CSR LIMITED — DETAILED DRILL LOG

CSR

AREA 0 | PROJECT NUMBER 603 | DATE STARTED 30/9/80 | CO-ORDINATES N/S 7782800 | COLLAR R.L. | AREA OF INFLUENCE | HOLE NUMBER CG2

STATE TAS | LOCATION | INCLINATION -16.5° | DATE COMPLETED 6/10/80 | E/W 7076000 | DEPTH 44.0 | DRILL TYPE RAB | HOLE SIZE & ASSAY TYPE HQ TO 5.8 m, NQ TO 98.9, BQ TO 440.0

CONTRACTOR A.D.D. | DRILLER R. FRIMLEY. | A.M.G. 5367800N 367090E | LOGGED BY R.E. Williams | DATE OF LOGGING SEPT/OCT 1980

PAGE 1 OF

% CORE RECOVERY	METRES	SUMMARY DESCRIPTION	VISUAL LOG	LOG SCALE 1:	ROCK TYPE	S.G.	START DEPTH	FINISH DEPTH	SAMPLE INTERVAL m	SAMPLE NUMBER CG2-602-	TYPE	ACCEPTED ASSAY Sn	Cu	Zn	Pb	Bi	Ag	Au
1.5	2.5	0–32.0 m INTERBEDDED GREY SHALES & GREY GREEN SANDSTONES																
		0–0.3m Clay Soil					0:0.0	6:5	6:5.0	0.01	C	<5	75	440	240	45	2	145
1.5	5.0	0.3–14.8m Dominantly khaki → brown clay rich oxidised sandstones with minor narrow shale bands. Most of core is badly broken																
0.3	5.8	No sulphides																
		Bedding <5° variable - slumped shales in massive sets					6:5	12:0.0	5:5.0	0.02	C	<5	90	0.1%	180	45	3	15
1.2	7.8	14.8m Base of major weathering: more pg at 14.8m																
1.8	10.8	14.8m – 32.0m Dominantly grey khaki shales (90%) with interbedded grey and khaki green - grey sst units					12:0.0	14:8.0	2:8.0	0.03	C	<5	60	540	90	35	2	15
3.0	13.8	Shales well bedded <5° to																
		Cleavage // bedding																
3.0	16.8	Grading and plane structures give up/hole facing					14:8.0	21:3.0	6:5.0	0.04	C	<5	50	310	55	40	2	10
1.7	19.8	Pyrite mineralisation is minor (<3%); predominantly on joint and fracture surfaces.																
2.6	22.8	No significant veining																
1.6	25.8																	
2.5	28.8						21:3.0	27:0.0	5:7.0	0.05	C	<5	70	440	60	50	2	10
2.3	31.8	32.0 – 44.0m BRECCIATED SHALES & SANDSTONES																
3.0	34.8	Variable mixture of grey sst's, in part massive, in part brecciated: brecciated section in shale matrix					27:0.0	32:0.0	5:0.0	0.06	C	<5	100	400	320	40	2	20
3.0	37.8																	
1.65	39.45	No significant veining or sulphide mineralisation																
							32:0.0	38:0.0	6:0.0	0.07	C	5	70	300	360	45	2	15
1.55	40.8																	
1.85	42.8																	
1.60	46.45																	
							38:0.0	44:0.0	6:0.0	0.08	C	<5	70	330	70	50	2	10
1.35	46.8																	

8809079

CSR LIMITED DETAILED DRILL LOG

CSR

AREA: B

PROJECT NUMBER:

INCLINATION:

AZIMUTH T/M/GRID:

STATE: LOCATION:

DATE STARTED:

DATE COMPLETED:

CONTRACTOR:

DRILLER:

AMG CO-ORDINATES N/: 5367800

E/: 367090

COLLAR R.L.:

DEPTH:

LOGGED BY: R.E.Williams.

DATE OF LOGGING:

AREA OF INFLUENCE:

DRILL TYPE:

HOLE NUMBER:

2.

