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RL03/2005 – Narrawa Creek

Annual Report to May 12th 2009.

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May 8th, 2009

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Summary and Introduction

This report details the work program and associated reporting for RL03/2005 for the year ending 12th May 2009.

A significant 10 drill hole (NC43 to 52; totalling 690m) resource upgrade program was undertaken at the Higgs Gold Mine, commencing late June, 2008. The drilling principally aimed at upgrading the existing resource from inferred to indicated and/or measured status, returned similar significant analysis intervals to that from previous work and further enhanced understanding of the mineralisation form.

Resource upgrade drilling and related work at the Higgs Gold Mine was undertaken with the view to generating revenue in the shortest term possible. Resource calculations, undertaken by GeoStats in 2008, prior to the drilling reported herein, returned a JORC compliant inferred resource of 192,284tonnes at 2.72g/t Au, 1.59% Pb, 1.21% Zn and 24g/t Ag. Finalisation of a renewed calculation incorporating the new infill drill holes is currently well advanced. A review of mining economics by consultant David Swain is underway and similarly hopes to advance the prospect of mining the Higgs resource.

The Tungsten potential of the RL was evaluated follow recognition and re-analysis of significant W in new Higgs drill core. Notably NC48 returned an interval of 4m @ 0.58% WO3, including 1m @1.98% WO3. Following this, Tungsten was specifically drill targeted at the nearby Squib Mine to assess potential for high grade and/or bulk minable Tungsten mineralisation. One hole NC53, returned 10.5m @ 0.23% WO3, including 1m @ 1.04% WO3. Unfortunately, due to drilling difficulties, this hole tested the hangingwall to the historic lodes only.

Location, Access and Land Use

RL03/2005 is located in the central north of Tasmania, south of Sheffield. The terrain is rugged and forested, but accessible via sealed roads and numerous all-weather 4-wheel drive tracks. The RL lies in Crown Land, being mostly classified as State Forest, with MDC Informal Reserve lying in the northern and eastern sectors, and with a narrow sliver of Land Vested in the HEC/Aurora forming the north eastern margin.

Tenure

RL3/2005 (Narrawa Creek), granted 12/5/2006 covering 3square kilometres (Figure 1) was formed as part of the retained area (also including RL4/2005 – River Lea) when EL29/2003 was relinquished. EL29/2003 was initially granted to TasGold Ltd. following a successful ERA tender in 2003. NB: TasGold Ltd. became Frontier Resources Ltd. in 2006.

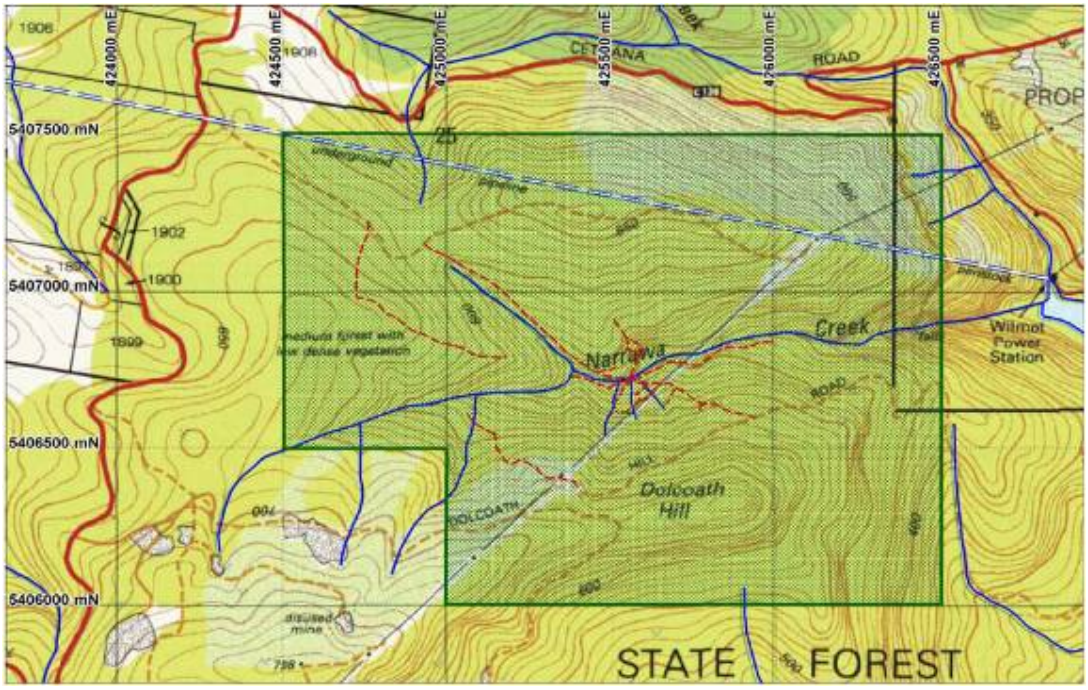


Figure 1: Location of the Narrawa Creek Retention Licence 3/2005 (Datum AGD66, AMG Zone 55)

Environmental Concerns

The majority of the program was undertaken from the existing access track, with minimal earth works being required. An exception being at the south eastern end of the workings where a short 20m track was required to access a drill pad for holes NC50 to 52; this accessed along an existing route with the only new work being creation of the drill pad.

A mining heritage survey was conducted by consultant Tony Webster to satisfy Mines Department environment requirements (See Appendix 1). This survey encompassed an area of ~350 by 200m, principally covering the line of the Higgs Workings. This archaeological survey work was particularly important to document significant features in the potentially sensitive area in the south east of the site.

Drill hole NC53 was drilled on the access track leading down from the Dolcoath Road. The pad area was re-contoured following drilling, returning the track to it's original condition. A 34m long shallow trench (<0.5m) was opened along the up slope side track gutter to sample the Squib lodes at surface. This was subsequently re-filled.

All equipment is washed down prior to mobilisation to minimise the threat of phytophthora infection. All activities are to be undertaken within the guidelines outlined in Mineral Resources Tasmania's Mineral Exploration Code of Practice.

Work Conducted

Drilling of 10 holes (NC43 to 52) for a total of 690m focused upon resource upgrade at the Higgs Gold Mine; comprising drill hole fans on three sections located as ~12.5m section infill in the core block of the resource. One hole NC47 was extended well into the footwall to test a zone of gold in soil (0.283 to 2.97g/t Au linear soil anomaly, broadening to the NW). The Tungsten potential of the RL was also partially evaluated via one drill hole (NC53; EOH 38.6m), targeted beneath the Squib (W-Bi +/- Sn-Au) workings. This is dealt with in a separate section to follow. Work commenced at Higgs in early July 2008 with detail on the drill holes and interpretation provided below.

Tape and Compass Survey

A tape and compass survey was undertaken, covering all holes in the immediate Higgs Gold Mine vicinity on the south west side of Narrawa Creek. Survey station pegs and flagging were placed as strategic locations, enabling pickup of many drill holes and workings. These locations form a basis for a mining heritage survey and also for location of resource targeting drill holes which need to be relatively close spaced (to ~10 to 12m).

Surveying closures were obtained wherever possible, with closures providing X, Y errors ranging from 0.5 to 3.5m, length dependent. RL errors for closed loops are typically <1m. NC12 is currently used as a datum, being located central to the mineralisation and consequently the drilled area. An Excel survey template was set up

to enable recalculation of survey points as more accurate Datum points are established.

Overall, the existing drill collars located between NC05 and NC08 can be considered to be ~+/-0.5m accurate. An exception is the NC18 (+/-10m?) collar. Drill collars along the access track extending from NC22 to NC34, whilst relatively accurately placed with respect to each other, are the least accurately placed since tape and compass loop closure returned the greatest error of all surveying. Their accuracy is ~+/-2m with respect to other Higgs Gold Mine drill collars. Averaged low precision error GPS readings agree well with the currently defined placement.

Some uncertainty exists as to the exact location of NC18; tape and compass surveyed locations of other holes (NC19 to 21) drilled at that time were found to be consistently located ~40m south (+/-5m E) of their original defining coordinates. Relocating NC18 accordingly, placed the collar in a location where no drilling has evidently been undertaken. Comparison was made with the original Mines Department work program submission, relocating drill holes in part according to local grid coordinates, which were found to correspond relatively well with known locations of NC19 and NC20. Accordingly, NC18 was relocated on the access track; which anecdotally is the correct location. Further to this, no earth work was undertaken to site the drill holes during this program and therefore two key placement options are on the large pad area (ND3 collar area) SW of the main access track and on the latter. , It's unlikely that NC18 would have been collared so close to ND3 and therefore the track location, in agreement with by Peter McNeil (pers comm.; drilled in a creek! on the track) is the most likely location. Importantly, the new location readily lines the NC18 principal intersection up with other intersections in NC46 and ND3; a resultant inferred dip of ~20NE is in agreement with interpretation from Section 5912.5mE.

Minor changes to the location of existing drill holes were made. NC08 was resurveyed approximately 3.5m further to the NW than was previously known. This collar has been adjusted accordingly; but awaits a new survey confirmation. NC07 appears to plot approximately 3m further SW than is actually physically possible. This collar location was modified accordingly, however the actual collar cannot be located to confirm the positioning. The NC20 re-survey plots 2.3m further NW than the previous accepted survey. This also shifts NC06 slightly NW. Collars on the north west side of the creek were re-adjusted according to 2005 tape and compass survey data, tied to the recent survey. Some uncertainty still exists here and a re-survey of collars on the north west side of Narrawa Creek is required.

A digital terrain model (DTM; data appended) was created by adding extra contours intermediate to the existing Lands Department 1:25000 scale digital contours. Contours were roughly levelled to / modified to fit known survey points. A grid was created from these contours and subsequently a point grid array at ~5m spacing was assigned values from this grid. Extra georeferenced points were added to this point grid to better delineate known features such as the workings and drill pads. A new "final" grid with ~0.25m cell size was then generated from this point file. This resulting grid relatively accurately reflects the topographic surface in the Higgs Gold Mine area, but more accurate surveying is required in future should the project proceed to mining.

Resource Calculation

Geostats were engaged to compile a JORC compliant resource for the Higgs Gold Mine in 2008 (see Appendix 6 & digitally appended wireframes). Results to March 2008 (Table 2) did not incorporate additional re-sampling and whilst the final result was not anticipated to change significantly, the resource stated was considered to be a draft and of inferred classification (pers. comm. F Muller, GeoStats). Previous comparative resource estimates are shown in Table 3.

An upgrade to this resource is currently nearing completion with new 12.5m spaced drill sections aiming to upgrade a significant portion of the resource from inferred to indicated status. Drill hole geology, alteration and structure were evaluated to derive 2D sectional domains for the Higgs mineralisation. This data was converted to 3D wire frames by consultant Geostats. The appended drill sections were utilised as a guide for the latter.

Lode	Volume	Tonnes	Au g/t	Pb %	Zn %	Ag g/t	Cu %	As %
100	37,703	111,601	2.80	1.41	1.12	24	0.05	0.00
200	23,094	68,358	2.94	1.91	1.34	19	0.09	0.01
300	4,164	12,326	0.66	1.45	1.38	27	0.16	0.02
TOTAL	**64,961**	**192,284**	**2.72**	**1.59**	**1.21**	**22**	**0.07**	**0.01**

Table 2: Draft Narrawa Creek JORC Compliant Inferred Resource – March 2008; see Figure 2 for visualisation of lode locations.

Author/Model Date	Tonnes	Au g/t	Pb %	Zn %	Ag g/t	Method
McKenna Model (2003)	215,000	3.50	1.50	1.30	23	Weight average of NC6 & 12
TasGold Model (2005)	205,000	2.70	1.38	1.07	41	2D sectional resource

Table 3: Previous Narrawa Creek Inferred Resource Models

Drilling

A significant 10 drill hole (NC43 to 52; totalling 690m; Table 4 & Figure 2) resource upgrade program was undertaken at the Higgs Gold Mine during the current tenement year, commencing late June, 2008. The drilling principally aimed at upgrading the existing resource from inferred to indicated and/or measured status, returned similar significant analysis intervals (Table 5) to that from previous work and further enhanced understanding of the mineralisation form. Drill sections are now approximately 12.5m spaced through the core portion of the resource.

A further 3 holes were planned for section 5962mE, but these were not drilled due to budget and timing constraints at that time. This section was planned to test the NC05 area fault offset; an area where interpretation is lacking due to a lack of continuity between logged mineralisation and geology on section.

The Tungsten potential of the RL was evaluated follow recognition and re-analysis of significant W in new Higgs drill core. Notably NC48 returned an interval of 4m @

0.58% WO3, including 1m @1.98% WO3. Following this, Tungsten was specifically drill targeted at the nearby Squib Mine to assess potential for high grade and/or bulk minable Tungsten mineralisation. One hole NC53 (EOH38.6m), returned 10.5m @ 0.23% WO3, including 1m @ 1.04% WO3. Unfortunately, due to drilling difficulties, this hole tested the hangingwall to the historic lodes only.

Hole_ID	Easting	Northing	RL	Azimuth	Dip	Depth	Section	Date Commenced	Date Completed
NC43	425483.2	5406685.9	521.3	213	-45	61.1	5912.5	25/07/2008	29/07/2008
NC44	425483.3	5406686.0	521.3	213	-60	66.6	5912.5	30/07/2008	2/08/2008
NC45	425483.3	5406686.1	521.3	213	-75	81.1	5912.5	4/08/2008	10/08/2008
NC46	425484.6	5406688.0	521.3	33	-60	59.9	5912.5	11/08/2008	13/08/2008
NC47	425460.5	5406693.0	521.9	213	-45	100.6	5887.5	16/08/2008	19/08/2008
NC48	425460.6	5406693.1	521.9	213	-60	40.3	5887.5	20/08/2008	25/08/2008
NC49	425460.6	5406693.2	521.9	213	-75	75.1	5887.5	26/08/2008	31/08/2008
NC50	425509.9	5406677.8	525.0	213	-45	50.7	5937.5	2/09/2008	3/09/2008
NC51	425509.9	5406677.9	525.0	213	-60	71.9	5937.5	3/09/2008	5/09/2008
NC52	425510.0	5406678.0	525.0	213	-75	82.7	5937.5	8/09/2008	10/09/2008
NC53	425839.9	5406567.9	590.0	50	-60	38.6	Squib	14/09/2008	17/09/2008

Table 4: 2008 Drill Statistics for the Higgs Gold Mine, RL3/2005.

Discussion herein relates to recent drill holes and also includes fresh interpretation for previously drilled holes to aid resource calculation. Drill logs and drill hole legends are appended along with sectional interpretation utilised as a guide for the current resource calculation. Drill Hole NC53 targeting Tungsten at Squib is detailed separate to the main Higgs focused drill discussion.

2D sectional interpretation was undertaken to derive “Lode” domains consistent with geology, grade, alteration and structure. These were utilised as a guide for creating wireframes for resource calculation. Drill sections plotting the main lithology as well as ranked primary through tertiary alteration types and analysis data were utilised for drill hole interpretation (see Appendix 5). Structural information from orientated core, combined with these observations has lead to a significant advance in understanding. The invaluable orientated drill core was successfully obtained utilising a spear on a number of drill holes.

When forming interpreted bounds for lodes / mineralised zones, a comparison between near sections was made both in 2D and 3D; the latter comparing to 2008 resource bound wireframes. The mineralised envelopes shown are defined by a 0.5g/t Au and / or 0.25% Zn cut offs. These often incorporate some lower grade dilution and in part reflect likely mining widths. These zones commonly extend beyond strongly mineralised zones. Due to the complexity of faulting, extrapolation of “Lodes”, lithologies and faults is relatively short in many cases.

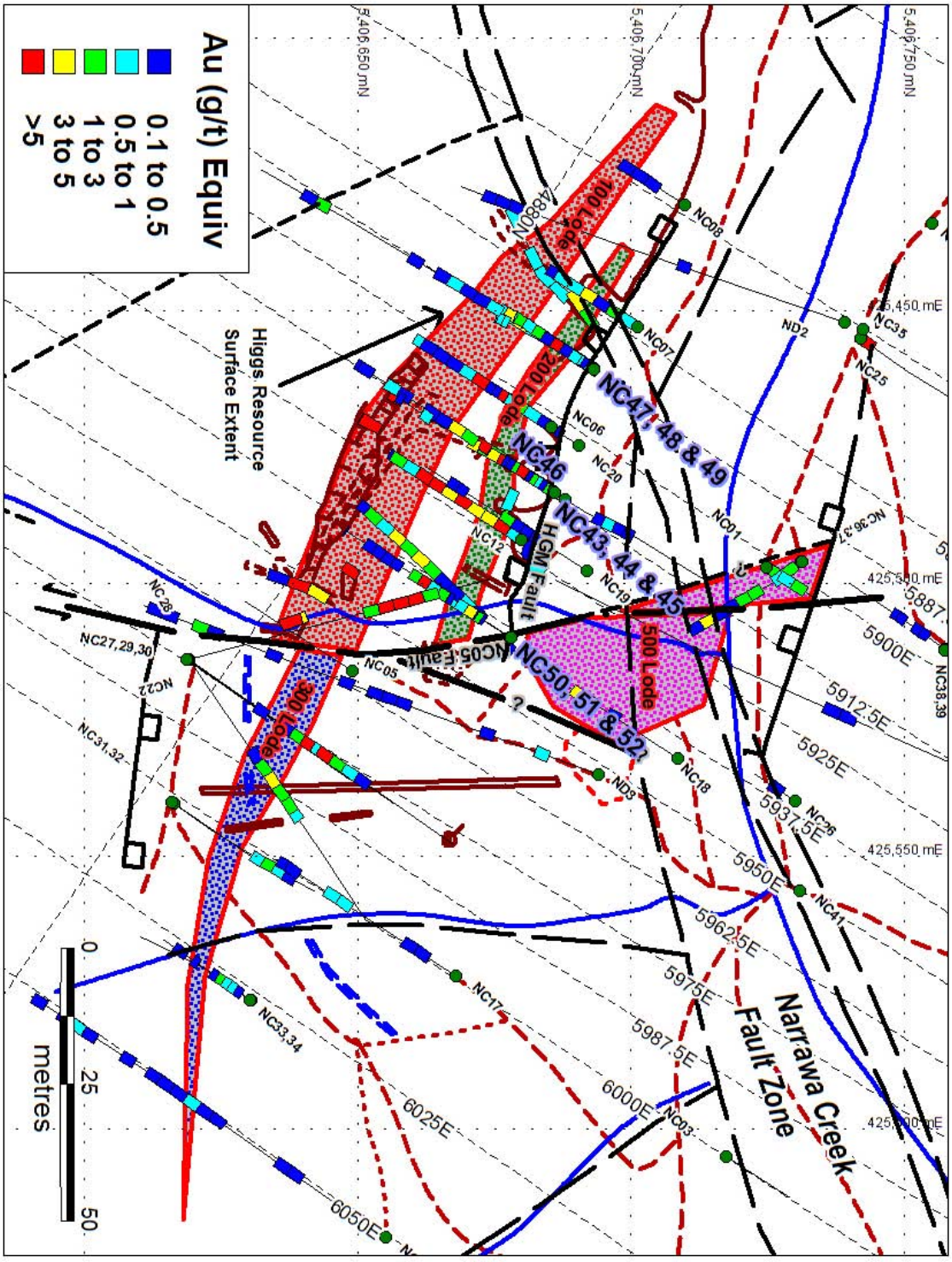


Figure 2: Higgs Gold Mine Drill Collar Plan, showing surface projected Lodes and 2m gold equivalent* (Au+Pb+Zn+Ag) down hole composites.

*(*NB: Au(g/t) Equivalent is based upon metal prices on 25/2/2009, being US$965.7/oz Au, US$0.4826/lb Zn, US$0.4497/Lb Pb, & US$1.4472/lb Cu, US$13.675/oz Ag; The formula used is Au(g/t) Equivalent = Au(g/t) + 0.34267 x %Zn + 0.31931 x %Pb + 1.0276 x %Cu + 0.01416 x g/t Ag)*

Hole_ID	From (m)	To (m)	Interval Length (m)	Au (g/t)	Ag (g/t)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Gold Equiv* (g/t)
NC43	7.3	51.3	44.0	1.03	10.9	401	6508	6758	1.66
NC43	7.3	32.0	24.7	1.77	15.2	540	10151	10539	2.73
including	11.5	14.0	2.5	4.30	12.2	534	6730	5939	4.95
including	18.4	32.0	13.6	2.29	23.1	722	16664	17271	3.81
including	23.0	24.1	1.1	10.00	52.0	1161	39900	34400	13.31
NC44	0.0	66.6	66.6	1.19	5.9	460	3335	4048	1.57
including	7.6	8.1	0.5	0.13	18.0	607	24300	22600	2.00
including	11.6	15.5	3.9	3.05	21.7	762	16163	32677	5.07
including	21.0	23.1	2.1	11.97	32.5	1698	28062	17052	14.08
including	34.0	35.1	1.1	6.29	56.0	1655	37200	39500	9.79
NC45	14.0	23.0	9.0	0.96	4.2	382	1209	681	1.12
NC46	13.4	21.0	7.6	0.31	6.3	550	1236	1141	0.53
including	17.0	18.0	1.0	0.89	36.0	751	7200	7098	1.95
NC47	3.1	55.4	52.3	0.27	6.7	381	3441	2939	0.62
including	7.6	10.5	2.9	0.58	19.7	639	6657	5056	1.31
NC47	18.2	25.0	6.8	1.48	13.2	318	9184	9580	2.33
including	21.0	22.1	1.1	3.69	58.0	997	48100	47500	7.78
NC47	30.0	46.0	16.0	0.02	9.4	213	5022	3324	0.45
including	31.0	31.6	0.6	0.07	61.0	158	34500	5233	2.23
NC47	80.5	86.0	5.5	1.30	2.3	203	857	1423	1.43
including	80.5	82.5	2.0	3.07	5.0	257	1414	2523	3.30
NC48	4.0	8.0	4.0	0.52	12.5	1067	3270	4423	1.07
NC48	16.0	18.0	2.0	8.91	72.5	1058	59550	65850	14.20
NC48	33.0	40.0	7.0	0.14	7.4	216	3974	3485	0.51
NC49	6.0	9.0	3.0	0.26	10.0	1133	1292	1819	0.62
including	8.0	9.0	1.0	0.24	24.0	821	3106	4753	0.93
NC49	67.0	75.1	8.1	0.97	0.0	109	40	35	0.98
including	67.0	71.0	4.0	1.30	0.0	92	39	43	1.31
NC50	24.0	50.0	26.0	0.18	34.7	384	26097	18426	2.18
NC50	27.7	41.1	13.4	0.31	53.5	482	40829	29876	3.44
including	35.3	37.8	2.5	0.38	103.0	952	80132	71264	6.94
NC51	16.0	61.6	45.6	0.54	14.3	463	7930	8239	1.32
including	17.0	41.6	24.6	0.99	22.9	741	13057	13552	2.27
including	18.0	19.0	1.0	12.00	4.0	1410	1431	1005	12.28
including	27.0	28.0	1.0	3.01	24.0	1557	16100	14700	4.53
including	37.0	41.6	4.6	1.10	89.0	933	58383	58454	6.32
including	38.1	39.5	1.4	2.96	187.4	1273	110643	125143	13.57
NC52	25.0	27.0	2.0	2.61	3.5	192	246	306	2.70
NC52	26.0	27.0	1.0	4.29	2.0	17	247	138	4.33

Table 5: Higgs Gold Mine Significant Drill Analysis Intervals

*(*NB: Au(g/t) Equivalent is based upon metal prices on 25/2/2009, being US$965.7/oz Au, US$0.4826/lb Zn, US$0.4497/Lb Pb, & US$1.4472/lb Cu, US$13.675/oz Ag; The formula used is Au(g/t) Equivalent = Au(g/t) + 0.34267 x %Zn + 0.31931 x %Pb + 1.0276 x %Cu + 0.01416 x g/t Ag)*

Drill Hole Analysis

Drill core samples were submitted to Burnie Research Laboratories for analysis for Au via fire assay with Cu, Pb, Zn and Ag analysed via AAS (See Appendix 5). Some analysis on select intervals was undertaken for W, Sn and Mo. Standards were submitted at the equivalent of approximately one per 20 to 25 samples. (~20 to 25m down hole). Gold in the standards (samples with suffix A) returned ~0.3g/t lower for some batches. Analysis of duplicates visually appear to be relatively similar to the originals. Standards data have not been quantitatively assessed to-date.

The standard used was Geostats Reference Material (Ref No: G905-6), which has a stated fire assay return 5.96 +/- 0.26g/t Au and Aqua Regia 5.86 +/- 0.20g/t Au.

Test analysis for Bismuth was warranted given that this element reaches elevated levels (<0.28%) in previous drill core analysis and a link to Bi-Au mineralisation at the nearby Stormont Gold Mine (RL4/2005) is likely. All Bi analysis from NC43 returned low values, with the maximum being 248ppm. Whereas, gold near the bottom of hole NC49 correlates well with elevated bismuth (to 659ppm) suggesting a potential genetic link to Stormont Au-Bi mineralisation.

Specific Gravity Determinations

A total of 258 specific gravity determinations on Higgs Gold Mine drill core were made via the water displacement method. These added to the 95 previously sampled, bringing the total to 353 determinations (see digital data appended). This data was utilised for resource calculations. The average SG from all readings was ~2.83g/cm3.

The data was collected at ~1m intervals within significantly mineralised zones, with scattered determinations elsewhere.

Section Notes

Section 5850mE

NC08 has been included in the resource calculation underway as the furthest NW extent of the 100 Lode. This is problematic upon the basis of previous interpretation, which suggested a major fault (Narrawa Creek Fault Zone) cut through NC07 on 5875E, thus extending Lode 100 on this basis would be invalid. However recent interpretation suggests this fault may not exist in the form it was thought to have. In fact it appears that NW orientated faults are significant controls, upon which basis the Lode 100 extension is valid. Regardless grade is low in NC08 on 5850E and doesn't contribute much to the resource, excepting that some tonnes of reasonable grade will be extrapolated further from section 5875E.

A shear is noted at the top of micro-conglomerate in the Jervois logs. This possibly in part represents the "Narrawa Creek Fault". The basal micro-conglomerate is chlorite and garnet altered after skarn, which suggests that further deepening this hole is warranted, targeting a sinistral offset to the Main Higgs mineralisation, and likely NE of the late SW dip brittle fault, as well as the Narrawa Creek Fault Zone.

Section 5875mE

NC07 possibly lies at the intersection of the moderate SW dip resource bounding (HGM) fault and the previously interpreted Narrawa Creek Fault Zone. The drill hole trace is now interpreted to lie in the immediate hangingwall to the SW dipping HGM fault.

Section 5887.5mE

Drill holes NC47 to 49 on this section were all strongly broken and faulted in the upper ~20m. Two principal mineralised zones were returned from NC47 and 48 (~6 to 25m), however whilst the pyrite rich semi-massive sulphide near top of NC49 is similar to that in NC48, the lower basemetal rich semi-massive sulphide is faulted off down hole in NC49. The latter hole deviated significantly from 213TN to 203TN azimuth; a reflection of the HGM Fault drilled. Conversely in NC44, the lower sulphide zone appears more leached and silicified that the contiguous upper more base metal rich. This suggests that whilst two horizons are identified, alteration and mineralisation style can be laterally somewhat variable and / or faulted.

NC47 (213TN/-45, EOH 100.6m) targeted Lode100 and 200, as well as extending into the footwall to test a 0.38g/t gold in soil anomaly. It's source was not positively identified. Weak skarn was intersected from ~80 to 85m and possibly relates to steeply northeast dipping vein/structure related mineralisation. A second target scenario applicable to the soil anomaly is shallow northeast dipping bedding replacement style mineralisation; this now appearing to be a likely explanation for the gold in soil occurrence upslope from Higgs. This represents a further target for later follow up.

Notably in NC48 from 21 to 36.5m there are numerous quartz veins commonly bearing bladed wolfram. These quartz – greisen veins are at ~20 to 30 LCA from 35.05 to 35.2m, indicating likely moderate SW dip similar to up at Squib. A nearby vein is at ~10LCA also bears fine grained disseminated molybdenite. Also notable in NC48 at ~6m is a possible scour on a siltstone bed top indicates up to E/NE facing.

Section 5900mE

Similar to adjacent sections, the mineralised zones have moderate to steep NE dip, whilst NE of the Narrawa Creek lithologies are interpreted to have a shallower NE dip.

NE of the resource, a porphyry dyke passes relatively flat lying through NC01 and NC37; sub-parallel to the known fluorite bearing vein orientation.

Section 5912.5mE

Four drill holes, NC43 to 46, were completed on Section 5912.5mN. These holes provide a sectional drill fan, targeting the known extent of Higgs gold Mine mineralisation and test an inferred mineralised extension to the NE beneath Narrawa Creek.

The mineralisation intersected beneath the Higgs Gold Mine workings is visually strong over intervals to 30m and bears galena and sphalerite, as well as abundant pyrite and pyrrhotite in extensive zones of semi-massive sulphide, which locally forms massive sulphide up to 3m in thickness. The mineralisation intersected is largely replacement style, often being focused upon more porous granule sandstone interbeds, within a sequence of variable silica-sulphide and quartz – fluorite veined pyroxene skarn, calcsilicate and biotite altered hornfels sandstones.

Section 5912mE is a critical section providing highly revealing information for developing interpretation, since NC46 drills back to the NE away from the fanned holes targeting beneath the Higgs Gold Mine; thus more structural and lithological orientations are intersected. NC 46, was completed at 60m, having intersected significant skarn and sulphide mineralisation from 9.3 to 21m. The 10.4 to 15m intervals bears bands of massive basemetal sulphide, whilst semi-massive sulphide altered and skarnified hornfels is evident 15 to 21m. This intersection, whilst returning low tenor metal analysis, is very promising expanding the known resource and significantly adding to understanding of the mineralisation form.

Sectional analysis reveals a stacked series of moderately SW dipping faults denoted by broken and cataclasite zones, some with quartz vein (+/- fluorite) infill. These faults evidently displace the near surface mineralisation at depth, the offset being unclear, but a possible correlation of coarse sandstone in the base of NC36 and mid NC46 suggests bedding is of shallower dip beneath the HGM fault surface. Despite the additional data present for this section, interpretation remains uncertain at depth in NC45, where granule sandstone correlations are unclear.

Section 5925mE

Interpretation on this section indicates that bedding is likely steeply NE dipping, projecting up dip toward the SW pit margin for the lowest granule sandstone unit – 100 Lode. This is in agreement with previous interpretation.

However mineralisation is fault terminated at depth by the SW dipping HGM Fault. A highly broken zone in the top 13m of NC12, combined with presence of SW dipping greisen veins down hole are reflections of the HGM Fault. This fault apparently bisects the drill holes NC12 and NC 19, with the latter being little mineralised down dip / beneath the fault surface.

The moderately NE dipping quartz vein near the top of NC12 correlates well with that on section 5912.5mE, but apparently doesn’t extend through the HGM Fault to NC19.

Section 5937.5mE

Notably significant areas have been ground sluiced in the Higgs Gold Mine vicinity. However, the elluvium (~2.4m deep) beneath the drill pad for this section is possibly unsluiced since a significant rock wall lies immediately to the south west side of the drill pad, adjacent to the creek.

A significant fault of moderate SW dip exists between hole NC51 and NC52 (HGM Fault); this is in part evidenced by significant broken ground and faulting in the top of

NC52, but also by similar minor faults and fluorite bearing veins at depth in the latter. Further, fault orientations in the upper portion of NC52 are sub parallel to core and a significant fault is intersected in NC22 drilled on a northerly orientation, opposed to the NC50 to 52 holes. This intersection based on current surveying places the fault very close to the NC51 trace, but based upon the lack of significant faulting, excepting one minor fault at depth, the trace of the HGM Fault on section is placed closer to a bisecting angle between NC51 and 52.

NC50 and 51 successfully intersected Lode 100 and 200 mineralised zones, returning a broad ~25m thickness bearing semi-massive to locally massive base-metal rich sulphides and two skarn intervals. All holes on this section are broken and faulted near the top of hole with NC52 overall being relatively broken throughout reflecting proximity to brittle faulting. NC52 passes through the HGM Fault around 19m and fails to intersect significant mineralisation. Further at ~21m in NC52, relict bedding @ 85LCA displays weak grading and a scoured base in a 5cm granule conglomerate interbed suggesting facing is SW up; opposed to the NE facing noted above the HGM Fault in NC48 on section 5887.5mE.

Similar to Section 5912mE, mineralised lithologies apparently dip moderately to steeply NE. At 21m in NC51 bedding is 101/64E from orientated core, in concert with the apparent dip of mineralisation. The basemetal rich vein in NC22, at low angle to core axis, lines up with veining in NC50, similarly providing an apparent vein mineralisation dip of -60 to -70NE.

A significant quartz vein is intersected in NC51 within a faulted broken zone around 58m; it bears minor euhedral pyrite (<0.5%) and calcite/carbonate within vugs and sparse disseminated molybdenite near the 10LCA down hole end of vein. This vein has similar accessory minerals to the Wolfram bearing veins in NC49, but re-analyses were not anomalous in W, Sn or Mo.

Section 5950mE

The HGM Fault apparently terminates to the SE, cut off by the NC05 Fault. The latter passes at an acute angle through section, with a splay inferred between ND03 and NC18.

Section 5962.5mE

A further 3 holes were planned for section 5962mE, but these were not drilled due to budget and timing constraints at that time. This section was planned to test the NC05 area fault offset; an area where interpretation is lacking due to a lack of continuity between logged mineralisation and geology on section. NC05 targeted but failed to intersect mineralisation down dip from 3m @ ~17g/t Au in a trench. Explaining this is a NNE aligned sinistral fault (NC05 Fault) with approximately 15m offset.

A drill hole(s) targeting the projected mineralised zone from 5975mE will likely meet success between the NC05 and ND03 traces.

Section 5975mE

Structure on this section differs markedly from that NW of the NC05 Fault. Mineralisation here apparently dips more steeply NE and displays minor normal NE dip faulted dislocations. Significant core loss from 21 to 24m in NC29 likely represents this fault, accommodating the offset in the mineralisation between this and NC27. Further justification for this fault comes from orientated core. This reveals bedding at 235/50W at ~85m in NC30, beneath the inferred fault, whilst in NC27 bedding is 115/70E; justifying the inferred fault.

Section 6000mE

The mineralised zone from NC32 projects toward what appears to be a little mineralised basal portion of NC31. However the latter hole did intersect weathered skarn and was highly broken and abandoned with poor core recovery returned from weathered rock; thus projecting mineralisation through the basal portion of this hole is acceptable.

A NE dip fault inferred from the adjacent section 5975E projects to the west of section and likely dislocates mineralisation further to the SW.

Geology

The geology of the Narrawa Creek area has been reported by past by Reid and McDougall (2005) and others. The following primarily explains the structural complexity of the Higgs Gold Mine, with notes on geology, mineralisation and alteration adding to past reporting.

Several principal faults are identified, however in reality a number of sub-parallel faults, dipping both NE and SW, can be identified. These are offset by a late NNE aligned fault. Two principal mineralising events identified are early stratabound and veined NE dipping base-metal followed by SW dipping Tungsten bearing greisen, both likely forming during periods of relative extension on their respective host structures.

A key finding is that mineralised stratigraphy is possibly normally displaced by SW dipping faults (eg. HGM Fault, Section 5912mE), with mineralised strata progressively dropping down from up the slope to the NE of Higgs. More drilling targeting resource expansion is required to test the structural model presented.

Lode Form

The lode forms are Higgs are largely a reflection of stratabound bedding replacement with sub parallel base-metal sulphide veining. Five lodes are identified (Figure 2), three of which are currently defined as inferred resource (100, 200 & 300 Lodes) with resource status upgrade likely to result from recent drilling.

Two moderate to steep NE dipping lodes are identified in the main Higgs Gold Mine vicinity (Lodes 100 & 200). These are reflected in the cross cuts and main ore mined in the workings plan as well as in drill holes. Lodes 100 (~115m long) and 200

thicken, near coalescing toward the central section 5925mE; but then are rapidly cut off on section 5937mE by the NNE aligned NC05 Fault of probable steep NW dip. Both lodes are depth limited by the SW dipping HGM Fault.

A low tenor Pb and Zn bearing zone (400 Lode) exists footwall and sub parallel to the main Au Lodes 100 and 200; this bears little Au and is best reflected on sections 5912 to 5937mE.

Northeast of the HGM Fault, a further tentatively defined moderate dipping faulted lode (500 Lode) is brittle fault separated from the 100 and 200 Lodes. This lode apparently plunges to depth toward NC36 (32m @ 1.2g/t Au). This interval may correlate with the combined 100 & 200 Lodes and more drilling is warranted to better define this potential resource area.

The steeply NE dipping, ~90m long, 300 Lode is located to the SE of the HGM Fault. This Lode is evidently normally (~5m) offset by one such fault (see Section 5975mE) in an area dominantly influenced by NE dipping faults.

Structure

Some general observations relating to structure of the Narrawa Creek area are presented here, followed by more detail on significant identified structure and synthesis.

High wavelength open folding is interpreted by previous workers for the region, whereas in structural zones such as at Round Mountain, the folding is apparently moderately tight; similar may be the case at Higgs.

All bedding and banding readings form a great circle defining folding of plunge 22^{o} to 320^{o}. This is consistent with a hinge strike parallel to some of the dominant veins / fractures. Bedding alone returns a likely more realistic fold plunge of 45^{o} to 305^{o} (Figures 3 & 4).

Quartz sulphide and quartz veins are of similar dip, with three populations at 150/-35 (-35/60dip dir) to -40, 80/-20 (-20/170dip dir) to -55, 190/-85 to -90 (-85/280dip dir; Figure 5). The first quartz vein set is parallel to a set of base metal bearing veins; others are at ~330/-40 to -60 (-50/240dip dir), sub-parallel to calc-sil veins which are commonly 330/-50 (-50/240dip dir); this is also similar to a group of chlorite veins at 345/-30 to -40 (-35/255dip dir) and also a quartz-flourite vein at 345/58W (-58/255dip dir).

Pyrite veins appear to be largely shallow to moderately SW dipping. Other basemetal bearing veins have dips sub parallel / similar to bedding and banding.

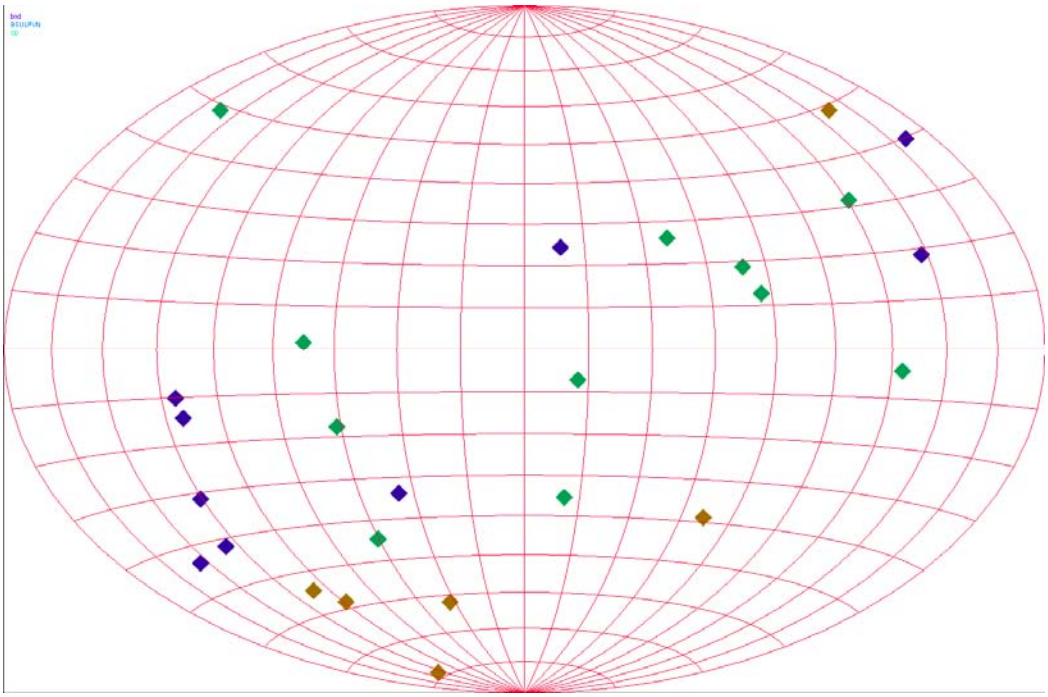


Figure 3: Steronet showing bedding in tan, banding in blue and basemetal bearing veins in green.

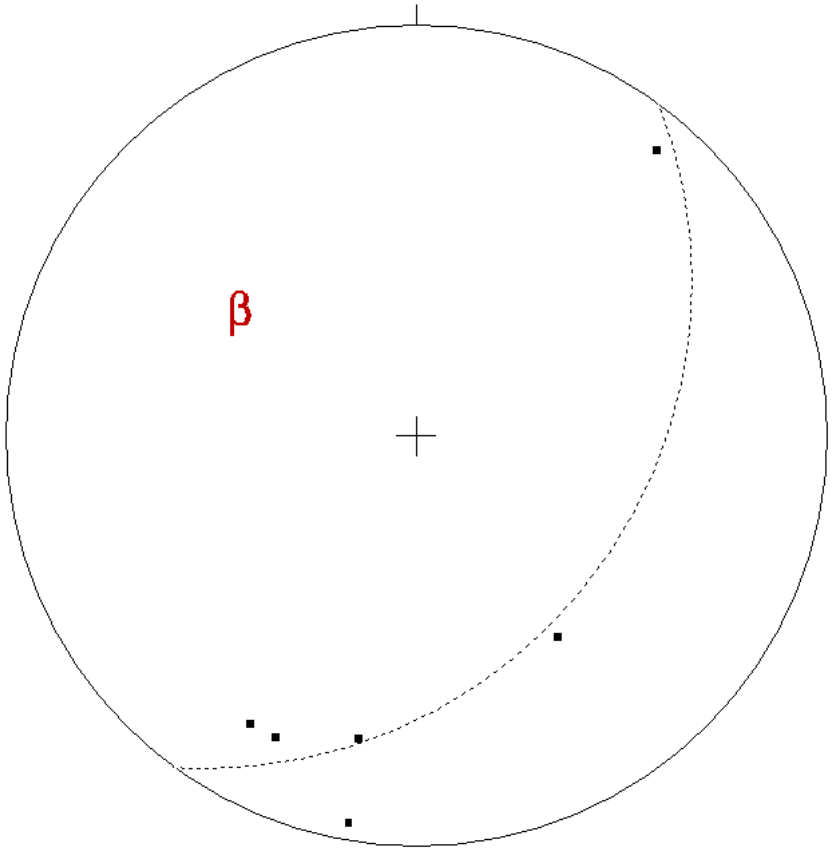


Figure 4: Bedding stereonet indicating fold plunge of 45 to 305.

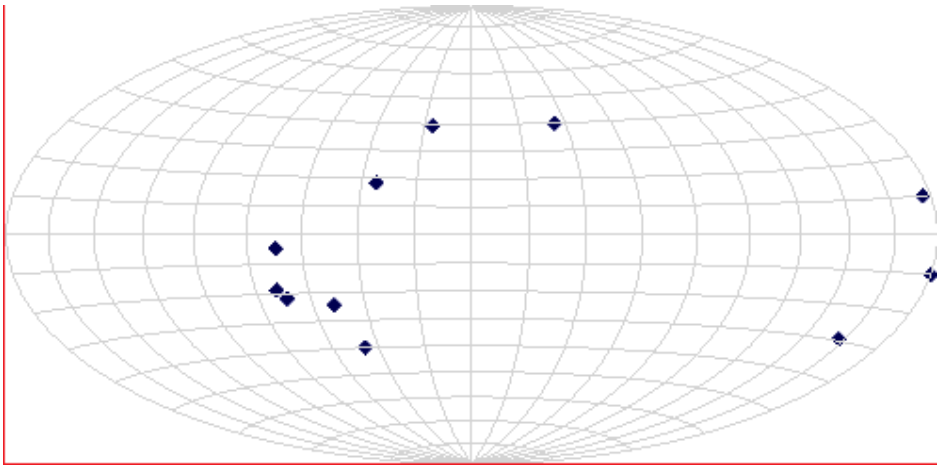


Figure 5: Quartz sulphide veins; many strike and dip 150/-40E

HGM Fault

The HGM Fault (Figure 2) appears to be a primary structure, bedding apparently changing from ~-70NE dip to relatively moderate dipping to the NE across this fault. The HGM Fault dips moderately SW, chopping off base metal mineralisation in the 100 and 200 Lodes at depth. The HGM Fault appears to be cross cut and offset by the NC05 Fault.

This is a brittle fault zone, often comprising zones of strongly broken core with minor fault pug/clay and cataclasite evident locally. Similar sub-parallel but more weakly developed structures are evident in the immediate hangingwall. Extensive broken and fractured core extends to depth on a number of sections (being evident in the top of NC06, NC12, NC07 and NC50), reflecting drilling of this fault.

The common presence of flourite bearing veins sub parallel to core in SW directed drill holes also attests to the presence of the fault. These late fluorite bearing veins appear to dip moderately to the SW with one drill core orientation indicating 345/58SW dip. Whilst flourite bearing veins are mostly SW dipping fault parallel, orthogonal angle veins lie in the immediate hangingwall to the HGM fault.

Further NW in the West Higgs area, a similarly orientated SW dipping cataclasite bearing fault is intersected from 40 to 42.5m in NC10 and is associated with low tenor Au (~1.5g/t Au). Similarly, the faulted zone in ND3 has fractures sub parallel to long core axis, indicative of a SW dipping fault zone. Similar orientation is interpreted here for fluorite bearing veins. No Higgs' like lithologies are intersected in the West Higgs area, which suggests that Au mineralisation here is of late fault (/fluorite vein?) related form, rather than the earlier basemetal sulphide bedding replacement mineralisation. Mineralised stratigraphy from this area is possibly sinistrally displaced WNW toward the extensive gold in soil anomalies upslope from the north bank of Narrawa Creek.

NE Dipping Faults

A series of moderate NE dip brittle faults are apparently on most sections in the Higgs gold Mine vicinity. Notably, NE dip faults showing normal movement are common to the SE of the NC05 Fault, but SW dipping faults are less readily identified. In this area, significant exploration potential exists beneath the basal identified NE dip fault, SW of the known mineralisation. It's possible that the Au in soil anomaly up slope to the SW of Higgs is a normally fault displaced from Higgs.

The NE and SW dipping faults both display evidence of normal movement; being observed fault offset on section and interpreted extensional basemetal and quartz veins. eg. A significant quartz vein of NE moderate dip (~-55) is readily traced through sections 5937 to 5912mE. Relative extension on NE dipping faults could also have enhanced basemetal mineralisation's access to more porous NE dip beds.

Whilst normal fault movement is observed, it's likely that the NE dipping faults are later reactivated as reverse / thrust faults related to west directed compression / thrust faulting. The latter being evident in the local region at Stormont to the west and Round Mountain to the east (Figure 6). Supporting are observations from the top of ND1, where quartz veining opposes low angle to LCA fracturing and also a shear with sericitic fabric bears quartz boudins. Given that most quartz veins are NE dipping from section interpretation, this suggests that the shear is steep NE dipping. This same structure likely passes near the NC01 area to the SE of this location. This event predates quartz-W extension related veins.

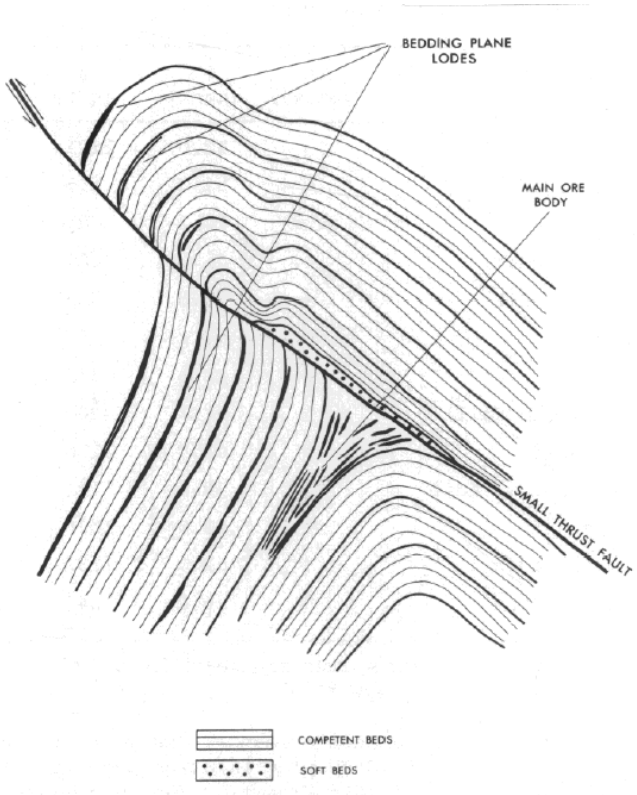


Figure 9. *Sketch section to illustrate the formation of the ore deposits at Round Hill (after Jennings, 1958).*

Figure 6: From Jennings, 1979)

NC05 Fault

The NNE aligned NC05 Fault of inferred steep NW dip, crosscuts the SW dipping HGM Fault (Figure 2). The NC05 Fault is evidently quite significant since bedding changes markedly crossing this zone and the mineralisation is dislocated by an inferred sinistral offset of ~15m. NW of the fault, bedding dips moderate to steeply NE with the mineralisation and beneath the HGM Fault it's orientation based upon weak evidence possibly changes to a SW dip. Whereas SE of the NC05 Fault, there is no evidence of the HGM Fault and moderately NE dipping faults displaying normal offset are the dominant control. The mineralisation and bedding here apparently dips more steeply (100/-85E to 120/-70E) nearer to surface in NC27, whereas beneath the principal NE dipping fault, bedding dip is opposed at 235/-50W in NC30.

The exact nature and orientation of the NC05 Fault is unclear, but it apparently passes through drill hole NC05, as well as the top of NC22. This broken brittle fault is likely in part reflected by the creek's northerly course.

The NC05 Fault possibly splays as it extends NE away from the Higgs Lodes. Apparent (~60m) sinistral offset in magnetic anomalies associated with pyrrhotitic skarn at surface up slope NE of Narrawa Creek could be interpreted as a N to NNW fault splay. Notably the NC05 Fault offset between the 100 Lode and 500 Lode is similarly ~60m, whereas conversely the 300 Lode appears little offset from the 100 Lode, but possibly reaches surface immediately NE of the NC05 collar (an offset <15m). Drill hole interpretation also indicates the possibility of a steep NW dip splay running NNE between NC18 and ND03 (Figure 2). A single late brittle fault at 50/77 (77/140dip dir) has been measured in NC27; this orientation possibly reflecting compression related to sinistral movement on the NC05 fault.

Narrawa Creek Fault Zone

There is no clear evidence for the existence of the Narrawa Creek Fault Zone (Figure 2), despite a significant fault projecting towards Higgs being mapped by MRT at 1:25,000 further east down Narrawa Creek. However, soil gridded for W appears to reflect minor mineralisation on E-W to WSW Narrawa Creek Fault equivalent orientation. Several other primary faulting directions highlighted are NW-SE (major dilation orientation at Squib) and possibly NE-SW reflected in sinistral (W & Zn) anomaly offsets.

3D interpretation of drill holes the Higgs gold Mine Area also finds no clear evidence of a significant fault structure on the WSW orientation of the inferred Narrawa Creek Fault. The Narrawa Creek Fault Zone was previously interpreted to pass through the zone of faulted and broken core in NC07, however similar features are now identified on most sections. This fault zone of NW strike and moderate to steep SW dip is now termed the Higgs Gold Mine Fault (HGM Fault). Further, there is no indication of this fault passing through ND02 (which projects beneath NC07), suggesting that the fault has to be at least moderate to steep roughly S dipping; if it exists. A fault deep in NC49 could represent this fault if it were of steep SSE dip.

It's possible the Narrawa Creek Fault is little reflected in the immediate Higgs Gold Mine area, since the latter possibly represents a dilatent jogg at the intersection of principal WSW and NW orientated structures. Sinistral offset on the inferred Narrawa Creek Fault fits with a SW-NE principal stress orientation during early compression. The NC05 Fault is similarly inferred to be of sinistral offset and this implies a similar offset on the NE dipping faults with some reverse movement during this event.

Alteration and Mineralisation

Mineralisation timing is likely skarn related Au+/-pervasive biotite with Pb-Zn-Ag bedding replacement with a retrograde vein style Pb-Zn-Ag overprint, possibly on the western limb of an anticline at Higgs.

Pervasive silicification accompanied by dentritic pyrite growth is common outside mineralised zones; a feature in common with skarn mineralisation in general.

Biotite is commonly pervasive within brown hornfels and is locally overprinted by pervasive grey silica, locally leaving relict brown hornfels "islands". Conversely, in NC47 moderate intensity patchy biotite-skarn replacement possibly overprints pervasive silica alteration since disseminated sulphide is strongest near biotite zone margins. Both instances reflect the potential for telescoped alteration and mineralisation over the protracted history of the mineralising system. Biotite rich zones typically bear weakly disseminated sulphide, but often trend to semi-massive sulphide with apparent increasing biotite content. Overprinting of biotite zones by skarn and calc-silicate alteration is also a feature reflecting early biotite formation in the paragenetic sequence.

Disseminated sulphide, particularly base metal, is sparse in skarn altered zones in general. Whereas, green skarn-like veinlets, bearing pyroxene and chlorite are locally evident and likely reflect proximity to stronger skarn. These often exhibit sharp but irregular light green silica contacts. Light green silica (only) semi-pervassive veins possibly represent a slightly more distal to skarn end members of the skarn-like veinlets. This and other observations fit with early basemetal bearing replacement style sulphides forming prior to or as a zone ahead of pro-grade emplaced skarn alteration. Massive galena veins / gashes possibly representing remobilised sulphide ahead of a hot skarn or a retrograde skarn-related vein source. The latter origin is less favoured since massive galena veins do not appear to intersect skarn.

Brecciated pyrite-flourite veining is clearly later than biotite alteration and semi-massive sulphide mineralisation. Flourite bearing veins are typically at low angle to long core axis' (SW dip), but opposing angles are evident to a lesser extent. The W-Sn-Mo-Au-Quartz-veined granite-related association appears to be late, overprinting the earlier BMS related mineralisation.

Synthesis

The structural and mineralisation history of the Higgs Gold Mine area is interpreted to result from a series of tectonic compression and rebound events. This appears to result in a number of fault reactivations with displacements of unclear extent. A likely structural mineralisation history is summarised as:-

- Cambrian VHMS mineralisation?
- Devonian open folding.
- Late Devonian granite intrusion with related uplift; associated NE dipping extension (normal) faults.
- Prograde granite-related early basemetal mineralisation (Proximal to / related to skarn); along NE moderate to steep faults and as ~ bedding parallel replacement on granule sandstone bearing beds proximal to fault feeders. Possibly partially remobilising Cambrain VHMS?
- WNW aligned sinistral wrench faulting resulting from a SW-NE principal stress orientation, with west directed thrusting on reactivated moderate NE dipping reverse faults; shattering and boudinaging NE dip fault-host basemetal and quartz veins.
- Rebound extension, principally on SW dip faults, coincident with porphyry related quartz-flourite-wollastonite veins and W-Mo+/-Sn-Au greisen and veins.
- Later brittle faulting?

Tungsten Potential

RL3/2005 is host to a rich diversity of minerals, largely related to the intrusion of the Dolcoath Granite; an “I-Type”; these having a demonstrated relationship to IRGD (Intrusion-related gold) and Tungsten-Molybdenum deposits. The Retention License’s variety of mineral associations include Au-Ag-Pb-Zn (Higgs) and W-Mo-Bi+/-Sn -Au (eg. Squib), occurring at a dozen or more prospects, within a district that hosts around 70 prospects within a 4km radius.

The best potential for W-Mo-Bi mineralisation obviously exists in the immediate Squib mine area. The Squib mined high grade Wolfram (W-Mo-Bi+/-Sn and Au) bearing quartz veins and historically produced around 34.5tonnes of tungsten, which equates to approximately half of Australia’s current annual production. Notably peak W soil analysis were apparently not targeted by the nearby drill hole DD82DG3, which targets lower tenor soil analysis (<730ppm W) related to Black’s working and returned modest W similar to that in soils.

The spatial distribution of mineralisation style reflects proximity to the granite source. Within the granite, the Squib Open Cut mined greisen bearing pegmatitic veins and numerous narrow quartz veins. Located some 70m northeast, the mined termination of the East Vein was noted to split into numerous thinner veins. Whereas more distal to the granite, wolfram-bearing quartz veins are well defined as the 200 to 300mm West Vein and 75 to 200mm East Vein. The mineralisation form suggests that modest sized low grade open cut potential exists in the vicinity of the granite contact with rich underground mineable lode potential extending north west away from this area. The total known/indicated strike length potential, encompassing both high and low grade Tungsten mineralisation is approximately 800m (Figure 7).

The high grade potential is supported by high grade rock chip analysis from the Lower Workings mullock dump, returning up to 5% WO3, whereas, 3.19% WO3 was

returned from a 6” wide lode at the NW termination of a drive beneath the SW end of the Squib Open Cut. Gold is noted as a minor accessory at Squib, with previous explorers sampling returning up to 6.95g/t Au from the Truscot’s Adit dump (upper workings; Weber, 1982).

Drill hole intersections, some 500m distant to the north west of the Squib Open Cut in the Narrawa Creek Mine area represent probable strike equivalents of the Squib lodes (Figure 7), with no drill holes to-date targeted between these sites. The potential here is evident as an intersection of 1.26% WO3 and 0.12% Mo over 0.5m in DD82DG1 (from 166.5m). Whereas, the nearby DD82DG2 returned 14.45m @ 0.12% W (Table ?). Elevated Tungsten is also found in the Higgs Gold Mine area. The Tungsten occurrences above reflect W-Mo-Bi potential to depth above and including the granite spine that extends north west away from the main granite outcrop.

Low grade untested open pit potential exists in the Squib Open Cut vicinity, as reflected by a broad Tungsten in soil anomalous zone trending north west along a granite spine near the main granite bodies margin (Figure 7). Notably drill hole DD82DG3, collared approximately 200m to the east of the Squib Open Cut, drills away from the strongest tungsten in soils, targeting Black’s Lode and Black’s Lower Workings. This apparently poorly targeted hole drilled beneath only modest Tungsten in soils but returns a wide low grade intersection of 174m, which includes credits from extensive low tenor WO3 (mostly 100 to 1600ppm), Bi (<5500ppm) and Mo(<340ppm).

Table 6 lists significant intervals for tungsten in the Narrawa Creek area. It’s designed to show the general tungsten distribution with a cut off grade of 500ppm W and allowing 3m of unspecified internal dilution, allowing several proximal higher grade samples to be joined as the one “potentially mineable” interval.

Trenching

A trench (FRSQC01) was excavator dug for 34m along the access track edge roughly perpendicular to the surface trace of mineralisation. Composite-channel / trench sampling at 2m intervals (433629 to 433645; 17 samples) was undertaken and logged, but is yet to be analysed. Both the East and West Squib Lodes were covered by this trench, with numerous thin quartz veins and well as pervasive silica/greisen altered zones being sampled.

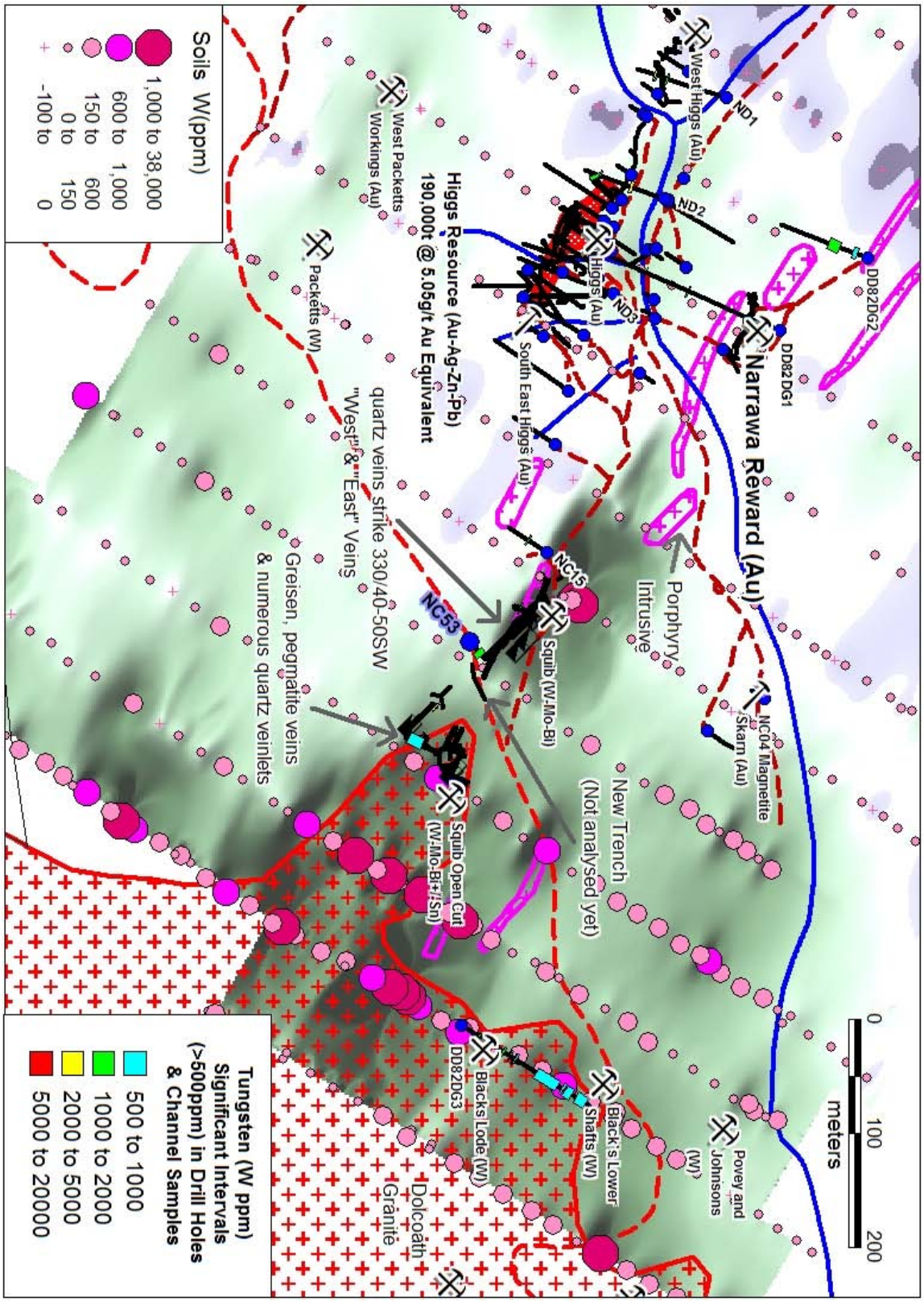


Figure 7: Narrawa Creek RL4/2006 Tungsten Potential , showing significant Tungsten intervals in Drill Holes, Channel Samples (NB: Intervals <2m have been extended to 2m for display purposes) and soils; background is W in soil gridded.

