	+	✓
140	227	2058.5	2063.5		
141	227	2054.5	2058.5		

Samples - To WALKER 1/5/68

12-280

Bag #	Box #	Footage		T.P.D	
142	153	1377	- 1382.5		x
143	153	1382.5	1387.5		+
144	154	1387.5	1391.5		x
145	154	1391.5	1396		+
146	155	1396	1401.5	x ✓	
147	155	1401.5	1407	x ✓	
148	156	1407	1411.5	x ✓	
149	156	1411.5	1416		+
150	157	1416	1422.5		+
151	157	1422.5	1429		+
153	158	1434	1439		+
~~154~~					
152	158	1429	1434		
154	159	1439	1444		+
155	159	1444	1448.5		+
156	160	1448.5	1453		+
157	160	1453	1457	x ✓	
158	161	1457	1462		+
159	161	1462	1467		+

(May Sample Next)

MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218
PHONE EMpire 4[illegible]2
DOUGLAS, ARIZONA

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

CERTIFICATE OF ASSAY

Name Western Exploration Office ..... Address Drawer 1217 Douglas, Arizona

Att: Mr.W.J.Walker	GOLD OZS. NAME	SILVER OZS.	COPPER %	LEAD %	Zn %		HOLE NO.	DEPTH From	DEPTH TO:
Lab 22738 B-9706	James	Stewart	0.090	Tr	0.55	Core	JSC#2	2578.25	2583
22739 B-9707	do.		0.028	Tr	0.07			2585	2588.1
22740 B-9708			0.042	Tr	1.20			2588.1	2593.3
22741 B-9709			0.031	Tr	0.12			2593.3	2598
22742 B-9710			0.029	Tr	Tr			2598	2603.7
22743 B-9711			0.037	Tr	0.07			2603.7	2607
22744 B-9712			0.040	Tr	0.05			2607	2610
22745 B-9713			0.028	Tr	Tr			2610	2615
22746 B-9714			0.031	Tr	0.08			2615	2620
22747 B-9715			0.088	Tr	0.30			2620	2624
22748 B-9716			0.12	Tr	1.12			2624	2628.5
22749 B-9717			0.029	Tr	Tr		JSC#3	996	1003
22750 B-9718			0.031	Tr	0.07			1003	1011
22751 B-9719			0.030	Tr	0.05			1011	1019
22752 B-9720			0.022	Tr	0.04			1019	1028.9
22753 B-9721			0.028	Tr	0.06			1028.9	1036
22754 B-9722			0.020	Tr	0.03			1036	1045
22755 B-9723			0.032	Tr	0.05			1045	1053
22756 B-9724			0.029	Tr	0.04			1053	1062
22757 B-9725			0.042	Tr	0.05			1062	1071
22758 B-9726			0.031	Tr	0.03			1071	1080
22759 B-9727			0.041	Tr	0.07			1080	1088.6
22760 B-9728			0.022	Tr	0.06			1088.6	1098

REGISTERED ASSAYER CERTIFICATE No. [illegible] DATE [illegible] ARIZONA

REMARKS:

ANALYSIS CERT. BY:

DATE: 29 Feb 1968

CHARGES: $ 184.00
5.75
$ 189.75

HECTOR A. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218
PHONE EMpire 4 2
DOUGLAS, ARIZONA

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

CERTIFICATE OF ASSAY

Name Western Exploration office Address Drawer 1217 Douglas, Arizona

Att: Mr.W.J.Walker	GOLD OZS. NAME	SILVER OZS.	COPPER %	LEAD %	Zn %		HOLE NO.	DEPTH From:	DEPTH To:
Lab 22761 B-9729	James	Stewart	0.030	Tr	0.08	Core	JSC#3	1098	1107
22762 B-9730	Co.		0.041	Tr	0.12			1107	1116.6
22763 B-9932			0.019	0.12	0.25		JSC#2	1377	1382.5
22764 B-9933			0.030	0.07	0.27			1382.5	1387.5
22765 B-9934			0.032	0.07	0.15			1387.5	1391.25
22766 B-9935			0.048	0.24	0.70			1391.25	1396
22767 B-9936			0.16	0.65	1.75			1457	1462
22768 B-9937			0.030	0.05	0.25			1462	1467
22769 B-9938			0.048	0.34	0.70			1858.5	1862
22770 B-9939			0.040	Tr	Tr			1862	1867.5
22771 B-9940			0.052	Tr	Tr			1867.5	1872
22772 B-9941			0.028	Tr	Tr			1872	1876.5
22773 B-9942			0.042	Tr	0.05			1876.5	1881
22774 B-9943			0.028	0.03	0.03			1881	1886
22775 B-9944			0.030	Tr	0.05			1937.5	1941
22776 B-9945			0.049	Tr	0.03			1941	1946.5
22777 B-9946			0.032	Tr	Tr			1946.5	1951
22778 B-9947			0.049	Tr	Tr			1951	1956
22779 B-9948			0.031	Tr	Tr			1956	1961
22780 B-9949			0.042	Tr	0.07			1961	1965.5
22781 B-9950			0.040	Tr	Tr			1965.5	1969
22782 B-9851			0.029	Tr	0.05			1969	1974
22783 B-9852			0.041	Tr	Tr			1974	1978

REGISTERED ASSAYER CERTIFICATE NO. 4073 HECTOR A. ROCHIN Date Signed ARIZONA, U.S.A.

REMARKS:

ANALYSIS CERT. BY:

DATE: 29 Feb 1968

CHARGES: $ 184.00
5.75
189.75

E 6 144

file PD

PHELPS DODGE CORPORATION

WESTERN EXPLORATION OFFICE
DRAWER 1217
DOUGLAS, ARIZONA 85607

TEL. 602-364-8414

March 12, 1968

Mr. Clarence Cosgrove
James Stewart Construction Co.
3033 North Central Avenue
Phoenix, Arizona 85012

RECEIVED
MAR 1[illegible] 1968
JAME[illegible] COMPANY

Dear Mr. Cosgrove:

Attached are the final page from the geologic log for Hole No. 2, the geologic log for Hole No. 3, and the most recent assay results for Hole No. 2 dated March 8, 1968.

Very truly yours,

R. W. Ludden

R. W. Ludden, Jr.
Chief Geologist

RWL:g
Encls

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218 PHONE 364-8092
DOUGLAS, ARIZONA - 85607

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

145

CERTIFICATE OF ASSAY

Name Western Exploration Office ..... Address Drawer 1217 Douglas, Arizona .....

	GOLD OZS NAME	SILVER OZS	COPPER %	LEAD %	Zn %		TITLE NO.	DEPTH FROM	DEPTH TO
L 22784 B-9853	James Stuart		0.030	Tr	0.04	Core	[illegible]	1978	1982.5
22785 B-9854	" "		0.028	Tr	Tr			1982.5	1981
22786 B-9855			0.032	Tr	Tr			1981	1983
22787 B-9856			0.052	Tr	Tr			1983	1986
22788 B-9857			0.041	1.80	2.20				1992.5
22789 B-9858			0.028	Tr	Tr			1992.5	1928
22790 B-9859			0.037	Tr	0.07			1928	1931.5
22791 B-9860			0.039	Tr	0.05			1931.5	1935
22792 B-9861			0.038	Tr	0.06			1935	1937.5
22793 B-9862			0.030	Tr	Tr			1978	2002.5
22794 B-9863			0.028	Tr	0.20			2002.5	2007
22795 B-9864			0.032	Tr	0.07			2007	2011
22796 B-9865			0.040	Tr	0.06			2011	2015
22797 B-9866			0.042	Tr	0.12			2015	2021
22798 B-9867			0.032	Tr	Tr			2021	2024
22799 B-9868			0.021	Tr	Tr			2024	2027
22800 B-9869			0.019	Tr	Tr			2027	2031.5
22801 B-9870			0.030	Tr	Tr			2031.5	2036
22802 B-9871			0.042	Tr	Tr				2040.5
22803 B-9872			0.061	Tr	Tr			2040.5	2045
22804 B-9873			0.040	Tr	Tr			2045	2050
22805 B-9874			0.049	Tr	Tr				2054.5
22806 B-9875			0.027	Tr	Tr			2054.5	2058.5

REGISTERED ASSAYER CERTIFICATE NO. 4073 H. C. ROCHIN Date Signed ..... ARIZONA, U.S.A.

REMARKS:

DATE: 8 Mar 68

CHARGES: $ Prep. 5.75
184.00
189.75

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218 PHONE 364-8092
DOUGLAS, ARIZONA - 85607

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

146

CERTIFICATE OF ASSAY

Name: Western Exploration Office Address: Drawer 1217 Douglas, Arizona

Lab	GOLD OZS	SILVER OZS	COPPER %	LEAD %	Zn %		HOLE NO.	DEPTH From	DEPTH To
	NAME								
22807 B-9876	James	Stewart	0.041	Tr	Tr	Core	JSH-2	2051.5	2062.5
22808 B-9877	Co.		0.039	Tr	Tr			2062.5	2064.5
22809 B-9878			0.030	Tr	Tr			2064.5	2073.5
22810 B-9879			0.032	Tr	0.05			2073.5	2078
22811 B-9880			0.040	Tr	0.03			2078	2082.5
22812 B-9881 - A			0.059	Tr	0.05			2087	2092.5
22813 B-9882 - B			0.050	Tr	0.05			2087	2092.5
22814 B-9883			0.042	Tr	0.45			2092.5	2097
22815 B-9884			0.060	Tr	Tr			2097	2102.5
22816 B-9885			0.072	Tr	Tr			2102.5	2107
22817 B-9886			0.039	Tr	Tr			2107	2112.5
22818 B-9887			0.040	Tr	Tr			2112.5	2116.5
22819 B-9888			0.062	Tr	Tr			2116.5	2121
22820 B-9889			0.030	Tr	0.12			2121	2125.5
22821 B-9890			0.042	Tr	Tr			2125.5	2130.5
22822 B-9891			0.049	Tr	0.25			2130.5	2135.5
22823 B-9892			0.041	Tr	0.07			2135.5	2139.5
22824 B-9893			0.030	Tr	0.07			2139.5	2144
22825 B-9894			0.039	Tr	Tr				2149
22826 B-9895			0.038	Tr	0.05			2149	2154
22827 B-9896			0.040	Tr	0.03			2154	2157.5
22828 B-9897			0.031	Tr	0.05			2157.5	2162.5
22829 B-9898			0.052	Tr	0.04			2162.5	2167.5

REGISTERED ASSAYER CERTIFICATE NO. 4073 H. C. ROCHIN Date Signed..... ARIZONA, U.S.A.

REMARKS:

DATE:

CHARGES: $ Prep. 5.25
184.00
189.75

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218 PHONE 364-8092
DOUGLAS, ARIZONA - 85607

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

147

CERTIFICATE OF ASSAY

Name Western Exploration Office Address Drawer 1217 Douglas, Arizona

	GOLD OZS	SILVER OZS	COPPER %	LEAD %	Zn %		HOLE NO.	DEPTH From:	DEPTH To:
	NAME								
Lab 22830 B-9899	James	Stewart	0.037	Tr	0.12	Core	JSH2	2288	2291.5
22831 B-9900	Co.		0.049	Tr	0.05			2291.5	2293.7
22832 B-9651			0.021	Tr	0.03			2306	2309.5
22833 B-9652			0.019	Tr	0.05			2309.5	2314.5
22834 B-9653			0.020	Tr	Tr			2314.5	2318.5
22835 B-9654			0.022	Tr	Tr			2318.5	2323.5
22836 B-9655			0.039	Tr	0.40			2323.5	2328
22837 B-9656			0.018	Tr	0.07			2328	2332.5
22838 B-9657			0.040	Tr	Tr			2342	2347
22839 B-9658			0.031	Tr	Tr			2351.5	2356.5
22840 B-9659			0.029	Tr	Tr			2356.5	2361.5
22841 B-9660			0.027	Tr	Tr			2361.5	2366
22842 B-9661			0.042	Tr	0.03			2366	2371
22843 B-9662			0.031	Tr	0.05			2371	2375
22844 B-9663			0.032	Tr	0.07			2375	2380
22845 B-9664			0.029	Tr	Tr			2380	2384
22846 B-9665			0.030	Tr	Tr			2384	2388
22847 B-9666			0.042	Tr	Tr			2388	2393
22848 B-9667			0.029	Tr	Tr			2393	2397.5
22849 B-9668			0.070	Tr	Tr			2397.5	2402
22850 B-9669			0.97	Tr	0.03			2402	2407
22851 B-9670			0.049	Tr	0.02			2407	2412
22852 B-9671			0.030	Tr	0.02			2412	2417

REGISTERED ASSAYER CERTIFICATE NO. 4073 H. C. ROCHIN Well Signed ARIZONA, U.S.A.

REMARKS:

DATE: 11 Mar 68

CHARGES: $ Prep 5.75
184.00
m189.75

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218 PHONE 364-8092
DOUGLAS, ARIZONA - 85607

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

148

CERTIFICATE OF ASSAY

Name ...WESTERN EXPLORATION OFFICE..... Address .Drawer 1217.-Douglas,.Arizona.....

	GOLD OZS	SILVER OZS	COPPER %	LEAD %	Zn. %		HOLE NO.	DEPTH From	DEPTH To
	NAME								
22853.-B-9672	James	Stewart	0.041	Tr.	Tr.	Core	JSC#2	2417	2421
22854.-B-9673	Do.		0.032	Tr.	Tr.			2421	2426
22855.-B-9674			0.029	Tr.	Tr.			2426 5	2430
22856.-B-9675			0.019	Tr.	Tr.			2430 5	2435
22857.-B-9676			0.042	Tr.	Tr.			2435 7	2440
22858.-B-9677			0.027	Tr.	0.07			2440	2445
22859.-B-9678			0.038	Tr.	0.05			2445 7	2450
22860.-B-9679			0.040	Tr.	0.04			2450	2456
22861.-B-9680			0.042	Tr.	Tr.			2456 4	2461 5
22862.-B-9681			0.027	Tr.	0.06			2461 5	2464
22863.-B-9682			0.019	Tr.	Tr.			2464	2470 5
22864.-B-9683			0.041	Tr.	0.05			2470 5	2474
22865.-B-9684			0.020	Tr.	Tr.			2474	2479
22866.-B-9685			0.032	Tr.	Tr.			2479	2483 1
22867.-B-9686			0.029	Tr.	0.07			2483 1	2488
22868.-B-9687			0.031	Tr.	Tr.			2488	2492 5
22869.-B-9688			0.019	Tr.	Tr.			2492 5	2497
22870.-B-9689			0.041	Tr.	Tr.			2293 7	2301
22871.-B-9690			0.027	Tr.	Tr.				2351 5
22872.-B-9691			0.029	Tr.	Tr.	2497			2502
22873.-B-9692			0.020	Tr.	0.03			2512	2515
22874.-B-9693			0.022	Tr.	0.05				2517
22875.-B-9694			0.100	Tr.	2.40			2517	2521

REGISTERED ASSAYER CERTIFICATE NO. 4073 H. C. ROCHIN Date Signed ARIZONA, U.S.A.

REMARKS:

DATE: 3/12/68

CHARGES: $ $184.00
5.75 Prep.
$189.75

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218 PHONE 364-8092
DOUGLAS, ARIZONA - 85607

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

149

CERTIFICATE OF ASSAY

Name ...WESTERN EXPLORATION OFFICE..... Address ..Drawer 1217.-Douglas,..Arizona.....

