# SHANGHAI PROJECT REPORT

By: A. R. Archer
May, 1966.



N.T.S. 105 M - 13

VANCOUVER
HE 4-1197

WHITEHORSE
667-4113

# ARCHER & CATHRO

CONSULTING GEOLOGICAL ENGINEERS

P.O. Box 1051
WHITEHORSE

June 4, 1966

SHANGHAI PROJECT

A final calculation has been made of the ore shoot drifted in 05 Dr. E on the Silver Titan Shanghai 2250 level.

The ore shoot is 30 feet long, extending from survey station 22-505 - 40 feet to station 22-505 - 70 feet.

Chip assays have been corrected by cutting silver assays to 100 ounces and adjusting all assays to a 5 foot mining width. The corrected assay is-

35.3 oz. silver per ton, 14.3% lead, and 3.4% zinc.

Muck assays have been corrected by cutting silver assays to 100 ounces and correcting all assays from an 8 foot width back to a 5 foot mining width. The corrected assay is-

34.5 oz. silver per ton, 8.2% lead, and 7.2% zinc.

The chip and muck assays compare very well with respect to silver. There is no obvious explanation for the differences in the lead and zinc assays. On the basis of ship sampling the silver-lead ratio of the ore shoot is 2.5 to 1, while on the basis of mucks it is 4.2 to 1.

Respectfully submitted,
ARCHER & CATHRO

A.R. Archer

VANCOUVER
HE 4-1197

WHITEHORSE
667-4113

ARCHER & CATHRO
CONSULTING GEOLOGICAL ENGINEERS

P.O. Box 1051
WHITEHORSE

# SHANGHAI PROJECT REPORT

May, 1966.

## Raise 05 Vein

This raise has been driven a total of 60 feet. No chute has been installed and the job has progressed very quickly.

The raise was collared at the widest part of the ore shoot. The ore pinched out several feet above the back of the drift. The raise was continued in a weakly mineralized vein to 35 feet where a lens of galena about 6 inches wide opened up on the west rib. This lens pinched out at 47 feet and the raise has been stoped in waste at 60 feet.

## 14 Dr. E

The No. 1 vein system was followed east from 14xC. N. and the easterly dipping fault was intersected exactly as interpreted. Rather than drilling to locate the vein, it was decided to cross-cut directly to the interpreted offset location of the No. 1 vein. The No. 1 vein was located within 20 feet of the expected point and one round was taken to the east. The vein was not mineralized and had the same general characteristics of the No. 1 vein on the west side of the fault.

Heavy ground at the junction of the fault and vein in

. . . . . 2.

the cross-cut caused a small cave at this point and about 20 feet of the cross-cut was lost. Present plans are to swing off the cross-cut to the east as shown on Figure No. 4. Tom Hartley will ensure that timbering is done properly in this section- sill sets and head blocks and, if necessary, 3 foot sets and spiling steel will be used in the heavy sections.

Respectfully submitted,
ARCHER & CATHRO

A R Archer
A.R. Archer

VANCOUVER
HE 4-1197

WHITEHORSE
667-4113

ARCHER & CATHRO
CONSULTING GEOLOGICAL ENGINEERS

P.O. Box 1051
WHITEHORSE

# OVERBURDEN DRILL REPORT

## May, 1966

### General

Drilling began on May 1 on the KPO 28 and 30 claims (see Figure No. 1). A breakdown on the first hole, due to a manufacturer's flaw in the drill rig, suspended operations until May 7. There were no further major delays during the month.

A total of 12,175 feet were drilled requiring a total of 3,081 feet of casing. Of the total shift time (2 men per shift) 473 hours were spent drilling, 28.5 hours moving, 10.5 hours repairs, 97 hours travel time and 68.5 hours idle time during breakdown at the first of the month. Average penetration rate was 25.7 ft. per hour drilling (compared to 26.9 ft. at United Keno Hill Mines Ltd., in 1965). This is an excellent performance considering the difficult ground encountered in the first 38 holes.

A total of 112 holes were drilled. The average hole was 109 feet deep and required 17.5 ft. of casing.

Drill rod breakage and bit wear were higher than normal because of very hard quartzite bedrock encountered during the last part of the month.

### Salaries

The following scale of salaries has been established-

. . . . . 2.

Drill Runner- $2.50 per hour.

Drill Helper- $2.30 per hour.

Cat Skinner- $2.50 per hour.

All time over 40 hours per week is paid at one and a half times the regular rate and the men get free room and board.

Bonus

A bonus rate has been established whereby the drill crew make a total of .50 cents per foot. The bonus is calculated by multiplying the total footage by .50¢, subtracting the total salaries and splitting the remainder 60%/40%- the runners and helpers, respectively.