Hole_ID	From (m)	Interval (m)	Au (ppm)	W (ppm)	Bi (ppm)	Mo (ppm)	Type
DD82DG1	114.5	1.00	0.00	1010	0	70	Drill Hole
DD82DG1	166.5	0.50	0.00	12600	0	1190	Drill Hole
DD82DG2	14.5	5.50	0.00	631	0	0	Drill Hole
DD82DG2	37.75	14.45	0.00	1219	0	0	Drill Hole
DD82DG3	25.5	0.50	0.03	1380	2900	240	Drill Hole
DD82DG3	39.4	1.50	0.00	520	70	26	Drill Hole
DD82DG3	43.05	0.39	0.00	1040	870	48	Drill Hole
DD82DG3	47.8	0.43	0.01	561	200	66	Drill Hole
DD82DG3	61	2.00	0.01	999	120	340	Drill Hole
DD82DG3	71.1	0.90	0.00	869	200	92	Drill Hole
DD82DG3	77.45	0.60	0.00	791	5500	58	Drill Hole
DD82DG3	79.32	1.40	0.00	543	170	120	Drill Hole
DD82DG3	110.77	32.23	0.00	775	17	41	Drill Hole
DD82DG3	149	3.00	0.00	538	0	16	Drill Hole
DD82DG3	153.8	10.20	0.00	638	43	31	Drill Hole
DD82DG3	170	14.35	0.00	599	48	62	Drill Hole
NC15	27.2	0.90	0.00	970	0	10	Drill Hole
NCCS13	17	3.00	1.17	953	0	11	Channel
ND1	91	1.00	0.03	1030	0	10	Drill Hole
ND1	106	1.00	0.00	537	60	130	Drill Hole
ND1	108	2.00	0.00	2890	105	130	Drill Hole
ND2	49.8	4.30	0.01	4029	1048	12	Drill Hole
ND2	98	2.00	0.03	639	0	550	Drill Hole
NC53	21.7	10.50	0.00	2281	0	100	Drill Hole
GFSQ01	4.5	1.50	0.00	1290	0	28	Channel
GFSQ02	0	1.50	0.37	3295	0	0	Channel
GFSQ04	1.5	13.50	0.00	714	120	141	Channel
GFSQ06	0	1.50	0.00	6990	162	78	Channel

Table 6: Narrawa Creek (RL3/2005) Tungsten significant intervals from historic drill core and channel sampling.

NC53

Drill hole NC53 (425825mE, 5406560mN [AGD66, Zone55], azimuth 50TN/-60dip, EOH 38.6m; Figure 7) returned significant tungsten analysis despite not adequately testing the Squib lodes. The hole, collared on the Dolcoath Hill Track, targeted 330strike /40 to 50SW dipping lodes (West and East Vein's of the Squib workings) at approximately 15m beneath the reported bottom level of the workings. However a significant puggy fault was intersected around 32m and the hole terminated shortly thereafter when the barrel and three rods snapped off down hole in a cavity. The latter likely represents underground workings, which apparently extend to greater depth than is historically reported.

Results returned were consistently elevated in WO3 (commonly >250ppm) with a peak analysis of 0.65m @ 1.04% WO3 from 29.6m (Table 7), within a broader 10.5m @ 0.22% WO3. This result is encouraging, suggesting there is potential for extensive low grade Wolfram mineralisation marginal to quartz porphyry dykes and known higher grade quartz-W lodes.

Veins, locally with trace Wolfram are encountered sporadically from near surface; quartz locally forms 10% over a metre and thickest veins are up to 15cm. These differ slightly from intense greisen-silica veins, commonly bearing Wolfram blades (to 16mm & 3% locally), which superficially appear like quartz veins, but in fact represent focused silica replacement. Greisen is best developed on the porphyry margins.

It should be pointed out that Wolfram grades are typically spotty/erratic in nature and therefore testing via diamond drilling is no where near as conclusive as bulk sampling of exposed faces. Numerous diamond drill hole intercepts are ideally required to better ascertain more representative grades.

Hole_ID	From	To	Interval	Au ppm	Sn ppm	WO3 ppm	Mo ppm
NC44	29.60	32.00	2.4	0.56	325	168	1
NC47	13.1	17.5	4.4	0.18	328	339	0
NC48	21	38	17	0.24	210	1695	6
incl	22	23	1	0.06	150	1950	3
NC48	32	36	4	0.02	173	5873	13
incl	32	33	1	0.00	130	3380	47
incl	35	36	1	0.02	230	19800	6
NC51	56.5	59.6	3.1	0.00	110	189	28
NC53	4.2	38.6	34.4	0.01		866	
NC53	21.7	32.2	10.5	0.00	72	2281	100
incl	25.6	32.2	6.6	0.00	62	3169	122
incl	25.6	30.25	4.65	0.00	45	3915	127
incl	29.6	30.25	0.65	0.00	30	10400	384

Table 7: Significant Tungsten mineralised intervals from 2008 drill core.

Higgs W Potential

In the Higgs gold Mine vicinity, Tungsten analysis are restricted to earlier holes (DD82DG & ND series) with few analysis of more recent NC 13 to 17 holes outside the resource area. Notably Goldfields trenches returned appreciable W to 6990ppm from channel sampling.

Numerous narrow quartz – greisen veins bearing wolfram were noted in NC48. Subsequently, various core intervals with tungsten potential were reanalysed for W, Sn and Mo. Significant intervals are presented in Table 7.

An ultraviolet light was used to test for the presence of Scheelite on numerous recently drilled NC series drill holes (NC43 to 51). The entire core was assessed for most drill holes, but only select boxes were tested in some cases. Results were apparently negative for presence of scheelite, however fluorite bearing veins were readily detected and identified.

Potential Targets

Conceptual targets for within the resource area are shown on some sections appended with some further key targets outlined below:-

Near Resource

- Section 5912mE defines a likely scenario for normal fault offset mineralisation, revealing the potential to drill test this zone, preferable via SW directed drill holes from the access track on the NE side of Narrawa Creek.
- Further resource infill drilling, including drill testing the poorly understood section 5962mE.
- Conceptual targets SW of the 300 Lode

Strike potential

- To the SE; re targeting the magnetic anomaly between NC23 and NC16 to the SE of Higgs. Modest mineralisation was returned from NC16 with only a narrow deep weakly mineralised zone in NC23. Further targeting between NC16 and 15 could target stratabound Au-BMS with SW directed fanned holes(2) and Squib extension with NE directed holes(2). Multiple Squib Lode drill intercepts being preferable to reduce potential W “nugget effect”.
- The inferred anticline Au in soil anomaly ~250m WNW and likely in part fault dislocated from Higgs
- The Au in soil anomaly up slope SW of Higgs; requires track access up slope above Higgs.

References

Jennings, I. B., 1979. Sheffield Explanatory Report One Mile Geological Map Series. Tasmania Department of Mines (ER8115S).

McKenna, D., and Partners Pty. Ltd, 2003. Final Report on Dolcoath EL 37/97 Tasmania. J. G. Purvis and Associated Proprietry Ltd.; Jervois, Tasmanian Company Report (TCR 03_4846)

Reid R. O., and McDougall J., 2005. EL 29/2003-Gowrie Park Annual Report to September 23, 2005. Tasgold Ltd. Tasmanian Company Report.

Weber, G. B., 1982, Exploration in the vicinity of the Dolcoath Granite EL7/73 Sheffield – Northern Tasmania. CRA Exploration Pty. Ltd. Tasmanian Company Report (TCR 83_1938).

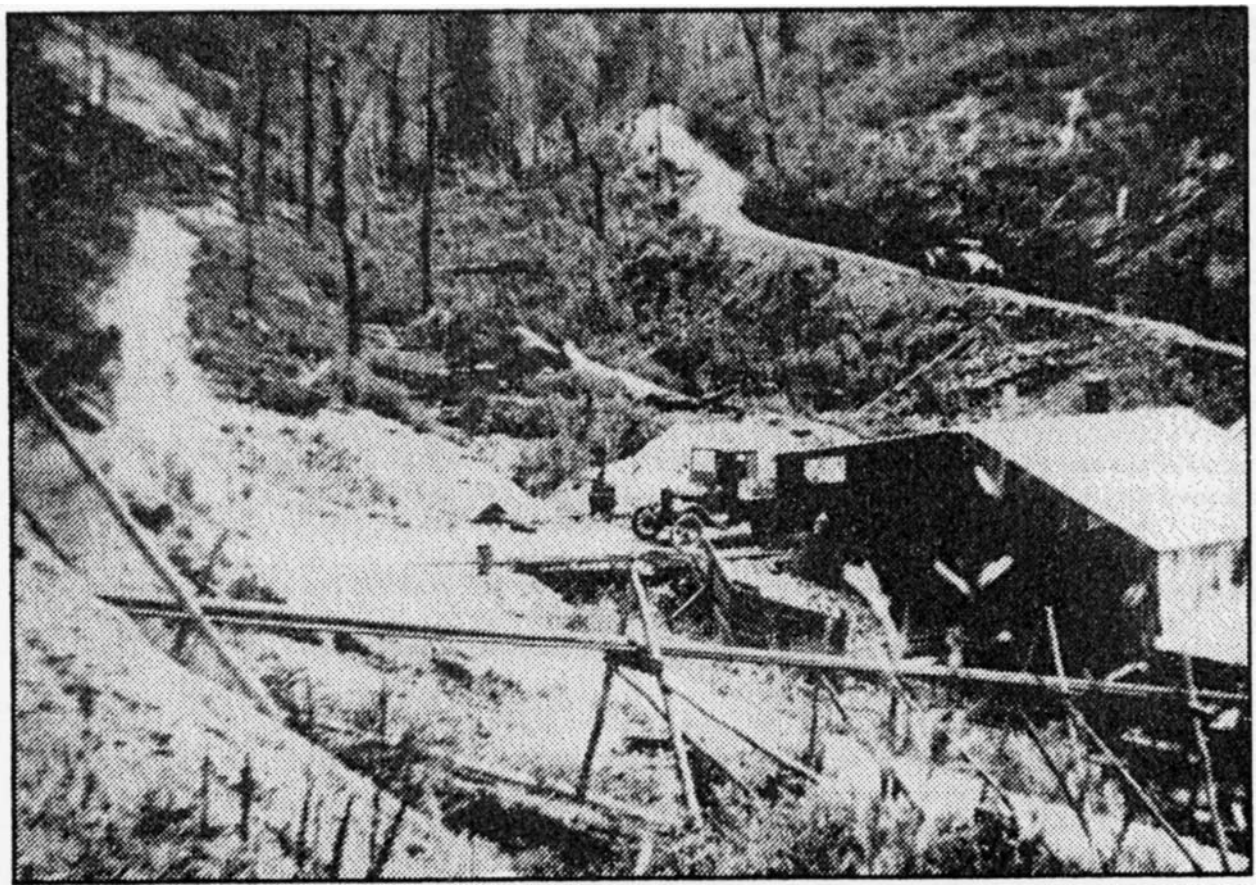
Appendices

Appendix 1: List of Appended Digital Data

RL032005_200905_01_Digital_Files.txt
RL032005_200905_02_Report.pdf
RL032005_200905_03_DH_Collar.csv
RL032005_200905_04_DH_Analysis.csv
RL032005_200905_05_DH_Survey.csv
RL032005_200905_06_DH_Geology.csv
RL032005_200905_07_DH_Orientated_Structure.csv
RL032005_200905_08_DH_LCA_Structure.csv
RL032005_200905_09_DH_Specific_Gravity.csv
RL032005_200905_10_DTM_Points.csv
RL032005_200905_11_100LodeWireframe.dxf
RL032005_200905_12_200LodeWireframe.dxf
RL032005_200905_13_300LodeWireframe.dxf
RL032005_200905_14_400LodeWireframe.dxf
RL032005_200905_15_UGWorkingsWireframe.dxf

Appendix 2: Heritage Survey Report

An Archaeological Survey of the Higgs Gold Mine, near Moina, North-western Tasmania.



A. E. (Tony) Webster

Mining Geoscience

August 2008

ACKNOWLEDGEMENTS

Rob Reid, the Exploration Manager of Frontier Resources Ltd commissioned the project and both he and the drilling crew provided good companionship (and the accommodation) while undertaking fieldwork at Moina.

Kathy Purser did the historical research at the Mineral Resources Tasmania (MRT) Library and located many of the key references. As usual, it would have been much harder to carry out this project without the help of Greg Dickens of MRT who provided a great deal of material from government records and from his own extensive personal collection.

Cover photograph: *The small mill at the Higgs Gold Mine in the 1930's (from Haygarth, 1998).*

1. INTRODUCTION

Frontier Resources Ltd (Frontier) intends to undertake a resource definition drilling programme over a known mineral resource at the former Higgs Gold Mine, located on Retention Licence (RL) 3/2005 (Figure 1). The aim of the work is to upgrade the existing resource to indicated and/or measured status, with a view to developing a small open cut mine and will involve approximately 700m of diamond drilling (Reid, 2008). The exploration programme will utilise a small, skid-mounted diamond drilling rig and small caterpillar tracked support equipment. The drilling programme is due to commence in July-August 2008.

In consultation with Officers of Mineral Resources Tasmania (MRT), Frontier recognised that an archaeological survey was required prior to the commencement of their drilling programme so that any impact on surviving elements of the historic mine sites and workings could be prevented (Reid, 2008). The verbal brief and emailed digital information defined the aims of the survey and the area to be examined (Rob Reid, personal communication, 16th July 2008) (Figure 2).

Frontier consider that much of the program can be undertaken with minimal earth works being required, with the exception of the south eastern end of the workings where minor track formation is required (Reid, 2008). Archaeological survey work is planned to be completed before access to potentially sensitive areas in the south east of the site is required. All activities are to be undertaken within the guidelines outlined in Mineral Resources Tasmania's Mineral Exploration Code of Practice (Reid, 2008).

1.1. Location of the Former Higgs Mine.

The Higgs Mine is situated within RL 3/2005 located in the central north of Tasmania, south of Sheffield. It occupies the northern slopes of Dolcoath Hill and lies to the west of Lake Cethana (Figure 1).

The terrain is rugged and forested, but accessible via sealed roads and numerous all-weather 4-wheel drive tracks. The RL lies in Crown Land, being mostly classified as State Forest, with MDC Informal Reserve lying in the northern and eastern sectors, and with a narrow sliver of Land Vested in the HEC/Aurora forming the north eastern margin (Reid, 2008).

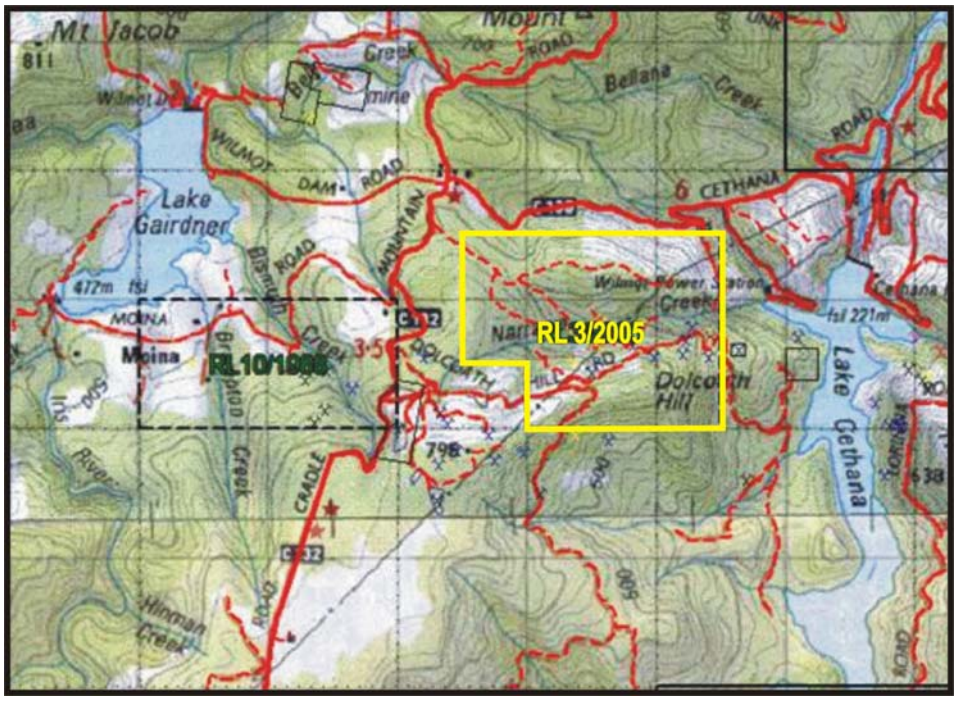


Figure 1: *Location of Frontier Resources Ltd Narrawa Creek Retention Licence 3/2005. The surveyed area lies in the approximate centre of the RL at the position where '3/2005' is written in yellow font. (Datum AGD66, AMG Zone 55).*

1.2. Survey Area

The details of the area that required archaeological surveying were supplied by email by Frontier on the 17th of July 2006 (Figure 2). The area surveyed straddles Narrawa Creek, a small easterly flowing creek at the northern foot of Dolcoath Hill that drains into the northwestern corner of Lake Cethana (Figures 1 and 2).

1.3. Site Access

The surveyed area can be accessed by 4WD vehicle via a well-made gravel road from the Cethana Rd to the west (approximately 1.5km) and from the Dolcoath Rd to the east (approximately 400 metres).

1.4. History of the Site

Three main phases of historical mining and exploration have occurred in the vicinity of the surveyed area;

1. 1890's: Early alluvial gold discovery, underground gold mine development, followed by early abandonment;

2. Early 20th Century: Wolfram and bismuth mining and ore treatment, and

3. 1930's-1940's: Ground sluicing; discovery of hard rock resources and small-scale adit-based underground mining and local ore treatment.

Historic mining activity has resulted in six main 'clusters' of historic activity within the surveyed area (see Figure 3 and section 2.4). Brief histories of the key mining operations lying within the surveyed area are presented in the following sections. Historic features remaining at each of these sites is described in section 2.4 and in the various Appendices.

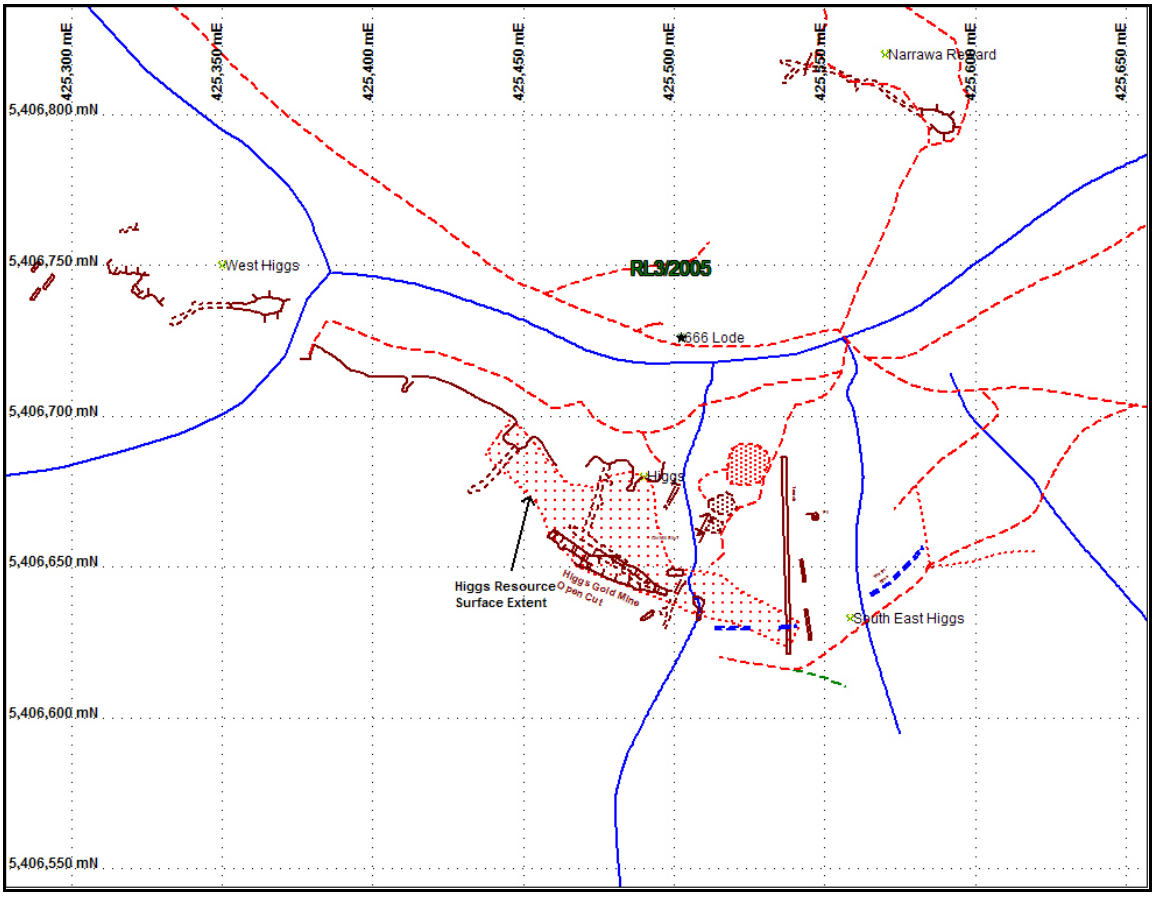


Figure 2. *Surface plan of the Higgs Mine area supplied by Frontier to show the part of RL 3/2005 that was required to be archaeologically surveyed. Narrawa Ck is depicted as a blue line traversing the centre of the map from left to right. Tracks are shown as red dotted lines. Surface workings are depicted in brown. Map supplied by Rob Reid, Exploration Manager, Frontier Resources Ltd, 16 July 2008. Grid spacing is 50m. (Datum AGD66, AMG Zone 55).*

1.4.1 Narrawa Reward Mine

Mining in the surveyed area of Narrawa Creek began in 1893 when two 20 acre leases (35-93G and 36-93G) were granted as gold reward claims to Thomas Bessell and Charles Lennox

Stewart respectively (Keid, 1947). The reward leases comprised part of the 60 acre holding of the Narrawa Prospecting Association that also included leases 37-93G, and 40-93G. At the time of discovery, the area was covered *"for the most part with thick horizontal scrub"* and the surveyors of the original leases considered their work *'rough'* (Devon Book 13, Plan 3).

The main early work was undertaken on lease 35-93G (Smith, 1899), where underground development took place at the mine that became known as the Narrawa Reward. A tunnel was driven northwest for about 45.5 metres on a *"siliceous formation in which selected pieces assayed 4dwt gold and 3oz.silver"* (Twelvetrees 1913). On the surface, an iron-stained capping was trenched across in several places up the hill and carried minor free gold (Smith, 1899) but by 1913, the mine had been long-abandoned (Twelvetrees 1913). The last official report on this mine was in Reid (1919)

Apart from the wolfram mining at the nearby Squib Mine (see section 1.4.3), the area surrounding the Higgs Mine site seems to have lain dormant until the mid 1930's.

1.4.2. Higgs Gold Mine

After the Stormont bismuth mine closed in 1934, Devonport mechanic A. H. (Hedley) Higgs went prospecting and discovered detrital gold in the roots of an upturned tree. It was so fine it could be sifted through a silk handkerchief (Haygarth 1994). Higgs took up lease No. 11335/M over an area of 20 acres and in 1936, George Washington Kemp took up lease No. 11737/14 over an area of 80 acres. Both these leases were later transferred to William S. Henderson and finally surrendered in June, 1943 (Keid, 1947).

Production commenced by ground sluicing in November 1934 and by June 1935, 43 oz. gold had been won (Blake, 1937). In 1934, Higg's sluicing operations on the south bank of Narrawa Creek uncovered the surface expression of the gold mineralisation (contained in oxidised quartzite beds), just ten chains upstream of the long-abandoned Narrawa Reward workings (Blake, 1937). The upper faces and test cuttings associated with the alluvial operation now form a major feature of the historic mine area (see Figures 4A and B and Appendix 4).

Higgs operated the mine for ten years from workings that consisted of a crosscut adit driven south to cut the lode at approximately 58 metres from the portal. To the east of the main adit and at a slightly higher level a second adit (the upper adit) connects with the eastern end of the

stopes (Keid, 1947, see Figures 4A and B). The shallow workings, based on two main adit level developments; and their associated open stope and other surface exploration features represent the main early historic features of the surveyed area.

Mill treatment commenced in August, 1935, when Higgs and party built a 'miniature battery' to test the deposit and to treat the results of their sluicing (Keid, 1947). It contained a small shaking table and was driven by a water wheel (Blake 1935). The first battery continued to September 1936, when a new battery was installed. Haygarth (1994) records that the mill contained four stampers and was made from an old car axle and utilised a pushbike (see historic photos in Appendix 2). By 1937 the mine had produced 188.5 oz. gold from the treatment of 1,118 tons of ore (Blake, 1937).

When the gold mineralisation was exhausted, Higgs extracted wolfram from the waste dumps of the nearby Squib Mine (Haygarth, 1994). The Higgs Mine was idle from 1941 until March, 1946, when Mr. J.P. Godwin applied for two 20 acre leases over the mine area and referred to it as the 'Sunrise' Mine. Godwin had been influenced by the results of a divining survey of the workings and believed that economic amounts of metals other than gold were contained in the lodes (Keid, 1947). Keid visited the mine in 1947 and sampled all of the places that the divining had suggested that there was grade but noted (Keid, 1947):

"that in practically every instance where minerals other than gold and silver were suggested by divining rod, analysis failed to confirm their presence,"

Not much else seems to have happened at the Higgs (Sunrise) Mine after this.

In the early 1960's, new lessees extended some of the old surface trenching along a hematitic meta-quartzite zone about 21 metres west of the lower adit portal and obtained some fine gold but the prospects were not considered good and the area languished again (Jack, 1961)

In total, the disseminated mineralisation at the Higgs Mine, and alluvial material derived from it, produced a total of 910oz of gold between 1934-47 and 1960-61 (Blake, 1937; Jack, 1961).

Systematic modern exploration began in the area in 1981-82 when CRA tested the base metal and tin-tungsten potential of the altered sediments on the granite margin. To follow up airborne DIGHEM-magnetics anomalies, CRA cut a large grid over the Narrawa Creek catchment and

undertook soil sampling, and geophysical surveys. Broadly coincident conductive zones associated with both old goldmines were identified, with the responses extending hundreds of metres beyond the workings. A major E-W trending structure along Narrawa Creek was inferred from the magnetics and three diamond holes were drilled. Two holes beneath the Narrawa Reward Mine intersected low lead-zinc-gold values (best: 3.7m @ 1.2% Pb, 1.2% Zn, 0.3 glt Au). In 1986 Gold Fields Exploration (GFEL) started work on the CRA grid to test the gold potential. They carried out soil sampling and channel sampled the old workings and followed up significant results with three diamond holes at the Higgs MIne. GFEL pulled out in 1989 and no exploration was done at Narrawa Creek or nearby for the next 10 years. The Goldstream-Titan JV took up the ground in 1992 but did not do any groundwork (Purvis, 2000).

In April 1998, EL 37/97 was taken up by Jervois Mining N.L. to test the gold and associated base metal potential of part of the Dolcoath Granite aureole (Purvis, 2000) and a series of diamond drillholes were drilled, mainly from the track on the south side of Narrawa Creek.

1.4.3. Squib (Gurr's) Wolfram Mine

The Squib Mine workings lie uphill and approximately 250 metres to the east of the surveyed area were not visited. This discussion deals mainly with the mill site that was identified in the surveyed area (see section 2.4.5 and Appendix 7) and which Kostoglou (2000) considered to be the 'Squib' Mill. While it is still uncertain whether this machinery site is truly associated with the Squib Wolfram Mine it will be referred to as the 'Squib' Mill Site for convenience.

The Squib wolfram and bismuth lodes were discovered by Warwick Castle in 1909 and took their name from the opinion of the manager of the nearby Shepherd and Murphy mine that they would peter out (Haygarth, 1998). In 1913, the lodes were being worked by open-cut, however this technique was abandoned prior to 1916 *'because of a lack of haulage and transport, facilities'* and an adit was developed 30 metres below the open-cut along one of the eastern trending lodes (Hills, 1916).

Twelvetrees (1913) noted that the wolfram ore at the Squib Mine was still soft enough to be sluiced out and that the concentrate was being exported to Sydney. If concentrate was being produced, then a mill must have been present and this may be the site in the surveyed area. In

1916 Hills (1916) noted that all of the dirt from the Squib Mine was being milled in a small plant erected on the Narrawa Creek. Molybdenite was being lost to the tailings, so the mill was not very efficient (Hills, 1916). See section 2.4.5 for a detailed description of milling equipment in place in 1919.

Twelvetrees (1913) also stated that it was intended to construct a water race from the 'upper part' of the Narrawa Creek that would be under a mile long. This is probably the water race on the southern slope of the Narrawa Creek valley that was surveyed during this project (see section 2.4.6).

A self actuating 'flyway' carried ore from the main tunnel 'up the hill' to a treatment plant (Haygarth, 1998). The track that continues from Narrawa Creek up to the Dolcoath Hill Road *"probably follows the line of the flyway"*, and a wheel from it was seen resting against a tree by Haygarth (1998). Kostoglou (2000) also observed this wheel and it was still there when the author visited the site in 2001 (the location was not visited during this survey). The Squib adits abut this track. There is an aerial ropeway shown on plans of the Squib workings (Reid, 1919) but this is only shown in place between the No 1 Adit and the track.

Haygarth (1998) considered the small tin shack (see Appendix 5), the battery, stamper cams and a 'large wooden wheel' (is this the ore disintegrator seen by Kostoglou, 2000?) (see Appendix 7) to be associated with the Higgs Mine but Kostoglou (2000) considered this site to be the Squib Mill (see section 2.4.5 and Appendix 7).

It may be that in a later period, Hedley Higgs re-utilised the site of the Squib Mill for his second gold mill (mentioned above and built in 1936) or he utilised this site when retreating the Squib dumps after gold mining ended. Further historical research is required to determine the true associations of this mill site though it is most likely to be that of the Squib Mine. What is interesting to note is that the Squib Wolfram Mine owners may have built their concentration plant adjacent to the outcrop of a gold orebody, and didn't realise it.

1.5. Previous Archaeological Work.

Kostoglou (2000) briefly visited the surveyed area and assessed the significance of the 'Squib Mill' site. An extract of his report is presented with Appendix 7.

The author visited the site in c2001, at the request of David Gatehouse of MRT and made some observations of the heritage features remaining near the track. Photos and GPS surveys made at this time should remain on file at MRT (on the relevant file for the EL or RL then in force over the mine area). Some of the located features seen during this earlier visit have been incorporated into the present survey.

The records of the Forest Practices Board and Forestry Tasmania have not been examined.

2. ARCHAEOLOGICAL SURVEY

2.1. Time taken for survey

- 1 day travel to and from site.
- 2 days site survey.
- 1 days historical research & preliminary data compilation (guide plans etc), and
- 4 days of report preparation.

2.2. Historical Information

Most of the historical information sourced for this project was obtained from the records of MRT, while Haygarth (1994; 1998) provided some extra details about Hedley Higgs and his operations on the site. It is not a comprehensive review of the history of the surveyed area.

2.2.1. Historic photographs, maps and plans of the site.

Photographs of the Higgs Mine and mill are rare, probably because of the short mining life and small-scale nature of the operation. No images of the Squib Mill/mine or the Narrawa Reward have been found. However, only the most generally available resources have been accessed during this short project (e.g. Haygarth 1994; 1998) and there may be more to be discovered.

Readily available (published) examples of such photos were used to augment the guide plans and were visually analysed to determine the nature and location of structures that had formerly existed in the area investigated (Appendix 2).

Several plans of the site were sourced from geological reports (e.g. Blake, 1937) and more recent reports of exploration activity (e.g. Purvis, 2000) at the Higgs Mine and it is from such sources that the geometry of the underground workings and their relationship to surface workings have been interpreted. Although mainly geological in nature, such reports often document elements of the infrastructure that were present on the sites examined (e.g. dumps, shafts, pits, costeans, adit portals and contemporary structures).

Several plans of the historic mining leases (lease charts) also exist in the archives of MRT but did not contain any details of the infrastructure that once existed there (they often show water races and machinery sites).

2.2.2. 'Guide' Plan

Historical data was compiled into a preliminary 'Guide Plan' (e.g. Appendix 1) to determine the approximate location of former structures, surface workings and other features of the site, and their relationship to existing features (particularly remnant historical infrastructure and tracks).

Guide plans were compiled in ArcView (v3.1) and Corel Draw and are compilations of historic map information (and written observational information) as a first-pass assessment (pre-field survey) of the archaeological features that may be preserved in the surveyed area. They are compiled as a guide to the features that were recorded as having once been present in the area (in documentary sources) and for which there may still be evidence remaining. They are not accurate and may differ greatly from reality. They serve as a field guide to the archaeologist about what might be found in areas of the lease. They are not comprehensive and do not replace detailed field surveys.

It is important to note that features identified on guide plans as having once been present may no longer be there. There may also be features present within the survey area that are not indicated by these plans.

2.3. Survey Method

A detailed map of the area to be surveyed was supplied by Frontier and several additional maps were sourced from the MRT TIGER report system. These detailed maps were registered in ArcGIS and ArcView and used as control base maps for the features recorded during the

survey. In some cases, features surveyed with the GPS have been corrected to features shown on plans if they are considered to be more accurate.

Structured traverses specifically targetted zones where the 'guide plan' indicated there were likely to be historic features. The location of all features were recorded using a Magellan Meridian Gold GPS receiver (Datum AGD66, Zone 55). Survey information was compiled in ArcView GIS compilations of GPS survey and other historic information (see Appendix 8 for a list of the locations of major features).

Fragments of the water race were recorded on historic plans of the site (e.g. Blake, 1937) and it was mentioned by Twelvetrees (1913) that the construction of a race was planned. However, it was not indicated on any early plans, so the likely location was specifically targetted and once it was located, it was surveyed using the GPS.

Finally, the line of the surface workings was walked to record the locations of any surface workings such as sluiced faces, exploration costeans/test cuts and open stopes.

Sketch plans of key sites were made during the field survey (Figures 5 and 6).

The final site plans were compiled from both CAD and GIS-based plans using Corel Draw and ArcView (Figures 3, 4A and 4B).

Historic photographs aided the interpretation of the Higgs Mill site (see Appendix 2), where there is very little surviving evidence of the structure.

2.3.1. Accuracy of Survey

The accuracy of the Magellan Meridian hand held GPS is affected by satellite availability, vegetation canopy density, topography (steep-walled valleys) and climatic conditions (mist and rain). On the second day of the survey, several key features were resurveyed and the results compared with earlier readings. Control points were marked throughout the area by Frontier by compass and tape survey and whenever these points were encountered (and existing drill hole collars) they were GPS surveyed and used to establish the accuracy of the GPS survey information.

It was found that the location of the resurveyed features varied by up to 15 metres, so the accuracy of this survey is only +/- approximately 15 metres.

2.4. Key Historic Elements Identified

The surveyed area encompasses sites that span the entire mining history of the Moina area. Six significant clusters of historic mining activity were identified during field work (Figure 3) and include;

1. The Narrawa Reward Gold Mine, incorporating a small adit-based underground working dating from the 1890's (see Appendix 3),

2. The Higgs Gold Mine underground and surface workings; incorporating surface sluicing workings, an open stope and two adit-base workings dating mainly from the 1930's-1940's (see Appendix 4),

3. The 1930's-1940's Higgs Mine mill site and an associated (?) iron shack ruin (see Appendix 5),

4. The West Higgs workings (incorporating open cut and adit-based underground workings, and a possible sluiced surface (according to Purvis, 2000) (see Appendix 6),

5. A mill site that is probably part of the infrastructure associated with the early 20th Century Squib wolfram mine (the actual Squib Mine workings lie to the east of the surveyed area and are not discussed). This site was briefly examined by Kostoglou (2000) (see Appendix 7) and,

6. A water race possibly dating from pre-World War 1 and re-utilised in the 1930's-1940's (see section 2.4.6),

Each of the archaeologically significant features of the surveyed area are shown in Figures 4A & 4B and are described in detail in section 2.4 (below). There is also a table of surveyed feature locations presented in Appendix 8. Photographs of features remaining are presented in Appendices 3 to 7.

Mine workings occur along the surface outcrop of the mineralisation to the northwest and southeast of the open stope at the main Higgs Mine and include such features as;

- Surface sluicing and sluice faces,
- Adit portals,
- An open stope and small open cut at the Higgs Mine,

- Test trenches and cuttings in the high walls of the sluiced areas,
- Costeans, trenching and test pitting,
- Surface benching/terracing and tracks, and
- A water race and related intake channel.

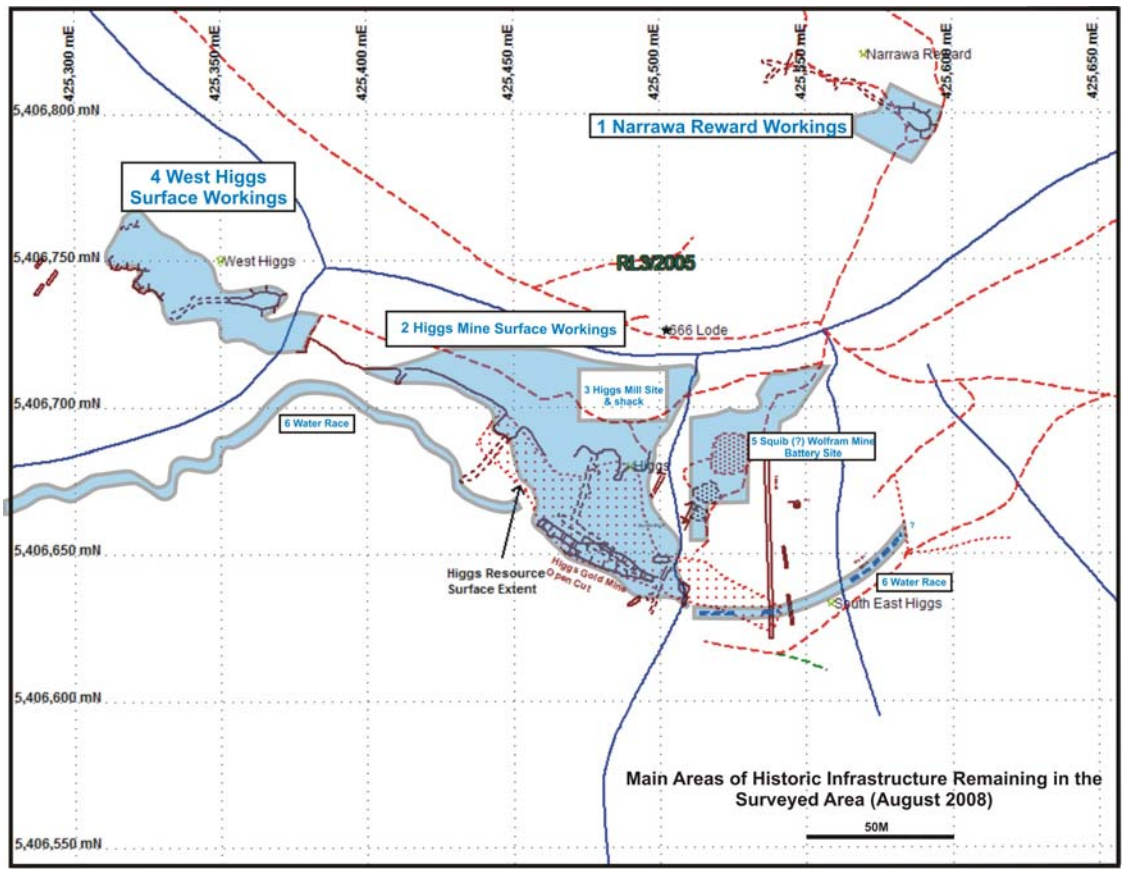


Figure 3. *Surface plan of the Higgs Mine area supplied by Frontier and showing the locations of the six main clusters of historic mining activity within the surveyed area (light blue polygons). Each of these zones is described in separate sections below, and in Appendices 3 to 8 (Datum AGD66, AMG Zone 55).*

2.4.1. Narrawa Reward Gold Mine

The Narrawa Reward workings (late 19th Century) lie in the northeastern corner of the surveyed area (Figures 2 and 3), at the eastern end of a narrow spur and overlook Narrawa Creek. The site is accessible via a narrow drill track. The workings trend approximately northwest-southeast and consist of a benched, rock-cut platform and excavated face, an adit portal with an associated mullock dump and some surface trenching. The mullock dump is largely destroyed, having been cut through by a dozed exploration track (probably in the early 1980's). The area is heavily overgrown with ferns and other undergrowth.

Some details of the site are presented in Appendix 3.

425300mE
425350mE
425400mE
425450mE
425500mE
425550mE
425600mE
425650mE

5406800mN
5406750mN
5406700mN
5406650mN
5406600mN
5406550mN

Narrawa Reward Adit

Unnamed Adit

West Higgs Adit

demolished bridge

rock cutting

Higgs Mill Site

shack ruin

Lower Adit

mortar box,
5 cams & shaft
from stampers

'Squib' Mill Site

Water Race

Water pipe Intake?

Upper Adit

- Adit portal
- Open Stope (open/collapsed)
- Test cuts (exploratory?)
- Hut/house site (from GPS survey)
- Former location of buildings (shown on plan in Blake (1937) & Jack (1960))
- Mullock Dump
- Location of former mine tramway
- Water race
- Areas of surface sluicing
- Upslope Faces of sluiced areas (often have associated test cuttings)
- Open cut faces

Figure 4A

Key Archaeological Features in the Higgs Mine Area

T. Webster, August, 2008

50M

425,300 mE
425300mE
425,350 mE
425350mE
425,400 mE
425400mE
425,450 mE
425450mE
425,500 mE
425500mE
425,550 mE
425550mE
425,600 mE
425600mE
425,650 mE
425650mE

5,406,800 mN
5406800mN
5,406,750 mN
5406750mN
5,406,700 mN
5406700mN
5,406,650 mN
5406650mN
5,406,600 mN
5406600mN
5,406,550 mN
5406550mN

Narrawa Reward

Narrawa Reward Adit

Unnamed Adit

West Higgs

West Higgs Adit

demolished bridge

rock cutting

RL3/2005

666 Lode

Higgs Mill Site

mortar box,
5 cams & shaft
from stampers

shack ruin

'Squib' Mill Site

Lower Adit

Water Race

Water pipe Intake?

Higgs Resource
Surface Extent

Higgs Gold Mine
Open Cut

Upper Adit

South East Higgs

- Adit portal
- Open Stope (open/collapsed)
- Test cuts (exploratory?)
- Hut/house site (from GPS survey)
- Former location of buildings (shown on plan in Blake (1937) & Jack (1960)
- Mullock Dump
- Location of former mine tramway
- Water race
- Areas of surface sluicing
- Upslope Faces of sluiced areas (often have associated test cuttings)
- Open cut faces

Figure 4B

Key Archaeological Features in the Higgs Mine Area

T. Webster, August, 2008

50M

2.4.2. Higgs Gold Mine Workings

The Higgs Gold Mine workings are draped along the northern slope of Dolcoath Hill, just above Narrawa Creek (see Figures 2 and 3) and consist of a series of northwest trending surface sluiced workings, shallow exploration trenches, costeans and test cuttings, a linear open stope dipping approximately 70° to the northeast and two major adit portals. The surface workings are higher up the hill slope at the eastern end of the surveyed area and trend downslope towards the track at their western end.

The lower slopes of the hill have been sluiced to a point level with the open stoping. Blake (1937) notes that the lode subsequently worked from the underground development was discovered when it was exposed by sluicing for alluvial gold. This very fine gold was derived from the weathering of the lode and explains why there are no surface workings higher up the slope than the open stope.

The upslope boundary of the sluiced workings tend to comprise a 1-2m high sluicing face with a series of test cuts excavated into the bank (to sample the gold component of the detrital material?).

Details of site features identified during this survey are shown in Appendix 4. Refer also to Figures 4A and 4B.

2.4.3. Higgs Mine Mill Site

Mill treatment at the Higgs Mine commenced in August, 1935, and a new battery was installed in September 1936 (Keid, 1947). The location of Higg's Mill is well-documented on MRT plans (e.g. Blake, 1937, see Appendix 5, and Jack, 1961). It was built in c1935 (e.g. Blake, 1937; Haygarth, 1998) and operated into the early 1940's.

This site of the Higgs Mill lies to the immediate north of the lower adit portal and to the east of the low mullock dump that has been built outwards into the creek bed from the adit (Figures 2 and 3). The site is largely overgrown by undergrowth but consists of a flattened area in the creek bed, occasional structural timber fragments, and an iron structural bolt and plate lying loose on the ground but little else was identified during this survey.

Contemporary photographs (see Appendix 2) suggest that the mill building was a lightly built wood and iron structure that was constructed on a raised platform of timber built out over the creek from the southern bank, at the approximate level of the adjacent lower adit portal and mullock dump. Ore was transported from the adit to the mill by a short tramway (e.g. see site plan from Blake, 1937 and photograph in Appendix 7).

Once the building was demolished (in the 1940's?) very little physical evidence of building footings remained. Remnant timbers suggest that bushfires have not caused the lack of evidence for the building.

The remains of a small iron, timber and stone shack remain at the site to the west of the low mullock dump (see Appendix 5). It is probably the structure recorded on the site plan by Jack (1961) and is possibly the one shown in the 1947 photo (see Appendix 2). Kostoglou (2000) noted the remains of this shack and it has been further degraded since his visit.

2.4.4. West Higgs Workings

The West Higgs workings are located at the western edge of the surveyed area, beyond the point where the upstream course of Narrawa Creek swings to a more southwesterly course (Figures 2, 3 and 4). The workings consist of two adits excavated into the lower slopes of Dolcoath Hill in a southerly direction, with their associated mullock dumps. The surface of the hillside above the underground workings has possibly been sluiced and there is a shallow open cut (really an elongate depression) along the surface expression of the mineralisation developed in the main adit. The upslope boundary of the surface workings is marked by 2-3.5m high faces and test cuts (see Appendix 6). There are two shallow costeans cut normal to the trend of the workings below the open cut, at least one shallow test shaft (2-3m) and shallow pitting.

The layout of the most significant part of the workings (the adit portal area) is shown in Figure 5 and photographic details of site features identified during this survey are presented in Appendix 6.

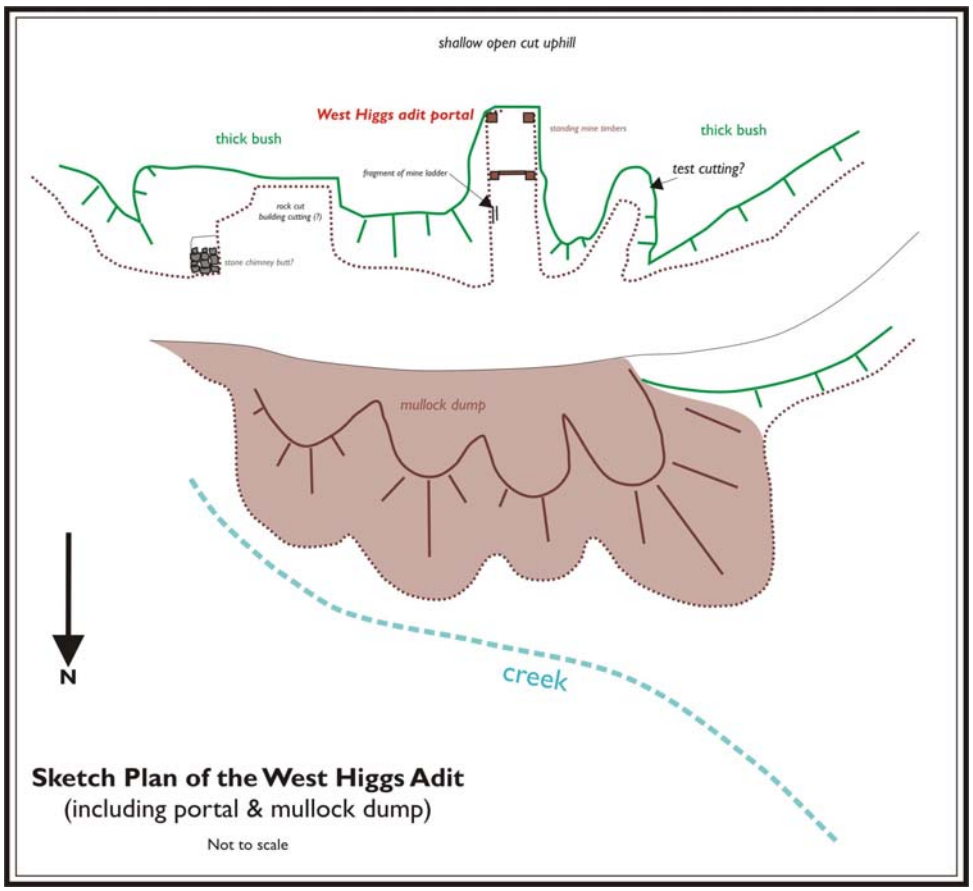


Figure 5. *Sketch plan of the portal area of the West Higgs Adit. The adit is cut into the mid slope of the hill and a flat area has been created at the mouth by the built up mullock dumps and cuttings into the hillside. One of these cuttings seems to have been the site of a building and has a small stone-built chimney butt. Another possible building cutting occurs at thew same level, further to the west (right), along the track. Standing timbers and the remains of am mine ladder occur in the portal (See Appendix 6).*

2.4.5. Mill Site (probably associated with the Squib Wolfram Mine).

The most significant historic site in the area examined during this survey comprises a benched and terraced machinery site (see Figure 4 for location) that is probably associated with the Squib Wolfram Mine (the workings of this mine are located to the east of the surveyed area and were not visited). The mill site comprises two low flat machinery platforms excavated into the lower slopes of the ridge and built up with rough-built dry-stone retaining walls (see Figure 6 and Appendix 7). Several standing structural timbers are present and there is a scatter of iron artefacts (machinery components) on the eastern side of the upper platform (see Figure 6). A third larger benched area lies between the upper platforms and the track, probably comprised part of the mill, and is currently being used as a core logging area. A stamp battery mortar box and cam shaft lie at the trackside below it (see Appendix 7).

Reid (1919) described the concentrating plant then in place at the Squib Mine. He identified the following equipment as being installed;

- 12 Hp oil engine to drive "a small concentrating plant",

- a self-acting inclined tramway to deliver ore from the Squib main tunnel mouth to the mill in trucks (does this follow the alignment of the steep track from the Dolcoath Rd?),
- an 8 inch by 5 inch Blake crusher,
- two trommels (coarse and fine),
- rolls.
- plunger jigs (¼ inch and ½ to 1/16th of an inch) and
- two Wilfley tables.

It is uncertain if any of the features seen at the terraced mill site actually relate to the machinery described by Reid (1919), though fragments of steel plate perforated by regular circular holes may be pieces of a trommel (see photo in Appendix 7). There is no record of a 5 head stamp battery being installed at the Squib Mill but elements of such a machine remain at the site, where they lie adjacent to the access track on the south side of the creek (see photos in Appendix 7). This machinery may have been a later addition by Higgs (his second mill built in 1936, or part of the Squib dumps retreatment operation?).

The associations of this mill site are uncertain, though it is almost certainly not Higg's mill building depicted in the photograph in Appendix 5. It is probable that it is the Squib Mill, as suggested by Kostoglou (2000) but this interpretation requires confirmation.

2.4.6. Water Race.

An earthen embankment water race was located on the upslope side of the surface working on the southern side of the valley of Narrawa Creek. It was traced for a distance of approximately 205 metres, from the upper reaches of Narrawa Creek in the southwestern corner of the surveyed area, to a deep-cut channel above the Higgs Mill site that is interpreted to be the pipeline intake shown on Blake's, 1937 plan (see Appendix 5). This section of the race is in a very good state of preservation (see Figure 7).

Fragments of a less well-preserved race at the same topographic level were identified to the east of the Higgs surface workings but were fragmentary and hard to identify with certainty (e.g. Figure 8). Some of these fragments had been recorded on plans of the mine area compiled

by previous explorers in the area (e.g. Purvis, 2000), including the plan provided by Frontier (Figure 2).

The race seems to be very well-preserved in the western end of the survey area and is shown with a 'pipeline intake' on Blake's (1937) site plan. It is very overgrown and fragmentary at the eastern end of this point. It is probable that the earlier Squib Mill race (referred to by Twelvetrees, 1913) was reconstructed by Higgs in the 1930's and supplied water to his sluicing operation and mill. The eastern section, beyond his small mill was not required and so fell into total disrepair. It even seems to have been mined away in some places by the shallow workings and open stoping.

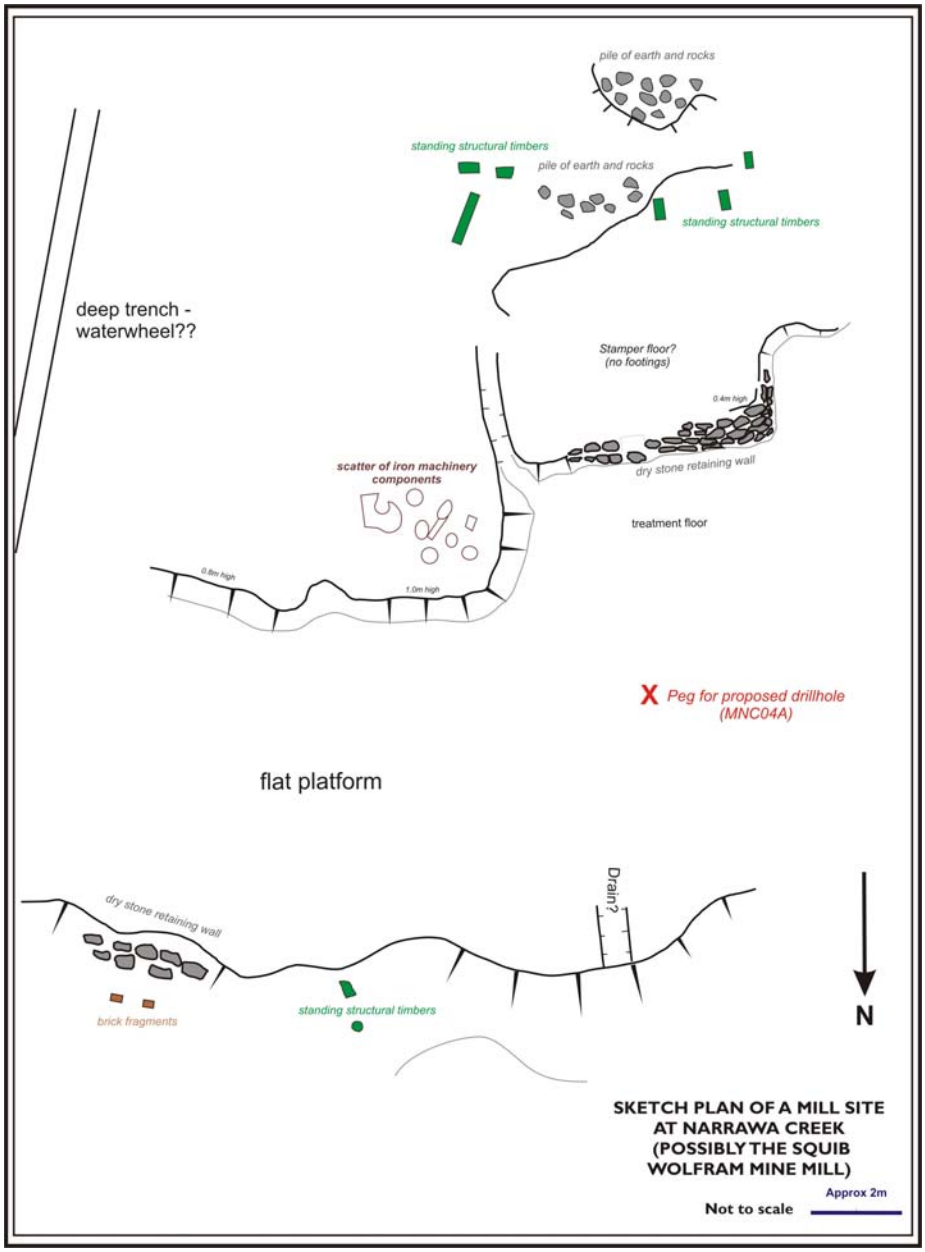


Figure 6. *Sketch plan of the central part of the terraced machinery site located at the eastern end of the Higgs Mine workings and interpreted to be the Squib Wolfram Mine Mill by Kostoglou (2000). This site pre-dates the Higgs Gold Mine workings. See Appendix 7 for photographic details of the features found at this site.*

The race surveyed during this fieldwork is too low topographically to have actually supplied water to the Squib Mine site and was probably constructed to supply water to the Squib Mill (see section 2.4.5, above). Haygarth (1994; 1998), and Kostoglou (2000) both mention seeing the remains of a waterwheel at the site – though this is probably the relic interpreted to be part of an 'ore disintegrator' by Kostoglou (2000).

Figure 7. *Well-preserved section of the water race between the upper reaches of Narrawa Creek and the Higgs Mine Mill. Note the earthen embankment wall on the down-slope side (to right). This section of the race is in much better condition than that to the east of the mill sites and was probably maintained by Higgs into the 1940's. The GPS receiver is 16cm long. Photo 17 by T. Webster, August, 2008.*

Figure 8. *Poorly-preserved section of the water race above the open stope workings and 'Squib' Mill site. Note the poorly preserved earthen embankment wall on the down-slope side (to left) and the almost completely infilled channel (from the observer to the GPS receiver). Parts of this section of the race may also have been destroyed by sluicing and the open stoping. The undergrowth is generally thicker along this section of the race and it was probably abandoned after the 'Squib' Mill was closed and was not required by Higgs for his later sluicing and milling operations. Compare with Figure 6, above. The GPS receiver is 16cm long. Photo 6 by T. Webster, August, 2008.*

3. RECOMMENDATIONS

1. There is little remaining at the Narrawa Reward Mine, apart from the adit portal and cutting. The mullock dump was probably destroyed in the 1980's.

2. The surface alluvial workings and open stope are significant features of the Higgs Mine site and are associated with the 1930's mining operation of Hedley Higgs. They have some local significance. However, there are several accurate survey plans of these working and they could be adequately recorded with some additional detailed photography prior to the development of any small open cut. The surface sluiced workings are adequately recorded by this survey, though some detailed follow up photography in better weather would be beneficial.

3. There is little surviving evidence of the former Higgs Gold Mine Mill and tramway. Apart from the adit portal and remains of the shack ruin, there is little of significance. Drilling in the 1990's, and the current programme, have greatly disturbed the surface at the adit portal area but it is unlikely that there were any historic features remaining (and apart from the shack, none were observed when the author visited the site in 2001). The shack has been impacted by recent earth works (probably prior to the work by Frontier at Narrawa Creek) and it was clearly visible when Kostoglou (2000) visited and was sketched onto geological sections by Purvis (2000). Further needless degradation of these features should be avoided.

4. The West Higgs workings are a nice example of benched surface workings and their associated underground development (plus building sites) but are unlikely to be seriously impacted by small scale drilling activities. Should any drilling take place there, care should be taken to minimise any impacts on the fabric of the mullock dumps, surface workings and cuttings.

5. The main terraced machinery area of the 'Squib' Mill is the only historic feature in the surveyed area that could suffer damage during Frontier's current exploration programme (the area shown in Figure 6). The collar position of proposed drillhole MNC04A is already pegged in the centre of this feature. Kostoglou (2000) recognised that the 'Squib' Mill site is of high local significance and that it should be protected from exploration-related drilling. He provided the following statement of significance;

"This is the most significant site on the Mount Claude mineral field, boasting a selection of relatively well preserved mine and mill related sites. Certainly the mill site retains a number of unusual artefacts, such as the waterwheel".

The author agrees with this assessment and suggests that the movement of the drill rig and support equipment could cause significant damage to the stone walls and artefact scatters at the site. It is recommended that before drilling of MNC04A takes place (or any other drillhole in the near-vicinity), strategies are developed, in consultation with MRT, to minimise the impact of the work on the remaining historic fabric of the mill site. At the very least, it is recommended that the movement of caterpillar tracked machinery is kept to an absolute minimum on the stone-walled and terraced treatment and battery floors (see Figure 6). If it is possible to drill the hole from another location (such as the core logging area), then this should be considered.

The 'ore disintegrator' (or water wheel) observed at the site in 2000 was not located during this survey and it may have been removed (this may be the crusher wheel photographed by Kostoglou, 2000). The stamp battery mortar box and cam shaft are still present and should be left where they lie adjacent to the track. If historic site elements are being removed from such abandoned mine sites, then MRT should investigate such looting.

6. The well-preserved water race at the western end of the surveyed area is unlikely to be impacted by exploration or mining, but should any work take place in this area, the fabric of the race should be avoided. The eastern end of the race has been so damaged that it retains little significance.

4. CONCLUSIONS

Haygarth (1998) wrote that the Higgs Mine was one of the best–preserved mining sites in the Cradle Mountain-Mt Claude area. Unfortunately this is probably not now the case. However, despite the changes that have taken place there in the last decade, the surprisingly varied history of the site is still well-represented in the archaeological features that remain. The surveyed area continues to be a site of considerable historical interest and it is one of the few places left on the Moina mining field that retains machinery elements. It also illustrates the relationship between surface and underground mining of the same deposit in the depression era of the 1930's, and preserves the ingenuity of Hedley Higgs.

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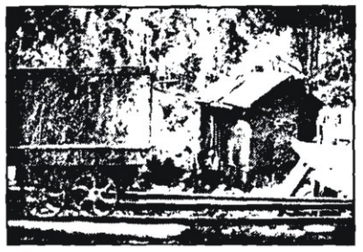
APPENDIX I

GUIDE PLAN

425,300 mE
425,350 mE
425,400 mE
425,450 mE
425,500 mE
425,550 mE
425,600 mE
425,650 mE

5,406,800 mN
5,406,750 mN
5,406,700 mN
5,406,650 mN
5,406,600 mN
5,406,550 mN

Narrawa Reward



?

RL3/2005

West Higgs

demolished bridge

Old open cuts
(Jack 1960)

rock cutting

666 Lode

5 cams & shaft
from stampers

cutting
(building site?)