	GOLD OZS	SILVER OZS	COPPER %	LEAD %	NAME		HOLE No.	DEPTH From	DEPTH To
23025.-B-10519			0.160						
23026.-B-10520			0.120						
23027.-B-9739			0.019	James Stewart			JSC#3	1197	1206
23028.-B-9740			0.028	Co.				1206	1215
23029.-B-9741			0.046					1215	1223
23030.-B-9742			0.048				JSC#2	2945	2947
23031.-B-9743			0.830					2947	2949
23032.-B-9744			0.076					2949	2951
23033.-B-9745			0.670					2951	2953
23034.-B-9746			0.360					2953	2955
23035.-B-9748			0.048					2955	2957
23036.-B-9748			5.52					2957	2959
23037.-B-9749			6.76					2959	2961
23038.-B-9750			0.067					2961	2963
23039.-B-12051			0.028					2963	2964.5
23040.-B-12052			0.036					2964.5	2966.5
23041.-B-12053			0.048					2966.5	2968.5
23042.-B-12054			0.027					2968.5	2969.5
23043.-B-12055			0.088					2969.5	2971
23044.-B-12056			0.190					2971.5	2973.5
23045.-B-12057			0.076					2973.5	2975.5
23046.-B-12058			0.140					2975.5	2977.5
23047.-B-12059			0.110					2977.5	2979.5

REGISTERED ASSAYER CERTIFICATE NO. 4073 H. C. ROCHIN Date Signed..... ARIZONA, U.S.A.

REMARKS:
Diamond Drill Core.

DATE: 3/12/68

CHARGES: $ 46.00
" 5.75
$ 51.75

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218
PHONE 364-8092
DOUGLAS, ARIZONA - 85607

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

150

CERTIFICATE OF ASSAY

Name ...WESTERN EXPLORATION OFFICE..... Address ...Drawer 1217.-Douglas, Arizona.....

	GOLD OZS	SILVER OZS	COPPER %	LEAD %	NAME		HOLE NO	DEPTH From	DEPTH To.
23048.-B-12060			0.028	James Stewart Co.			JSCH2	2979.5	2981.5
23049.-B-12061			0.028					2981.5	2983.5
23050.-B-12062			0.036					3054.5	3058.5
23051.-B-12063			0.068					3058.5	3062
23052.-B-12064			0.058					3062	3067
23053.-B-12065			0.058					3067	3071.5
23054.-B-12066			0.056					3071.5	3076
23055.-B-12067			0.068					3076	3080.5
23056.-B-12068			0.068					3080.5	3084.5
23057.-B-12069			0.066					3084.5	3089.5
23058.-B-12070			0.066					3089.5	3094.5
23059.-B-12071			0.056					3094.5	3103
23060.-B-12072			0.038					3103	3104
23061.-B-12073			0.066					3104	3105
23062.-B-12074			0.066					3105	3107
23063.-B-12075			0.048					3107	3109
23064.-B-12076			0.066					3109	3111
23065.-B-12077			0.066					3111	3113
23066.-B-12078			0.058					3113	3115
23067.-B-12079			0.047					3115	3117
23068.-B-12080			0.036					3117	3119
23069.-B-12081			0.048					3119	3120.5
23070.-B-12082			0.088					3120.5	3127

REMARKS:

REGISTERED ASSAYER CERTIFICATE NO. 4073 H. A. ROCHIN Duly Signed ARIZONA, U.S.A.

DATE: 3/13/68

CHARGES: $ $ 46.00
5.75 Prep.
$ 51.75

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218 PHONE 364-8092
DOUGLAS, ARIZONA - 85607

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

151

CERTIFICATE OF ASSAY

No. WESTERN EXPLORATION OFFICE..... Address Drawer 1217.-Douglas, Arizona.....

	GOLD OZS	SILVER OZS	COPPER %	LEAD %	NAME		HOLE NO.	DEPTH From	DEPTH To:
23071.-B- 12083			0.076	James Stewart Co.			JSC#2	3127	3129.5
23072.-B-10521			0.088						
23073.-B-10522			0.150						
23074.-B-10523			0.210						
23075.-B-10524			0.200						
23076.-B-10525			0.130						
23077.-B-10526			0.120						
23078.-B-10527			0.130						
23079.-B-10528			0.160						
23080.-B-10529			0.200						
23081.-B-10530			0.170						
23082.-B-10531			0.190						
23083.-B-10532			0.210						
23084.-B-10533			0.270						
23085.-B-12084			0.020	James Stewart Co.			JSC#2	2301	2306
23086.-B-12085			0.028					2512.1	2516
23087.-B-12086			0.056					2516	2520
23088.-B-12087			0.028					1150.5	1155
23089.-B-12088b			0.028					1147	1155
23090.-B-12089			0.028					1154	1159.5
23[illegible]									

REGISTERED ASSAYER CERTIFICATE NO. 4073 H. C. ROCHIN Date Signed ..... ARIZONA, U.S.A.

REMARKS

3/13/68
DATE:

CHARGES: $ $ 40.00
" 5.00 Prep.
$ 45.00

152

PHELPS DODGE CORPORATION

WESTERN EXPLORATION OFFICE
DRAWER 1217
DOUGLAS, ARIZONA 85607

TEL. 602-364-8414

May 31, 1968

RECEIVED
JAMES STEWART CONSTRUCTION CO.
PHOENIX, ARIZONA

Mr. Clarence Cosgrove
James Stewart Construction Co.
3033 North Central Avenue
Phoenix, Arizona 85012

Dear Clarence:

Enclosed are the results obtained from assaying the core from Horne #2 drill hole.

Very truly yours,

W. J. Walker

WJW:g
Encls
cc: J. Horne w/encls

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218 PHONE 364-8092
DOUGLAS, ARIZONA - 85607

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

13

CERTIFICATE OF ASSAY

Name WESTERN EXPLORATION OFFICE Address Drawer 1217.-Douglas, Arizona.

	GOLD OZS	SILVER OZS	COPPER %	LEAD		HOLE NO.	DEPTH From	DEPTH To:
23453.-B-11320			0.029	James	Stewart	JSC#2	3129.5	3134
23454.-B-11321			0.029	do.			3134	3138.5
23455.-B-11322			0.018				3175	3178
23456.-B-11323			0.036				3178	3181
23457.-B-11324			0.048				3181	3183
23458.-B-11325			0.078				3183	3185
23459.-B-11326			0.057				3185	3187
23460.-B-11327			0.220				3187	3189
23461.-B-11328			0.150				3189	3190
23462.-B-11329			0.048				3190	3195
23463.-B-11330			0.027				3195	3199.5

REGISTERED ASSAYER CERTIFICATE No. 4073 H. C. ROCHIN Date Signed ARIZONA, U.S.A.

REMARKS:

DATE: 5/28/68

CHARGES $24.75

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218 PHONE 364-8092
DOUGLAS, ARIZONA - 85607

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

154

CERTIFICATE OF ASSAY

Name WESTERN EXPLORATION OFFICE. Address Drawer 1217.-Douglas, Arizona.

	GOLD OZS	SILVER OZS	COPPER %	LEAD %	NAME		HOLE NO.	DEPTH From	DEPTH To
23430.- B-10597			0.010	James	Stewart		JSC-2	2628.5	2633.5
23431.- B-10598			0.010	Co.				2633.5	2639.5
23432.- B-10599			0.028					2639.5	2644
23433.- B-10600			0.048					2644	2648.6
23434.- B-11301			0.010					2648.6	2652
23435.- B-11302			0.026					2652	2657.4
23436.- B-11303			0.036					2657.4	2662
23437.- B-11304			0.026					2662	2666.7
23438.- B-11305			0.018					2666.7	2672
23439.- B-11306			0.018					2672	2677
23440.- B-11307			0.027					2677	2682
23441.- B-11308			0.018					2682	2687
23442.- B-11309			0.016					2687	2692
23443.- B-11310			0.016					2692	2695.5
23444.- B-11311			0.010					2695.5	2701
23445.- B-11312			0.028					2701	2705
23446.- B-11313			0.016					2705	2709
23447.- B-11314			0.010					2709	2714
23448.- B-11315			0.028					2714	2719
23449.- B-11316			0.010					2719	2724.5
23450.- B-11317			0.029					2724.5	2728
23451.- B-11318			0.016					2728	2733
23452.- B-11319			0.018					2723	2727.5

REGISTERED ASSAYER CERTIFICATE NO. 4073 H. C. ROCHIN ARIZONA, U.S.A.

REMARKS:

DATE: May 28, 1968

CHARGES: $ 51.75

2-9

155

Depth	Assay #	Cu %	Ag oz	Au oz	Pb	Zn	Ni	Mo	Va
580'	A 7356	.045	.4						
598'	✓	.03	.3						
620	✓	.04	.4						
660	✓	.035	.3						
781	A 7372	.03	.6	.01	TR	.9			
750	TL 1774	.02	1.6		0.1		.001		.005
?	V ? 11/14/47	1.85	1.1	.02	0.15	0.35		0	
970	A 1185	0.50	0.8	.01					TR
1197	✓								TR
1185	✓								
1109	V 11/15		0.2						
1156	✓	.05	0.4	TR.					
1185	V						Nil		

Hole # 2 Assay Results

File 156

	Assay #	date	Ag	Au	Cu	Pb	Zn	Mo	Ni	Co	Sel
1 - 598	7366	10/18	0.3	–	.03						
2 620	✓	✓	0.4	–	.04						
3 660	✓	✓	0.3	–	.035						
9 580	✓	✓	0.4	–	.045						
10 - 781		10/23	0.6	.01	.03	Tr	0.9 Sericite with Black Blue Metal Harlow				
11 - 750	Spectograph	10/24	1.6	–	.02	.01	Pyritics - Calc - 1.9 more Andesite Harlow				
1185			0.75		1.0	.2	0.08	Ni.1	Tr	Tr+	
1820	✓	12/7	0.6	.02	1.9	.35	6.1	.13	.09		
1850		12/7	.02	.01	.15						
1690 - 94.5	PD B8431	12			.028	.05	.12	Nil			
94.5 99	B8432				0.028	.05	.10	Nil			
99 1703	B8433				0.029	.05	.12	Nil			
1703 1708					.027	.03	.12	Nil			
1708 1713					0.049	.06	Tr	Nil			
1721.5 1726.5					.038	.36	0.60	Nil			
1726.5 1732					0.10	0.42	3.70	Nil			
1732 1737					0.047	0.46	3.40	Nil			
1737 1741					0.076	0.03	0.17	Nil			
1923	Bergo	12/14			.05		14.7%				
1852	✓	12/15								(Tel .06)	0.32
1850		12/7			0.15						
1820		12/7	0.6	.02	1.9	.35	6.1	.13	.09		

OFFICE CORRESPONDENCE

JAMES STEWART COMPANY

E 15

December 11, 1967

MEMORANDUM TO FILE

Assays From International Nickel

On a sample of Hole #2 taken at depth 1185 feet, their assay reports show results as follows:

Zinc	.08 %
Lead	.2 %
Silver	3/4 oz/
Copper	1.0 %
Nickel	Trace
Cobalt	Heavier than nickel
Vanadium	Nil
Molly	Nil

Remarks by A. R. Smith:

~~This is~~ Good commercial ore BUT must carry at least a 10 foot width for the depth involved to be commercial. Will give us a balance of their reports within a week of the current materials, and will give results of materials we are sending by January 1, and we will have International Nickel Company talking to us about the property at that time.

Harlow Jones

Harlow Jones

HJ:jm

(Revised 9/17/69

18

CHARLESTON MINE

Assay Summary

HOLE #2

Depth	% Cu	Oz. AG	% ZN	% Pb	Oz. Au	% MoS_2
580	.045	0.4				
598	.03	0.3				
620	.04	0.4				
660	.035	0.3				
750	.02	1.6		Tr		
781	.03	0.6	0.9		.01	
1005 - 1008	.43		9.2	4.88		
1028 - 1032	.07 .084	0.14	5.0 1.22	.6 0.65	.003	DUMP 0.0021
1129	.029		Tr	.02		
1134	.038		Tr	.02		
1137	.037		Tr	.02		
1142	.037		Tr	.44		
1159 5	.037		Tr	.07		
1163	.037		Tr	.02		
1168	.058		Tr	.02		
1185	1.0		.08	.2	.75	
1175 - 1185	0.16 .113	.11	1.48 1.35	.44 .66	.02	REJECT 0.0028
1196	0.08		2.17	1.25		
1407 5 - 1411 5	0.14		2.87	1.45		
1411 5 - 1416 5	0.048		Tr	0.10		
1416 5 - 1422 5	0.029		Tr	0.07		
1422 5 - 1429	0.038		0.20	0.10		
1429 - 1434	0.047		0.25	0.12		
1434 - 1439	0.048		0.05	0.02		
1439 - 1444 5	0.049		0.32	0.30		
1444 - 1448 5	0.028		0.12	0.25		
1448 - 1453	0.038		0.20	0.13		
1453 5 - 1457	0.07		1.40	0.66		
1656 5 - 1661	0.038		Tr	Tr		
1661 - 1665	0.029		Tr	Tr		
1665 - 1670	0.038		Tr	Tr		
1670 - 1675	0.029		Tr	Tr		
1678 - 1680	0.030		Tr	Tr		
1680 - 1685 5	0.019		Tr	Tr		
1690 5 - 1694	.028		.12	.05		
1694 - 1699	.028		.10	.05		
1699 - 1703	.029		.12	.05		
1703 - 1708	.027		.12	.03		
1708 - 1713 5	.049		Tr	.06		
1721 5 - 1726 5	.038		.60	.36		
1726 - 1732	0.10 .101	0.7 .04	3.70 0.64	.42 0.44	.02	REJECT 0.0024
1732 - 1737	0.047		3.40	.46		
1737 - 1741 5	0.076		0.17	.03		
1741 5 - 1745 5	0.028		0.25	.12		
1745 5 - 1750 5	0.020		0.30	.07		
1750 5 - 1755 5	0.037		0.25	.07		
1755 5 - 1759 5	0.028		.05	Tr		
1759 5 - 1763 5	0.047		.05	Tr		
1323 5 - 1331 5	.01 .038	.11	1.50 .56	? .40	.01	REJECT 0.0021
1333 5 - 1337 5	.02 .080	.04	1.10 .10	? < .05	.01	REJECT 0.0023

Charleston Mine - Assay Summary - Hole #2

3/25/68
Sheet 1-A 160

Depth	% Cu	Oz. AG	% ZN	% Pb	Oz. Au	% Mo
1116 6 - 1128	.029		Tr	Tr		
1128 - 1138	.030		Tr	Tr		
1138 - 1148	.042		.05	Tr		
1148 - 1158	.021		Tr	Tr		
1158 - 1167	.068		.07	Tr		
1167 - 1179	.041		.05	Tr		
1179 - 1188	.022		.06	Tr		
1188 - 1197	.051		.05	Tr		
1098 - 1107 6	.030		.08	Tr		
1107 - 1116 6	.041		.12	Tr		
1377 - 1382 5	.019		0.25	.12		
1382 5 - 1387 75	.030		0.27	.07		
1387 75 - 1391	.032		0.15	.07		
1391 - 1396	.048		0.70	0.24		
1457 - 1462	.16		1.75	0.65		
1462 - 1467	.03		0.25	.05		

