

DRILL HOLE LOG - ARN PROPERTY

HOLE : ARN-4

DRILL DATES : JULY 19-20/02

NORTHING : _____

CORE DIAMETER: HQ 59.13 m

EASTING : _____

NQ Ø

ELEVATION : _____

BQ Ø

AZIMUTH : 010°

TOTAL DEPTH : 59.13 m (194')

CASING DEPTH : 7.92 m

DIP : -55°

CASING STATUS: IN OUT

DOWNHOLE SURVEYS :

LOGGED BY : D. EATON

| DEPTH | AZIMUTH | DIP |
|---------|---------|------|
| 59.13 m | NA | -55° |

RQD BY : J. LEDREW

SPLIT BY : S. EATON / J. LEDREW

DRILL HOLE LOG - ARN PROPERTY

ARNA page 2 of 3

| RQD | RQD (%) | VISUAL | | | DESCRIPTION | FROM (m) | TO (m) | INTERVAL (m) | RECOVERY | | SAMPLE NUMBER | ASSAYS | |
|------|---------|--------|-------|-------|---|----------|--------|--------------|----------|-----|---------------|--------|-------|
| | | ROCKS | STRUC | (m) | | | | | (m) | (%) | | Ag % | Cu % |
| | | | | | LITHOLOGY ALTERATION MINERALIZATION Mg Ps Py Cp Li Cs | | | | | | | | PPM |
| | | | | | OVERBURDEN & PAD MATERIAL | | | | | | | | |
| | | | | 3.66 | | | | | | | | | |
| 0.00 | 0 | | | 4 | LIMESTONE SKARN - M MIXED W W T | | | | 0.44 | 86 | | | |
| 0.00 | 0 | | | | moderately epidote > garnet skarnification of limestone. light pale green colour. uniform fine grained texture. | 3.66 | 5.33 | 1.67 | 0.25 | 51 | M011152 | 0.16 | 576 |
| 0.00 | 0 | | | 5.33 | FAULT ZONE CLAY UNKNOWN | | | | 0.18 | 51 | | | |
| 0.00 | 0 | | | | No recovery. Drillers report swelling clay followed by flowing sand. Similar material observed while building drill site - green clay and yellow - pink sandy material. | | | | 0.00 | 0 | | | |
| 0.00 | 0 | | | 7.32 | LIMESTONE SKARN - M MIXED W W T | | | | 0.16 | 53 | | | |
| 0.00 | 0 | | | 8 | as above fault. Contact angles not preserved. | 7.32 | 8.38 | 1.06 | 0.17 | 50 | M011153 | 0.28 | 228 |
| 0.00 | 0 | | | 8.38 | SKARN SKARN - S MIXED S M S S | 8.38 | 8.84 | 0.46 | 0.16 | 55 | M011154 | 239.00 | 1.74% |
| 0.25 | 33 | | | | original rock type totally obliterated by skarnification. Rock strongly limonitic with 5 to 20 mm patches of chalcantite and minor malachite. Original rock sulphides surrounding chloritized rock fragments. Actinolite rich patches. | 8.84 | 9.60 | 0.76 | 0.64 | 84 | M011155 | 15.47 | 1.31% |
| 0.16 | 21 | | | 10.36 | LIMESTONE SKARN - M-S MIXED W W W | 9.60 | 10.36 | 0.76 | 0.38 | 50 | M011156 | 6.26 | 6710 |