PAGE ___ OF ___

HOLE SIZE & ASSAY TYPE: ___ TO ___

C = Chip

% CORE RECOVERY	METRES	SUMMARY DESCRIPTION	VISUAL LOG	ROCK TYPE	S.G.	START DEPTH	FINISH DEPTH	SAMPLE INTERVAL	SAMPLE NUMBER 663-602-	TYPE	Sn	Cu	Zn	Pb	Bi	Ag	Au
1.10	49.15	44.0 – 59.5 m DOMINANTLY INTERBEDDED GREY (70%)															
		SHALES & SANDSTONES (25%)				44.00	50.00	6.00	0.9	C	15	69	340	110	35	2	15
1.50	49.80																
		Mnr black shale bands (5%)															
1.20	51.70	Bedding // cleavage < 70°															
		Ssts massive & fmg															
1.20	52.80	Mnr black shales bands are weakly pyritic				50.00	55.00		1.0	C	45	70	300	60	30	3	5
		(< 3%)															
2.50	55.80	Grey shales well banded, facings are uphole															
0.60	56.60	Mnr grey shale clasts in sst units															
0.60	57.50	No significant veining or sulphides															
1.40	58.80	@ 57.5 m mnr (10 cm?) rubble of qtz-cb vein				55.00	59.50		1.1	C	<5	75	300	40	35	5	5
2.10	60.90	59.5 – 67.9 m MASSIVE FG-FMG GREY SANDSTONE WITH MNR															
0.90	61.80	GREY SHALE BANDS															
2.50	63.95	No significant veining or sulphides															
0.85	64.8	67.9 – 78.6 m DOMINANTLY GREY TO BLACK SILICEOUS				59.50	64.00		1.2	C	5	70	260	35	20	1	3
1.50	65.9	SHALES (60%) WITH INTERBEDDED FMG.															
1.90	67.8	GREY SSTS (40%)															
3.0	70.8																
3.0	73.8	Shales massive with locally cleavage (~70° CA) only															
2.35	76.15	in black clay rich bands				64.00	67.80		1.3	C	5	60	240	40	25	2	3
0.65	76.8																
3.0	79.8	Weak (~1mm) qtz-cb veining except at															
		75.20 m – 2 x 10 mm cb veins				67.80	74.50		1.4	C	45	69	230	125	50	2	10
3.0	82.8	Veining < variable															
		Banding (// cleavage) < 55-60°															
2.4	85.2																
0.6	85.8	78.6 – 83.60 m MASSIVE FMG GREY SANDSTONE, MNR GREY				74.50	78.60		1.5	C	5	65	185	40	40	2	10
		SHALE BANDS															
1.4	87.2	Bedding variable < 45-60°															
		Grading ⇒ uphole facing				78.60	83.60		1.6	C	<5	125	170	40	40	2	5
1.6	88.8	No sulphides															
		V. rare qtz-cb veining															
						83.60	87.94		1.7	C	45	59	379	130	39	1	10
		83.60 – 88.94 m INTERBEDDED GREY SHALES (60%) & GREY															
		SANDSTONES (40%)															
		Grading ⇒ uphole facing															
		Cleavage (weak) // bedding < 45°- 60°				87.94	88.94		1.8	S	15	290	110	70	45	1	5
		Weak qtz-cb veining															
		Nil sulphides															

080680

CSR LIMITED — DETAILED DRILL LOG

AREA 0 | PROJECT NUMBER | STATE | LOCATION | INCLINATION | AZIMUTH T/M/GRID

DATE STARTED | DATE COMPLETED | CONTRACTOR | DRILLER

CO-ORDINATES N/S | E/W | COLLAR R.L. | DEPTH | AREA OF INFLUENCE | DRILL TYPE F30

HOLE NUMBER CG2

LOGGED BY R.E.N. | DATE OF LOGGING SEPT/OCT 1990

PAGE ___ OF ___ | HOLE SIZE ___ TO ___ | & ___ TO ___ | ASSAY TYPE ___ TO ___

3.

% CORE RECOVERY	METRES	SUMMARY DESCRIPTION	VISUAL LOG	LOG SCALE	ROCK TYPE	S.G.	START DEPTH	FINISH DEPTH	SAMPLE INTERVAL	SAMPLE NUMBER CG2-602-	TYPE	ACCEPTED ASSAY Sn	Cu	Zn	Pb	Bi	Ag	Au
3.0	91.8	88.94 - 89.80m QTZ-CB-SULPHIDE COMPOSITE VEIN																
		WITH INCLUDED FRAGMENTS OF GREY					88:94	89:80		1,9	S	115	520	5.4%	4.76%	70	124	55
		SST - HOST ROCK					89:80	90:80		20	S	45	30	9.42%	420	60	3	20
3.0	94.8	Veining mainly cb (siderite), banding ∠ 70-85°					90:80	97:00		21	C	10	75	0.16%	310	50	2	5
		Hw contact ∠ ~80°, Fw ~ ∠ 80°																
		Sulphides as diffuse aggregates; massive veins to																
3.0	97.8	10mm and as jointed veining																
		Estimated 10% gn, 5% sp																
1.1	98.9	NO CORE					97:00	103:50		22	C	45	85	1.05	55	50	2	5
		88.90 - 119.50m INTERBEDDED GREY SSTS (70%) AND																
2.1	101.0	LAMINATED GREY SHALES (30%)																
		Bedding ∠ 50-70°																
		Nil sulphides except with minor qtz-cb veins																
3.0	104.0						103:50	110:00		23	C	45	60	1.90	80	50	2	3
		Qtz-cb & cb veining weak and irregular (50%)																
		or // bedding planes (50%); only minor																
3.0	107.0	sulphides except																
		@ 90.30 3 cms composite banded qtz-cb vein																
		∠ 45°; minor (5%) sp-gn.																
3.0	110.0	@ 93.0 4 cms vein as above except ∠ 70°					110:00	115:00		24	C	45	60	1.10	45	45	2	20
		@ 93.8 5 cms vein as above ∠ 60° - appears to																
		be first stage tension gash filling with																
3.0	113.0	2nd stage of cb sulphides open space																
		veining					115:00	119:50		25	C	45	75	1.15	50	50	2	3
		@ 95.0 5 cms wide qtz-cb vein in massive																
3.0	116.0	SSTs; contact ∠ 70°, no sulphides																
		@ 103.50 irregular qtz-cb vein over 5-10 cms.																
							119:50	125:00		26	C	60	30	0.59%	290	50	3	<3
3.0	119.0	Grading & flame structures give sulph facing																
		119.50 - 125.0m FG. GREY-CREAM SANDSTONE WITH																
3.0	122.0	MINOR INTERBEDDED GREY-BLACK SHALE																
		Unit is brecciated with cream coloured cb																
2.35	124.35	veining ranging from massive cb over 15 cms																
0.40	125.0	wide to brecciated zones healed with cb																
		veining to stronger veining of cb.																
		Most veining is irregular																
		Nil sulphides except 15 cms cb vein at 120.50m has																
		blotchy aggregates sp-gn (< 10% over 15 cms)																