Partly sluiced

cgi shack

1960 trenching

race

Pipe Intake

Sluiced Surface
1935

Tramway

Sluiced Surface
1935

tram?

Lower Adit

Higgs

Higgs Resource
Surface Extent

Higgs Gold Mine
Open Cut

Upper Adit

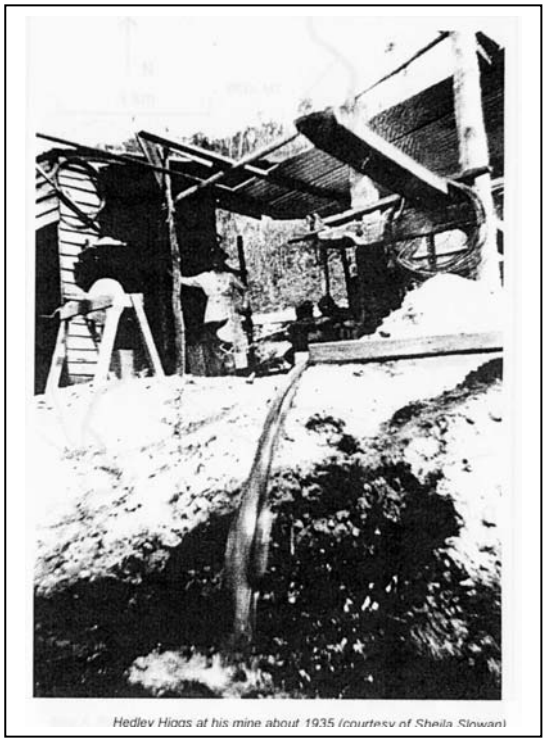
open stope face

race

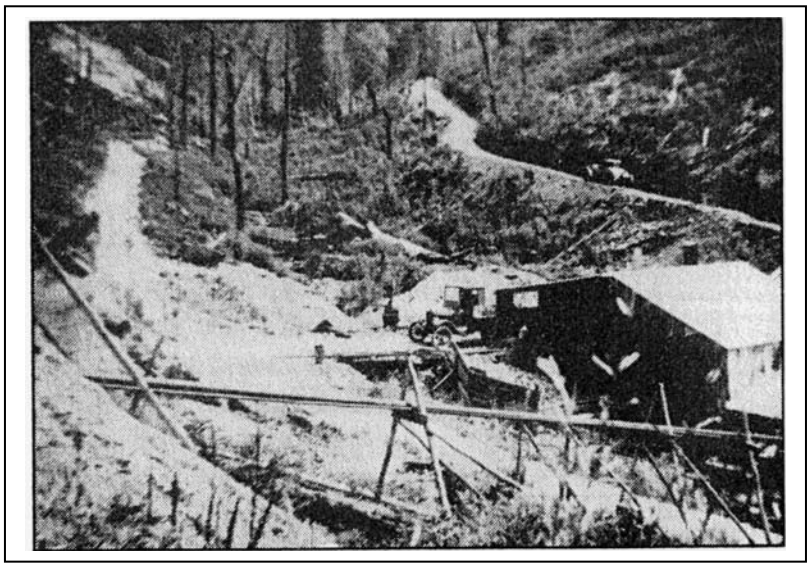
South East Higgs

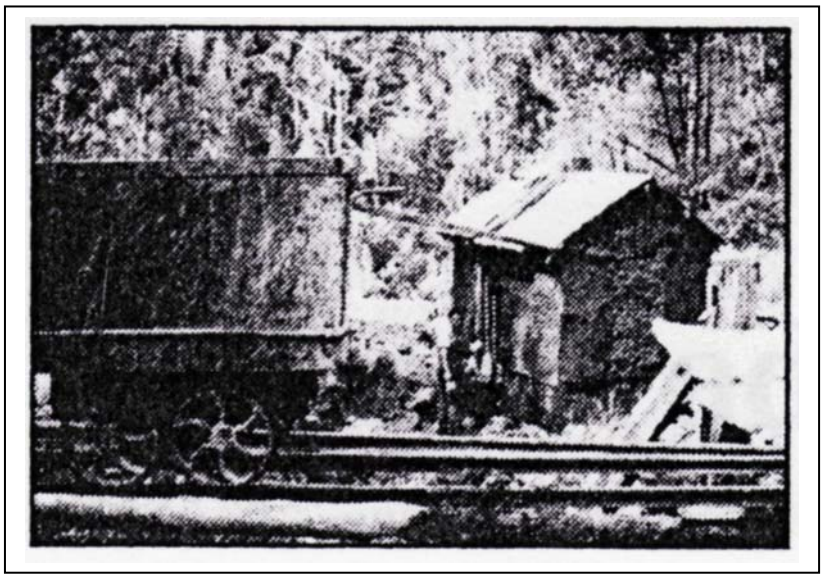
APPENDIX 2

HISTORIC PHOTOS USED TO AUGMENT THE GUIDE PLANS



Hedley Higgs at his mine about 1935 (courtesy of Sheila Slowan)



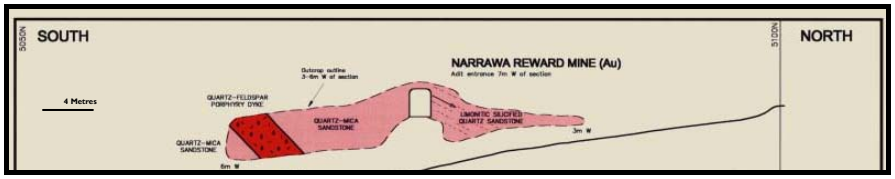


APPENDIX 3

FEATURES OF THE NARRAWA REWARD MINE SITE

APPENDIX 3. Narrawa Reward Gold Mine

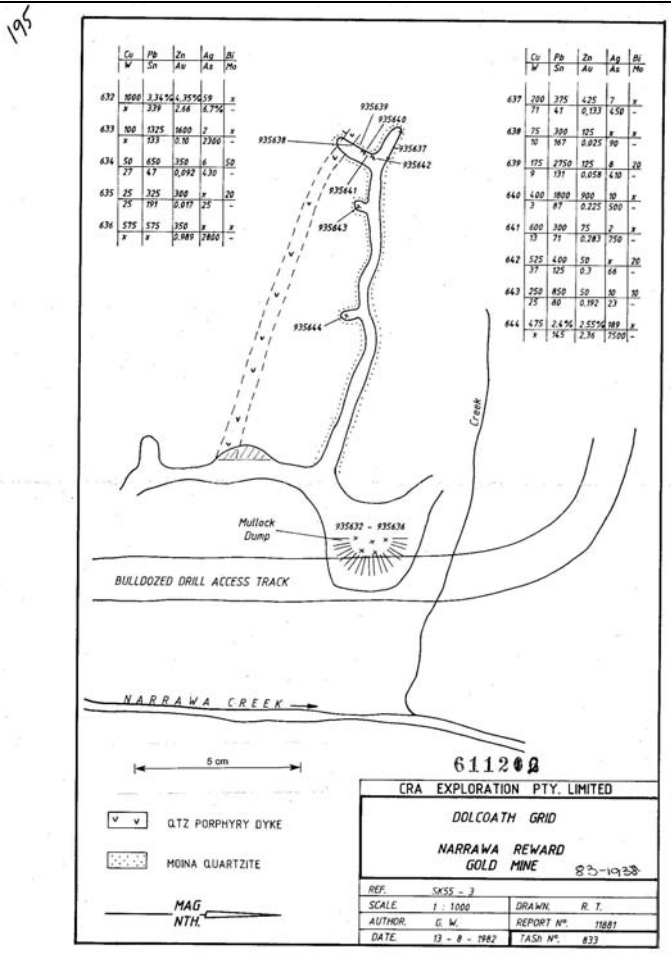
Narrawa Reward Mine Site



Profile and geological map of the rock-cut cutting at the adit portal of the Narrawa Reward Gold Mine (from Purvis, 1999).

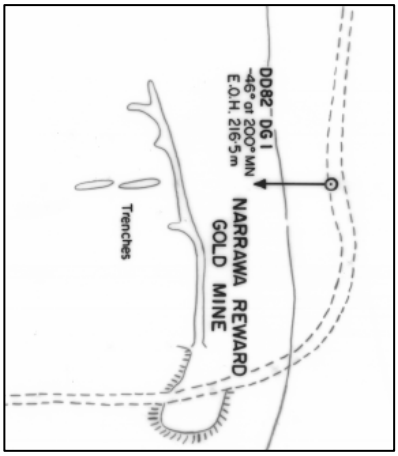
This site is heavily overgrown with ferns and undergrowth and very little can be seen. It was too difficult to obtain a decent photograph of the cutting.

There were no obvious surface workings observed at this site.



Plan of the Adit portal area (including cutting) & underground workings of the Narrawa Reward Gold Mine (Weber, 1982)

The location of the bulldozed track is accurate and the remains of the mullock dumps show the effects of the track construction (see below).



Two surface trenches are depicted to the south of the underground workings on plans held by MRT (e.g. left), so some surface workings may remain on the surface expression of the porphyry dyke.

No features were observed in this area during the current survey.

Bulldozed cutting in the face of the mullock dump at the Narrawa Reward Gold Mine. The mullock dump has been largely destroyed by track construction, probably during the CRA work of the early 1980's.

Little of significance remains at this site though features may survive in the creek area (below track) which was too heavily overgrown to examine.

Photo looking approximately south along the dump face. T. Webster. August, 2008.

APPENDIX 4

THE HIGGS MINE SURFACE WORKINGS

APPENDIX 4. Higgs Mine Workings

Periphery of Higgs Mine Open Stope Workings	
	Adit portal at western end of open stope on Higgs Lode (looking south).
	Western end of open stope on Higgs Mine Lode – looking east from adit portal (above)

Dry stone walling at west end of open stope – near adit portal shown above.

Sluicing Workings

Test cut, in upper boundary face of sluiced workings (upslope face), south side of track and west of open stope shown above.

GPS receiver is 16cm long.

Sluiced surface trench near 'Squib' Mill site. To west of open stope and adit (above).

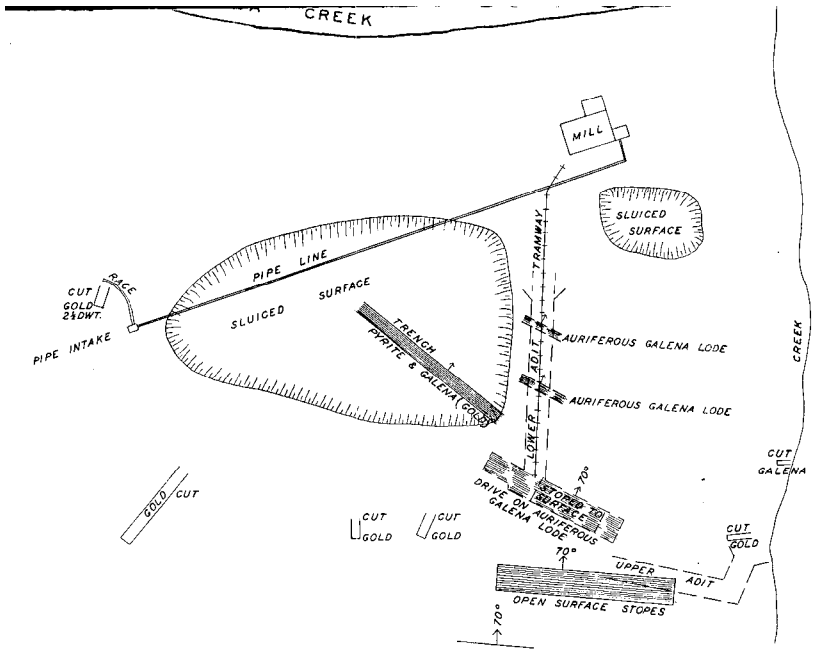
	Timbered adit portal in area of 1960's trenching. (425453.071E, 5406705.742N)
	General view of 1960's trenching and zone where sluicing face comes down to the edge of the track to west of the main Higgs Mine workings. This is the western-most extent of the surface sluiced workings above the track.

APPENDIX 5

THE HIGGS MILL SITE

APPENDIX 5. Higgs Mill Site.

Higgs Mill Site



Contemporary site plan of the Higgs Gold Mine from Blake (1937).

Evidence of most of the key features shown on this plan was found during the survey, including the adit portals,

The main exception is that there is very little evidence remaining for the mill building structure (see below).

The face of the large area of sluiced workings is extant, as is the intake cutting for the pipeline (which fed the hydro-electric plant). See Figure 4.

One standing timber may have been a support for the pipeline

Most of the surface cuts shown are extant.

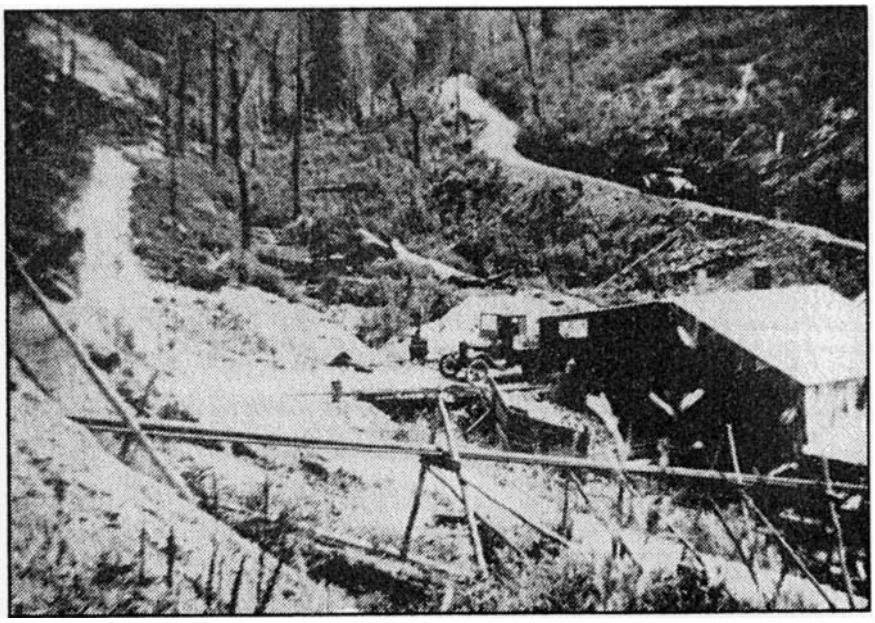
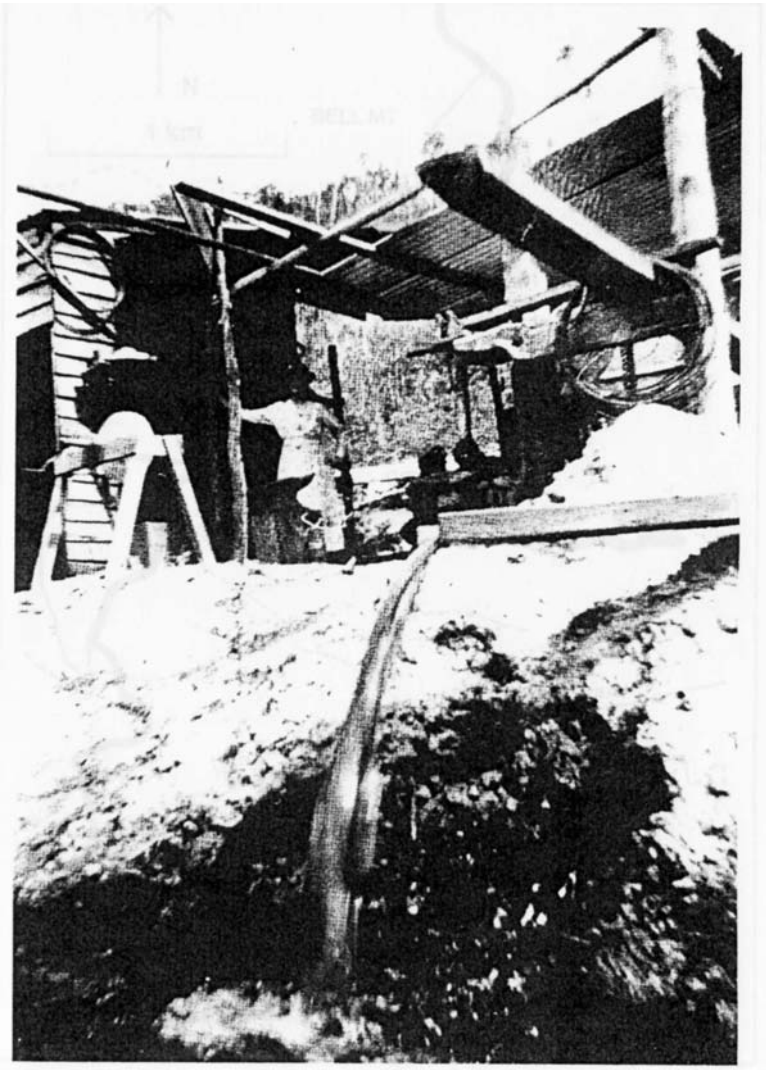


Photo of Higgs' Mill (from Haygarth, 1998). This photo and the one below suggest that the mill building was a lightly built wood and iron structure that was constructed on a platform of timber at the approximate level of the adjacent Lower Adit portal and mullock dump. It seems to have been built out over the creek from the southern bank.

Once it was demolished (?), there was very little physical evidence of building footings left – just a flattened area in the creek bed and occasional structural timber fragments, and an iron structural bolt and plate.

(425494.774E 5406709.873N)



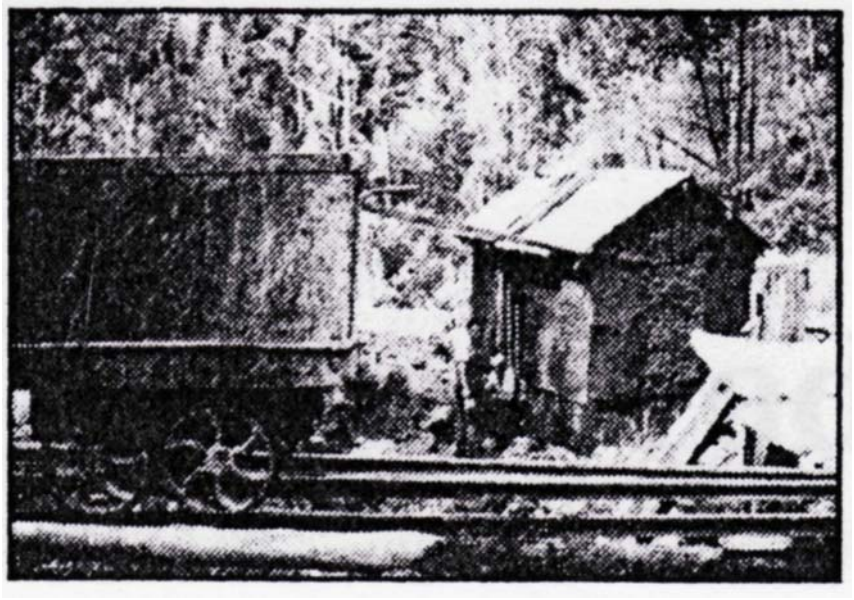
Hedley Higgs at his mine about 1935 (courtesy of Sheila Slowan)

Hedley Higgs at the Higgs Mill, about 1935 (courtesy of Sheila Slowan), from Haygarth (1998).

Note the light timber and iron construction of the building.

The earthen embankment in the foreground may be the extant mullock dump pushed out into the bed of Narrawa Ck from the Lower Adit portal.

Iron Shack Ruins



Keith Harvey and Arthur Goldsworthy at the old Higgs mine. Revived as the Sunshine, 1960s (Roxley Daye). From Haygarth (19XX)

The shack shown in this photo is very close to Higgs Mill (note ore truck on trestle in foreground) it may be the ruined structure that remains at the site (see photos below).

There is no such structure shown on Blake's (1937) site plan (above).

From Haygarth (1998).

Remains of steel (beaten steel drum?), corrugated iron and timber shack adjacent to the Higgs Mill site and Lower Adit mullock dump. (425476.762E, 5406702.285N)

This structure has deteriorated considerably since Kostoglou (2000) visited the site and since the author visited briefly in 2001. Much of the deterioration is probably due to machinery clearing scrub from nearby drilling sites either during earlier campaigns or possibly during the present programme.

This structure may be the one shown in the 1940's photograph above.

Photo taken by T Webster, August 2008 (GPS receiver is 16cm long).

Plate 8
Hut remains near the Narnawa Reward mine/Squib concentrating mill.

Left: Sketch of the hut as is appeared on Purvis' (1999) geological cross sections. The shack was apparently in relatively good condition when this cross section was compiled in 1999.

Right: Photograph of the shack ruin taken by Kostoglou (2000). This structure has suffered considerable damage since 2000 and is now virtually destroyed. This damage must have taken place after 1999.

There seems to be little reason for this structure to have been damaged in this manner so needlessly by modern exploration activities.

Water Race Pipeline Intake

Deeply cut eastern end of water race, above the Higg's Mill site and interpreted to be the site of the 'pipe intake' from the water race (see see Figure 4) for the water pipeline that fed the hydroelectric plant at the mill. Shown on Blake's (1937) plan above.

East of this location the water race is poorly preserved and overprinted by later mining activity (sluicing and open stoping). It is probable that Hedley Higgs restored the earlier Squib water race to service his later mining operation. East of this point, he did not need the race that previously serviced the Squib Mill.

(425446.534E 5406664.963N)

Triangular split timber on line between water race intake cutting and Higgs Mill site. May have been one of the supporting timbers for the water pipeline. (425297.6E, 5406668.9N).

At Frontier control point H 30.

(425464.431E 5406683.653N)

APPENDIX 6

WEST HIGGS WORKINGS

APPENDIX 6. West Higgs Workings

West Higgs Adit (refer also to Figure 5)

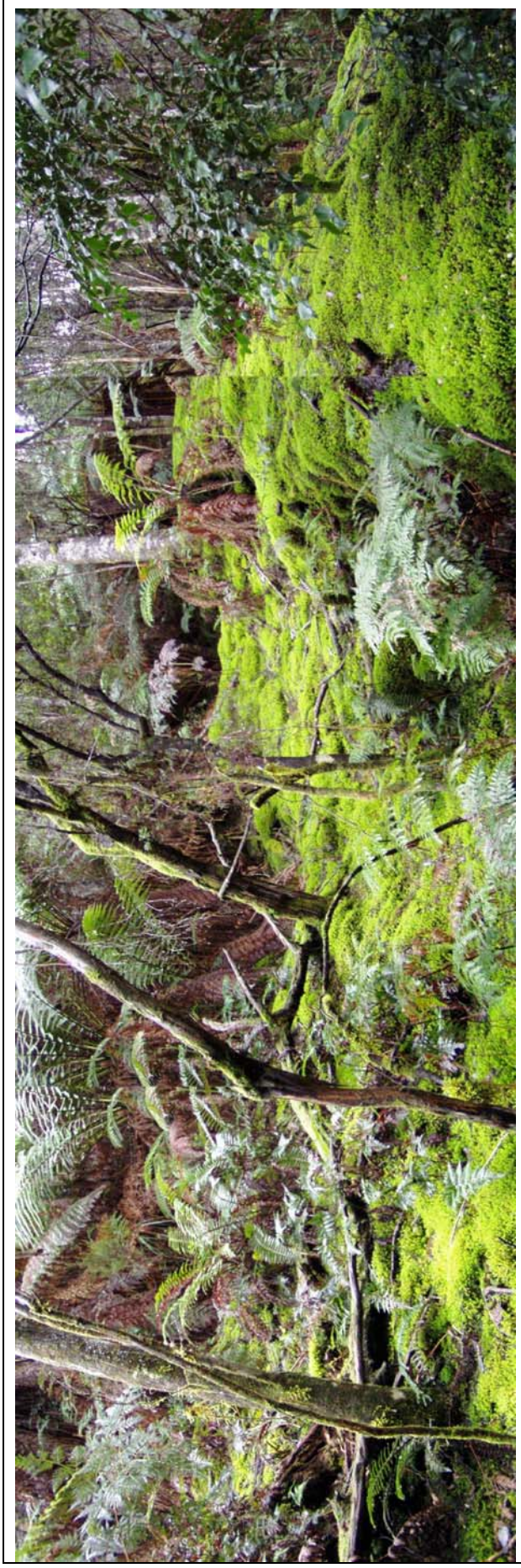
West Higgs adit portal and remaining timber (425365.053E, 5406739.9N).

Note the remaining timbers (refer to Figure 5 for locations).

Scale bar is hanging on a standing timber (60cm).

Building cutting (rock cut) to immediate east of West Higgs Adit portal.

Refer to Figure 5.



Panorama of West Higgs shallow open cut above workings

Taken from above the West Higgs Adit portal (425365.053E, 5406739.9N) looking approximately south towards the upslope open cut face.

Refer to Figure 4A and 4B.

Detail of wood and iron ladder fragment lying in the portal of the West Higgs Adit. Refer to Figure 5 for location.

Open cut face at the top of the shallow open cut above the West Higgs Adit and excavated into the upslope (sluiced?) face of the shallow workings.

Unnamed Adit to west of main adit

Unnamed adit to the west of the main West Higgs Adit portal and located on the same bench and track.

The adit portal is located on the right of the view. The down slope area to left is occupied by a narrow finger dump that has been built up parallel to the contour.

Refer to Figure 4 for location.

APPENDIX 7

THE ‘SQUIB’ MILL SITE

APPENDIX 7. 'SQUIB' MILL SITE (refer also to Figure 6)

Squib Wolfram Mine Mill Site (?)

Detail of the dry stone retaining wall at the foot of the interpreted 'stamper' floor (between the stamper floor and the treatment floor). Refer to Figure 6 for location.

The scale bar is in 10cm divisions and lies above an interpreted drain outlet in the walling.

Wide view of the same dry stone retaining wall shown above.

Standing structural timbers at the southern end of the Squib Mill site.

Note the low mound of soil and rock rubble to the right of the timbers.

See Figure 6 for location.

Detail view of the scatter of iron machinery components lying on the eastern side of the Squib Mill site. This flattened platform may have been the site of the driving engine.

The scale bar is in 10cm divisions.

See Figure 6 for location.

Low earthen embankment at rear of the mill site .

See Figure 6 for location.

Detail view of the stamp battery mortar box lying below the core logging area (a lower platform of the mill site (?) at the edge of the access track to the Higgs Mill site.

The scale bar is in 10cm divisions.

See Figure 4 for location.

Mortar Box & Cam

Additional view of the stamp battery mortar box lying below the core logging area (a lower platform of the mill site (?) at the edge of the access track to the Higgs Mill site.

The scale bar is in 10cm divisions.

See Figure 4 for location.

Detail view of cam shaft (three heads?) of the stamp battery lying below the core logging area (a lower platform of the mill site (?) at the edge of the access track to the Higgs Mill site.

See Figure 4 for location.

APPENDIX 7. Kostoglou (2000) Extract: Squib Mine Features

MOUNT CLAUDE ARCHAEOLOGICAL INVENTORY

Site/Feature name: Squib mine

Site/Feature number: 09

Location: This site is situated on the south side of a junction on the Dolcoath Hill track (see map).

AMG grid reference: 425 931 mE, 5 406 602 mN

Site type: Mine workings (adits)
Former aerial ropeway

Related lease numbers: 3095M, 5221M, 11737M, 13M/52

History: The earliest mining undertaken in the vicinity of this site related to alluvial gold mining in the mid to late 1890s, which was undertaken by a Mr. C. Packett[1]. This site appears to have been first mined in its own right in 1909, when one source claims that the resident wolfram was discovered by one Mr. Warwick Castle[2]. In 1913, government geologist W. H. Twelvetrees visited the mine and noted that this site now formed part of a 50 acre lease being mined alluvially by a Mr. B. J. Gurr[3]. In 1916 geologist Loftus Hills noted that this mine was processing its ore in a small concentrating mill erected further north on the banks of Narrawa Creek (see site 10 overleaf). By 1919, this working was referred to as the 'Squib', although it was still being worked by Mr Gurr. When geologist McIntosh Reid visited this mine that same year, he found the workings to have expanded, now consisting of an open cut and series of adit workings which admirably exploited the steep slope afforded by the north side of Dolcoath Hill[4]. This mine appears to have fallen idle by the late 1920s. One subsequent source noted that this lease was held by a Mr. W. S. Henderson in 1943, although no development appears to have occurred[5].

Description: This site consists of the following features:

- A 1.2 metre diameter solid bull wheel beside the Dolcoath Hill road.
- A second bull wheel and lengths of narrow gauge tram rail adjacent to a timbered adit portal 30 metres to the south.
- At least two more adits and an ore skip situated in the creek gully 50 metres south east of the track.
- Numerous costeans and surface workings further southwest of the creek gully workings.

Interpretation: Early 20th century mine lease and connecting aerial ropeway to mill.

Statement of Significance: Sufficient interesting portable artefactual remains (bull wheels, ore skips etc.) survive at this site to raise the otherwise low significance threshold of the hard rock workings.

Significance assessment (Local):
5. Very High
4. High
3. Moderate
2. Low
1. None
0. Detracts

Recommendations: In the event of any proposed re-development all remains should be more systematically surveyed and assessed. It is recommended here that the site be protected from future developments.

Level of recording: This record is not deemed to be sufficient.

References:

1. Smith, 1899, p.iv.
2. Reid, 1919, p.97.
3. Twelvetrees, 1913, p.79.
4. Reid, 1919, pp.97–99.
5. Keid, 1943, p.192.

Photograph:
Northerly view of track side bull wheel assumed to relate to former aerial ropeway.

Photograph: Ore skip remains lying in creek uphill of track side adit.

Recorded by: P. Kostoglou	**Date:** 17/10/2000

MOUNT CLAUDE ARCHAEOLOGICAL INVENTORY

Site/Feature name: Narrawa Reward mine and mill	**Site/Feature number:** 10

Location: This complex is situated beside Narrawa Creek some 300 metres north of the Dolcoath Hill road (see map).

AMG grid reference: 425 557 mE, 5 406 703 mN	**Site type:** □ Mine workings (adits) □ Concentrating mill plant □ Hut site

Related lease numbers: 35/93G

History: This site was first explored and pegged in 1893 as a 20 acre gold reward claim by the Narrawa Prospecting Association. In 1898 Department of Mines geologist Harcourt Smith noted that some gold in addition to galena and several other metals was being recovered from a 135 foot long tunnel dug out beside Narrawa Creek[1]. In 1907, geologist W. H. Twelvetrees found this working abandoned and its adit emitting acid mine drainage and mine water in abundance[2]. Although this mine did not rate a mention in either Twelvetrees (1913) or Hills (1916) reports, the latter source made reference to a concentrating mill erected at this location beside Narrawa Creek and belonging to the Squib mine[3]. Three years later Reid wrote a more detailed description of the mill, noting that:

The mine is equipped with a small concentrating plant driven by a 12 horse power oil engine. From the main tunnel mouth (of the Squib), the ore is delivered to mill in trucks run on a self acting inclined tramway. The ore is conveyed to an 8 inch by 5 inch Blake crusher, thence passes to a coarse trommel, the oversize from which passes to a rolls etc.[4]

In his 1943 report, geologist Keid appears to have described this mine site as comprising the Lower Workings of the Squib mine. He also noted the existence of two mill sites beside Narrawa Creek, one recently demolished[5]. It can only be inferred here that the mill remains described below comprised the older/original mill belonging to the Squib mine.

Description: This complex consists of a concentrating mill site, hillside adit sequence and more recent miners hut site.

The mill site is situated above Narrawa Creek and is now bounded by an exploration drill pad track. An earthen water race links the top of the mill site to Narrawa Creek. The mill site is dominated by a large stand of introduced pine trees (*P. radiata* sp.). Remains of the mill consist of a multi-tiered and benched earthen excavation consolidated with dry-stone walling. This structure is littered with numerous artefacts and debris, including:

- A stamp battery mortar box and cam;
- An intact 2 metre diameter waterwheel;
- Remnant trommel cage and screen fragments;
- A set of grizzly bars.

An open cut trench lies immediately north of the upper mill storey, and at least three separate adits were noted along the banks of Narrawa Creek. A composite sheet tin and corrugated iron clad hut with remnant dry-stone chimney base was also found 60 metres north of the mill site.

Interpretation: Early 20th century mining and milling complex.

Statement of Significance: This is the most significant site on the Mount Claude mineral field, boasting a selection of relatively well preserved mine and mill related sites. Certainly the mill site retains a number of unusual artefacts, such as the waterwheel.	**Significance assessment (Local):** 5. Very High **4. High** 3. Moderate 2. Low 1. None 0. Detracts

Recommendations: The mill site should be protected from all future impacts, especially exploration related drilling. This mill should be surveyed systematically.

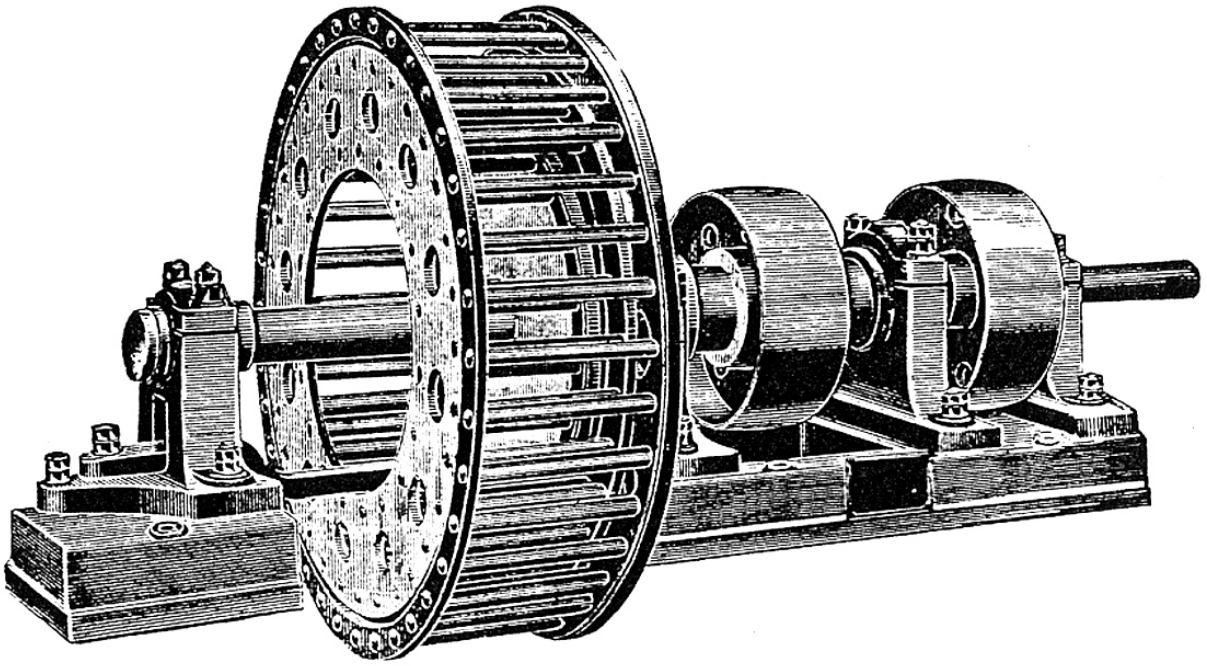
Level of recording: This record is not deemed to be sufficient.

References:

1. Smith, 1899, p.iv.
2. Twelvetrees, 1908, pp.23–24.
3. Hills, 1916, p.9.
4. Reid, 1919, p.100.
5. Keid, 1943, p.193.

Photograph: Detail view of metal wheel possibly comprising part of an ore disintegrator (see diagram below).

Historic illustration: Drawing showing ore disintegrator.



Recorded by: P. Kostoglou	**Date:** 17/10/2000

APPENDIX 8

LOCATIONS OF KEY HISTORIC FEATURES OF THE SURVEYED AREA (RECORDED WITH GPS)

DATUM AUS66, AMG ZONE 55

FEATURE	ZONE	Easting	Northing
Adit Reward	55G	425584.470	5406782.967
Dump F B	55G	425592.723	5406792.305
Du Fb	55G	425588.625	5406784.861
Track	55G	425557.233	5406725.321
Core	55G	425551.801	5406712.311
Wpt007	55G	425539.297	5406710.332
Core logging area	55G	425535.200	5406702.887
H15	55G	425528.624	5406665.809
Fe Scatter Struc Tim	55G	425523.040	5406667.602
Costean start	55G	425528.624	5406665.809
Costean End NC31 drillhole collar	55G	425540.193	5406623.366
NC27 drillhole collar	55G	425519.380	5406617.600
Race segment	55G	425516.445	5406632.374
Pit	55G	425512.271	5406632.331
1.5m Stone Wall	55G	425510.860	5406634.167
Open Stope	55G	425503.808	5406643.347
Open Stope Track	55G	425485.721	5406643.160
Short Adit	55G	425457.703	5406661.377
Sluiced Face top	55G	425457.589	5406672.479
Test Cut Sluice Face	55G	425450.479	5406687.210
End Sluice Face	55G	425429.380	5406709.199
NC08 drillhole collarT	55G	425429.361	5406711.049
Test Cut	55G	425422.366	5406714.678
Cut Face bottom	55G	425391.603	5406729.165
Face bottom	55G	425383.312	5406723.528
Creek	55G	425370.828	5406719.698
Race	55G	425297.602	5406668.977
Race Intake Fall Trees	55G	425275.379	5406665.047
Race	55G	425285.080	5406668.848
Race Wpt036	55G	425335.111	5406674.916
Race Wpt037	55G	425350.321	5406684.326
Race Wpt038	55G	425389.069	5406705.082
Test Cut Race	55G	425403.059	5406697.824
Deep Cut Race	55G	425432.544	5406672.221
Higgs Intake Cut Channel In Slope	55G	425446.534	5406664.963

Stand Timber Pipeline	55G	425464.431	5406683.653
Lower Adit H3	55G	425479.641	5406693.062
Beaten Iron Shack	55G	425476.762	5406702.285
Dump Face Top	55G	425479.545	5406702.314
Dump Face Top	55G	425486.464	5406706.086
Higgs Mill Site Minor Timb Iron	55G	425494.774	5406709.873
Mortar Box	55G	425525.441	5406704.637
Cam	55G	425525.498	5406699.086
Timber	55G	425517.474	5406667.544
Timber	55G	425517.512	5406663.844
Screen Fragment	55G	425514.749	5406661.965
Stone Retaining Wall	55G	425516.159	5406660.129
St Wll	55G	425514.768	5406660.114
Treatment Floor	55G	425516.121	5406663.829
Battery Floor	55G	425516.197	5406656.428
Timber	55G	425517.569	5406658.293
Brick Stone	55G	425523.040	5406667.602
Deep Cut Trench	55G	425493.764	5406672.852
H35	55G	425493.745	5406674.702
Open St Entrance	55G	425502.360	5406648.883
Creek	55G	425507.887	5406652.641
Upper Adit to Open Stope	55G	425505.143	5406648.912
Stone Wall	55G	425506.553	5406647.076
H6	55G	425440.644	5406696.361
Adit Timbered	55G	425443.446	5406694.540
60s Trench	55G	425453.071	5406705.742
60s Trench	55G	425453.071	5406705.742
60s Trench	55G	425448.878	5406707.549
Bridge Remains	55G	425354.151	5406717.675
Pit	55G	418886.938	5405917.034
DDH	55G	418884.197	5405913.303
Con Dump Q	55G	418881.581	5405898.469
1m Stone Wall	55G	418885.754	5405898.515
Pit	55G	418855.002	5405911.124
Costean	55G	418847.900	5405923.999
DDH SD41	55G	418842.024	5405951.691
DDH SD42	55G	418834.777	5405977.518

Dump Face top	55G	418829.149	5405983.007
Wpt012	55G	418824.934	5405986.660
Wpt013	55G	418820.719	5405990.314
Wpt014	55G	418826.222	5405995.928
Dump Face	55G	418829.004	5405995.959
Open Cut	55G	418833.365	5405979.353
Adit	55G	418858.573	5405964.831
Finger Dump	55G	418915.344	5405989.526
Creek	55G	425540.384	5406739.951
Dump Face	55G	425401.495	5406714.463
Dump Face	55G	425395.796	5406727.358
Creek	55G	425388.687	5406742.089
H59	55G	425370.637	5406738.201
Adit Timbered West Higgs	55G	425365.053	5406739.994
Dump	55G	425359.430	5406745.488
Dump Face	55G	425362.327	5406734.414
Stone Chimney?	55G	425356.838	5406726.956
Square Rock Cutting Hut ?	55G	425354.094	5406723.226
Test Cut	55G	425349.633	5406750.938
Test Cut H60	55G	425339.855	5406754.538
Adit	55G	425325.808	5406767.347
Test Shaft 2m deep	55G	425329.886	5406776.642
Face	55G	425324.416	5406767.333
Face top Costean	55G	425332.860	5406758.167
Costean at Opencut	55G	425331.564	5406748.901
Opencut Face	55G	425327.409	5406747.008
Surface Pitting	55G	425335.853	5406737.842
Costean	55G	425335.891	5406734.142
Deep Cuts In Face	55G	425335.910	5406732.291
Shallow opencut	55G	425344.258	5406732.377
Shall opencut above Adit	55G	425349.843	5406730.585
Narrawa Reward Dump Cut Face	55G	425596.878	5406794.198

Appendix 3: Drill Logs

Drill Log — Frontier Resources Ltd

PROJECT:	Gowrie Park	**HOLE NO:**	**NC43**	**DRILL TYPE:**	Diamond
PROSPECT:	Narrawa Creek	**DATE COMMENCED:**	**25/07/2008**	**DRILLER:**	Frontier Resources Ltd.
TENENMENT:	RL3/2005	**DATE COMPLETED:**	**29/07/2008**	LOGGED BY:	CY
EASTING	425,483.18	**TOTAL DEPTH (m):**	**61.1**	LOGGING DATE:	31/07/2007
NORTHING	5,406,685.89	**AZIMUTH (TN):**	**213**	OXIDATION BOCO:	1.4
COLLAR RL:	521.33 (AGD66, Zone 55)	**DIP:**	**-45**	BOPO:	7.5

Drilling details

Core Size	From	To
PQ		
HQ	0.00	21.70
NQ	21.70	61.10
BQ		

Comments

Hole designed to:- Resource infill drilling between NC6 and 12, Testing section 5912.5mE

Significant Analysis Intervals:

Hole_ID	From	To	Interval
NC43	0	61.1	61.1m @ 0.76g/t Au, 8g/t Ag, 0.03% Cu, 0.48% Pb & 0.5%Zn
NC43	7.3	51.3	44m @ 1.03g/t Au, 10.9g/t Ag, 0.04% Cu, 0.65% Pb & 0.68% Zn
NC43	7.3	32	24.7m @ 1.77g/t Au, 15.2g/t Ag, 0.054% Cu, 1.02% Pb & 1.05% Zn
NC43	11.5	14	2.5m @ 4.3g/t Au, 12.2g/t Ag, 0.053% Cu, 0.67% Pb & 0.59% Zn
NC43	18.4	32	13.6m @ 2.29g/t Au, 23.1g/t Ag, 0.072% Cu, 1.67% Pb & 1.73% Zn
NC43	22	32	10m @ 2.42g/t Au, 26.1g/t Ag, 0.081% Cu, 1.96% Pb & 2.03% Zn
Including	22	26	4m @ 5.53g/t Au, 31.5g/t Ag, 0.114% Cu, 1.72% Pb & 1.78% Zn
Including	23	24.1	1.1m @ 10g/t Au, 52g/t Ag, 0.116% Cu, 3.99% Pb & 3.44% Zn

Summary Log

From	To	Graphic	Summary Description (Lith, Altn, Mineralisation)
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			

Frontier Resources Detailed Drill Log

Hole Number	NC43	Sheet No	1	Mineralisation / Alteration an

Full description: including colour, main alteration type and strength, **component minerals** (pref in order of abundance), **rock type, texture, alteration and mineralisation details** eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets

INTERVAL		ROCK CODES			Alteration summary				Pyrite		Galena		Sphalerit		Biotite		Silica		Sericite		Chlorite		(Ca)CO3		Calc-Sil		Skarn		Magnetic		QVN	Other minerals / texture / colour							
FROM (m)	TO (m)	Strat Code	Rock type	Primary Altn	2nd Altn	3rd Altn	Weathering		Style	Amount %	Style	Amount %	Style	Amount %	Style	Amount (WMS	Style	Amount (WMS	Style	Amount (WMS	Style	Amount (WMS	Style	Amount %	Style	Amount (WMS	Style	Amount (WMS	Style	Amount (WMS	Amount (WMS	Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour
0.00	1.30		CELUV				O	Totally oxidised core; Elluvium																														
1.30	3.40		SGRANSAND	Biot	SKARN	CALS		brown biotised hornfels, commonly mg grained and poorly sorted relict texture, minor granule sandstone to cg q-wacke intervals, biot(m), lht gn semi-perv sil-serp / skarn zones(m), cal-sil perv(w)								m		m								w									w/m						
3.40	7.50		SMSAND	Sil	VSX	Flour	M	mostly grey / light grn, mg to locally cg q-sandstone / wacke, poorly sorted, weakly hornfelsed and silicified(m) quartz sandstone, individual qz/felds grains up to 2mm. zones of dendrtic pyrite, also blebs/disseminated sulp up to 1%, but locally up to 5% in places, minor skarn-like semi-perv zones bearing Ferromag-wolastonite and infilled by late cg xtaline flourite. weak cly-ser altn overprint on these	D	0.5	Vn	0.1					SP	m								Sk		Vn		D				Cpy	Spt	0.5	Flour			w	dk brn
7.50	8.70		HORN	SMSX	Biot	Sil		Light brown, weak -mod skarnised rocks overprinting earlier pervasive silicification - biot, occ semi massive sulphides up to 10cm, sulphides up to 15% locally but 2% overall. Dominant sulphides are Py>sph>gln>cpy. Sulphides occur as diss/blebs and as veins fracture fill in a 2cm vein @7.9m - 80LCA.	Bnd	10	Vn	2	Vn	3		w/m	P								Bnd		Bnd		D				Cpy	D	1				w	ylw grn
8.70	9.50		SMSAND	Sil	VSX			AA 3.4 to 7.4	D	0.5	Vn	0.1					SP	m																				
9.50	10.20		QVN	QVN	Flour			irregular quartz veined zone within AA, minor chlorite and py as frac fill, note Flourite bearing fractures cross cut perpendicular to quartz vns	Vn	1													w								m/s	Flour						m/s	
10.20	11.00		SMSAND	Sil	VSX			AA 3.4 to 7.4	D	0.5	Vn	0.1					SP	m																				
11.00	12.10		SGRANSAND	SMSX	Sil	Biot		dark brown granule sandstone. mod fractured, individual Qz grains up to 3mm, set in granular groundmass, brown colour due to biotite?, occ semi massive base metal sulphides up to 30cm, sulphides up to 15% locally but generally around 5% throughout. Dominnat sulphide py with subordinate but significant sph, galena, cpy as disseminations and as veins/fracture fils, weak clay sericite altn in fract. Rock weakly crackled with crackles in filled by py. Creamy bands possibly calc silicate alteration??. mod to wkly magnetic in base metal sulphide bands indicate possible presence of pyrrhotite.	D	15	D	3	Vn	2		w/m	SP								Bnd		Rp		D				Cpy	Spt	3				w/m	
12.10	12.40		FALT	SMSX	Sil			fracture / faulted zones infilled by sil and py - locally banded - veining																														s	
12.40	15.00		SMSAND	SMSX	Biot	CALS		brown biot(m) altered relict poorly sorted fg to mg q-wacke sandstone, minor relict feld?, semi-massive sulphide overprint . also light to gry grn coloured in places, patchy weak calc silicate alteration, weakly fractured with py-cpy-sph-gln infilling fractures, perv silicified with a skarn(w) overprint. The dark brown couration is likely due to biotite enrichment? Up to 5% sulphides throughout.	D	5	Vn	1	Vn	2		m	SP		Sv										D										w	
15.00	15.80		SFSAND	Sil	DSX	CALS		fg q-sandstone / hornfels, hint of relict laminar bedding @ 45LCA, biot(w), sil(m), Calc-sil?(w)	D	5						w	P	m								SP	**w**			D						w	
15.80	17.42		SMSAND	Sil	VSX	DSX		lht green mg to cg relict silicified q-sst / hornfels, sil(m), dss py locally sms/dendritic (5%)	D	5							P	m																		w	
17.42	17.52		QVN	QVN				milky quartz vein with minor sulphide fracture fill																										s				w	
17.52	18.10		SCSAND	Sil	VSX	DSX		lht green mg relict silicified q-sst / hornfels, sil(m), dss py locally sms/dendritic over 10cm (3%)	Vn	3							P	m																				w	
18.10	19.70		SCSAND	SMSX	SKARN			mg to locally granular sandstone. Dk brown to dk grey granular sandstone grading to q-greywacke, individual qtz crystals up to 4mm. perv silicification(w/m) with patchy skarn(w/m) o/p. Abundant basemetal(py>sph>gal>cpy) mineralisation with individual bands up to 30cm. Sulphides locally up to 20% but up to 7% as veins and fracture fills. late sulphide veins at low angle to core axis. Moderately magnertic perhaps due to the occurrence of pyrrhotite within the sulphides. Base metal (py-sph-gal-cpy vein from 18.4 -19.2m)	D	20	Vn	5	Vn	6			SP		Sv									w/m								cpy	Spt	6				w	
19.70	20.70		SFSAND	Sil	DSX	VSX		fg q-sandstone / hornfels, sil(m/s), dss py and dentritic like form	D	2								m/s																				
20.70	21.05		QVN	QVN				quartz veined zone(80%) with minor frac fill sulphide	Vn	0.5																									m/s					
21.05	22.00		SMSAND	Sil	DSX	Biot		mg q-sandstone / hornfels, sil(m), biot(m) alteration at start interval, dss py and dentritic like form	D	0.5						m	P	m																							
22.00	26.00		SGRANSAND	SMSX	Sil			Dk brn to grey, poorly sorted mostly mg sst with granular sandstone interbeds, minor 80LCA bndd relict slst at end interval, individual qtz grains to 3mm+ within granule interbeds up to 15cm. Rock weakly hornefelsed and perv sil(w/m). Semi-massive base metals sulphides bands associated with coarse bands-up to 50cm wide, Occ late base metal veins eg at 22.10m, Semi massive BM sulphides brecciated in places with subrounded to angular sst clasts in py matix. Mod magnetic, some diss pyrrhotite, Suphides up to 13%, dominantly py>pyrrh>sph>gal and cpy. Occur as diss,blebs and veins; no large BMS bearing veins - mostly appears like bedding replacement	D	15	D	5	D	6			SP	w/m										D								Cpy	Vn	2					

Frontier Resources Detailed Drill Log

Hole Number	NC43	Sheet No	1	Mineralisation / Alteration an

Full description: **including colour, main alteration** type and strength, **component minerals** (pref in order of abundance), **rock type, texture, alteration and mineralisation details** eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets

INTERVAL		ROCK CODES		Alteration summary					Pyrite		Galena		Sphalerit		Biotite	Silica		Sericite		Chlorite		(Ca)CO3		Calc-Sil		Skarn		Magnetic		QVN	Other minerals / texture / colour							
FROM (m)	TO (m)	Strat Code	Rock type	Primary Altn	2nd Altn	3rd Altn	Weathering		Style	Amount %	Style	Amount %	Style	Amount %	Style	Style	Amount (WMS	Style	Amount (WMS	Style	Amount (WMS	Style	Amount (WMS	Style	Amount (WMS	Style	Amount (WMS	Style	Amount (WMS	Amount (WMS	Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour	
26.00	26.50		SSILT	Sil		Biot		fine grained laminated sandstone with thin hairline qtz-pyrite veins often defining layeres. Individual sandstone beds up to 2-3cm and qtz-pyrite veins/frac fill up to 2mm wide. Most laminations at high angle to core axis ie. 80LCA. up to 1% sulphides. biot?(w)	Vn	1						w		m																								
26.50	31.00		SMSAND	SMSX	Sil	Biot		Semi-massive base metal mineralisation within relict/hornfels dark green mg q-sst / hornfels. Dominant sdulphide py>sph>gal>pyrrh>cpy. Py to 13% locally, and 9% overall. Sphalerite and galena as diss and veins to 9% locally and 2-3% overall. magnetic(m) due to presence of pyrrh. areas of biotite enrichment. Qz-flourite-epidote veining in places eg a 5cm vein at 27.6m	D	15	D	9	D	9		w	SP	w/m	Vn										SP		D											
31.00	35.60		SFSAND	Sil	DSX			near equigranular fg quartz sandstone/hornfels(w), sil(w/m) with fine dss sulphides up to 3% locally, hairline vein/ fracture fill in places with up to 1% pyrite. Weakly magnetic with sericitie(w) altn in fractures.	D	3	D	1	D	1			SP	w/m	Sv																							
35.60	36.50		SMSAND	Sil	Flour	Biot		fractured zone bearing q-flourite-py-gal? veining commonly at 45LCA, within mg sil(m), Biot(w) altered q-sst/hornfels								w		m																						m	
36.50	41.10		SMSAND	Biot	Flour	Sil		Predominantly dark grey to dark brn col mg grained biotite enriched quartz sandstone. perv sil(w) after hornfelsing? Individual qtz grains to 3mm. Zones of qtz-flourite-wallastonite-basemetal sulphide(cg remobilised) in fractures with grey white bleached silica selvage. Wallastonite-Qtz-Flourite zone from 35.6 - 41.1m. Diss sulphides to 2% but locally 5% in blebs and bands. Trace to weak sphalerite-galena-pyrrhotite and chalcopyrite blebs usually up to 1%. weak sericite clay developement in fractures. weakly magnetic. creamy calcsilicate(w) alteration in places.	D	5	Vn	1	Vn	1		m	P	w											SP				D											
41.10	51.30		SMSAND	Biot	Sil			Predominantly dark grey to dark brn col mg grained biotite enriched quartz sandstone. perv sil(w) after hornfelsing? Individual qtz grains to 3mm. Zones of qtz-flourite-wallastonite-basemetal sulphide(cg remobilised) in fractures with grey white bleached silica selvage. Wallastonite-Qtz-Flourite vein at 44.6m. From 41.6 - 44.0m zone with mod clay seri/talc-chlorite in fractures, mostly sub parallel to core axis. Diss sulphides to 2% but locally 5% in blebs and bands. Trace to weak sphalerite-galena-pyrrhotite and chalcopyrite blebs usually up to 1%. weak sericite clay developement in fractures. weakly magnetic. creamy calcsilicate(w) alteration in places.	D	5	Vn	1	Vn	1		m	P	w	Sv										SP				D											
51.30	60.10		SMSAND	Sil	VSX			Light grey to greyish green mottled, hornfelsed(m) and silicified sandstone, patchy skarn(w/m) alteration, occasssional remnants of dark brown biotite enriched sandstone common, weak seri cly altn in fract, 1-3% disseminated sulphides, py-gal-cpy-sph also in fractures, occurence of dendritic py with within silicification also common, weakly crackled with crackles infilled by grey 12mm silica and py. Occassional qtz-flourite-pyrite factures also found within this zone	D	2	Sv	0.5	Sv	1		vw	P	m	Sv												D											
60.10	60.50		SFSAND	Biot	Sil	DSX		Dark brown biotite enriched fg-mg qtz sandstone, patchy skarn locally and disseminated sulphides to 1% throughout.	D	1						w/m		w												w											
60.50	61.10		SMSAND	Sil	VSX			AA 51 to 60	D	2	Sv	0.5	Sv	1		vw	P	m	Sv																				

Down Hole Structural Log - Frontier Resources								Structure Code	
Hole_ID	At	Core angle (LCA)	Structure_type	Comments	Azimuth (True)	Dip	Struc_ID	Face	Facing
NC43	2.4	30	Fr	infilled by qz crystals				Ft	Fault
NC43	3.05	10	vn	Epi-chl vn sub II to core axis				Sh	shear
NC43	6.8	80	Sh	10cm Cly-seri-sulph shear grading to 30 to CA				Vn	vein
NC43	7.8	30	Fr	clean fracture				Fo	Foliation
NC43	7.9	80	vn	1-3mm qz-galena vein				Fr	fracture
NC43	10.35	30	Fr	clean fracture with py infilling fr				Jt	Joint
NC43	11.6	80	bnd	massive sulphide band (py>gln>cpy>sph),11.60-12.0m				Bd	Bedding
NC43	12.25	80	Sh	cly-ser-sulph infilled shear				Fold	Fold
NC43	17.4	80	vn	17.4-17.60m, 2 xvns at 80 degrees to core axis.				con	contact
NC43	18.7	80	vn	massive sulphide vein (py>gln>cpy>sph)				lay	layering
NC43	19	50	Fr	Fracture infilled by Manganese and sulphides.				bnd	banding
NC43	22.5	50	Fr	From 22.0 - 22.4m, series of fract at 50degrees to core axis.				Ln	Lineation
NC43	25.15	80	vn	Qz-sulphide vein				CATA	Cataclasite
NC43	27.5	60	vn	10cm massive sulphide vein.				Slck	Slickensides
NC43	27.8	20	vn	1-3cm qz-gln-cpy-sph vein at 20 degrees to core axis.				Pu	Puggy seam
NC43	28.8	70	Fr	Fract filled by massive sulphides.				Cl	Cleavage
NC43	31.95	45	Fr	infilled by gln-epidote.					
NC43	32	45	Fr	a galena vein or fract infilled by galena.					
NC43	32.3	45	vn	qz-flu-epidote fract 1-3mm wide.					
NC43	32.4	60	vn	sulp, mostly py vein					
NC43	35.7	50	ft	a fault					
NC43	35.8	45	vn	qz-flu-wallostonite vein.					
NC43	36	30	vn	qz-flurite-wallostonite vein					
NC43	37.4	80	vn	1-3cm qz-flu-bms vein					
NC43	38.1	40	vn	1-2cm gln-cpy-vein.					
NC43	38.9	75	fr	fr healed by qz chl-bms.					
NC43	40.2	75	vn	1-4cm qz-flu-wa-epi-chl vn.					
NC43	41.3	20	fr	clean fracture					
NC43	41.6		ft	10cm fault with occ qz frags					
NC43	43.4	5	fr	1-2cm epi-seri-talc infilled fract					
NC43	44.2	70	vn	vein of qz-flu-wa-vn with silica selvages.					
NC43	44.8	70	vn	1-2cm qz-flu-wa-epi-qz vein.					
NC43	45.6	65	vn	wa-flu-seri-epi veins with bleached silica selvages.					
NC43	46.9	60	vn	wa-flu-seri-epi veins with bleached silica selvages.					
NC43	47.15	30	vn	2cm epi-qz-flu vein with silica selvage.					
NC43	47.8	70	vn	5cm epi-qz-flu vein with silica selvage.					
NC43	49.6	80	bnd	creamy calc silicate band.					
NC43	50.6	50	vn	1-2mm vein.					
NC43	51.2	20	vn	basemetal(cpy-gln-sph) vn.					
NC43	54.6	50	bnd	base metal(py-gln-sph-cpy) band					
NC43	54.95	50	fr	clean fracture.					
NC43	56.7	5	vn	1-2mm vn II to core axis.					
NC43	57	20	vn	2cm py-cpy-bn-vn					

Down Hole Surveys - Frontier Resources						
Hole_ID	Depth	Azimuth(TN)	Dip	Azimuth(Mag)	Type	Date
NC43	0	213	-45		2	25/07/2008

Survey type	
1	Single shot down hole camera
2	Measured at collar
3	Inferred survey for display
4	Other - see comments

Frontier Resources Ltd				Drill Core Recovery & RQD Log			
Hole_ID	From	To	Interval	Measured	Recovery%	Lengths>10cm	RQD %
NC43	0	1.1	1.1	0.4	36.36	0	0.00
NC43	1.1	2.6	1.5	0.88	58.67	0.4	26.67
NC43	2.6	4.1	1.5	1.5	100.00	0.75	50.00
NC43	4.1	5.6	1.5	1.5	100.00	1.16	77.33
NC43	5.6	7.1	1.5	1.6	106.67	0.7	46.67
NC43	7.1	8.6	1.5	1.5	100.00	1.24	82.67
NC43	8.6	10.1	1.5	1.38	92.00	0.85	56.67
NC43	10.1	11.6	1.5	1.5	100.00	0.96	64.00
NC43	11.6	13.1	1.5	1.45	96.67	1.15	76.67
NC43	13.1	14.6	1.5	1.5	100.00	1.15	76.67
NC43	14.6	16.1	1.5	1.5	100.00	1.02	68.00
NC43	16.1	17.6	1.5	1.4	93.33	1.36	90.67
NC43	17.6	19.1	1.5	1.46	97.33	1.43	95.33
NC43	19.1	20.6	1.5	1.6	106.67	1.35	90.00
NC43	20.6	23.6	3	2.9	96.67	2.13	71.00
NC43	23.6	26.6	3	2.92	97.33	2.75	91.67
NC43	26.6	29.6	3	2.95	98.33	2.75	91.67
NC43	29.6	32.6	3	3	100.00	2.73	91.00
NC43	32.6	35.6	3	3	100.00	2.54	84.67
NC43	35.6	38.6	3	3	100.00	2.42	80.67
NC43	38.6	40.1	1.5	1.5	100.00	1.1	73.33
NC43	40.1	41.6	1.5	1.43	95.33	0.96	64.00
NC43	41.6	44.6	3	2.94	98.00	1.93	64.33
NC43	44.6	46.1	1.5	1.5	100.00	0.99	66.00
NC43	46.1	47.6	1.5	1.35	90.00	1.07	71.33
NC43	47.6	50.6	3	2.94	98.00	2.83	94.33
NC43	50.6	52.6	2	1.9	95.00	1.64	82.00
NC43	52.6	53.6	1	1.02	102.00	0.87	87.00
NC43	53.6	56.6	3	2.95	98.33	2.82	94.00
NC43	56.6	59.6	3	2.9	96.67	2.82	94.00
NC43	59.6	61.1	1.5	1.45	96.67	2.82	188.00

DAILY DRILLERS DEPTH UPDATE **NC43**

DATE	SHIFT	DRILLER	FROM	TO	DISTANCE	COMMENTS
26/07/2008	D/S	KY	0	14.6	14.6	hard rock
	N/S	AT	14.6	20.6	6	
27/07/2008	D/S	KY	20.6	26.6	6	Ream to bottom
	N/S	AT	26.6	40.1	13.5	
28/07/2008	D/S	KY	40.1	46.1	6	
	N/S	AT	46.1	52.6	6.5	
29/07/2008	D/S	KY	52.6	61.1	8.5	EOH
	N/S	AT				Pull out rods