Charleston Mine - Assay Summary - Hole #2

2/26/68
Sheet 2

Depth	% Cu	Oz. AG	% ZN	% Pb	Oz. Au	% Mo
1763.5 - 1767.5	0.036		.12	.05		
1767.5 - 1772.5	0.029		.12	.03		
1772.5 - 1776.5	0.029		Tr	.03		
1776.5 - 1780	0.037		Tr	.02		
1780 - 1785	0.029		Tr	.03		
1785 - 1789.5	0.048		Tr	.05		
1789.5 - 1793.5	0.029		Tr	.02		
1793.5 - 1798.5	0.048		.05	.03		
1798 - 1803	0.037		.07	.03		
1803 - 1808	0.029		.07	.03		
1808 - 1812	0.037		0.50	0.14		
1812 - 1816.5	0.076		0.40	0.12		
1816 - 1821.5	0.048		Tr	Tr		
1820.5	1.9		6.1	.35	.02	.1
1821.5 - 1826.5	.029		Tr	Tr		
1826 - 1831	.029		Tr	Tr		
1831 - 1836	.037		Tr	Tr		
1836 - 1841	.029		Tr	Tr		
1841.5 - 1845.5	0.037		Tr	Tr		
1845.5 - 1850.5	0.029		.02	.05		
1850.5 - 1854	0.21 0.239	0.27	1.12 1.64	0.92 0.78	RESEAT	0.0
1850.5	0.15	0.2			.01	
1854.5 - 1858.5	0.087		.12	.10		
1886 - 1889.5	0.029		Tr	.02		
1893 - 1896	0.057		Tr	Tr		
1896.5 - 1901	0.029		Tr	Tr		
1901 - 1905	0.037		Tr	.08		
1905 - 1910	0.029		Tr	Tr		
1910 - 1915.5	0.038		Tr	.02		
1915.5 - 1919	0.019		Tr	Tr		
1923	.05		14.7			
1858.5 - 1862	.048		.7	.34		
1862 - 1867.5	.04		Tr	Tr		
1867.5 - 1872.5	.052		Tr	Tr		
1872 - 1876	.028		Tr	Tr		
1876.5 - 1881	.042		.05	Tr		
1881 - 1886	.028		.03	.03		
1937.5 - 1941	.030		.05	Tr		
1941 - 1946.5	.049		.03	Tr		
1946.5 - 1951	.032		Tr	Tr		
1951 - 1956	.049		Tr	Tr		
1956 - 1961	.031		Tr	Tr		
1961.5 - 1965.5	.042		.07	Tr		
1965.5 - 1969	.04		Tr	Tr		
1969 - 1974	.029		.05	Tr		
1974 - 1978.6	.041		Tr	Tr		
1978.6 - 1983	.03		.04	Tr		
1983 - 1988	.028		Tr	Tr		
1988 - 1993	.032		Tr	Tr		
1993 - 1998	.052		Tr	Tr		
- 1923.5	.041		2.20	1.80		

Charleston Mine - Assay Summary - Hole #2

3/25/68
Sheet 2-A

161

Depth	% Cu	Oz.AG	% ZN	% Pb	Oz. Au	% Mo
1923.5 - 1928.5	.028		Tr	Tr		
1928.5 - 1931.5	.037		.07	Tr		
1931.5 - 1935.5	.039		.05	Tr		
1935 - 1937.5	.038		.06	Tr		
1998 - 2002	.03		Tr	Tr		
2002 - 2007	.028		.02	Tr		
2007 - 2011	.032		.07	Tr		
2011 - 2015	.04		.06	Tr		
2015 - 2021	.042		.12	Tr		
2021 - 2024	.032		Tr	Tr		
2024 - 2027.5	.021		Tr	Tr		
2027.5 - 2031	.029		Tr	Tr		
2031.5 - 2036.5	.030		Tr	Tr		
2036 - 2040	.042		Tr	Tr		
2040 - 2045	.061		Tr	Tr		
2045 - 2050	.04		Tr	Tr		
2050 - 2054	.049		Tr	Tr		
2054 - 2058	.027		Tr	Tr		
2058 - 2063	.041		Tr	Tr		
2063 - 2068	.039			Tr		
2068 - 2073	.03			Tr		
2073 - 2078	.032		.05	Tr		
2078 - 2082	.040		.03	Tr		
2082 - 2087	[illegible]		[illegible]	[illegible]		
2087 - 2092	[illegible]		[illegible]	[illegible]		
2092 - 2097	.042		.045	Tr		
2097 - 2103	.06		Tr	Tr		
2103 - 2107	.072		Tr	Tr		
2107 - 2113	.039		Tr	Tr		
2113 - 2116	.04		Tr	Tr		
2116 - 2121	.062		Tr	Tr		
2121 - 2125	.03		.12	Tr		
2125 - 2130	.042		Tr	Tr		
2130 - 2135	.049		Tr	Tr		
2135 - 2139	.041		.07	Tr		
2139 - 2144	.03		.07			
2144 - 2149	.039		Tr			
2149 - 2154	.038		.05			
2154 - 2157	.04		.03			
2157 - 2162	.031		.05			
2162 - 2167	.052		.04			

Charleston Mine - Assay Summary - Hole #2

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Sheet 3

Depth	% Cu	Oz. AG	% ZN	% Pb	Oz. Au	% MoS₂
2167 5 - 2172 5	.03		.07	Tr		
2172 5 - 2176 5	.06		.10	Tr		
2176 5 - 2181 7	.06		1.0	Tr		
2181 7 - 2185 7	.05		0.9	Tr		
2185 7 - 2189	.07		0.4	Tr		
2189 - 2195	.03		.15	.15		
2195 - 2200	.03		.12	.12		
2200 - 2205 5	.04		.07	.05		
2205 5 - 2209 5	.03		.12	.12		
2209 - 2214	.06		.25	Tr		
2214 - 2219	.07		.25	Tr		
2219 - 2223 5	.06		.22	.14		
2223 5 - 2229 5	.11		Tr	Tr		
2229 - 2236	.10		Tr	Tr		
2236 - 2241 5	.05		Tr	Tr		
2241 5 - 2246 5	.04		.05	Tr		
2246 5 - 2251 5	.05		.05	Tr		
2251 5 - 2256 5	.05		Tr	Tr		
2256 5 - 2261 5	.16		Tr	Tr		
2261 5 - 2266	3.40 3.36	0.86	.07 0.10	Tr <.05		REJECT
2266 5 - 2272	3.11 3.38	.70 .82	.05 0.08	Tr <.05	.02	.002 PULP 0.0066
2272 - 2278	0.28		Tr	Tr		
2278 - 2283	0.05		Tr	Tr		
2283 - 2288 5	0.05		1.25	Tr		
2288 5 - 2291 5	.037		.12	Tr		
2291 5 - 2293 7	.049		.05	Tr		
2293 7 - 2301	.041		Tr	Tr		
2306 5 - 2309 5	.021		.03	Tr		
2309 5 - 2314 5	.019		.05	Tr		
2314 5 - 2318 5	.020		Tr	Tr		
2318 5 - 2323 5	.022		Tr	Tr		
2323 5 - 2328 5	.039		.40	Tr		
2328 5 - 2332 5	.018		.07	Tr		
2332 5 - 2337	.04		Tr	Tr		
2337 - 2342	.06		.07	Tr		
2342 - 2347 5	.04		Tr	Tr		
2347 5 - 2351 5	.027		Tr	Tr		
2351 5 - 2356 5	.031		Tr	Tr		
2356 5 - 2361 5	.029		Tr	Tr		
2361 5 - 2366	.027		Tr	Tr		
2366 - 2371	.042		.03	Tr		
2371 - 2375	.031		.05	Tr		
2375 - 2380	.032		.07	Tr		
2380 - 2384	.029		Tr	Tr		
2384 - 2388	.030		Tr	Tr		
2388 - 2393 5	.042		Tr	Tr		
2393 5 - 2397 5	.029		Tr	Tr		
2397 5 - 2402	.07		Tr	Tr		
2402 - 2407	.07		.03	Tr		
2407 - 2412	.049		.02	Tr		
2412 - 2417	.03		.02	Tr		
2417 - 2421 5	.041		Tr	Tr		
2421 - 2426	.032		Tr	Tr		

Charleston Mine - Assay Summary - Hole #2

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Sheet 4

Depth	% Cu	Oz.AG	% ZN	% Pb	Oz. Au	% Mo
2426$^{5}_{5}$ - 2430$^{5}_{7}$	.029		Tr	Tr		
2430^{7} - 2435	.019		Tr	Tr		
2435 - 2440$_{9}$	.042		Tr	Tr		
2440$_{9}$ - 2445	.027		.07	Tr		
2445 - 2450	.038		.05	Tr		
2450 - 2456	.04		.04	Tr		
2456 - 2461	.042		Tr	Tr		
2461 - 2464	.027		.06	Tr		
2464 - 2470	.019		Tr	Tr		
2470 - 2474	.041		.05	Tr		
2474 - 2479	.02		Tr	Tr		
2479 - 2483	.032		Tr	Tr		
2483 - 2488	.029		.07	Tr		
2488 - 2492	.031		Tr	Tr		
2492 - 2497	.019		Tr	Tr		
2497 - 2502	.029		Tr	Tr		
2512 - 2515	.020		.03	Tr		0.00
2515 - 2526	.10		2.40	Tr		
2512 - 2516	.028					
2516 - 2520	.056 .053	.02	<.05	<.05	REJECT	0.00
Lab #23025	.16					
Lab #23026	.12					
2578^{25} - 2583	.09		.30	Tr		
2583 - 2588	.028		.07	Tr		
2588 - 2593	.042		1.20	Tr		
2593 - 2598	.031		.12	Tr		
2598 - 2603	.029		Tr	Tr		
2603 - 2607	.037		.07	Tr		
2607 - 2610	.04		.05	Tr		
2610 - 2615	.028		Tr	Tr		
2615 - 2620	.031		.08	Tr		
2620 - 2624$_{5}$	.088		.03	Tr		
2624 - 2628	.12		1.12	Tr		
2640$_{5}$	1.0	1.6	26.2	Tr		
2628 - 2633^{5}	.010					
2633$^{5}_{5}$ - 2639^{5}	.010					
2639 - 2644	.028					0.00
2644 - 2648^{6}	.048					
2648^{6} - 2652	.010					
2652 - 2657^{4}	.026					
2657^{4} - 2662$_{7}$	.036					
2662$_{7}$ - 2666^{7}	.026					
2666^{7} - 2672	.018					
2672 - 2677	.018					
2677 - 2682	.027					
2682 - 2687	.018					
2687 - 2692	.016					

Charleston Mine - Assay Summary - Hole #2

Depth	% Cu		Oz.AG	% ZN		% Pb	Oz. Au		% I
2692 - 2695.5	.016								
2695.5 - 2701	.010								
2701 - 2705	.028								
2705 - 2709	.016								
2709 - 2714	.010								
2714 - 2719	.028								
2719 - 2724.5	.010								
2724.5 - 2728	.029								
2728 - 2733	.016								
2733 - 2737.5	.018								
2845 -	.016								
2850 -	.027								
2854 -	.028								
2857.5 -	.026								
2862 -	.017								
2866.5 -	.025								
2871 -	.016								
2876 -	.028								
2880.5 -	.027								
2884.5 -	.016								
2889 -	.620								
2894 -	.027								
2898 -	.016								
2903 -	.048								
2907.5 -	.027								
2912 -	.016								
2916 -	.010								
2920.5 -	.010								
2926 -	.018								
2930 -	.018								
2935.5 -	.010								
2940 -	.039								
2945 - 2947	.048	.057	Nil	<.05		<.05			
2947 - 2949	.83	1.03	0.15	0.70	<.05	<.05	0.02	.002	REJECT PULP 0.0
2949 - 2951	.076								0.0
2951 - 2953	.67								
2953 - 2955	.36	3.40 ?	.08	0.22		<.05			REJECT 0.0
2955 - 2957	.048								0.0
2957 - 2959	5.52								
2959 - 2961	6.76	5.66	1.09	0.90	No PULP	REMAINING	0.03		PULP 0.0
2961 - 2963	.067								
2963 - 2964.5	.028	0.48	0.46	<.05		<.05			REJECT
2964.5 - 2966.5	.036								
2966.5 - 2968.5	.048								
2968.5 - 2969.5	.027								
2969.5 - 2971.5	.088								
2971.5 - 2973.5	.19								
2973.5 - 2975.5	.076								
2975.5 - 2977.5	.14								
2977.5 - 2979.5	.11								

Charleston Mine - Assay Summary - Hole #2 Sheet 6 165

Depth	% Cu.	Oz.AG	% ZN	% Pb	Oz. Au	% MoS
3129.5 - 3134.5	.029					
3134 - 3138	.029					
3175 - 3178	.018					
3178 - 3181	.036					
3181 - 3183	.048					
3183 - 3185	.078					
3185 - 3187	.057					
3187 - 3189	.220					
3189 - 3190	.150					
3190 - 3195	.048					
3195 - 3199.5	.027					

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HOLE #2 Assay Summary

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CHARLESTON MINE

Assay Summary

HOLE #2

Depth	% Cu	Oz. AG	% ZN	% Pb	Oz. Au	% MoS_2
580	.045	0.4				
598	.03	0.3				
620	.04	0.4				
660	.035	0.3				
750	.02	1.6		Tr		
781	.03	0.6	0.9		.01	
1005 - 1008	.43	2.20	9.2	4.88		
1028 - 1032	.07		1.25	.6		0.0021
1129	.029		Tr	.02		
1134	.038		Tr	.02		
1137	.037		Tr	.02		
1142	.037		Tr	.44		
1159 5	.037		Tr	.07		
1163	.037		Tr	.02		
1168	.058		Tr	.02		
1185	1.0		.08	.2	.75	
1175 - 1185	0.16		1.48	.44	.02	0.0028
1196	0.08		2.17	1.25		
1407 5 - 1411 5	0.14	0.48	2.87	1.45		
1411 5 - 1416 5	0.048		Tr	0.10		
1416 5 - 1422 5	0.029		Tr	0.07		
1422 5 - 1429	0.038		0.20	0.10		
1429 - 1434	0.047		0.25	0.12		
1434 - 1439	0.048		0.05	0.02		
1439 - 1444 5	0.049		0.32	0.30		
1444 - 1448 5	0.028		0.12	0.25		
1448 - 1453	0.038		0.20	0.13		
1453 5 - 1457	0.07		1.40	0.66		
1656 5 - 1661	0.038		Tr	Tr		
1661 - 1665	0.029		Tr	Tr		
1665 - 1670	0.038		Tr	Tr		
1670 - 1675	0.029		Tr	Tr		
1678 - 1680	0.030		Tr	Tr		
1680 - 1685 5	0.019		Tr	Tr		
1690 5 - 1694 5	.028		.12	.05		
1694 5 - 1699	.028		.10	.05		
1699 - 1703	.029		.12	.05		
1703 - 1708	.027		.12	.03		
1708 5 - 1713 5	.049		Tr	.06		
1721 5 - 1726 5	.038		.60	.36		
1726 - 1732	0.10	0.7	3.70	.42	.02	0.0024
1732 - 1737	0.047		3.40	.46		
1737 - 1741 5	0.076		0.17	.03		
1741 5 - 1745 5	0.028		0.25	.12		
1745 5 - 1750 5	0.020		0.30	.07		
1750 5 - 1755 5	0.037		0.25	.07		
1755 5 - 1759 5	0.028		.05	Tr		
1759 5 - 1763 5	0.047		.05	Tr		
1323 5 - 1331 5	.01		1.50	?	.01	0.0021
1333 5 - 1337 5	.02		1.10	?	.01	0.0023
1401 5 - 1407		0.80				

Charleston Mine - Assay Summary - Hole #2

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Depth	% Cu	Oz. AG	% ZN	% Pb	Oz. Au	% Mo
1116 6 - 1128	.029		Tr	Tr		
1128 - 1138	.030		Tr	Tr		
1138 - 1148	.042		.05	Tr		
1148 - 1158	.021		Tr	Tr		
1158 - 1167	.068		.07	Tr		
1167 - 1179	.041		.05	Tr		
1179 - 1188	.022		.06	Tr		
1188 - 1197	.051		.05	Tr		
1098 - 1107	.030		.08	Tr		
1107 - 1116 6	.041		.12	Tr		
1377 - 1382 5 5	.019		0.25	.12		
1382 5 - 1387 75	.030		0.27	.07		
1387 5 75 - 1391	.032		0.15	.07		
1391 - 1396	.048		0.70	0.24		
1457 - 1462	.16		1.75	0.65		
1462 - 1467	.03		0.25	.05		

