

ORA EXPLORATION PTY. LIMITED
 DRILL-HOLE SUMMARY LOG

304140

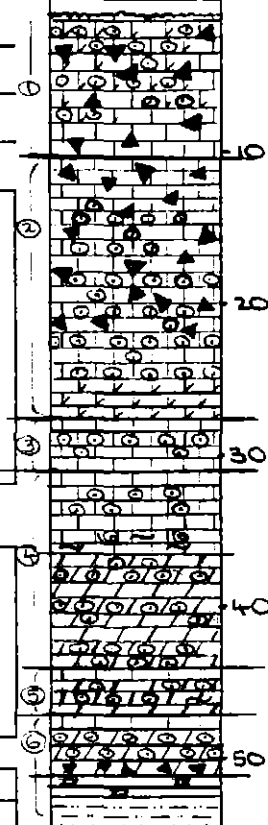
Graphic Log

HOLE NAME: DD96SW4 AMG EAST 275723.00E NORTH 5324094.00N
 PROSPECT Swift Creek GRD EAST 5250 NORTH 10800
 RL: Swift Creek EL64/94 RL DEPTH 64.5m

DATE DRILLED: 13/4/96 - 15/4/96
 LOGGED BY: Sandy Meapes
 DRILLING CO.: All Terrain Expl
 DRILL TYPE: BQTK Diamond
 DRILL RIG: Gopher
 LOC DRILL CORE: Zeehan Shed

SURVEYS:

| DEPTH | AZIM (AMG) | DIP | DEPTH | AZIM (AMG) | DIP |
|-------|------------|-----|-------|------------|-----|
| 0 | 106° | 50° | | | |
| 20m | 108° | 48° | | | |
| 56m | 109° | 47° | | | |



OBJECTIVES OF HOLE:
 To test Gordon Group sequence along strike from wacker samples that returned 0.37% Pb, sphalerite nugget and 0.15% Pb. Predicted intersections 16m, 25m and 44m respectively

LITHOLOGICAL SUMMARY:

| FROM | TO | FORM CODE | COMMENTS |
|------|------|-----------|--|
| 0 | 1 | C | Soil |
| 1 | 27.5 | Ogul | 2 x "PAC's" (Punctuated, aggradational cycles). Brecciated, rubble to 22.7m |
| 27.5 | 49.5 | Ogul | 4 x "PAC's". Minor thin "greisen" veins in coarse grained dolarenite 36.5-44.1m. |
| 49.5 | 54.5 | | Clastic unit: Carbonaceous mudstone, siliceous siltstone and quartzite |

* PACs should be thinner. Several truncated PACs probably missed by logger.

MINERALISATION SUMMARY:

| FROM | TO | COMMENTS |
|------|------|---|
| 12.2 | 13.7 | 0.12% Pb in laminated, mottled, light grey micrite. Same unit as returned |
| | | 0.37% Pb in wacker sample |

CONCLUSIONS:
 • Mineralisation intersected in wacker hole at 5270 E (0.37% Pb) is very narrow and low grade
 • Mineralisation intersected in wacker holes at 5275 E and 5295 E has very limited extent (not intersected in this hole)

▼ Breccia
 ○ Calc/dol
 ~ Biol/baker
 ⊙ Fossils
 II Limestone
 ZZ Dolomite
 --- Siltstone
 ... Quartzite

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

Local
 5750E 10800N
 CO-ORDINATES 575.728 mE. AZIMUTH 094° Mag. DRILLERS A.T.E. COMMENCED 13/4/96 DEPTH 5.4 5m HOLE No. DD96SW4
 RL COLLAR 582.094 m INCLINATION 50° DRILL TYPE Geopet COMPLETED 15/4/96 CASING LEFT steel casing DPO No(s) 82163