The cat skinners are being paid one half of the helpers bonus above their wages (about .3¢ per foot) in order to increase productivity. The cat skinners, besides driving the cat, are expected to service the compressor, sharpen bits and provide general assistance around the drilling.

Salaries and Bonus Paid in May

Salaries plus bonus for the drill crew totalled $6097.50 and bonus for the cat skinners totalled $393.11. The total hours worked by the drill crew was 1355 of which 707.5 hours were overtime. The hourly rate, including bonus, works out to $3.57 per hour (assuming time and a half over 40 hours per week).

Panning

Overburden drill samples are being panned as quickly as possible to provide a quick determination of results and to

. . . . . 3.

guide further drilling. Five men are presently employed as panners. Two are on night shift and three are on day shift. Increased drill productivety has necessitated working the panners overtime.

Salaries paid to the panners are as follows:

| | |
|---|---|
| Chief panner- | $600.00 per month. |
| Asst. chief panner- | $500.00 per month. |
| 3 junior panners- | $400.00 per month each. |

These men receive free room and board. The Chief Panner and Asst. Chief Panner also map and sample the underground headings and assist Mr. Hartley in surveying. Of their total time 25% is charged to the Shanghai project. Overtime is being paid as follows:

| | |
|---|---|
| Chief Panner- | $3.00 per hour. |
| Asst. Chief Panner- | $2.50 per hour. |
| Junior panners- | $2.00 per hour. |

During May a total of 226 overtime hours were paid. With the present staff no overtime hours will be required in June unless drill productivety exceeds 12,000 feet.

No final plans or sections showing the results have been made as yet. It is hoped that a start can be made on these in June.

Geochemistry

Geochemical sample analysis is being done under contract by United Keno Hill Mines Ltd. By the end of May, 324 analysis were completed (up to hole No. 25). None of the analysis showed obviously anomalous values.

. . . . . 4.

Cat

The cat used for moving the drill is contracted for a minimum of 8 hours per day at $25.00 per hour. At present the cat is only working about 4 hours per day although it is in the field 24 hours per day.

Total moving costs for May are approximate-

| | |
|---|---|
| Cat- 26 days- | $5200.00 |
| Cat skinners salary & bonus- | 2000.00 |
| | $7200.00 |

Moving costs per foot are therefore about .60¢ (compared to .63¢ at U.K.H.M. in 1965), exclusive of fuel.

Results

Results for each hole are given in table form at the end of the report. Three figures showing areas being drilled are also appended.

Figure No. 1 shows the hole pattern that was laid out over the resistivity anomaly on KP028 and KP030 mineral claims. Holes No.'s 1-32 inclusive were drilled without reaching bedrock. The ground was unfrozen glacial till with thick beds of clay. The deepest hole was 160 feet. The drill was moved from hole 32 to hole 45 and when bedrock could not be reached, the drill was moved to the next area (see Fig. 2.). The occasional fragment of galena was noted in some of the pannings, but, under the conditions are of no signifigance. The geochemical analysis for the holes are completed and nothing of signifigance is indicated.

Figure No. 2 shows the pattern of holes laid out on

the KP029 mineral claim and the KP02FR. mineral claim. These holes were drilled to locate a possible vein indicated by an offset resistivity anomaly. Holes 46 to 51 inclusive, were drilled and when no bedrock was reached the drill was moved to the next area (see Figure 3). The till was mainly glacial gravel and sand. The deepest hole was 150 feet. Nothing of interest was found in the pannings and the geochemical analysis are not yet completed.

Figure No. 3 shows the pattern of holes presently being drilled and a rough interpretation of results to date. A definite vein weakly mineralized with pyrite and sphalerite was intersected in holes 60, 86, 78 and 89. A possible footwall split of the same charcter is interpreted in holes 85, 79, 90 and 97, although the weak mineralization here might be caused by a "halo" in the footwall of the definite vein. The signifigance of the arsenopyrite located in a number of the holes is questionable as arsenopyrite is not a common vein mineral on Galena Hill. The arsenopyrite encountered in holes 57, 83, 92, 95, 96, 104, 109, 111, 116, 120 and 128, appear to be a minor constituent of the country rock. The arsenopyrite found in holes 123 and 124 might have come from a vein zone- possibly the western continuation of the pyrite, shpalerite vein. No signifigant quantities of galena or tetrahedrite were found in any of the holes and no geochemical results are available to date.

. . . . . 6.

Holes 62 to 77 have been drilled but not panned. These will be done as soon as the other pannings are caught up.