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CSR LIMITED DETAILED DRILL LOG CSR

AREA 0 | PROJECT NUMBER | DATE STARTED | CO-ORDINATES N/S | COLLAR R.L. | AREA OF INFLUENCE | HOLE NUMBER 4.

STATE | LOCATION | INCLINATION | AZIMUTH T/M/GRID | DATE COMPLETED | CONTRACTOR | DRILLER | E/W | DEPTH | DRILL TYPE | LOGGED BY | DATE OF LOGGING | HOLE SIZE | & | ASSAY TYPE | PAGE ___ OF ___ | TO | TO | TO

100% CORE RECOVERY & ALL 3 METRE RUNS.

% CORE RECOVERY	METRES	SUMMARY DESCRIPTION	VISUAL LOG	LOG SCALE 1:	ROCK TYPE	S.G.	START DEPTH	FINISH DEPTH	SAMPLE INTERVAL	SAMPLE NUMBER CG2-602-	TYPE	ACCEPTED ASSAY Sn	Cu	Zn	Pb	Bi	Ag	Au
		125.0 m - 132.0 INTERBEDDED CREAM SST (40%) AND GREY BLACK SHALES (60%)					125.00	132.00		27	C	5	35	320	160	50	2	10
		Shale units irregular with disrupted contacts - appears to be soft rock deformation																
		Grading and flame structures give offhole facing																
		No significant sulphides																
		2½-cb veining weak except					132.00	139.20		29	C	<5	90	110	60	55	2	3
		@ 127.0 15 cms of brecciated rock healed with veining																
		@ 131.40 - 132.0 2-10 mm wide irregular cb vein running along core axis																
		132.0 - 139.20 MASSIVE OLIVE GREY FMG SANDSTONE (85%) WITH INTERBEDDED GREY BLACK SHALE (15%)					139.20	145.00		29	C	<5	75	130	40	55	2	3
		Shale also as infillings in brecciated sections of SSTs. Shale units disrupted - soft rock deform'n																
		Nil sulphides																
		Weak to nil qtz-cb veining except @ 133.90 - 5 cms qtz-cb vein.					145.00	150.30		3.0	C	5	65	110	40	50	2	3
		139.20 - 150.30 INTERBEDDED OLIVE GREY SANDSTONE (50%) WITH GREY BLACK SHALES (50%)					150.30	155.00		3.1	C	5	85	490	160	55	3	<3
		Narrower shale units are deformed (soft rock)																
		Grading ⇒ offhole facing																
		Weak qtz-cb veining (irregular) except 145.50 - 10 cms qtz-cb veining with included host rock.					155.00	160.00		3.2	C	5	60	310	110	40	2	5
		Nil sulphides																
		150.30 - 176.0 m DOMINANTLY INTERBEDDED GREY & BLACK SHALES (85%) AND GREY SANDSTONES (15%)					160.00	165.00		3.3	C	<5	55	100	50	49	2	<3
		Grading & flame structures ⇒ offhole facing																
		SST units are brecciated and healed with shale					165.00	170.00		3.4	C	5	70	200	95	49	2	3
		Considerable deformation of bedding in some shale sections																
		More regular sections ⇒ bedding ∠ 55-70°																
		Sulphides - 3% py overall - in black shale units - in well bedded sections the py forms aggregated bands on bedding planes (max 2 mm - in deformed bedding sections the py forms aggregates to 4 mm dia					170.00	176.00		3.5	C	<5	100	0.2%	500	55	3	<3
		2½-cb veining irregular & variable - weak with patches of moderate veining (170.6 - 173.50)																
		Cleavage // to bedding																

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CSR LIMITED DETAILED DRILL LOG — CSR

AREA: 8 | STATE | LOCATION | PROJECT NUMBER | INCLINATION | AZIMUTH T/M/GRID | DATE STARTED | DATE COMPLETED | CONTRACTOR | DRILLER | CO-ORDINATES N/S | E/W | COLLAR R.L. | DEPTH | LOGGED BY | DATE OF LOGGING | AREA OF INFLUENCE | DRILL TYPE | HOLE NUMBER | PAGE ___ OF ___ | HOLE SIZE & ASSAY TYPE ___ TO ___

5.