Charleston Mine - Assay Summary - Hole #2

Depth	% Cu	Oz. AG	% ZN	% Pb	Oz. Au	% MoS_2
1763.5 - 1767.5	0.036		.12	.05		
1767.5 - 1772.5	0.029		.12	.03		
1772.5 - 1776.5	0.029		Tr	.03		
1776.5 - 1780	0.037		Tr	.02		
1780 - 1785	0.029		Tr	.03		
1785 - 1789.5	0.048		Tr	.05		
1789.5 - 1793.5	0.029		Tr	.02		
1793.5 - 1798.5	0.048		.05	.03		
1798.5 - 1803	0.037		.07	.03		
1803 - 1808	0.029		.07	.03		
1808 - 1812	0.037		0.50	0.14		
1812 - 1816.5	0.076		0.40	0.12		
1816 - 1821.5	0.048		Tr	Tr		
1820.5	1.9		6.1	.35	.02	.13
1821.5 - 1826.5	.029		Tr	Tr		
1826.5 - 1831	.029		Tr	Tr		
1831 - 1836	.037		Tr	Tr		
1836 - 1841	.029		Tr	Tr		
1841.5 - 1845.5	0.037		Tr	Tr		
1845.5 - 1850.5	0.029		.02	.05		
1850.5 - 1854.5	0.21		1.12	0.92		0.0025
1850.5	0.15	0.2			.01	
1854.5 - 1858.5	0.087		.12	.10		
1886 - 1889.5	0.029		Tr	.02		
1893 - 1896.5	0.057		Tr	Tr		
1896.5 - 1901	0.029		Tr	Tr		
1901 - 1905	0.037		Tr	.08		
1905 - 1910.5	0.029		Tr	Tr		
1910.5 - 1915.5	0.038		Tr	.02		
1915.5 - 1919	0.019		Tr	Tr		
1923	.05		14.7			
1858.5 - 1862.5	.048		.7	.34		
1862.5 - 1867.5	.04		Tr	Tr		
1867.5 - 1872.5	.052		Tr	Tr		
1872.5 - 1876.5	.028		Tr	Tr		
1876.5 - 1881	.042		.05	Tr		
1881 - 1886	.028		.03	.03		
1937.5 - 1941.5	.030		.05	Tr		
1941.5 - 1946.5	.049		.03	Tr		
1946.5 - 1951	.032		Tr	Tr		
1951 - 1956	.049		Tr	Tr		
1956 - 1961.5	.031		Tr	Tr		
1961.5 - 1965.5	.042		.07	Tr		
1965.5 - 1969	.04		Tr	Tr		
1969 - 1974	.029		.05	Tr		
1974 - 1978.6	.041		Tr	Tr		
1978.6 - 1983.6	.03		.04	Tr		
1983.6 - 1988	.028		Tr	Tr		
1988 - 1993	.032		Tr	Tr		
1993 - 1998.5	.052		Tr	Tr		
- 1923.5	.041		2.20	1.80		

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Charleston Mine - Assay Summary - Hole #2

Depth	% Cu	Oz.AG	% ZN	% Pb	Oz. Au	% Mo
1923.5 - 1928.5	.028		Tr	Tr		
1928.5 - 1931.5	.037		.07	Tr		
1931.5 - 1935.5	.039		.05	Tr		
1935 - 1937.5	.038		.06	Tr		
1998 - 2002	.03		Tr	Tr		
2002 - 2007	.028		.02	Tr		
2007 - 2011	.032		.07	Tr		
2011 - 2015	.04		.06	Tr		
2015 - 2021	.042		.12	Tr		
2021 - 2024	.032		Tr	Tr		
2024 - 2027.5	.021		Tr	Tr		
2027.5 - 2031.5	.029		Tr	Tr		
2031.5 - 2036.5	.030		Tr	Tr		
2036 - 2040.5	.042		Tr	Tr		
2040 - 2045	.061		Tr	Tr		
2045 - 2050	.04		Tr	Tr		
2050 - 2054	.049		Tr	Tr		
2054 - 2058	.027		Tr	Tr		
2058 - 2063	.041		Tr	Tr		
2063 - 2068	.039			Tr		
2068 - 2073	.03			Tr		
2073 - 2078	.032		.05	Tr		
2078 - 2082	.040		.03	Tr		
2082 - 2087	.059		.05	Tr		
2087 - 2092	.05		.05	Tr		
2092 - 2097	.042		.045	Tr		
2097 - 2103	.06		Tr	Tr		
2103 - 2107	.072		Tr	Tr		
2107 - 2113	.039		Tr	Tr		
2113 - 2116	.04		Tr	Tr		
2116 - 2121	.062		Tr	Tr		
2121 - 2125	.03		.12	Tr		
2125 - 2130	.042		Tr	Tr		
2130 - 2135	.049		Tr	Tr		
2135 - 2139	.041		.07	Tr		
2139 - 2144	.03		.07			
2144 - 2149	.039		Tr			
2149 - 2154	.038		.05			
2154 - 2157	.04		.03			
2157 - 2162	.031		.05			
2162 - 2167	.052		.04			

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Sheet 3

Charleston Mine - Assay Summary - Hole #2

Depth	% Cu	Oz. AG	% ZN	% Pb	Oz. Au	% MoS_2
2167 5 - 2172 5	.03		.07	Tr		
2172 5 - 2176 5	.06		.10	Tr		
2176 5 - 2181 7	.06		1.0	Tr		
2181 7 - 2185 7	.05		0.9	Tr		
2185 7 - 2189	.07		0.4	Tr		
2189 - 2195	.03		.15	.15		
2195 - 2200	.03		.12	.12		
2200 - 2205 5	.04		.07	.05		
2205 5 - 2209	.03		.12	.12		
2209 - 2214	.06		.25	Tr		
2214 - 2219	.07		.25	Tr		
2219 - 2223 5	.06		.22	.14		
2223 5 - 2229	.11		Tr	Tr		
2229 - 2236	.10		Tr	Tr		
2236 - 2241 5	.05		Tr	Tr		
2241 5 - 2246 5	.04		.05	Tr		
2246 5 - 2251 5	.05		.05	Tr		
2251 5 - 2256 5	.05		Tr	Tr		
2256 5 - 2261 5	.16		Tr	Tr		
2261 5 - 2266	3.40		.07	Tr		
2266 - 2272	3.11	.70	.05	Tr	.02	0.0066
2272 - 2278	0.28		Tr	Tr		
2278 - 2283	0.05		Tr	Tr		
2283 - 2288 5	0.05		1.25	Tr		
2288 5 - 2291 7	.037		.12	Tr		
2291 7 - 2293	.049		.05	Tr		
2293 - 2301	.041		Tr	Tr		
2306 5 - 2309 5	.021		.03	Tr		
2309 5 - 2314 5	.019		.05	Tr		
2314 5 - 2318 5	.020		Tr	Tr		
2318 5 - 2323	.022		Tr	Tr		
2323 5 - 2328 5	.039		.40	Tr		
2328 5 - 2332	.018		.07	Tr		
2332 5 - 2337	.04		Tr	Tr		
2337 - 2342	.06		.07	Tr		
2342 - 2347 5	.04		Tr	Tr		
2347 5 - 2351	.027		Tr	Tr		
2351 5 - 2356 5	.031		Tr	Tr		
2356 5 - 2361 5	.029		Tr	Tr		
2361 5 - 2366	.027		Tr	Tr		
2366 - 2371	.042		.03	Tr		
2371 - 2375	.031		.05	Tr		
2375 - 2380	.032		.07	Tr		
2380 - 2384	.029		Tr	Tr		
2384 - 2388	.030		Tr	Tr		
2388 - 2393 5	.042		Tr	Tr		
2393 5 - 2397	.029		Tr	Tr		
2397 5 - 2402	.07		Tr	Tr		
2402 - 2407	.97		.03	Tr		
2407 - 2412	.049		.02	Tr		
2412 - 2417	.03		.02	Tr		
2417 - 2421 5	.041		Tr	Tr		
2421 - 2426	.032		Tr	Tr		

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Sheet 4

Charleston Mine - Assay Summary - Hole #2

Depth	% Cu	Oz.AG	% ZN	% Pb	Oz. Au	% MoS_2
2426^{5} - 2430^{5}	.029		Tr	Tr		
2430^{5} - 2435^{7}	.019		Tr	Tr		
2435^{7} - 2440_{9}	.042		Tr	Tr		
2440_{9} - 2445	.027		.07	Tr		
2445 - 2450	.038		.05	Tr		
2450 - 2456	.04		.04	Tr		
2456 - 2461	.042		Tr	Tr		
2461 - 2464	.027		.06	Tr		
2464 - 2470	.019		Tr	Tr		
2470 - 2474	.041		.05	Tr		
2474 - 2479	.02		Tr	Tr		
2479 - 2483	.032		Tr	Tr		
2483 - 2488	.029		.07	Tr		
2488 - 2492	.031		Tr	Tr		
2492 - 2497	.019		Tr	Tr		
2497 - 2502	.029		Tr	Tr		
2512 - 2515	.020		.03	Tr		0.0027
2515 - 2526	.10		2.40	Tr		
2512 - 2516	.028					
2516 - 2520	.056					0.0029
Lab #23025	.16					
Lab #23026	.12					
2578^{25} - 2583	.09		.30	Tr		
2583 - 2588	.028		.07	Tr		
2588 - 2593	.042		1.20	Tr		
2593 - 2598	.031		.12	Tr		
2598 - 2603	.029		Tr	Tr		
2603 - 2607	.037		.07	Tr		
2607 - 2610	.04		.05	Tr		
2610 - 2615	.028		Tr	Tr		
2615 - 2620	.031		.08	Tr		
2620 - 2624_{5}	.088		.03	Tr		
2624 - 2628^{5}	.12		1.12	Tr		
2640_{5}	1.0	1.6	26.2	Tr		
2628^{5} - 2633^{5}	.010					
2633^{5} - 2639^{5}	.010					
2639^{5} - 2644	.028					0.0021
2644 - 2648^{6}	.048					
2648^{6} - 2652	.010					
2652 - 2657^{4}	.026					
2657^{4} - 2662_{7}	.036					
2662_{7} - 2666^{7}	.026					
2666^{7} - 2672	.018					
2672 - 2677	.018					
2677 - 2682	.027					
2682 - 2687	.018					
2687 - 2692	.016					

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Charleston Mine - Assay Summary - Hole #2 Sheet 5

Depth	% Cu	Oz.AG	% ZN	% Pb	Oz. Au	% MoS_2
2692 - 2695.5	.016					
2695.5 - 2701	.010					
2701 - 2705	.028					
2705 - 2709	.016					
2709 - 2714	.010					
2714 - 2719	.028					
2719 - 2724.5	.010					
2724.5 - 2728	.029					
2728 - 2733	.016					
2733 - 2737.5	.018					
2845 -	.016					
2850 -	.027					
2854 -	.028					
2857.5 -	.026					
2862 -	.017					
2866.5 -	.025					
2871 -	.016					
2876 -	.028					
2880.5 -	.027					
2884.5 -	.016					
2889 -	.620					
2894 -	.027					
2898 -	.016					
2903 -	.048					
2907.5 -	.027					
2912 -	.016					
2916 -	.010					
2920 -	.010					
2926.5 -	.018					
2930 -	.018					
2935.5 -	.010					
2940 -	.039					
2945 - 2947	.048					
2947 - 2949	.83		0.70		0.02	0.0027
2949 - 2951	.076					0.0022
2951 - 2953	.67					
2953 - 2955	.36					0.0018
2955 - 2957	.048					0.0021
2957 - 2959	5.52					
2959 - 2961	6.76		0.90		0.03	0.0020
2961 - 2963	.067					
2963 - 2964.5	.028					
2964.5 - 2966.5	.036					
2966.5 - 2968.5	.048					
2968.5 - 2969.5	.027					
2969.5 - 2971.5	.088					
2971.5 - 2973.5	.19					
2973.5 - 2975.5	.076					
2975.5 - 2977.5	.14					
2977.5 - 2979.5	.11					
2962 - (grab)	8.71	2.8				

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Charleston Mine - Assay Summary - Hole #2 Sheet 6

Depth	% Cu.	Oz.AG	% ZN	% Pb	Oz. Au	% MoS_2
3129.5 - 3134.5	.029					
3134 - 3138.5	.029					
3175 - 3178	.018					
3178 - 3181	.036					
3181 - 3183	.048					
3183 - 3185	.078					
3185 - 3187	.057					
3187 - 3189	.220					
3189 - 3190	.150					
3190 - 3195	.048					
3195 - 3199.5	.027					

CHARLESTON PROPERTY ASSAYS

Borehole # 2

Footage	% Cu	% Pb	% Zn	oz/ton Pd	Pt	Au	Ag
1028 - 1032	.084	.65	1.22	Nil	Nil	.003	.14
1028 - 1032	.049	.66	1.03	Nil	Nil	Nil	.11
1175 - 1185	.113	<.05	1.35	Nil	Nil	Nil	.42
1323 - 1331	.038	.40	.56	Nil	Nil	Nil	.11
1333.5 - 1337.5	.080	<.05	.10	Nil	Nil	Nil	.04
1726.5 - 1732	.101	.44	.64	Nil	Nil	Nil	1.49
1850.5 - 1854	.239	.78	1.64	Nil	Nil	Nil	.27
2261 - 2266	3.36	<.05	.10	Nil	Nil	Nil	.86
2266 - 2272	3.38	<.05	.08	Nil	Nil	.002	.82
2266 - 2272	3.56	<.05	.09	Nil	Nil	Nil	.97
2516 - 2520	.053	<.05	<.05	Nil	Nil	Nil	.02
2945 - 2947	.057	<.05	<.05	Nil	Nil	Nil	Nil
2947 - 2949	1.03	<.05	<.05	Nil	Nil	.002	.15
2947 - 2949	1.11	<.05	<.05	Nil	Nil	Nil	.19
2953 - 2955	3.40	<.05	.22	Nil	Nil	Nil	.08
2959 - 2961	5.66	-	-	Nil	Nil	.002	1.09
2959 - 2961	4.57	<.05	<.05	Nil	Nil	Nil	1.09
2963 - 2964.5	.048	<.05	<.05	Nil	Nil	Nil	.46

January 2, 1970

File 3-13

CHARLESTON PROPERTY

Assay Summary
Drill Hole #2

Footage	% Cu	% Pb	% Zn	% MoS_2	oz/ton Au	oz/ton Ag
580	.045					0.4
598	.03					0.3
620	.04					0.4
660	.035					0.3
750	.02	Tr				1.6 ✓
781	.03		0.9 ✓		.01	0.6 ✓
1005 - 1008	.43	4.88 ✓	9.2 ✓			
1028 - 1032	.07	.6	5.0	0.0021		
1028 - 1032	.084	.65 ✓	1.22 ✓		.003	.14
1028 - 1032	.049	.66	1.03			.11
1098 - 1107	.030	Tr	.08			
1107 - 1116.6	.041	Tr	.12			
1116.6 - 1128	.029	Tr	Tr			
1128 - 1138	.030	Tr	Tr			
1138 - 1148	.042	Tr	.05			
1148 - 1158	.021	Tr	Tr			
1158 - 1167	.068	Tr	.07			
1167 - 1179	.041	Tr	.05			
1175 - 1185	.16	.44	1.48 ✓	0.0028	.02	
1175 - 1185	.113	.05	1.35			.42
1175 - 1185				0.0028	.02	
1179 - 1188	.022	Tr	.06			
1188 - 1197	.051	Tr	.05			
1323 - 1331	.01	?	1.50 ✓	0.0021	.01	
1323 - 1331	.038	.40	.56			.11
1333.5 - 1337.5	.02	?	1.10	0.0023	.01	
1333.5 - 1337.5	.080	.05	.10 ✓			.04
1377 - 1382.5	.019	.12	.25			
1382.5 - 1387.5	.030	.07	.27			
1387.5 - 1391.75	.032	.07	.15			
1391.75 - 1396	.048	.24	.70 ✓			
1407 - 1411.5	.14	1.45 ✓	2.87 ✓			
1411.5 - 1416	.048	.10	Tr			
1416 - 1422.5	.029	.07	Tr			
1422.5 - 1429	.038	.10	.20			
1429 - 1434	.047	.12	.25			
1434 - 1439	.048	.02	.05			
1439 - 1444	.049	.30	.32			
1444 - 1448.5	.028	.25	.12			
1448.5 - 1453	.038	.13	.20			
1453 - 1457	.07	.66 ✓	1.40 ✓			
1457 - 1462	.16	.65 ✓	1.75 ✓			
1462 - 1467	.03	.05	.25			
1532 - 1534	.026	.21	.40			
1656.5 - 1661	.038	Tr	Tr			
1661 - 1665	.029	Tr	Tr			
1665 - 1670	.038	Tr	Tr			
1670 - 1675	.029	Tr	Tr			
1678 - 1680	.030	Tr	Tr			
1680 - 1685.5	.019	Tr	Tr			
1690.5 - 1694.5	.028	.05	.12			