| Depth | | Core Rec % | Rock Quality | Form Code | CORE DESCRIPTION | SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization | Sample No. | Dfrom (m) | Dto (m) | MagSus | | Recovery | | | | | |
|----------|--------|------------|--------------|-----------|---|---|------------|-----------|---------|--------|-------|----------|--------|---------|---------|-------|-----|
| From (m) | To (m) | | | | | | | | | Depth | Value | From (M) | To (M) | Cut (M) | Rec (M) | Rec % | |
| 0 | 1 | | | C | COVER | | | | | | | 0 | 1.7 | 1.7 | 0.3 | 18 | |
| | | | | | Soil, tree roots etc | | | | | | | 0.5 | 1.7 | 3.2 | 1.5 | 1.3 | 87 |
| | | | | | | | | | | | | 1.0 | 3.2 | 4.7 | 1.5 | 0.8 | 53 |
| 1 | 27.5 | | | Ox Qz | CARBONATE BRECCIA (2 x "PAC's") | | | | | | | 1.5 | 4.7 | 6.2 | 1.5 | 1.4 | 93 |
| | | | | | | | | | | | | 2.0 | 6.2 | 7.7 | 1.5 | 1.5 | 100 |
| | | | | | | | | | | | | 2.5 | 7.7 | 9.2 | 1.6 | 1.4 | 93 |
| | | | | | ① 1-10.4m (Truncated) | Sulphidic stylolites and fractures | 537 | 1.7 | 3.2 | 3.0 | 1 | 9.2 | 10.7 | 1.5 | 1.5 | 100 | |
| | | | | | Very fine grained calcarenite with disrupted beds and laminae of argillaceous lime mudstone. | | 538 | 3.2 | 4.7 | 3.5 | 0 | 10.7 | 12.2 | 1.5 | 1.35 | 90 | |
| | | | | | Overlain by fine to coarse grained, variably dolomitic calcarenite and dolarenite | | 534 | 4.7 | 6.2 | 4.0 | CL | 12.2 | 13.7 | 1.5 | 1.65 | 110 | |
| | | | | | | | 535 | 6.2 | 7.7 | 4.5 | 0 | 13.7 | 15.2 | 1.5 | 1.2 | 80 | |
| | | | | | | | 536 | 7.7 | 9.2 | 5.0 | 2 | 15.2 | 16.7 | 1.5 | 1.5 | 100 | |
| | | | | | | | 537 | 9.2 | 10.7 | 5.5 | 1 | 16.7 | 18.2 | 1.5 | 1.5 | 100 | |
| | | | | | | | | | | | | 6.0 | 18.2 | 19.7 | 1.5 | 1.5 | 100 |
| | | | | | | | | | | | | 6.5 | 19.7 | 21.2 | 1.5 | 1.5 | 100 |
| | | | | | ② 10.4-27.5m | | | | | | | 7.0 | 21.2 | 22.7 | 1.5 | 1.5 | 100 |
| | | | | | Very fine grained dolarenite with disrupted beds and laminae of argillaceous lime mudstone, overlain by the same, with interbedded medium to coarse grained calcarenite. Sequence is topped by a laminated "marbled" light grey micrite | | 538 | 10.7 | 12.2 | 7.5 | 1 | 22.7 | 24.2 | 1.5 | 1.45 | 97 | |
| | | | | | | | 539 | 12.2 | 13.7 | 8.0 | 1 | 24.2 | 25.7 | 1.5 | 1.5 | 100 | |
| | | | | | | | 540 | 13.7 | 15.2 | 8.5 | 0 | 25.7 | 27.2 | 1.5 | 1.5 | 77 | |
| | | | | | | | 541 | 15.2 | 16.7 | 9.0 | 0 | 27.2 | 28.7 | 1.5 | 1.2 | 80 | |
| | | | | | | | 542 | 16.7 | 18.2 | 9.5 | 0 | 28.7 | 30.2 | 1.5 | 1.4 | 93 | |
| | | | | | | | 543 | 18.2 | 19.7 | 10.0 | 0 | 30.2 | 31.7 | 1.5 | 1.5 | 100 | |
| | | | | | | | 544 | 19.7 | 21.2 | 10.5 | 1 | 31.7 | 33.2 | 1.5 | 1.5 | 100 | |
| | | | | | | | 545 | 21.2 | 22.7 | 11.0 | 2 | 33.2 | 34.7 | 1.5 | 1.5 | 100 | |
| | | | | | | | 546 | 22.7 | 24.2 | 11.5 | 0 | 34.7 | 36.2 | 1.5 | 1.3 | 100 | |
| | | | | | | | 547 | 24.2 | 25.7 | 12.0 | 0 | 36.2 | 37.7 | 1.5 | 1.5 | 100 | |
| | | | | | Very brecciated interval. core broken and rubble to 27.7m | | | | | | | 12.5 | 37.7 | 39.2 | 1.5 | 1.5 | 100 |
| | | | | | | | | | | | | 13.0 | 39.2 | 40.7 | 1.5 | 1.5 | 100 |
| | | | | | | | | | | | | 13.5 | 40.7 | 42.2 | 1.5 | 1.5 | 100 |
| | | | | | | | | | | | | 14.0 | 42.2 | 43.7 | 1.5 | 1.5 | 100 |
| | | | | | | | | | | | | 14.5 | 43.7 | 45.2 | 1.5 | 1.5 | 100 |
| | | | | | | | | | | | | 15.0 | 45.2 | 46.7 | 1.5 | 1.45 | 97 |
| | | | | | | | | | | | | 15.5 | 46.7 | 48.2 | 1.5 | 1.5 | 100 |