Frontier Resources - Sample Recovery and Assay Notes							
Hole_ID	Sample ID	From (m)	To (m)	Interval (m)	Sampled Interval	% Sampled	Comments
NC43	434901	0	1.4	1.4	0.7	50.00	
NC43	434902	1.4	2.7	1.3	0.8	61.54	
NC43	434903	2.7	3.7	1	1	100.00	
NC43	434904	3.7	4.7	1	0.95	95.00	
NC43	434905	4.7	5.7	1	0.85	85.00	
NC43	434906	5.7	6.7	1	0.9	90.00	
NC43	434907	6.7	7.3	0.6	0.8	133.33	
NC43	434908	7.3	8	0.7	0.65	92.86	
NC43	434909	8	8.7	0.7	0.7	100.00	
NC43	434910	8.7	9.7	1	1	100.00	
NC43	434911	9.7	10.7	1	0.85	85.00	
NC43	434912	10.7	11.5	0.8	0.86	107.50	
NC43	434913	11.5	12	0.5	0.5	100.00	
NC43	434914	12	13	1	1.04	104.00	
NC43	434915	13	14	1	1	100.00	
NC43	434916	14	15	1	0.9	90.00	
NC43	434917	15	16	1	1	100.00	
NC43	434918	16	17	1	0.95	95.00	
NC43	434919	17	17.8	0.8	0.83	103.75	
NC43	434920	17.8	18.4	0.6	0.65	108.33	
NC43	434921	18.4	19.2	0.8	0.8	100.00	
NC43	434922	19.2	20.2	1	0.8	80.00	
NC43	434923	20.2	21.2	1	1	100.00	
NC43	434924	21.2	22	0.8	0.9	112.50	
NC43	434925	22	23	1	0.95	95.00	
NC43	434926	23	24.1	1.1	0.9	81.82	
NC43	434927	24.1	25	0.9	0.85	94.44	
NC43	434928	25	26	1	0.9	90.00	
NC43	434929	26	27	1	1	100.00	
NC43	434930	27	28	1	0.96	96.00	
NC43	434931	28	29	1	0.96	96.00	
NC43	434932	29	30	1	1	100.00	
NC43	434933	30	31	1	1	100.00	disseminated sulphides esp galena-cpy
NC43	434934	31	32	1	1	100.00	
NC43	434935	32	33	1	1	100.00	
NC43	434936	33	34	1	1	100.00	
NC43	434937	34	35.3	1.3	1.05	80.77	
NC43	434938	35.3	36.3	1	1	100.00	2 x 3cm qz-gln-cpy-sph-garnet veins
NC43	434939	36.3	37.35	1.05	1.05	100.00	
NC43	434940	37.35	38.3	0.95	1	105.26	
NC43	434941	38.3	39.4	1.1	1	90.91	
NC43	434942	39.4	40.2	0.8	0.75	93.75	
NC43	434943	40.2	41.2	1	0.85	85.00	
NC43	434944	41.2	42.6	1.4	1.4	100.00	
NC43	434945	42.6	43.5	0.9	0.9	100.00	
NC43	434946	43.5	44.3	0.8	0.8	100.00	
NC43	434947	44.3	45.3	1	1	100.00	5cm vein of qz-epi-garnet vein.
NC43	434948	45.3	46.3	1	0.95	95.00	
NC43	434949	46.3	47.3	1	0.88	88.00	
NC43	434950	47.3	48.3	1	0.9	90.00	
NC43	434951	48.3	49.3	1	1	100.00	
NC43	434952	49.3	50.3	1	1	100.00	
NC43	434953	50.3	51.3	1	0.88	88.00	
NC43	434954	51.3	52.3	1	1	100.00	
NC43	434955	52.3	53.3	1	0.95	95.00	
NC43	434956	53.3	54.3	1	1	100.00	
NC43	434957	54.3	55.3	1	1	100.00	
NC43	434958	55.3	56.3	1	1	100.00	
NC43	434959	56.3	57.3	1	1	100.00	
NC43	434960	57.3	58.3	1	1	100.00	
NC43	434961	58.3	59.3	1	1	100.00	
NC43	434962	59.3	60.3	1	1	100.00	
NC43	434963	60.3	61.1	0.8	0.8	100.00	

Frontier Resources Ltd					Down hole assay data							
Hole_ID	From	To	Au_ppm	Au_R	Ag_ppm	As_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Bi_ppm	Spl_Id	Lab Batch
NC43	0	1.4	0.25		1	78	273	503	478	26	434901	20080804
NC43	1.4	2.7	-0.01		-1	210	11	410	508	38	434902	20080804
NC43	2.7	3.7	-0.01		-1	119	74	393	248	17	434903	20080804
NC43	3.7	4.7	-0.01		-1	140	45	488	807	24	434904	20080804
NC43	4.7	5.7	-0.01		-1	100	121	185	341	20	434905	20080804
NC43	5.7	6.7	-0.01		-1	171	46	68	128	46	434906	20080804
NC43	6.7	7.3	0.13		-1	1192	43	24	80	50	434907	20080804
NC43	7.3	8	0.12		34	247	870	8059	11800	248	434908	20080804
NC43	8	8.7	0.02		3	265	780	226	129	57	434909	20080804
NC43	8.7	9.7	0.51		-1	59	53	159	169	10	434910	20080804
NC43	9.7	10.7	0.35		-1	193	88	138	123	51	434911	20080804
NC43	10.7	11.5	-0.01		-1	223	96	40	60	19	434912	20080804
NC43	11.5	12	2.38		21	285	1052	6352	11800	90	434913	20080804
NC43	12	13	5.63		19	1017	662	13400	8805	49	434914	20080804
NC43	13	14	3.93		1	308	147	248	142	36	434915	20080804
NC43	14	15	0.54		1	169	234	183	798	28	434916	20080804
NC43	15	16	0.07		1	125	90	464	886	12	434917	20080804
NC43	16	17	0.11		1	65	192	385	145	12	434918	20080804
NC43	17	17.8	0.09		-1	33	152	93	39	5	434919	20080804
NC43	17.8	18.4	0.29		1	132	300	92	56	27	434920	20080804
NC43	18.4	19.2	8.13		63	195	1607	36700	39200	200	434921	20080804
NC43	19.2	20.2	0.1		2	132	141	628	208	22	434922	20080804
NC43	20.2	21.2	0.07		-1	193	59	194	128	13	434923	20080804
NC43	21.2	22	0.27		1	333	224	136	109	22	434924	20080804
NC43	22	23	6.05		40	503	1295	11100	15200	166	434925	20080804
NC43	23	24.1	10		52	345	1161	39900	34400	152	434926	20080804
NC43	24.1	25	3.73		11	296	929	6412	9632	73	434927	20080804
NC43	25	26	1.72		19	246	1142	8074	9371	132	434928	20080804
NC43	26	27	0.08		5	205	255	3099	3225	50	434929	20080804
NC43	27	28	0.31		18	240	772	10200	13200	101	434930	20080804
NC43	28	29	0.6	0.78	32	305	1144	29700	31900	73	434931	20080804
NC43	29	30	0.31		24	344	575	23600	22700	35	434932	20080804
NC43	30	31	0.72		38	212	724	40600	39700	37	434933	20080804
NC43	31	32	0.04		18	158	128	20300	21300	43	434934	20080804
NC43	32	33	-0.01		2	144	85	1124	1071	33	434935	20080804
NC43	33	34	-0.01		-1	196	27	128	162	19	434936	20080804
NC43	34	35.3	-0.01		3	30	57	1263	368	38	434937	20080804
NC43	35.3	36.3	0.58		6	86	259	1583	187	41	434938	20080804
NC43	36.3	37.35	0.14		11	77	433	927	314	86	434939	20080804
NC43	37.35	38.3	-0.01		3	24	107	687	358	32	434940	20080804
NC43	38.3	39.4	0.09		1	52	271	90	167	45	434941	20080804
NC43	39.4	40.2	0.03		1	167	231	76	149	46	434942	20080804
NC43	40.2	41.2	-0.01		-1	101	190	103	2020	33	434943	20080804
NC43	41.2	42.6	-0.01		-1	24	72	146	293	9	434944	20080804
NC43	42.6	43.5	-0.01		-1	285	121	48	54	4	434945	20080804
NC43	43.5	44.3	-0.01		3	146	140	1566	1867	2	434946	20080804
NC43	44.3	45.3	0.14		1	190	206	186	135	12	434947	20080804
NC43	45.3	46.3	0.08		5	230	271	954	3564	13	434948	20080804
NC43	46.3	47.3	0.06		11	174	325	3998	4470	29	434949	20080804
NC43	47.3	48.3	0.25		11	136	369	3272	5624	17	434950	20080804
NC43	48.3	49.3	0.05	0.09	15	240	533	5238	4002	42	434951	20080804
NC43	49.3	50.3	-0.01		1	73	166	505	383	5	434952	20080804
NC43	50.3	51.3	0.03		29	170	446	13600	12000	51	434953	20080804
NC43	51.3	52.3	0.03		-1	180	179	532	312	1	434954	20080804
NC43	52.3	53.3	-0.01		-1	148	84	216	524	4	434955	20080804
NC43	53.3	54.3	-0.01		-1	191	42	178	80	2	434956	20080804
NC43	54.3	55.3	-0.01		-1	203	60	184	120	1	434957	20080804
NC43	55.3	56.3	-0.01		1	192	60	658	445	27	434958	20080804
NC43	56.3	57.3	-0.01		2	189	702	363	730	21	434959	20080804
NC43	57.3	58.3	0.21		1	145	204	111	40	4	434960	20080804
NC43	58.3	59.3	0.24		-1	139	150	71	14	15	434961	20080804
NC43	59.3	60.3	0.12		-1	120	141	60	13	5	434962	20080804
NC43	60.3	61.1	0.02		9	259	288	6428	5312	48	434963	20080804

Drill Log — Frontier Resources Ltd

PROJECT:	Gowrie Park	**HOLE NO:**	NC44	**DRILL TYPE:**	Diamond
PROSPECT:	Narrawa Creek	**DATE COMMENCED:**	30/07/2008	**DRILLER:**	Frontier Resources Ltd.
TENENMENT:	RL3/2005	**DATE COMPLETED:**	2/08/2008	**LOGGED BY:**	CY
EASTING	425,483.25	**TOTAL DEPTH (m):**	66.6	**LOGGING DATE:**	3/08/2008
NORTHING	5,406,685.99	**AZIMUTH (TN):**	213TN	**OXIDATION BOCO:**	3.8
COLLAR RL:	521.33 (AGD66, Zone 55)	**DIP:**	-60	**BOPO:**	3.8

Drilling details

Core Size	From	To
PQ		
HQ	0.00	23.60
NQ	23.60	66.60
BQ		

Comments

Hole designed to:- Resource infill drilling between NC6 and 12, Testing section 5912.5mE

Significant Analysis Intervals:

Hole_ID	From	To	Interval
NC44	0	66.6	66.6m @ 1.19g/t Au, 5.9g/t Ag, 0.046% Cu, 0.33% Pb & 0.4% Zn
Including	0	1.1	1.1m @ 3.83g/t Au, 0g/t Ag, 0.006% Cu, 0.06% Pb & 0.03% Zn
Including	7.6	8.1	0.5m @ 0.13g/t Au, 18g/t Ag, 0.061% Cu, 2.43% Pb & 2.26% Zn
NC44	11.6	35.9	24.3m @ 3.06g/t Au, 12.8g/t Ag, 0.095% Cu, 0.78% Pb & 0.93% Zn
Including	11.6	15.5	3.9m @ 3.05g/t Au, 21.7g/t Ag, 0.076% Cu, 1.62% Pb & 3.27% Zn
Including	21	23.1	2.1m @ 11.97g/t Au, 32.5g/t Ag, 0.17% Cu, 2.81% Pb & 1.71% Zn
Including	34.00	35.1	1.1m @ 6.29g/t Au, 56g/t Ag, 0.166% Cu, 3.72% Pb & 3.95% Zn

Summary Log

From	To	Graphic	Summary Description (Lith, Altn, Mineralisation)
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			

Frontier Resources Detailed Drill Log ±

Hole Number	NC44	Sheet No	1	Mineralisation / Alteration

Full description: **including colour, main alteration** type and strength, **component minerals** (pref in order of abundance), **rock type, texture, alteration and mineralisation details**

NTERVAL		ROCK CODES		Alteration summary					Pyrite		Galena		Sphalerit		Biotite		Silica		Sericite		Chlorite		(Ca)CO3		Calc-Sil		Skarn		Magnetic		QVN	Other minerals / texture / colour							
FROM (m)	TO (m)	Strat Code	Rock type	Primary Altn	2nd Altn	3rd Altn	Weathering	eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets	Style	Amount %	Style	Amount %	Style	Amount %	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Amount (WMS)	Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour
0.00	1.20		CELUV				T	Stongly oxidised vari-coloured clay or overburden / elluvium																															
1.20	3.45		SMSAND	SKARN	Biot	DSX		Weakly skarnified relict dark green to brown mg poorly sorted q-sst/hornfels. Common pyroxene/skarn-like irrregular veinlets and semi-pervasive light green silica-serpentinite veins/zones also forming selvages to skarn veining and overprinting biotite altered hornfels. Diss sulp up to 3% overall, bands of apple green skarn up to 40cm common, fractured(w/m).	D	3						m					Vn						Rp	W										W	
3.45	7.50		SMSAND	Sil	VSX			grey to lht green hornfels, dentritic pyrite common, mg to cg Quartz Sandstone. Poorly sorted, weak pervasively hornfelsed and silicified(m), mg light brown, to light mottled green, individual qz grains up to 3mm, sparse dk green pyroxene enriched skarn overprint silic, disseminated pyrite up 3% but can locally be up to 7% in bands and veins, bands of dendritic py is also common. 3cm 80LCA qvn's with pyrite frac infil are at 5.7 & 6m; pyrite enechelon bent form indicates sinistral movement during emplacement	Den	3							SP		Sv						Bnd		Rp		D										
7.50	8.60		SKARN	SMSX	SKARN	Sil		green to brown hornfels with weak skarn and sil-serp(w) overprint. Local semi-massive basemetal sulphide, biotite altered(?)	Rp	5		1		1		w		w										w											
8.60	9.80		SCSAND	Sil	VSX			grey / lht green mg to cg poorly sorted (locally minor granule sst) relict hornfels q-sst, perv sil(m), dentritic pyrite veining common especialy within 30cm of upper contact with skarn zone. Py also commonly dss(1%, overall)	Vn	2							P	m																					
9.80	10.45		SCSAND	QVN	Sil			as above, 35+% quartz veined zone (, vn's are mostly <3cm and commonly tapering / lenticular. Py common (3%) as synformational extension veinlets(R'). Main veins are @45LCA with lenticular / tapering veins as related tension gashes at 80LCA opposed but sub parallel to 45 LCA - R' pyrite vein fill.	Vn	2							P	m													m								
10.45	11.65		SCSAND	Sil	VSX			as above, Dentritic py common over lower 30 cm	Vn	2							P	m																					
11.65	13.60		SGRANSAND	DSX	Sil			Granule Quartz Sandstone and poorly sorted q-wacke/sst. Dark bn hornfelsed and perv silic(w) with qtz grains up to 3mm, in wkly leached silicified and variably pyritic ground mass. Significiant Semi massive base metal mineralisation with bands up to 40cm. Disseminated and veined sulphides up 15% locally but 7% throughtout the unit. Dominant sulphides are py>sph>gal>pyrrh>cpy. A white fibrous mineral, possibly tremolite?? (or weathered wollastonite) somestimes occurs with the sulphides, magnetic(w), base metal sulphides appear to be weakly brecciated? in places	D	10	D	5	P	7		w	SP	m											D			Cpy	Spt	3					
13.60	16.60		SGRANSAND	SMSX	Sil			dark brn to light grey brown poorly sorted quartz-greywacke/sandstone with interbeds of sulphidic semi massive base metal sulphides within granule sandstone. Qtz/feld in sil-pyrite matrix to 5mm. The interbeds generally flatlying ie 80 LCA, sulphides appear to have flooded open space / matrix between granules, weak to mod magnetic especially within and around BMS. Sulphides as disseminations/blebs and veins/veinlets. Py is dominant sulphide with subordinate sph-gal-pyrrh and cpy. total sulphides up 13% within bands but up to 7% elsewhere. patchy skarn(w) overprint locally especially near 16m.	D	15	D	5	D	6		w	SP	w/m											D			Cpy	Vn	3					
16.60	23.20		SMSAND	SMSX	SKARN	Biot		dark green mg sandstone. pyroxene enriched, weakly fractured with individual grains up to 2mm. Variably but generaly weakly skarnised, creamy calc silicate alteration over upper 20cm and more diffuse/pervasive? at lower contact, islands of dark biotite enrichment also noted, semi massive sulphide bands noted from 20.8 - 21.6m and from 22.60- 23.0m and creamy calc-silicate altn between 16.5m and 17.10m. Pyrite occurs and disseminations and as vns forming up to 9-11% locally and elesewhere galena as diss and vns up to 3%. Other sulphides including sph-cpy are patchy and to 1-2%.	D	9	Vn	2	Vn	3			SP								Bnd		Rp		D			Cpy	Spt	1					
23.20	29.00		SSAND	SiSX	DSX	QSV		pervasive silica-sulphide acid leached? zone. Light grey strongly leached and fractured rock- original rock AA but could be fg - mg sandstone. Pervasively silicified and crackeled in places with remnants of bioite sst; where siiicified, it is crackled and infilled by ylw-wht colored sericite? abundant late vughy py -silica veins and galena-cpy veins or frature fills. py to 7 % as veins and diss, other sulphides(gal-cpy) up to 2% as veins or fract fill. Footwall/feeder to basemetal sulphide zone above?	Vn	7	Vn	3	Vn	3			P	s	Sv													Cpy	Spt	2					

Frontier Resources Detailed Drill Log ±

Hole Number NC44 **Sheet No** 1 Mineralisation / Alteration

Full description: including colour, main alteration type and strength, **component minerals** (pref in order of abundance), **rock type, texture, alteration and mineralisation details**

eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets

INTERVAL		ROCK CODES		Alteration summary					Pyrite		Galena		Sphalerite		Biotite		Silica		Sericite		Chlorite		(Ca)CO3		Calc-Sil		Skarn		Magnetic		QVN	Other minerals / texture / colour							
FROM (m)	TO (m)	Strat Code	Rock type	Primary Altn	2nd Altn	3rd Altn	Weathering	Description	Style	Amount %	Style	Amount %	Style	Amount %	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Amount (WMS)	Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour
29.00	31.00		HORN	Biot	SMSX	FLOUR		Drk brown biotitie enriched hornfels sandstone. magnetic(m) with areas of sulphide diss-likely pyrrhotite, occassinal semi massive sulphide bands. Disseminated sulphides to 2-3% but can locally be higher. sil-Aspy veining scattered(1%). @30.1m is a 4cm 30LCA milky quartz-py - green flourite-molybdenite? vein and at 31m are 30LCA q-flour-py veins to 1cm	D	3	Vn	0.1	Vn	0		m	SP																					
31.00	32.00		SFSAND	Biot	SMSX	FLOUR		possible laminar bedding in fg sst / slst, disseminated sulphides to 2-3%	D	3	Vn	0.1	Vn	0		m	SP																					
32.00	35.85		SGRANSAND	Biot	SMSX	QSV		mg brown biotite altered hornfels with likely relict fg q-sst / slst interbeds, also minor granule sst interbeds. variably hornfelsed and silicified. abundant semi-massive base metal mineralisation as replacement bands and veins, appears to be usually within the more granular unit. magnetic(w) in places-pyrrhotite?. Dominant sulphide is pyrite but also with significant amounts of other - py>sph>gal>cpy and pyrrh. Cpy appears to have been late as blebs and late replacement of py in veins. Pyrhotoite occurs as minor diss and veins. Sulphides up to 15-20%. Spahlerite and galena±chalcopyrite are conspicous as veins or fract fills.	D	15	Vn	6	Vn	8		m	SP												D			cpy	Spt	3					
35.85	38.50		SSILT	Sil	FLOUR			grey fg to locally laminated bedded(60LCA) sst and slst, perv sil(m), Qtz-Flourite-wallastonite fractures/veins up to 5cm and selvages 2cm common(w/m). sparse q filled fractures	Sv	3	Vn	0.5	Vn	1			P	m	Sv						Sv													
38.50	38.60		FALT	QVN				crushed / broken faulted quartz vein, chlorite and tan calc-sil/carb infil(siderite?)																							s								
38.60	43.70		SSILT	Sil	FLOUR	Biot		grey fg to locally laminated bedded (60LCA) sst and slst, perv sil(m), Biotite perv altn weak, lht gn semi-prve selvages to Qz-Flurite-wallastonite fractures/veins up to 5cm and selvages 2cm common(w/m). sparse q filled fractures							P	w	P	m																				
43.70	43.90		FALT	QVN				2cm ~5LCA crushed / broken faulted quartz vein, chlorite and tan calc-sil/carb infil(siderite?)																							s								
43.90	46.40		SFSAND	Sil	FLOUR	Biot		grey fg to locally laminated bedded (60LCA) sst and slst, perv sil(m), Biotite perv altn weak, sparse zones of near semi-massive suplhide over up to 20cm in biotite zones	D	1					P	w																						
46.40	46.50		FALT	QVN				10cm ~20LCA crushed / broken faulted quartz vein, chlorite and tan calc-sil/carb infil(siderite?), minor epidote?																							s								
46.50	48.50		SFSAND	Sil		Biot		fg q-sandstone / hornfels									P	w																				
48.50	48.55		FALT	QVN				2cm ~20LCA crushed / broken faulted quartz vein, chlorite and tan calc-sil/carb infil(siderite?), minor epidote?																							s								
48.55	55.90		SFSAND	Sil	Biot			brown fg relict sst / silicified biotite hornfels, local bndd @60LCA							P	w	P	m																				
55.90	60.60		SSAND	Sil	VSX	Cals		grey silicified hornfels likely after fg to mg q-sst. Sp calc-sil(w)	Vn	0.5							P	m							P	w												
60.60	61.50		SSILT	Sil	Cals			relict laminar bedded silstone, sil(m/s)-possibly calc-sil(w), bedding @ ~55LCA									P	m/s							P	w												
61.50	64.30		SMSAND	Sil				Light grey with greenish tint, mg, poorly sorted qtz sandstone. hornfelsed and perv silicified(w/m), Weak diss sulphides throughout, esp pyrite as specks and minor veinlets or fracture fills	D	2	Vn	0.5	Vn	1			P	w/m	Sv								SP		D										
64.30	64.85		SMSAND	Biot	Sil			dark brown mg quartz biotite sandstone, disseminated sulphides up to 2%, dominantly py but also trace sph>gal and cpy. Hornfelsed and silicified	D	2	Vn	0.5	Vn	1	P	m	P	w																				
64.85	66.60		SMSAND	Sil				grey silicified hornfels, dss py(2%)	D	2							P	m																				

Down Hole Surveys - Frontier Resources							
Hole_ID	Depth	Azimuth(TN	Dip	Azimuth(Mag)	Type	Verified	Date
NC44	0	213	-60	199	2	Y	30/07/2008
NC44	30.6	209	-59.5	195	1	Y	2/08/2008
NC44	66.6	214	-59.5	200	1	Y	2/08/2008

Survey type	
1	Single shot down hole camera
2	Measured at collar
3	Inferred survey for display
4	Other - see comments

Down Hole Structural Log - Frontier Resources								Structure Code	
Hole_ID	At	Core angle (LCA)	Structure_type	Comments	Azimuth (True)	Dip	Struc_ID	Face	Facing
NC44	2.85	10	Fr	a clean fr infilled by clay-ser-talc.				Ft	Fault
NC44	2,7	80	con	possible lithological contact				Sh	shear
NC44	6.5	80	Vn	a 3cm qz vein.				Vn	vein
NC44	7.6	80	Ft	a 10cm fault defined by brkn core and cly on fr surfaces.				Fo	Foliation
NC44	8	80	bnd	from 7.7 - 8,10, 40cm mas sulp band with py>gal>cpy>sph.				Fr	fracture
NC44	8.3	30	Ft	a minor fault infilled by clay-Manganese.				Jt	Joint
NC44	9.4	50	Fr	clean fracture				Bd	Bedding
NC44	11.1	30	Vn	1-3mm series of parallel veins, dk gy py vns.				Fold	Fold
NC44	12,15	80	bnd	massive sulphide band from 12.15 - 12.45m, contact at 80 to CA.				con	contact
NC44	12.9	80	Vn	3cm thick py>gal>cpy>sph vein.				lay	layering
NC44	12.7	80	Vn	3cm vugghy gal>cpy>vein				bnd	banding
NC44	15.7	85	Bd	fg sst bed with granule sst				Ln	Lineation
NC44	16.2	80	bd	Possible layering/bedding				CATA	Cataclasite
NC44	17.7	80	bnd	pyritic band				Slck	Slickensides
NC44	18.4	30	Fr	infilled by talc and clay.				Pu	Puggy seam
NC44	17.1	80	con	possible lithological contact				Cl	Cleavage
NC44	20.5	25	Fr	clean fracture					
NC44	21.05	50	con	massive sulphide band from 21.05 - 21.30, contact at 80 to CA on both sides					
NC44	21.7-22.7		bnd	2 x massive sulphide bands.					
NC44	23.3	20	Vn	vugghy 1-3cm qz-pyrite vein.					
NC44	26.3	15	Vn	vugghy 1-3cm qz-pyrite >bm vein.					
NC44	30.1	30	Vn	4cm 30LCA milky quartz-py - green flourite-molybdenite? vein					
NC44	30.4	60	Fr	a couple of veins in this area with same direction					
NC44	31	30	Vn	q-flour-py vein					
NC44	32.1	45	bnd	Semi massive sulphide band/breccia? from 32.1-32.70m.					
NC44	33.4	60	fr	Fr infilled by epi-chl-qz-talc.					
NC44	34.6	50	Fr	infilled by botroyoidal qz-sign of boiling??.					
NC44	34.5	50	Vn	5cm gal-qz-cpy-sph vein.					
NC44	38.5	40	Ft	30cm bull qz -brxtd with ylw seri infilling cracks -faulted?					
NC44	40.4	80	Vn	Qz-garnet -sulphide vein or fract infils.					
NC44	41.5	80	vn	set of paralleling fractures at shallow angle to core axis.					
NC44	42.8	50	Ft	Fault selvage at 50 degrees to CA.					
NC44	44.1	5	Fr	a 40cm fr sub II to core axis but infilled by chl-epi-talc-sericite.					
NC44	45.6	20	Fr	Qz-garnet -sulphide vein or fract infils.					
NC44	46.6	20	Vn	5cm garnet??-epidote-chl-bull-qz vein					
NC44	47.3	5	Ft	2cm crushed q-vein					
NC44	49.5	70	bd	possible bedding or layering.					
NC44	51.2	80	Vn	qz-garnet -sulphide vein					
NC44	59.4	70	vn	fracture infilled by qz-chl-epidote.					
NC44	60.3	60	Vn	series of vns between 60.0 -60.5 at 60 to core axis.					
NC44	61	55	bd	bedding in slst					
NC44	64.1	60	fr	Fract healed by talc-chl-epidote.					

Frontier Resources Ltd				Drill Core Recovery & RQD Log			
Hole_ID	From	To	Interval	Measured	Recovery%	Lengths>10cm	RQD %
NC44	0	1.1	1.1	0.7	63.64	0	0.00
NC44	1.1	2.6	1.5	1	66.67	0.66	44.00
NC44	2.6	4.1	1.5	1.5	100.00		0.00
NC44	4.1	5.6	1.5	1.4	93.33	0.84	56.00
NC44	5.6	7.1	1.5	1.5	100.00	0.9	60.00
NC44	7.1	8.6	1.5	1.35	90.00	0.68	45.33
NC44	8.6	10.1	1.5	1.5	100.00	0.8	53.33
NC44	10.1	11.6	1.5	1.5	100.00	1.5	100.00
NC44	11.6	13.1	1.5	1.5	100.00	1.32	88.00
NC44	13.1	14.6	1.5	1.18	78.67	0.89	59.33
NC44	14.6	16.1	1.5	1.5	100.00	1.5	100.00
NC44	16.1	17.6	1.5	1.4	93.33	0.8	53.33
NC44	17.6	20.6	3	3	100.00	2.13	71.00
NC44	20.6	23.6	3	2.9	96.67	2.5	83.33
NC44	23.6	26.6	3	3	100.00	1.32	44.00
NC44	26.6	29.6	3	3	100.00	2.35	78.33
NC44	29.6	32.6	3	2.85	95.00	2.05	68.33
NC44	32.6	35.6	3	2.7	90.00	2.62	87.33
NC44	35.6	38.6	3	3	100.00	2.4	80.00
NC44	38.6	41.6	3	3	100.00	2.28	76.00
NC44	41.6	44.6	3	3	100.00	1.76	58.67
NC44	44.6	47.6	3	3	100.00	2.35	78.33
NC44	47.6	49.1	1.5	1.5	100.00	0.64	42.67
NC44	49.1	50.6	1.5	1.5	100.00	1.07	71.33
NC44	50.6	53.6	3	2.9	96.67	2.5	83.33
NC44	53.6	56.6	3	3	100.00	2.7	90.00
NC44	56.6	59.6	3	3	100.00	2.42	80.67
NC44	59.6	61.1	1.5	1.5	100.00	0.73	48.67
NC44	61.1	62.6	1.5	1.5	100.00	1.1	73.33
NC44	62.6	64.1	1.5	1.45	96.67	0.9	60.00
NC44	64.1	65.6	1.5	1.5	100.00	0.9	60.00
NC44	65.6	66.6	1	1	100.00	0.54	54.00

DAILY DRILLERS DEPTH UPDATE **NC44**

DATE	SHIFT	DRILLER	FROM	TO	DISTANCE	COMMENTS	BRIEF GEO SUMMARY
30/07/2008	D/S	KY	0	13.1	13.1	HQ to 17m then reduce to NQ.	KY=Kevin Yaki
	N/S	AT	13.1	20.6	7.5		AT=Albert Toto
31/07/2008	D/S	KY	20.6	47.6	27		
	N/S	AT	47.6	49.1	1.5		
1/08/2008	D/S	KY	49.1	60.1	11		
	N/S	AT	60.1	66.6	6.5	EOH	

Frontier Resources - Sample Recovery and Assay Notes							
Hole_ID	Sample ID	From (m)	To (m)	Interval (m)	Sampled Interval	% Sampled	Comments
NC44	434964	0	1.1	1.1	0.7	63.64	Oxidised overburden
NC44	434965	1.1	2.7	1.6	1.06	66.25	
NC44	434966	2.7	3.7	1	0.96	96.00	
NC44	434967	3.7	4.7	1	1	100.00	
NC44	434968	4.7	5.7	1	0.94	94.00	
NC44	434969	5.7	6.85	1.15	1.12	97.39	
NC44	434970	6.85	7.6	0.75	0.75	100.00	
NC44	434971	7.6	8.1	0.5	0.5	100.00	
NC44	434972	8.1	8.75	0.65	0.6	92.31	
NC44	434973	8.75	9.75	1	0.95	95.00	
NC44	434974	9.75	10.75	1	0.9	90.00	
NC44	434975	10.75	11.6	0.85	0.85	100.00	
NC44	434976	11.6	12.6	1	0.92	92.00	Semi-massive base metal sulphidesn veins/bands
NC44	434977	12.6	13.6	1	0.92	92.00	
NC44	434978	13.6	14.6	1	0.95	95.00	
NC44	434979	14.6	15.5	0.9	0.9	100.00	
NC44	434980	15.5	16.1	0.6	0.56	93.33	
NC44	434981	16.1	17.1	1	0.95	95.00	
NC44	434982	17.1	18.1	1	0.9	90.00	
NC44	434983	18.1	19.1	1	1	100.00	
NC44	434984	19.1	20.1	1	1	100.00	
NC44	434985	20.1	21	0.9	0.88	97.78	
NC44	434986	21	22.1	1.1	1.05	95.45	Massive base metal sulphide bands/veins
NC44	434987	22.1	23.1	1	1	100.00	
NC44	434988	23.1	24.1	1	1	100.00	
NC44	434989	24.1	25.1	1	1	100.00	
NC44	434990	25.1	26.1	1	1	100.00	
NC44	434991	26.1	27.1	1	1	100.00	
NC44	434992	27.1	28.65	1.55	1.55	100.00	
NC44	434993	28.65	29.6	0.95	0.9	94.74	
NC44	434994	29.6	30.6	1	1	100.00	
NC44	434995	30.6	31.3	0.7	0.7	100.00	
NC44	434996	31.3	32	0.7	0.7	100.00	
NC44	434997	32	33	1	0.9	90.00	Massive base metal sulphide bands/veins
NC44	434998	33	34	1	1	100.00	
NC44	434999	34	35.1	1.1	1.1	100.00	
NC44	435000	35.1	35.9	0.8	0.9	112.50	
NC44	434701	35.9	37	1.1	1	90.91	
NC44	434702	37	38.6	1.6	1.45	90.62	
NC44	434703	38.6	39.6	1	1	100.00	
NC44	434704	39.6	40.6	1	1	100.00	
NC44	434705	40.6	41.6	1	1	100.00	
NC44	434706	41.6	42.6	1	0.95	95.00	
NC44	434707	42.6	43.6	1	1	100.00	
NC44	434708	43.6	44.6	1	0.8	80.00	
NC44	434709	44.6	45.6	1	1	100.00	
NC44	434710	45.6	46.5	0.9	0.9	100.00	
NC44	434711	46.5	47.5	1	1	100.00	
NC44	434712	47.5	48.5	1	0.9	90.00	
NC44	434713	48.5	49.5	1	1	100.00	
NC44	434714	49.5	50.5	1	1	100.00	
NC44	434715	50.5	51.5	1	1	100.00	
NC44	434716	51.5	52.5	1	1	100.00	
NC44	434717	52.5	53.5	1	0.95	95.00	
NC44	434718	53.5	54.5	1	1	100.00	
NC44	434719	54.5	55.5	1	1	100.00	
NC44	434720	55.5	56.5	1	1	100.00	
NC44	434721	56.5	57.5	1	1	100.00	
NC44	434722	57.5	58.5	1	1	100.00	
NC44	434723	58.5	59.5	1	1	100.00	
NC44	434724	59.5	60.5	1	1	100.00	
NC44	434725	60.5	61.5	1	1	100.00	
NC44	434726	61.5	62.5	1	1	100.00	
NC44	434727	62.5	63.5	1	0.98	98.00	
NC44	434728	63.5	64.5	1	0.96	96.00	
NC44	434729	64.5	65.5	1	1	100.00	
NC44	434730	65.5	66.6	1.1	0.9	81.82	

Frontier Resources Ltd															Down hole assay data
Hole_ID	From	To	Au_ppm	Au_R	Ag_ppm	As_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Bi_ppm	Sn_ppm	W_ppm	Mo_ppm	Spl_Id	Lab Batch
NC44	0	1.1	3.83		-1	57	64	624	317	32				434964	20080814
NC44	1.1	2.7	-0.01		-1	188	62	79	184	34				434965	20080814
NC44	2.7	3.7	0.01		-1	99	26	152	112	34				434966	20080814
NC44	3.7	4.7	0.21		-1	124	52	207	237	23				434967	20080814
NC44	4.7	5.7	0.01		-1	138	48	159	193	14				434968	20080814
NC44	5.7	6.85	-0.01		-1	85	61	84	144	24				434969	20080814
NC44	6.85	7.6	-0.01		-1	260	294	125	112	10				434970	20080814
NC44	7.6	8.1	0.13		18	204	607	24300	22600	76				434971	20080814
NC44	8.1	8.75	-0.01		-1	70	102	256	624	52				434972	20080814
NC44	8.75	9.75	0.01		-1	188	28	439	313	23				434973	20080814
NC44	9.75	10.75	0.03		2	26	57	1865	1397	9				434974	20080814
NC44	10.75	11.6	-0.01		-1	171	150	167	73	4				434975	20080814
NC44	11.6	12.6	1.02		36	247	677	14800	16600	104				434976	20080814
NC44	12.6	13.6	0.85		17	281	566	15100	17300	39				434977	20080814
NC44	13.6	14.6	9.66		30	260	1025	32800	31800	44				434978	20080814
NC44	14.6	15.5	0.39		2	219	781	372	68600	28				434979	20080814
NC44	15.5	16.1	0.48		3	290	1579	484	4859	54				434980	20080814
NC44	16.1	17.1	0.73		-1	203	111	89	222	53				434981	20080814
NC44	17.1	18.1	0.08		-1	213	62	78	386	34				434982	20080814
NC44	18.1	19.1	8.36		1	286	379	34	122	37				434983	20080814
NC44	19.1	20.1	0.27		1	115	852	164	187	103				434984	20080814
NC44	20.1	21	0.56		1	59	520	90	189	55				434985	20080814
NC44	21	22.1	18.5		42	257	2283	31300	13100	206				434986	20080814
NC44	22.1	23.1	4.78		22	232	1055	24500	21400	72				434987	20080814
NC44	23.1	24.1	0.1		-1	108	623	64	139	31				434988	20080814
NC44	24.1	25.1	0.1		29	134	2305	9861	3065	295				434989	20080814
NC44	25.1	26.1	2.85		16	693	1301	5080	485	120				434990	20080814
NC44	26.1	27.1	7.83		2	584	1254	103	126	325				434991	20080814
NC44	27.1	28.65	2.82		1	197	1056	79	75	79				434992	20080814
NC44	28.65	29.6	1.24		1	4840	932	52	99	75				434993	20080814
NC44	29.6	30.6	1		-1	624	304	34	86	144	240	150	-1	434994	20080814 & 20090203
NC44	30.6	31.3	0.29		-1	990	154	54	96	70	260	150	3	434995	20080814 & 20090203
NC44	31.3	32	0.2		1	767	441	147	142	67	510	210	1	434996	20080814 & 20090203
NC44	32	33	2		4	289	1327	263	826	195				434997	20080814
NC44	33	34	0.36		21	147	1270	1875	4333	149				434998	20080814
NC44	34	35.1	6.29		56	154	1655	37200	39500	80				434999	20080814
NC44	35.1	35.9	0.18	0.2	21	122	598	9913	6145	56				435000	20080814
NC44	35.9	37	-0.01		2	11	170	600	101	16				434701	20080814
NC44	37	38.6	0.18		-1	15	45	17	15	33				434702	20080814
NC44	38.6	39.6	-0.01		-1	50	34	17	37	34				434703	20080814
NC44	39.6	40.6	-0.01		-1	138	137	16	27	42				434704	20080814
NC44	40.6	41.6	0.06		-1	1639	448	24	29	68				434705	20080814
NC44	41.6	42.6	-0.01		-1	58	300	26	35	57				434706	20080814
NC44	42.6	43.6	0.04		-1	233	114	29	27	54				434707	20080814
NC44	43.6	44.6	-0.01		-1	154	166	14	44	8				434708	20080814
NC44	44.6	45.6	-0.01		-1	85	212	36	67	2				434709	20080814
NC44	45.6	46.5	-0.01		-1	16	44	37	34	0				434710	20080814
NC44	46.5	47.5	-0.01		-1	202	202	25	47	4				434711	20080814
NC44	47.5	48.5	0.02	0.02	-1	317	189	67	51	4				434712	20080814
NC44	48.5	49.5	-0.01		-1	95	122	84	102	11				434713	20080814
NC44	49.5	50.5	-0.01		-1	137	215	57	135	22				434714	20080814
NC44	50.5	51.5	0.08		-1	257	279	51	98	35				434715	20080814
NC44	51.5	52.5	0.02		-1	121	550	827	2275	50				434716	20080814
NC44	52.5	53.5	-0.01		26	144	333	5932	12700	44				434717	20080814
NC44	53.5	54.5	-0.01		13	57	257	2322	1196	18				434718	20080814
NC44	54.5	55.5	-0.01		6	124	330	982	1604	22				434719	20080814
NC44	55.5	56.5	0.02		17	71	564	645	3428	98				434720	20080814
NC44	56.5	57.5	-0.01		-1	63	107	79	141	23				434721	20080814
NC44	57.5	58.5	-0.01		-1	73	66	54	104	0				434722	20080814
NC44	58.5	59.5	-0.01		-1	104	154	315	290	15				434723	20080814
NC44	59.5	60.5	-0.01		-1	35	66	254	293	1				434724	20080814
NC44	60.5	61.5	-0.01	-0.01	-1	10	123	150	188	1				434725	20080814
NC44	61.5	62.5	-0.01		-1	116	73	66	53	4				434726	20080814
NC44	62.5	63.5	-0.01		-1	51	107	51	34	0				434727	20080814
NC44	63.5	64.5	-0.01		1	124	284	155	1471	41				434728	20080814
NC44	64.5	65.5	0.02		7	75	685	3604	4929	43				434729	20080814
NC44	65.5	66.6	0.03		-1	16	47	58	28	0				434730	20080814

Drill Log — Frontier Resources Ltd

PROJECT:	Gowrie Park	**HOLE NO:**	NC45	**DRILL TYPE:**	Diamond
PROSPECT:	Narrawa Creek	**DATE COMMENCED:**	4/08/2008	**DRILLER:**	Frontier Resources Ltd.
TENENMENT:	RL3/2005	**DATE COMPLETED:**	10/08/2008	**LOGGED BY:**	CY
EASTING	425,483.31	**TOTAL DEPTH (m):**	81.1	**LOGGING DATE:**	22/08/2008
NORTHING	5,406,685.99	**AZIMUTH (TN):**	213	**OXIDATION**	BOCO: 1.8
COLLAR RL:	521.33 (AGD66, Zone55)	**DIP:**	-75		BOPO: 4.5

Drilling details

Core Size	From	To
PQ		
HQ	0.00	10.60
NQ	10.60	81.10

Comments

Hole designed to:- Resource infill drilling between NC6 and 12, Testing section 5912.5mE

Significant Analysis Intervals:

Hole_ID	From	To	Interval
NC45	14	23	9m @ 0.96g/t Au, 4.2g/t Ag, 0.038% Cu, 0.12% Pb & 0.07% Zn
Including	14	20	6m @ 1.25g/t Au, 3.2g/t Ag, 0.048% Cu, 0.18% Pb & 0.09% Zn
Including	18	19	1m @ 3g/t Au, 1g/t Ag, 0.021% Cu, 0.03% Pb & 0.1% Zn

Summary Log

From	To	Graphic	Summary Description (Lith, Altn, Mineralisation)
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			

Frontier Resources Detailed Drill Log

Hole Number		NC45	Sheet No	1	Mineralisation / Alteration and a

Full description: including colour, main alteration type and strength, **component minerals** (pref in order of abundance), **rock type, texture, alteration and mineralisation details**
eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets

INTERVAL		ROCK CODES		Alteration summary				
FROM (m)	TO (m)	Strat Code	Rock type	Primary Altn	2nd Altn	3rd Altn	Weathering	Full description
0.00	1.80		CELUV				S	oxidised core
1.80	4.50		HORN	Sil			M	grey hornfels likelly after poorly sorted mg quartz-wacke, dss py(0.5%) with common semi-perv zones lht gn sil(m/s) with irregullar but sharp edges, relict feld and fg mafic in matrix
4.50	8.44		SMSAND	Sil	QVN			Grey brown with green tint, fg-mg near equigranular quartz sandstone with occ bands of granular sandstone (up to 10cm). fractured(m), hornfelsing and silicification(m), weakly mineralised with diss sulphides up to 2%, occ qtz-py vns 70 LCA. Late qtz-pyrite veins approx. 1-3mm at low angle (0-15) to core axis. biotite enrichment patchy, magnetic(w).
8.44	8.90		HORN	Sil				light apple grn to yellowish green and locally dk gn hornfels, perv lht gn sil(m/s), mod fract, weak sulphide mineralisation,with up to 2% diss sulp, esp pyrite in a dgn hornfels patch, vugghy and weakly leached in places. weak clay sericite in fract. wkly magnetic
8.90	9.9		FALT					strongly broken zone of AA, locally puggy clay - breccia?
9.90	11.20		HORN	Sil	VSX			gry brn with grn tint hornfels / quartz wacke-sandstone. qtz grains to 2mm, hornfelsed and sil(mod), magnetic(w), weakly mineralised with occ qtz-py bm veins and with dendritic pyritic bands, Py content up to 2%, other sulphides eg sph-gal±cpy occur principaly as veins or fract fills. trace pyrrhotite?; sil(w/m) dendritic py(m)
11.20	11.55		QVN	QVN	Sil			milky Devonian quartz veined zone(75%), sharp contacts at 45 to 70LCA, crack seal evident with included wall rock.
11.55	13.10		HORN	Sil	VSX			gry brn with grn tint hornfels / quartz wacke-sandstone. qz cxrytals up to 2mm, hornfelsed and sil(mod), weakly magnetic, weakly mineralised with occ qz-py bm veins and with dendritic pyritic bands, Py content up to 2%, other sulphides eg sph-gln±cpy occur principaly as veins or fract fils. trace pyrrhotite?; sil(w/m) dendritic py(m)
13.10	17.00		SGRANSAND	SMSX	Biot	Sil		dark brn to dk grn fg -mg quartz wacke-sandstone with interbeds of granular sandstone up to 30cm, weakly hornfelsed and siliified, quartz grains to 3mm, Moderately mineralised unit with sulphides flooding space between granules in granular sandstone, locally semi -massive py bands to 10cm, most bands flat lying and 80LCA. patches of dark brn biotite enrichment also present. Sulphides esp pyrite up 11% with subordinate galena, sphalerite and possibly chalcopyrite. Pyrrhotite is suspected to be present.
17.00	23.00		SFSAND	Sil	DSX	QSV		Dk brn to grn interbedded fine equigranular sandstone with interbeds o fg qz sst / slst, Silicified and hornfelsed(w). weak to moderatelly mineralised with occ thin semi massive sulphides bands up to 3cm wide, also base metal sulp veining in places, patchy skarn(w) overprint with creamy calc-silicate(w) noted in places replacing laminated bedded relict slst ~80LCA. White qz veins with x-cutting py blebs are also noted from 18 to 18.1m. Pyrite up to 5% with trace others. weakly magnetic
23.00	26.00		HORN	Sil	SKARN			dark grey / green hornfels relict sandstone, light orange green skarn alteration(w/m) with a late clay / argillic overprint. Trace disseminated sulphides es pyrite.
26.00	27.10		FALT	Sil	Arg			Fault/Fracture Zone. Intensely fragmented core with strong clay development in places esp puggy clay. Possibbly a Fault Zone.
27.10	30.60		SFSAND	Biot	DSX			weakly hornfelsed fg wacke / sandstone, mod fractured core, weakly mineralised with trace sulphides throughout(t/o), patchy dark brown biotite enrichment in places. Sulphides up to 2%. Weakly magnetic.
30.60	32.70		HORN	SKARN	Sil	DSX		apple green to dark green zone of mod to strong? Skarn development, initially hornfelsed and sil(w) in biotite enriched qtz sandstone/ greywacke. Dark colour possibly represents pyroxene. Skarn development overprints original hornfelsing and silification? Dissemianted sulphides esp py up to 2%
32.70	36.90		SGWAC	Biot	Sil	SKARN		Feldspathic sst/greywacke. fg-mg mostly grey but dk brn mod brkn zones, hornfelsed and silicified. patchy skarn replacement. specks of diss sulp esp py. remnants also of bioite enriched bownish sst. Skarn opverprints? earlier alteration. Py up to 1%
36.90	42.00		SFSAND	Sil	DSX	Biot		Pale grey fg poorly sorted quartz sandstone, hornfelsed and sil(m) and weakly leached. Moderately broken core. Diss py to 2%. occ vughhy qtz-± sulphides eg from 39.0 39.5m 1-3cm qz vn. patchy skarn replacement, also occasional patches of dark brn biotite enriched sst, Most late veins and fractures at low angle to core axis.
42.00	43.40		FALT	Sil	DSX	Biot		As above, but strongly broken / fractured brittle Fault zone

FROM (m)	TO (m)	Pyrite Style	Pyrite Amount %	Galena Style	Galena Amount %	Sphalerit Style	Sphalerit Amount %	Biotite Style	Biotite Amount (WMS)	Silica Style	Silica Amount (WMS)	Sericite Style	Sericite Amount (WMS)	Chlorite Style	Chlorite Amount (WMS)	(Ca)CO3 Style	(Ca)CO3 Amount (WMS)	Calc-Sil Style	Calc-Sil Amount (WMS)	Skarn Style	Skarn Amount (WMS)	Magnetic Style	Magnetic Amount (WMS)	QVN Amount (WMS)	Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour
0.00	1.80																															
1.80	4.50	D	2	Vn	0.1	Vn	0.1			SP	m/s	Sv		Spt								D										ylw grn
4.50	8.44	D	2	Vn	0.1	Vn	0.1		w	SP	m	Sv						Sk				D									m	dk brn
8.44	8.90	D	2							SP	m/s	Sv						Sk				D									m	dk rd
8.90	9.9																														s	
9.90	11.20	Vn	2	Vn	0.5	Vn	0.5			P	m											D										gry brn
11.20	11.55	Vn	2	Vn	0.5	Vn	0.5			P	m											D		m/s								gry brn
11.55	13.10	Vn	2	Vn	0.5	Vn	0.5			P	m											D										gry brn
13.10	17.00	D	10	D	3	D	5		w/m	SP	w/m	Sv		Sv								D										dk brn
17.00	23.00	D	6	Vn	0.5	Vn	1			SP		Sv		Sv				Spt				D										brn green
23.00	26.00	D	2							P	w/m	SP									w/m											lt grn
26.00	27.10									SP		Spt																			s	drk brn
27.10	30.60	D	2					P	w/m	P	w																					dk brn
30.60	32.70	D	2					P	w/m	SP	w	Sv									m	D										dk grn
32.70	36.90	D	1					P	w/m		w/m										w										w/m	
36.90	42.00	D	3	Vn	0.5	Vn	0.5	P	w	P	m	Sv										D									m	
42.00	43.40	D	3	Vn	0.5	Vn	0.5		w	P	m	Sv										D									s	

Frontier Resources Detailed Drill Log

Hole Number		NC45	Sheet No	1	Mineralisation / Alteration and ad

Full description: including colour, main alteration type and strength, **component minerals** (pref in order of abundance), **rock type, texture, alteration and mineralisation details**
eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets

INTERVAL		ROCK CODES		Alteration summary					Pyrite		Galena		Sphalerit		Biotite		Silica		Sericite		Chlorite		(Ca)CO3		Calc-Sil		Skarn		Magnetic		QVN	Other minerals / texture / colour							
FROM (m)	TO (m)	Strat Code	Rock type	Primary Altn	2nd Altn	3rd Altn	Weathering	Description	Style	Amount %	Style	Amount %	Style	Amount %	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Amount (WMS)	Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour
43.40	44.60		SFSAND	Sil	DSX	Biot		Pale grey fg poorly sorted qtz sandstone, hornfelsed and sil(m) and weakly leached. Moderately broken core. Diss py t/o up 2%. occ vughhy qz-± sulphides. patchy skarn replacement, also occasional patches of dark brn biotite enriched sst. moderate clay sericite enrichment in places from 42.3 - 43.5m, talc also coating fract surfaces, Most late veins and fractures at low angle to core axis.	D	3	Vn	0.5	Vn	0.5		w	P	m	Sv										D									w	
44.60	51.00		SGRANSAND	Sil	DSX	QSV		Dk brn coloured, mg hornfelsed and silicified(w, locally m) granular qtz sandstone, commonly with weakly laminar bedded fg sst/slst, weakly leached, qtz grains up to 3mm, dark brown colour areas of fine biotite enrichment, ylw orange mineral flooding cavities and as fracture coating, occassional base metal qtz py-seri fract fill or veing 1-2mm wide, variably skarnised(w and patcky). Diss sulp up to 5% with trace other base metals. Weak semi-massive sulphide locally	D	3	Vn	0.5	Vn	0.5		w	SP	m	SP									w	D										
51.00	56.00		SMSAND	Sil	Biot	DSX		Brwn -ylw brn mg-fg poorly sorted quartz biotite sandstone, strongly fract core, mostly at low angle to core axis, silicified(perv-m) and hornfelsed, Qtz grains to 3mm, zones of weak minor folding, abundant ylw orange coloration as staining throughout the core and also in fract, possibly ?? calc-silicate staining??. Patchy skarn alteration. wk sulp min with sulphides esp py up to 3% supported by trace sph-gln and cpy	D	3	Vn	0.5	D	0.5		m	P	m	Sv							w		w	D									m/s	
56.00	59.70		FALT					broken zone within AA, possibly late brittle faulted								m		m										w										s	
59.70	62.00		SSILT	SMSX				dark grey/brown hornfels slst, bdd ~45LCA, semi-massive sulphide to ~10% locally																															
62.00	71.80		SFSAND	Sil	DSX			Pale grey fg sandstone poorly sorted qtz sandstone, hornfelsed and sil(m) pervasive and weakly leached. Mod fract, with clay sericite altn i fract, talc?? Also present as fracture coatings, Poorly mineralised with fine diss py and BM up to 3% set in siliceous groundmass. weakly magnetic, suggests pyrrhotite.	D	3	D	0.5	Vn	1			P	m	Sv		Sv								D									m	
71.80	81.10		SLSAND	Sil	DSX			Lithic sandstone. Varicolored, dominantly brn to ylw grey coloured lithic?? Sandstone with lithic fragments set in siliceous groundmass ar individual fragments up to 5mm wide. Abundant ylw -orange colouration/stng in fract and on surface of core, Interbeds of fg sandstone up to 40cm. Lithic fragments altered? and sum rounded. weak sulp mineralisation with py 3-5% and others trace. weak clay ser o/p throughout. sil(m) pervassive	D	4	D	0.1	D	0.5			SP	m	Sv										D										

Down Hole Surveys - Frontier Resources						
Hole_ID	Depth	Azimuth(TN	Dip	Azimuth(Mag)	Type	Date
NC45	0	213	-75	199	2	4/08/2008
NC45	20.1	212	-75.5	198	1	10/08/2008
NC45	50.1	211.5	-75	197.5	1	10/08/2008
NC45	81.1	211	-75.5	197	1	10/08/2008

Survey type	
1	Single shot down hole camera
2	Measured at collar
3	Inferred survey for display
4	Other - see comments

Down Hole Structural Log - Frontier Resources								Structure Code	
Hole_ID	At	Core angle (LCA)	Structure_type	Comments	Azimuth (True)	Dip	Struc_ID	Face	Facing
NC45	3.1			from 3.1- 3.7 intensely broken core				Ft	Fault
NC45	7.2	80	vn	Q-sph-gln±cpy 1-5mm vein				Sh	shear
NC45	7.6	5	Fr	clean fr parallel to core axis				Vn	vein
NC45			Ft	from 9.60 -10.20, intensely broken core possibly a fault				Fo	Foliation
NC45		80	vn	from 10.2 - 10.5, milky white Qz vein.				Fr	fracture
NC45		70	vn	from 10.6 - 10.8 1-2mm qurtz-pyrite vein				Jt	Joint
NC45	13.6		ft	clay enriched 1-3mm structure				Bd	Bedding
NC45	16.6	80	bnd	10cm semi massive base metal sulphide band.				Fold	Fold
NC45	20	70	bd	10cm wide laminar bedding .				con	contact
NC45	18.8	80	vn	1-3cm py vein				lay	layering
NC45	25.4	10	Fr	from 25.4 - 25.6, clean fracture.				bnd	banding
NC45	25.8		Fr	from 25.6 - 27.0, intensely fract core, could possiblly be a structure.				Ln	Lineation
NC45	28	50	fr	clean fracture.				CATA	Cataclasite
NC45	30.1	10	fr	1-2mm fract infilled by clay-sericite.				Slck	Slickensides
NC45	33		fr	intesely fragmented core-fault??.				Pu	Puggy seam
NC45			Fr	33.3 - 33.9, intensely fract core.				Cl	Cleavage
NC45	33.9		fr	from 33.9 - 38.9, zone of intensely broken core-possibly structural zone.					
NC45	40.5		fr	40.4 - 40.5 fract II to CA.					
NC45	42		fr	42.2 - 43.6, intensely fract core with fract filled by clay-seri-talc??					
NC45	45.8	10	fr	1-2mm cly-seri infilled fract.					
NC45	47.1	70	pu	10cm wide clay seri alterd zone.					
NC45	50.2	60	fr	50.2 -50.3, series of fract.					
NC45	57	10	fr	a clean fract.					
NC45	56.1		fr	56.10 - 59.10, intesely fracture core, possibly a fracture zone.					
NC45	60.3	40	fr	another clean uneven fract.					
NC45	64		fr	64.0 - 64.10 fragmented core-afault?.					
NC45	63.1		fr	63.1 - 63.4m, series of fract at 60 CA.					
NC45	64.9		fr	from 64.9 - 65.2 - fracture zone, possibly a fault.					
NC45	74.6	70	fr	a clean fract.					
NC45	67.6		fr	from 67.6 - 71.7, intensely broken core, hard to get readings.					
NC45	72	20	vn	clay -pyrite vein					
NC45	78.1	70	fr	from 78.10 -78.40m series of fract infilled by fine pyrite.					
NC45	80	65	fr	from 80 -81.10m, fract/veins infilled by fine qz-pyrite and there is about 5/m.					