Footage	% Cu	% Pb	% Zn	% MoS_2	oz/ton Au	oz/ton Ag
1694 - 1699	.028	.05	.10			
1699 - 1703	.029	.05	.12			
1703 - 1708	.027	.03	.12			
1708 - 1713	.049	.06	Tr			
1721.5 - 1726.5	.038	.36	.60 ✓			1.49 ✓
1726.5 - 1732	.101	.44	.64			1.49 ✓
1726.5 - 1732				0.0024	.02	
1726 - 1732	.10	.42	3.70 ✓	0.0024	.02	0.7
1732 -1737	.047	.46	3.40 ✓			
1737 - 1741	.076	.03	.17			
1741 - 1745.5	.028	.12	.25			
1745.5 - 1750	.020	.07	.30			
1750.5 - 1755	.037	.07	.25			
1755 - 1759.5	.028	Tr	.05			
1759.5 - 1763.5	.047	Tr	.05			
1763.5 - 1767.5	.036	.05	.12			
1767.5 - 1772.5	.029	.03	.12			
1772.5 - 1776.5	.029	.03	Tr			
1776.5 - 1780	.037	.02	Tr			
1780.5 - 1785	.029	.03	Tr			
1785 - 1789.5	.048	.05	Tr			
1789.5 - 1793.5	.029	.02	Tr			
1793.5 - 1798.5	.048	.03	.05			
1798.5 - 1803	.037	.03	.07			
1803 -1808	.029	.03	.07			
1808 -1812	.037	.14	.50 ✓			
1812 - 1816	.076	.12	.40			
1816 - 1821.5	.048	Tr	Tr			
1820.5 -	1.9 ✓	.35	6.1 ✓		.02	
1821.5 - 1826.5	.029	Tr	Tr			
1826.5 - 1831	.029	Tr	Tr			
1831 - 1836	.037	Tr	Tr			
1836 - 1841	.029	Tr	Tr			
1841 - 1845	.037	Tr	Tr			
1845.5 - 1850.5	.029.	.05	.02			
1850.5 - 1854.5	.21	.92 ✓	1.12 ✓	0.0025		
1850						
1850.5 - 1854	.239	.78	1.64		.01	0.2
1854.5 - 1858.5	.087	.10	.12			.27
1886 - 1889.5	.029	.02	Tr			
1893 - 1896.5	.057	Tr	Tr			
1896.5 - 1901	.029	Tr	Tr			
1901 - 1905	.037	.08	Tr			
1905 - 1910	.029	Tr	Tr			
1910 - 1915.5	.038	.02	Tr			
1915.5 - 1919	.019	Tr	Tr			
1923	.05		14.7 ✓			
1858.5 - 1862	.048	.34	.7 ✓			
1862 - 1867	.04	Tr	Tr			
1867.5 - 1872	.052	Tr	Tr			
1872 - 1876	.028	Tr	Tr			
1876.5 - 1881	.042	Tr	.05			
1881 - 1886	.028	.03	.03			
- 1923.5	.041	1.80 ✓	2.20			
1923.5 - 1928	.028	Tr	Tr			
1928 - 1931.5	.037	Tr	.07			

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Footage	% Cu	% Pb	% Zn	% MoS_2	oz/ton Au	oz/ton Ag
1931.5 - 1935	.039	Tr	.05			
1935 - 1937.5	.038	Tr	.06			
1937.5 - 1941	.030	Tr	.05			
1941 - 1946.5	.049	Tr	.03			
1946.5 - 1951	.032	Tr	Tr			
1951 - 1956	.049	Tr	Tr			
1956 - 1961	.031	Tr	Tr			
1961 - 1965.5	.042	Tr	.07			
1965.5 - 1969	.04	Tr	Tr			
1969 - 1974	.029	Tr	.05			
1974 - 1978	.041	Tr	Tr			
1978 - 1983.6	.03	Tr	.04			
1983.6 - 1988	.028	Tr	Tr			
1988 - 1993	.032	Tr	Tr			
1993 - 1998	.052	Tr	Tr			
1998 - 2002	.03	Tr	Tr			
2002 - 2007	.028	Tr	.02			
2007 - 2011	.032	Tr	.07			
2011 - 2015	.04	Tr	.04			
2015 -2021	.042	Tr	.12			
2021 - 2024	.032	Tr	Tr			
2024 - 2027	.021	Tr	Tr			
2027 - 2031.5	.029	Tr	Tr			
2031.5 - 2036	.030	Tr	Tr			
2036 - 2040.5	.042	Tr	Tr			
2040 - 2045	.061	Tr	Tr			
2045 - 2050	.04	Tr	Tr			
2050 -2054	.049	Tr	Tr			
2054 - 2058	.027	Tr	Tr			
2058 -2063	.041	Tr	Tr			
2063 -2068	.039	Tr				
2068 - 2073	.03	Tr				
2073 - 2078	.032	Tr	.05			
2078 - 2082	.040	Tr	.03			
2082 - 2087	.059	Tr	.05			
2087 - 2092	.05	Tr	.05			
2093 - 2097	.042	Tr	.045			
2097 - 2103	.06	Tr	Tr			
2103 - 2107	.072	Tr	Tr			
2107 - 2113	.039	Tr	Tr			
2113 - 2116	.04	Tr	Tr			
2116 - 2121	.062	Tr	Tr			
2121 - 2125	.03	Tr	.12			
2125 - 2130	.042	Tr	Tr			
2130 - 2135	.049	Tr	Tr			
2135 - 2139	.041	Tr	.07			
2139 - 2144	.03		.07			
2144 - 2149	.039		Tr			
2149 - 2154	.038		.05			
2154 - 2157	.04		.03			
2157 - 2162	.031		.05			
2162 - 2167	.052		.04			
2167.5 - 2172.	.03	Tr	.07			
2172 - 2176.5	.06	Tr	.10			
2176.5 - 2181	.06	Tr	1.0			
2181.5 - 2185.7	.05	Tr	.9			
2185.7 - 2189.7	.07	Tr	.4			

Footage	% Cu	% Pb	% Zn	% MoS_2	oz/ton Au	oz/ton Ag
2189.7 - 2195	.03	.15	.15			
2195 - 2200	.03	.12	.12			
2200 - 2205	.04	.05	.07			
2205 - 2209.5	.03	.12	.12			
2209.5 - 2214	.06	Tr	.25			
2214 - 2219	.07	Tr	.25			
2219 - 2223	.06	.14	.22			
2223 - 2229.5	.11	Tr	Tr			
2229.5 - 2236	.10	Tr	Tr			
2236 - 2241	.05	Tr	Tr			
2241 - 2245.5	.04	Tr	.05			
2246.5 - 2251.5	.05	Tr	.05			
2251.5 - 2256.5	.05	Tr	Tr			
2256.5 - 2261.5	.16	Tr	Tr			
2261.5 - 2266.5	3.40	Tr	.07			.86
2261 - 2266	3.36	.05	.10			.86
2266.5 - 2272	3.56	Tr	.05	0.0066	.02	.97
2266 - 2272	3.38	.05	.08		.002	.82
2266 - 2272	2.56	.05	.09			.97
2266.5 - 2272				0.0066	.02	.70
2272 - 2278	.28	Tr	Tr			
2278 - 2283	.05	Tr	Tr			
2283 - 2288	.05	Tr	1.25			
2288 - 2291.5	.037	Tr	.12			
2291.5 - 2293.7	.049	Tr	.05			
2293.7 - 2301	.041	Tr	Tr			
2306 - 2309	.021	Tr	.03			
2309.5 - 2314.5	.019	Tr	.05			
2314.5 - 2318.5	.020	Tr	Tr			
2318.5 - 2323.5	.022	Tr	Tr			
2323.5 - 2328	.039	Tr	.40			
2328 - 2332.5	.018	Tr	.07			
2332.5 -2337	.04	Tr	Tr			
2337 - 2342	.06	Tr	.07			
2342 - 2347	.04	Tr	Tr			
2347 - 2351.5	.027	Tr	Tr			
2351 - 2356.5	.031	Tr	Tr			
2356.5 - 2361.5	.029	Tr	Tr			
2361.5 - 2366	.027	Tr	Tr			
2366 -2371	.042	Tr	.03			
2371 - 2375	.031	Tr	.05			
2375 - 2380	.032	Tr	.07			
2380 - 2384	.029	Tr	Tr			
2384 - 2388	.030	Tr	Tr			
2388 - 2393	.042	Tr	Tr			
2393 - 2397.5	.029	Tr	Tr			
2397.5 - 2402	.07	Tr	Tr			
2402 - 2407	.07	Tr	.03			
2407 - 2412	.049	Tr	.02			
2412 - 2417	.03	Tr	.02			
2417 - 2421	.041	Tr	Tr			
2421 - 2426.5	.032	Tr	Tr			
2426.5 - 2430.5	.029	Tr	Tr			
2430.5 - 2435.7	.019	Tr	Tr			
2435.7 - 2440	.042	Tr	Tr			
2440 - 2445.9	.027	Tr	.07			
2445.9 - 2450	.038	Tr	.05			

Footage	% Cu	% Pb	% Zn	% MoS_2	oz/ton Au	oz/ton Ag
2450 - 2456	.04	Tr	.04			
2456 - 2461	.042	Tr	Tr			
2461 - 2464	.027	Tr	.06			
2464 - 2470	.019	Tr	Tr			
2470 - 2474	.041	Tr	.05			
2474 - 2479	.02	Tr	Tr			
2479 - 2483	.032	Tr	Tr			
2483 - 2488	.029	Tr	.07			
2488 - 2492	.031	Tr	Tr			
2492 - 2497	.019	Tr	Tr			
2497 - 2502	.029	Tr	Tr			
2512 - 2515	.020	Tr	.03	0.0027		
2512 - 2516	.028					
2515 - 2526	.10	Tr	2.40			
2516 - 2520	.056			0.0029		
2516 - 2520	.053	.05	.05			.02
2578.25 - 2583	.09	Tr	.30			
2583 - 2588	.028	Tr	.07			
2588 - 2593	.042	Tr	1.20 ✓			
2593 - 2598	.031	Tr	.12			
2598 - 2603	.029	Tr	Tr			
2603 - 2607	.037	Tr	.07			
2607 - 2610	.04	Tr	.05			
2610 - 2615	.028	Tr	Tr			
2615 - 2620	.031	Tr	.08			
2620 - 2624	.088	Tr	.03			
2624 - 2628.5	.12	Tr	1.12 ✓			
2628.5 - 2633.5	.010					
2633.5 - 2639.5	.010					
2639.5 - 2644	.028			0.0021		
2644 - 2648.6	.048					
2648.6 - 2652	.010					
2652 - 2657.4	.026					
2657.4 - 2662	.036					
2662 - 2666.7	.026					
2666.7 - 2672	.018					
2672 - 2677	.018					
2677 - 2682	.027					
2682 - 2687	.018					
2687 - 2692	.016					
2692 - 2695.5	.016					
2695.5 - 2701	.010					
2701 - 2705	.028					
2705 - 2709	.016					
2709 - 2714	.010					
2714 - 2719	.028					
2719 - 2724.5	.010					
2724.5 - 2728	.029					
2728 - 2733	.016					
2733 - 2737.5	.018					
2845	.016					
2850	.027					
2854	.028					
2857 - 2862	.020					
2866 - 2871	.020					

Footage	% Cu	% Pb	% Zn	% MoS_2	oz/ton Au	oz/ton Ag
2930 - 3935.5	.015					
2945 - 2947	.048					
2945 - 2947	.057	.05	.05			
2947 - 2949	1.03	.05	.05		.002	.15
2947 - 2949	1.11 ✓	.05	.05			.19
2947 - 2949	.83		.70 ✓	0.0027	.02	
2949 - 2951	.076			0.0022		
2951 - 2953	.67 ✓					
2953 - 2955	.36			0.0018		
2953 - 2955	3.40 ✓	.05	.22			.08
2955 - 2957	.048			0.0021		
2957 - 2959	5.52 ✓					
2959 - 2961	5.66 ✓				.002	1.09 ✓
2959 - 2961	4.57	.05	.05			1.09
2959 - 2961	6.76		.90	0.0020	.03	
2961 - 2963	.067					
2963 - 2964.5	.028					
2963 - 2964.5	.048	.05	.05			.46
2964.5 - 2966.5	.036					
2966.5 - 2968.5	.048					
2968.5 - 2969.5	.027					
2969.5 - 2971.5	.088					
2971.5 - 2973.5	.19					
2973.5 - 2975.5	.076					
2975.5 - 2977.5	.14					
2977.5 - 2979.5	.11					
3129.5 - 3134.5	.029					
3134 - 3138.5	.029					
3175 - 3178	.018					
3178 - 3181	.036					
3181 - 3183	.048					
3183 - 3185	.078					
3185 - 3187	.057					
3187 - 3189	.220					
3189 - 3190	.150					
3190 - 3195	.048					
3195 - 3199.5	.027					
1180 - 1184.5	.08	.73	2.03		.002	.30
1186 - 1191	.05	.50	.92		.003	.22
1197 - 1200	.05	1.15	1.85		.002	.40

D.O. #3 Cons

PHELPS DODGE CORPORATION

WESTERN EXPLORATION OFFICE

GEOLOGIC LOG

COLLAR ELEVATION _____
COORDINATES _____
TYPE DRILL Diamond BIT SIZE _____
INCLINATION Vertical BEARING _____
TOTAL DEPTH _____
LENGTH CORED _____ CORE RECOVERY ____ %

PROJECT Charleston Lead Mine
LOCATION N½ Tombstone Quadrangle

HOLE NO. Horne #3
LOGGED BY HEM/WJW SURVEYED BY _____
CONTRACTOR _____
DATE STARTED 1968 DATE COMPLETED _____
SCALE 1"=100'

NOTE. FOLIATION AND STRUCTURE ARE MEASURED FROM THE CORE AXIS.

INTERVAL FROM	INTERVAL TO	FEET OF CORE RECOVERED	ROCK TYPE	ROCK DESCRIPTION AND REMARKS	ALTERATION PROP	ARG	SIL	SER	TOUR	SUL	METALLIZATION (EST. %) PYRITE	COPPER	MOLYBDENUM	GRAPHIC LOG FOLIATION	AXIS	STRUCTURE	DEPTH	ASSAYS COPPER	MOLYBDENUM
0	140'			Rotary drill - no core recovered													0, 100		
140	405		Granodiorite, intercalated with quartz latite porph.	Medium to coarse grained, qtz. phenocrysts 2%, feldspar and biotite strongly weathered in places, accompanied by bleaching; mafites altered to feox; no hydrothermal alteration observed. Manganese dendrites; feox (goethite, etc) at 405 feet may be after pyrite. The granodiorite appears to be coarser-grained with biotite partly altered to hydromica + feox; qtz phenocrysts and "bleached" feldspars make up most of the rock. The porphyry is gray to light brown in color, very fine grained feldspar with only a minor amount of feldspar phenocrysts. Large quartz phenocrysts make up about 5-7% of total. Minor biotite appears fresh.												200, 300		
405	550		quartz latite	Logged to 405 by HEM, thereafter by WJW. Weathered, feox stain, 1-2 mm qtz. phenocrysts, becoming fresh at 490.	✓												400, 500, 550		

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CONTINUATION OF GEOLOGIC LOG

HOLE NO. Horne #3 SHEET NO. 2

PROJECT Charleston Lead Mine

NOTE. FOLIATION AND STRUCTURE ARE MEASURED FROM THE CORE AXIS.