304141

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

Local
 5750E 10800N
 CO-ORDINATES 575128mE AZIMUTH 094° Mag DRILLERS AIE COMMENCED 13/4/96 DEPTH 54.6 m HOLE No. DD96044
 RL COLLAR 5324094mN INCLINATION 50° DRILL TYPE Gopher COMPLETED 15/4/96 CASING LEFT Steel casing to 21.5m DPO No(s) 82163

| Depth | | Core Rec % | Rock Quality | Form Code | CORE DESCRIPTION | SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization | Sample No. | Dfrom (m) | Dto (m) | MagSus | | Recovery | | | | |
|----------|--------|------------|--------------|-----------|--|--|------------|-----------|---------|--------|-------|----------|--------|---------|---------|-------|
| From (m) | To (m) | | | | | | | | | Depth | Value | From (M) | To (M) | Cut (M) | Rec (M) | Rec % |
| 27.5 | 49.6 | | | Opal | <u>SHALLOWING UPWARD SEQUENCES ("PAC'S")</u> | | | | | 16 | 0 | 48.2 | 59.7 | 1.5 | 1.5 | 100 |
| | | | | | | | | | | 16.5 | 0 | 49.7 | 51.2 | 1.5 | 1.5 | 90 |
| | | | | | ③ 27.5-30.9m | | | | | 17.0 | 0 | 51.2 | 52.7 | 1.5 | 1.5 | 100 |
| | | | | | Banded dark grey, v fn grained calcarenite and light grey lime mudstone overlain by bioclastic calcarenite (tidal channels?) in turn overlain by light grey micrite with disrupted dk grey laminae | Some pyrite replacement of fossils | | | | 17.5 | 0 | 52.7 | 54.2 | 1.5 | 1.5 | 100 |
| | | | | | | | | | | 18.0 | 0 | 54.2 | 54.5 | 0.3 | 0.3 | 100 |
| | | | | | | | | | | 18.5 | 1 | | | | | |
| | | | | | | | | | | 19.0 | 2 | | | | | |
| | | | | | | | | | | 19.5 | 4 | | | | | |
| | | | | | | | | | | 20.0 | 1 | | | | | |
| | | | | | | | | | | 20.5 | 0 | | | | | |
| | | | | | | | | | | 21.0 | 1 | | | | | |
| | | | | | ④ 30.9-36.5m | | | | | 21.5 | 1 | | | | | |
| | | | | | Bioturbated grey and dark grey lime mudstone with occasional fossiliferous horizons, overlain by grey, very fn grained calcarenite, overlain by poorly sorted bioclastic calcarenite. | | | | | 22.0 | 2 | | | | | |
| | | | | | | | | | | 22.5 | 0 | | | | | |
| | | | | | | | | | | 23.0 | 4 | | | | | |
| | | | | | | | | | | 23.5 | 6 | | | | | |
| | | | | | | | | | | 24.0 | 6 | | | | | |
| | | | | | | | | | | 24.5 | 5 | | | | | |
| | | | | | | | | | | 25.0 | 5 | | | | | |
| | | | | | | | | | | 25.5 | 5 | | | | | |
| | | | | | | | | | | 26.0 | 4 | | | | | |
| | | | | | | | | | | 26.5 | 4 | | | | | |
| | | | | | | | | | | 27.0 | 5 | | | | | |
| | | | | | | | | | | 27.5 | 7 | | | | | |
| | | | | | | | | | | 28.0 | 5 | | | | | |
| | | | | | | | | | | 28.5 | 4 | | | | | |
| | | | | | | | | | | 29.0 | 4 | | | | | |
| | | | | | 36.5-47.6m | | | | | 29.5 | 3 | | | | | |
| | | | | | Interbedded very fine grained calcarenite (with bioclastic inclusions in places - intertidal?), and medium to coarse grained, recrystallised, equigranular arenite (dolomitic) | Minor thin "grisea" veins in sparse grained calcarenite. Also minor pyrite replacement around fractures | 549 | 37.7 | 39.2 | 29.5 | 3 | | | | | |
| | | | | | | | | | | 39.7 | 5 | | | | | |
| | | | | | | | | | | 40.7 | 5 | | | | | |
| | | | | | | | | | | 42.3 | 4 | | | | | |
| | | | | | | | | | | 43.4 | 2 | | | | | |