Frontier Resources Ltd				Drill Core Recovery & RQD Log			
Hole_ID	From	To	Interval	Measured	Recovery%	Lengths>10cm	RQD %
NC45	0	1.6	1.6	0.75	46.88	0	0.00
NC45	1.6	3.1	1.5	1.2	80.00	0.78	52.00
NC45	3.1	4.6	1.5	1.25	83.33	0.16	10.67
NC45	4.6	6.1	1.5	1.5	100.00	0.78	52.00
NC45	6.1	7.6	1.5	1.4	93.33	0.5	33.33
NC45	7.6	9.1	1.5	1.4	93.33	0.75	50.00
NC45	9.1	10.6	1.5	1.5	100.00	0.35	23.33
NC45	10.6	11.1	0.5	0.39	78.00	0.27	54.00
NC45	11.1	12.1	1	0.95	95.00	0.5	50.00
NC45	12.1	13.6	1.5	1.45	96.67	1.2	80.00
NC45	13.6	15.1	1.5	1.45	96.67	0.83	55.33
NC45	15.1	16.6	1.5	1.35	90.00	0.74	49.33
NC45	16.6	18.1	1.5	1.5	100.00	1.12	74.67
NC45	18.1	21.1	3	2.83	94.33	2	66.67
NC45	21.1	24.1	3	3.1	103.33	2.4	80.00
NC45	24.1	25.6	1.5	1.45	96.67	0.9	60.00
NC45	25.6	27.1	1.5	1.45	96.67	0.28	18.67
NC45	27.1	30.1	3	3	100.00	2.75	1.55
NC45	30.1	32.1	2	2	100.00	2.73	1.00
NC45	32.1	33.1	1	1	100.00	0.47	47.00
NC45	33.1	36.1	3	3	100.00	0.46	15.33
NC45	36.1	39.1	3	2.7	90.00	0.34	11.33
NC45	39.1	42.1	3	2.9	96.67	1.23	41.00
NC45	42.1	43.6	1.5	1.45	96.67	0.12	8.00
NC45	43.6	45.1	1.5	1.5	100.00	0.35	23.33
NC45	45.1	48.1	3	3	100.00	2.65	88.33
NC45	48.1	51.1	3	2.87	95.67	2.42	80.67
NC45	51.1	54.1	3	2.7	90.00	1	33.33
NC45	54.1	57.1	3	3	100.00	1.3	43.33
NC45	57.1	60.1	3	2.73	91.00	0.46	15.33
NC45	60.1	63.1	3	3	100.00	0.82	27.33
NC45	63.1	66.1	3	3	100.00	0.54	18.00
NC45	66.1	67.6	3	1.28	42.67	0.5	16.67
NC45	67.6	69.1	3	1.5	50.00	1.05	35.00
NC45	69.1	72.1	3	3	100.00	0.86	28.67
NC45	72.1	75.1	3	3	100.00	2.3	76.67
NC45	75.1	78.1	3	2.77	92.33	1.6	53.33
NC45	78.1	81.1	3	3	100.00	0.5	16.67

DAILY DRILLERS DEPTH UPDATE **NC45**

DATE	SHIFT	DRILLER	FROM	TO	DISTANCE	COMMENTS	BRIEF GEO SUMMARY
4/08/2008	DS	KY	0	12.1	12.1	HQ down to 10.60 then reduce to NQ	
4/08/2008	NS	AT	12.1	16.6	4.5		KY=Kevin Yaki
5/08/2008	DS	KY	16.6	25.6	9.0		AT=Albert Toto
5/08/2008	NS	AT	25.6	32.1	6.5		
6/08/2008	DS	KY	32.1	36.1	4		
7/08/2008	DS	KY	36.1	43.6	7.5	no night shift on the 6th of August.	
7/08/2008	NS	AT	43.6	57.1	13.5		
8/08/2008	DS	KY	57.1	67.6	10.5		
8/08/2008	NS	AT	67.6	81.1	13.5	EOH at 81.10m	

Frontier Resources - Sample Recovery and Assay Notes						
Hole_ID	Sample ID	From (m)	To (m)	Interval (m)	Sampled Interval	% Sampled
NC45	434731	0	1.6	1.6	0.67	41.88
NC45	434732	1.6	3	1.4	1	71.43
NC45	434733	3	4.4	1.4	1.06	75.71
NC45	434734	4.4	5.4	1	1	100.00
NC45	434735	5.4	6.4	1	0.9	90.00
NC45	434736	6.4	7.4	1	1	100.00
NC45	434737	7.4	8.4	1	0.9	90.00
NC45	434738	8.4	9.4	1	1	100.00
NC45	434739	9.4	10	0.6	0.6	100.00
NC45	434740	10	11	1	1	100.00
NC45	434741	11	12	1	0.85	85.00
NC45	434742	12	13	1	0.86	86.00
NC45	434743	13	14	1	0.5	50.00
NC45	434744	14	15	1	1.04	104.00
NC45	434745	15	16	1	1	100.00
NC45	434746	16	17	1	0.9	90.00
NC45	434747	17	18	1	1	100.00
NC45	434748	18	19	1	0.95	95.00
NC45	434749	19	20	1	0.83	83.00
NC45	434750	20	21	1	0.65	65.00
NC45	434751	21	22	1	0.8	80.00
NC45	434752	22	23	1	0.8	80.00
NC45	434753	23	24	1	1	100.00
NC45	434754	24	25.2	1.2	0.9	75.00
NC45	434755	25.2	27.2	2	0.95	47.50
NC45	434756	27.2	29.2	2	0.9	45.00
NC45	434757	29.2	30.2	1	0.85	85.00
NC45	434758	30.2	31.2	1	0.9	90.00
NC45	434759	31.2	32.7	1.5	1	66.67
NC45	434760	32.7	34.6	1.9	0.96	50.53
NC45	434761	34.6	35.1	0.5	0.96	192.00
NC45	434762	35.1	36.2	1.1	1	90.91
NC45	434763	36.2	37.2	1	1	100.00
NC45	434764	37.2	38.2	1	1	100.00
NC45	434765	38.2	39.2	1	1	100.00
NC45	434766	39.2	40.6	1.4	1	71.43
NC45	434767	40.6	42	1.4	1.05	75.00
NC45	434768	42	43	1	1	100.00
NC45	434769	43	44	1	1.05	105.00
NC45	434770	44	45	1	1	100.00
NC45	434771	45	46	1	1	100.00
NC45	434772	46	48	2	0.75	37.50
NC45	434773	48	50	2	0.85	42.50
NC45	434774	50	52	2	1.4	70.00
NC45	434775	52	53	1	0.9	90.00
NC45	434776	53	54	1	0.8	80.00
NC45	434777	54	55	1	1	100.00
NC45	434778	55	56	1	0.95	95.00
NC45	434779	56	57	1	0.88	88.00
NC45	434780	57	59	2	0.9	45.00
NC45	434781	59	60	1	1	100.00
NC45	434782	60	61	1	1	100.00
NC45	434783	61	63	2	2	100.00
NC45	434784	63	65	2	2	100.00
NC45	434785	65	67	2	2	100.00
NC45	434786	67	68	1	1	100.00
NC45	434787	68	69	1	1	100.00
NC45	434788	69	71	2	1.9	95.00
NC45	434789	71	71.9	0.9	0.9	100.00
NC45	434790	71.9	72.9	1	1	100.00
NC45	434791	72.9	73.9	1	1	100.00
NC45	434792	73.9	74.9	1	1	100.00
NC45	434793	74.9	75.9	1	1	100.00
NC45	434794	75.9	77.2	1.3	1.25	96.15
NC45	434795	77.2	79	1.8	1.35	75.00
NC45	434796	79	80	1	1	100.00
NC45	434797	80	81.1	1.1	1.1	100.00

Frontier Resources Ltd					Down hole assay data							
Hole_ID	From	To	Au_ppm	Au_R	Ag_ppm	As_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Bi_ppm	Spl_Id	Lab Batch
NC45	0	1.6	0.12		2	173	78	445	218	6	434731	FN20080825
NC45	1.6	3	0.01		1	98	36	253	205	1	434732	FN20080825
NC45	3	4.4	0.01		1	133	61	243	219	19	434733	FN20080825
NC45	4.4	5.4	-0.01		-1	91	27	233	196	0	434734	FN20080825
NC45	5.4	6.4	-0.01		-1	-1	24	219	179	1	434735	FN20080825
NC45	6.4	7.4	-0.01		1	39	51	326	1380	0	434736	FN20080825
NC45	7.4	8.4	-0.01		-1	14	176	191	126	10	434737	FN20080825
NC45	8.4	9.4	-0.01		-1	51	135	134	140	5	434738	FN20080825
NC45	9.4	10	0.04		-1	111	83	262	205	9	434739	FN20080825
NC45	10	11	-0.01		-1	47	40	89	105	14	434740	FN20080825
NC45	11	12	0.01		-1	84	106	83	169	11	434741	FN20080825
NC45	12	13	0.01		-1	71	186	117	119	16	434742	FN20080825
NC45	13	14	0.02		1	107	471	364	467	210	434743	FN20080825
NC45	14	15	1.34		12	255	1190	8684	3361	26	434744	FN20080825
NC45	15	16	0.96		2	25	692	848	506	15	434745	FN20080825
NC45	16	17	0.4		2	74	577	586	433	4	434746	FN20080825
NC45	17	18	0.8		1	92	67	115	228	7	434747	FN20080825
NC45	18	19	3		1	119	211	303	1014	6	434748	FN20080825
NC45	19	20	0.98		1	145	163	105	138	3	434749	FN20080825
NC45	20	21	0.28		-1	81	122	75	98	2	434750	FN20080825
NC45	21	22	0.19		18	183	79	114	159	14	434751	FN20080825
NC45	22	23	0.71		1	220	341	54	196	4	434752	FN20080825
NC45	23	24	0.01		1	195	289	91	210	1	434753	FN20080825
NC45	24	25.2	0.07		-1	72	215	57	167	0	434754	FN20080825
NC45	25.2	27.2	-0.01		-1	83	123	107	112	6	434755	FN20080825
NC45	27.2	29.2	-0.01		-1	178	41	55	159	10	434756	FN20080825
NC45	29.2	30.2	0.01		-1	-1	21	47	93	9	434757	FN20080825
NC45	30.2	31.2	0.01		-1	-1	16	46	35	14	434758	FN20080825
NC45	31.2	32.7	-0.01		-1	119	22	64	129	24	434759	FN20080825
NC45	32.7	34.6	-0.01		-1	140	81	74	93	31	434760	FN20080825
NC45	34.6	35.1	-0.01		-1	41	42	36	167	13	434761	FN20080825
NC45	35.1	36.2	-0.01		-1	46	62	65	831	11	434762	FN20080825
NC45	36.2	37.2	0.01		-1	178	63	49	2605	39	434763	FN20080825
NC45	37.2	38.2	0.07		-1	143	33	114	171	31	434764	FN20080825
NC45	38.2	39.2	0.14		-1	234	103	45	76	12	434765	FN20080825
NC45	39.2	40.6	0.14		-1	319	35	54	46	7	434766	FN20080825
NC45	40.6	42	0.02		-1	-1	87	119	89	15	434767	FN20080825
NC45	42	43	0.36		-1	16	30	73	37	20	434768	FN20080825
NC45	43	44	0.06		-1	129	40	41	35	19	434769	FN20080825
NC45	44	45	0.01		-1	-1	160	88	55	4	434770	FN20080825
NC45	45	46	0.01		-1	-1	144	20	177	16	434771	FN20080825
NC45	46	48	0.01		1	-1	216	161	784	5	434772	FN20080825
NC45	48	50	-0.01		1	66	127	173	366	15	434773	FN20080825
NC45	50	52	-0.01		-1	55	85	35	41	4	434774	FN20080825
NC45	52	53	-0.01		1	169	61	58	30	14	434775	FN20080825
NC45	53	54	-0.01		1	290	81	72	21	2	434776	FN20080825
NC45	54	55	-0.01		1	156	91	136	54	0	434777	FN20080825
NC45	55	56	-0.01		1	149	54	80	34	29	434778	FN20080825
NC45	56	57	-0.01		-1	10	49	54	24	26	434779	FN20080825
NC45	57	59	0.06		-1	820	38	38	16	0	434780	FN20080825
NC45	59	60	-0.01		-1	-1	43	31	39	10	434781	FN20080825
NC45	60	61	0.03		6	89	245	1723	480	29	434782	FN20080825
NC45	61	63	0.01		1	40	82	79	59	4	434783	FN20080825
NC45	63	65	0.001		-1	127	39	63	48	10	434784	FN20080825
NC45	65	67	-0.01		-1	66	55	32	34	30	434785	FN20080825
NC45	67	68	-0.01		-1	136	35	33	13	4	434786	FN20080825
NC45	68	69	-0.01		-1	45	37	39	120	7	434787	FN20080825
NC45	69	71	-0.01		-1	-1	55	40	36	6	434788	FN20080825
NC45	71	71.9	-0.01		-1	-1	48	44	43	12	434789	FN20080825
NC45	71.9	72.9	-0.01		-1	65	87	43	46	4	434790	FN20080825
NC45	72.9	73.9	-0.01		1	-1	118	21	44	5	434791	FN20080825
NC45	73.9	74.9	-0.01		-1	79	133	58	51	0	434792	FN20080825
NC45	74.9	75.9	-0.01		-1	26	23	58	48	0	434793	FN20080825
NC45	75.9	77.2	-0.01		-1	131	32	67	71	24	434794	FN20080825
NC45	77.2	79	-0.01		-1	-1	17	49	39	10	434795	FN20080825
NC45	79	80	-0.01		1	63	78	49	65	11	434796	FN20080825
NC45	80	81.1	-0.01		-1	-1	39	46	30	4	434797	FN20080825

Drill Log — Frontier Resources Ltd

PROJECT:	Gowrie Park	**HOLE NO:**	NC46	**DRILL TYPE:**	Diamond
PROSPECT:	Narrawa Creek	**DATE COMMENCED:**	11/08/2008	**DRILLER:**	Frontier Resources Ltd.
TENENMENT:	RL3/2005	**DATE COMPLETED:**	13/08/2008	**LOGGED BY:**	CY
EASTING	425,484.58	**TOTAL DEPTH (m):**	59.9	**LOGGING DATE:**	13/08/2008
NORTHING	5,406,688.01	**AZIMUTH (TN):**	33	**OXIDATION**	BOCO: 1.4
COLLAR RL:	521.33 (AGD66, Zone55)	**DIP:**	-75		BOPO: 6.4

Drilling details

Core Size	From	To
PQ		
HQ	0.00	10.40
NQ	10.40	59.90
BQ		

Comments

Hole designed to:- test NE shallow dip to skarn towards 32m @1.2g/t Au in NC36; Section 5912.5mE

Significant Analysis Intervals:

Hole_ID	From	To	Interval
NC46	13.4	21	7.6m @ 0.31g/t Au, 6.3g/t Ag, 0.055% Cu, 0.12% Pb & 0.11% Zn
Including	17	18	1m @ 0.89g/t Au, 36g/t Ag, 0.075% Cu, 0.72% Pb & 0.71% Zn

Summary Log

From	To	Graphic	Summary Description (Lith, Altn, Mineralisation)
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			

Frontier Resources Detailed Drill Log

Hole Number	NC46	Sheet No	1	Mineralisation / Alteration and

INTERVAL		ROCK CODES			Alteration summary				Full description: including colour, main alteration type and strength, component minerals (pref in order of abundance), rock type, texture, alteration and mineralisation details	Pyrite		Galena		Sphalerite		Biotite		Silica		Sericite		Chlorite		(Ca)CO3		Calc-Sil		Skarn		Magnetic		QVN	Other minerals / texture / colour							
FROM (m)	TO (m)	Strat Code	Rock type	Primary Altn	2nd Altn	3rd Altn	Weathering	eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets	Style	Amount %	Style	Amount %	Style	Amount %	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Amount (WMS)	Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour
0.00	1.30		CELUV					Overburden or oxidised core.																															
1.30	3.20		CSSAND	Sil			T	cream to white massive weakly fractured pervassive silica(s) overprinting mg to cg poorly sorted quartz-wacke / sst, fractures infilled by yellow orange limonite clay, specks of pyrite throughout. Pyrite up to 0.50 -1.00%. Locally stronyl fractured and broken with clay matrix - possibly brittle faulted ground	D	1							SP	s	Sv	M																					m	
3.20	5.30		SSAND	Sil	Ser	DSX	M	dark grey poorly sorted quartz sandstone with quartz grains up to 3mm wide, hornfelsed, silicified(m), weakly fractured,1-2% sulphides especially pyrite. Pyrite as coating in fract and as disseminations.mod - strong clay sericite altn or coating in fractures.	D	2	D	0.1	D	0.1			P	M	Sv	M											Spt	W							w	
5.30	5.40		FALT	QVN				strongly broken faulted zone bearing fragments of milky quartz vein.																								w						s	
5.40	6.40		SSAND	Sil	Ser	DSX	M	dark grey poorly sorted quartz sandstone with quartz grains up to 3mm wide, hornfelsed, silicified(m), weakly fractured,1-2% sulphides especially pyrite. Pyrite as coating in fract and as disseminations.mod - strong clay sericite altn or coating in fractures.	D	2	D	0.1	D	0.1			P	M	Sv	M											Spt	W							w	
6.40	7.60		FALT					Structure Zone: characterised by light green clay, strong puggy clay alteration within an intensely broken zone. Weak or trace pyrite coating fracture surfaces up to 1% pyrite.	Spt	1																															s	
7.60	9.50		HORN	Biot	SKARN	CALS		dark brown biotite-rich fg to locally mg quartz sandstone, individual quartz phenocrysts up to 2mm set in a brownish silicous matrix. moderately hornfelsed and silicified(m), weakly fract core, with trace disseminated sulphides esp pyrite, from 0.5% -1.0%, patchy weak skarn mineralisation, with occassional creamy calc-silicate alteration. weak clay sericite overprinting skarn(w) mineralisation. weakly magnetic.	D	1					P	M	P	M									w		w												w	
9.50	10.40		SGRANSAND	Sil				Light yellow green strongly lht gn perv sil(m/s) / skarn altered weakly granule bearing fg / mg sandstone. Sharp but irregular sil zone contacts, possibly represents a skarn end member. with weak argillic overprint. Weakly leached, trace disseminated sulphides up to 0.50%. Weakly magnetic.	D	0.5																			Rp	W												
10.40	13.00		SMSAND	Sil	VSX	DSX		grey brown poorly sorted quartz sandstone, hornfelsed and sillic, poorl sorted with occ qz grains up to 2mm in fine-medium homogeneous matrix. Occ patches of dendritic texture-dendrites mostly very fine pyrite in a sliceous groundmass, up to 6% disseminated and dendritic pyrite. moderately broken core. pervasively silicified(m/s) / calc-sil?(w/m) over poorly sorted mg q-wacke sandstone, minor dss galena, dss py to 2% locally	Den	6	D	0.5	D	1			P	M																									m	
13.00	21.90		SGRANSAND	SMSX	SKARN	Sil		Dark green (dominant) to dark brown mg-fg poorly sorted sandstone interbedded bnads of granular sandstone. hornfelsed and silic, leached and vugghy in places. abundant semi-massive base metal sulphide mineralisation especially within the granular sandstone, patchy to mod/strong semi-massive sulphide mineralisation from 13.0 -14.1m and an acid leached vuggy-silica-py zone from 17.3- 18.10m. sulphide dominantly pyrite with traces of galena and sphalerite. sulphides up to 9% within the semi-massive BM bands but generally 3-5% throughout. also moderately skarnised with occ creamy calsilicate bands like from 18.20 - 18.4m and from 23.4-24.10m. patchy weak magnetism resulting from dss clots of pyrrhotite, appears to grade downhole being	SP	9	D	1	D	2			SP	w/m								bnd	W	rp	W	spt	W		cpy	Vn								
21.90	24.90		FALT	CALS				contains several broken faulted zones, but also cream to tan calc-sil(w/m) and local / minor relict slst laminated bedding ~30LCA consistent with top of gransand unit slst as per NC45.									w/m									w/m													s	
24.90	31.50		FSSAND	Sil	CALS			light grey brown poorly sorted fg to mg quartz sandstone. with occ bands of dark brown biotite enriched sandstone. mod to strongly broken core, generally hornfelsed but weak pervasive silicification but perv str in places, usually associated with the poorly sorted fg qtz sandstone, also occassional but weak patchy skarn mineralisation throughout. clay-sericite-talc developed in fractures. occassional quartz-sulphide veins/fractures. weakly mineralised-total sulphides up to 2%. crm/tan calc-sil(w/m) - arg altn, sil(w/m) perv	Vn	2	vn	0.5	Vn	0.5		w	sp	w/m								w/m	rp	w	D	w												m	
31.50	33.50		FALT					strongly broken / fractured zone - faulted?																																s	
33.50	36.9m		FSSAND	Sil	CALS			light grey brown poorly sorted fg to mg quartz sandstone. with occ bands of dark brown biotite enriched sandstone. mod to strongly broken core, generally hornfelsed but weak pervasive silicification but perv str in places, usually associated with the poorly sorted fg qtz sandstone, also occassional but weak patchy skarn mineralisation throughout. clay-sericite-talc developed in fractures. occassional quartz-sulphide veins/fractures. weakly mineralised-total sulphides up to 2%. crm/tan calc-sil(w/m) - arg altn, sil(w/m) perv	Vn	2	vn	0.5	Vn	0.5		w	sp	w/m								w/m	rp	w	D	w												m	

Down Hole Surveys - Frontier Resources						
Hole_ID	Depth	Azimuth(TN)	Dip	Azimuth(Mag)	Type	Date
NC46	0	33	-60	19	2	11/08/2008
NC46	20.9	26.5	-59.5	12.5	1	14/08/2008
NC46	40.9	32	-59.5	18	1	14/08/2008
NC46	59.9	31	-59.8	17	1	14/08/2008

Survey type	
1	Single shot down hole camera
2	Measured at collar
3	Inferred survey for display
4	Other - see comments

Frontier Resources Detailed Drill Log

Hole Number	NC46	Sheet No	1	Mineralisation / Alteration and

Full description: **including colour, main alteration**type and strength, **component minerals** (pref in order of abundance), **rock type, texture, alteration and mineralisation details**

INTERVAL		ROCK CODES		Alteration summary				eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets	Pyrite		Galena		Sphalerite		Biotite	Silica		Sericite		Chlorite		(Ca)CO3		Calc-Sil		Skarn		Magnetic		QVN	Other minerals / texture / colour							
FROM (m)	TO (m)	Strat Code	Rock type	Primary Altn	2nd Altn	3rd Altn	Weathering		Style	Amount %	Style	Amount %	Style	Amount %	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Amount (WMS)	Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour
36.90	40.00		SGRANSAND	Sil	CALS	SKARN		lithic? sandstone. minor relict skarn development within weakly granula / lithic q-wacke sandstone with possibly subrounded rock fragments within a siliceous matrix. hornfelsed and silicified(m). abundant calsilicate alteration, narrow bands of dark brown biotite sandstone common, dark to yellow green color, mod clay sericite development in fract, occ wht qtz-py qtz veins, pyrite up to 5%. weakly magnetic. crm/tan calc-sil(w) - arg altn	Vn	5	vn	0.5	Vn	0.5	w/ m	sp	m	Sv	m							m	rp	m	D	w									
40.00	47.30		MSSAND	Sil		CALS		grey white to light brown fg/mg perv sil(m/s) qtz sandstone. poorly sorted with zones of calc silicate, narrow bands of dark brown biotite sandstone also present. Occ white bull qz with py blebs. trace sulphides relict dendritic py	Spt	0.5					w	P	m/s								bnd	w/m			spt	w							
47.30	48.70		MSSAND	Sil	SKARN	CALS		Lithic? Sandstone. ylw orange to dark green variably skarnised lithic sandstone with lithic frags up to 3 mm. abundant pyroxene minerals, occ vugghy qtz-py veins with trace other sulphides, wk to mod clay sericite overprint. weak sulphides up to 3% esp pyrite.	Vn	3	vn	0.1	vn	0.1		sp	w	sv	m							bnd	W	rp	w		w							
48.70	49.10		QVN	QVN				qvn's at ~30LCA by 2, in zone cals(m), perv sil(m/s)								P	m/s									m								m	
49.10	53.90		SLSAND	Sil	SKARN	CALS		mostly fg/mg altered q-sst, Lithic? Sandstone. ylw orange to dark gree variably skarnised lithic sandstone with sparse lithic fras up to 3mm. abundant pyroxene minerals, ylw orange calcsilicate development, occ vugghy qz-py veins with trace other sulphides, wk to mod clay sericite overprint. weak sulphides up to 2% esp pyrite. skarn(w), as lht gn perv sil over biotised hornfels with patchy crm/tan calc-sil alteration(w/m).	D	2	vn	0.1	vn	0.1	w	sp	w	p	m							w/m	rp	w	spt	w									
53.90	55.00		SGRANSAND	Sil				silica perv (m/s) and etched / leached appearing granule sandstone / cg sandstone, contancts at ~85LCA - fold repeat with anticline vergence to NE?								p	m/s																		
55.00	59.90		SLSAND	Sil	SKARN			mostly fg/mg altered q-sst, Lithic? Sandstone. ylw orange to dark gree variably skarnised lithic sandstone with sparse lithic fras up to 3mm. abundant pyroxene minerals, ylw orange calcsilicate development, occ vugghy qz-py veins with trace other sulphides, wk to mod clay sericite overprint. weak sulphides up to 2% esp pyrite. skarn(w), as lht gn perv sil over biotised hornfels with patchy crm/tan calc-sil alteration(w/m).	D	2	vn	0.1	vn	0.1	w	sp	w	p	m							w/m	rp	w	spt	w									

Down Hole Structural Log - Frontier Resources								Structure Code	
Hole_ID	At	Core angle (LCA)	Structure_type	Comments	Azimuth (True)	Dip	Struc_ID	Face	Facing
NC46	1.7	70	ft	1cm puggy clay filled structure				Ft	Fault
NC46	2.7	20	fr	20cm clay filled structure from 2.5-2.7m				Sh	shear
NC46	7.6	5	Fr	clean fr parallel to core axis				Vn	vein
NC46			Sh	from 5.0 -5.30 gry brn clay filled shear				Fo	Foliation
NC46			fr	6.30 - 7.60m strongly fragmented core.				Fr	fracture
NC46	8.3	55	fr	x 5 fracts				Jt	Joint
NC46	9.3	80	fr	3 x fractures				Bd	Bedding
NC46	10	80	ft	10cm strucutre with abundant clay.				Fold	Fold
NC46	9.7	60	ft	10cm within str broken core.				con	contact
NC46	11.8	45	fr	fr infilled by trace py-seri etc.				lay	layering
NC46	14.8	60	vn	10mm pyrite-base metal vein.				bnd	banding
NC46	14.9	30	vn	10mm sulp(cpy)vein				Ln	Lineation
NC46	17.2	40	vn	vuggy, weakly leached 10-15mm sulp vein.				CATA	Cataclasite
NC46	18	65	vn	10cm qz-sulp vein, wkly leached.				Slck	Slickensides
NC46	19.56	30	fr	1-2mm grey sili-py vn/fract.	167	37		Pu	Puggy seam
NC46	19.58	40	fr	As per above	130	32		Cl	Cleavage
NC46	19.62	70			128	30			
NC46	19.70	40	fr	Diss py and Mn coating on fract(uneven)	125	67			
NC46	19.82	5	fr	1-3mm gry-sil-py infilled fract	217	70			
NC46	19.84	40	fr	As per above	87	65			
NC46	20.01	7	vn	1-3mm dk gry py-qz fr/vnlts	210	80			
NC46	20.03	40	vn	gry-py-silica frac fil or veinlet.	100	58			
NC46	20.06	10	bnd	1-15cm silica-py band	168	58			
NC46	20.09	45	vn	dk gry silic-py-fract fil/vein	142	60			
NC46	20.20	60	vn	5-10mm qz-py-pyrr-cpy vn	145	40			
NC46	20.33	60	vn	5-10mm qz-py-pyrr-cpy vn	145	40			
NC46	20.45	50	vn	semi mass- base metal vein	3	35			
NC46	20.58	75	vn	5-7mm qz-sulp vn,flatlying wiith m/sulphides	117	52			
NC46	20.60	75	vn	5-7mm qz-sulp vn,flatlying wiith m/sulphides	117	52			
NC46	20.66	50	fr	fr with cly ser infill.	125	45			
NC46	20.73	70	fr	1-2mm sil-ser-py infill fract, vugghy in places	147	50			
NC46	20.80	5	fr	1-3mm fr infilled by gry sil-py.	38	75			
NC46	20.96	50	fr	fract infilled by py up to 0.5%.	80	40			
NC46	20.97	50	fr	fract infilled by py up to 0.5%.	265	30			
NC46	21.11	20	fr	1-2mm fract infill by silic-seri-py	343	50			
NC46	21.16	70	fr	cly-ser-py infilling fract	170	65			
NC46	21.17	70	fr	cly-ser-py infilling fract	70	15			
NC46	21.28	45	fr	1-2mm fract infill by silic-seri-py	150	60			
NC46	21.37	70	fr	1-2mm fract infill by silic-seri-py	117	53			
NC46	21.37	50	fr	1-2mm fract infill by silic-seri-py	67	55			
NC46	21.38	60	fr	1-3mm fract with orange cly.	240	15			
NC46	21.46	50	vn	hairline fr or vn infilled by epi-silic-py.	138	60			
NC46	53.17	60	vn	dk gry hairline vein	347	20			
NC46	53.93	50	vn	in skarn, 1-3mm gry qz vn.	72	63			
NC46	53.94	80	vn	qz-epi vn or fract fil.	90	33			
NC46	53.97	80	fr	qz-seri-py fract fill.	90	25			
NC46	53.99	70	fr	1-2mm qz-ser inf hairline fract	145	35			
NC46	54.01	80	fr	1-2mm qz-ser inf hairline fract	96	35			
NC46	54.06	40	fr	1-4mm fr infilled by gry-qz-py.	138	30			
NC46	54.10	85	fr	fr infilled by talc-chl-seri	123	25			
NC46	54.13	80	fr	1-2mm qz-ser-epi fract.	100	35			
NC46	54.27	80	vn	1-3mm qz-cb-vn	168	37			
NC46	54.31	80	vn	5-10mm vuggy qz vn with diss cpy-gln-sph	148	35			
NC46	54.35	60	vn	1-3mm gr-qz-py-epi vn	172	35			
NC46	54.44	70	vn	a 10mm qz-sulp vein	134	35			
NC46	54.48	60	fr	a leached fract within granular sst	135	35			
NC46	54.5	10	fr	vein/fract at low angle to CA.	48	66			
NC46	54.58	60	fr	vuggy 1-3mm qz-py ser fract fill	142	40			
NC46	54.59	60	fr	vuggy 1-3mm qz-py ser fract fill	162	45			
NC46	54.65	20	fr	hairline fr or vn infilled by epi-silic-py.	72	75			
NC46	54.65	60	fr	seri-qz-py infill fract	140	43			
NC46	54.7	50	vn	a vugghy 2-3mm wkly leached silic-py vn	150	40			
NC46	54.72	60			147	30			
NC46	54.72	20	fr	1-2mm fract infill by silic-seri-py	330	32			
NC46	54.76	50	vn	1-5cmm qz vn	72	20			

Frontier Resources Ltd				Drill Core Recovery & RQD Log			
Hole_ID	From	To	Interval	Measured	Recovery%	Lengths>10cm	RQD %
NC46	0	1.4	1.4	1.1	78.57	0	0.00
NC46	1.4	2.9	1.5	1.1	73.33	0.2	13.33
NC46	2.9	4.4	1.5	1.25	83.33	0	0.00
NC46	4.4	5.9	1.5	1.5	100.00	0.12	8.00
NC46	5.9	7.4	1.5	1.1	73.33	0.17	11.33
NC46	7.4	8.9	1.5	1.3	86.67	0.24	16.00
NC46	8.9	10.4	1.5	1.5	100.00	0.64	42.67
NC46	10.4	11.9	1.5	1.4	93.33	1	66.67
NC46	11.9	13.4	1.5	1.25	83.33	0.75	50.00
NC46	13.4	14.9	1.5	1.1	73.33	0.65	43.33
NC46	14.9	17.9	3	2.55	85.00	1.9	63.33
NC46	15.1	20.9	5.8	2.75	47.41	2.05	35.34
NC46	20.9	23.9	3	2.8	93.33	1.3	43.33
NC46	23.9	26.9	3	2.9	96.67	1.36	45.33
NC46	26.9	29.9	3	2.5	83.33	0	0.00
NC46	29.9	32.9	3	2.55	85.00	0.43	14.33
NC46	32.9	35.9	3	2.96	98.67	0.4	13.33
NC46	35.9	38.9	3	2.94	98.00	0.82	1.55
NC46	38.9	41.9	3	2.86	95.33	0.56	1.00
NC46	41.9	44.9	3	2.8	93.33	0.56	18.67
NC46	44.9	47.9	3	2.83	94.33	0.62	20.67
NC46	47.9	50.9	3	2.7	90.00	1	33.33
NC46	50.9	53.9	3	3	100.00	1.7	56.67
NC46	53.9	56.9	3	2.9	96.67	1.86	62.00
NC46	56.9	59.9	3	3	100.00	1.98	66.00

DAILY DRILLERS DEPTH UPDATE **NC46**

DATE	SHIFT	DRILLER	FROM	TO	DISTANCE	COMMENTS	BRIEF GEO SUMMARY
11/08/08	DS	KY	0	5.9	5.9		KY = kevin yaki
11/08/08	NS	AT	5.9	13.4	13.4	HQ down to 10m then reduce to NQ	AT = albert toto
12/08/08	DS	KY	13.4	32.9	32.9		
12/08/08	NS	AT				No night shift	
13/08/08	DS	KY	32.9	44.9	44.9		
13/08/08	NS	AT	44.9	59.9	55.9	EOH at 59.9m	

Frontier Resources - Sample Recovery and Assay Notes						
Hole_ID	Sample ID	From (m)	To (m)	Interval (m)	Sampled Interval	% Sampled
NC46	434798	0	1.2	1.2	0.95	79.17
NC46	434799	1.2	2.6	1.4	0.9	64.29
NC46	434800	2.6	3.8	1.2	1.1	91.67
NC46	434801	3.8	4.8	1	1	100.00
NC46	434802	4.8	5.8	1	1	100.00
NC46	434803	5.8	6.6	0.8	0.7	87.50
NC46	434804	6.6	7.6	1	0.9	90.00
NC46	434805	7.6	8.6	1	0.8	80.00
NC46	434806	8.6	9.3	0.7	0.7	100.00
NC46	434807	9.3	10.4	1.1	1.1	100.00
NC46	434808	10.4	11.4	1	0.95	95.00
NC46	434809	11.4	12.4	1	0.95	95.00
NC46	434810	12.4	13.4	1	0.8	80.00
NC46	434811	13.4	14.7	1.3	0.88	67.69
NC46	434812	14.7	15.5	0.8	0.8	100.00
NC46	434813	15.5	16.4	0.9	0.9	100.00
NC46	434814	16.4	17	0.6	0.6	100.00
NC46	434815	17	18	1	0.65	65.00
NC46	434816	18	19	1	0.8	80.00
NC46	434817	19	20	1	1	100.00
NC46	434818	20	21	1	0.97	97.00
NC46	434819	21	22	1	1	100.00
NC46	434820	22	23	1	0.8	80.00
NC46	434821	23	24	1	1	100.00
NC46	434822	24	25	1	0.9	90.00
NC46	434823	25	26	1	1	100.00
NC46	434824	26	27	1	1	100.00
NC46	434825	27	28	1	1	100.00
NC46	434826	28	29	1	0.9	90.00
NC46	434827	29	30	1	1	100.00
NC46	434828	30	31	1	1	100.00
NC46	434829	31	31.7	0.7	0.65	92.86
NC46	434830	31.7	32.7	1	0.55	55.00
NC46	434831	32.7	33.4	0.7	0.7	100.00
NC46	434832	33.4	34	0.6	0.7	116.67
NC46	434833	34	35	1	0.95	95.00
NC46	434834	35	36	1	0.95	95.00
NC46	434835	36	36.8	0.8	0.8	100.00
NC46	434836	36.8	38	1.2	1.3	108.33
NC46	434837	38	39	1	1	100.00
NC46	434838	39	40	1	0.95	95.00
NC46	434839	40	42	2	1.7	85.00
NC46	434840	42	44	2	1.8	90.00
NC46	434841	44	46	2	2	100.00
NC46	434842	46	48	2	1.8	90.00
NC46	434843	48	48.5	0.5	0.5	100.00
NC46	434844	48.5	49.5	1	1	100.00
NC46	434845	49.5	50.5	1	1	100.00
NC46	434846	50.5	52	1.5	1.4	93.33
NC46	434847	52	53	1	1	100.00
NC46	434848	53	54	1	1	100.00
NC46	434849	54	55	1	1	100.00
NC46	434850	55	56.6	1.6	1.54	96.25
NC46	434851	56.6	57.6	1	1	100.00
NC46	434852	57.6	58.6	1	0.9	90.00
NC46	434853	58.6	59.9	1	1.3	130.00

Frontier Resources Ltd					Down hole assay data							
Hole_ID	From	To	Au_ppm	Au_R	Ag_ppm	As_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Bi_ppm	Spl_Id	Lab Batch
NC46	0	1.2	0.12		1	-1	22	113	23	13	434798	FN20080825
NC46	1.2	2.6	-0.01		-1	-1	14	68	19	21	434799	FN20080825
NC46	2.6	3.8	-0.01		-1	-1	19	204	78	6	434800	FN20080825
NC46	3.8	4.8	0.03		1	-1	27	264	53	10	434801	FN20080825
NC46	4.8	5.8	0.06		-1	-1	26	180	68	7	434802	FN20080825
NC46	5.8	6.6	0.17		-1	115	41	129	142	6	434803	FN20080825
NC46	6.6	7.6	-0.01		1	233	169	376	503	40	434804	FN20080825
NC46	7.6	8.6	-0.01		1	216	80	76	207	25	434805	FN20080825
NC46	8.6	9.3	-0.01		1	177	26	56	66	10	434806	FN20080825
NC46	9.3	10.4	-0.01		-1	16	11	168	122	0	434807	FN20080825
NC46	10.4	11.4	-0.01		-1	10	16	70	95	0	434808	FN20080825
NC46	11.4	12.4	-0.01		1	15	24	186	189	4	434809	FN20080825
NC46	12.4	13.4	-0.01		1	131	33	506	209	0	434810	FN20080825
NC46	13.4	14.7	0.04		5	129	139	1242	516	72	434811	FN20080825
NC46	14.7	15.5	0.28		1	117	713	232	335	61	434812	FN20080825
NC46	15.5	16.4	0.13		2	242	1115	179	289	82	434813	FN20080825
NC46	16.4	17	0.32		-1	47	158	64	103	24	434814	FN20080825
NC46	17	18	0.89		36	157	751	7200	7098	195	434815	FN20080825
NC46	18	19	0.41		1	147	501	66	97	37	434816	FN20080825
NC46	19	20	0.25		1	119	612	56	108	56	434817	FN20080825
NC46	20	21	0.22		1	107	466	73	110	10	434818	FN20080825
NC46	21	22	0.04		1	165	290	99	176	45	434819	FN20080825
NC46	22	23	0.01		-1	86	18	107	115	2	434820	FN20080825
NC46	23	24	-0.01		-1	49	13	94	113	0	434821	FN20080825
NC46	24	25	0.02		-1	128	35	67	105	21	434822	FN20080825
NC46	25	26	0.3		1	302	184	57	111	22	434823	FN20080825
NC46	26	27	0.06		-1	148	46	25	46	16	434824	FN20080825
NC46	27	28	0.1		-1	-1	29	20	52	20	434825	FN20080825
NC46	28	29	0.01		-1	87	15	30	38	15	434826	FN20080825
NC46	29	30	0.01		-1	68	11	29	73	27	434827	FN20080825
NC46	30	31	-0.01		-1	7	26	71	127	14	434828	FN20080825
NC46	31	31.7	-0.01		-1	41	21	65	76	10	434829	FN20080825
NC46	31.7	32.7	-0.01		-1	116	58	82	139	18	434830	FN20080825
NC46	32.7	33.4	-0.01		-1	80	33	82	92	34	434831	FN20080825
NC46	33.4	34	-0.01		-1	120	50	41	75	10	434832	FN20080825
NC46	34	35	-0.01		-1	10	33	43	33	19	434833	FN20080825
NC46	35	36	-0.01		-1	126	71	69	498	229	434834	FN20080825
NC46	36	36.8	-0.01		-1	-1	48	48	93	19	434835	FN20080825
NC46	36.8	38	-0.01		-1	53	61	52	72	39	434836	FN20080825
NC46	38	39	-0.01		-1	95	44	35	44	44	434837	FN20080825
NC46	39	40	-0.01		-1	168	39	40	60	27	434838	FN20080825
NC46	40	42	-0.01		-1	70	13	26	32	20	434839	FN20080825
NC46	42	44	-0.01		-1	-1	32	32	48	15	434840	FN20080825
NC46	44	46	0.03		-1	65	35	79	181	21	434841	FN20080825
NC46	46	48	-0.01		-1	80	38	165	298	2	434842	FN20080825
NC46	48	48.5	-0.01		-1	46	37	121	195	12	434843	FN20080825
NC46	48.5	49.5	-0.01		-1	40	27	92	96	24	434844	FN20080825
NC46	49.5	50.5	-0.01		1	-1	51	162	1139	27	434845	FN20080825
NC46	50.5	52	-0.01		1	-1	59	176	341	40	434846	FN20080825
NC46	52	53	0.03		-1	109	17	128	107	28	434847	FN20080825
NC46	53	54	0.01		-1	38	32	87	143	25	434848	FN20080825
NC46	54	55	-0.01		1	168	38	236	609	55	434849	FN20080825
NC46	55	56.6	-0.01		3	48	63	1285	2996	26	434850	FN20080825
NC46	56.6	57.6	-0.01		1	160	31	139	170	39	434851	FN20080825
NC46	57.6	58.6	-0.01		1	61	85	62	112	47	434852	FN20080825
NC46	58.6	59.9	-0.01		1	300	225	35	124	28	434853	FN20080825

Drill Log — Frontier Resources Ltd

PROJECT:	Gowrie Park	**HOLE NO:**	NC47	**DRILL TYPE:**	Diamond
PROSPECT:	Narrawa Creek	**DATE COMMENCED:**	16/08/2008	**DRILLER:**	Frontier Resources Ltd.
TENENMENT:	RL3/2005	**DATE COMPLETED:**	19/08/2008	**LOGGED BY:**	CY
EASTING	425,460.50	**TOTAL DEPTH (m):**	100.6	**LOGGING DATE:**	22/08/2008
NORTHING	5,406,693.00	**AZIMUTH (TN):**	213	**OXIDATION**	BOCO: 0.9
COLLAR RL:	521.93 (AGD66, Zone55)	**DIP:**	-75		BOPO: 8.8

Drilling details

Core Size	From	To
PQ		
HQ	0.00	13.10
NQ	13.10	100.6m
BQ		

Comments

Hole designed to:- Testing section 5887.5mE; Resource infill drilling

Significant Analysis Intervals:

Hole_ID	From	To	Interval
NC47	3.1	55.4	52.3m @ 0.27g/t Au, 6.7g/t Ag, 0.038% Cu, 0.34% Pb & 0.29% Zn
Including	7.6	10.5	2.9m @ 0.58g/t Au, 19.7g/t Ag, 0.064% Cu, 0.67% Pb & 0.51% Zn
Including	18.2	25	6.8m @ 1.48g/t Au, 13.2g/t Ag, 0.032% Cu, 0.92% Pb & 0.96% Zn
Including	21	22.1	1.1m @ 3.69g/t Au, 58g/t Ag, 0.1% Cu, 4.81% Pb & 4.75% Zn
Including	30	46	16m @ 0.02g/t Au, 9.4g/t Ag, 0.021% Cu, 0.5% Pb & 0.33% Zn
Including	31	31.6	0.6m @ 0.07g/t Au, 61g/t Ag, 0.016% Cu, 3.45% Pb & 0.52% Zn
Main	80.5	86	5.5m @ 1.3g/t Au, 2.3g/t Ag, 0.02% Cu, 0.09% Pb & 0.14% Zn
Including	80.5	82.5	2m @ 3.07g/t Au, 5g/t Ag, 0.026% Cu, 0.14% Pb & 0.25% Zn
Including	85.3	86	0.7m @ 1.3g/t Au, 1g/t Ag, 0.041% Cu, 0.01% Pb & 0.02% Zn

Summary Log

From	To	Graphic	Summary Description (Lith, Altn, Mineralisation)
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			

Frontier Resources Detailed Drill Log

Hole Number		NC47	Sheet No	1	Mineralisation / Alteration and

Full description: including colour, main alteration type and strength, **component minerals** (pref in order of abundance), **rock type, texture, alteration and mineralisation details**

INTERVAL — Alteration summary

FROM (m)	TO (m)	Strat Code	Rock type	Primary Altn	2nd Altn	3rd Altn	Weathering	eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets	Pyrite Style	Pyrite Amount %	Galena Style	Galena Amount %	Sphalerite Style	Sphalerite Amount %	Biotite Style	Biotite Amount (WMS)	Silica Style	Silica Amount (WMS)	Sericite Style	Sericite Amount (WMS)	Chlorite Style	Chlorite Amount (WMS)	(Ca)CO3 Style	(Ca)CO3 Amount (WMS)	Calc-Sil Style	Calc-Sil Amount (WMS)	Skarn Style	Skarn Amount (WMS)	Magnetic Style	Magnetic Amount (WMS)	QVN Amount (WMS)	Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour
0.00	0.90		CELUV					Oxidised overburden											P	m																			
0.90	2.00		FALT	QSV				3cm milky q-sulphide(py ~4%, sph ~2%) veining. Other lithologies comprise silicified mg to locally cg q-sst, possibly granular and pgn feldspathic mg sst / arkose																							w/m							S	
2.00	3.50		SLSAND	Sil	VSX	CALS		Grey-brown with ylw tint, sil(perv - m/s), mottled poorly sorted quartz sandstone, grey hairline fract/vns (dentritic pyrite, w/m) with total sulp(diss and vns) up to 3%. Sulp dominantly py and trace others. calc sil?(w), Local lithis to 10mm but sparse, granule poor mostly poorly sorted mg q-wacke - sst.	D	3	Vn	0.1	Vn	0.1			P	m/s	Vn	m									D	W								W	
3.50	4.10	FALT	FALT					strongly broken and crushed fault zone																														S	
4.10	8.30		SGRANSAND	SMSX	Sil			dark brown with slight green tint, Granular Sandstone. mg to cg with qz phenos up to 5mm in siliceous py matirx, hornfelsed and perv sil(w/m) mod-strong mineralised with semi massive base metal sulphides band up to 1.0m, sulphides dom diss pyrite with trace gal-sph±cpy. wkly leached in places with late clay ser-enrichment in fract. Total sulphides 9-11% but locally up to 15%.	SP	15	D	4	D	5		W	SP	w/m	Sv	W									D	W								W	
8.30	8.60	FALT	FALT					strongly broken and crushed fault zone																														S	
8.60	9.30	FALT	SSILT	Sil				Yellow-green and sheared/fractured / broken and laminated friable fine grained sediments / slst. moderate to strong clay overprint, weakly mineralisation, with trace or no sulphides, puggy clay at farctures 0.5% sulphides, perv sil(w)	D	0.5							SP	W	SP	m																		m	
9.30	10.50	FALT	SGRANSAND	SMSX	Sil			dark grey Granular Sandstone: vugghy/etched perv sil(m) with abundant base metal mineralisation up to 15% in places, py>gal>sph. Occ vugghs/fract infilled by py±cpy 30LCA, strong to mod clay enrichment in fract. Commonly broken and fractured(s) / faulted zone	D	15	D	4	D	5			SP	m	Sv	m									D	W								m	
10.50	13.10	FALT	SMSAND	Sil	VSX	QVN		light brn with a slight yellowish tint, fg-mg weakly leached, hornfelsed and sheared, strongly fract/faulted core, puggy clay development up to 5cm in places, poorly sorted quartz sandstone / wacke, sparse white qz veins. Trace disseminated suphides up 1%. local dentritic fg pyrite veinlets, perv sil(m)	D	1	D	0.1	D	0.1			SP	m													W							S	
13.10	17.40	FALT	SGRANSAND	Sil	DSX			dark grey - white vugghy(m, acid leached?) and perv silicified(m/s) and faulted zone, Occ remnant diss specks of sulphides, late py±other base metals(gal-sph) infilling vuggs and fracts, strongly broken core, Relict local lithic - granule sst and mg/cg q-sst textures, Up to (3% total sulphides). Sparse milky quartz vein frags being euhedral py and molybdenite?	Vn	3	Vn	0.5	Vn	0.5			SP	m											D	W								S	
17.40	20.00		SSILT	Sil	Biot	CALS		ylw or dk grey poorly sorted quartz sandstone interbedded with laminated bedded (~70LCA) slst. mod fract. Mod hornfelsed and sil(patchy, w/m), occ base metal veins up to 5cm, minor calc-silicate altn(w), also bands/tapering zones of relict semi-perv silica overprinted biotite enriched quartz sst. weak semi massive sulphide bands with up to 11% py. patchy skarn developement. Total sulphides 7-9%.	D	8	D	2	D	2		w	SP	w/m							Sk	W		vw	D	M								m	dk brn
20.00	24.70		SFSAND	Sil	SKARN	QSV		fine-medium grained homogenous sandstone, str hornfelsed and silicified, possibly laminated?? in places, strongly fract with frac infilled by sulp±clay-seri. Occ qtz sulphide vein/band eg from 21.70 -22,10m. Py>gal>sph±cpy. Total sulphides up to 7%; Q-BMS veining ~75-80LCA; ~24.3 to end are 10LCA fractured q-act? vein breccia with opposed 80LCA fracs	D	7	Vn	2	Vn	3			SP	W	Spt	W											W							m/s	
24.70	25.70		FALT					Fault - broken core with abundant puggy clay																														s	
25.70	29.50		SFSAND	Sil		VSX		Light grey white with greenish tint, Mostly fg - mg q-sst with minor weakly laminar bedded fg sst interbeds, weakly leached and hornfelsed, moderately fract. Weak py mineralisation occuring as frac coatings, greenish color due to weak skarn development, talc-chl-epi also in fract. Original rock could be possibly homegenous greywacke with the feldspars leached out/altered? Total sulphides up to 2%., perv sil(m). very weak dentritic py veining developed	D	2	Vn	0.1	Vn				P	m									Spt	W										m	
29.50	35.80		SFSAND	Biot	Sil	QSV		mostly dark grey brown fg-mg quartz biotite sandstone. occ light grey bands, variably hornfelsed and silicified, weak to mod broken. Layers ??of perv sil and minor dendritic pyrite present. mod altered with patchy biot-skarn replacement possibly overprinting the perv sil since dss sulp is strongest near margins and weak clay-seri talc overprint. Weak to moderately mineralised with occassional semi massive and massive base metal bands/veins ie at 31.2m, 5cm gln-sph vn and at 44.80m 30cm bm vn at 30LCA.Total sulphides in this unti 5-7% py>gln>cpy. mod magnetic.	Den	5	Vn	0.5	Vn	0.1		m	SP	W	Spt	W									D	M	W	flour	Vn	2				w/m	
35.80	43.00		SFSAND	Biot	Sil	FLOUR		mostly fg quartz biotite sandstone, occassional flourite+/-quartz veins/fract fills to 2cm max with bleached silica selvage, minor wollastonite								m		W																				w	

Frontier Resources Detailed Drill Log

Hole Number		NC47	Sheet No	1	Mineralisation / Alteration and

Full description: **including colour, main alteration** type and strength, **component minerals** (pref in order of abundance), **rock type, texture, alteration and mineralisation details**
eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets

INTERVAL				Alteration summary				
FROM (m)	TO (m)	Strat Code	Rock type	Primary Altn	2nd Altn	3rd Altn	Weathering	Full description
43.00	45.60		SFSAND	Biot	Sil	QSV		mostly dark grey brown poorly sorted mg to fg quartz biotite sandstone occ light grey bands, variably hornfelsed and silicified, weak to mod broken. Layers ? of perv sil and minor dendritic pyrite present within this unit. mod altered with patchy biot-skarn replacement possibly overprinting the perv sil since dss sulp is strongest near margins and weak clay-seri talc overprint. Weak to moderately mineralised with occassional semi massive and massive base metal bands/veins ie at 31.2m, 5cm gln-sph vn and at 44.80m 30cm bm vn at 30LCA.Total sulphides in this unti 5-7% py>gln>cpy. mod magnetic.
45.60	54.45		SMSAND	Sil	VSX			Poorly sorted fg/mg quartz sandstone.Light grey color with hint of green, competent weakly fract, hornfelsed and perv sil(m), abundant dendritic pyrite -(distingushing feature, m) throughout. Occassional quartz pyrite veinlets 50-60 LCA, weak clay seri-enrichment in fracts, patchy weak skarn from 51.2 - 54 where no dendritic pyrite. Total sulphides approximately 7-9% especially very fine pyrite, weakly magnetic.
54.45	55.40		SFSAND	Biot	DSX	Sil		bn fg Quartz Biotite Sandstone, weakly arkosic appearing? Dss py(6%)
55.40	56.00		SMSAND	Sil	VSX			Poorly sorted fg/mg quartz sandstone.Light grey color with hint of green, competent weakly fract, hornfelsed and perv sil(m), abundant dendritic pyrite -(distingushing feature, m) throughout. Occassional quartz pyrite veinlets 50-60 LCA, weak clay seri-enrichment in fracts, patchy weak skarn from 51.2 - 54 where no dendritic pyrite. Total sulphides approximately 7-9% especially very fine pyrite, weakly magnetic.
56.00	64.00		SMSAND	Sil	VSX			light grey to light grey green color, fg hornfelsed and silicified (mod perv)- cherty appearance, also narrow bands of intensely dendritic pyrite up to 15cm wide, occ quartz sulphide veins,ylw orange epidote-talc seri coating fractures, most fractures at low angle to core axis. also occ quartz-flurite fracts/veins with weak silic selvage. wkly magnetic. total sulphides up 7%(5-7).
64.00	69.40		SGRANSAND	SMSX	Biot	Sil		most dk brn interbedd hornfels / mg, locally cg biotised(m) q-sst with minor granule sandstone interbeds; these locally form granule congl to ~5cm: hornfelsed and silicified(m), quartz grains to 6mm wide, weakly leached, weak skarn development in places, weak mineralisation with some semi-massive base metal flooding with bands up to 1.0m, occ quartz-pyrite and qtz-flurite veins with silica selvages(63.0 -65.0m
69.40	78.80		SMSAND	Biot	DSX	Sil		light gry to dk brown with a shade of green, interlayered poorly sorted sandstone with biotite enriched sandstone, weakly leached, hornefelsed and silicified. Also weakly skarnised in places, occassional patchy semi-massive sulphide developement. weakly magnetic with disseminated sulphides up 3-5%; 73.5 to 77m comprises lht gn sil-skarn(w/m)
78.80	85.50		SKARN	SKARN	Biot	DSX		Dark green to pale green pyroxene skarn(w/m)?. weakly fract with occ bands of biotite enriched sandstone. skarn -weak to mod but pervasive in places, the deep green colour perhaps due to pyroxene or possibly serpentine, hornfelsed and weakly silicified, the skarn could overprint the early hornfelsing, also patchy creamy calc-silicate occurence, weak pyrite veing and qtz-sulphide ocurences.magnetic and total sulphides up to 3%. 84 to 86.3 commonly relict lam bdd slst
85.50	89.50		SGRANSAND	Biot	DSX	Sil		dark grey to dark brown fg/mg hornfels with zones granular sandstone and lam beddd slst: hornfelsed and weakly silicified, abundant islands of bioite enrichment(biotite sandstone), individual quartz crystals up to 6mm, generally fine to mg but course grained in places, weakly mineralised with weak sulp disseminations, clay seri talc coating fractures, 3-5 % sulphides, mostly pyrite. weakly magnetic
89.50	92.70		SMSAND	Sil	Biot			fg -medium grained quartz biotite sandstone, occ qtz crystal up to 2mm standout in fine grained homegenous groundmass, mod hornfelsed an silic, clay-seri-talc as fract coating, weak biotite enrichment. sulphides up to 2% as weakly mineralised. magnetic in places(weak)
92.70	97.00		SGRANSAND	Sil	DSX			light green granular sandstone. qtz grains to 6mm, mod broken core. silic and hornfelsed, weak semi-massive sulphide flooding in places, weak clay seri enrichment in fractures. weakly magnetic, sulphides up to 6%.
97.00	100.60		SMSAND	Sil	Biot	QVN		Poorly sorted quartz sandstone. moderately broken core, variably biotite enriched, perv sil(w), occ white qtz veins up to 7cm, weak patchy skarn, with hint of layering?? Total sulphides as diss and veins up to 3%.

	Pyrite		Galena		Sphalerite		Biotite		Silica		Sericite		Chlorite		(Ca)CO3		Calc-Sil		Skarn		Magnetic		QVN	Other minerals / texture / colour							
FROM (m)	Style	Amount %	Style	Amount %	Style	Amount %	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Amount (WMS)	Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour
43.00	Den	5	Vn	0.5	Vn	0.1		m	SP	W	Spt	W									D	M	W	flour	Vn	2				w/m	
45.60	Den	9	Vn	0.5	Vn	1			SP	W	Spt	W							Rp	W	D	W									
54.45	D	6																													
55.40	Den	9	Vn	0.5	Vn	1			SP	W	Spt	W							Rp	W	D	W									
56.00	Den	6	D	1	D	2			P	m	Sv	W							Spt	W	Spt	W		flour	Vn	2					
64.00	D	8	D	1	D	2	P	m	Sv	m									Rp	W	Spt	W		flour	Vn	1					flurite
69.40	D	5	D	1	D	1	P	W	SP	W									Rp	W	spt	W									
78.80	D	5	D	2	Vn	1			SP	W	Spt	w					Spt	w	Rp	m	D	W									
85.50	D	5	D	0.5	D	0.5	P	W	SP	W	Spt	w									D	W									
89.50	D	2					P	m			Spt	w							Rp	W	D	W									
92.70	D	6	D	2	D	2			SP	m	Spt	w									D	W								m	
97.00	D	3	Vn	0.1	Vn	0.1			SP	W									SP	W	D	W	W							m	

Down Hole Surveys - Frontier Resources						
Hole_ID	Depth	Azimuth(TN	Dip	Azimuth(Mag)	Type	Date
NC47	0	213	-45	199	2	16/08/2008
NC47	20.6	211	-45.5	197	1	19/08/2008
NC47	50.6	211	-45	197	1	19/08/2008
NC47	100.6	210	-45	196	1	19/08/2008

Survey type	
1	Single shot down hole camera
2	Measured at collar
3	Inferred survey for display
4	Other - see comments

Down Hole Structural Log - Frontier Resources								Structure Code	
Hole_ID	At	Core angle (LCA)	Structure _type	Comments	Azimuth (True)	Dip	Struc_ID	Face	Facing
NC47	1.3	40	Sh	5cm clay shear wit quarzt fragments.				Ft	Fault
NC47	1.3		ft	1.3-1.8m sheared zone possibly a fault				Sh	shear
NC47	3.2	5	vn	3-5cm qz vein infilled with clay sub // to CA.				Vn	vein
NC47	3.5		sh	3.5- 4.5m a meter wide shear with str cly development.				Fo	Foliation
NC47	5.2	50	bnd	a base metal sulphide band from 5.20 - 5.40m.				Fr	fracture
NC47	5.7	80	bnd	a 10cm py dominantly pyrite band.				Jt	Joint
NC47	6.1	10	vn	2cm q-sulp vein with pr>cpy et all.				Bd	Bedding
NC47	6.4	50	fr	a fract with no sulphides,				Fold	Fold
NC47	7	40	fr	fract healed by qz-chlorite??				con	contact
NC47	8.8		sh	8.80 - 10.10m shear with pugghy clay.				lay	layering
NC47	9.3		sh	from 9.30 9.5m clay shear				bnd	banding
NC47	10.3		vn	fract/vein with py infilling fract.				Ln	Lineation
NC47	10.7	80	sh	a 5cm clay shear				CATA	Cataclasite
NC47	11.1	60	sh	a 10cm clay shear with puggy clay.				Slck	Slickensides
NC47	11.7		ft	from11.7-12.40m, zone os int broken and sheared rocks-fault??				Pu	Puggy seam
NC47	12.00	40	vn	a 15cm qz vein, str bkn and shrd.				Cl	Cleavage
NC47	13.1		ft	13.1-18.5m str fractured zone, possibly structure?					
NC47	17.5	65	sh	puggy clay shear					
NC47	18.57	50	vn	a 3cm qz-base metal sulp vein(gln-sph)					
NC47	19.6	30	fr	1-2mm fract infilled by clay-sericite??					
NC47	20.7		vn	20.7- 21.10 base metal vein					
NC47	23.00	40	fr	big uneven fract with py/mn coating.	100	13			
NC47	23.08	80	bnd	5cm base metal sul band	283	25			
NC47	23.20	10	fr	1-3mm gry-silic-py infilled fract.	105	45			
NC47	23.22	60	fr	as per above	313	60			
NC47	23.25	50	fr	gry -silic-py vein/fract	280	70			
NC47	23.43	80	vn	1-5cm sulphide vein	260	30			
NC47	23.50	80	vn	10cm massive vein	50	15			
NC47	23.60	10	fr	fract	252	70			
NC47	23.71	60	vn	1-2mm qz -sul vein.	48	25			
NC47	25.9	80	vn	1-3mmquartz vein.					
NC47	28	45	fr	qz-epi-flu-talc fract.					
NC47	29.00	80	bd	possible laminar bedding					
NC47	29.5		fr	29.50-30.00 str brkn core with some clay overprint.					
NC47	32			32-33.5m 1.5-2.0m fault/fract zone, str clay overprint.					
NC47	35.8	70	vn	1-3mm flurite-qz-talc seri-vn					
NC47	36.7	60	vn	5cm qz-pyrite vein					
NC47	37.1	30	vn	a 2-3cm quartz flourite vein.					
NC47	37.6	70	vn	dk gry q1-5mmsilic-py vein					
NC47	38	50	vn	a quartz-pyrite vein.					
NC47	38.3	30	fr	farct infilled by ser-chl-epidote?					
NC47	41.7	50	fr	farct infilled by ser-chl-epidote?					
NC47	41.8	50	vn	1-3mm qz-pyrite vein.					
NC47	44.5	30	vn	1-5cm qz-base metal vein.					
NC47	44.7	15	vn	1-2mm qz-py vein					
NC47	45.8	50	fr	qz-py infilling fract.					
NC47	46.5	80	vn	10cm quartz vein					
NC47	48.2	60	vn	dark grey silic-py -cpy vein.					
NC47	49.2	45	fr	from 49.2- 49.6m, series of fractures at 45 LCA					
NC47	50.2	70	vn	qz -py vein.					
NC47	50.5	70	vn	qz-py vein.					
NC47	50.50	10		1-2mm drk brn py dendrites	67	50			
NC47	50.70	20		as per above	93	70			
NC47	50.97	10		1-3mm cly-py-qz vein.	80	40			
NC47	51.00	20		a gry wht-seri, 1-3mm fracture.	327	75			
NC47	51.13			1-2mmgry-py-silic striations.	303	60			
NC47	51.17	70		Dk brown hairline py striation.	308	40			
NC47	51.19	70		a gry wht-seri, 1-3mm fracture.	320	55			
NC47	51.9	30	fr	clean fract.					
NC47	53	5	fr	from 53 - 53.4m fract sub parallel to core axis.					
NC47	53.3	50	vn	qz -vein with silica selvage					
NC47	54.7	10	vn	qz-epi-vein with slca selvage.					
NC47	55.5	50	vn	from 55.5- 56.2, series of gry-py vns atr 50LCA.					
NC47	57.7	70	vn	qz-flurite-epi vein/fract.					
NC47	59.5	5		5-10mm qz-sulp vn sub II to core axis.	115	45			
NC47	59.63	45		a fract infilled by pyrite.	105	20			
NC47	59.78	45		a fract infilled by pyrite.	50	35			

Down Hole Structural Log - Frontier Resources								Structure Code	
Hole_ID	At	Core angle (LCA)	Structure _type	Comments	Azimuth (True)	Dip	Struc_ID	Face	Facing
NC47	60.8	70	vn	epi-flu-talc-fract(2-3mm)					
NC47	61.6	60	fr	clean fract.					
NC47	62.3	45	vn	from 62.3-62.6, a massive qz-sulp vein					
NC47	62.5	60	vn	qz-flu-vein					
NC47	62.7		vn	quartz flurite vein with silica selvage.					
NC47	63.3	60	vn	1-3mm qz-flurite vein					
NC47	64.4	50	vn	qz-flu-wa?-vein with silica selvage.					
NC47	64.7	45	vn	qz-flu-vein wit silica selvage					
NC47	67.4	80	vn	10cm qz-sulp vn					
NC47	69.5	60	vn	late 1-3mm py-qz vein					
NC47	71.3	50	vn	epi-qz-py vein.					
NC47	77.1	80	lay	layering?, 2-5cm thick.					
NC47	78.7	80	lay	possible layering??					
NC47	82	70	laminar	Layering or laminar bedding from 82.0 -82.6m					
NC47	85.5	80	vn	massive qz-sulp vein					
NC47	86.8	40	vn	1-2mm qz vein					
NC47	87.9	10	fr	fracture					
NC47	89.4	80	vn	flurite-py vein					
NC47	89.6	20		clay-seri-talc vein					
NC47	96			96.0 - 100.6, str broken core					

Frontier Resources Ltd				Drill Core Recovery & RQD Log			
Hole_ID	From	To	Interval	Measured	Recovery%	Lengths>10cm	RQD %
NC47	0	1.1	1.1	0.6	54.55	0	0.00
NC47	1.1	2.6	1.5	1.25	83.33	0	0.00
NC47	2.6	4.1	1.5	1.5	100.00	0.3	20.00
NC47	4.1	5.6	1.5	1.4	93.33	0.89	59.33
NC47	5.6	7.1	1.5	1.35	90.00	0.7	46.67
NC47	7.1	8.6	1.5	1.5	100.00	0.99	66.00
NC47	8.6	10.1	1.5	1.2	80.00	0	0.00
NC47	10.1	11.6	1.5	1.5	100.00	0	0.00
NC47	11.6	13.1	1.5	1.5	100.00	0.32	21.33
NC47	13.1	14.6	1.5	0.95	63.33	0	0.00
NC47	14.6	17.6	3	2.4	80.00	0	0.00
NC47	15.1	20.6	5.5	3	54.55	0.74	13.45
NC47	20.6	23.6	3	3	100.00	0.75	25.00
NC47	23.6	26.6	3	2.8	93.33	0.24	8.00
NC47	26.6	29.6	3	3	100.00	0.23	7.67
NC47	29.6	32.6	3	3	100.00	1.3	43.33
NC47	32.6	35.6	3	2.82	94.00	1.25	41.67
NC47	35.6	38.6	3	2.93	97.67	1.48	1.55
NC47	38.6	41.6	3	3	100.00	2.3	1.00
NC47	41.6	44.6	3	3	100.00	2.5	83.33
NC47	44.6	47.6	3	2.95	98.33	2.42	80.67
NC47	47.6	50.6	3	2.95	98.33	2.3	76.67
NC47	50.6	53.6	3	3	100.00	1.4	46.67
NC47	53.6	56.6	3	3	100.00	2.3	76.67
NC47	56.6	59.6	3	3	100.00	1.65	55.00
NC47	59.6	62.6	3	3	100.00	1.17	39.00
NC47	62.6	64.1	1.5	1.5	100.00	0.9	60.00
NC47	64.1	65.6	1.5	1.5	100.00	1.06	70.67
NC47	65.6	68.6	3	3	100.00	2.56	85.33
NC47	68.6	71.6	3	3	100.00	1.95	65.00
NC47	71.6	74.6	3	3	100.00	1.82	60.67
NC47	74.6	77.6	3	3	100.00	1.87	62.33
NC47	77.6	80.6	3	3	100.00	2.18	72.67
NC47	80.6	83.6	3	2.1	70.00	2.56	85.33
NC47	83.6	86.6	3	3	100.00	2.26	75.33
NC47	86.6	89.6	3	2.86	95.33	1.6	53.33
NC47	89.6	92.6	3	3	100.00	1.6	53.33
NC47	92.6	95.6	3	2.85	95.00	2.2	73.33
NC47	95.6	98.6	3	3	100.00	1	33.33
NC47	98.6	100.6	2	2	100.00	0.64	32