INTERVAL FROM	INTERVAL TO	FEET OF CORE RECOVERED	ROCK TYPE	ROCK DESCRIPTION AND REMARKS	ALTERATION PROP	ALTERATION ARG	ALTERATION SIL	ALTERATION SER	ALTERATION TOUR	ALTERATION SUL	METALLIZATION (EST. %) PYRITE	METALLIZATION COPPER	METALLIZATION MOLY	GRAPHIC LOG FOLIATION	GRAPHIC LOG AXIS	GRAPHIC LOG STRUCTURE	DEPTH	ASSAYS COPPER	ASSAYS MOLY
550			quartz latite														550		
																	600		
				704. Sulfides (pyrite) pick up at 704	✓	✓				✓	<2%						700		
																	800		
			quartz latite ↓ grano-diorite ↓ quartz latite	gradational change															
				1-2 mm granular, very fine crystalline matrix surrounds phenocrysts. Spec. 922½ } gradational contact between specimens. Spec. 932 } locally nearly holocrystalline. Xenoliths of meta-andesite?							<1%						900		
				Spec. 999 Altered zone, 1035-1040, minor pyrite, argillic alteration bleaching. Fault 1055-1059. Fresh latite above, somewhat bleached below.	✓						1-2					50?	1000		
			quartz latite to latite	Spec. 1113 - Fresh quartz latite. Fault gouge 1127-1133. Fresher before 1127 (specimen) altered after 1133 (specimen). Fault at 1151												50? 50?	1100		
	1200																1200		

CONTINUATION OF GEOLOGIC LOG

HOLE NO. Horne #3 SHEET NO. 3.

PROJECT Charleston Lead Mine

NOTE. FOLIATION AND STRUCTURE ARE MEASURED FROM THE CORE AXIS.

INTERVAL FROM	INTERVAL TO	FEET OF CORE RECOVERED	ROCK TYPE	ROCK DESCRIPTION AND REMARKS	ALTERATION PROP	ALTERATION ARG	ALTERATION SIL	ALTERATION SER	ALTERATION TOUR	ALTERATION SUL	METALLIZATION (EST. %) PYRITE	METALLIZATION COPPER	METALLIZATION MOLY		GRAPHIC LOG FOLIATION	GRAPHIC LOG AXIS	GRAPHIC LOG STRUCTURE	DEPTH	ASSAYS COPPER	ASSAYS MOLY		
1200			quartz latite	Glassy porphyry, phenocrysts look shredded, biotite altered to chlorite and hydromica. Spec. 1215 Some very fine pyrite on margins of chlorite, possibly some chalcopyrite ?	✓			✓			<1%	?						1200				
				Spec. at 1279. Porphyritic quartz latite, argillic alteration adjacent to sericitized slips. Fractures are 10' to 15' apart. Small fault 1305½-1306. Infrequent inclusions of dark andesite?	✓	✓		✓									50°?	1300				
				Spec. 1417. Fresh, 1-2 mm qtz phenocrysts, resorbed. Minor pyrite. Argillic alteration and sericite associated with infrequent small slips.		✓		✓			<1%							1400				
				Spec. 1555. Fresh quartz latite, aphanitic ground mass, light dusting of fine pyrite on seams, ~~to 1686½~~. to 1730½. Fault zone 1730½-1738, breccia. Chloritic and argillic alteration to 1742½, then quite fresh. Matrix appears stony to glassy except adjacent to infrequent shears, which show argillic alteration in the walls and sericite in the faults themselves. Very small faults, 1/16" between walls, or less.														1500				
																		1600				
																		1700				
				Spec. 1807. 1-3 mm qtz latite porphyry, minor biotite, most biotite altered to hydromica (?) and chlorite. No pyrite or sulfides to 1857. Sheared fault zone to 1872, then broken qtz. latite with 1/16" calcite seams at 50° to axis of core.	✓	✓		✓										1800				
	1850																	1850				

CONTINUATION OF GEOLOGIC LOG

HOLE NO. Horne #3 SHEET NO. 4

PROJECT Charleston Lead mine

NOTE. FOLIATION AND STRUCTURE ARE MEASURED FROM THE CORE AXIS.

INTERVAL FROM	INTERVAL TO	FEET OF CORE RECOVERED	ROCK TYPE	ROCK DESCRIPTION AND REMARKS	ALTERATION PROP	ALTERATION ARG	ALTERATION SIL	ALTERATION SER	ALTERATION TOUR	ALTERATION SUL	METALLIZATION (EST. %) PYRITE	COPPER	MOLY	GRAPHIC LOG FOLIATION	AXIS	STRUCTURE	DEPTH	ASSAYS COPPER	MOLY
1850			quartz latite	Core is broken to 1885½, then shattered, argillic alteration in shattered zone, sericite on seams, minor epidote. Rock is traversed by numerous small seams at 50° to core axis. Sericite + clay alteration on seams, bleaching extends ½" or so into wall of each seam, minor pyrite on seams	✓	✓		✓			<1%					50°	1850		
				Sil. (?) lt. gray to 1902, broken tan core, some jarosite ?, argillic alt. to 1908, shattered and broken to 1917½, then gouge and breccia to 1922¼. Spec. 1923 + 1930. Shattered		✓ ✓	✓ ✓	✓			<1%					50 ?	1900		
	1975			zone 1957-1964, chloritic-sericitic zone 1965-1967, core sheared to fault zone 1971-1974. Speck of bornite, 1975 3/8/68 - Hole in progress.												50 ?			
				Quartz latite porphyry, very fine pyrite adjacent to chlorite, less than 1% pyrite. Argillite alteration increases with depth.												50°	2000		
	2072			12" shattered zone at 2021, some gouge. 3' broken core at 2025-2028, breccia + minor gouge. Spec. at 2034. Heavy gouge and breccia 2034½-2046½. Shattered qtz latite, broken core, Some breccia intervals to 2062, fair core to 2066, broken to 2071, granulated breccia for 6", broken core to 2072. 3/15/68													2100		
				Argillic alteration and minor pyrite adjacent to seams. Total sulfide in this and balance of core less than 1%, usually less than 0.1%.													2200		
			Quartz latite														2300		
				Fault breccia 2367-2374												30°	2400		
				Argillic alteration adjacent to frequent small seams that are nearly parallel to axis of core. Otherwise little alteration. Minor pyrite in argillic zones, flesh colored feldspar (?) locally.															
				Seams less frequent than above. Minor pyrite													2500		

CONTINUATION OF GEOLOGIC LOG

HOLE NO. Horne #3 SHEET NO. 5

PROJECT Charleston Lead Mine

NOTE. FOLIATION AND STRUCTURE ARE MEASURED FROM THE CORE AXIS.

INTERVAL FROM	INTERVAL TO	FEET OF CORE RECOVERED	ROCK TYPE	ROCK DESCRIPTION AND REMARKS	ALTERATION PROP	ARG	SIL	SER	TOUR	SUL	METALLIZATION (EST. %) PYRITE	COPPER	MOLY	GRAPHIC LOG FOLIATION	AXIS	STRUCTURE	DEPTH	ASSAYS COPPER	MOLY
2500			Qtz. latite	Fresh quartz latite except for argillic alteration adjacent to fractures. Minor pyrite, some chlorite in altered areas. Fault breccia 2517-2519 Fault breccia 2583-2584.												30°	2500		
																12°	2600		
	2617			2617 5/24/68															

BRIGHAM YOUNG UNIVERSITY

Clyde Davis

F-2-25 e

DDH No. HORNE #3 | State Arizona | Mining District Tombstone | Coordinates ____ N ____ E | Date Started ____ | Drilling Co. ____

County Cochise | Project ____ | Collar Elevation ____ | Date Completed ____

Inclination ____ | Bearing ____ | Final Depth ____

Core Box#	FOOTAGE		L1	(-) L2	% Rec. by ft.	Lbs. Rec.	Grade Ox Cu	Sul. (S) Cu	Tot. Cu	MoS_2	✓	core size	Samp. No.	Alt.	Sulfides	Serpentine	Breccia	Qtz.	Stockwork	Manganese	Base-groundmass	REMARKS
(1)	1	140	140				✓															
2	140	155					✓							✓							✓	Brown Volcanics - Intrusive
3	155	165					✓							✓							✓	granodiorite
4	165	174					✓							✓							✓	"
5	174	182					✓							✓							✓	"
6	182	192					✓														✓	"
7	192	201					✓														✓	"
8	201	211					✓														✓	"
9	211	221					✓														✓	"
10	221	230					✓														✓	"
11	230	238.5					✓														✓	
12	238.5	248					✓														✓	
13	248	256					✓														✓	
14	256						✓														✓	
15							✓														✓	
16							✓														✓	
17							✓														✓	
18							✓														✓	
19							✓														✓	
20							✓														✓	
21							✓														✓	
22							✓														✓	
23							✓														✓	
24							✓														✓	
25							✓														✓	
26							✓														✓	
27		396					✓														✓	
28	396	405					✓							✓							✓	Vein System
29	405						✓														✓	
30							✓														✓	
31							✓														✓	

BRIGHAM YOUNG UNIVERSITY

DDH No. Horne #3 State Arizona County Cochise Mining District Tombstone Project

Coordinates ____ N ____ E Collar Elevation ____ Inclination ____ Bearing ____

Date Started ____ Date Completed ____ Final Depth ____ Drilling Co. ____

CORE — GEOLOGY — REMARKS

Core Box#	FOOTAGE				L1	(-) L2	% Rec. by ft.	Lbs. Rec.	Ox Cu	(S) Cu	Tot. Cu	MOS2	✓	core size	Samp. No.	Alt	Inter-m.	Basic Diorite	REMARKS		
32									✓									✓	granodiorite		
33									✓									✓			
34									✓									✓			
35									✓									✓			
36									✓									✓			
37									✓									✓			
38									✓									✓			
39									✓									✓			
40									✓									✓			
41									✓									✓			
42			548						✓									✓	Mn		
43	548		559						✓							✓		✓	Mn.		
44	559								✓							✓		✓	mn		
45			579						✓							✓		✓	mn		
46	579		590	3					✓	✓						✓	✓	✓	Mn.		
47	590	3	600						✓							✓		✓			
48	600		610						✓									✓			
49	610								✓									✓			
50									✓									✓			
51			639						✓									✓			
52	639		649						✓									✓			
53	649		658						✓	✓			2-					✓	pyrite		Mixed Area
54	658		668						✓	✓			2-				✓	✓	"		" "
55	668		677						✓	✓			2-				✓	✓	"		" "
56	677		687						✓	✓			2-				✓		"		" "
57	687		698						✓	✓			2-				✓		"		" "
58	698		706						✓	✓			2-				✓		"		" "
59	706		716						✓	✓			2-				✓		"		" "
60									✓	✓			3				✓		"		" "
61									✓	✓			3				✓		"	MN	" "
62									✓	✓			4				✓		"	MN	" "

BRIGHAM YOUNG UNIVERSITY

DDH No. HORNE #3 | State | County | Mining District | Project | Coordinates ____ N ____ E | Collar Elevation | Inclination | Bearing | Date Started | Date Completed | Final Depth | Drilling Co.

CORE																				GEOLOGY										REMARKS
Core Box#	FOOTAGE		L1	(-) L2	% Rec. by ft.	Lbs. Rec.	Ox Cu	(S) Cu	Tot. Cu	MOS_2								core size	Samp. No.	Alt	Cl Ep	Sericite	Brecciation			Aud-Pyrite	Extensive	Rare Hiatus	
63	745	754						✓																		✓		✓	
64	754	763						✓																		✓		✓	
65	763	773						✓																				✓	
66	773	784						✓																				✓	
67	784	793						✓																				✓	
68	793	803						✓																				✓	
69	803	809						✓																				✓	
70	809	819						✓																				✓	
71	819	828						✓																		✓			
72	828	830						✓																		✓			
73	830	847						✓																		✓			
74	847	856						✓																		✓			
75	856	864						✓																		✓			
76	864	874					✓	✓																		✓			
77	874	883						✓																		✓			
78	883	893						✓																		✓			
79							✓	✓																		✓			
80								✓																		✓			
81								✓																				✓	granodiorite
82								✓																				✓	
83								✓												✓		✓				✓		✓	
84								✓												✓		✓						✓	
85								✓												✓		✓						✓	
86								✓												✓		✓						✓	
87								✓												✓		✓				✓		✓	
88								✓												✓		✓				✓		✓	
89								✓												✓		✓				✓		✓	Pyrite +
90								✓												✓		✓				✓		✓	" +
91								✓												✓		✓				✓		✓	" +
92								✓												✓		✓				✓		✓	" +
93								✓																					

BRIGHAM YOUNG UNIVERSITY

DDH No. HORNE #3 | State | County | Mining District | Project | Coordinates N E | Collar Elevation | Inclination | Bearing | Date Started | Date Completed | Final Depth | Drilling Co.

CORE																GEOLOGY					REMARKS
Core Box#	FOOTAGE	L1	(-) L2	% Rec. by ft.	Lbs. Rec.	Ox Cu	(S) Cu	Tot. Cu	MOS_2					core size	Samp. No.		Sec		Acid	BASE	
94							✓							BY					✓		
95							✓												✓		
96							✓									-	✓		✓	✓	—
97							✓									-	✓		✓	✓	
98							✓									-	✓		✓	✓	
99							✓									-	✓		✓	✓	
100							✓									-	✓		✓	✓	
101							✓									-	✓		✓	✓	
102							✓									-	✓		✓	✓	
103							✓									-	✓		✓	✓	
104							✓									-	✓		✓	✓	
105							✓									-				✓	
106							✓									-	✓		✓		
107							✓									-	✓		✓	✓	
108							✓									-	✓		✓		
109							✓									-	✓			✓	
110							✓									-	✓		✓	✓	
111							✓									-	✓			✓	
112							✓									-	✓			✓	
113							✓									-	✓		✓	✓	
114							✓									-	✓		✓	✓	
115							✓									-	✓		✓	✓	
116							✓									-	✓		✓	✓	
117							✓									-	✓		✓	✓	
118							✓									-	✓		✓		
119							✓									-	✓		✓	✓	
120							✓									-	✓		✓	✓	
121							✓									-	✓		✓	✓	
122							✓									-	✓			✓	
123							✓									-	✓		✓	✓	
124							✓									-	✓			✓	

BRIGHAM YOUNG UNIVERSITY

DDH No. Hoone #3 | State | County | Mining District | Project | Coordinates ____ N ____ E | Collar Elevation | Inclination ____ Bearing ____ | Date Started | Date Completed | Final Depth | Drilling Co.