The vein that has been located seems to be a fairly strong structure- possibly somewhat similar to the Gerlitski Vein- but is definitely uneconomic where tested. Offhand, I would say that noe of the structures interpreted to date warrant further work unless the geochemical results are extremely good. Present plans are to complete the eastern block of holes and then drill recconnaisance lines of holes (holes 200 feet apart on lines 400 feet apart) in the area south and east of the Gerlitzki Vein.

At the present rate of drilling, it is possible that 20,000 feet or more might be drilled in June if no breakdowns occur. A decision will have to be made very soon as to the extent of the program.

Respectfully submitted,
ARCHER & CATHRO

A.R. Archer

ARCHER & CATHRO

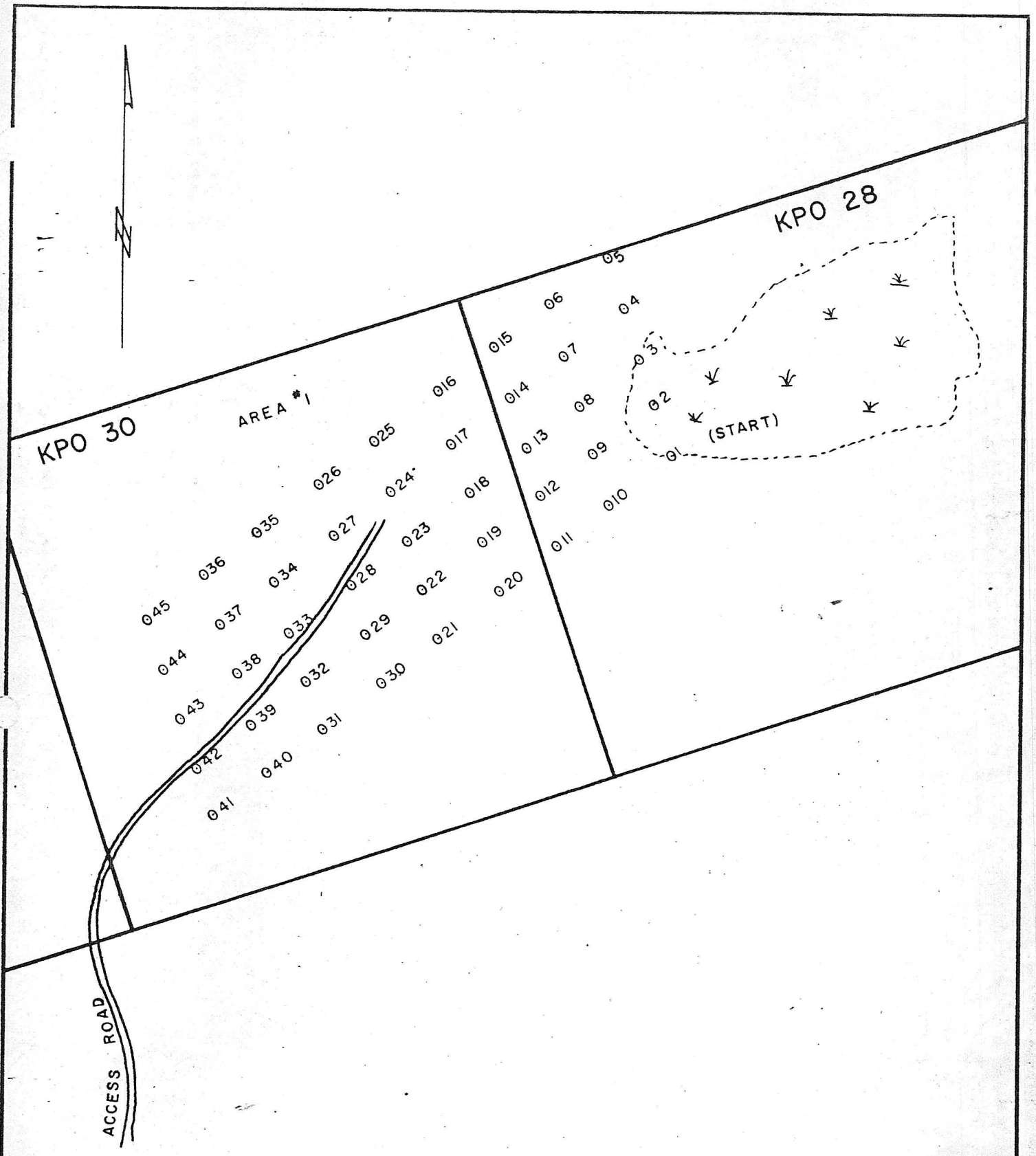
| HOLE No. | DEPTH | APPROXIMATE DEPTH OF OVERBURDEN | COMMENTS |
|---|---|---|---|
| 1-32 | - | - | No bedrock reached by any hole, deepest hole 160, ground mostly unfrozen with thick beds of clay. |
| 45-51 | - | - | (holes 33-44 not drilled), no bedrock in any hole, deepest hole 150', mostly unfrozen sand and gravel) |
| 57 | 100 | 30 | (holes 52-56 not drilled)<br>traces arsenopyrite in bedrocks |
| 58 | 130 | 30 | nothing of interest in pannings. |
| 59 | 70 | 25 | sphalerite in pannings from 25'-35' - may be bedrock float train. |
| 60 | 170 | 75 | "in pyrite, sphalerite vein from 125' - 170' |
| 61 | 170 | 70 | sphalerite from 75' - 80' (may be float)- remainder of hole barren. |
| 62 | 85 | 40 | nothing of interest in pannings |
| 78 | 199 | 85 | (holes 63-77 drilled but not yet logged)<br>in pyrite, sphalerite vein with trace galena 100' to end of hole. |
| 79 | 160 | 40 | higher than average content of pyrite and sphalerite throughout hole - possible vein zone. |
| 80 | 110 | 75 | nothing of interest. |
| 81 | 90 | 35 | nothing of interest. |
| 82 | 120 | 20 | nothing of interest. |