| 0.26 | 17 | | | | chlorite with garnet crystals to 4mm grading to massive garnet > epidote. Some black actinolite rich patches in the strongly skarnified sections. | 10.36 | 11.89 | 1.53 | 1.29 | 84 | M011157 | 0.47 | 347 |
| 0.00 | 0 | | | 12 | | | | | | | | | |
| 0.00 | 0 | | | | VOLCANIC SKARN W MIXED T W | | | | 1.06 | 81 | M011158 | 0.11 | 115 |
| 0.00 | 0 | | | | strongly broken, fine grained, light green volcanics. One 10cm fragment is intensely veined with sheeted talcite veins up to 6mm thick. | 11.89 | 13.11 | 1.22 | 0.27 | 44 | | | |
| 0.00 | 0 | | | | | | | | 0.27 | 22 | M011159 | 0.03 | 110 |
| 0.00 | 0 | | | | LIMESTONE SKARN - M-S MIXED M W M | | | | 0.17 | 57 | | | |
| 0.00 | 0 | | | | epidote-chlorite grades to garnet - epidote - actinolite. Sulphides rich in actinolite. rich sections. Strongest sulphide concentration 17.1 - 17.5m. | | | | 0.45 | 98 | | | |
| 0.34 | 25 | | | 16 | | 14.94 | 17.60 | 2.66 | 1.20 | 88 | M011160 | 7.33 | 1315 |
| 0.85 | 56 | | | 17.60 | VOLCANIC SKARN W-M MIXED T W | | | | 1.29 | 35 | | | |
| 0.61 | 66 | | | | Pale to medium green groundmass with abundant plagioclase phenocrysts and occasional hornblende. First 80cm garnet rich after that mostly weak epidote cut by 1 to 4 mm garnet selvages along early fractures that are cut by a network of 1 to 15cm calcite veins. | 17.60 | 21.05 | 3.45 | 0.92 | 100 | M011161 | 1.14 | 78 |
| 1.04 | 68 | | | 20 | 20.1 - 20.45 strongly epidote - actinolite altered limestone band with 60° contacts. | | | | 1.47 | 97 | | | |
| 0.71 | 46 | | | | | | | | 1.46 | 95 | | | |
| 0.70 | 48 | | | | | 21.05 | 24.08 | 3.03 | 1.27 | 86 | M011162 | 6.02 | 86 |
| 0.00 | 0 | | | | | | | | 0.36 | 54 | | | |
| 0.10 | 11 | | | 24 | 25.45 - 26.0 strongly garnet - epidote altered limestone with 30° contacts. | 24.08 | 27.13 | 3.05 | 0.87 | 96 | M011163 | 0.02 | 218 |
| 0.36 | 24 | | | | | | | | 1.41 | 92 | | | |
| 0.16 | 13 | | | | | | | | 1.10 | 90 | | | |
| 0.51 | 56 | | | 28 | | 27.13 | 30.78 | 3.65 | 0.97 | 96 | M011164 | 0.04 | 106 |
| 0.79 | 52 | | | 28.35 | SKARN - W MIXED T T | | | | 1.43 | 94 | | | |
| 0.43 | 47 | | | | SKARN weakens. No garnet on fractures - epidote only. | | | | 0.42 | 100 | M011165 | 0.04 | 105 |
| 0.71 | 47 | | | 32 | | 30.78 | 33.80 | 3.02 | 1.34 | 68 | | | |