304142

CRA EXPLORATION PTY LIMITED
 DRILL CORE LOG

Local
 CO-ORDINATES 5250E 10800N
 5250E 10800N AZIMUTH 094° Mag DRILLERS ATE COMMENCED 13/4/96 DEPTH 54.5 m HOLE No. DD96844
 RL COLLAR 5224.92m INCLINATION 50° DRILL TYPE Gopher COMPLETED 19/4/96 CASING LEFT Steel casing 45.3m DPO No(s) 82163

| Depth | | Core Rec % | Rock Quality | Form Code | CORE DESCRIPTION | SPECIAL FEATURES Weath, Alteration, Fracturing, Veining, Mineralization | Sample No. | Dfrom (m) | Dto (m) | MagSus | | Recovery | | | | | | |
|----------|--------|------------|--------------|-----------|--|---|------------|-----------|---------|--------|-------|----------|--------|---------|---------|-------|--|--|
| From (m) | To (m) | | | | | | | | | Depth | Value | From (M) | To (M) | Cut (M) | Rec (M) | Rec % | | |
| | | | | | ④ 42.6-45.6 | | 5473593 | 45.2 | 46.7 | 32.0 | 3 | 48.5 | 16 | | | | | |
| | | | | | grey lime sandstone overlain by bioturbated grey, very fine grained dolarenite and light grey medium grained, equigranular dolarenite overlain in turn by light grey micrite with darker grey laminae | | | | | 32.5 | 5 | 49.0 | 10 | | | | | |
| | | | | | | | | | | 33.0 | 5 | 49.5 | 13 | | | | | |
| | | | | | | | | | | 33.5 | 4 | 50.0 | 11 | | | | | |
| | | | | | | | | | | 34.0 | 5 | 50.5 | 14 | | | | | |
| | | | | | | | | | | 34.5 | 5 | 51.0 | 5 | | | | | |
| | | | | | | | | | | 35.0 | 5 | 51.5 | 5 | | | | | |
| | | | | | | | | | | 35.5 | 5 | 52.0 | 4 | | | | | |
| | | | | | | | | | | 36.0 | 6 | 52.5 | 1 | | | | | |
| | | | | | | | | | | 36.5 | 5 | 53.0 | 2 | | | | | |
| | | | | | ⑤ 45.6-49.6 | | 555 | 46.7 | 48.8 | 37.0 | 5 | 53.5 | 2 | | | | | |
| | | | | | grey, very fine to fine grained, variably brecciated dolarenite, overlain by light grey partially silicified, recrystallized, medium to coarse grained dolarenite (above 50.3m) overlain in turn by light grey micrite with some dark grey, argillaceous laminae and zones of birdseye fenestrae | | 556 | 48.8 | 50.2 | 37.5 | 5 | 54.0 | 2 | | | | | |
| | | | | | | | 557 | 50.2 | 51.6 | 38.0 | 11 | 54.5 | 0 | | | | | |
| | | | | | | | | | | 38.5 | 4 | 55.0 | 10 | | | | | |
| | | | | | | | | | | 39.5 | 20 | | | | | | | |
| | | | | | | | | | | 39.5 | 4 | 50.0 | 10 | | | | | |
| | | | | | | | | | | 40.5 | 16 | | | | | | | |
| | | | | | | | | | | 41.0 | 12 | | | | | | | |
| | | | | | | | | | | 41.5 | 22 | | | | | | | |
| | | | | | | | | | | 42.0 | 10 | | | | | | | |
| | | | | | | | | | | 42.5 | 5 | | | | | | | |
| | | | | | | | | | | 43.0 | 2 | | | | | | | |
| | | | | | | | | | | 43.5 | 6 | | | | | | | |
| 49.6 | 54.5 | | | | <u>CLASTIC UNIT</u> | <u>Surveys</u> | | | | 43.5 | 6 | | | | | | | |
| | | | | | Laminated, variably carbonaceous dark grey sandstone with minor carbonate cement Also more massive, grey, siliceous siltstone and quartzite | Depth: 20m 096°mag 48° 56m 097°mag 47° | 558 | 51.6 | 52.7 | 44.0 | 12 | | | | | | | |
| | | | | | | | 559 | 52.7 | 54.2 | 44.5 | 7 | | | | | | | |
| | | | | | | | | | | 45.0 | 14 | | | | | | | |
| | | | | | | | | | | 45.5 | 5 | | | | | | | |
| | | | | | | | | | | 46.0 | 8 | | | | | | | |
| | | | | | | | | | | 46.5 | 5 | | | | | | | |
| | | | | | | | | | | 47.0 | 3 | | | | | | | |
| | | | | | | | | | | 47.5 | 15 | | | | | | | |
| | | | | | | | | | | 48.0 | 11 | | | | | | | |

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