| HOLE NO. | DEPTH | APPROXIMATE DEPTH OF OVERBURDEN | COMMENTS |
|---|---|---|---|
| 83 | 180 | 50 | traces sphalerite and some arsenopyrite in till. of interest in bedrock. |
| 84 | 105 | 25 | nothing of interest. |
| 85 | 175 | 50 | pyrite, sphalerite vein 65' - 175' - only traces galena |
| 86 | 140 | 35 | possible vein 80' - 140' - generally traces of shpalerite throughout. |
| 87 | 150 | 45 | traces sphalerite and arsenopyrite throughout entire hole. |
| 88 | 160 | 55 | traces sphalerite from 60' - 85' |
| 89 | 140 | 55 | possible vein with pyrite and sphalerite from 55'-100' |
| 90 | 120 | 35 | vein with pyrite, sphalerite, traces galena from 35'-120' |
| 91 | 115 | 85 | traces sphalerite and galena near bedrock - nothing of interest in bedrock. |
| 92 | 170 | 75 | traces sphalerite and galena in till near bedrock - traces sphalerite, arsenopyrite, magnetit in bedrock from 75' -150' |
| 93 | 125 | 60 | high magnetit content in bedrock 110'-125' (this is a real mystery) |
| 94 | 90 | 35 | nothing of interest |
| 95 | 60 | 30 | high arsenopyrite content in bedrock. |
| 96 | 90 | 30 | trace galena in till at 30' . High arsenopyrie, trace sphalerite throughout bedrock. |

| | | | |
|---|---|---|---|
| 97 | 155 | 40 | traces sphalerite, arsenopyrite in lower part of till, possible sphalerite, pyrite vein with traces galena throughout hole. |
| 98 | 145 | 35 | traces sphalerite, galena throughout hole. |
| 99 | 100 | 30 | nothing of interest. |
| 100 | 100 | 50 | traces sphalerite, galena 30'-40' - could be float vein. |
| 101 | 110 | 50 | weak traces sphalerite throughout bedrock. |
| 102 | 155 | 65 | weak traces sphalerite 65'-90' |
| 103 | 155 | 45 | traces sphalerite and galena 45'- 110' |
| 104 | 160 | 55 | high sphalerite 55'-60' (might be float vein), traces sphalerite throughout bedrock, high arsenopyrite 150'-160' |
| 105 | 60 | 35 | nothing of interest |
| 106 | 100 | 30 | traces sphalerite 35'-50' traces arsenopyrite 70'-100' |
| 107 | 100 | 35 | nothing of interest. |
| 108 | 100 | 45 | weak traces sphalerite throughout bedrock. |
| 109 | 160 | 60 | traces sphalerite 60'-65 high arsenopyrite 110'-140' |