CORE																		GEOLOGY							REMARKS
Core Box#	FOOTAGE	L1	(-) L2	% Rec. by ft.	Lbs. Rec.	Ox Cu	(S) Cu	Tot. Cu	MOS_2					core size	Samp. No.	Alt	Cl-Ep	Sericite	Breccia				Mineralization	Comments	
125							✓							BX		✓		✓					✓	✓	
126							✓									✓		✓					✓	✓	
127							✓									✓		✓					✓	✓	
128							✓									✓		✓					✓	✓	
129							✓									✓		✓					✓	✓	
130							✓									✓		✓						✓	
131							✓						4				E	-					✓		
132							✓						4					-					✓		
133							✓						4					-					✓		
134							✓						4					-					✓		
135							✓						4					-					✓		
136							✓						4				E	-							
137							✓						4				E	-							
138							✓						4				E	-							
139							✓						4				E	-							
140							✓						4				E	E	✓						
141							✓						4				E	✓							
142							✓						4				E	-	-						
143							✓						4				E	-							
144							✓						4				E	-					✓		
145							✓						4				E	-							
146							✓						4				E	-							
147							✓						4				E	-	✓						
148							✓						4				E	-	✓				✓		
149							✓						4				E	-					✓		
150							✓						4				E	-					✓		
151							✓						4				E	-	✓				✓		
152							✓						4				E	-					✓		
153							✓						4				E	-					✓		
154							✓						4				E	-	✓						
155							✓						4				E	-	✓						

BRIGHAM YOUNG UNIVERSITY

DDH No. Horne #3 State _____ Mining District _____ Coordinates _____ N _____ E Date Started _____ Drilling Co. _____

County _____ Project _____ Collar Elevation _____ Date Completed _____

Inclination _____ Bearing _____ Final Depth _____

CORE																				GEOLOGY						REMARKS
Core Box#	FOOTAGE		L1	(-) L2	% Rec. by ft.	Lbs. Rec.	Ox Cu	(S) Cu	Tot. Cu	MOS_2							core size	Samp. No.		Alt	Clay	Ser	Breccia		Mineralization	
156								✓								4	BX			E	-					
157								✓								4				E	-					
158								✓								3	"			✓ Ch	-					✓
159								✓								3				✓ Ep					✓	✓
160								✓								3				✓ E	-				✓	✓
161								✓								3				✓ E	- ✓					✓
162																3	"			E					✓	
163								✓								3				E	- ✓					✓
164								✓								3				E	-					✓
165								✓								3				E	-					✓
166								✓								4				E	- ✓					✓
167								✓								3				E	-					✓
168								✓								4				C E	✓					✓
169								✓								4				C E						✓
170								✓								4				C E						✓
171								✓								4				C E						✓
172								✓								4				C E						✓
173								✓								3				C E						✓
174								✓								3				C E	✓					✓
175								✓								3				C E	✓ ✓					✓
176								✓								3				C E	✓					✓
177								✓								3				C E	- ✓					✓

RECEIVED
MAR 8 1968
JAMES STLWART COMPANY
PHOENIX, ARIZONA

D.D. #3 ASSAYS

Shop No. 270 ~~2046 ST~~

File No.

Date 25 April 1968

Arizona Assay Office

815 NORTH FIRST STREET

Phone: 253-4001

Phoenix, Arizona 85001

P. O. BOX 1148

VALUES
Latest Quotation

1 oz. Gold
1 oz. Silver
1 lb. Copper
1 lb. Lead
1 lb. Zinc

JAMES STEWART CO
PHOENIX ARIZONA

Short Ton ..... 2000 Lbs.
Short Ton Unit ..... 20 Lbs.
Long Ton ..... 2240 Lbs.
Long Ton Unit ..... 22.4 Lbs.

THIS CERTIFIES
Samples submitted for assay contain as follows:

MARKS	SILVER PER TON Ozs.	SILVER PER TON Tenths	VALUE PER TON	GOLD PER TON Ozs.	GOLD PER TON 100ths	VALUE PER TON	TOTAL VALUE PER TON of Gold & Silver	PERCENTAGE COPPER	REMARKS
B B - 1 ~~#~~ 2040		.40		TRACE				0.045	
L-1 - 2668		.40						0.04	
#3 - 2218 2218'		.40						0.035	

Charges $ 17.50

Assayer

JACK STONE Reg. No. 5479

ANDY CHUKA, PRINT

Shop No. 149
File No. 2037 ST

Date 18 March 1968

Charleston

Arizona Assay Office

815 NORTH FIRST STREET
Phone: 253-4001

Phoenix, Arizona 85001
P. O. BOX 1148

VALUES
Latest Quotation

1 oz. Gold.....
1 oz. Silver.....
1 lb. Copper.....
1 lb. Lead.....
1 lb. Zinc.....

THIS CERTIFIES
Samples submitted for assay contain as follows:

JAMES STEWART CO
Phoenix Arizona

Short Ton ..... 2000 Lbs.
Short Ton Unit ..... 20 Lbs
Long Ton ..... 2240 Lbs.
Long Ton Unit ..... 22.4 Lbs.

MARKS	SILVER PER TON Ozs.	SILVER PER TON Tenths	VALUE PER TON	GOLD PER TON Ozs.	GOLD PER TON 100ths	VALUE PER TON	TOTAL VALUE PER TON of Gold & Silver	PERCENTAGE COPPER	REMARKS
B-1-1135		.3	$ .45	TRACE				0.035	
3-2077 Charleston #3								0.05	

REGISTERED ASSAYER
CERTIFICATE EXPIRES
DEC. 31, 19
ARIZONA, U.S.A.

Charges 2.00

Assayer

ANDY CHUKA, PRINT

JACK STONE REG. No. 5479

581

Charleston

Shop No. 141

File No. 2036 ST

Date 11 MARCH 1968

VALUES
Latest Quotation

1 oz. Gold.....
1 oz. Silver.....
1 lb. Copper.....
1 lb. Lead.....
1 lb. Zinc.....

THIS CERTIFIES
Samples submitted for assay contain as follows:

Arizona Assay Office

815 NORTH FIRST STREET
Phone: 253-4001

Phoenix, Arizona 85001
P. O. BOX 1148

JAMES STEWART CO
PHOENIX
ARIZONA

Short Ton ..... 2000 Lbs.
Short Ton Unit ..... 20 Lbs.
Long Ton ..... 2240 Lbs
Long Ton Unit ..... 22.4 Lbs.

MARKS	SILVER PER TON Ozs.	SILVER PER TON Tenths	VALUE PER TON	GOLD PER TON Ozs.	GOLD PER TON 100ths	VALUE PER TON	TOTAL VALUE PER TON of Gold & Silver	PERCENTAGE COPPER	REMARKS
B - 1 - 960		.3	$.45	TRACE				0.04	
B - 1 - 900								0.04	
1980								0.04	
Pole 3 Chandler									

REGISTERED ASSAYER
CERTIFICATE EXPIRES
DEC. 31, 1968
ARIZONA, U.S.A.
JACK STONE REG. No. 5479

Charges 11.50

Assayer

ANDY CHUKA, PRINT

Shop No. 109
File No. 2031 ST

Date 26 FEB 1968

VALUES
Latest Quotation

1 oz. Gold
1 oz. Silver
1 lb. Copper
1 lb. Lead
1 lb. Zinc

THIS CERTIFIES
Samples submitted for assay contain as follows:

Arizona Assay Office

815 NORTH FIRST STREET
Phone: 253-4001

JAMES STEWART CO
PHOENIX ARIZONA

Phoenix, Arizona 85001
P. O. BOX 1148

Short Ton ..... 2000 Lbs.
Short Ton Unit ..... 20 Lbs
Long Ton ..... 2240 Lbs.
Long Ton Unit ..... 22.4 Lbs.

MARKS	SILVER PER TON Ozs.	SILVER PER TON Tenths	VALUE PER TON	GOLD PER TON Ozs.	GOLD PER TON 100ths	VALUE PER TON	TOTAL VALUE PER TON of Gold & Silver	PERCENTAGE COPPER	REMARKS
2962 CHARLESTON # 2	2	.8	$ 4.20	TRACE				8.71	
29X CHARLESTON # 2		.8	$1.20	TRACE				1.50	
2920 CHARLESTON # 2		.8	$1.20	TRACE				0.035	
1375 CHARLESTON # 3		.4	$.60	TRACE				0.035	
1460 CHARLESTON # 3		.4	$.60	TRACE				0.035	
1470 CHARLESTON # 3		.4	$.60	TRACE				0.035	
1480 CHARLESTON # 3		.4	$.60	.01	$.35			0.03	

REGISTERED ASSAYER
CERTIFICATE EXPIRES
JACK E. A. STONE
DEC. 31, 19
ARIZONA, U.S.A.

Charges $ 45.50

Assayer

JACK STONE REG. NO. 5479

ANDY CHUKA, PRINT

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218 PHONE 364-8092
DOUGLAS, ARIZONA - 85607

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

CERTIFICATE OF ASSAY

Name ...WESTERN EXPLORATION OFFICE..... Address ..Drawer 1217.-Douglas,..Arizona.....

	GOLD OZS	SILVER OZS	COPPER %	LEAD %	NAME		HOLE No.	DEPTH From	DEPTH To
23025.-B-10519			0.160						
23026.-B-10520			0.120						
23027.-B-9739			0.019	James Stewart			JSC#3	1197	1206
23028.-B-9740			0.028	Co.				1206	1215
23029.-B-9741			0.046					1215	1223
23030.-B-9742			0.048				JSC#2	2945	2947
23031.-B-9743			0.830					2947	2949
23032.-B-9744			0.076					2949	2951
23033.-B-9745			0.670					2951	2953
23034.-B-9746			0.360					2953	2955
23035.-B-9748			0.048					2955	2957
23036.-B-9748			5.52					2957	2959
23037.-B-9749			6.76					2959	2961
23038.-B-9750			0.067					2961	2963
23039.-B-12051			0.028					2963	2964.5
23040.-B-12052			0.036					2964.5	2966.5
23041.-B-12053			0.048					2966.5	2968.5
23042.-B-12054			0.027					2968.5	2969.5
23043.-B-12055			0.088					2969.5	2971.5
23044.-B-12056			0.190					2971.5	2973.5
23045.-B-12057			0.076					2973.5	2975.5
23046.-B-12058			0.140					2975.5	2977.5
23047.-B-12059			0.110					2977.5	2979.5

REGISTERED ASSAYER CERTIFICATE NO. 4073 H. C. ROCHIN Date Signed..... ARIZONA, U.S.A.

REMARKS: Diamond Drill Core.

DATE: 3/12/68

CHARGES: $ $ 46.00
" 5.75
$ 51.75

142

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218 PHONE 364-8092
DOUGLAS, ARIZONA - 85607

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

CERTIFICATE OF ASSAY

Name Western Exploration Office ..... Address Drawer 1217 Douglas, Arizona 85607 .....

Att: Mr. W.J. Walker	GOLD Mg/A	SILVER Mo/E	COPPER %	LEAD %	Zn %		HOLE NO.	DEPTH From	DEPTH To:
22905 B-9731	James	Stewart	0.029	Tr	Tr	Core	JS#3	1116.'	1128
22906 B-9732	Co.		0.030	Tr	Tr			1128	1138
22907 B-9733			0.042	Tr	0.05			1138	1148
22908 B-9734			0.021	Tr	Tr			1148	1158
22909 B-9735			0.068	Tr	0.07			1158	1167
22910 B-9736			0.041	Tr	0.05			1167	1179
22911 B-9737			0.022	Tr	0.06			1179	1188
22912 B-9738			0.051	Tr	0.05			1188	1197

REGISTERED ASSAYER CERTIFICATE NO. 4073 H. C. ROCHIN Name Signed ..... ARIZONA, U.S.A.

REMARKS:

DATE: 29 Feb 68

CHARGES: $ 64.00
Prep. 2.00
$ 66.00

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218
PHONE EMpire 4-8092
DOUGLAS, ARIZONA

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

143

CERTIFICATE OF ASSAY

Name Western Exploration Office Address Drawer 1217 Douglas, Arizona

Att: Mr. W. J. Walker	GOLD OZS. NAME	SILVER OZS.	COPPER %	LEAD %	Zn %		HOLE NO.	DEPTH From	DEPTH To:
Lab 22738 B-9706	James	Stewart	0.090	Tr	0.30	Core	JSC#2	2578.35	2583
22739 B-9707	Co.		0.028	Tr	0.07			2585	2588.1
22740 B-9708			0.042	Tr	1.20			2588.1	2593.3
22741 B-9709			0.031	Tr	0.12			2593.3	2598
22742 B-9710			0.029	Tr	Tr			2598	2603.7
22743 B-9711			0.037	Tr	0.07			2603.7	2607
22744 B-9712			0.040	Tr	0.05			2607	2610
22745 B-9713			0.028	Tr	Tr			2610	2615
22746 B-9714			0.031	Tr	0.08			2615	2620
22747 B-9715			0.088	Tr	0.30			2620	2624
22748 B-9716			0.12	Tr	1.12			2624	2628.5
22749 B-9717			0.029	Tr	Tr		JSC#3	996	1003
22750 B-9718			0.031	Tr	0.07			1003	1011
22751 B-9719			0.030	Tr	0.05			1011	1019
22752 B-9720			0.022	Tr	0.04			1019	1028.9
22753 B-9721			0.028	Tr	0.06			1028.9	1036
22754 B-9722			0.020	Tr	0.03			1036	1045
22755 B-9723			0.032	Tr	0.05			1045	1053
22756 B-9724			0.029	Tr	0.04			[illegible]	1062
22757 B-9725			0.042	Tr	0.05			1062	1071
22758 B-9726			0.031	Tr	0.03			1071	1080
22759 B-9727			0.041	Tr	0.07			1080	1088.6
22760 B-9728			0.022	Tr	0.06			1088.6	1098

REGISTERED CERTIFIED ASSAYER 4073 ROCHIN ARIZONA U.S.A.

REMARKS:

ANALYSIS CERT. BY:

DATE: 29 Feb 1968

CHARGES: $ 184.00
5.75
$ 189.75

HECTOR C. ROCHIN
MANAGER
REGISTERED ASSAYER
ARIZONA REG. No. 4073

ROCHIN ENGINEERING AND ASSAY OFFICE

P. O. BOX 218
PHONE EMpire 4-8092
DOUGLAS, ARIZONA

HECTOR A. ROCHIN
MINING ENGINEER AND
LAND SURVEYOR
ARIZONA REG. No. 2472

CERTIFICATE OF ASSAY

194

Name Western Exploration office Address Drawer 1217 Douglas, Arizona

Att: Mr.W.J.Walker	GOLD ozs. NAME	SILVER ozs.	COPPER %	LEAD %	Zn %		HOLE NO.	DEPTH From:	DEPTH To:
Lab 22761 B-9729	James	Stewart	0.030	Tr	0.08	Core	JSCd3	1098	1107
22762 B-9730	Co.		0.041	Tr	0.12			1107	1116.5
22763 B-9932			0.019	0.12	0.25		JSCd2	1377	1382.5
22764 B-9933			0.030	0.07	0.27			1382.5	1387.5
22765 B-9934			0.032	0.07	0.15			1387.5	1391.25
22766 B-9935			0.048	0.24	0.70			1391.25	1396
22767 B-9936			0.16	0.65	1.75			1457	1462
22768 B-9937			0.030	0.05	0.25			1462	1467
22769 B-9938			0.048	0.34	0.70			1858.5	1862
22770 B-9939			0.040	Tr	Tr			1862	1867.5
22771 B-9940			0.052	Tr	Tr			1867.5	1872
22772 B-9941			0.028	Tr	Tr			1872	1876.5
22773 B-9942			0.042	Tr	0.05			1876.5	1881
22774 B-9943			0.028	0.03	0.03			1881	1886
22775 B-9944			0.030	Tr	0.05			1937.5	1941
22776 B-9945			0.049	Tr	0.03			1941	1946.5
22777 B-9946			0.032	Tr	Tr			1946.5	1951
22778 B-9947			0.049	Tr	Tr			1951	1956
22779 B-9948			0.031	Tr	Tr			1956	1961
22780 B-9949			0.042	Tr	0.07			1961	1965.5
22781 B-9950			0.040	Tr	Tr			1965.5	1969
22782 B-9851			0.029	Tr	0.05			1969	1974
22783 B-9852			0.041	Tr	Tr			1974	1978

REGISTERED ASSAYER CERTIFICATE NO. 4073 H. C. ROCHIN Date Signed ARIZONA

REMARKS:

ANALYSIS CERT. BY:

DATE: 29 Feb 1968

CHARGES: $ 184.00
5.75
189.75

CHARLESTON MINE

Assay Summary

HOLE #3

Depth	% Cu	Oz/Ton Ag	oz/Ton Au	% Ni	% Pb	% Zn
996 - 1003	.029	--			Tr	Tr
1003 - 1011	.031	--			Tr	.07
1011 - 1019	.030	--			Tr	.05
1019 - 1028	.022	--			Tr	.04
1028 - 1036	.028	--			Tr	.06
1036 - 1045	.020	--			Tr	.03
1045 - 1053	.032	--			Tr	.05
1053 - 1062	.029	--			Tr	.04
1062 - 1071	.042	--			Tr	.05
1071 - 1080	.031	--			Tr	.03
1080 - 1088	.041	--			Tr	.07
1088 - 1098	.022	--			Tr	.06
1098 - 1107	.03	--			Tr	.08
1107 - 1116	.041	--			Tr	.12
1116 - 1128	.029	--			Tr	Tr
1128 - 1138	.030	--			Tr	Tr
1138 - 1148	.042	--			Tr	.05
1148 - 1158	.021	--			Tr	Tr
1158 - 1167	.068	--			Tr.	.07
1167 - 1179	.041	--			Tr	.05
1179 - 1188	.022	--			Tr	.06
1188 - 1197	.051	--			Tr	.05
1197 - 1206	.019					
1206 - 1215	.028					
1215 - 1223	.046					
1460	.035					
1470	.035					
1480	.035					
1980	.04					
2077	.05					
2107	.04	.40				

Drill Hole No. #1
Collar Elevation
Coordinates
Bearing
Depth
Inclination 90°

Horne - Charleston Project
Cochise County ARIZONA

Scale
Started
Completed

Page 1
By C. Davis

Original - Horne's copy

% Core Recovery	Structure	Alteration	Mineralization	Rock Type	GEOLOGY	CORE ASSAYS Interval Pb	Zn	Mineral Cu%	Ni	Ag	Au
					0' Andesite - Tuff						
					50' Breccia Tuff						
					100'						
					150' Sericite - Volcanic - Tuff Breccia						
					200' 205-210 Sericite; 220-235 Sericite						
					250' Latite - Andesite	265	0.16	0.44	0.09		0.4
					300' Latite - Andesite tt	280		.03	0.05		
					Sericite - m. Andesite; Meta-Sediments; Siltstone - DARK - ARKOSE						
					350' dark Siltstone -	360	0.07	0.21	0.03		
					400' fine Angular Siltstone (SS)	415	0.06	0.10	0.1		
					450' fine Angular Siltstone (SS)						
					500' Conglomerate	510	0.16	0.21	0.03		
						520	Tr	2.0	0.025		.03
						525-525	.06	.10	0.01		
							Tr		0.02	.7	.11
						544	.06	.12	.01		
					550' Siltstone (SS)						
					600' Qtz						
					650' impure Qtz	646	Tr	1.2	.26		
					700' meta-Sediments	703-713			.08	.01	
						720			.08	None	
					750' DARKER MATERIAL - ARKOSE Sugar (SS)						
					800' meta-Sediments	810			.02		.02
					850' ARKOSE - DARKER MATERIAL; SEC Pyrite (Sh); Porphyry - pyrite andesite	864	.02	1.0	.055	.4	.02
									3.0		
					900' Gram. chloride - siltstone; DARK - material - (Sh)	910			.04	0.7	.03
					950' Brecciated dendritic MnO_2						
					1000' Mn, Pyrite cubes SiO_2; " " " "						
					1050' epidote AREA - Vein; Qtz - (SS) - pyrite						
					1100' meta-Sediments	Siltstone 1102-1106	Tr	0.1	.025	.7	Tr
						Sedimentary 1102-1108	0.6		.02	1.0	Tr
						Siltstone 1106-1108			.02	.20	Tr
						Sedimentary 1112			.05	.04	Tr
						Sedimentary 1112	1.0	0.2	.30	Tr	.01
						Sedimentary 1130-1135		0.2	0.3	2.0	Tr
					1150' Dendritic - MnO_2 - DARKER - Material	1148			.025	.04	
					$CaCO_3$ Seams						
					1200' Siltstone (SS); $CaCO_3$ - Seams; Qtz - Siltstone; meta-Andesite pry						
					1250' fault gouge; meta-Sediments (SS)						
					1300' darker (Sh) - purple Color	1300			.02		.02
					1350'						
					1400' fine grained meta-Sediments (SS)						
					1450'						
					1500' Darkes Siltstone - (Sh); Sedimentary 1508	1.0			.01		
					1550' fine grained meta-Sediments (SS)	1541			.07	.3	
					1600' Qtz - Sand - Silt - (SS)						
					1650' Mineralization Pb, Zn, darker - Siltstone (Sh); meta ARKOSE - fine	1637; 1636	6.6	8.05	.01; .08	.03; .03	Nil; 0.5; Nil; Nil
					1700' ARKOSE						
					1750' Siltstone (SS); Qtz						
					1800' Qtz - dark Siltstone						
					1850' meta-ARKOSE cuge.						
					1900' purple Siltstone						
					1950'						

ALTERATION: Sericite; Kaolin; Silica; Chlorite - Epidote; Garnet; Serpentine; Biotite; K Feldspar

MINERALIZATION: Pyrite; Chalcopyrite; Chalcocite; Molybdenite; Magnetite; Galena; Sphalerite; Specularite; Silver

Mineralized zone

Drill Hole No. #2 | Horne - Charleston Project | Page 7
Collar Elevation | Cochise County Arizona | By C. Davis
Coordinates | Scale
Bearing | Started
Depth | Completed
Inclination

% Core Recovery	Structure	Alteration	Mineralization	Rock Type	GEOLOGY	CORE ASSAYS INTERVAL % ~~From~~ Pb	% ~~To~~ Zn.	MINERAL Cu%	% MOS_2	Ag	Au
					2400' Silt-Stone - Meta-Sediments						
					2397.5 - 2407	TR	TR	.07			
					2407 - 2407	TR	.03	.07			
					2407 - 2417	TR	.07	.049			
					2417 - 2417	TR	.07	.03			
					2417 - 2421	TR	TR	.041			
					2421.5 - 2426.5	TR	TR	.037			
					2426.5 - 2430.5	TR	TR	.029			
					2430.5 - 2435	TR	TR	.019			
					2435 - 2440	TR	TR	.047			
					2440 - 2445.5	TR	.07	.027			
					2445.5 - 2450	TR	.05	.038			
					2450 - 2456	TR	.04	.04			
					2456 - 2461	TR	TR	.047			
					2461 - 2464	TR	.06	.027			
					2464 - 2470	TR	TR	.019			
					2470 - 2474	TR	.05	.041			
					2474 - 2479	TR	TR	.07			
					2479 - 2483	TR	TR	.037			
					2483 - 2488						
					2488 - 2492	TR	.07	.029			
					2492 - 2497	TR	TR	.031			
					2497 - 2502	TR	TR	.019			
					2502 - 2507	TR	TR	.029			
					2507 - 2515	TR	.03	.020	0.0027		
					2515 - 2526	TR	2.50	.10			
					2512 - 2516			.028			
					2516 - 2520			.056	0.0029		
					Lab # 23024			.16			
					Lab # 23026			.17			
					2578 - 2583	TR	.30	.09			
					2583 - 2588	TR	.07	.028			
					2588 - 2593	TR	1.20	.047			
					2593 - 2598	TR	.17	.031			
					2598 - 2603	TR	.18	.029			
					2603 - 2607	TR	.09	.031			
					2607 - 2610	TR	.05	.04			
					2610 - 2615	TR	TR	.028			
					2615 - 2620	TR	.08	.031			
					2620 - 2624	TR	.03	.088			
					2624 - 2628	TR	.17	.17			
					2640 -		2.17	1.0		1.6	
					2628.5 - 2633.5			.010			
					2633.5 - 2639.5			.010			
					2639.5 - 2644			.028	0.0021		
					2644 - 2648.6			.048			
					2648.6 - 2657			.010			
					2652.4 - 2657.4			.026			
					2657.4 - 2662.4			.036			
					2662.4 - 2667.4			.026			
					2667 - 2672			.018			
					2672 - 2677			.018			
					2677 - 2682			.027			
					2682 - 2687			.018			
					2687 - 2692			.016			
					2692 - 2695.5			.016			
					2695 - 2701			.010			
					2701 - 2705			.028			
					2705 - 2709			.016			
					2709 - 2714			.010			
					2714 - 2719			.028			
					2719 - 2724.5			.010			
					2724 - 2728			.029			
					2728 - 2733			.016			
					2733 - 2738.5			.018			

ALTERATION: Sericite, Kaolin, Silica, Chlorite, Garnet, Serpentine, Biotite, K Feldspar

MINERALIZATION: Pyrite, Chalcopyrite, Chalcocite, Molybdenite, Magnetite, Galena, Sphalerite, Specularite

Notes: 2400' – 17 porphyry; 36. 2450' – Shale - mudstone DARK; 74. 2500' – Siltstone (SS); 12. Zn, Cu. Shale - mudstone DARK - purple; 93. Cu Zn. 2600' – Pyrite, good Zn; siltstone - Cu, Zn Ag. 2700'.

% Core Recovery	Structure	Alteration	Mineralization	Rock Type	GEOLOGY	CORE ASSAYS INTERVAL % ~~From~~ Pb	% ~~To~~ Zn.	MINERAL Cu%	% MOS_2	Ag	Au
					2800 Meta-Sediments						
					2845 -			.016			
					2850 -			.027			
					2854 -			.028			
					2857.5 -			.026			
					2862 -			.017			
					2866 -			.025			
					2871 -			.016			
					2876 -			.028			
					2880.5 -			.027			
					2884 -			.016			
					2888			.020			
					2894			.027			
					2898			.016			
					2903			.048			
					2907.5			.027			
					2912			.016			
					2916			.010			
					2920			.010			
					2926			.018			
					2930			.018			
					2935			.010			
					2940			.039			
					2945 - 2947			.048			
					2947 - 2949		0.70	.83	0.0027		0.02
					2949 - 2951			.076	0.0027		
					2951 - 2953			.67			
					2953 - 2955			.36	0.0018		
					2955 - 2957			.048	0.0021		
					2957 - 2959			.57			
					2959 - 2961		0.90	6.76	0.0020		0.03
					2961 - 2963			.067			
					2963 - 2965.5			.028			
					2965.5 - 2966.5			.036			
					2966.5 - 2968.5			.048			
					2968.5 - 2969.5			.027			
					2969.5 - 2971.5			.088			
					2971.5 - 2973.5			.19			
					2973.5 - 2975.5			.076			
					2975.5 - 2977.5			.14			
					2977.5 - 2979.5			.11			
					3129.5 - 3134			.029			
					3134 - 3138.5			.029			
					3175 - 3178			.018			
					3178 - 3181			.036			
					3181 - 3183			.048			
					3183 - 3185			.078			
					3185 - 3187			.057			
					3187 - 3189			.270			
					3189 - 3190			.150			
					3190 - 3195			.048			
					3195 - 3199.5			.027			

ALTERATION: Sericite, Kaolin, Silica, Chlorite, Garnet, Serpentine, Biotite, K Feldspar

MINERALIZATION: Pyrite, Chalcopyrite, Chalcocite, Molybdenite, Magnetite, Galena, Sphalerite, Specularite

Notes: 2850' – 24. Mudstone - DARK - purple, good Cu. 2900'. Siltstone. 2950' – 47; 61. Cu Zn Au. Cu Zn Ag. 3000'. Mudstone - darker material. 3050' – 54. granodiorite(?) prophry. 3100' – 25. siltstone (SS). 3150' – 81. Qtz - siltstone. Cu.

% Core Recovery	Structure	Alteration	Mineralization	Rock Type	GEOLOGY	CORE ASSAYS INTERVAL % ~~From~~ Pb	% ~~To~~ Zn.	MINERAL Cu%	% MOS_2	Ag	Au
					3200 Meta - Sediments						
					12 siltstone —						

ALTERATION: Sericite, Kaolin, Silica, Chlorite, Garnet, Serpentine, Biotite, K Feldspar

MINERALIZATION: Pyrite, Chalcopyrite, Chalcocite, Molybdenite, Magnetite, Galena, Sphalerite, Specularite

3250' 3300' 3350' 3400' 3450' 3500' 3550'

#2

Drill Hole No.
Collar Elevation
Coordinates
Bearing
Depth
Inclination

Horne - Charlestown
Cochise County Arizona

Project
Page
By C. Davis

Scale
Started
Completed

Original - Horne log

Core Recovery	Sample Interval	Alteration	Mineralization	Rock Type	GEOLOGY	CORE ASSAYS INTERVAL Pb	Zn	MINERAL CuS	MoS_2	Ag	Au
	0'										
	50'				Andesite - Tuff						
	100'				fragmental volcanic						
	150'										
	200'				Latite - Tuff - volcanic						
	250'										
	292				pyrite - Meta Sediments						
	300'				qtz (SS) Stringers						
	350'				Dacker Siltstone						

ALTERATION: Sericite; Kaolin; ✓ Silica; ✓ Chlorite - Epidote; Sericite; ✓ Serpentine; Biotite; K Feldspar

MINERALIZATION: Pyrite; Chalcopyrite; Chalcocite; Molybdenite; Magnetite; Galena; Sphalerite; Specularite

Core Recovery	Sample Interval	Alteration	Mineralization	Rock Type	GEOLOGY	CORE ASSAYS INTERVAL Pb	Zn	MINERAL CuS	MoS_2	Ag	Au
	400'				Silt - Mud Stone Meta Sediments						
	450'										
	500'				Slate Siltstone						
	550'				Quartzite - Siltstone						
	600'										
	650'				ARKOSE						
	700'				mud - siltstone and dark. Meta-Sed.						
	750'				Qtz. stone.						
	800'				Bryozia mud - dark. meta Sediments						

ALTERATION: Sericite; Kaolin; Silica; Chlorite; Sericite; Serpentine; Biotite; K Feldspar

MINERALIZATION: Pyrite; Chalcopyrite; Chalcocite; Molybdenite; Magnetite; Galena; Sphalerite; Specularite

Core Recovery	Sample Interval	Alteration	Mineralization	Rock Type	GEOLOGY	CORE ASSAYS INTERVAL Pb	Zn	MINERAL CuS	MoS_2	Ag	Au
	800'				dark - Siltstone						
	850'				Qtz						
	900'				Qtz SS ARKOSE						
	950'				Quartzite - metased. ments.						
	1000'				Quartzite Vein Mixed						
	1050'				Sandstone - Silt						
	1100'				ss ARKOSIC - Qtz						
	1150'				Silt - Mudstone						
	1200'				good Mineralized						

ALTERATION: Sericite; Kaolin; Silica; Chlorite; Sericite; Serpentine; Biotite; K Feldspar

MINERALIZATION: Pyrite; Chalcopyrite; Chalcocite; Molybdenite; Magnetite; Galena; Sphalerite; Specularite

Core Recovery	Sample Interval	Alteration	Mineralization	Rock Type	GEOLOGY	CORE ASSAYS INTERVAL Pb	Zn	MINERAL CuS	MoS_2	Ag	Au
	1600'				Meta Breccia						
					ARKOSE						
					Stone Mudstone dark material						
					Siltstone -						
					Sandstone -						
					Hornfels						
					Purple - ARKOSE good Cu, Zn, Pb						
					Pb Zn Mineralized						
					Sandy Limestone						
					Stone						
					Slate ARKOSE - Meta						
					Stone - lighter Qtz						

ALTERATION: Sericite; Kaolin; Silica; Chlorite; Sericite; Serpentine; Biotite; K Feldspar

MINERALIZATION: Pyrite; Chalcopyrite; Chalcocite; Molybdenite; Magnetite; Galena; Sphalerite; Specularite

						Pb	Zn
	2000'				Stone Meta Sediments		
					DARK ARKOSE		
					Qtz - red		
					Stone Zn Pb		
					ARKOSE DARKER - Stone good Copper		
					Broken		
					Porphyry Intermediate		
					Zn		