DAILY DRILLERS DEPTH UPDATE **NC47**

DATE	SHIFT	DRILLER	FROM	TO	DISTANCE	COMMENTS	BRIEF GEO SUMMARY
16/08/2008	DS	KY	0	1.1	1.1	HQ down to 13.10 and reduce to NQ	KY Kevin Yaki
16/08/2008	NS	AT	1.1	17.6	16.5		AT Albert Toto
17/08/2008	DS	KY	17.6	35.6	18		
17/08/2008	NS	AT	35.6	50.6	15		
18/08/2008	DS	KY	50.6	64.1	13.5		
18/08/2008	NS	AT	64.1	80.6	16.5		
19/08/2008	DS	KY	80.6	92.6	12		
19/08/2008	NS	AT	92.6	100.6	8	EOH 100.6m	

Frontier Resources - Sample Recovery and Assay Notes						
Hole_ID	Sample ID	From (m)	To (m)	Interval (m)	Sampled Interval	% Sampled
NC47	434854	0	1.1	1.1	0.6	54.55
NC47	434855	1.1	2.1	1	0.85	85.00
NC47	434856	2.1	3.1	1	1	100.00
NC47	434857	3.1	4	0.9	0.9	100.00
NC47	434858	4	4.5	0.5	0.5	100.00
NC47	434859	4.5	5.5	1	0.9	90.00
NC47	434860	5.5	6.5	1	1	100.00
NC47	434861	6.5	7.6	1.1	1	90.91
NC47	434862	7.6	8.3	0.7	0.7	100.00
NC47	434863	8.3	9.3	1	0.9	90.00
NC47	434864	9.3	10.5	1.2	1	83.33
NC47	434865	10.5	11.5	1	1	100.00
NC47	434866	11.5	12.5	1	1	100.00
NC47	434867	12.5	13.1	0.6	0.6	100.00
NC47	434868	13.1	14.5	1.4	0.8	57.14
NC47	434869	14.5	15.5	1	0.8	80.00
NC47	434870	15.5	16.5	1	0.8	80.00
NC47	434871	16.5	17.5	1	0.7	70.00
NC47	434872	17.5	18.2	0.7	0.7	100.00
NC47	434873	18.2	18.8	0.6	0.6	100.00
NC47	434874	18.8	19.7	0.9	0.6	66.67
NC47	434875	19.7	21	1.3	1.2	92.31
NC47	434876	21	22.1	1.1	0.9	81.82
NC47	434877	22.1	23	0.9	0.85	94.44
NC47	434878	23	24	1	0.95	95.00
NC47	434879	24	25	1	1	100.00
NC47	434880	25	26	1	1	100.00
NC47	434881	26	28	2	2	100.00
NC47	434882	28	29	1	1	100.00
NC47	434883	29	30	1	1	100.00
NC47	434884	30	31	1	1	100.00
NC47	434885	31	31.6	0.6	0.6	100.00
NC47	434886	31.6	32.8	1.2	1	83.33
NC47	434887	32.8	34	1.2	1.12	93.33
NC47	434888	34	35	1	0.8	80.00
NC47	434889	35	36	1	1	100.00
NC47	434890	36	37	1	1	100.00
NC47	434891	37	38	1	1	100.00
NC47	434892	38	39	1	1	100.00
NC47	434893	39	40	1	1	100.00
NC47	434894	40	41	1	1	100.00
NC47	434895	41	42	1	1	100.00
NC47	434896	42	43	1	1	100.00
NC47	434897	43	44	1	1	100.00
NC47	434898	44	45	1	1	100.00
NC47	434899	45	46	1	1	100.00
NC47	434900	46	47	1	1	100.00
NC47	434101	47	48	1	1	100.00
NC47	434102	48	49	1	1	100.00
NC47	434103	49	50	1	1	100.00
NC47	434104	50	51.4	1.4	1.4	100.00
NC47	434105	51.4	53.4	2	2	100.00
NC47	434106	53.4	54.4	1	1	100.00
NC47	434107	54.4	55.4	1	1	100.00
NC47	434108	55.4	56.4	1	1	100.00
NC47	434109	56.4	57.4	1	1	100.00
NC47	434110	57.4	58.4	1	1	100.00
NC47	434111	58.4	60.4	2	2	100.00
NC47	434112	60.4	61.4	1	1	100.00
NC47	434113	61.4	62.6	1.2	1	83.33
NC47	434114	62.6	64.5	1.9	1.8	94.74
NC47	434115	64.5	65.5	1	1	100.00
NC47	434116	65.5	66.5	1	1	100.00
NC47	434117	66.5	67.5	1	1	100.00
NC47	434118	67.5	68.5	1	1	100.00
NC47	434119	68.5	69.5	1	1	100.00
NC47	434120	69.5	70.5	1	1	100.00
NC47	434121	70.5	72.5	2	2	100.00
NC47	434122	72.5	74.5	2	2	100.00
NC47	434123	74.5	76.5	2	2	100.00
NC47	434124	76.5	78.5	2	2	100.00
NC47	434125	78.5	80.5	2	2	100.00
NC47	434126	80.5	82.5	2	2	100.00
NC47	434127	82.5	84.5	2	2	100.00
NC47	434128	84.5	85.3	0.8	0.8	100.00
NC47	434129	85.3	86	0.7	0.65	92.86
NC47	434130	86	88	2	2	100.00
NC47	434131	88	89	1	1	100.00
NC47	434132	89	91	2	2	100.00
NC47	434133	91	93	2	2	100.00
NC47	434134	93	95	2	2	100.00
NC47	434135	95	97	2	2	100.00
NC47	434136	97	99	2	2	100.00
NC47	434137	99	100.6	1.6	1.5	93.75

Frontier Resources Ltd										Down hole assay data				
Hole_ID	From	To	Au_ppm	Au_R	Ag_ppm	As_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Sn_ppm	W_ppm	Mo_ppm	Spl_Id	Lab Batch
NC47	0	1.1	0.36		1	-1	10	57	22				434854	FN20080828
NC47	1.1	2.1	0.02		1	176	65	374	743				434855	FN20080828
NC47	2.1	3.1	0.01		1	67	26	190	85				434856	FN20080828
NC47	3.1	4	0.02		2	333	428	566	412				434857	FN20080828
NC47	4	4.5	0.02		1	196	149	1058	685				434858	FN20080828
NC47	4.5	5.5	0.13		3	869	1864	119	1864				434859	FN20080828
NC47	5.5	6.5	0.23		9	1358	1738	910	126				434860	FN20080828
NC47	6.5	7.6	0.07		5	313	1430	384	74				434861	FN20080828
NC47	7.6	8.3	0.22		20	69	635	12800	9032				434862	FN20080828
NC47	8.3	9.3	0.01		-1	154	59	598	960				434863	FN20080828
NC47	9.3	10.5	1.255		36	515	1125	8122	6151				434864	FN20080828
NC47	10.5	11.5	0.12		-1	576	121	240	131				434865	FN20080828
NC47	11.5	12.5	0.05		-1	177	39	126	111				434866	FN20080828
NC47	12.5	13.1	0.03		-1	139	83	217	153				434867	FN20080828
NC47	13.1	14.5	0.09		2	406	1157	1342	187	330	480	-1	434868	FN20080828 & 20090203
NC47	14.5	15.5	0.3		2	365	1925	1324	276	150	310	1	434869	FN20080828 & 20090203
NC47	15.5	16.5	0.24		3	137	890	1656	5662	190	270	-1	434870	FN20080828 & 20090203
NC47	16.5	17.5	0.13		2	70	416	759	1219	640	240	-1	434871	FN20080828 & 20090203
NC47	17.5	18.2	0.15		1	314	173	236	651				434872	FN20080828
NC47	18.2	18.8	1.08		20	10	296	7388	7835				434873	FN20080828
NC47	18.8	19.7	0.09		1	232	123	124	231				434874	FN20080828
NC47	19.7	21	0.92		1	104	36	89	217				434875	FN20080828
NC47	21	22.1	3.69		58	290	997	48100	47500				434876	FN20080828
NC47	22.1	23	1.18		1	107	77	180	689				434877	FN20080828
NC47	23	24	0.46		9	66	334	4255	5393				434878	FN20080828
NC47	24	25	2.59		2	116	324	464	1687				434879	FN20080828
NC47	25	26	0.17		-1	-1	58	74	144				434880	FN20080828
NC47	26	28	0.01		-1	15	7	65	67				434881	FN20080828
NC47	28	29	0.01		-1	27	7	53	61				434882	FN20080828
NC47	29	30	0.01		1	47	25	261	195				434883	FN20080828
NC47	30	31	0.01		10	54	282	6960	7506				434884	FN20080828
NC47	31	31.6	0.07		61	-1	158	34500	5233				434885	FN20080828
NC47	31.6	32.8	0.01		1	-1	63	585	352				434886	FN20080828
NC47	32.8	34	0.02		1	11	91	476	254				434887	FN20080828
NC47	34	35	-0.01		2	-1	73	1566	1718				434888	FN20080828
NC47	35	36	0.01		3	10	110	2607	2464				434889	FN20080828
NC47	36	37	0.02		6	114	130	3497	2647				434890	FN20080828
NC47	37	38	-0.01		2	154	123	1122	865				434891	FN20080828
NC47	38	39	0.01		5	152	205	1864	1644				434892	FN20080828
NC47	39	40	0.035		11	107	116	9266	7350				434893	FN20080828
NC47	40	41	0.02		11	145	203	6422	6377				434894	FN20080828
NC47	41	42	0.01		9	213	218	3986	4917				434895	FN20080828
NC47	42	43	0.01		12	135	307	5988	4454				434896	FN20080828
NC47	43	44	0.01		7	200	309	4735	3914				434897	FN20080828
NC47	44	45	0.09		20	93	673	5683	2552				434898	FN20080828
NC47	45	46	0.03		13	20	373	4686	2907				434899	FN20080828
NC47	46	47	-0.01		-1	90	83	295	181				434900	FN20080828
NC47	47	48	-0.01		-1	79	48	213	92				434101	FN20080828
NC47	48	49	0.01		3	231	156	424	406				434102	FN20080828
NC47	49	50	-0.01		1	79	76	324	417				434103	FN20080828
NC47	50	51.4	0.01		2	147	136	239	80				434104	FN20080828
NC47	51.4	53.4	0.18		1	442	105	96	37				434105	FN20080828
NC47	53.4	54.4	0.06		4	126	230	334	55				434106	FN20080828
NC47	54.4	55.4	0.03		11	268	619	6454	7874				434107	FN20080828
NC47	55.4	56.4	0.01		2	156	139	175	78				434108	FN20080828
NC47	56.4	57.4	-0.01		1	-1	157	51	22				434109	FN20080828
NC47	57.4	58.4	-0.01		1	35	115	59	34				434110	FN20080828
NC47	58.4	60.4	-0.01		-1	42	62	46	70				434111	FN20080922
NC47	60.4	61.4	-0.01		-1	91	55	27	48				434112	FN20080922
NC47	61.4	62.6	-0.01		1	31	230	459	1297				434113	FN20080922
NC47	62.6	64.5	-0.01		-1	116	70	64	49				434114	FN20080922
NC47	64.5	65.5	-0.01		-1	172	175	23	40				434115	FN20080922
NC47	65.5	66.5	0.02		-1	199	189	27	40				434116	FN20080922
NC47	66.5	67.5	0.02		-1	146	395	23	81				434117	FN20080922
NC47	67.5	68.5	-0.01		-1	33	198	32	85				434118	FN20080922
NC47	68.5	69.5	-0.01		1	130	111	439	2271				434119	FN20080922
NC47	69.5	70.5	-0.01		-1	14	87	57	118				434120	FN20080922
NC47	70.5	72.5	-0.01		1	255	75	266	453				434121	FN20080922
NC47	72.5	74.5	-0.01		1	186	109	749	1186				434122	FN20080922
NC47	74.5	76.5	-0.01		-1	269	143	154	242				434123	FN20080922
NC47	76.5	78.5	0.02		-1	53	75	186	968				434124	FN20080922
NC47	78.5	80.5	-0.01		-1	93	15	211	477				434125	FN20080922
NC47	80.5	82.5	3.07		5	369	257	1414	2523				434126	FN20080922
NC47	82.5	84.5	0.05		1	164	81	868	908				434127	FN20080922
NC47	84.5	85.3	0.03		-1	10	193	65	1045				434128	FN20080922
NC47	85.3	86	1.3		1	66	407	140	187				434129	FN20080922
NC47	86	88	0.04		-1	118	44	180	559				434130	FN20080922
NC47	88	89	0.09		-1	52	100	46	238				434131	FN20080922
NC47	89	91	0.05		-1	9	28	25	58				434132	FN20080922
NC47	91	93	-0.01		-1	187	15	15	26				434133	FN20080922
NC47	93	95	0.03		-1	215	34	45	182				434134	FN20080922
NC47	95	97	0.03		-1	360	61	18	47				434135	FN20080922
NC47	97	99	-0.01		-1	194	47	21	42				434136	FN20080922
NC47	99	100.6	-0.01		-1	152	57	29	28				434137	FN20080922

Drill Log — Frontier Resources Ltd

PROJECT:	Gowrie Park	**HOLE NO:**	NC48	**DRILL TYPE:**	Diamond
PROSPECT:	Narrawa Creek	**DATE COMMENCED:**	20/08/2008	**DRILLER:**	Frontier Resources Ltd.
TENENMENT:	RL3/2005	**DATE COMPLETED:**	25/08/2008	**LOGGED BY:**	RR
EASTING	425,460.55	**TOTAL DEPTH (m):**	40.3	**LOGGING DATE:**	
NORTHING	5,406,693.10	**AZIMUTH (TN):**	213	**OXIDATION BOCO:**	1.2
COLLAR RL:	521.93	**DIP:**	-60	**BOPO:**	17.8

Drilling details

Core Size	From	To
PQ		
HQ	0.00	7.30
NQ	7.30	40.30
BQ		

Comments

Hole designed to:- Testing section 5887.5mE; Resource infill drilling

Significant Analysis Intervals:

Hole_ID	From	To	Interval
NC48	4	8	4m @ 0.52g/t Au, 12.5g/t Ag, 0.107% Cu, 0.33% Pb & 0.44% Zn
Including	4	5	1m @ 1.29g/t Au, 16g/t Ag, 0.097% Cu, 0.13% Pb & 1.05% Zn
NC48	16	18	2m @ 8.91g/t Au, 72.5g/t Ag, 0.106% Cu, 5.96% Pb & 6.59% Zn
NC48	25	30	5m @ 0.68g/t Au, 4.6g/t Ag, 0.047% Cu, 0.14% Pb & 0.22% Zn
NC48	33	40	7m @ 0.14g/t Au, 7.4g/t Ag, 0.022% Cu, 0.4% Pb & 0.35% Zn

Summary Log

From	To	Graphic	Summary Description (Lith, Altn, Mineralisation)
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			

Frontier Resources Detailed Drill Log

Hole Number		NC48	Sheet No	1	Mineralisation / Alteration and additi

INTERVAL	ROCK CODES			Alteration summary				Full description: including colour, main alteration type and strength, component minerals (pref in order of abundance), rock type, texture, alteration and mineralisation details eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets	Pyrite		Galena		Sphalerite		Biotite		Silica		Sericite		Chlorite		(Ca)CO3		Calc-Sil		Skarn		Magnetic		QVN	Other minerals / texture / colour							
FROM (m)	TO (m)	Strat Code	Rock type	Primary Altn	2nd Altn	3rd Altn	Weathering		Style	Amount %	Style	Amount %	Style	Amount %	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Amount (WMS)	Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour
0.00	1.15		CELUV					sandy elluvium,																															
1.15	1.95		SMSAND	Sil				light grey, mg poorly sorted quartz sandstone / wacke, max grain size ~2.5mm, perv sil(w/m), broken(w/m)									P	w/m																				w/m	
1.95	2.05		QVN	QVN				milky quartz vein @~70LCA, possibly weakly sheared / strained upper margin, note opposed vein at ~25LCA immediatelly uphole and intersecting main vein.																												s						w/m	
2.05	4.00		SCSAND	Sil				grey mg to cg poorly sorted quartz sandstone, sil(w/m), dss and fracture fill py(3%), 6mm qvn at 2.15m @ 65LCA, moderatelly broken contact over ~20cm with granule sst below(faulted?)	D	3							P	w/m																				m	
4.00	8.00		SGRANSAND	SMSX	Sil			semi-massive to massive sulphide, locally banded within granule sandstone, sil(m), gal(1%) and sph(0.5%) are most evident in the more massive sulphide bearing zones, possibly scour on slst top indicates up to E/NE facing, locally verges to granule conglomerate with sub rounded to sub angular lithics to 7mm. Also siltstone interbeds to 20cm which are locally bndd (~70LCA) and preferentially silicified.	Rp	30		1		0.5			P	m																				w	
8.00	16.00		FALT					strongly broken late brittle fault, locally moderatelly oxidised with puggy sections to 30cm+, Variable clast types being mostly shattered grey silicified sandstone frags with some tan weathered cal-sil? altered frags and pgn silicified frags. Suggests significant movement on this fault zone, but massive and semi-massive sulphides on both sides of the fault - the upper being basemetal poor																												vs	
16.00	18.00		MSSX	MSSX	Biot	QSV		semi-massive to massive galena - sphalerite bearing sulphide overprints fg to mg sandstone, biot(w/m) is particularly evident at end interval, perv sil(w/m), bk(w), minor grey silica selvaged basemetal veins eg. 16.6m 6mm @70LCA	Rp	20		7		2		w/m	P	w/m																				w	
18.00	20.00		SMSAND	Sil				grey sil(w/m) hornfels, mg to locally cg sst texture									P	w/m																				w	
20.00	20.40		SSILT	Sil				relict fg sandstone / siltstone with laminar bedding @ ~70LCA, sil(w/m)									P	w/m																				w	
20.40	23.80		HORN		Flour			grey sil(w/m) hornfels, locally relict siltstone with laminar bedding grades to weak sil-serp skarn; quartz-calcite-pyrite-flourite-bladed wolfram vein from 22.9 to 22.93cm @ 45LCA									P	w/m																		vw						w	
23.80	26.65		HORN	SKARN				light green sil-serp skarn, minor Fe pyroxene minerals, common dss & frac fill vnd pyrite(2%)	Vn	2							P	m																w								w	
26.65	26.80		QVN	QVN	GREISEN			massive milky quartz vein with vugs bearing drusy quartz to 1.5cm, euhedral py and bladed wolfram(~1%), also including weathered green skarn like mineral-locally like acicular actinolite																												s	Wolf	Vn	1				w	
26.80	27.70		SFSAND	DSX	Biot	Sil		grey hornfels / relict fg sandstone, mag(w) locally, biot?(w/m), sil(w), dss py(1 to locally 6%), broken (m) locally	D	2						w/m	P	w																								m	
27.70	27.90		FALT					broken puggy clay zone / fault																																		vs	
27.90	28.65		SFSAND	DSX	Biot	Sil		grey hornfels / relict fg sandstone, mag(w) locally, biot?(w/m), sil(w), dss py(1 to locally 6%)	D	2						w/m	P	w																								m	
28.65	28.85		QVN	QVN	GREISEN			milky quartz veining bearing minor euhedral pyrite and drusy quartz filled vugs, local relict Wolfram?; upper contact ~30LCA																												s	Wolf	Vn	0.1					
28.85	30.35		SFSAND	Sil	Biot	DSX		grey/lht bn hornfels fg sandstone, biot(w), perv sil(w/m), dss py to 3% locally	D	2						w	P	w/m																								w	
30.35	32.50		FALT	Sil				Broken faulted zone bearing mostly light grey silicified(m) sandstone, commonly highly broken with fault pug at ~31.6m										m																								s	
32.50	32.90		FALT	QVN	GREISEN			drusy quartz veined zone, bearing sparse bladed wolfram(0.5%) and pyrite in a greisen-like silica towards base with relict fg q-sst texture																																			
32.90	35.05		HORN	Biot	Sil			grey to light brown mg hornfels sandstone, Biot(w/m), sil(w/m)							P	w/m	P	w/m																									
35.05	35.20		QVN	QVN	GREISEN			quartz vein, bearing bladed wolfram(8%), minor pyrite, Upper and lower contacts ~20 to 30LCA.																												s	Wolf	Vn	8					
35.20	36.00		HORN	Biot	Sil			grey/brown hornfels sandstone, biot(m), sil(w), dss py(2%)	D	2					P	m	P	w																									
36.00	36.13		QVN	QVN	GREISEN			15mm quartz vein, bearing bladed wolfram(0.5%), dss molybdenite(~0.5%) and pyrite, ~10LCA.																												s	Wolf	Vn	0.5					
36.13	40.30		SFSAND	Sil	Biot			cream to brown relict hornfels fg to mg sst, biot perv(w/m) patches over ~50% of core, elsewhere cream sil(m), dss py(2%)	D	2					P	w/m	P	m																									

Down Hole Surveys - Frontier Resources						
Hole_ID	Depth	Azimuth(TN	Dip	Azimuth(Mag	Type	Date
NC48	0	213	-60		2	20/08/2008
NC48	20.3	214	-59.5	200	1	25/08/2008
NC48	40.3	209	-59	195	1	25/08/2008

Survey type	
1	Single shot down hole camera
2	Measured at collar
3	Inferred survey for display
4	Other - see comments

Down Hole Structural Log - Frontier Resources								Structure Code	
Hole_ID	At	Core angle (LCA)	Structure_type	Comments	Azimuth (True)	Dip	Struc_ID	Face	Facing
NC48	2.0	70	Vn	10cm qvn				Vn	vein
NC48	2.1	25	Vn	subsidiary qvn				Bd	Bedding
NC48	2.2	65	Vn	12mm qvn					
NC48	7.0	70	Bd	siltstone beds					
NC48	16.6	70	Vn	silica selvaged 6mm base metal vein					
NC48	20.2	70	Bd	siltstone beds					
NC48	28.7	30	Vn	q-py-vn					
NC48	35.1	20	Vn	q-Wolfram-py-vn					
NC48	35.2	30	Vn	q-Wolfram-py-vn					
NC48	36.1	10	Vn	q-wolfram-Mo-vn					
NC48	22.9	45	Vn	quartz-calcite-pyrite-flourite-bladed wolfram vein					

Frontier Resources Ltd				Drill Core Recovery & RQD Log			
Hole_ID	From	To	Interval	Measured	Recovery%	Lengths>10cm	RQD %
NC48	0	1.3	1.3	0.6	46.15	0	0.00
NC48	1.3	2.8	1.5	1.5	100.00	0.15	10.00
NC48	2.8	4.3	1.5	1.4	93.33	0.1	6.67
NC48	4.3	5.8	1.5	1.3	86.67	0.45	30.00
NC48	5.8	7.3	1.5	1.4	93.33	1.1	73.33
NC48	7.3	8.8	1.5	0.8	53.33	0.5	33.33
NC48	8.8	11.8	3	3	100.00	0	0.00
NC48	11.8	13.8	2	0.6	30.00	0.3	15.00
NC48	13.8	14.8	1	0.6	60.00	0	0.00
NC48	14.8	16.3	1.5	1.05	70.00	0	0.00
NC48	16.3	17.8	1.5	1.4	93.33	1.1	73.33
NC48	17.8	19.3	1.5	1.5	100.00	0.35	23.33
NC48	19.3	20.8	1.5	1.5	100.00	0.4	26.67
NC48	20.8	23.8	3	3	100.00	1.45	48.33
NC48	23.8	26.8	3	3	100.00	2.7	90.00
NC48	26.8	29.8	3	2.9	96.67	1.4	46.67
NC48	29.8	32.8	3	3	100.00	0.7	23.33
NC48	32.8	35.8	3	3	100.00	1.6	53.33
NC48	35.8	38.8	3	3	100.00	2.05	68.33
NC48	38.8	40.3	1.5	1.5	100.00	1.4	93.33

DAILY DRILLERS DEPTH UPDATE				NC48
DATE	**SHIFT**	**DRILLER**	**FROM**	**TO**
20/08/2008			0	
21/08/2008				
22/08/2008				
23/08/2008				
24/08/2008				
25/08/2008				40.3

Frontier Resources - Sample Recovery and Assay Notes							
Hole_ID	Sample ID	From (m)	To (m)	Interval (m)	Sampled Interval	% Sampled	Comments
NC48		0	4	4		0.00	1m intervals
NC48	1	4	5	1		0.00	Semi-massive to massive sulphide
NC48	2	5	6	1		0.00	Semi-massive to massive sulphide
NC48	3	6	7	1		0.00	Semi-massive to massive sulphide
NC48	4	7	8	1		0.00	Semi-massive to massive sulphide
NC48	5	8	8.8	0.8		0.00	Semi-massive to massive sulphide
NC48	6	8.8	9.8	1		0.00	
NC48	7	9.8	11	1.2		0.00	
NC48	8	11	12	1		0.00	
NC48	9	12	13	1		0.00	
NC48	10	13	14	1		0.00	
NC48	11	14	15	1		0.00	
NC48	12	15	16	1		0.00	
NC48	13	16	17	1		0.00	massive sulphide
NC48	14	17	18	1		0.00	massive sulphide
NC48	15	18	19	1		0.00	
NC48	16	19	20	1		0.00	
NC48	17	20	21	1		0.00	
NC48	18	21	22	1		0.00	
NC48	19	22	23	1		0.00	
NC48	20	23	23.8	0.8		0.00	
NC48	21	23.8	24.8	1		0.00	green skarn
NC48	22	24.8	25.8	1		0.00	green skarn
NC48	23	25.8	26.6	0.8		0.00	green skarn
NC48	24	26.6	27.6	1		0.00	1m intervals
NC48	25	27.6	28.6	1		0.00	1m intervals
NC48	26	28.6	29.6	1		0.00	1m intervals
NC48	27	29.6	EOH			0.00	2m composites to EOH

Frontier Resources Ltd								Down hole assay data						
Hole_ID	From	To	Au_ppm	Au_R	Ag_ppm	As_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Sn_ppm	W_ppm	Mo_ppm	Spl_Id	Lab Batch
NC48	2	3	-0.01		-1	103	63	186	136				433990	FN20080922
NC48	3	4	-0.01		1	172	422	353	254				433991	FN20080922
NC48	4	5	1.29		16	708	966	1342	10500				433992	FN20080922
NC48	5	6	0.47		2	2706	1645	103	185				433993	FN20080922
NC48	6	7	0.18		1	363	862	34	67				433994	FN20080922
NC48	7	8	0.15		31	213	795	11600	6939				433995	FN20080922
NC48	8	9	-0.01		-1	188	73	223	334				433996	FN20080922
NC48	9	10	-0.01		-1	314	10	102	141				433997	FN20080922
NC48	10	11	0.05		-1	28	48	122	297				433998	FN20080922
NC48	11	12	-0.01		1	110	32	84	175				434188	FN20080922
NC48	12	14	0.12		1	83	72	119	323				434189	FN20080922
NC48	14	16	0.08		1	1	62	216	404				434190	FN20080922
NC48	16	17	16.4		119	213	1434	90200	109000				434191	FN20080922
NC48	17	18	1.42		26	130	681	28900	22700				434192	FN20080922
NC48	18	19	0.08		-1	4	45	121	194				434193	FN20080922
NC48	19	20	0.11		-1	14	28	83	169				434194	FN20080922
NC48	20	21	0.09		-1	20	33	146	103				434195	FN20080922
NC48	21	22	0.18		1	2	30	31	59	110	320	-1	434196	FN20080922 & 20090203
NC48	22	23	0.06		1	40	192	25	77	150	1950	3	434197	FN20080922 & 20090203
NC48	23	24	0.13		1	38	288	31	97	110	460	1	434198	FN20080922 & 20090203
NC48	24	25	0.23		2	493	703	42	119	250	320	-1	434301	FN20080922 & 20090203
NC48	25	26	1.68		2	366	439	110	183	480	280	3	434302	FN20080922 & 20090203
NC48	26	27	0.37		3	254	430	149	220	340	280	10	434303	FN20080922 & 20090203
NC48	27	28	0.15		8	164	1057	2551	6636	400	110	18	434304	FN20080922 & 20090203
NC48	28	29	0.92		3	391	226	1617	2079	360	270	1	434305	FN20080922 & 20090203
NC48	29	30	0.26		7	6	196	2615	1905	190	180	-1	434306	FN20080922 & 20090203
NC48	30	31	-0.01		2	30	98	869	510	110	250	2	434307	FN20080922 & 20090203
NC48	31	32	-0.01		-1	155	59	59	114	140	400	-1	434308	FN20080922 & 20090203
NC48	32	33	-0.01		1	56	190	78	120	130	3380	47	434309	FN20080922 & 20090203
NC48	33	34	0.02		7	88	185	4270	3332	190	170	-1	434310	FN20080922 & 20090203
NC48	34	35	0.03		12	76	374	7683	6730	140	140	-1	434311	FN20080922 & 20090203
NC48	35	36	0.02		8	149	222	4950	5375	230	19800	6	434312	FN20080922 & 20090203
NC48	36	37	-0.01		2	109	103	1137	909	80	240	13	434313	FN20080922 & 20090203
NC48	37	38	0.02		5	2	103	2583	2966	160	270	-1	434314	FN20080922 & 20090203
NC48	38	39	0.29		14	142	372	5664	3227				434315	FN20080922
NC48	39	40	0.57		4	-1	155	1531	1854				434316	FN20080922

Drill Log — Frontier Resources Ltd

PROJECT:	Gowrie Park	**HOLE NO:**	NC49	**DRILL TYPE:**	Diamond
PROSPECT:	Narrawa Creek	**DATE COMMENCED:**	26/08/2008	**DRILLER:**	Frontier Resources Ltd.
TENENMENT:	RL3/2005	**DATE COMPLETED:**	31/08/2008	**LOGGED BY:**	R Reid
EASTING	425,460.62	**TOTAL DEPTH (m):**	75.1	**LOGGING DATE:**	
NORTHING	5,406,693.17	**AZIMUTH (TN):**	213	**OXIDATION** BOCO:	
COLLAR RL:	521.93	**DIP:**	-75	BOPO:	

Drilling details

Core Size	From	To
PQ		
HQ	0.00	9.10
NQ	9.10	75.10
BQ		

Comments

Hole designed to:- Testing section 5887.5mE; Resource infill drilling

Significant Analysis Intervals:

Hole_ID	From	To	Interval
NC49	6	9	3m @ 0.26g/t Au, 10g/t Ag, 0.113% Cu, 0.13% Pb & 0.18% Zn
Including	8	9	1m @ 0.24g/t Au, 24g/t Ag, 0.082% Cu, 0.31% Pb & 0.48% Zn

Summary Log

From	To	Graphic	Summary Description (Lith, Altn, Mineralisation)
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			

Frontier Resources Detailed Drill Log

Hole Number			Sheet No	1	Mineralisation / Alteration and			**Full description:** **including colour, main alteration** type and strength, **component minerals** (pref in order of abundance), **rock type, texture, alteration and mineralisation details** eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets	Pyrite		Galena		Sphalerite		Biotite		Silica		Sericite		Chlorite		(Ca)CO3		Calc-Sil		Skarn		Magnetic		QVN	Other minerals / texture / colour							
INTERVAL		ROCK CODES			Alteration summary																															
FROM (m)	TO (m)	Strat Code	Rock type	Primary Altn	2nd Altn	3rd Altn	Weathering		Style	Amount %	Style	Amount %	Style	Amount %	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Amount (WMS)	Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour
0.00	0.70		CELUV					no core recovered																															
0.70	4.00		FALT					Faulted / broken core(m/s) bearing minor milky quartz vein fragments, mostly silicified hornfels frags										w/m																				m/s	
4.00	5.50		SMSAND	CALS	Sil			lht gn and tan mottled fg/mg hornfels sandstone, tan cal-sil?(m), lht gn possibly after relict perv sil-serp altn										w/m								P	m													w	
5.50	7.50		SMSX	SMSX	Sil			greeen semi-massive sulphide, perv sil(m), mostly py(~35%), sparse basemetal evident, weakly etched, broken(w)	Rp	25							P	m																					w	
7.50	8.80		FALT	SMSX				strongly broken faulted zone mostly within semimassive pyrite with monir galena. Minor possible relict granule sst texture	Rp	25							P	w/m																					s	
8.80	11.90		SSILT	FALT	CALS			strongly broken and faulted zone, bearing mostly tan laminar bedded silstone with calc-sil(m); bedding at ~65LCA																		P	m													s	
11.90	13.60		FALT	SKARN				gn skarn(m) over fg sediment, moderatelly broken zone - faulted locally																				P	m											m	
13.60	15.80		SKARN	SKARN	GAR			gn skarn(m/s) with minor garnet zones(w)																				P	m												
15.80	19.30		SFSAND	SKARN	Sil			green skarn(w/m) / perv lht gn sil-serp(w/m) over fg q-sst, minor silica selvaged veinlets									P	w/m										P	w/m												
19.30	19.70		SMSAND	Sil	CALS			crm / lht bn relict mg/cg sst, sil(m), cals-sil?(w)									P	m											w											w	
19.70	23.50		SMSAND	HORN		Sil		initially dark grey verging to grey, hornfels mg q-sandstone, lower contact is zoned with increasing pervassive silica., mag(0), commonly broken(m) / weakly brittle faulted, dss py(1%)	D	1								w																							m	
23.50	30.80		SMSAND	SKARN	Sil			mottled green and cream weakly skarnified zone, sil(w/m), relict mg q-sandstone, dss py (1%)	D	1							P	w/m																								
30.80	34.50		Horn	Sil				cream very strongly cream silicified zone after relict sediment. Hint of banding locally but possibly not sedimentary									P	s																								
34.50	35.45	TFS	FALT	CALS				lht bn banded zone which appears to be selectively wispy tan cal-sil altered prior to zoning to a broken angular fragental zone annealed by the same lht bn calc-sil(m)? infill, possibly a brittle reactivated shear - relatively old compared to recent brttle faulting																					m											s	
35.45	43.10		SMSAND	SKARN	Sil			lht green relict mg q-sandstone / honrfels, skarnified(w) commonly with a lht green perv sil-serp?(m) overprint, dss py and pyrrh?(1%), locally appears like arkose sst - but possible an alteration effect.	D	1							P	m										P	w													
43.10	48.80		SFSAND	Sil	CALS	VSX		crm calc-sil(w) overprints fg q-sst, perv sil(m/s), minor dentritic pyrite at start inerval zoning out of skarn	Vn	0.5							P	m/s									w														
48.80	49.80		SSILT	CALS	Sil			crm calc-sil(m) overprints thin bedded (~45LCA) relict siltstone / fg q-sst, perv sil(m/s)									P	m/s							SP	m														
49.80	52.50		HORN	Sil				grey perv sil(s), py veined filling fractures(2%) @ ~15 & 80LCA and irregular	Vn	2							P	s																								
52.50	53.00		HORN	Sil		CALS		grey perv sil(s), py veined filling fractures(2%) irregular, calc-sil(w) pervasive	Vn	2							P	s							P	w														
53.00	53.75		SSILT	SKARN	CALS	Biot		sulphidic brown biotite(m) hornfels over 25cm at margin fading to green skarn(m)-calc-sil(w/m) the latter strongest at down hole end. Banded appearing after siltstone?	D	1					P	m	P	w/m							P	w/m	P	m												
53.75	58.70		HORN	Sil				massive grey perv sil(m/s) locally pale green hornfels, py-vnd, broken(w)	Vn	3							P	m/s																						
58.70	61.00		SSILT	Sil	VSX	CALS		massive grey perv sil(m) locally pale green hornfels, py-vnd, locally thin/laminated bedded after siltstone/fg sst (~45LCA), calc-sil(w) increasing down hole to end interval(w/m), Py(2%), Lower contact ~55LCA	Vn	2							P	m							P	w														
61.00	61.40		SMSX	SMSX	CALS	SIL		Semi-massive sulphide (py(10%))	Rp	10							P	m							P	w/m														
61.40	64.50		SSILT	Sil	VSX	CALS		massive grey perv sil(m) locally pale green hornfels, py-vnd(1%) as fracture fill.	Vn	1							P	m							P	w														
64.50	65.60		SGRANSAND	CALS	Sil	Biot		weakly granular sst, sil(m), calc-sil(m), local biot (m) with py(25%) forming semi-massive sulphide. Granule conglomerate is coarser than most granule -sst beds with grains commonly 6mm+.	Rp	25					P	m	P	m							P	m														
65.60	66.50		SMSX	SMSX	Biot			biot (m) with py(25%) forming semi-massive sulphide	Rp	25					P	m																								
66.50	67.00		SGRANSAND	CALS	Sil	Biot		weakly granular sst, sil(m), calc-sil(m), local biot(m) with py(25%) forming semi-massive sulphide. Granule conglomerate is coarser than most granule -sst beds with grains commonly 6mm+.	Rp	25					P	m	P	m							P	m														
67.00	70.40	TFS	FALT	DSX	QVN			faulted / brittle fractured, some foliation / shistosity development locally suggests significant shear, minor quartz-veining (0.5%), often apple green coloured, fol(m) locally, py(2%) locally 10%	D	2																								vw						s	
70.40	75.10		HORN	Sil		VSX		grey & pale green, massive, sil(m) hornfels, probably fg/mg with relict grains, py + cpy? In fractures(1%), trace dendritic pyrite.	Vn	1							P	m																								

Down Hole Surveys - Frontier Resources						
Hole_ID	Depth	Azimuth(TN)	Dip	Azimuth(Mag)	Type	Date
NC49	0	213	-75		2	
NC49	50	206.5	-74	192.5	1	31/08/2008
NC49	75.1	203	-74	189	1	31/08/2008

Survey type	
1	Single shot down hole camera
2	Measured at collar
3	Inferred survey for display
4	Other - see comments

Down Hole Structural Log - Frontier Resources								Structure Code	
Hole_ID	At	Core angle (LCA)	Structure_type	Comments	Azimuth (True)	Dip	Struc_ID	Face	Facing
NC49	49	45	bnd	relict thin bdd slst				Vn	vein
NC49	51	15	Vn	py vein filling fracture				bnd	banding
NC49	52	80	Vn	py vein filling fracture				con	contact
NC49	59	45	bnd	relict thin bdd slst					
NC49	61	55	con	sharp lower contact					

Frontier Resources Ltd				Drill Core Recovery & RQD Log			
Hole_ID	From	To	Interval	Measured	Recovery%	Lengths>10cm	RQD %
NC49	0	1.6	1.6	1	62.50	0.25	15.63
NC49	1.6	3.1	1.5	1	66.67	0	0.00
NC49	3.1	4.6	1.5	1.5	100.00	0.3	20.00
NC49	4.6	6.1	1.5	1.45	96.67	1.05	70.00
NC49	6.1	7.6	1.5	1.45	96.67	0.65	43.33
NC49	7.6	9.1	1.5	1.1	73.33	0	0.00
NC49	9.1	10.6	1.5	0.6	40.00	0	0.00
NC49	10.6	12.1	1.5	0.65	43.33	0.15	10.00
NC49	12.1	15.1	3	2.7	90.00	1.6	53.33
NC49	15.1	18.1	3	3	100.00	2.65	88.33
NC49	18.1	21.1	3	3	100.00	1.95	65.00
NC49	21.1	24.1	3	3	100.00	1.35	45.00
NC49	24.1	27.1	3	3	100.00	1.15	38.33
NC49	27.1	30.1	3	3	100.00	2.3	76.67
NC49	30.1	33.1	3	3	100.00	1.2	40.00
NC49	33.1	36.1	3	3	100.00	1.4	46.67
NC49	36.1	39.1	3	3	100.00	2.6	86.67
NC49	39.1	42.1	3	3	100.00	2.5	83.33
NC49	42.1	43.6	1.5	1.5	100.00	1.25	83.33
NC49	43.6	45.1	1.5	1.5	100.00	1.1	73.33
NC49	45.1	48.1	3	3	100.00	2.1	70.00
NC49	48.1	51.1	3	3	100.00	2.35	78.33
NC49	51.1	54.1	3	3	100.00	2.2	73.33
NC49	54.1	55.6	1.5	1.5	100.00	1.4	93.33
NC49	55.6	57.1	1.5	1.5	100.00	0.7	46.67
NC49	57.1	60.1	3	3	100.00	1.5	50.00
NC49	60.1	63.1	3	3	100.00	0.6	20.00
NC49	63.1	66.1	3	3	100.00	0.6	20.00
NC49	66.1	69.1	3	2	66.67	0.1	3.33
NC49	69.1	72.1	3	3	100.00	0.5	16.67
NC49	72.1	75.1	3	3	100.00	2.55	85.00

DAILY DRILLERS DEPTH UPDATE **NC49**

DATE	SHIFT	DRILLER	FROM	TO
26/08/2008			0	
27/08/2008				
28/08/2008				
29/08/2008				
30/08/2008				
31/08/2008				75.1

Frontier Resources - Sample Recovery and Assay Notes						
Hole_ID	Sample ID	From (m)	To (m)	Interval (m)	Sampled Interval	% Sampled
NC49	434201	2	3	1		0.00
NC49	434202	3	4	1		0.00
NC49	434203	4	5.15	1.15		0.00
NC49	434204	5.15	6	0.85		0.00
NC49	434205	6	7	1		0.00
NC49	434206	7	8	1		0.00
NC49	434207	8	9	1		0.00
NC49	434208	9	10.6	1.6		0.00
NC49	434209	10.6	12	1.4		0.00
NC49	434210	12	13	1		0.00
NC49	434211	13	14	1		0.00
NC49	434212	14	15.15	1.15		0.00
NC49	434213	15.15	16	0.85		0.00
NC49	434214	16	17	1		0.00
NC49	434215	17	18	1		0.00
NC49	**434216**	**18**	**19**	1	1	100.00
NC49	434217	19	20	1	1	100.00
NC49	434218	20	21	1	1	100.00
NC49	434219	21	22	1	1	100.00
NC49	434220	22	23	1	1	100.00
NC49	434221	23	24	1	1	100.00
NC49	434222	24	25	1	1	100.00
NC49	434223	25	26	1	1	100.00
NC49	434224	26	27	1	1	100.00
NC49	434225	27	28	1	1	100.00
NC49	434226	28	29	1	1	100.00
NC49	434227	29	30	1	1	100.00
NC49	434228	30	31	1	1	100.00
NC49	434229	31	32	1	1	100.00
NC49	434230	32	33	1	1	100.00
NC49	434231	33	34	1	1	100.00
NC49	434232	34	35	1	1	100.00
NC49	434233	35	36	1	1	100.00
NC49	434234	36	37	1	1	100.00
NC49	434235	37	38	1	1	100.00
NC49	434236	38	39	1	1	100.00
NC49	434237	39	40	1	1	100.00
NC49	434238	40	41	1	1	100.00
NC49	434239	41	42	1	1	100.00
NC49	434240	42	43	1	1	100.00
NC49	434241	43	44	1	1	100.00
NC49	434242	44	45	1	1	100.00
NC49	434243	45	46	1	1	100.00
NC49	434244	46	47	1	1	100.00
NC49	434245	47	48	1	1	100.00
NC49	521146	48	49	1	1	100.00
NC49	434246	49	50	1	1	100.00
NC49	434247	50	51	1	1	100.00
NC49	434248	51	52	1	1	100.00
NC49	434249	52	53	1	1	100.00
NC49	524147	53	54	1	1	100.00
NC49	524148	54	55	1	1	100.00
NC49	524149	55	56	1	1	100.00
NC49	524150	56	57	1	1	100.00
NC49	524151	57	58	1	1	100.00
NC49	524152	58	59	1	1	100.00
NC49	524153	59	60	1	1	100.00
NC49	524154	60	61	1	1	100.00
NC49	524155	61	62	1	1	100.00
NC49	524156	62	63	1	1	100.00
NC49	524157	63	64	1	1	100.00
NC49	524158	64	65	1	1	100.00
NC49	524159	65	66	1	1	100.00
NC49	524160	66	67	1	1	100.00
NC49	524161	67	69	2	1	50.00
NC49	524162	69	70	1	1	100.00
NC49	524163	70	71	1	1	100.00
NC49	524164	71	72	1	1	100.00
NC49	524165	72	73	1	1	100.00
NC49	524166	73	74	1	1	100.00
NC49	524167	74	75.1	1.1	1.1	100.00

Frontier Resources Ltd			Down hole assay data						
Hole_ID	From	To	Spl_Id	Au_ppm	Ag_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Lab Batch
NC49	2	3	434201	-0.01	-1	31	134	75	FN20080922
NC49	3	4	434202	-0.01	-1	72	332	313	FN20080922
NC49	4	5.15	434203	-0.01	2	292	278	436	FN20080922
NC49	5.15	6	434204	0.04	-1	127	155	90	FN20080922
NC49	6	7	434205	0.39	3	1536	262	496	FN20080922
NC49	7	8	434206	0.14	3	1043	508	208	FN20080922
NC49	8	9	434207	0.24	24	821	3106	4753	FN20080922
NC49	9	10.6	434208	-0.01	1	40	113	164	FN20080922
NC49	10.6	12	434209	0.03	1	22	96	141	FN20080922
NC49	12	13	434210	0.08	1	10	83	169	FN20080922
NC49	13	14	434211	0.06	-1	-1	68	189	FN20080922
NC49	14	15.15	434212	-0.01	1	2	18	151	FN20080922
NC49	15.15	16	434213	0.1	1	75	105	190	FN20080922
NC49	16	17	434214	0.03	1	216	84	127	FN20080922
NC49	17	18	434215	-0.01	-1	-1	58	134	FN20080922

Drill Log — Frontier Resources Ltd

PROJECT:	Gowrie Park	**HOLE NO:**	NC50	**DRILL TYPE:**	Diamond
PROSPECT:	Narrawa Creek	**DATE COMMENCED:**	2/09/2008	**DRILLER:**	Frontier Resources Ltd.
TENENMENT:	RL3/2005	**DATE COMPLETED:**	3/09/2008	**LOGGED BY:**	R Reid
EASTING	425,509.86	**TOTAL DEPTH (m):**	50.7	**LOGGING DATE:**	3/09/2008
NORTHING	5,406,677.78	**AZIMUTH (TN):**	213	**OXIDATION** BOCO:	
COLLAR RL:	525 (AGD66, Zone55)	**DIP:**	-45	BOPO:	

Drilling details

Core Size	From	To
PQ		
HQ	0.00	7.20
NQ	7.20	50.70
BQ		

Comments

Hole designed to:- Testing section 5937.5mE; Resource infill drilling

Significant Analysis Intervals:

Hole_ID	From	To	Interval
NC50	24	50	26m @ 0.18g/t Au, 34.7g/t Ag, 0.038% Cu, 2.61% Pb & 1.84% Zn
Including	27.7	41.1	13.4m @ 0.31g/t Au, 53.5g/t Ag, 0.048% Cu, 4.08% Pb & 2.99% Zn
Including	28.7	33.3	4.6m @ 0.52g/t Au, 77.2g/t Ag, 0.043% Cu, 5.85% Pb & 3.43% Zn
Including	35.3	37.8	2.5m @ 0.38g/t Au, 103g/t Ag, 0.095% Cu, 8.01% Pb & 7.13% Zn

Summary Log

From	To	Graphic	Summary Description (Lith, Altn, Mineralisation)
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			

Frontier Resources Detailed Drill Log

Hole Number		NC50	Sheet No	1	Mineralisation / Alteration and

Full description: including colour, main alteration type and strength, **component minerals** (pref in order of abundance), **rock type, texture, alteration and mineralisation details**
eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets

INTERVAL		ROCK CODES		Alteration summary					Pyrite		Galena		Sphalerite		Biotite		Silica		Sericite		Chlorite		(Ca)CO3		Calc-Sil		Skarn		Magnetic		QVN	Other minerals / texture / colour								
FROM (m)	TO (m)	Strat Code	Rock type	Primary Altn	2nd Altn	3rd Altn	Weathering		Style	Amount %	Style	Amount %	Style	Amount %	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Amount (WMS)	Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour
0.00	2.40		CELUV					Elluvium, mostly crm silicified sandstone clasts to cobble size, within a clayey matrix																																
2.40	5.70		SSAND	Sil				grey and weathered light brown silicified sandstone, pervasive sil(w/m), minor dss sulphide	D	0.5							P	w/m																					w	
5.70	7.20		FALT					grey strongly broken and fractured / likely brittle fault																															s	
7.20	13.40		SSAND	Sil	VSX			grey pervasive sil(w/m) altered sandstone with dss and commonly dentritic pyrite(~1%)	Vn	1							P	w/m																			w/m	
13.40	13.70		QVN	QVN				irregular and broken quartz veined(50%) zone, 45LCA upper contact, minor py frac fill																															m	
13.70	15.40		SSAND	Sil	VSX	DSX		grey sil(w/m) sandstone with dss and commonly dentritic pyrite(~1%)	Vn	1							P	w/m																			w/m	
15.40	15.55		FALT					puggy green fault																															
15.55	18.70		SSAND	Sil	VSX			grey sil(w/m) sandstone with dss and commonly dentritic pyrite(~1%)	Vn	1							P	w/m																			w/m	
18.70	20.00		SKARN	CALS	SKARN			green Skarn(w/m) with irregular zones of cream calc-silicate(m)																			SP	m	P	w/m									w/m	
20.00	25.20		SSAND	DSX	Sil	Flour		grey sil(w/m) sandstone with lht bn dss biotite(w) altered patches at moderate intensity overall; dss pyrite(~1% mostly) ~10% core as local semi-massive sulphide zones, massive galena gashes/veins(tr, <2cm), 23.45 to 23.7m q-cb-flourite-py veining @60 and 25LCA	D	5	Vn	0.5	Vn		D	w																									w	
25.20	26.20		SSAND	Sil	DSX			grey sil(m) sandstone	D								P	m																			w	
26.20	26.60		QVN	QVN				irregular quartz veined(50%) zone, minor py and wolastonite frac fill; no apparent change in rock type either side; similar form to NC51 15 to 16m																															w	
26.60	27.70		SSAND	Sil	DSX			grey sil(m) sandstone	D								P	m																			w	
27.70	31.70		SGRANSAND	SMSX	Biot	Sil		grey & cream Semi-massive sulphide comrising galena(10% local, 1% overall), overprinting grey sandstone with minor granule sandstone interbedds to 12cm, Scattered massive 1 to 3cm msv galena veins of irregular form, but locally sharp straight edged at 80 to 85LCA, including @ 31.2m at 3cm quartz vein at 20LCA.	D	20	D	1			D	w																									w	
31.70	32.00		FALT	QVN				quartz veined zone*80%), possibly brecciated and re-annealed, bear minor remobilised galena and pyrite, ~30LCA; possible fault movement since changes from granule sst to mg hornfels across qvn zone																															w/m	
32.00	32.40		SSAND	SMSX	Biot	Sil		grey & cream Semi-massive sulphide comrising galena(10% local, 1% overall), overprinting grey sandstone, Scattered massive 1 to 3cm msv galena veins of irregular form, strong biotite altn @ lower relatively sharp contact with skarn.	D	20	D	1			D	w																									w	
32.40	35.40		SKARN	SKARN	CALS			green Skarn(m/s), overprinted by irregular patches calc-sil(w/m) alteration																			P	w/m	P	m/s									w	
35.40	39.10		SSILT	MSSX				Massive sulphide, with local semi-massive sulphide zones(20%), Locally thinly banded (bedding replacement?), gal(5%), Sph(?)	D	50	D	5																													w	
39.10	40.10		SKARN	SKARN				green Skarn(m/s); base-metal sulphides are sparse																					P	m/s									w	
40.10	42.60		HORN	Biot	SMSX			bn biotite(m) altered sandstone / hornfels. Local semi-massive sulphide, 2 by 3cm msv gal veins, Gal(1%, overall).	D	10	D	1			P	m																									w	
42.60	44.40		SSAND	Sil				grey sil(w/m) sandstone, ~30cm of relict thin bedding at end interval	D	1							P	w/m																					w	
44.40	44.50		SSAND	Biot				bn biotite(w/m) altered sandstone, sulphide(~3%), gal(tr)	D	3	D	0.1			P	w/m																									w	
44.50	44.80		SKARN	SKARN				mottled semi-pervassive skarn zone																					SP	m									w	
44.80	46.00		SSAND	Biot	DSX			bn biotite(w/m) altered sandstone, sulphide(~3%), gal(tr)	D	3	D	0.1			P	w/m																									w	
46.00	50.70		SSAND	Sil	Biot			mostly grey sil(w/m) sandstone/hornfels with minor patches of brown biotite(w), sulphides(~1%)	D	1					P	w		w/m																							w	

Hole_ID	Depth	Azimuth(TN	Dip	Azimuth(Mag)	Type	Date
NC50	0	213	-45		2	2/08/2009
NC50	15	224	-43	210	1	3/09/2008
NC50	50.2	222	-43	208	1	3/09/2008

Survey type	
1	Single shot down hole camera
2	Measured at collar
3	Inferred survey for display
4	Other - see comments

Down Hole Structural Log - Frontier Resources								Structure Code	
Hole_ID	At	Core angle (LCA)	Structure_type	Comments	Azimuth (True)	Dip	Struc_ID	Face	Facing
NC50	31.2	20	Vn	3cm qvn				Vn	vein
NC50	30.5	80	Vn	msv gal vein					
NC50	30.8	85	Vn	msv gal vein					
NC50	23.5	60	Vn	q-cb-flour-py veining					
NC50	23.6	25	Vn	q-cb-flour-py veining					
NC50	31.8	30	Vn	q-gal-py vein					

Frontier Resources Ltd				Drill Core Recovery & RQD Log			
Hole_ID	From	To	Interval	Measured	Recovery%	Lengths>10cm	RQD %
NC50	0	1.2	1.2	1.1	91.67	0	0.00
NC50	1.2	2.7	1.5	1	66.67	0	0.00
NC50	2.7	4.2	1.5	1.4	93.33	0	0.00
NC50	4.2	5.7	1.5	1.5	100.00	0.3	20.00
NC50	5.7	7.2	1.5	0.75	50.00	0	0.00
NC50	7.2	8.7	1.5	1.3	86.67	0.2	13.33
NC50	8.7	10.2	1.5	1.4	93.33	0.35	23.33
NC50	10.2	11.7	1.5	1.5	100.00	0.5	33.33
NC50	11.7	13.2	1.5	1.1	73.33	0.45	30.00
NC50	13.2	14.7	1.5	1.5	100.00	0.15	10.00
NC50	14.7	17.7	3	3	100.00	0.95	31.67
NC50	17.7	20.7	3	3	100.00	1.2	40.00
NC50	20.7	23.7	3	3	100.00	1.5	50.00
NC50	23.7	26.7	3	3	100.00	2.55	85.00
NC50	26.7	29.7	3	3	100.00	2.7	90.00
NC50	29.7	32.7	3	3	100.00	2.75	91.67
NC50	32.7	35.7	3	3	100.00	3	100.00
NC50	35.7	38.7	3	3	100.00	2.95	98.33
NC50	38.7	41.7	3	3	100.00	2.8	93.33
NC50	41.7	44.7	3	3	100.00	2.15	71.67
NC50	44.7	47.7	3	3	100.00	2.7	90.00
NC50	47.7	50.7	3	3	100.00	1.75	58.33

DAILY DRILLERS DEPTH UPDATE **NC50**

DATE	SHIFT	DRILLER	FROM	TO	DISTANCE	COMMENTS	BRIEF GEO SUMMARY
1/09/2008	Day					Rig Shift	AT Albert Toto
2/09/2008	Day	AT	0	13	16.7		AS Albert Sowiri
2/09/2008	Night	AS	16.7	50.7	16.7		
3/09/2008	Day	AT				DH surveys, pull rods and realign dip for NC51	Surveys at EOH and 15m where low mag/pyrrhotite

Frontier Resources - Sample Recovery and Assay Notes						
Hole_ID	Sample ID	From (m)	To (m)	Interval (m)	Sampled Interval	% Sampled
NC50	434138	0	1.2	1.2	1.1	91.67
NC50	434139	1.2	2.7	1.5	1	66.67
NC50	434140	2.7	4.2	1.5	1.4	93.33
NC50	434141	4.2	5	0.8	0.8	100.00
NC50	434142	5	6	1	1	100.00
NC50	434143	6	7.2	1.2	0.6	50.00
NC50	434144	7.2	8.2	1	0.8	80.00
NC50	434145	8.2	9.2	1	1	100.00
NC50	434146	9.2	10.2	1	1	100.00
NC50	434147	10.2	11.6	1.4	1.4	100.00
NC50	434148	11.6	12.8	1.2	0.8	66.67
NC50	434149	12.8	13.4	0.6	0.6	100.00
NC50	434150	13.4	13.8	0.4	0.4	100.00
NC50	434151	13.8	14.8	1	1	100.00
NC50	434152	14.8	15.9	1.1	1.1	100.00
NC50	434153	15.9	16.9	1	1	100.00
NC50	434154	16.9	18.4	1.5	1.5	100.00
NC50	434155	18.4	19.1	0.7	0.7	100.00
NC50	434156	19.1	20.1	1	1	100.00
NC50	434157	20.1	21.1	1	1	100.00
NC50	434158	21.1	22.1	1	1	100.00
NC50	434159	22.1	23.1	1	1	100.00
NC50	434160	23.1	24	0.9	0.9	100.00
NC50	434161	24	25	1	1	100.00
NC50	434162	25	26.2	1.2	1.2	100.00
NC50	434163	26.2	26.6	0.4	0.4	100.00
NC50	434164	26.6	27.7	1.1	1.1	100.00
NC50	434165	27.7	28.7	1	1	100.00
NC50	434166	28.7	29.7	1	1	100.00
NC50	434167	29.7	30.7	1	1	100.00
NC50	434168	30.7	31.7	1	1	100.00
NC50	434169	31.7	32.3	0.6	0.6	100.00
NC50	434170	32.3	33.3	1	1	100.00
NC50	434171	33.3	34.3	1	1	100.00
NC50	434172	34.3	35.3	1	1	100.00
NC50	434173	35.3	36.6	1.3	1.3	100.00
NC50	434174	36.6	37.8	1.2	1.2	100.00
NC50	434175	37.8	39.1	1.3	1.3	100.00
NC50	434176	39.1	40.1	1	1	100.00
NC50	434177	40.1	41.1	1	1	100.00
NC50	434178	41.1	42.1	1	1	100.00
NC50	434179	42.1	43.1	1	1	100.00
NC50	434180	43.1	44	0.9	0.9	100.00
NC50	434181	44	45	1	1	100.00
NC50	434182	45	46	1	1	100.00
NC50	434183	46	47	1	1	100.00
NC50	434184	47	48	1	1	100.00
NC50	434185	48	49	1	1	100.00
NC50	434186	49	50	1	1	100.00
NC50	434187	50	50.7	0.7	0.7	100.00

Frontier Resources Ltd					Down hole assay data						
Hole_ID	From	To	Au_ppm	Au_R	Ag_ppm	As_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Spl_Id	Lab Batch
NC50	0	1.2	0.06		1	117	24	91	28	434138	FN20080922
NC50	1.2	2.7	0.02		-1	179	56	115	72	434139	FN20080922
NC50	2.7	4.2	-0.01		-1	292	115	254	196	434140	FN20080922
NC50	4.2	5	-0.01		-1	165	42	266	102	434141	FN20080922
NC50	5	6	-0.01		-1	219	91	159	81	434142	FN20080922
NC50	6	7.2	0.02		1	456	444	1232	732	434143	FN20080922
NC50	7.2	8.2	-0.01		-1	249	34	441	318	434144	FN20080922
NC50	8.2	9.2	-0.01		1	496	103	278	1102	434145	FN20080922
NC50	9.2	10.2	0.02		-1	263	36	220	288	434146	FN20080922
NC50	10.2	11.6	-0.01		-1	242	49	303	112	434147	FN20080922
NC50	11.6	12.8	0.32		9	260	394	4220	7537	434148	FN20080922
NC50	12.8	13.4	0.09		1	223	53	514	197	434149	FN20080922
NC50	13.4	13.8	0.05		-1	293	262	470	852	434150	FN20080922
NC50	13.8	14.8	1.41		2	458	423	768	1669	434151	FN20080922
NC50	14.8	15.9	0.69		-1	636	171	129	140	434152	FN20080922
NC50	15.9	16.9	0.39		-1	405	130	256	192	434153	FN20080922
NC50	16.9	18.4	0.05		-1	178	99	275	329	434154	FN20080922
NC50	18.4	19.1	-0.01		1	303	145	397	510	434155	FN20080922
NC50	19.1	20.1	-0.01		1	50	41	500	862	434156	FN20080922
NC50	20.1	21.1	0.02		5	12	33	5470	4646	434157	FN20080922
NC50	21.1	22.1	-0.01		3	22	47	1207	1557	434158	FN20080922
NC50	22.1	23.1	-0.01		1	146	77	146	117	434159	FN20080922
NC50	23.1	24	-0.01		1	144	33	44	168	434160	FN20080922
NC50	24	25	0.57		35	193	842	28900	36500	434161	FN20080922
NC50	25	26.2	-0.01		10	9	241	6704	7441	434162	FN20080922
NC50	26.2	26.6	-0.01		1	-1	110	100	109	434163	FN20080922
NC50	26.6	27.7	-0.01		10	60	449	3177	1102	434164	FN20080922
NC50	27.7	28.7	0.11		29	99	722	13200	8984	434165	FN20080922
NC50	28.7	29.7	0.94		54	175	451	33000	18900	434166	FN20080922
NC50	29.7	30.7	0.67		120	127	709	90400	57500	434167	FN20080922
NC50	30.7	31.7	0.37		62	72	440	54900	44000	434168	FN20080922
NC50	31.7	32.3	0.29		60	122	333	48200	36500	434169	FN20080922
NC50	32.3	33.3	0.24		83	24	171	62100	15600	434170	FN20080922
NC50	33.3	34.3	-0.01		1	10	98	421	2594	434171	FN20080922
NC50	34.3	35.3	0.05		11	31	208	6183	12000	434172	FN20080922
NC50	35.3	36.6	0.35		67	162	733	58100	65600	434173	FN20080922
NC50	36.6	37.8	0.42		142	249	1189	104000	77400	434174	FN20080922
NC50	37.8	39.1	0.05		25	160	482	25700	18600	434175	FN20080922
NC50	39.1	40.1	0.5		3	-1	235	1650	2127	434176	FN20080922
NC50	40.1	41.1	0.06		28	12	213	22600	14400	434177	FN20080922
NC50	41.1	42.1	-0.01		5	10	107	2254	1815	434178	FN20080922
NC50	42.1	43.1	0.07		34	16	165	26350	394	434179	FN20080922
NC50	43.1	44	-0.01		3	86	218	628	134	434180	FN20080922
NC50	44	45	-0.01		11	2	125	5900	2622	434181	FN20080922
NC50	45	46	0.03		24	19	367	21600	12400	434182	FN20080922
NC50	46	47	-0.01		29	4	256	21200	3274	434183	FN20080922
NC50	47	48	-0.01		10	62	447	5275	5662	434184	FN20080922
NC50	48	49	-0.01		8	16	120	4175	3301	434185	FN20080922
NC50	49	50	-0.01		4	94	85	3603	2459	434186	FN20080922
NC50	50	50.7	-0.01		1	119	85	217	621	434187	FN20080922