| HOLE NO. | DEPTH | APPROXIMATE DEPTH OF OVERBURDEN | COMMENTS |
|---|---|---|---|
| 110 | 170 | 55 | trace galena at bedrock contact - nothing of interest in bedrock. |
| 111 | 90 | 35 | high arsenopyrite 65'- 70' - very hard quartzite. |
| 112 | 70 | 30 | weak traces sphalerite in bedrock - very hard quartzite. |
| 113 | 40 | 25 | weak traces sphalerite in bedrock - very hard. |
| 114 | 30 | 25 | very hard, unable to penetrate bedrock without breaking rods. |
| 115 | 40 | 30 | nothing of interest, very hard ground. |
| 116 | 100 | 45 | high arsenopyrite throughout. |
| 117 | 35 | - | no bedrock, lost drill steel in hole. |
| 118 | 30 | 25 | nothing of interest - hard ground. |
| 119 | 110 | 25 | traces sphalerite 25' - 80' |
| 120 | 120 | 55 | fairly high arsenopyrite |
| 121 | 120 | 50 | occasional traces sphalerite in bedrock. |
| 122 | 120 | 40 | high arsenopyrite in bedrock. |
| 123 | 70 | 40 | traces sphalerite, arsenopyrite, galena in till 25'-30'. High arsenopyrite with traces sphalerite in bedrock. |
| 124 | 95 | 40 | possible vein with arsenopyrite, fairly high sphalerite 65' - 80' high arsenopyrite in bedrock. |

| HOLE NO. | DEPTH | APPROXIMATE DEPTH OF OVERBURDEN | COMMENTS |
|---|---|---|---|
| 125 | 90 | 45 | high sphalerite plus trace galena at 45' (float). Very high arsenopyrite throughout bedrock. |
| 126 | 90 | 35 | trace galena at 35' (float) - nothing of interest in bedrock. |
| 127 | 130 | 70 | nothing of interest. |
| 128 | 140 | 45 | very high arsenopyrite 115' - 140' |