100% CORE RECOVERY - & ALL 3m RUNS

SUMMARY DESCRIPTION

176.0 — 193.80m INTERBEDDED GREY SANDSTONES (50%)
AND GREY (MNR BLACK) SHALES (50%)
Shale units are narrow and disrupted.
Bedding <s variable <50°-85°
Cleavage // bedding
Nil sulphides
Qtz-cb veining
176.0 - 182 m moderate, narrow (< 3mm) irregular veining with some 10mm regular veining at <s from 40-70°
182 - 193.80m nil to weak veining
Facing is uphole

193.80 — 197.20m MASSIVE GREY GREEN FG. SANDSTONE (95%)
WITH MNR GREY SHALE INTERBEDS (5%)
Nil sulphides
Weak irregular narrow qtz-cb veins

197.20 - 200.0 m MASSIVE FG. CREAM BUFF COLOURED
SANDSTONE (90%) MNR (10%) NARROW DK. GREY
TO CREAM SHALE INTERBEDS.
Bedding <s 80-50°
Cleavage // bedding
Moderate cb veining with mnr sulphides

200.0 - 212.20 m INTERBEDDED SHALES & SANDSTONES
Rapid alternation of shales & ssts with disrupted bedding
Ssts fg. - cream to grey; Shales cream-grey-black
Cb veining weak to moderate
Weak veins (1-2mm) // to bedding in shaley sections
Composite (open space) qtz-cb veins with <s 30°
@ 205.0m (10mm wide)
211.0m (15mm ")
201.0m 15mm massive qtz-cb vein with mnr (5%) dk fg sulphide (sphalerite)
Sulphides - mnr aggregates (< 1%) py in black shale

212.20 - 217.0 m DOMINANTLY MASSIVE FG-FML
GREY- GREEN SANDSTONE (90%) WITH
INTERBEDDED GREY SHALE (10%)

Weak irregular qtz-cb veining in SST units (not in shales

START DEPTH	FINISH DEPTH	SAMPLE NUMBER CG2-602-	TYPE	Sn	Cu	Zn	Pb	Bi	Ag	Au
176.00	182.50	36	c	5	55	100	50	50	2	<3
182.50	188.00	37	c	10	115	110	50	40	2	<3
188.00	193.80	38	c	5	55	110	45	45	2	3
193.80	197.20	39	c	<5	40	80	40	40	2	5
197.20	200.00	40	c	10	40	0.13%	190	40	3	5
200.00	206.50	41	c	5	60	190	100	35	2	5
206.50	212.20	42	c	<5	50	180	55	40	2	10
212.20	217.00	43	c	<5	40	110	40	40	2	3

CSR LIMITED — DETAILED DRILL LOG

AREA D | PROJECT NUMBER | STATE | LOCATION | INCLINATION | AZIMUTH T/M/GRID | DATE STARTED | DATE COMPLETED | CONTRACTOR | DRILLER | CO-ORDINATES N/S | E/W | COLLAR R.L. | DEPTH | LOGGED BY | DATE OF LOGGING | AREA OF INFLUENCE | DRILL TYPE | HOLE NUMBER 6. | HOLE SIZE | & | ASSAY TYPE | PAGE ___ OF ___ | TO | TO | TO

100% CORE RECOVERY — ALL 3 METRE RUNS

% CORE RECOVERY	METRES	SUMMARY DESCRIPTION	VISUAL LOG	LOG SCALE 1:	ROCK TYPE	S.G.	START DEPTH	FINISH DEPTH	SAMPLE INTERVAL	SAMPLE NUMBER CG2-602-	TYPE	ACCEPTED ASSAY Sn	Cu	Zn	Pb	Bi	Ag	Au
		217.0 – 228.0 INTERBEDDED CREAM TO GREY SANDSTONES & GREY TO BLACK SHALES					217:00	223:00		44	c	10	55	470	170	50	3	5
		Rapid variation of bedding																
		Weak, in part moderate, irregular cb, qtz-cb veining																
		At 220.0m – 10cms section of semi-massive cb with inclusions of angular fragments of host rock = leached brecciated zone?					223:00	228:00		45	c	5	60	180	60	40	2	3
		Minor py in black shale																
		Facings questionable																
		228.0 – 231.50 DOMINANTLY BLACK SHALE (85%) MNR GREY SHALE (15%)					228:00	231:50		46	c	5	55	230	150	45	3	<3
		Bedding disrupted; moderate qtz-cb veining, mainly fine (1-2mm) // to bedding or irregular; several massive veins to 15mm // to bedding					231:50	238:00		47	c	65	70	165	80	50	2	3
		Minor py (< 3%) Cleavage locally // to bedding																
		231.50 – 245.20 INTERBEDDED GREY-GREEN SSTS AND BLACK & GREY SHALES.					238:00	245:20		48	c	45	65	160	50	40	2	3
		Bedding disrupted																
		Minor py (total << 1%) aggregates in black shale																
		Minor qtz-cb veining – bedding plane veins and some irregular veins																
							245:20	251:00		49	c							
		245.20 – 269.15m INTERBEDDED FG. SSTS, SILTSTONES AND SHALES. V. MNR BLACK SHALE UNITS																
		Dominantly pale grey green in colours; Sst units are massive																
		Bedding < 50°-70° – some bedding badly disrupted.					251:00	257:50		50	c	5	115	120	45	45	2	<3
		2½-cb veining in weak overall – significant as below																
		@ 250m – several narrow (1cm max.) regular < 30° veins mm py																
		252.70m 1cm vein @ < 30°					257:50	263:00		51	c	45	115	120	45	40	2	3
		254.60m 15mm vein @ < 30°																
		261.0 m irregular vein 2cm @ < 30°-10°																
		262.70 – .90 irregular, narrow veining																
		266.70 – 267.10 irregular qtz-cb vein from 1mm to 20mm wide along core axis																
		268.0 1cm vein @ < 30°					263:00	269:15		52	c	5	55	145	70	45	2	<3
		Sulphides – mm py in veining; mm py in black shale bands – as aggregates on bedding planes																

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CSR LIMITED DETAILED DRILL LOG

CSR

AREA 0 | PROJECT NUMBER | DATE STARTED | CO-ORDINATES N/S | COLLAR R.L. | AREA OF INFLUENCE | HOLE NUMBER 7.