Drill Log — Frontier Resources Ltd

PROJECT:	Gowrie Park	**HOLE NO:**	NC51	**DRILL TYPE:**	Diamond
PROSPECT:	Narrawa Creek	**DATE COMMENCED:**	3/09/2008	**DRILLER:**	Frontier Resources Ltd.
TENENMENT:	RL3/2005	**DATE COMPLETED:**	5/09/2008	**LOGGED BY:**	R Reid
EASTING	425,509.93	**TOTAL DEPTH (m):**	71.9	**LOGGING DATE:**	4/09/2008
NORTHING	5,406,677.88	**AZIMUTH (TN):**	213	**OXIDATION**	BOCO:
COLLAR RL:	525 (AGD66, Zone55)	**DIP:**	-60		BOPO:

Drilling details

Core Size	From	To
PQ		
HQ	0.00	7.40
NQ	7.40	71.90
BQ		

Comments

Hole designed to:- Testing section 5937.5mE; Resource infill drilling

Significant Analysis Intervals:

Hole_ID	From	To	Interval
NC51	17	41.6	24.6m @ 0.99g/t Au, 22.9g/t Ag, 0.074% Cu, 1.31% Pb & 1.36% Zn
Including	18	19	1m @ 12g/t Au, 4g/t Ag, 0.141% Cu, 0.14% Pb & 0.1% Zn
Including	27	28	1m @ 3.01g/t Au, 24g/t Ag, 0.156% Cu, 1.61% Pb & 1.47% Zn
Including	27	34	7m @ 0.84g/t Au, 12.2g/t Ag, 0.088% Cu, 0.41% Pb & 0.39% Zn
Including	37	41.6	4.6m @ 1.1g/t Au, 89g/t Ag, 0.093% Cu, 5.84% Pb & 5.85% Zn
Including	38.1	39.5	1.4m @ 2.96g/t Au, 187.4g/t Ag, 0.127% Cu, 11.06% Pb & 12.51% Zn
NC51	16	61.6	45.6m @ 0.54g/t Au, 14.3g/t Ag, 0.046% Cu, 0.79% Pb & 0.82% Zn

Summary Log

From	To	Graphic	Summary Description (Lith, Altn, Mineralisation)
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			

Frontier Resources Detailed Drill Log

Hole Number: NC51 | Sheet No: 1 | Mineralisation / Alteration and

Full description: **including colour, main alteration** type and strength, **component minerals** (pref in order of abundance), **rock type, texture, alteration and mineralisation details**

eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets

INTERVAL FROM (m)	TO (m)	ROCK CODES Strat Code	Rock type	Alteration summary Primary Altn	2nd Altn	3rd Altn	Weathering	Description	Pyrite Style	Pyrite Amount %	Galena Style	Galena Amount %	Sphalerite Style	Sphalerite Amount %	Biotite Style	Biotite Amount (WMS)	Silica Style	Silica Amount (WMS)	Sericite Style	Sericite Amount (WMS)	Chlorite Style	Chlorite Amount (WMS)	(Ca)CO3 Style	(Ca)CO3 Amount (WMS)	Calc-Sil Style	Calc-Sil Amount (WMS)	Skarn Style	Skarn Amount (WMS)	Magnetic Style	Magnetic Amount (WMS)	QVN Amount (WMS)	Other minerals / texture / colour Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour
0.00	4.30		HORN				W	light gn fg/mg hornfels																														w/m	
4.30	7.40	FALT	FALT					light gn fg/mg hornfels, commonly highly broken(s) - faulted																														s	
7.40	8.50		HORN	SKARN	Biot			gn skarn(w) over bn hornfels, biot(w), broken(m/s)							SP	w											P	w										m/s	
8.50	10.40		HORN	Sil	DSX			grey/lht gn fg/mg hornfels, grey pervassive silica(m), frac fill and weakly dentritic py(w, 0.5%) bk(m)	Vn	0.5							P	m																				m	
10.40	15.30		HORN	Sil				grey/lht gn fg/mg hornfels, grey pervassive silica(m), py(<0.5%), bk(w)	D	0.1							P	m																				w/m	
15.30	16.00		HORN	QVN				quartz - veined(w/m, 20%) zone, irregular margins with one 45LCA. Py(1%) in fractures in quartz veining; host in lht gn hornfels	Vn	0.5																					w/m							w	
16.00	17.10		HORN	Sil				grey/lht gn fg/mg hornfels, grey pervassive silica(m), py(<0.5%), bk(w)	D	0.1																												w	
17.10	17.40		GWAC	DSX	Biot			bn mg/cg greywacke, biot(w/m), py(8%) dss	D	8					SP	w/m																							
17.40	17.75		SGRANSAND	SMSX				granule sandstone, semi massive sulphide, py(40%)	Rp	40																													
17.75	20.00		SSILT	DSX				thin bedded (0.5 to 1cm, ~65LCA) fg sst/slst, py(10%), gal(tr)	D	10	D	0.1																											
20.00	22.70		SGRANSAND	SMSX				granule sandstone / cg sst interbeds of ~10 to 20cm (~60LCA) within sil(m) fg sst/slst. Semimassive sulphide replaces matrix in coarser interbeds. Py(10%), gal(0.5)	D	10	D	0.5																											
22.70	23.00		SSAND	SKARN				gn fg sst, skarn(w/m)																															
23.00	23.50		SSILT	SKARN	CALS	Sil		grey/gn laminated bedding is pervasively silicified but overprinted/broken by irreg gn/crm skarn(m) & calc-sil(w/m)																		w/m		m											
23.50	25.70		SKARN	SKARN	Sil	CALS		gn & crm skarn(m) overprints perv sil altn, with calc-sil(m) locally										w								w		m											
25.70	26.00		SSILT	CALS	SKARN			laminated bedded slst, calc-sil(m), skarn(m)																		m		m											
26.00	26.90		CALS	CALS		SKARN		strong calc-silicate alteration, minor skarn overprint, no sulphide																		s		w											
26.90	28.40		SMSX					grey hornfels sst within semi-massive sulphide bearing py(40%), gal(5+%). Sulphide possibly pervades granule sst bed	D	40	D	5																											
28.40	29.90		HORN	Sil	Biot			grey hornfels greenish pervasive silica(w/m) overprints relict biotite(w) alteration								w		w/m																					
29.90	30.50		FALT	Cb				gn puggy faulted zone(50%) bearing relict crm cb? infil(w) within grey hornfels, no significant change in lithology evident across fault,																w															
30.50	31.90		HORN	Sil	Biot			grey hornfels greenish pervasive silica(w/m) overprints relict biotite(w) alteration								w		w/m																					
31.90	35.70		SGRANSAND	SMSX				semi-massive sulphide, py(30%), replacing granule sandstone interbeds of 3 to 50c thickness within thin bedded slst.	Rp	30																													
35.70	35.80		HORN	FLOUR				flourite veined interval within hornfels/sst																															
35.80	36.9		SGRANSAND	SMSX				semi-massive sulphide, py(30%), replacing granule sandstone interbeds within thin bedded slst.	Rp	30																													
36.90	37.20		SKARN	CALS	SKARN			gn & crm skarn(w/m), calc-silicate(m)																		m		w/m											
37.20	38.12		SSILT	SMSX				Semi-massive sulphide increasing in intensity downhole, often thin/lam banded (~65 to 70LCA), py(35%), gal(4%)	D	35	D	4																											
38.12	39.65		MSSX	MSSX				Massive sulphide, locally banded but commonly very coarse grained (to 1cm+) recrystallised galen(20%) sph(20%), py(40%). Recrystalised veing forms 40% of interval and has a breccia like appearance bearing angular clasts of dbn sphalerite (Sim to in NC22). Grades rapidly to dbn semi-massive sulphide over lower 20cm. Upper contact sharp but slightly irregular (~75LCA)	Rp	40	Vn	20	Vn	20																									
39.65	40.10		SKARN	SKARN	Sil			gn skarn(m), sil(m), poorly mineralised										m										m											
40.10	40.50		MSSX	MSSX				Massive sulphide, gal(10%), py(60%)	Rp	60		10																											
40.50	41.65		HORN	SMSX	Biot			bn hornfels overprinted by semi-massive sulphide, py(20%), gal(4%), fades to bn hornfels at end interval, minor(3) massive gal-sph vein gashes of 1 to 3cm thickness.		20	Vn	4																											
41.65	42.80		SKARN	SKARN	Sil			gn skarn(m/s), sil(w/m)										w/m										m/s											
42.80	46.90		HORN	Biot	Sil			mostly bn fg/mg hornfels, biot(w) with grey / pgn perv sil(w) overprint, bk(m)								w		w																				m	
46.90	47.9		HORN	CALS	Biot			crm semi-pervasive calc-sil(m/s) overprints bn hornfels, semi-perv sil(m/s), minor gn skarn-li veinlets, py(<1%)	D	0.5						w		m/s								m/s													
47.90	48.7		HORN	Biot				brown hornfels, biotite(m), minor veining includes galena-green (pyroxene/chlorite) mineral / skarn veined (2cm) and flourite-quartz 0.5cm							P	m																							
48.70	50.05		HORN	SIL	Biot			grey sil(m) pervasive alteration over brown relict hornfels, biotite(w)							SP	vw		m																					
50.05	50.35		HORN	Biot	DSX			brown hornfels, biotite(m), dss py(2%)	D	2																													
50.35	51.9		HORN	SIL	CALS	Biot		grey sil(m) pervasive alteration over brown relict hornfels, biotite(w), calc-sil(w)							SP	vw		m							SP	w													
51.90	53		FALT		CALS			Fault, broken zone with local fault breccia with angular frags, matrix infilled by tan calc-sil? This brittle fracture at ~15LCA crosscut by apple green -silica veins(w/m) @ 20LCA (opposed)																	Vn	w/m													s	
53.00	55.5		HORN	Biot	Sil			brown hornfels, biotite(m), semi-pervasive grey sil(w/m) overall but locally strong zones over 25cm, fracture fill py(<1%)	Vn	0.5					P	m	SP	w/m																					
55.50	57.4		SMSAND	Biot	SMSX			brown medium grained textured hornfels, biotite(m), fades over 20cm to semi-massive sulphide (py ~15%) at either end	Rp	5					P	m																							
57.40	58		FALT	QVN				Fault - milky quartz-vein(~10-15LCA upper and lower contacts), vuggy with drusy quartz to 2-3cm, sparse late apple green fracture fill (weakly UV light reactive - flourite?), minor euhedral py(<0.5%) and calcite within vugs, sparse molybdenite disseminated near down hole contact																							s	Mo	D	0.1					
58.00	59.6		HORN		Biot			brown hornfels, biotite(w), py(2%) dss	D	2					P	w																							
59.60	60.6		HORN	SMSX	Biot			Semi-massive sulphide, gal(~1%), py(20%+) in brown biotitic hornfels	Rp	20	D	1			P	m																							
60.60	61.88		HORN	Sil	Biot			grey / brown hornfels, biotite(w) overprinted by sil(w/r							P	w	SP	w																					
61.88	62.7		HORN	DSX	Biot			brown hornfels, biotite(m), py dss & vnd (5%) to locally semi-massive sulphide (py ~15%), includes a 1cm (30LCA) brecciated py-flour-vein	Rp	5					P	m																							
62.70	65.5		HORN	Sil	VSX			grey sil(m/s), py-vnd(1%) locally dentritic																															
65.50	66		SSILT	Sil	Biot	DSX		brown hornfels, dss py(3%), sil(w/m), thin banded appearance (after slst/fg sst?)	D	3					P	w	SP	w/m																					
66.00	70.8		HORN	Sil		Biot		grey sil(m) with local patchy brown hornfels							P	w	P	m																					
70.80	71.7		HORN	SMSX	Biot			brown hornfels with semi-massive sulphide- py(30%)	Rp	30					P	w/m																							
71.70	71.9		HORN	Sil		Biot		grey / brown hornfels, biotite(w) overprinted by sil(w/m)							P	w	SP	w/m																					

Down Hole Surveys - Frontier Resources						
Hole_ID	Depth	Azimuth(TN)	Dip	Azimuth(Mag)	Type	Date
NC51	0	213	-60		2	3/09/2008

Survey type	
1	Single shot down hole camera
2	Measured at collar
3	Inferred survey for display
4	Other - see comments

Down Hole Structural Log - Frontier Resources								Structure Code	
Hole_ID	At	Core angle (LCA)	Structure_type	Comments	Azimuth (True)	Dip	Struc_ID	Face	Facing
NC51	15.8	45	Vn	qvn				Ft	Fault
NC51	21	60	Bd	So				Sh	shear
NC51	35.8	25	Vn	flourite veining				Vn	vein
NC51	38.1	75	Vn	slightly irregular contact to Massive galena vein / zone				Fo	Foliation
NC51	21.2	50	Bd	granule sst / slst interbeds	101	64		Fr	fracture
NC51	21.1	45	Vn	1mm py veinlet	195	22		Jt	Joint
NC51	21.3	50	Vn	1mm py veinlet	175	14		Bd	Bedding
NC51	21	55	Fr	fracture = So?	106	58		Fold	Fold
NC51	21	10	Vn	py-flour - calcsil vein	345	58		con	contact
NC51	37.3	65	bnd	banding in SMS				lay	layering
NC51	37.5	70	bnd	banding in SMS				bnd	banding
NC51	52	15	Ft	brittle fault				Ln	Lineation
NC51	52.5	20	Vn	apple green -silica veins				CATA	Cataclasite
NC51	57.4	10	Vn	q-vn contact				Slck	Slickensides
NC51	58	10	Vn	q-vn (+/-Mo) contact				Pu	Puggy seam
NC51	62.2	30	Vn	1cm brecciated py-flour-vein				Cl	Cleavage

Frontier Resources Ltd				Drill Core Recovery & RQD Log			
Hole_ID	From	To	Interval	Measured	Recovery%	Lengths>10cm	RQD %
NC51	0	1.4	1.4	0.85	60.71		0.00
NC51	1.4	2.9	1.5	1.1	73.33		0.00
NC51	2.9	4.4	1.5	1.1	73.33	0.3	20.00
NC51	4.4	5.9	1.5	1.05	70.00	0.45	30.00
NC51	5.9	7.4	1.5	1.15	76.67	0.15	10.00
NC51	7.4	8.9	1.5	0.85	56.67	0.1	6.67
NC51	8.9	11.9	3	2.8	93.33	1.3	43.33
NC51	11.9	14.9	3	2.25	75.00	0.9	30.00
NC51	14.9	17.9	3	2.7	90.00	1.3	43.33
NC51	17.9	20.9	3	2.85	95.00	1.9	63.33
NC51	20.9	23.9	3	3	100.00	2	66.67
NC51	23.9	26.9	3	3	100.00	2.7	90.00
NC51	26.9	29.9	3	3	100.00	2.1	70.00
NC51	29.9	32.9	3	3	100.00	2.5	83.33
NC51	32.9	35.9	3	3	100.00	2.5	83.33
NC51	35.9	38.9	3	3	100.00	2	66.67
NC51	38.9	41.9	3	2.8	93.33	2.5	83.33
NC51	41.9	44.9	3	3	100.00	0.85	28.33
NC51	44.9	47.9	3	3	100.00	1.75	58.33
NC51	47.9	50.9	3	3	100.00	2.5	83.33
NC51	50.9	53.9	3	3	100.00	1.75	58.33
NC51	53.9	56.9	3	3	100.00	1.85	61.67
NC51	56.9	59.9	3	2.7	90.00	1.8	60.00
NC51	59.9	61.4	1.5	1.54	102.67	1.49	99.33
NC51	61.4	62.9	1.5	1.5	100.00	1.4	93.33
NC51	62.9	64.4	1.5	1.5	100.00	1.35	90.00
NC51	64.4	65.9	1.5	1.5	100.00	1.1	73.33
NC51	65.9	68.9	3	3	100.00	1.6	53.33
NC51	68.9	71.9	3	3	100.00	0.65	21.67

DAILY DRILLERS DEPTH UPDATE **NC51**

DATE	SHIFT	DRILLER	FROM	TO	DISTANCE	COMMENTS
3/09/2008	Day	Albert T	0	14	14	DH surveys, pull rods and realign dip for NC51
3/09/2008	Night	Albert S	14	37	23	
4/09/2008	Day	Albert T	37	47	10	Rods stuck, two rod pulls

Frontier Resources - Sample Recovery and Assay Notes						
Hole_ID	Sample ID	From (m)	To (m)	Interval (m)	Sampled Interval	% Sampled
NC51	433929	7.4	9.4	2		0.00
NC51	433930	9.4	11.4	2		0.00
NC51	433931	11.4	13.4	2		0.00
NC51	433932	13.4	15	1.6		0.00
NC51	433933	15	16	1		0.00
NC51	433934	16	17	1		0.00
NC51	433935	17	18	1		0.00
NC51	433936	18	19	1		0.00
NC51	433937	19	20	1		0.00
NC51	433938	20	21	1		0.00
NC51	433939	21	22	1		0.00
NC51	433940	22	23	1		0.00
NC51	433941	23	24	1		0.00
NC51	433942	24	25	1		0.00
NC51	433943	25	26	1		0.00
NC51	433944	26	27	1		0.00
NC51	433945	27	28	1		0.00
NC51	433946	28	29	1		0.00
NC51	433947	29	29.9	0.9		0.00
NC51	433948	29.9	31	1.1		0.00
NC51	433949	31	32	1		0.00
NC51	433950	32	33	1		0.00
NC51	433951	33	34	1		0.00
NC51	433952	34	35	1		0.00
NC51	433953	35	36	1		0.00
NC51	433954	36	37	1	0.87	87.00
NC51	433955	37	38.1	1.1		0.00
NC51	433956	38.1	39	0.9		0.00
NC51	433957	39	39.5	0.5		0.00
NC51	433958	39.5	40.1	0.6		0.00
NC51	433959	40.1	41	0.9		0.00
NC51	433960	41	41.6	0.6		0.00
NC51	433961	41.6	42.5	0.9		0.00
NC51	433962	42.5	43.5	1		0.00
NC51	433963	43.5	44.5	1		0.00
NC51	433964	44.5	46	1.5		0.00
NC51	433965	46	47	1		0.00
NC51	433966	47	48	1		0.00
NC51	433967	48	49	1		0.00
NC51	433968	49	50	1		0.00
NC51	433969	50	51	1		0.00
NC51	433970	51	52	1		0.00
NC51	433971	52	53	1		0.00
NC51	433972	53	54	1		0.00
NC51	433973	54	55.5	1.5		0.00
NC51	433974	55.5	56.5	1		0.00
NC51	433975	56.5	57.4	0.9		0.00
NC51	433976	57.4	58	0.6		0.00
NC51	433977	58	59.6	1.6		0.00
NC51	433978	59.6	60.6	1		0.00
NC51	433979	60.6	61.6	1		0.00
NC51	433980	61.6	62.6	1		0.00
NC51	433981	62.6	63.6	1		0.00
NC51	433982	63.6	65	1.4		0.00
NC51	433983	65	66	1		0.00
NC51	433984	66	67	1		0.00
NC51	433985	67	68	1		0.00
NC51	433986	68	69	1		0.00
NC51	433987	69	70	1		0.00
NC51	433988	70	71	1		0.00
NC51	433989	71	71.9	0.9		0.00

Frontier Resources Ltd					Down hole assay data									
Hole_ID	From	To	Au_ppm	Au_R	Ag_ppm	As_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Sn_ppm	W_ppm	Mo_ppm	Spl_Id	Lab Batch
NC51	7.4	9.4	-0.01		-1	208	23	97	364				433929	FN20080922
NC51	9.4	11.4	-0.01		-1	6	56	115	56				433930	FN20080922
NC51	11.4	13.4	-0.01		2	10	120	2301	2453				433931	FN20080922
NC51	13.4	15	-0.01		-1	11	54	110	103				433932	FN20080922
NC51	15	16	0.02		1	153	57	382	543				433933	FN20080922
NC51	16	17	0.02		4	203	176	2229	611				433934	FN20080922
NC51	17	18	0.25		10	233	670	5752	5676				433935	FN20080922
NC51	18	19	12		4	174	1410	1431	1005				433936	FN20080922
NC51	19	20	0.7		9	346	697	2788	5424				433937	FN20080922
NC51	20	21	0.04		6	327	765	2663	3984				433938	FN20080922
NC51	21	22	0.12		9	396	1058	3339	5589				433939	FN20080922
NC51	22	23	0.04		11	357	956	2474	3563				433940	FN20080922
NC51	23	24	0.02		1	79	43	242	430				433941	FN20080922
NC51	24	25	-0.01		-1	140	35	82	169				433942	FN20080922
NC51	25	26	0.05		1	130	17	204	437				433943	FN20080922
NC51	26	27	0.12		6	483	128	3857	2654				433944	FN20080922
NC51	27	28	3.01		24	1994	1557	16100	14700				433945	FN20080922
NC51	28	29	0.33		12	407	813	3430	3131				433946	FN20080922
NC51	29	29.9	0.12		-1	1423	67	89	77				433947	FN20080922
NC51	29.9	31	0.51		2	1063	173	83	100				433948	FN20080922
NC51	31	32	1.16		2	527	675	43	67				433949	FN20080922
NC51	32	33	0.31		2	1523	1421	41	53				433950	FN20080922
NC51	33	34	0.38		43	412	1472	9084	8914				433951	FN20080922
NC51	34	35	0.05		2	890	608	105	2508				433952	FN20080922
NC51	35	36	0.03		6	467	600	576	5735				433953	FN20080922
NC51	36	37	0.03		4	476	759	246	261				433954	FN20080922
NC51	37	38.1	0.53		35	2553	950	28600	20800				433955	FN20080922
NC51	38.1	39	1.3		226	488	1329	120000	138000				433956	FN20080922
NC51	39	39.5	5.95		118	324	1171	93800	102000				433957	FN20080922
NC51	39.5	40.1	0.09		6	407	153	4255	4063				433958	FN20080922
NC51	40.1	41	0.2		59	415	1183	49500	48100				433959	FN20080922
NC51	41	41.6	0.15		86	285	511	58500	41800				433960	FN20080922
NC51	41.6	42.5	-0.01		1	437	21	533	371				433961	FN20080922
NC51	42.5	43.5	-0.01		1	16	54	649	1639				433962	FN20080922
NC51	43.5	44.5	-0.01		-1	303	91	144	207				433963	FN20080922
NC51	44.5	46	-0.01		-1	139	13	56	70				433964	FN20080922
NC51	46	47	-0.01		-1	10	22	118	340				433965	FN20080922
NC51	47	48	-0.01		4	26	68	3092	1038				433966	FN20080922
NC51	48	49	-0.01		6	33	128	4519	4407				433967	FN20080922
NC51	49	50	-0.01		-1	132	64	306	322				433968	FN20080922
NC51	50	51	-0.01		10	67	147	8191	6889				433969	FN20080922
NC51	51	52	-0.01		3	95	48	2003	1959				433970	FN20080922
NC51	52	53	-0.01		2	257	78	2642	2225				433971	FN20080922
NC51	53	54	-0.01		7	49	147	613	119				433972	FN20080922
NC51	54	55.5	0.03		2	204	87	741	478				433973	FN20080922
NC51	55.5	56.5	-0.01		1	270	276	120	199				433974	FN20080922
NC51	56.5	57.4	-0.01		1	1070	413	48	118	80	190	-1	433975	FN20080922 & 20090203
NC51	57.4	58	-0.01		-1	120	33	31	49	50	240	134	433976	FN20080922 & 20090203
NC51	58	59.6	-0.01		8	255	317	2059	2678	150	170	4	433977	FN20080922 & 20090203
NC51	59.6	60.6	0.02		30	219	354	9484	15100				433978	FN20080922
NC51	60.6	61.6	-0.01		3	154	163	1277	1684				433979	FN20080922
NC51	61.6	62.6	-0.01		2	76	978	170	174				433980	FN20080922
NC51	62.6	63.6	-0.01		-1	167	120	73	116				433981	FN20080922
NC51	63.6	65	-0.01		-1	195	96	26	28				433982	FN20080922
NC51	65	66	-0.01		-1	103	287	78	126				433983	FN20080922
NC51	66	67	-0.01		-1	119	93	10	24				433984	FN20080922
NC51	67	68	-0.01		-1	100	47	47	53				433985	FN20080922
NC51	68	69	-0.01		-1	4	71	7	39				433986	FN20080922
NC51	69	70	-0.01		-1	236	77	19	33				433987	FN20080922
NC51	70	71	-0.01		1	553	684	39	58				433988	FN20080922
NC51	71	71.9	-0.01		2	415	473	198	1322				433989	FN20080922

Drill Log — Frontier Resources Ltd

PROJECT:	Gowrie Park	**HOLE NO:**	NC52	**DRILL TYPE:**	Diamond
PROSPECT:	Narrawa Creek	**DATE COMMENCED:**	8/09/2008	**DRILLER:**	Frontier Resources Ltd.
TENENMENT:	RL3/2005	**DATE COMPLETED:**	10/09/2008	**LOGGED BY:**	R Reid
EASTING	425,510.00	**TOTAL DEPTH (m):**	82.7	**LOGGING DATE:**	
NORTHING	5,406,677.97	**AZIMUTH (TN):**	213	**OXIDATION** BOCO:	3
COLLAR RL:	525 (AGD66, Zone55)	**DIP:**	-75	BOPO:	32

Drilling details

Core Size	From	To
PQ		
HQ	0.00	7.70
NQ	7.70	82.70
BQ		

Comments

Hole designed to:- Testing section 5937.5mE; Resource infill drilling

Significant Analysis Intervals:

Hole_ID	From	To	Interval
NC52	25	27	2m @ 2.61g/t Au, 3.5g/t Ag, 0.019% Cu, 0.02% Pb & 0.03% Zn
NC52	26.00	27.00	1m @ 4.29g/t Au, 2g/t Ag, 0.002% Cu, 0.02% Pb & 0.01% Zn

Summary Log

From	To	Graphic	Summary Description (Lith, Altn, Mineralisation)
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			

Frontier Resources Detailed Drill Log

Hole Number	NC52	Sheet No	1	Mineralisation / Alteration and	**Full description: including colour, main alteration** type and strength, **component minerals** (pref in order of abundance), **rock type, texture, alteration and mineralisation details**

INTERVAL		ROCK CODES		Alteration summary					Pyrite		Galena		Sphalerite		Biotite		Silica		Sericite		Chlorite		(Ca)CO3		Calc-Sil		Skarn		Magnetic		QVN	Other minerals / texture / colour								
FROM (m)	TO (m)	Strat Code	Rock type	Primary Altn	2nd Altn	3rd Altn	Weathering	eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets	Style	Amount %	Style	Amount %	Style	Amount %	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Amount (WMS)	Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour
0.00	3.00		CELUV					weathered elluvium																															
3.00	6.00		SMSAND		Sil			weathered and broken(w/m) commonly poorly sorted mg q-wacke. Patches semi-perv sil(w) and lht green semi-perv sil(w), minor py(<0.5% overall) patches	D	0.5							P	w																								w/m	
6.00	8.70		SMSAND		Sil	Biot		grey to light brown, mg poorly sorted q-sandstone/wacke, minor dark grains, perv sil(w), biot(w), sulphide, mostly py to 3% locally	D	1					P	w	P	w																								w/m	
8.70	10.00		FALT	Sil				AA, strongly broken ground in tan coloured fg q-sst, sil(m) initially in contact with / followed by grey silicifffied sandstone									P	m																								s	
10.00	12.95		SMSAND	Sil	CALS	DSX		grey silcified(m) and calc-sil(m) altered mostly mg poorly sorted q-sst/wacke. Calc-sil has semi-pervassive wispy ended form filling matrix, sparse relict biotised zones, disseminated and locally weak fracture fill pyrite(3%), broken(w)	D	3							P	m							SP	m																w	
12.95	13.70		SCSAND	Sil	CALS	Biot		AA, but cg, locally weakly lithic bearing to 4mm, q-wacke, 20cm of biot(m) with py(5%); similar to granule sandstone	D	3							P	m																								w	
13.70	15.00		FALT	Sil				AA strongly broken, rubbly brittle faulted	D	3																														s	
15.00	16.00		SCSAND	Sil	CALS			grey silcified(m) and calc-sil(m) altered mostly mg-cg poorly sorted q-sst/wacke. disseminated and locally weak fracture fill pyrite(2%), broken(w)	D	2																																w	
16.00	19.10		FALT	Sil	DSX			mod/strongly broken zone, rubbly zones common --brittle faulted within AA - silicified cg poorly sorted q-sst/wacke, locally SMS with py(10%) over 10cm	D	3							P	m																								m/s	
19.10	20.66		SKARN	SKARN				skarn(m/s) relatively homogeneous likely mg sst protolith, local zones bearing sparse cg q-grains toward end interval, common spooted texture with relict clast like islands of biot-sil - spuedo clastic texture but apparently relict precursor altn.																				P	m/s												w	
20.66	21.05		FALT	SKARN				brittle fault - rubble zone within AA skarn																			P	m/s												s	
21.05	22.50		SKARN	SKARN	Sil			dark green skarn(m/s) with mostly granule sandstone, with finer grained interbeds - relict bedding local @ 85LCA, weak grading and scoured base in 5cm granule conglomerate interbed suggests facing SW up. Similar textures to 19.1 to 20.6 but increasing lht green semi-perv sil(w/m)									SP	w/m										P	m/s												w	
22.50	23.20		HORN	CALS	SKARN	Biot		sil/pink perv calc-sil?(m) with relict islands of brown hornfels, skarn(w/m), likely after mg hornfels							w											m	P	w												w	
23.20	24.20		SSILT	CALS	SKARN	Biot		sil/pink perv calc-sil?(m) with relict islands of brown hornfels, skarn(w), thin bedded @ 23.2 to 24.2m @~80LCA,							w											m	P	w												w	
24.20	25.80		HORN	CALS	SKARN	Biot		sil/pink perv calc-sil?(m; possibly verging to gar rich variety?) with relict islands of brown hornfels, skarn(w)							w											m	P	w												w	
25.80	27.80		FALT	SKARN				skarn(m/s) broken zone , rubly but with fractures at low angle to core ~5LCA - faulted - SW dip? Possibly not main fault orientation																			P	m/s												s	
27.80	30.80		SMSAND	SKARN				skarnified protolith mg ? Sst, dss py locally 8%, mostly 3%	D	3															P	m													
30.80	31.30		FALT	Sil				tan coloured rubbly broken faulted zone, oxidised(m) relict perv cream sil(m/s)									P	m/s																					
31.30	39.00		SFSAND	Sil		Biot		grey/gn sil(m) over bn biot(w/m) mostly fg-mg relict q-sst / hornfels, minor py dss in more biotite rich zones	D	1					w/m		P	m																									
39.00	40.50		SMSAND	QVN	Sil			quartz veined zone(5%) within mostly lht gn / grey hornfels, after mg q-sst?, qvn's mostly 75 to 80LCA locally bearing crack fill pyrite blebs.	Vn	0.1							P	m																	s								
40.50	44.00		SMSAND	CALS	Sil	SKARN		mottled zone over mostly mg relict q-sst/wacke -honrfels, semi-perv calc-sil(w/m), local skarn(m, w overall) zones and semi-perv lht gn sil(w/m), which appears to be periferal to skarn. Some zones brown biotite sst, Minor dss & frac fill py veining	vn	0.1					w		P	w/m								w/m			w												w	
44.00	44.50		FALT	QVN				broken faulted zone, sparse milky etched vein quartz																									w						s	
44.50	47.00		HORN	Sil	QVN			irregular quartz-veined(w) grey hornfels, relict fg-mg sst texture, perv sil(m/s), dss py(<1%), minor sil-py vnd(vw)									P	m/s													w								w	
47.00	47.20		QVN	QVN				quartz vein, relict py frac fill and ch? flecks																							s								
47.20	49.20		HORN	QVN	Sil			quartz-veined(w) grey hornfels, veins at 60 asnd 80LCA commonly py frac fill in vns									P	w/m													w/m								
49.20	51.60		SMSAND	Biot	Sil			brown biot(m/s) hornfels after mg sst, sil(w)							w/m																									
51.60	53.20	FALT	SMSAND	Sil				ligth green/lht tan sil(m) hornfels after mg q-sst - porous bed?, commonly moderatelly to localy strongly broken core - faulted zone									P	w																							
53.20	54.20		SCSAND	Sil				ligth green hornfels, replaced mg-cg q-sandstone									P	w																							
54.20	58.20		HORN	Sil	DSX	Biot		ligth green hornfels, relict biotitic zones(w/m), sil(m)-py(3) altn	D	3					w/m		P	w																							
58.20	68.30		HORN	Sil	VSX	CALS		grey & tan hornfels, sil(m), dentritic pyritew), stingly biot zones(w), patchy cal-sil(w)	Vn	2							P	m																									
68.30	69.00		SFSAND	Biot		Sil		fg-mg brown hornfels, dss py(3%), biot(m), sil(w)							m			w																							
69.00	78.60		HORN	Sil	Biot			commonly moderately broken - faulted with variable lithincl. grey silicified horn and brown biot zones, a mix of above.	D	1																														m	
78.60	79.60		SSILT	Biot	DSX			brown hornfels fine grained sandstone / siltstone, py(5%), lam bedding at 60LCA		5					m			w																							
79.60	82.70		HORN	Sil	VSX			grey sil(m/s), dendritic Py(w/m, 1%+)	Vn	1							P	m/s																							

Down Hole Surveys - Frontier Resources						
Hole_ID	Depth	Azimuth(TN	Dip	ID	Type	Date
NC52	0	213	-75		2	3/09/2008

Survey type	
1	Single shot down hole camera
2	Measured at collar
3	Inferred survey for display
4	Other - see comments

Down Hole Structural Log - Frontier Resources								Structure Code	
Hole_ID	At	Core angle (LCA)	Structure_type	Comments	Azimuth (True)	Dip	Struc_ID	Face	Facing
NC52	11	35	fr					Ft	Fault
NC52	11.2	85	fr					Sh	shear
NC52	16	75	fr					Vn	vein
NC52	16.1	50	fr					Fo	Foliation
NC52	18.8	50	vn	FeO/Skarn veinlet				Fr	fracture
NC52	18.9	15	vn	FeO/Skarn veinlet				Jt	Joint
NC52	21.5	85	Bd	relict S0				Bd	Bedding
NC52	22.5	40	ft	serp slickensided thin(3mm) fault				Fold	Fold
NC52	23.7	30	fr	cb-vn				con	contact
NC52	26	5	ft	recent pug filled fault/fracture (5mm)				lay	layering
NC52	27.5	80	ft	recent pug filled fault/fracture (3cm)				bnd	banding
NC52	28.7	20	ft	recent pug filled fault/fracture (3mm)				Ln	Lineation
NC52	29.4	80	fr					CATA	Cataclasite
NC52	31.9	50	vn	sil+/-Cb(?) vn				Slck	Slickensides
NC52	33.5	70	vn	sil-py-serp 5mm vein with biot selvage				Pu	Puggy seam
NC52	33.6	80	fr					Cl	Cleavage
NC52	40.4	10	vn	q-sil-vn 1cm					
NC52	40.5	45	vn	q-sil-vn 1cm					
NC52	46.7	20	fr						
NC52	47.7	85	vn	q-vn 3cm					
NC52	49	55	vn	q-py-vn 2cm					
NC52	50.2	10	vn	sphalerite (msv) vn 7mm					
NC52	52.8	60	fr						
NC52	52.9	55	fr						
NC52	65.5	15	fr						
NC52	66.6	65	fr						
NC52	79	60	Bd	lam slst bedding					
NC52	79.4	65	vn	cb-veinlets					
NC52	82.4	30	vn	py-sil-vn					
NC52	82.5	30	fr						
NC52									

Frontier Resources Ltd				Drill Core Recovery & RQD Log			
Hole_ID	From	To	Interval	Measured	Recovery%	Lengths>10cm	RQD %
NC52	9.2	10.7	1.5	1.25	83.33	0.2	13.33
NC52	10.7	12.2	1.5	1.5	100.00	0.7	46.67
NC52	12.2	13.7	1.5	1.5	100.00	0.65	43.33
NC52	13.7	15.2	1.5	0.75	50.00	0	0.00
NC52	15.2	16.7	1.5	1.4	93.33	0.5	33.33
NC52	16.7	18.2	1.5	1.3	86.67	0.1	6.67
NC52	18.2	19.7	1.5	1.2	80.00	0.45	30.00
NC52	19.7	21.2	1.5	1.2	80.00	0.7	46.67
NC52	21.2	24.2	3	3	100.00	2.1	70.00
NC52	24.2	27.2	3	3	100.00	0.75	25.00
NC52	27.2	30.2	3	3	100.00	0.8	26.67
NC52	30.2	33.2	3	3	100.00	0.95	31.67
NC52	33.2	36.2	3	3	100.00	1.15	38.33
NC52	36.2	39.2	3	3	100.00	2.35	78.33
NC52	39.2	42.2	3	3	100.00	1.9	63.33
NC52	42.2	45.2	3	3	100.00	1.45	48.33
NC52	45.2	48.2	3	3	100.00	1.6	53.33
NC52	48.2	51.2	3	3	100.00	1.3	43.33
NC52	51.2	54.2	3	3	100.00	0.15	5.00
NC52	54.2	57.2	3	3	100.00	0.8	26.67
NC52	57.2	60.2	3	3	100.00	0.5	16.67
NC52	60.2	63.2	3	3	100.00	1.35	45.00
NC52	63.2	64.7	1.5	1.5	100.00	1.1	73.33
NC52	64.7	66.2	1.5	1.5	100.00	1	66.67
NC52	66.2	69.2	3	3	100.00	0.8	26.67
NC52	69.2	72.2	3	3	100.00	0.45	15.00
NC52	72.2	75.2	3	3	100.00	0.55	18.33
NC52	75.2	78.2	3	3	100.00	0.7	23.33
NC52	78.2	81.2	3	3	100.00	1.75	58.33
NC52	81.2	82.7	1.5	1.5	100.00	0.7	46.67

Frontier Resources - Sample Recovery and Assay Notes						
Hole_ID	Sample ID	From (m)	To (m)	Interval (m)	Sampled Interval	Comments
NC52	521168	9	11	2		
NC52	521169	11	13	2		
NC52	521170	13	15	2	1.2	14 to 15m is loss / fault
NC52	521171	15	17	2		
NC52	521172	17	19.1	2.1		
NC52	521173	19.1	20	0.9		
NC52	521174	20	21	1		
NC52	521175	21	22	1		
NC52	521176	22	23	1		
NC52	521177	23	24	1		
NC52	521178	24	25	1		
NC52	521179	25	26	1		
NC52	521180	26	27	1		
NC52	521181	27	28	1		
NC52	521182	28	29	1		
NC52	521183	29	30	1		
NC52	521184	30	31.3	1.3		
NC52	521185	31.3	32.5	1.2		
NC52	521186	32.5	34.5	2		
NC52	521187	34.5	36.5	2		
NC52	521188	36.5	38.5	2		
NC52	521189	38.5	40.5	2		
NC52	521190	40.5	42.5	2		
NC52	521191	42.5	44.5	2		
NC52	521192	44.5	46.5	2		
NC52	521193	46.5	48.5	2		
NC52	521194	48.5	50.5	2		
NC52	521195	50.5	52.5	2		
NC52	521196	52.5	54.5	2		
NC52	521197	54.5	56.5	2		
NC52	521198	56.5	58.5	2		
NC52	521199	58.5	60.5	2		
NC52	521200	60.5	62.5	2		
NC52	520585	62.5	64.5	2		
NC52	520586	64.5	66.5	2		
NC52	520587	66.5	67.5	1		
NC52	520588	67.5	68.35	0.85		
NC52	520589	68.35	69.5	1.15		
NC52	520590	69.5	71.5	2		
NC52	520591	71.5	73.5	2		
NC52	520592	73.5	75	1.5	0.8	
NC52	520593	75	76.5	1.5		
NC52	520594	76.5	77.5	1		
NC52	520595	77.5	78.6	1.1		
NC52	520596	78.6	79.6	1		
NC52	520597	79.6	80.6	1		
NC52	520598	80.6	82.7	2.1		

Frontier Resources Ltd					Down hole assay data					
Hole_ID	From	To	Au_ppm	Ag_ppm	As_ppm	Cu_ppm	Pb_ppm	Zn_ppm	Spl_Id	Lab Batch
NC52	9	11	-0.01	1	151	20	94	140	521168	FN20081120
NC52	11	13	-0.01	1	216	51	75	53	521169	FN20081120
NC52	13	15	-0.01	1	244	131	274	387	521170	FN20081120
NC52	15	17	-0.01	1	129	32	230	188	521171	FN20081120
NC52	17	19.1	-0.01	1	149	188	166	127	521172	FN20081120
NC52	19.1	20	0.06	1	190	18	29	126	521173	FN20081120
NC52	20	21	0.17	1	55	42	65	173	521174	FN20081120
NC52	21	22	0.01	1	195	7	77	107	521175	FN20081120
NC52	22	23	-0.01	1	50	9	87	106	521176	FN20081120
NC52	23	24	-0.01	1	37	10	64	69	521177	FN20081120
NC52	24	25	-0.01	-1	13	8	71	77	521178	FN20081120
NC52	25	26	0.6	1	95	35	89	116	521179	FN20081120
NC52	26	27	4.29	2	189	17	247	138	521180	FN20081120
NC52	27	28	0.22	2	258	95	86	173	521181	FN20081120
NC52	28	29	0.11	2	179	236	70	184	521182	FN20081120
NC52	29	30	0.15	2	261	269	42	81	521183	FN20081120
NC52	30	31.3	0.05	1	162	159	58	99	521184	FN20081120
NC52	31.3	32.5	-0.01	-1	146	15	18	67	521185	FN20081120
NC52	32.5	34.5	-0.01	1	204	10	22	46	521186	FN20081120
NC52	34.5	36.5	-0.01	1	373	12	16	65	521187	FN20081120
NC52	36.5	38.5	-0.01	2	179	61	16	129	521188	FN20081120
NC52	38.5	40.5	-0.01	-1	245	37	33	74	521189	FN20081120
NC52	40.5	42.5	-0.01	1	220	30	49	68	521190	FN20081120
NC52	42.5	44.5	-0.01	1	302	35	19	49	521191	FN20081120
NC52	44.5	46.5	-0.01	1	249	24	49	77	521192	FN20081120
NC52	46.5	48.5	-0.01	1	155	39	63	112	521193	FN20081120
NC52	48.5	50.5	-0.01	5	61	109	2248	2305	521194	FN20081120
NC52	50.5	52.5	-0.01	5	285	78	1537	2565	521195	FN20081120
NC52	52.5	54.5	-0.01	1	145	12	212	260	521196	FN20081120
NC52	54.5	56.5	-0.01	1	298	46	251	340	521197	FN20081120
NC52	56.5	58.5	-0.01	1	170	55	133	336	521198	FN20081120
NC52	58.5	60.5	-0.01	-1	363	25	52	78	521199	FN20081120
NC52	60.5	62.5	-0.01	1	362	104	115	282	521200	FN20081120
NC52	62.5	64.5	-0.01	-1	193	41	34	53	520585	FN20081120
NC52	64.5	66.5	-0.01	1	71	89	31	36	520586	FN20081120
NC52	66.5	67.5	-0.01	-1	115	54	15	48	520587	FN20081120
NC52	67.5	68.35	-0.01	3	139	325	327	2446	520588	FN20081120
NC52	68.35	69.5	-0.01	-1	94	91	30	60	520589	FN20081120
NC52	69.5	71.5	-0.01	-1	238	70	33	41	520590	FN20081120
NC52	71.5	73.5	-0.01	-1	246	71	84	133	520591	FN20081120
NC52	73.5	75	-0.01	-1	80	57	5	36	520592	FN20081120
NC52	75	76.5	-0.01	-1	138	97	40	66	520593	FN20081120
NC52	76.5	77.5	-0.01	-1	124	93	17	28	520594	FN20081120
NC52	77.5	78.6	-0.01	-1	167	76	16	26	520595	FN20081120
NC52	78.6	79.6	-0.01	2	238	139	13	204	520596	FN20081120
NC52	79.6	80.6	-0.01	1	210	31	52	58	520597	FN20081120
NC52	80.6	82.7	-0.01	-1	197	73	17	29	520598	FN20081120

Drill Log — Frontier Resources Ltd

PROJECT:	Gowrie Park	**HOLE NO:**	NC53	**DRILL TYPE:**	Diamond
PROSPECT:	Squib	**DATE COMMENCED:**	14/09/2008	**DRILLER:**	Frontier Resources Ltd.
TENENMENT:	RL3/2005	**DATE COMPLETED:**	17/09/2008	**LOGGED BY:**	R Reid
EASTING	425840	**TOTAL DEPTH (m):**	38.6	**LOGGING DATE:**	17/09/2008
NORTHING	5406568	**AZIMUTH (TN):**	50	**OXIDATION** BOCO:	~2m
COLLAR RL:	590 (AGD66, Zone55)	**DIP:**	-60	BOPO:	>35m

Drilling details

Core Size	From	To
PQ		
HQ	0.00	10.00
NQ	10.00	38.00
BQ		

Comments

Hole designed to:- Test Squib W mineralisation, proximal to greissenized granite; Hole terminated at ~38m due to barrell and 3 NQ rods lost in hole. Possibly intersected workings, although targetted 10 to 15m below bottom adit RL.

Significant Analysis Intervals:

Hole_ID	From	To	Interval
NC53	4.2	38.6	34.4m @ 0.013g/t Au, 88ppm Sn , 866ppm WO3m, 70ppm Mo
Including	21.7	32.2	10.5m @ 0.002g/t Au, 72ppm Sn, 2281ppm WO3 100ppm Mo
Including	29.6	30.25	0.65m @ 0.000g/t Au, 30ppm Sn, 10400ppm WO3m, 384ppm Mo

Summary Log

From	To	Graphic	Summary Description (Lith, Altn, Mineralisation)
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			
0.00			

Frontier Resources Detailed Drill Log

Hole Number		NC53	Sheet No	1	Mineralisation / Alteration and

Full description: including colour, main alteration type and strength, **component minerals** (pref in order of abundance), **rock type, texture, alteration and mineralisation details** eg: pale green phyllic (moderate) quartz-feldspar phyric dacite porphyry, phenocrysts to 4mm, sericite (m) altered phenocrysts, silica (w) altered groundmass, pyrite(3-5%) as disseminations and minor veinlets

INTERVAL		ROCK CODES		Alteration summary					Pyrite		Wolfram		Galena		Sphalerite		Biotite		Silica		Sericite		Chlorite		(Ca)CO3		Calc-Sil		Skarn		Magnetic		QVN	Other minerals / texture / colour							
FROM (m)	TO (m)	Strat Code	Rock type	Primary Altn	2nd Altn	3rd Altn	Weathering		Style	Amount %	Style	Amount %	Style	Amount %	Style	Amount %	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Style	Amount (WMS)	Amount (WMS)	Mineral 1	Style	Amount %	Mineral 2	Style	Amount %	Broken (WMS)	Colour
0.00	2.60		CELUV					Elluvium, minor milky quartz vein frag																																		
2.60	5.20		ODF	GREISEN	QVN		M	crm & bn gressenised mg/cg q-porphyry(?sst), rich in bimodal quartz phenos dominantly being even 1 to 2mm but with sparser cg phenocrysts. Drusy quartz veins of 1 to 2cm @ 3.4m, locally oxidised / wed(m)																									w							w	
5.20	7.50		SMSAND	Sil			W	crm/grey mg q-sst, pervassive silica(w) increasing to end, upper contact sharp, 3cm vuggy q-vn @ 5.3m																													w							m	
7.50	7.60		QVN	QVN				broken quartz vein, poor recovery, possibly 4cm thick																												vs							s	
7.60	8.95		SFSAND	Sil			W	buff fg/mg q-sst, weak gn banded zones (Px-mag?/skarn)(vw)																																				
8.95	10.80		SMSAND	DSX	QVN		W	grey mg q-sst, sil(w/m), zones of py veining and disseminations (4%) locally, Quartz-Wolfram 3cm vein at 10.05m			D	0.1																																
10.80	10.95		SSAND	QVN	Sil			milky quartz vein / pervasive silica(s) over relict q-sst, Wolfram(1%), py(1%)	D	1	D	1																																
10.95	12.80		SFSAND	QVN				gn/grey fg sst, milky quartz vein zone(~10%, w/m) bearing wolfram(tr) within irregular veinlets / replacement zones to 15cm				0.1																																
12.80	13.60		SFSAND					buff fg/mg q-sst																																				
13.60	16.20		SFSAND	Sil	QVN			crm to lht bn fg/mg q-sst, sil(w/m), milky q-vnd(w/m, ~10%) including 3 veins to 15cm @ 12.2, 13.9 & 15.6m																																				
16.20	16.30		GREISEN	GREISEN	Sil			Greissen, pervasive Sil(m/s) plus common pgn mineral(m), (after porphyry dyke?)																																				
16.30	17.25		SFSAND	Sil				crm to lht bn fg/mg q-sst, sil(w/m)																																				
17.25	17.40		FALT					brittle recent Fault breccia, ~45 LCA, clasts <2cm																																				
17.40	17.60		SFSAND	Sil				crm to lht bn fg/mg q-sst, sil(w/m)																																				
17.60	17.75		QVN	QVN				milky Quartz vein																																			
17.75	18.90		SFSAND	Sil				crm to lht bn fg/mg q-sst, sil(w/m)																																				
18.90	20.80		SMSAND	Sil	QVN	Biot		bn fg/mg relict q-sst, often appearing mg/cg and poorly sorted, biot? as narrow selvages on quartz veins locally, qvn(w/m) to 1cm, sil(w/m), fracs at 35 & 65LCA									SP	W																										
20.80	21.70		SMSAND	SiSX				bn fg/mg relict q-sst, sil(m/s), dss py patchy (to 7%)	D	7																																		
21.70	23.60		ODF	GREISEN	Sil			bn/ora oxidised(m) mg q+/- feld greissenised porphyry, sil(m), Wolfram flecks / blades (<0.5%) locally 1% over 15cm																																				
23.60	26.30		ODF		QVN			crm phenocryst rich q-porphyry, sim to above but minimally greisenised, broken(w), Minor black blades Wolfram(w,<1%) in veins @~65LCA, q-veinlets(w, <0.5%) scattered @45LCA.																																				
26.30	28.50		ODF	GREISEN				greissenised q-porphyry, dss Wolfram(<0.5%) as blades to 1cm locally 2% from 27.2 to 27.7m, milky q-vn from 28.3 to 28.35m																																				
28.50	29.60		SFSAND	Sil	Biot			grey/bn fg/mg q-sst, sil(w/m), biotite? Selvages on fractures, bk(w)																																				
29.60	30.25		ODF	GREISEN	QVN			greissenised q-porphyry dyke, Wolfram(3%) dss as black blades to 16mm in semi-trans sil/q-vnd zones with sharp contacts ~70LCA, fracs 60 & 15LCA, sharp upper and lower contacts																																				
30.25	30.90		SFSAND	Biot				lht bn/bn biotised?(m) local crm relict zones after relict fg/mg q-sst/hornfels, bk(m/s) with relict bk flecks (Wolfram?), dss py(3%) weakens away from contact	D	3																																		
30.90	32.20		SFSAND	Biot				lht bn/crm siliceous biotised?(w) local crm relict zones after relict fg/mg q-sst/hornfels, bk(m/s), sparse py(tr), fracs @ 15 & 90LCA	D	0.1																																		
32.20	34.30		SMSAND	Sil	QVN			lht bn / crm siliceous (perv sil(m/s)) relict mg/cg sst/hornfels, minor px/serp-mag?(w) zones, sparse qvn by 2 @ 0.75cm @ 45LCA, sparse veins calc?-sil-Wolfram to 0.4cm with Wolfram xtals / blades to 6mm (tr overall)			Vn	0.1																																		
34.30	36.60		FALT					crm / bn puggy semi-plastic clays and crm siliceous rock frags - probable fault, becomes fragmental and semi-coherent towards down hole end of interval; problematic drilling with short runs due to core not being held in barrrel.																																				
36.60	38.60		HORN	Biot	Sil	Ch		bn/purple biot(m/s) - ch(w), sil(w/m) altered relict sst/hornfels, sparse silica selvages on fractures																																				

Down Hole Surveys - Frontier Resources						
Hole_ID	Depth	Azimuth(TN	Dip	Type	Verified	Date
NC53	0	50	-60	2		3/09/2008

Survey type	
1	Single shot down hole camera
2	Measured at collar
3	Inferred survey for display
4	Other - see comments

Down Hole Structural Log - Frontier Resources								Structure Code	
Hole_ID	At	Core angle (LCA)	Structure_type	Comments	Azimuth (True)	Dip	Struc_ID	Face	Facing
NC53	17.3	45	Ft	brittle fault				Ft	Fault
NC53	19	35	Fr					Fr	fracture
NC53	19.5	65	Fr					Vn	vein
NC53	24	45	Vn	quartz veins general attitude				Fo	Foliation
NC53	30	70	Vn	sil-quartz veined zones					
NC53	30.5	60	Fr	fractures					
NC53	30.3	15	Fr	fractures					
NC53	31	15	Fr	fractures					
NC53	31.5	90	Fr	fractures					
NC53	33	45	Vn	quartz veins					

Frontier Resources Ltd				Drill Core Recovery & RQD Log			
Hole_ID	From	To	Interval	Measured	Recovery%	Lengths>10cm	RQD %
NC53	0	1.6	1.6	0	0.00	0	0.00
NC53	1.6	3.1	1.5	1.15	76.67	0.1	6.67
NC53	3.1	4.6	1.5	1.05	70.00	0.15	10.00
NC53	4.6	6.1	1.5	1.2	80.00	0	0.00
NC53	6.1	7.6	1.5	1.1	73.33	0	0.00
NC53	7.6	9.1	1.5	1	66.67	0	0.00
NC53	9.1	10.6	1.5	1.35	90.00	0.4	26.67
NC53	10.6	11.6	1	0.9	90.00	0.1	10.00
NC53	11.6	13.1	1.5	1.5	100.00	0.25	16.67
NC53	13.1	14.6	1.5	1.2	80.00	0	0.00
NC53	14.6	16.1	1.5	1.15	76.67	0	0.00
NC53	16.1	17.6	1.5	1.5	100.00	0.3	20.00
NC53	17.6	20.6	3	3	100.00	1.1	36.67
NC53	20.6	23.6	3	2.6	86.67	1	33.33
NC53	23.6	26.6	3	3	100.00	1.05	35.00
NC53	26.6	29.6	3	3	100.00	0.65	21.67
NC53	29.6	32.6	3	3	100.00	0.55	18.33
NC53	32.6	34.1	1.5	0.8	53.33	0.25	16.67
NC53	34.1	35.6	1.5	0.5	33.33	0	0.00
NC53	35.6	37.1	1.5	1.1	73.33	0.1	6.67
NC53	37.1	38.6	1.5	1.1	73.33	0	0.00

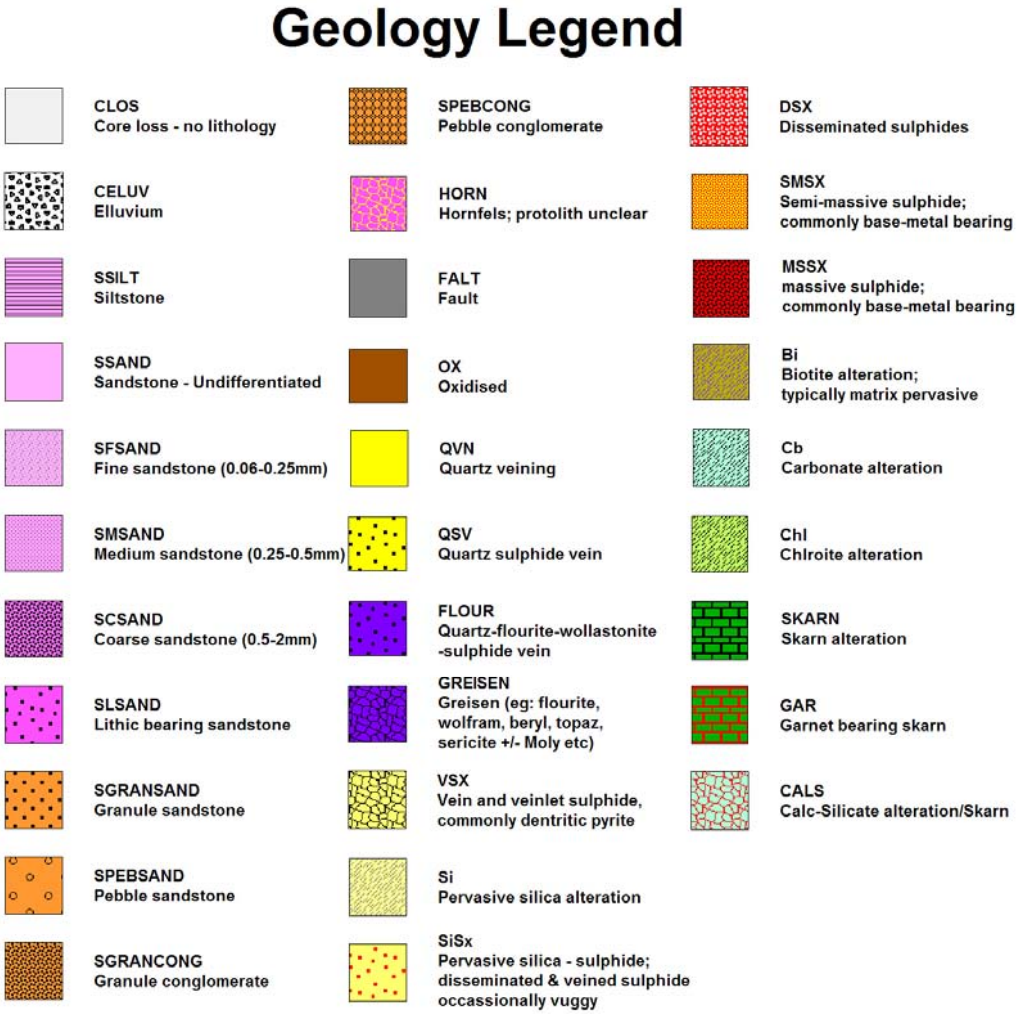
DAILY DRILLERS DEPTH UPDATE **NC53**

DATE	SHIFT	DRILLER	FROM	TO	DISTANCE	COMMENTS
13/09/2008	Day	Albert(old)	0	16	16	set up
14/09/2008		Albert(new	16	32	16	
15/09/2008	Day	All				cementing hole
16/09/2008	Day		32	38	6	cementing hole
17/09/2008	Day					EOH

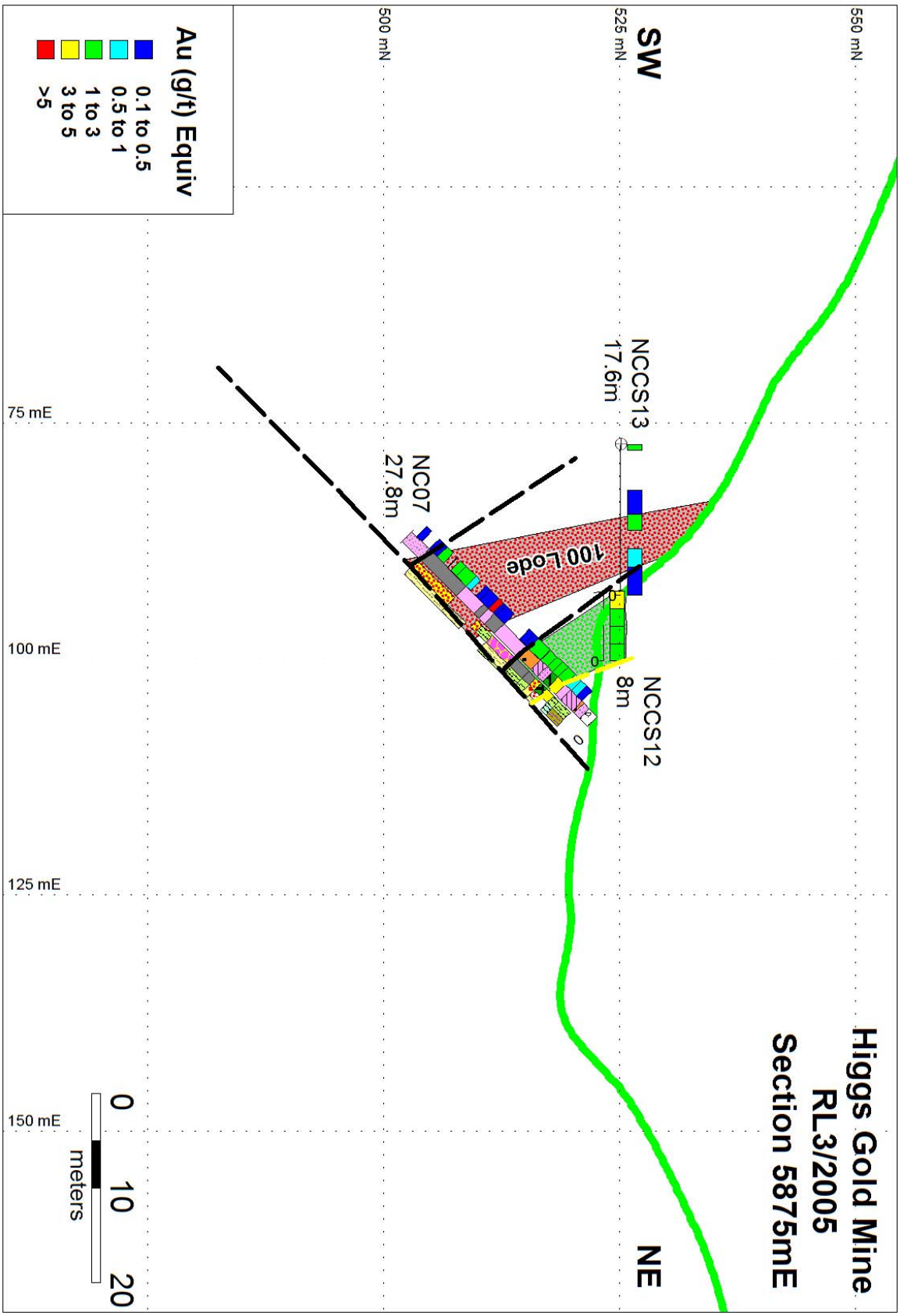
Frontier Resources - Sample Recovery and Assay Notes							
Hole_ID	Sample ID	From (m)	To (m)	Interval (m)	Sampled Interval	% Sampled	Comments
NC53	434317	4.2	5.2	1		0.00	
NC53	434318	5.2	6.4	1.2		0.00	
NC53	434319	6.4	7.6	1.2		0.00	
NC53	434320	7.6	9.1	1.5		0.00	
NC53	434321	9.1	10.6	1.5		0.00	
NC53	434322	10.6	11.6	1		0.00	
NC53	434323	11.6	12.65	1.05		0.00	
NC53	434324	12.65	13.6	0.95		0.00	
NC53	434325	13.6	14.6	1		0.00	
NC53	434326	14.6	15.6	1		0.00	
NC53	434327	15.6	16.6	1		0.00	
NC53	434328	16.6	17.6	1		0.00	
NC53	434329	17.6	18.6	1		0.00	
NC53	434330	18.6	19.6	1		0.00	
NC53	434331	19.6	20.6	1		0.00	
NC53	434332	20.6	21.7	1.1		0.00	
NC53	434333	21.7	22.6	0.9		0.00	
NC53	434334	22.6	23.6	1		0.00	
NC53	434335	23.6	24.6	1		0.00	
NC53	434336	24.6	25.6	1		0.00	
NC53	434337	25.6	26.6	1		0.00	
NC53	434338	26.6	27.6	1		0.00	
NC53	434339	27.6	28.5	0.9		0.00	
NC53	434340	28.5	29.6	1.1		0.00	
NC53	434341	29.6	30.25	0.65		0.00	
NC53	434342	30.25	31.2	0.95		0.00	
NC53	434343	31.2	32.2	1		0.00	
NC53	434344	32.2	33.2	1		0.00	
NC53	434345	33.2	34.3	1.1	0.55	50.00	Loss
NC53	434346	34.3	36.5	2.2	0.85	38.64	Fault
NC53	434347	36.5	37.5	1	1	100.00	
NC53	434348	37.5	38.6	1.1	0.7	63.64	