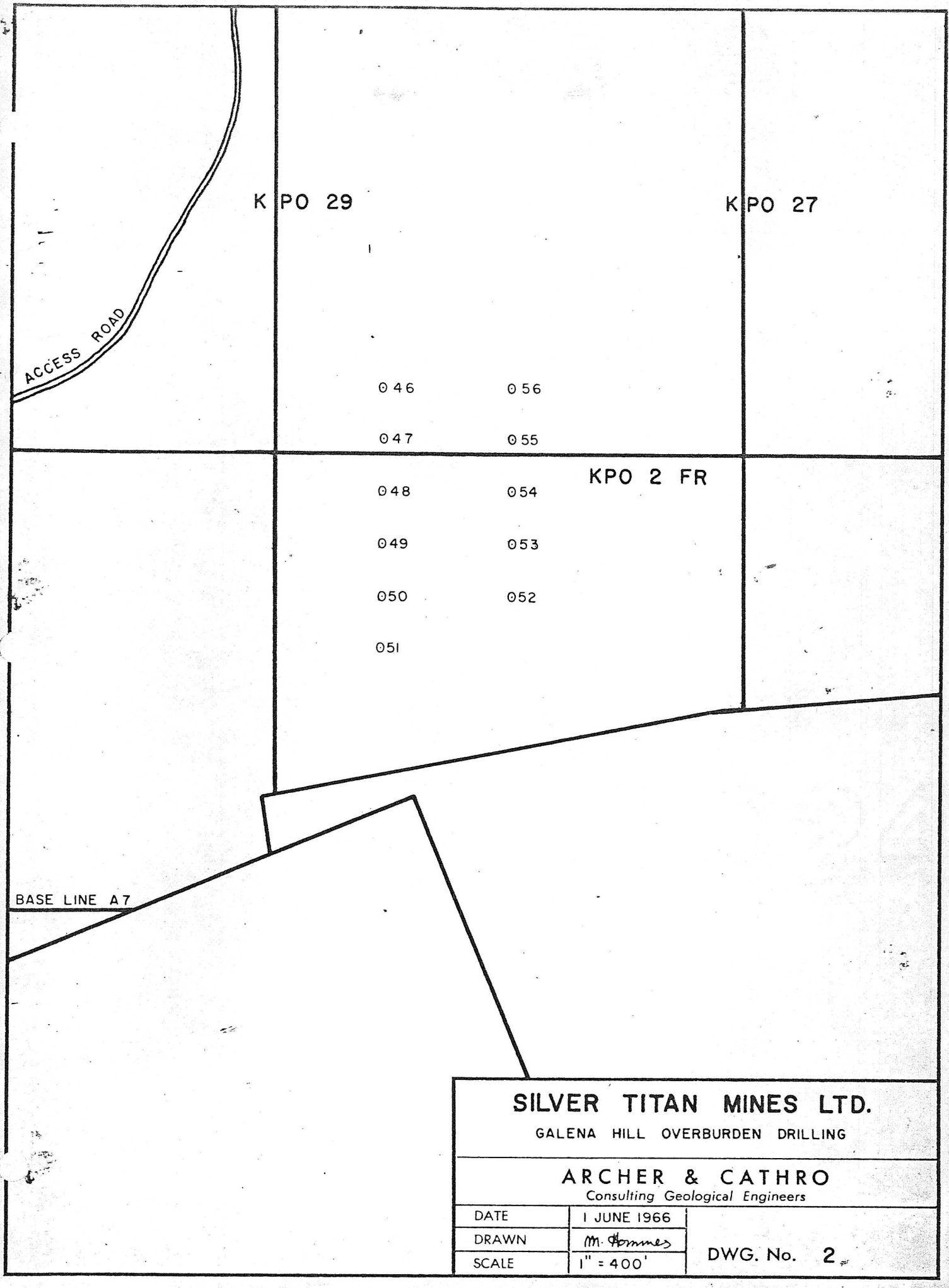

# SILVER TITAN MINES LTD.

GALENA HILL OVERBURDEN DRILLING

ARCHER & CATHRO

*Consulting Geological Engineers*

| | | |
|---|---|---|
| DATE | 1 JUNE 1966 | DWG. No. 1. |
| DRAWN | M. Hommes | |
| SCALE | 1" = 400' | |




# SILVER TITAN MINES LTD.

GALENA HILL OVERBURDEN DRILLING

ARCHER & CATHRO

*Consulting Geological Engineers*

| | |
|---|---|
| DATE | 1 JUNE 1966 |
| DRAWN | M. Hommes |
| SCALE | 1" = 400' |

DWG. No. 2

KPO 3

KPO 1

LEO 1

U.K.H.M.

LEO 3

BASE LINE #2

AREA #3

KPO 4

BASE LINE "A"

NOT CUT

NOT CUT

NOT CUT

NOT CUT

BASE LINE #1

LEO 2

U.K.H.M.