STATE | LOCATION | INCLINATION | AZIMUTH T/M/GRID | DATE COMPLETED | CONTRACTOR | DRILLER | E/W | DEPTH | DRILL TYPE | LOGGED BY | DATE OF LOGGING | PAGE ___ OF ___ | HOLE SIZE ___ TO ___ | & ___ TO ___ | ASSAY TYPE ___ TO ___

100% Core Recovery - All 3 metre runs!

% CORE RECOVERY	METRES	SUMMARY DESCRIPTION	VISUAL LOG	LOG SCALE 1:	ROCK TYPE	S.G.	START DEPTH	FINISH DEPTH	SAMPLE INTERVAL	SAMPLE NUMBER (62-602-)	TYPE	ACCEPTED ASSAY Sn	Cu	Zn	Pb	Bi	Ag	Au
		269.15 – 270.40 MASSIVE PLE CREAM-GREEN FMG SST-SILTSTONE WITH Cb MATRIX. MNR BRECCIATED BLACK & GREY SHALE INCLUSIONS. Bedding $\angle^s$ 60-90° Blotchy, irregular qtz-cb veining No significant sulphides.					269:15	274:50		0513	c	25	65	80	60	40	2	3
		270.40 – 274.50 INTERBEDDED GREY TO GREY-GREEN MASSIVE SILTSTONE/SST AND GREY TO CREAM SHALES Shales have disrupted bedding; some bedding $\angle$60° Irregular qtz-cb veining in brecciated zone					274:00	281:00		0514	c	45	20	120	30	39	2	<3
							281:00	287:50		0515	c	45	15	120	40	45	1	10
		271.0 – 271.30 minor segregation of py in shales of above unit																
		274.50 – 329.80 DOMINANTLY INTERBEDDED RED SANDSTONE/SILTSTONE/SHALE POSSIBLY PARTLY WATERLAIN PYROCLASTICS Majority of siltstone is deep red brown in colour Finer grained unit (shales) often show deformed bedding (high energy environment?) Grading in coarse grained units quite well developed Cleavage // bedding in finer grained units bedding $\angle^s$ vary 80-60° Minor Units Greenish coloured sst/shale at 274.80 – 275.10 with minor irregular qtz cb veining 289.30 – 289.70 red & green sst/sh 303.60 – 303.80 ple greenish 318.10 – 326.90 ~~red grey fg sst~~ greenish sst/shales.					287:50	291:00		0516	c	45	40	115	40	45	2	5
							291:00	300:00		0517	c	5	15	110	40	40	2	5
							300:00	307:00		0518	c	45	140	125	40	35	2	5
		326.10 – 326.90 red grey fg sst – magnetic unit					307:00	313:50		0519	c	140	35	75	40	40	2	15
		2τ_3 - Cb veining irregular & variable. (1) fine (< 2mm) regular @ <30° with variable intensity ie. will be main (weak to mod) at 280 m (2) Minnie (to 3 cms) irregular veins with no sulphides.					313:50	320:00		0560	c	40	350	130	45	40	2	5
		Sulphides Narrow bands of sp-gn-py associated with bleached zones at: 283.50 – 5 mm wide stronger zones @ 70° in bleached zones 15 cms wide. 287.50 – 1 cm wide sp-gn stringers @ <60° in 5 cms bleached & minable qtz-cb veined zones					320:00	325:00		0561	c	5	20	100	45	40	1	5
							325:00	328:80		0562	c	115	35	125	45	50	2	10

CSR LIMITED DETAILED DRILL LOG

AREA Ø | PROJECT NUMBER | DATE STARTED | DATE COMPLETED | CONTRACTOR | DRILLER | CO-ORDINATES N/S | E/W | LOGGED BY | COLLAR R.L. | DEPTH | DATE OF LOGGING | AREA OF INFLUENCE | DRILL TYPE | HOLE NUMBER 8 | PAGE ___ OF ___