S = strong M = malachite W = weak T = trace

Mg = magnetite Ps = pyrrhotite Py = pyrite Cp = chalcopyrite Li = limonite Cs = secondary copper minerals

DRILL HOLE LOG - ARN PROPERTY

ARN 4 page 3 of 3

| RQD | RQD (%) | VISUAL | | | DESCRIPTION | FROM (m) | TO (m) | INTERVAL (m) | RECOVERY | | SAMPLE NUMBER | ASSAYS | |
|------|---------|--------|-------|-------|---|----------|--------|--------------|----------|-----|---------------|--------|-------|
| | | ROCKS | STRUC | (m) | | | | | (m) | (%) | | Ag % | Cu % |
| | | | | | LITHOLOGY ALTERATION MINERALIZATION Mg Ps Py Cp Li Cs | | | | | | | | ppm |
| 0.71 | 47 | V | | 31 | | 20.78 | 33.80 | 3.02 | 134 | 88 | MO11165 | 0.04 | 105 |
| 0.55 | 36 | V | | 33.80 | LIMESTONE SKARN-M SULPHIDE S W | 33.80 | 34.74 | 0.94 | 1.43 | 93 | MO11166 | 0.28 | 221 |
| 0.16 | 10 | V | | 34.74 | VOLCANIC-LIMESTONE SKARN-W-M SULPHIDE W W | | | | | | | | |
| 0.51 | 33 | V | | 36 | pink green porphyritic volcanic with hornblende phenocrysts and abundant hairline to 2cm calcite veins. Numerous skarn and limestone bands. Most skarn is garnet-epidote with low sulphides. | 34.74 | 37.80 | 3.06 | 1.44 | 98 | MO11167 | 0.06 | 58 |
| 0.54 | 34 | V | | | | | | | 1.45 | 95 | | | |
| 0.84 | 58 | V | | 40 | 40.10-40.35 garnet-epidote-chlorite with coarse blks of chalcopyrite and pyrite. | 37.80 | 40.10 | 2.30 | 1.44 | 95 | MO11168 | 0.06 | 41 |
| 1.07 | 70 | V | | 40.70 | SKARN SKARN-S SULPHIDE S S | 40.10 | 40.70 | 0.60 | 1.52 | 100 | MO11169 | 0.16 | 6770 |
| 0.37 | 24 | V | | 42.12 | heavily disseminated to semi-massive sulphide in chlorite-calcite-garnet skarn. Sulphides crudely banded at 45. Section more chalcopyrite rich at top and pyrite rich at base. | 40.70 | 42.12 | 1.42 | 1.93 | 100 | MO11170 | 1.30 | 1.50% |
| 0.84 | 55 | V | | 43.20 | LIMESTONE SKARN-M SULPHIDE S W | 42.12 | 43.20 | 1.08 | 1.44 | 95 | MO11171 | 0.18 | 953 |
| 0.72 | 47 | V | | 44 | chalcite skarn with coarse blks of heavily disseminated sulphide. magnetite rich bands flank a 65cm relatively fresh limestone core exhibiting only weak garnet bands. Pyrite occur with chlorite near the magnetite aggregates. | 43.20 | 45.60 | 2.40 | 1.47 | 96 | MO11172 | 1.07 | 474 |
| 1.14 | 75 | V | | 46.65 | Semi-massive pyrite occurs in strongly chloritized rock. SKARN-S SULPHIDE S W | 45.60 | 46.65 | 1.05 | 1.49 | 98 | MO11173 | 1.31 | 1980 |
| 1.00 | 65 | V | | 48 | Section includes chlorite-garnet and garnet rich bands in the top part grading to magnetite-chlorite and finally chlorite with heavy disseminations of chalcopyrite and pyrite in the final 3cm. SKARN-W-M SULPHIDE M W W | 46.65 | 48.90 | 2.25 | 1.52 | 100 | MO11174 | 0.10 | 735 |
| 0.12 | 11 | V | | 48.90 | VOLCANIC SKARN-W SULPHIDE T | 48.90 | 50.10 | 1.20 | 1.45 | 95 | MO11175 | 0.09 | 156 |
| 0.81 | 53 | V | | 50.10 | fine grained light green with small hornblende phenocrysts. Exhibits weak epidote-garnet alteration throughout in the lower half. SKARN-M SULPHIDE W M W | | | | 1.03 | 97 | | | |
| 1.08 | 71 | V | | 52 | moderate epidote-garnet alteration throughout section. At 51-05 blebs of magnetite up to 1cm across. Numerous drusy cavities with epidote crystals growing into them. Most about 1cm by 0.5cm by 0.5cm with less than 1mm crystals. | 50.10 | 54.50 | 3.90 | 1.49 | 97 | MO11176 | 0.02 | 127 |
| 0.49 | 36 | V | | 54.50 | light grey-green with minor hornblende phenocrysts. Fine grained with very weak epidote. SKARN-VW SULPHIDE W T | | | | 1.44 | 95 | | | |
| 0.15 | 24 | V | | 56 | | 54.50 | 57.80 | 3.30 | 1.31 | 96 | MO11177 | <0.01 | 155 |
| 0.82 | 54 | V | | 57.80 | LIMESTONE SKARN-S SULPHIDE T W | | | | 0.60 | 98 | | | |
| 0.00 | 0 | V | | | pervasive garnet-epidote-chlorite with patchy actinolite, chalcopyrite with garnet | 57.80 | 59.13 | 1.33 | 1.01 | 94 | MO11178 | <0.01 | 166 |
| | | | | | | | | | 1.52 | 100 | | | |
| | | | | | | | | | 0.43 | 93 | | | |
| | | | | | EOH 59.13m | | | | | | | | |

S = strong M = moderate W = weak T = trace

Mg = magnetite Ps = pyrrhotite Py = pyrite Cp = chalcopyrite Li = limonite Cs = secondary copper minerals