KPO 2

KPO FR

LEO FR

TRENCH

GERLITZKI VEIN

## LEGEND

- POSSIBLE VEIN
- HIGH SPALERITE
- HIGH GALENA
- HIGH ARSENOPYRITE

# SILVER TITAN MINES LTD.

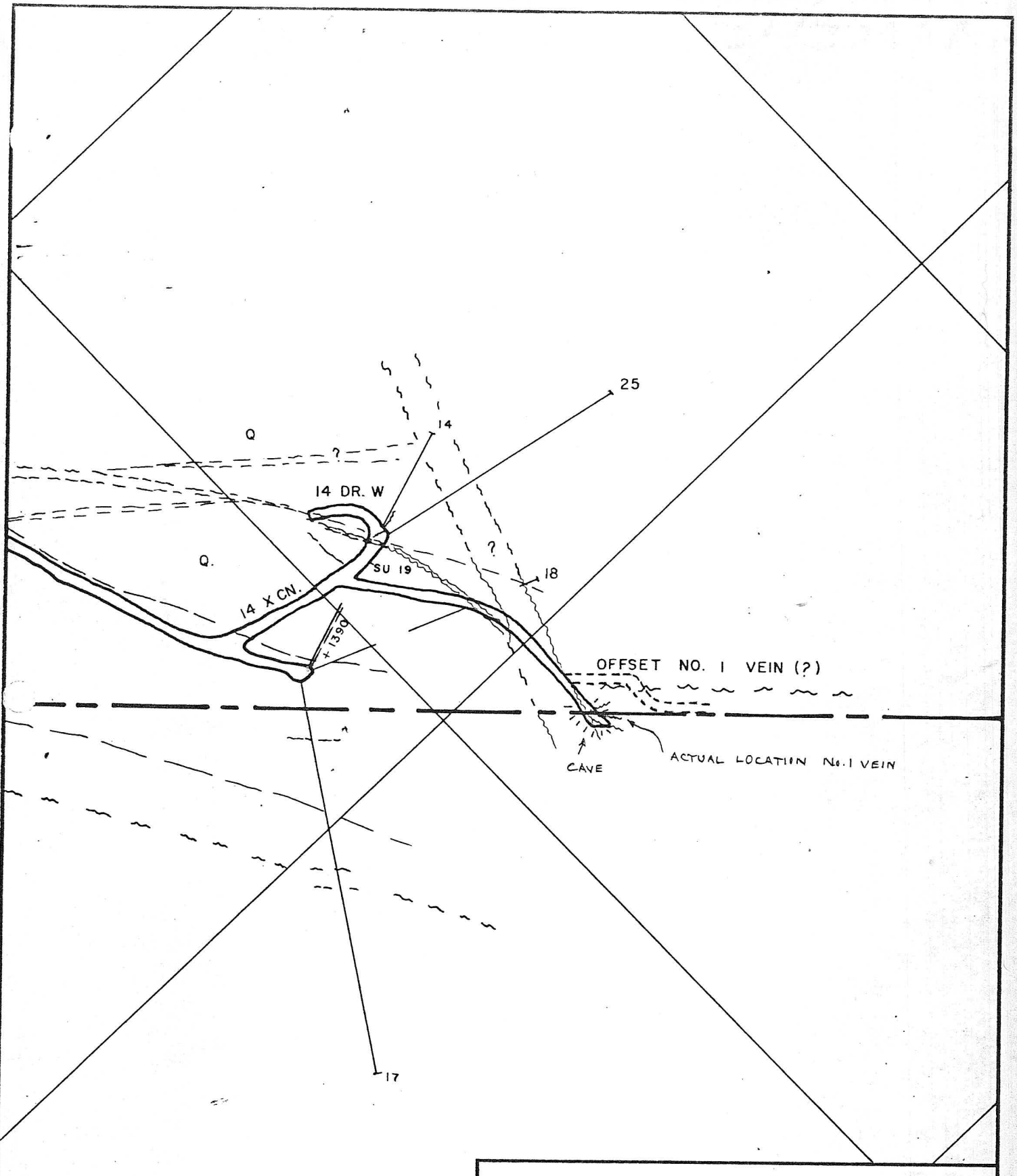
GALENA HILL OVERBURDEN DRILLING

ARCHER & CATHRO

*Consulting Geological Engineers*

| | |
|---|---|
| DATE | 1 JUNE 1966 |
| DRAWN | M. Hommes |
| SCALE | 1" = 400' |

DWG. No. 3




# SILVER TITAN MINES LTD.

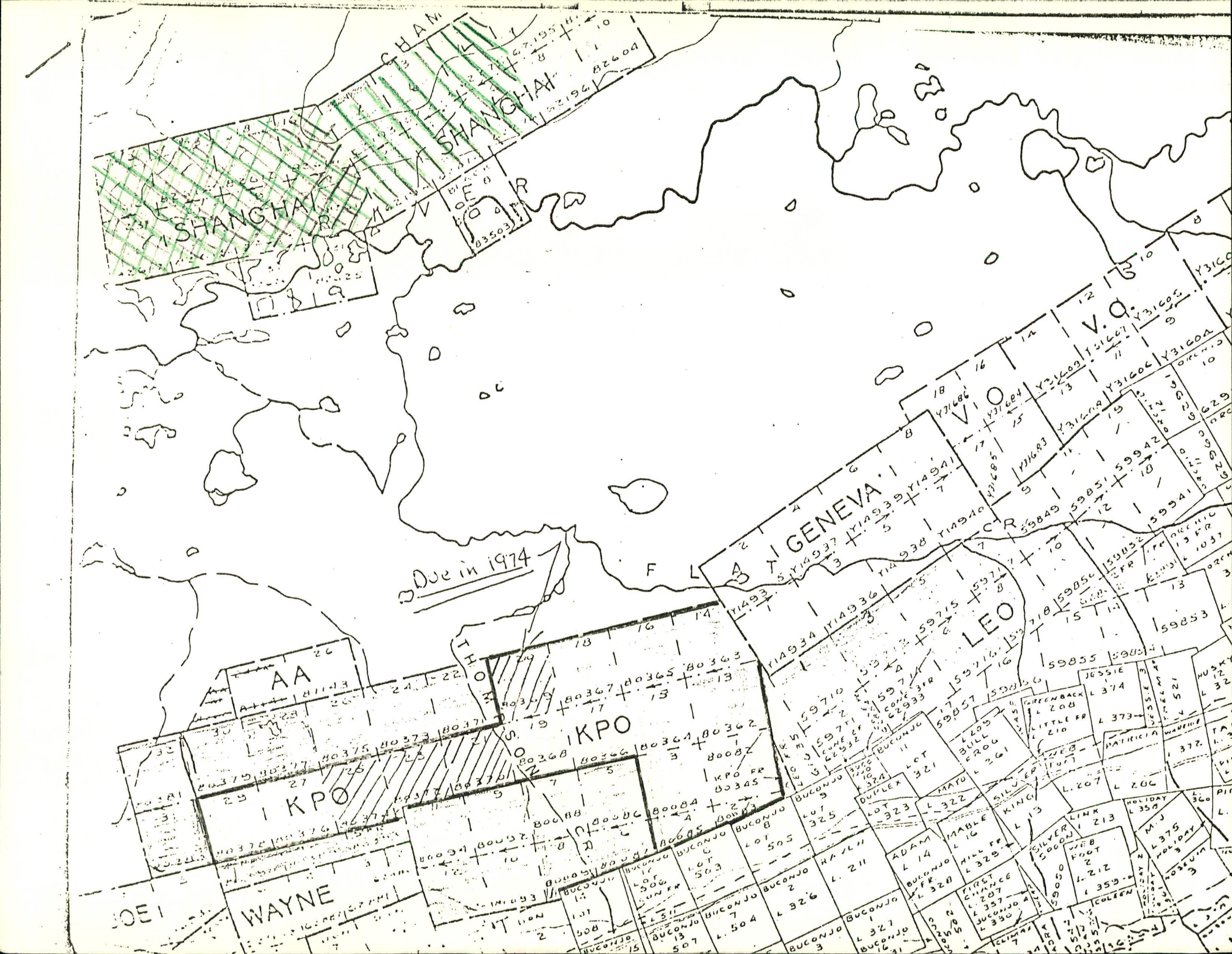
SHANGHAI 14 DR. E.