STATE | LOCATION | INCLINATION | AZIMUTH T/M/GRID | HOLE SIZE ___ TO ___ & ___ TO ___ | ASSAY TYPE ___ TO ___

% CORE RECOVERY	METRES	SUMMARY DESCRIPTION	VISUAL LOG	LOG SCALE 1:	ROCK TYPE	S.G.	START DEPTH	FINISH DEPTH	SAMPLE INTERVAL	SAMPLE NUMBER CG2-602-	TYPE	ACCEPTED ASSAY Sn	Cu	Zn	Pb	Bi	Ag	Au
100% CORE RECOVERY - ALL 3 METRE RUNS		274.50 - 328.80 CONT'D																
		316.30 Mm stringer (total < 1 cm) of sp-gn in 15 cm of bleached zone, weakly qtz-cb veined.																
		326.80 2% qtz-cb veining (aggregates < 1 cm) in bleached zone with vein of black mineral																
		329.00 diss py over 2cms width																
		MNR UNIT 309.50 - 313.90 Wider section of bleaching mainly to cream & pink with minor sections of ple green zones. Similar rock types to main zone at 313m																
		@ 313m - 5 cm irregular cb veining with weak (< 5%) po																
		328.80 - 334.60m PLE GREY-GREEN INTERBEDDED SHALES SILTSTONES AND FG. SANDSTONES. Bedding < 5° variable 80-60° Rare, weak qtz-cb gash veining Mm blotchy aggregates of py (< 1%) Bedding disrupted in shales					328:80	334:60		0643	c	10	95	180	50	50	2	5
		334.60 - 339.0m INTERBEDD GREY GREEN MASSIVE FG. SSTS AND GREY & BLACK SHALES Fewer grained rocks have disrupted bedding Bedding < 80-50° Weak qtz-cb veining, mixture of irregular & regular (45-30°) Disem aggregates py < 1%					334:60	339:00		0644	c	45	60	120	60	40	2	5
		339.0 - 346 DOMINANTLY MASSIVE GREY GREEN SST GRADING DOWN INTO INTERBEDDED GREY & GREY GREEN SHALES AND GREY GREEN SSTS. Grading gives uphole facing Bedding < 60-80° Weak qtz-cb veining Very minor py					339:00	346:00		0645	c	45	65	120	45	40	2	3
		346 - 364.60m INTERBEDDED GREY GREY GREENISH SHALES AND SSTS AND REGULARLY BANDED BLACK & GREY SHALES - appears to have 2 different sources of sediment material					346:00	352:00		0646	c	45	90	250	70	50	2	5
							352:00	358:00		0647	c	5	55	120	50	45	2	3
		CONT'D OVER PAGE																

8800886

CSR LIMITED DETAILED DRILL LOG

CSR

AREA 0 | PROJECT NUMBER | DATE STARTED | DATE COMPLETED | CO-ORDINATES N/S | E/W | COLLAR R.L. | DEPTH | AREA OF INFLUENCE | DRILL TYPE | HOLE NUMBER

STATE | LOCATION | INCLINATION | AZIMUTH T/M/GRID | CONTRACTOR | DRILLER | LOGGED BY | DATE OF LOGGING

PAGE ____ OF ____ | HOLE SIZE ____ TO ____ | & ____ TO ____ | ASSAY TYPE ____ TO ____

% CORE RECOVERY: 100% CORE RECOVERY - ALL 3 METRE RUNS.

SUMMARY DESCRIPTION

346 - 364.60m (CONT'D)

Sulphides - patchy massive sulphides (py) on bedding planes in black shale units - where soft rock deformation has occurred, the py has formed blotchy aggregates
- py ~ 2% in black shale units

Soft rock deformation of black and grey shale units is characteristic and is different to that in the grey green shales
Bedding ∠s ~70°
Minor weak qtz-cb veining

364.60 - 374.0 INTERBEDDED GREY GREEN MASSIVE SANDSTONES & SHALES
Bedding disrupted - ∠s vary from 45°-70°
In part the finer grained material has flowed.
Weak cb & qtz-cb veining
Minor py with veining

374.0 - 377.50 BRECCIATED & Cb VEINED PLE GREY-GREEN SHALES & GREYWACKES
Lower contact is gradational
Qtz-cb veining (complex) - several phases of veining
@ 374.15 6 cms wide, bleaching extends 10 cms each side.
@ 367.70 25 cms wide complex vein with minor py. - bleaching extends above & below.
& other minor narrow (< 1cm) veining
No significant sulphides.

377.50 - 386.15m MASSIVE LITHIC SSTS & INTERBEDDED MUDSTONES.
Some minor grit zones. (70% SSt, 30% Mudstones)
Colour is distinctive - brick red brown.
Bedding core ∠s 70°-90°
Weak to moderate qtz-cb veining variable core ∠s; thickness mainly < 2mm.
No significant sulphides.

ACCEPTED ASSAY

START DEPTH	FINISH DEPTH	SAMPLE NUMBER CG2-602-	SAMPLE TYPE	Sn	Cu	Zn	Pb	Bi	Ag	Au
358.00	364.60	068	C	45	90	175	70	45	2	<3
364.60	369.00	069	C	5	85	155	55	55	2	20
369.00	374.00	070	C	5	60	130	40	55	2	15
374.00	377.50	071	C	5	50	390	125	55	2	10
377.50	382.00	072	C	<5	115	140	45	50	2	5
382.00	386.15	073	C	5	15	120	40	40	2	3

CSR LIMITE DETAILED DRILL LOG CSR

AREA	STATE	LOCATION	PROJECT NUMBER	INCLINATION	AZIMUTH T/M/GRID	DATE STARTED	DATE COMPLETED	CONTRACTOR	DRILLER	CO-ORDINATES N/S	E/W	LOGGED BY	COLLAR R.L.	DEPTH	DATE OF LOGGING	AREA OF INFLUENCE	DRILL TYPE	HOLE NUMBER	PAGE __ OF __	HOLE SIZE & ASSAY TYPE
8																		10.		__ TO __ / __ TO __ / __ TO __

% CORE RECOVERY: 100% CORE RECOVERY TO 437.0m - ALL 3 METRE RUNS

SUMMARY DESCRIPTION	START DEPTH	FINISH DEPTH	SAMPLE NUMBER CG2-602-	TYPE	Sn	Cu	Zn	Pb	Bi	Ag	Au
386.15 – 388.70m DK BLUE GREEN FMG CARBONATE RICH ROCK – STRONGLY ALTERED GABBRO (REACTS STRONGLY WITH CONC HCl) Banded zones on upper and especially lower contacts 60-70° which is // to bedding. Minor dis. py. Minor weak qtz-cb veining	386.15	388.70	074	S	<5	175	230	130	60	3	<5
388.70 - 390.0 m INTERBEDDED RED & GREEN SEDIMENTS DOMINANTLY RED MUDSTONES & GREEN CHLORITIC SHALES. Minor cg. dis py at upper contacts. Qtz - cb veining @ 389.30 - 12 mm vein @ <30° ; 389.45 - 15mm vein @ <35°	388.70	390.00	075	C	5	15	110	40	40	2	10
390.0 – 405.0 INTERBEDDED MASSIVE RED BROWN COLOURED LITHIC SANDSTONES AND MUDSTONES. Grading gives uphole facing. Bedding <90°-70°. Minor weak qtz-cb veining	390.00	395.00	076	C	<5	95	145	45	40	2	5
	395.00	400.00	077	C	10	65	120	50	40	2	5
	400.00	405.00	078	C	<5	30	120	45	40	2	5
405 – 406.90 FG. PLE GREY-GREEN SHALES / SILTSTONES. Minor fg ssts (chloritic). Strong bleaching & pink colouration with qtz-cb veining @ 405.70; 406.80. Minor irregular qtz-cb veining with minor sulphides	405.00	406.90	079	C	5	30	130	50	45	2	<3
406.90 – 412.20 STRONGLY CARBONATED FMG GABBRO (?) Upper contact gradational / 5 cms. Lower contact gradational with included shale frags / 1m. Qtz - cb veining irregular except @ 406.70 – 2cms wide vein; 408.40 ~ 2 cms wide vein with bleached zone. Minor py.	406.90	409.20	080	S	20	105	340	80	60	2	3
	409.20	411.70	081	S	<5	85	145	65	55	2	5
412.20 – 440.0 INTERBEDDED GREY TO GREY GREEN SHALES AND SSTS. Bedding varies from regular <³70° to disrupted. Facings are up hole	411.70	417.20	082	C	5	100	270	70	45	3	3

CSR LIMITED — DETAILED DRILL LOG

AREA 0 | PROJECT NUMBER | DATE STARTED | CO-ORDINATES N/S | COLLAR R.L. | AREA OF INFLUENCE | HOLE NUMBER 11.

STATE | LOCATION | INCLINATION | AZIMUTH T/M/GRID | DATE COMPLETED | E/W | DEPTH | DRILL TYPE | PAGE ___ OF ___

CONTRACTOR | DRILLER | LOGGED BY | DATE OF LOGGING | HOLE SIZE ___ TO ___ & ___ TO ___ | ASSAY TYPE ___ TO ___

CORE LOST ON LAST RUN 537 - 540.0 ONLY 0.90 m RECOVERED
PRESUME LIFTERS HAD BROKEN & LET CORE DROP OUT OF BARREL.

% CORE RECOVERY	METRES	SUMMARY DESCRIPTION	VISUAL LOG	LOG SCALE	ROCK TYPE	S.G.	START DEPTH	FINISH DEPTH	SAMPLE INTERVAL	SAMPLE NUMBER	TYPE	ACCEPTED ASSAY Sn	Cu	Zn	Pb	Bi	Hg	Mo
		412.20 - 440.0 (CONT'D)																
		Variable qty - cb veining - mostly irregular					417.20	422.00		0.83	C	45	75	160	50	50	2	3
		with minr sulphides																
		but 413.0 - 3cms wide vein					422.00	423.00		0.84	S	45	160	290	80	60	2	3
		413.20 2 cms wide vein @ 30°																
		414.40 8cms wide composite vein					423.00	424.50		0.85	C	45	20	110	40	45	2	3
		Sandy units have cb matrix																
							424.50	425.90		0.86	S	45	175	180	135	65	3	5
		MNR UNITS IN 412.20 - 440.																
							425.90	432.00		0.87	C	5	75	125	65	35	2	3
		422 - 423m Cb altered serpentinite fg - mg																
							432.00	437.00		0.88	C	45	60	110	55	50	2	3
		424.50 - 425.90 Serpentinite fg - mg.																
		N.B. CORE AT BOTTOM OF HOLE NOT REC'D.																

Down hole surveys (casing to 99m)

0m	-46.5°	
125 m	43°	281°M
175	-38	282 M
225	-33	284 M
275	-29°	283 M
315	-27	in rods
360	-26	in rods

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LOG SHEET

Area _____ State _____ Prospect No. _____ 1:100,000 Sheet _____ Title _____ Hole No. CG 2.