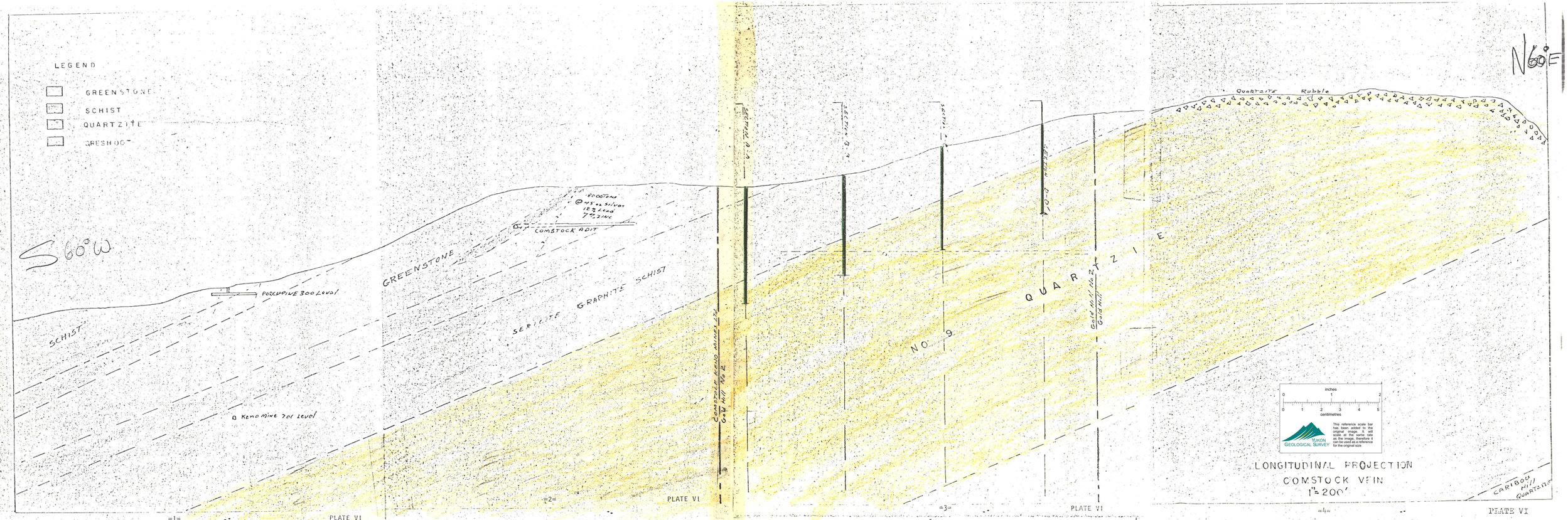
ARCHER & CATHRO

*Consulting Geological Engineers*

| | |
|---|---|
| DATE | 1 JUNE 1966 |
| DRAWN | M. Hommes |
| SCALE | 1" = 100' |

DWG. No. 4


SHANGHAI
SHANGHAI
SHANGHAI
Due in 1974
GENEVA
VIO
V.Q.
LEO
KPO
KPO
AA
WAYNE
JOE


LEGEND
GREENSTONE
SCHIST
QUARTZITE
BRECCIA
S 60° W
N 60° E
SCHIST
GREENSTONE
SERICITE GRAPHITE SCHIST
PORCUPINE 300 Level
Keno mine 701 Level
COMSTOCK ADIT
BOULDERS
Quartzite Rubble
SECTION A-A
SECTION B-B
SECTION C-C
70-0 RAISE
COMSTOCK GOLD HILL No 2
Gold Hill No 2
NO 9
QUARTZITE
CARIBOU HILL QUARTZITE
inches
centimetres
This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.
YUKON GEOLOGICAL SURVEY
LONGITUDINAL PROJECTION
COMSTOCK VEIN
1" = 200'
=1= -- PLATE VI
=2= -- PLATE VI
=3= -- PLATE VI
=4= -- PLATE VI

(of 4 pages)