SURVEY DATA

DEPTH	AZIMUTH	ANGLE	COMMENTS
0	277° MAG	-46·5	COMPASS & CLINOMETER
125m	281° MAG	-43°	EASTMAN SINGLE SHOT CAMERA.
175m	282·5° MAG	-37·75°	" "
225m	284° MAG	-33°	" "
275m	283° MAG	-29°	" "
315m	—	-27·5°	" " READING IN RODLINE, LANDING COLLAR REMOVED
360m	—	-26°	" " " "

DOWN HOLE CALCULATIONS

FROM	TO	DISTANCE	ANGLE	GRID BEARING	VERTICAL ADVANCE	R.L.	HORIZONTAL ADVANCE	LATITUDE	DEPARTURE
0	62·5	62·5	-46·5°	290·5	-45·33	-45·33	43·02	+15·06	-40·29
62·5	150	87·5	-43°	294·5	-59·67	-105·00	63·99	+26·54	-58·23
150	200	50	-37·75°	296	-30·61	-135·61	39·53	+17·73	-35·53
200	250	50	-33	297·5	-27·23	-162·84	41·93	+19·36	-37·19
250	290	40	-29	296·5	-19·39	-182·23	39·98	+15·06	-31·30
290	337·5	47·5	-27·5	296·5*	-21·93	-204·16	42·13	+18·80	-37·70
337·5	380	42·5	-26	296·5*	-18·63	-222·79	38·20	+17·04	-34·18
380	440	60	-25*	296·5*	-25·38	-248·17	54·38	+24·26	-48·66

* = ASSUMED READINGS.

2-2.

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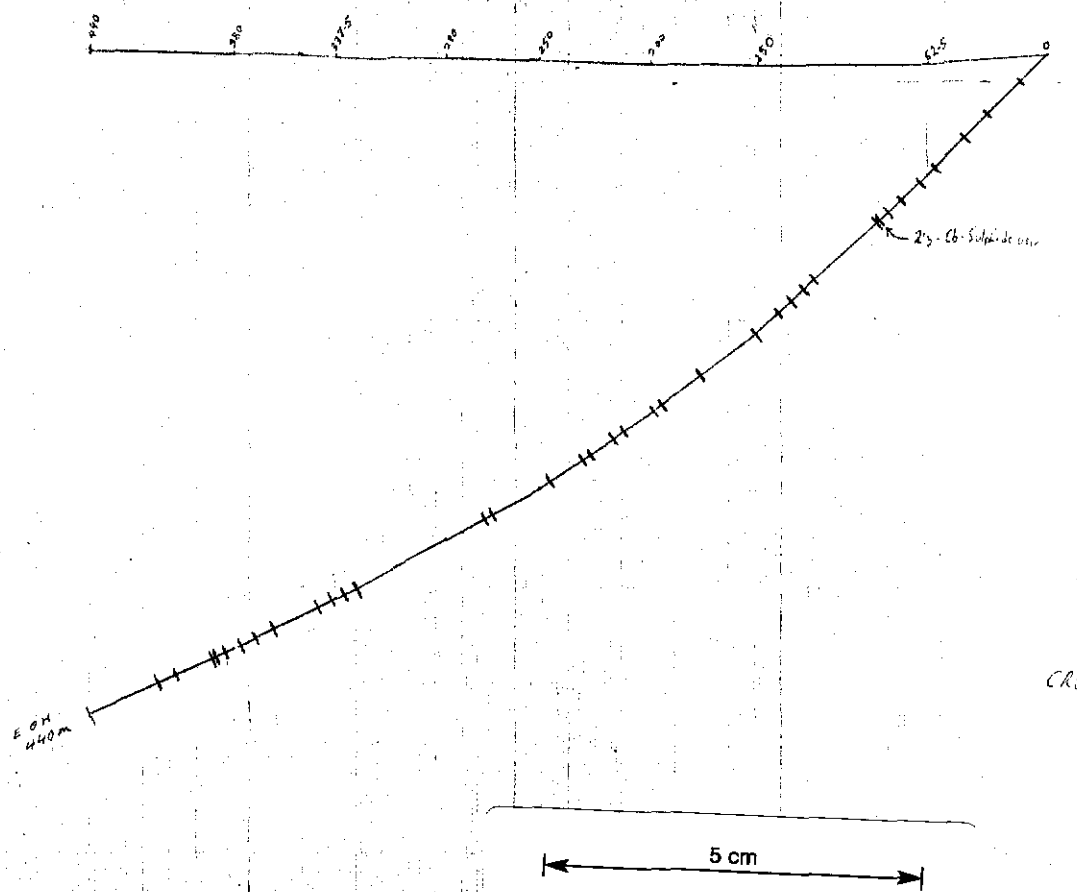
LOG SHEET

Area _____ State _____ Prospect No. _____ 1:100,000 Sheet _____ Title _____ Hole No. _____



CROSS SECTION OF DDH [illegible]

DRAWN ON PLANE 235° [illegible]
LOOKING BEARING 25°

SCALE 1:2000

Reference _____