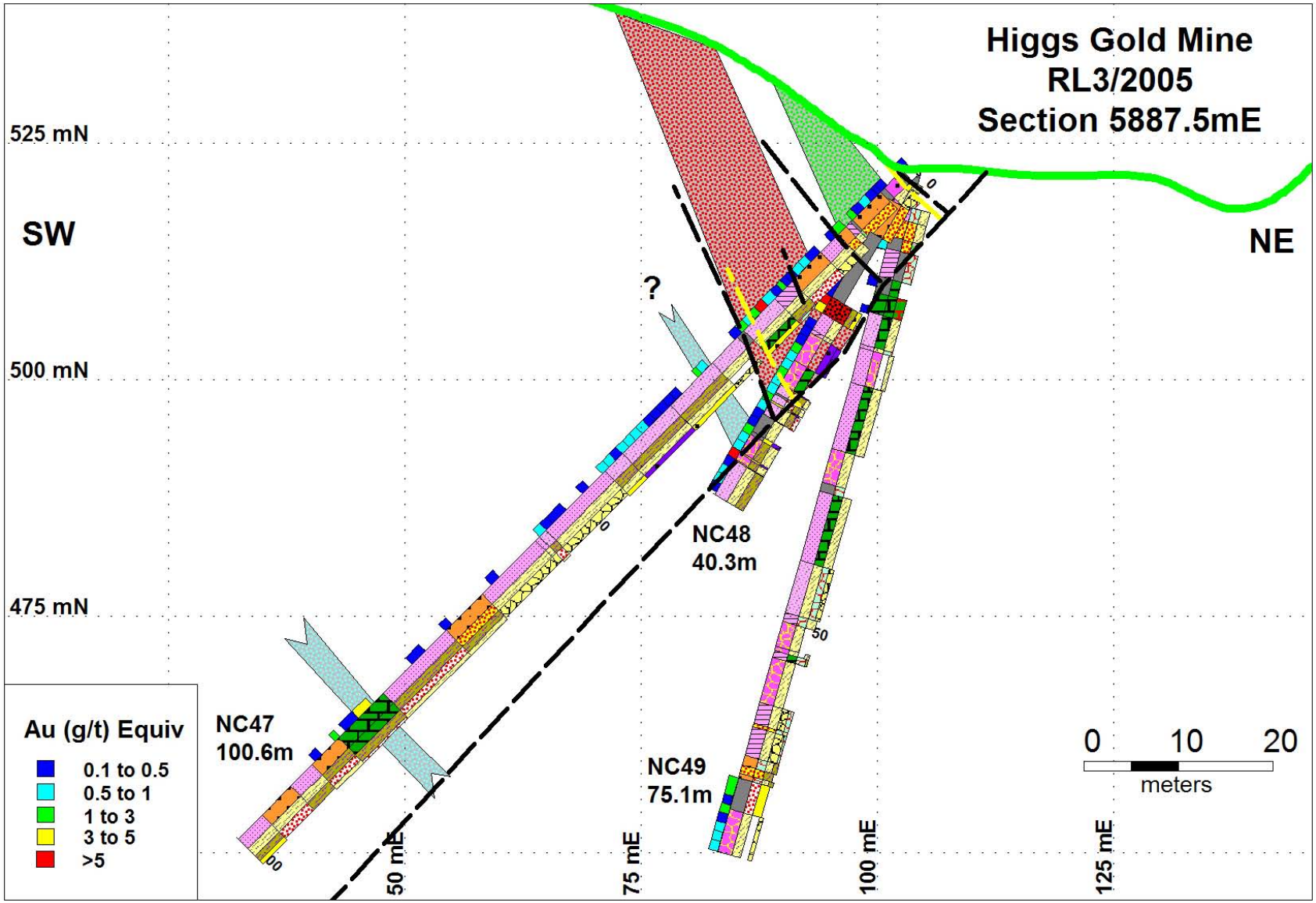
Frontier Resources Ltd					Downhole Assay Data			
Hole_ID	From	To	Au_ppm	Sn_ppm	W_ppm	Mo_ppm	Spl_Id	Lab Batch
NC53	4.2	5.2	0.06	120	490	14	434317	FN20080922
NC53	5.2	6.4	0.16	150	290	9	434318	FN20080922
NC53	6.4	7.6	0.02	170	270	-1	434319	FN20080922
NC53	7.6	9.1	0.02	180	320	21	434320	FN20080922
NC53	9.1	10.6	-0.01	70	190	17	434321	FN20080922
NC53	10.6	11.6	-0.01	70	150	30	434322	FN20080922
NC53	11.6	12.65	-0.01	160	230	24	434323	FN20080922
NC53	12.65	13.6	-0.01	80	200	15	434324	FN20080922
NC53	13.6	14.6	-0.01	40	130	18	434325	FN20080922
NC53	14.6	15.6	-0.01	60	480	61	434326	FN20080922
NC53	15.6	16.6	-0.01	40	150	37	434327	FN20080922
NC53	16.6	17.6	-0.01	20	190	33	434328	FN20080922
NC53	17.6	18.6	-0.01	80	200	94	434329	FN20080922
NC53	18.6	19.6	-0.01	90	110	88	434330	FN20080922
NC53	19.6	20.6	-0.01	70	210	106	434331	FN20080922
NC53	20.6	21.7	-0.01	-10	140	100	434332	FN20080922
NC53	21.7	22.6	-0.01	10	1250	115	434333	FN20080922
NC53	22.6	23.6	-0.01	120	640	96	434334	FN20080922
NC53	23.6	24.6	-0.01	120	280	32	434335	FN20080922
NC53	24.6	25.6	-0.01	100	990	11	434336	FN20080922
NC53	25.6	26.6	-0.01	70	4920	12	434337	FN20080922
NC53	26.6	27.6	-0.01	20	890	14	434338	FN20080922
NC53	27.6	28.5	-0.01	60	1970	26	434339	FN20080922
NC53	28.5	29.6	-0.01	40	3510	266	434340	FN20080922
NC53	29.6	30.25	-0.01	30	10400	384	434341	FN20080922
NC53	30.25	31.2	-0.01	120	1570	103	434342	FN20080922
NC53	31.2	32.2	0.02	90	1220	117	434343	FN20080922
NC53	32.2	33.2	0.07	30	320	65	434344	FN20080922
NC53	33.2	34.3	-0.01	50	200	105	434345	FN20080922
NC53	34.3	36.5	0.03	220	360	158	434346	FN20080922
NC53	36.5	37.5	-0.01	50	200	72	434347	FN20080922
NC53	37.5	38.6	-0.01	60	150	46	434348	FN20080922

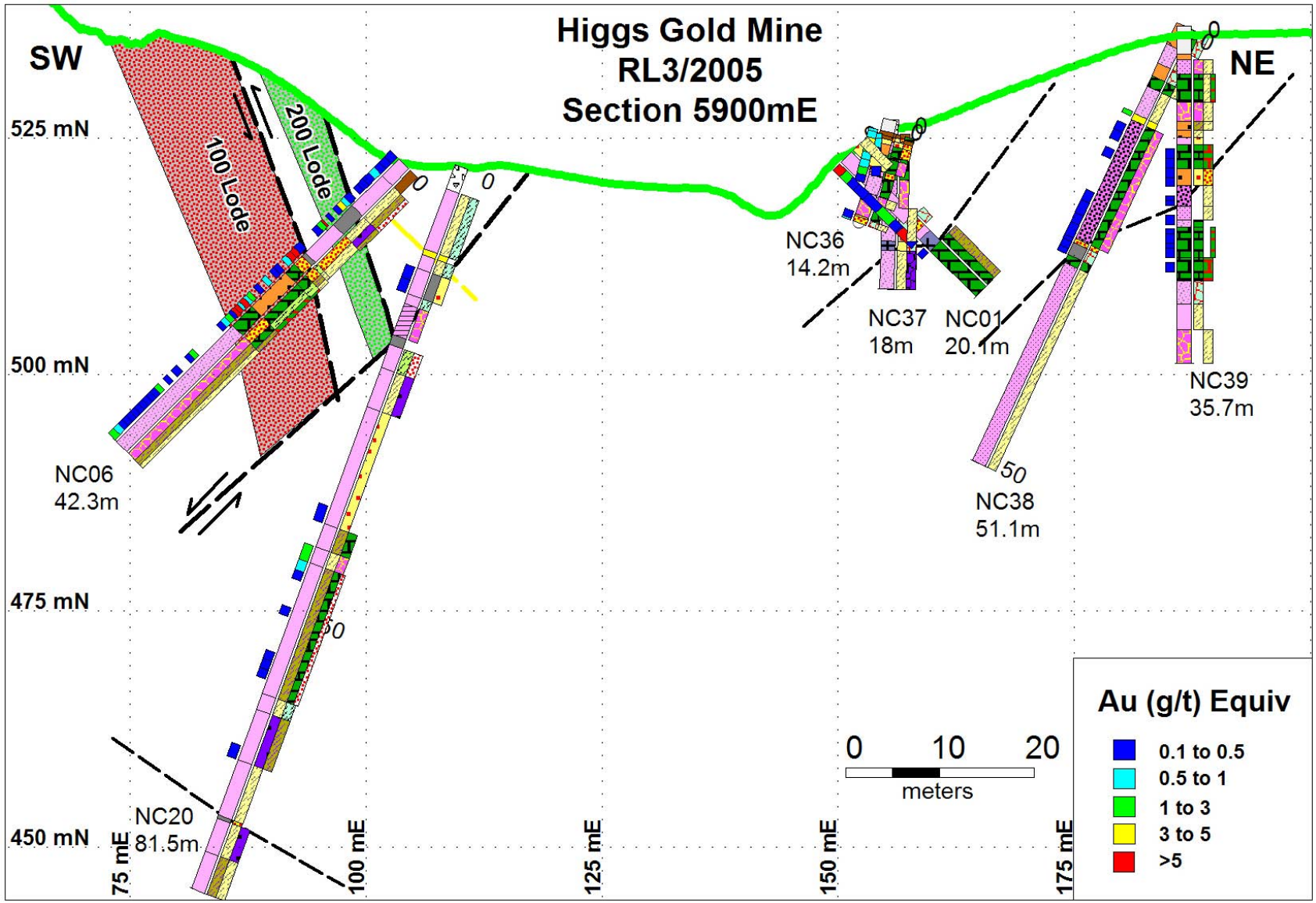
Appendix 4: Drill Hole Geology Legend

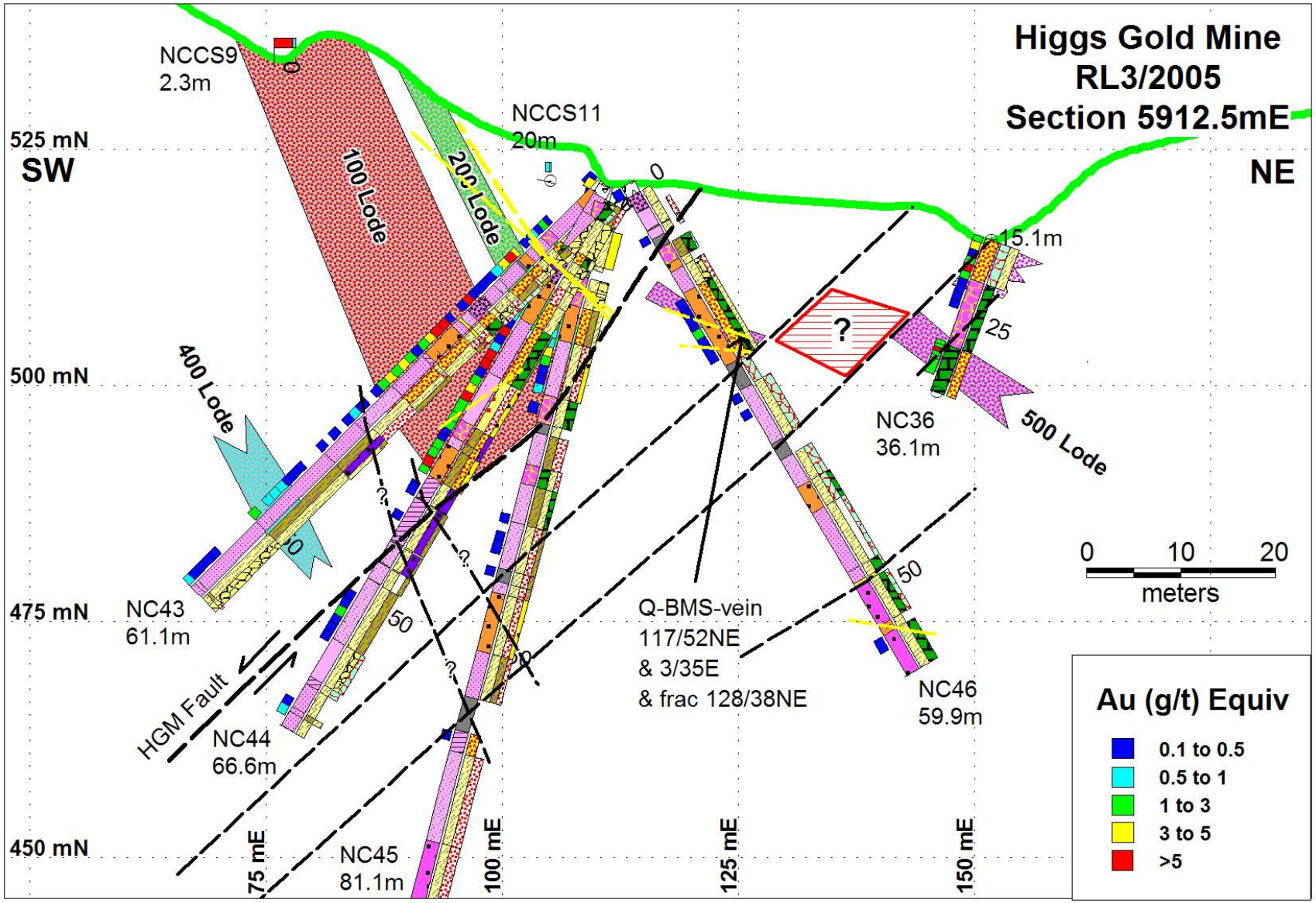


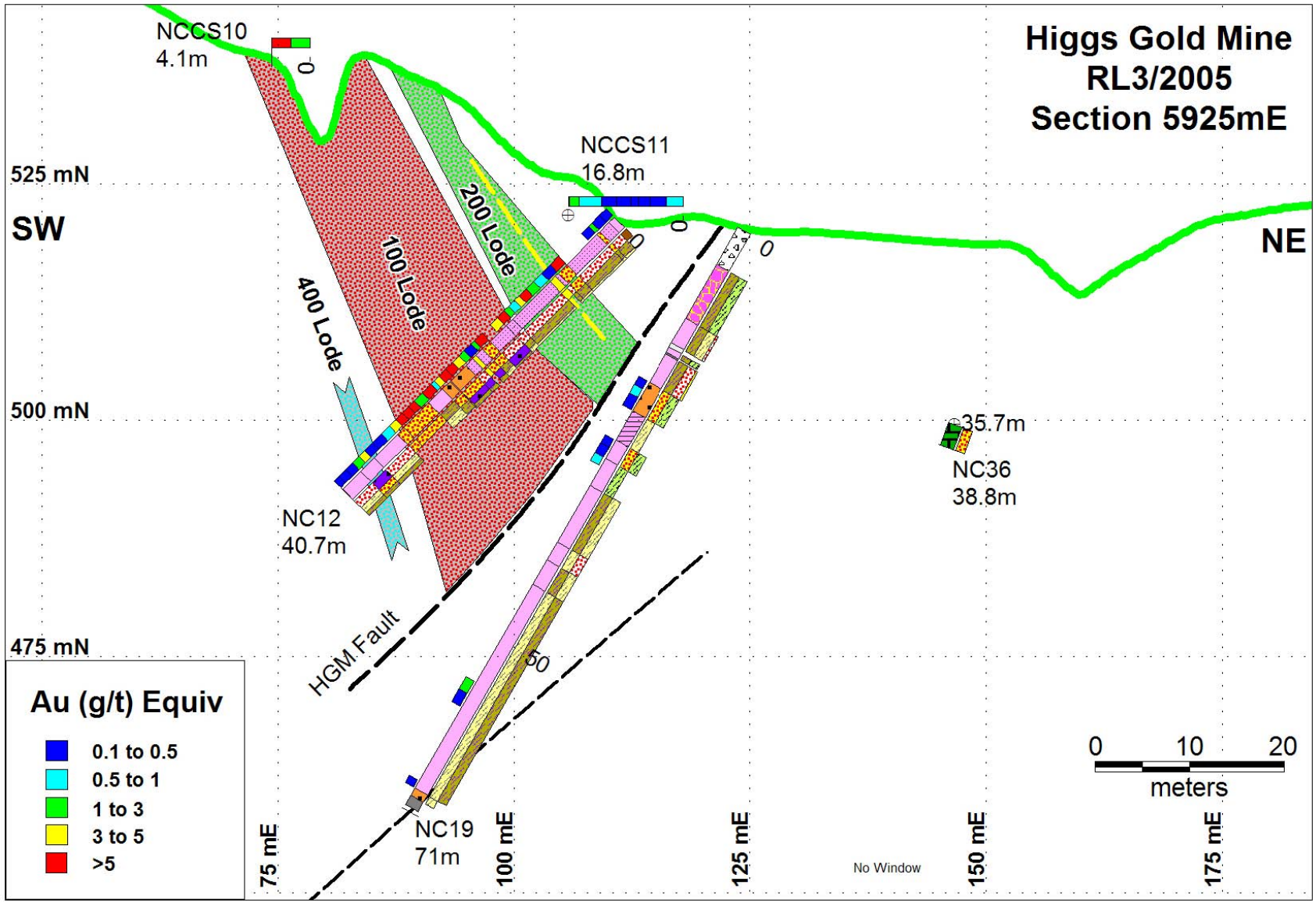
Appendix 5: Drill Sections

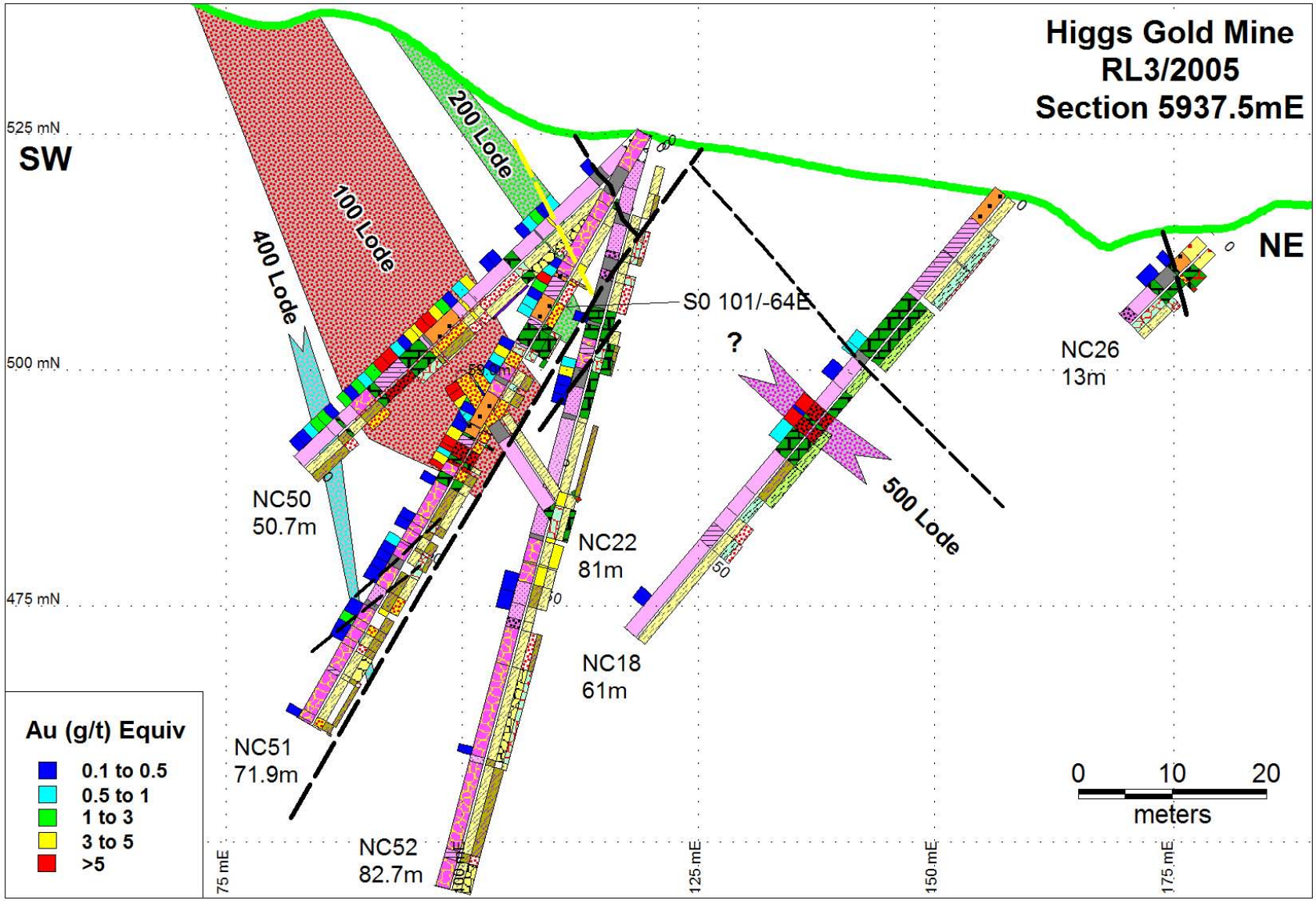

Higgs Gold Mine
RL3/2005
Section 5875mE
SW
NE
550 mN
525 mN
500 mN
75 mE
100 mE
125 mE
150 mE
NCCS13
17.6m
NCCS12
8m
NC07
27.8m
100 Lode
Au (g/t) Equiv
0.1 to 0.5
0.5 to 1
1 to 3
3 to 5
>5
0
10
20
meters

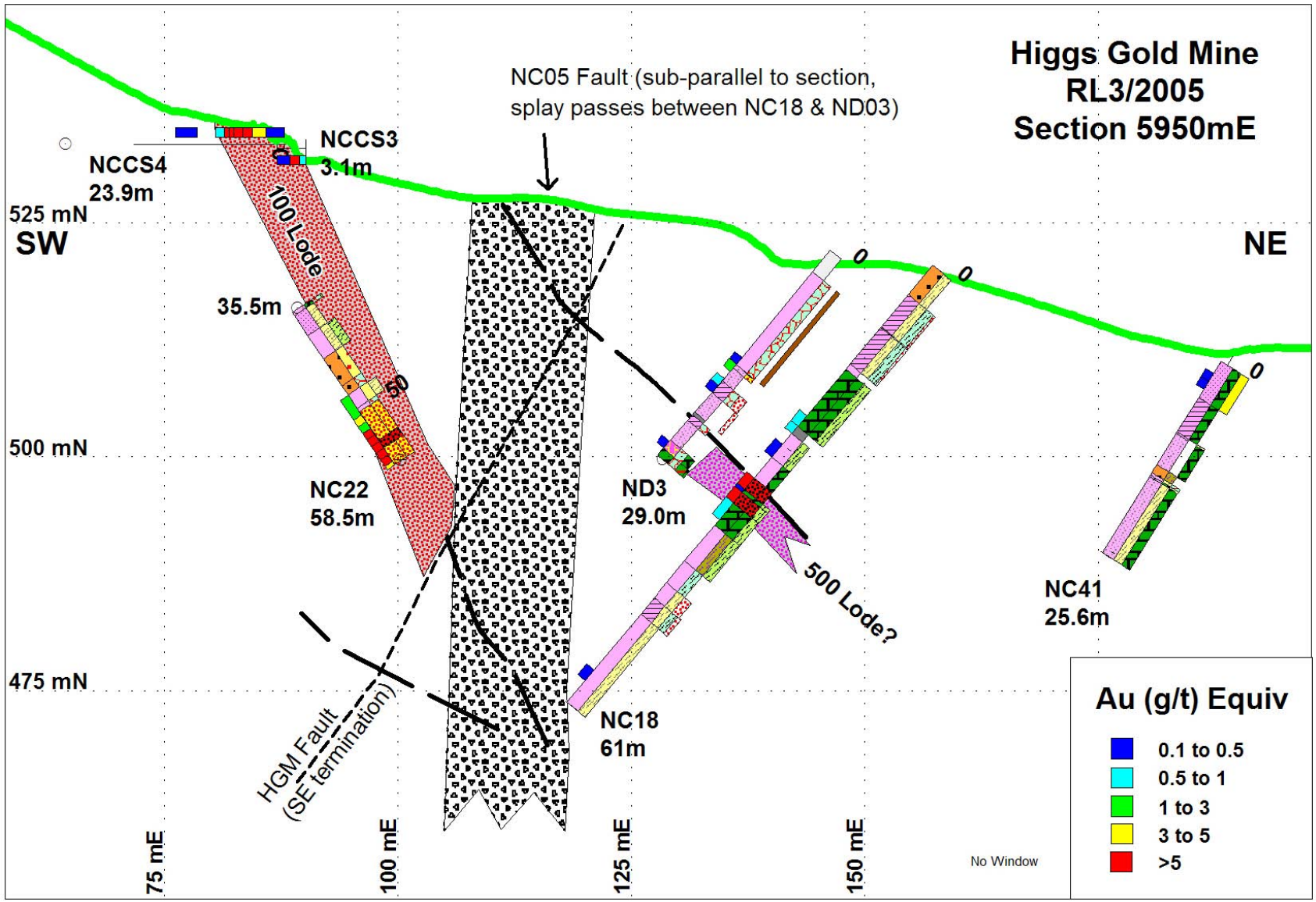

Higgs Gold Mine
RL3/2005
Section 5887.5mE
525 mN
500 mN
475 mN
SW
NE
?
NC47
100.6m
NC48
40.3m
NC49
75.1m
Au (g/t) Equiv
0.1 to 0.5
0.5 to 1
1 to 3
3 to 5
>5
50 mE
75 mE
100 mE
125 mE
0
10
20
meters

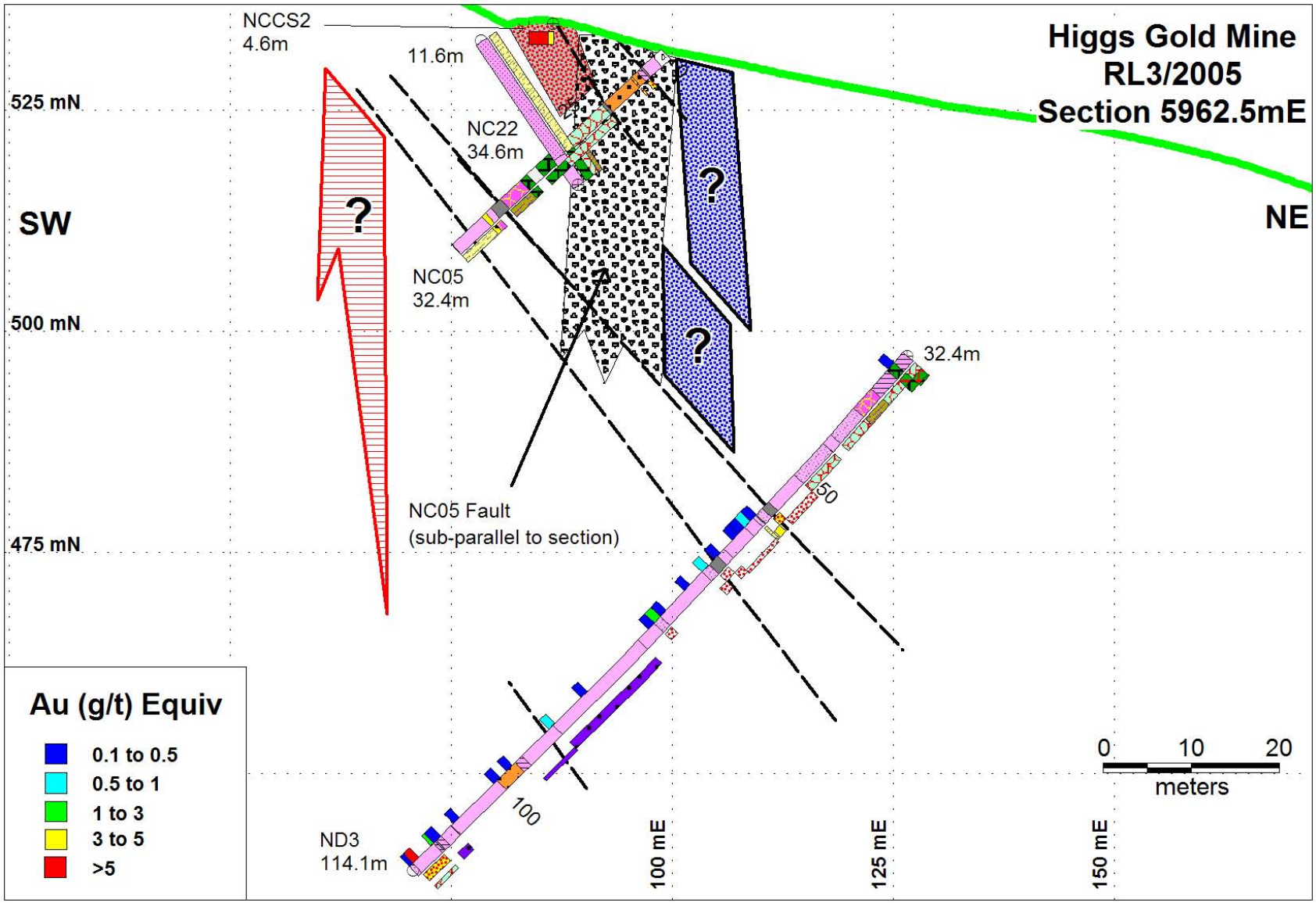

Higgs Gold Mine
RL3/2005
Section 5900mE
SW
NE
525 mN
500 mN
475 mN
450 mN
75 mE
100 mE
125 mE
150 mE
175 mE
100 Lode
200 Lode
NC06
42.3m
NC20
81.5m
NC36
14.2m
NC37
18m
NC01
20.1m
NC38
51.1m
NC39
35.7m
0
50
0 10 20
meters
Au (g/t) Equiv
0.1 to 0.5
0.5 to 1
1 to 3
3 to 5
>5

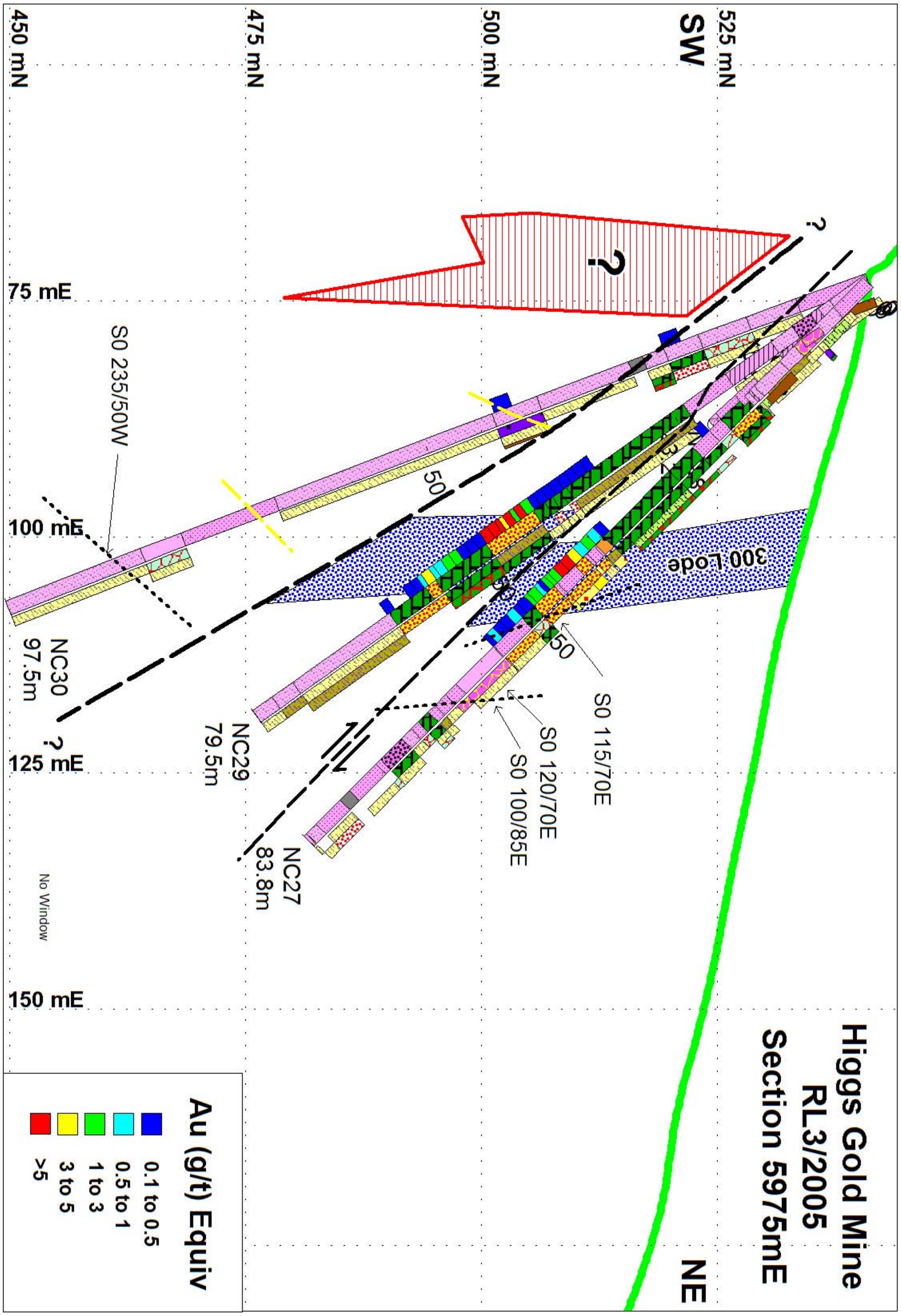

Higgs Gold Mine
RL3/2005
Section 5912.5mE
SW
NE
525 mN
500 mN
475 mN
450 mN
NCCS9
2.3m
NCCS11
20m
100 Lode
200 Lode
400 Lode
500 Lode
15.1m
25
NC36
36.1m
NC43
61.1m
NC44
66.6m
NC45
81.1m
NC46
59.9m
HGM Fault
Q-BMS-vein
117/52NE
& 3/35E
& frac 128/38NE
0
10
20
meters
Au (g/t) Equiv
0.1 to 0.5
0.5 to 1
1 to 3
3 to 5
>5
75 mE
100 mE
125 mE
150 mE


Higgs Gold Mine
RL3/2005
Section 5925mE
NCCS10
4.1m
NCCS11
16.8m
525 mN
SW
NE
500 mN
475 mN
200 Lode
100 Lode
400 Lode
NC12
40.7m
35.7m
NC36
38.8m
HGM Fault
NC19
71m
No Window
Au (g/t) Equiv
0.1 to 0.5
0.5 to 1
1 to 3
3 to 5
>5
0
10
20
meters
75 mE
100 mE
125 mE
150 mE
175 mE

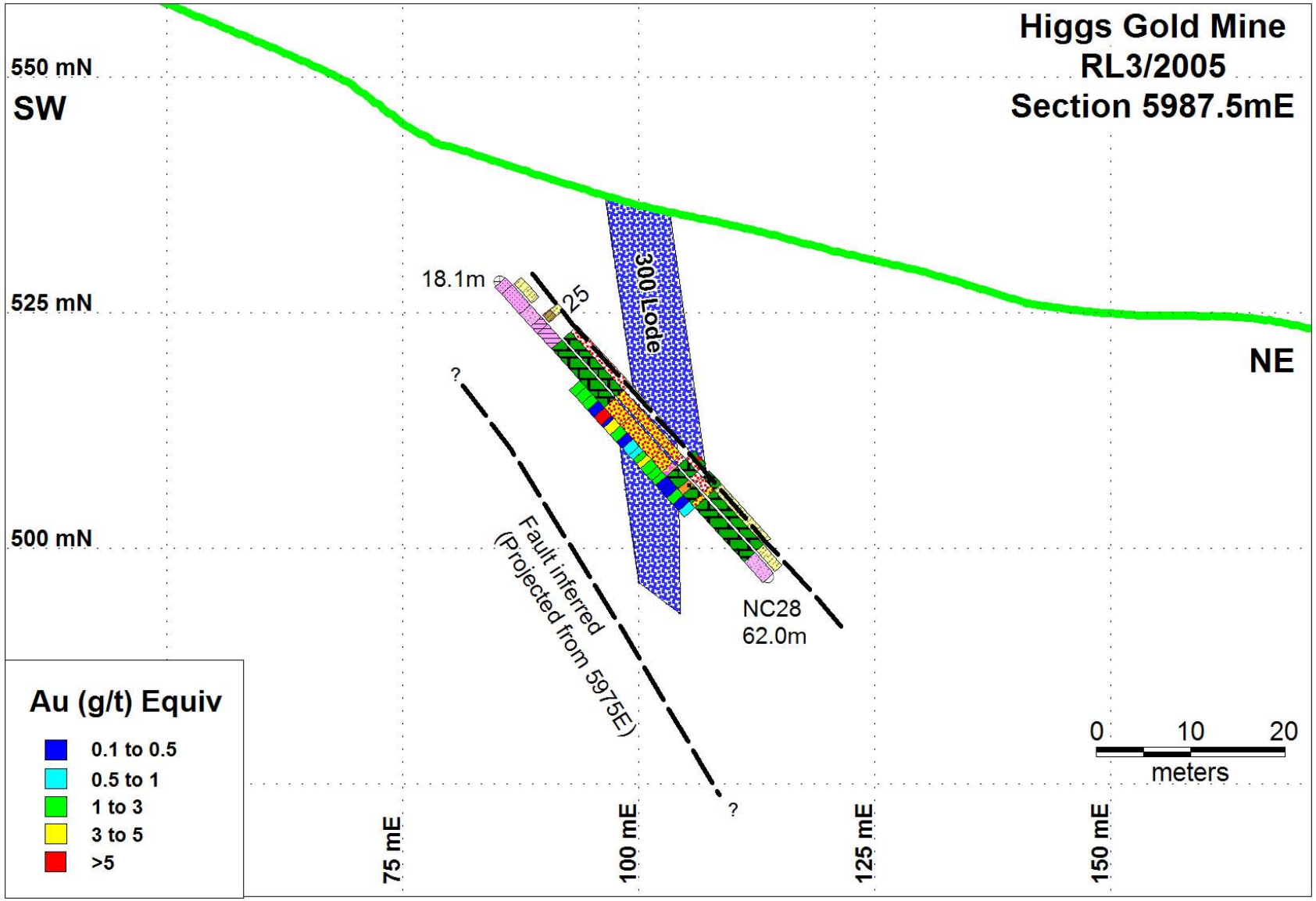

Higgs Gold Mine
RL3/2005
Section 5937.5mE
SW
NE
525 mN
500 mN
475 mN
200 Lode
100 Lode
400 Lode
500 Lode
S0 101/-64E
?
NC50
50.7m
NC22
81m
NC18
61m
NC51
71.9m
NC52
82.7m
NC26
13m
Au (g/t) Equiv
0.1 to 0.5
0.5 to 1
1 to 3
3 to 5
>5
0
10
20
meters
75 mE
125 mE
150 mE
175 mE

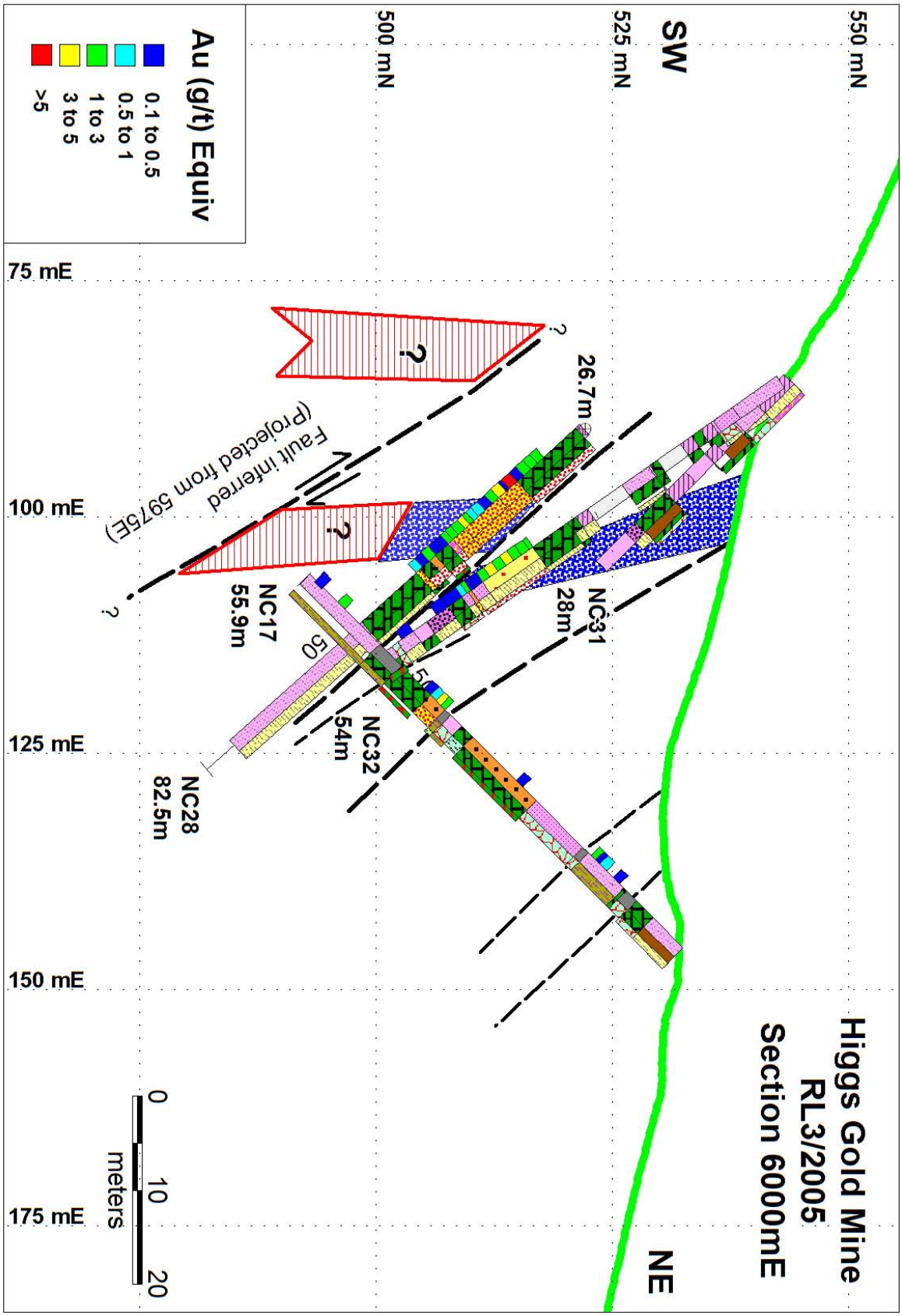

Higgs Gold Mine
RL3/2005
Section 5950mE
NC05 Fault (sub-parallel to section,
splay passes between NC18 & ND03)
NCCS3
3.1m
NCCS4
23.9m
525 mN
SW
NE
100 Lode
35.5m
50
0
0
0
500 mN
NC22
58.5m
ND3
29.0m
500 Lode?
NC41
25.6m
475 mN
HGM Fault
(SE termination)
NC18
61m
75 mE
100 mE
125 mE
150 mE
No Window
Au (g/t) Equiv
0.1 to 0.5
0.5 to 1
1 to 3
3 to 5
>5


Higgs Gold Mine
RL3/2005
Section 5962.5mE
NCCS2
4.6m
11.6m
NC22
34.6m
NC05
32.4m
32.4m
NC05 Fault
(sub-parallel to section)
ND3
114.1m
SW
NE
525 mN
500 mN
475 mN
100 mE
125 mE
150 mE
50
100
?
?
?
?
Au (g/t) Equiv
0.1 to 0.5
0.5 to 1
1 to 3
3 to 5
>5
0
10
20
meters



Higgs Gold Mine
RL3/2005
Section 5975mE
SW
NE
525 mN
500 mN
475 mN
450 mN
75 mE
100 mE
125 mE
150 mE
300 Lode
S0 235/50W
S0 115/70E
S0 120/70E
S0 100/85E
NC30
97.5m
NC29
79.5m
NC27
83.8m
No Window
Au (g/t) Equiv
0.1 to 0.5
0.5 to 1
1 to 3
3 to 5
>5


Higgs Gold Mine
RL3/2005
Section 5987.5mE
550 mN
SW
525 mN
500 mN
NE
18.1m
300 Lode
?
Fault inferred
(Projected from 5975E)
?
NC28
62.0m
Au (g/t) Equiv
0.1 to 0.5
0.5 to 1
1 to 3
3 to 5
>5
0
10
20
meters
75 mE
100 mE
125 mE
150 mE


Higgs Gold Mine
RL3/2005
Section 6000mE
SW
NE
550 mN
525 mN
500 mN
75 mE
100 mE
125 mE
150 mE
175 mE
Au (g/t) Equiv
0.1 to 0.5
0.5 to 1
1 to 3
3 to 5
>5
Fault inferred
(Projected from 5975E)
?
?
?
?
26.7m
NC31
28m
NC17
55.9m
50
5
NC32
54m
NC28
82.5m
0
10
20
meters

Appendix 5: Drill Core Analysis Originals

Frontier Resources Ltd.
Job No. 20080304

Sample Type: Drillcore

Sample	Cu	Pb	Zn	Ag	Au
	ppm	ppm	ppm	ppm	ppm
08140150	94	47	116	1	0.48
08150160	151	79	67	1	0.53
08160170	169	43	62	1	0.31
19270282	477	59	134	2	0.23
19282292	125	43	267	1	0.47
19556571	352	2228	3289	8	1.68
19571586	233	1940	2941	7	0.14
20385404	93	48	73	<1	0.10
2043448	289	86	125	1	1.20
2044846	875	31	60	2	0.87
27170180	36	134	59	<1	<0.01
27180190	7	66	65	<1	<0.01
27190200	18	105	452	2	<0.01
27200210	14	89	171	2	<0.01
27210220	16	98	61	<1	<0.01
27220230	6	79	100	<1	<0.01
27230240	12	91	157	1	0.36
27240250	12	61	112	1	0.02
27250260	9	65	41	<1	<0.01
27260270	7	68	110	<1	0.04
27270280	9	69	101	<1	<0.01
27280290	9	50	104	<1	<0.01
27290300	9	52	56	<1	<0.01
27300310	8	91	77	<1	<0.01
27310320	4	74	64	<1	<0.01
27320330	7	79	76	<1	<0.01
27330340	4	68	94	<1	0.03
27340350	4	88	84	<1	<0.01
27350360	4	44	144	<1	<0.01
27360370	9	50	242	1	<0.01
27370380	23	44	186	2	0.03
2882590	50	59	46	<1	<0.01
2890100	54	62	39	<1	<0.01
28100110	27	28	38	<1	<0.01
28110120	19	29	44	<1	<0.01
28120130	16	65	61	<1	<0.01
28130140	71	114	104	<1	<0.01
28140150	79	259	214	<1	<0.01
28150160	11	76	115	<1	<0.01
28160170	15	79	93	<1	<0.01
28170180	113	83	220	<1	<0.01
28180190	60	102	318	<1	<0.01
28190200	36	94	202	<1	<0.01
28200210	36	60	63	<1	<0.01
28210220	4	56	76	<1	<0.01
28220230	22	114	271	<1	<0.01
28230240	10	299	272	<1	<0.01
28240250	7	129	128	<1	<0.01
28250260	10	72	106	<1	<0.01
28260270	7	90	79	<1	<0.01
28270280	7	58	102	2	0.02
28280290	9	69	97	2	0.02

28290300	8	81	109	2	<0.01
28300310	7	77	89	2	<0.01
28310320	8	89	95	2	0.02
28320330	6	76	98	2	1.28
28330340	7	286	87	3	2.02
29240250	3	97	120	<1	0.03
29250260	2	86	78	<1	<0.01
29260270	6	311	128	<1	<0.01
29270280	12	201	122	<1	<0.01
29280290	7	170	72	<1	<0.01
29290300	54	360	250	<1	<0.01
29300310	10	189	87	<1	0.03
29310320	33	182	141	<1	<0.01
29320330	17	197	109	<1	<0.01
29330340	5	131	67	<1	<0.01
29340350	5	158	97	<1	0.02
29350360	64	225	181	1	0.13
29360370	243	212	264	2	0.40
29370380	112	338	243	2	0.26
29380390	266	586	418	5	0.33
29390400	147	378	212	3	0.25
29400410	161	527	472	2	0.03
29410420	67	1960	1367	4	0.02

Duplicates

Sample	Cu	Pb	Zn	Ag	Au
	ppm	ppm	ppm	ppm	ppm
2043448	n/a	n/a	n/a	n/a	1.20
27290300	7	51	59	<1	n/a
27370380	n/a	n/a	n/a	n/a	<0.01
28220230	22	114	276	<1	n/a
29280290	n/a	n/a	n/a	n/a	0.03
29410420	67	1956	1380	4	n/a

Frontier Resources Ltd.
Job No. 20080804

Sample Type: Drillcore

Sample	Cu	Pb	Zn	Ag	Bi	As	Au
	ppm	ppm	ppm	ppm	ppm	ppm	ppm
434901	273	503	478	1	26	78	0.25
434902	11	410	508	<1	38	210	<0.01
434903	74	393	248	<1	17	119	<0.01
434904	45	488	807	<1	24	140	<0.01
434905	121	185	341	<1	20	100	<0.01
434906	46	68	128	<1	46	171	<0.01
434907	43	24	80	<1	50	1192	0.13
434908	870	8059	11800	34	248	247	0.12
434909	780	226	129	3	57	265	0.02
434910	53	159	169	<1	10	59	0.51
434911	88	138	123	<1	51	193	0.35
434912	96	40	60	<1	19	223	<0.01
434913	1052	6352	11800	21	90	285	2.38
434914	662	13400	8805	19	49	1017	5.63
434915	147	248	142	1	36	308	3.93
434916	234	183	798	1	28	169	0.54
434917	90	464	886	1	12	125	0.07
434918	192	385	145	1	12	65	0.11
434919	152	93	39	<1	5	33	0.09
434920	300	92	56	1	27	132	0.29
434920A	75	24	73	19	22	243	5.78
434921	1607	36700	39200	63	200	195	8.13
434922	141	628	208	2	22	132	0.10
434923	59	194	128	<1	13	193	0.07
434924	224	136	109	1	22	333	0.27
434925	1295	11100	15200	40	166	503	6.05
434926	1161	39900	34400	52	152	345	10.0
434927	929	6412	9632	11	73	296	3.73
434928	1142	8074	9371	19	132	246	1.72
434929	255	3099	3225	5	50	205	0.08
434930	772	10200	13200	18	101	240	0.31
434931	1144	29700	31900	32	73	305	0.42
434932	575	23600	22700	24	35	344	0.31
434933	724	40600	39700	38	37	212	0.72
434934	128	20300	21300	18	43	158	0.04
434935	85	1124	1071	2	33	144	<0.01
434936	27	128	162	<1	19	196	<0.01
434937	57	1263	368	3	38	30	<0.01
434938	259	1583	187	6	41	86	0.58
434939	433	927	314	11	86	77	0.14
434940	107	687	358	3	32	24	<0.01
434940A	74	19	65	18	25	281	5.96
434941	271	90	167	1	45	52	0.09
434942	231	76	149	1	46	167	0.03
434943	190	103	2020	<1	33	101	<0.01
434944	72	146	293	<1	9	24	<0.01
434945	121	48	54	<1	4	285	<0.01
434946	140	1566	1867	3	2	146	<0.01
434947	206	186	135	1	12	190	0.14
434948	271	954	3564	5	13	230	0.08
434949	325	3998	4470	11	29	174	0.06
434950	369	3272	5624	11	17	136	0.25

434951	533	5238	4002	15	42	240	0.05
434952	166	505	383	1	5	73	<0.01
434953	446	13600	12000	29	51	170	0.03
434954	179	532	312	<1	1	180	0.03
434955	84	216	524	<1	4	148	<0.01
434956	42	178	80	<1	2	191	<0.01
434957	60	184	120	<1	1	203	<0.01
434958	60	658	445	1	27	192	<0.01
434959	702	363	730	2	21	189	<0.01
434960	204	111	40	1	4	145	0.21
434961	150	71	14	<1	15	139	0.24
434962	141	60	13	<1	5	120	0.12
434963	288	6428	5312	9	48	259	0.02

Duplicates

Sample	Cu	Pb	Zn	Ag	Bi	As	Au
	ppm	ppm	ppm	ppm	ppm	ppm	ppm
434912	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
434922	136	620	200	2	17	142	n/a
434931	n/a	n/a	n/a	n/a	n/a	n/a	0.78
434944	70	153	299	<1	6	36	n/a
434951	n/a	n/a	n/a	n/a	n/a	n/a	0.09
434963	291	6397	5269	9	41	214	n/a

Frontier Resources Ltd.
Job No. 20080814

Sample Type: Drillcore

Sample	Cu	Pb	Zn	Ag	Bi	As	Au
	ppm	ppm	ppm	ppm	ppm	ppm	ppm
434701	170	600	101	2	16	11	<0.01
434702	45	17	15	<1	33	15	0.18
434703	34	17	37	<1	34	50	<0.01
434704	137	16	27	<1	42	138	<0.01
434705	448	24	29	<1	68	1639	0.06
434706	300	26	35	<1	57	58	<0.01
434707	114	29	27	<1	54	233	0.04
434708	166	14	44	<1	8	154	<0.01
434709	212	36	67	<1	2	85	<0.01
434710	44	37	34	<1	<1	16	<0.01
434711	202	25	47	<1	4	202	<0.01
434712	189	67	51	<1	4	317	0.02
434713	122	84	102	<1	11	95	<0.01
434714	215	57	135	<1	22	137	<0.01
434715	279	51	98	<1	35	257	0.08
434716	550	827	2275	<1	50	121	0.02
434717	333	5932	12700	26	44	144	<0.01
434718	257	2322	1196	13	18	57	<0.01
434719	330	982	1604	6	22	124	<0.01
434720	564	645	3428	17	98	71	0.02
434720A	75	22	81	16	<1	240	5.51
434721	107	79	141	<1	23	63	<0.01
434722	66	54	104	<1	<1	73	<0.01
434723	154	315	290	<1	15	104	<0.01
434724	66	254	293	<1	1	35	<0.01
434725	123	150	188	<1	1	10	<0.01
434726	73	66	53	<1	4	116	<0.01
434727	107	51	34	<1	<1	51	<0.01
434728	284	155	1471	1	41	124	<0.01
434729	685	3604	4929	7	43	75	0.02
434730	47	58	28	<1	<1	16	0.03
434964	64	624	317	<1	32	57	3.83
434965	62	79	184	<1	34	188	<0.01
434966	26	152	112	<1	34	99	0.01
434967	52	207	237	<1	23	124	0.21
434968	48	159	193	<1	14	138	0.01
434969	61	84	144	<1	24	85	<0.01
434970	294	125	112	<1	10	260	<0.01
434971	607	24300	22600	18	76	204	0.13
434972	102	256	624	<1	52	70	<0.01
434973	28	439	313	<1	23	188	0.01
434974	57	1865	1397	2	9	26	0.03
434975	150	167	73	<1	4	171	<0.01
434976	677	14800	16600	36	104	247	1.02
434977	566	15100	17300	17	39	281	0.85
434978	1025	32800	31800	30	44	260	9.66
434979	781	372	68600	2	28	219	0.39
434980	1579	484	4859	3	54	290	0.48
434981	111	89	222	<1	53	203	0.73
434982	62	78	386	<1	34	213	0.08
434983	379	34	122	1	37	286	8.36
434984	852	164	187	1	103	115	0.27

434985	520	90	189	1	55	59	0.56
434985A	76	20	66	1	22	162	5.67
434986	2283	31300	13100	42	206	257	18.5
434987	1055	24500	21400	22	72	232	4.78
434988	623	64	139	<1	31	108	0.10
434989	2305	9861	3065	29	295	134	0.10
434990	1301	5080	485	16	120	693	2.85
434991	1254	103	126	2	325	584	7.83
434992	1056	79	75	1	79	197	2.82
434993	932	52	99	1	75	4840	1.24
434994	304	34	86	<1	144	624	1.00
434995	154	54	96	<1	70	990	0.29
434996	441	147	142	1	67	767	0.20
434997	1327	263	826	4	195	289	2.00
434998	1270	1875	4333	21	149	147	0.36
434999	1655	37200	39500	56	80	154	6.29
435000	598	9913	6145	21	56	122	0.16
435000A	76	24	70	17	14	171	5.71

Duplicates

Sample	Cu	Pb	Zn	Ag	Bi	As	Au
	ppm	ppm	ppm	ppm	ppm	ppm	ppm
434707	115	32	30	<1	45	224	n/a
434712	n/a	n/a	n/a	n/a	n/a	n/a	0.02
434725	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
434730	46	53	23	<1	<1	<10	n/a
434985A	77	23	67	18	15	200	n/a
435000	n/a	n/a	n/a	n/a	n/a	n/a	0.20

Frontier Resources Ltd.
Job No. 20080825

Sample Type: Drillcore

Sample	Cu	Pb	Zn	Ag	Bi	As	Au
	ppm	ppm	ppm	ppm	ppm	ppm	ppm
434731	78	445	218	2	6	173	0.12
434732	36	253	205	1	1	98	0.01
434733	61	243	219	1	19	133	0.01
434734	27	233	196	<1	<1	91	<0.01
434735	24	219	179	<1	1	<10	<0.01
434736	51	326	1380	1	<1	39	<0.01
434737	176	191	126	<1	10	14	<0.01
434738	135	134	140	<1	5	51	<0.01
434739	83	262	205	<1	9	111	0.04
434740	40	89	105	<1	14	47	<0.01
434741	106	83	169	<1	11	84	0.01
434742	186	117	119	<1	16	71	0.01
434743	471	364	467	1	210	107	0.02
434744	1190	8684	3361	12	26	255	1.34
434745	692	848	506	2	15	25	0.96
434746	577	586	433	2	4	74	0.40
434747	67	115	228	1	7	92	0.80
434748	211	303	1014	1	6	119	3.00
434749	163	105	138	1	3	145	0.98
434750	122	75	98	<1	2	81	0.28
434750A	125	89	112	<1	8	87	6.04
434751	79	114	159	18	14	183	0.19
434752	341	54	196	1	4	220	0.71
434753	289	91	210	1	1	195	0.01
434754	215	57	167	<1	<1	72	0.07
434755	123	107	112	<1	6	83	<0.01
434756	41	55	159	<1	10	178	<0.01
434757	21	47	93	<1	9	<10	0.01
434758	16	46	35	<1	14	<10	0.01
434759	22	64	129	<1	24	119	<0.01
434760	81	74	93	<1	31	140	<0.01
434761	42	36	167	<1	13	41	<0.01
434762	62	65	831	<1	11	46	<0.01
434763	63	49	2605	<1	39	178	0.01
434764	33	114	171	<1	31	143	0.07
434765	103	45	76	<1	12	234	0.14
434766	35	54	46	<1	7	319	0.14
434767	87	119	89	<1	15	<10	0.02
434768	30	73	37	<1	20	16	0.36
434769	40	41	35	<1	19	129	0.06
434770	160	88	55	<1	4	<10	0.01
434770A	74	25	74	20	10	140	5.96
434771	144	20	177	<1	16	<10	0.01
434772	216	161	784	1	5	<10	0.01
434773	127	173	366	1	15	66	<0.01
434774	85	35	41	<1	4	55	<0.01
434775	61	58	30	1	14	169	<0.01
434776	81	72	21	1	2	290	<0.01
434777	91	136	54	1	<1	156	<0.01
434778	54	80	34	1	29	149	<0.01
434779	49	54	24	<1	26	10	<0.01
434780	38	38	16	<1	<1	820	0.06

434781	43	31	39	<1	10	<10	<0.01
434782	245	1723	480	6	29	89	0.03
434783	82	79	59	1	4	40	0.01
434784	39	63	48	<1	10	127	0.00
434785	55	32	34	<1	30	66	<0.01
434786	35	33	13	<1	4	136	<0.01
434787	37	39	120	<1	7	45	<0.01
434788	55	40	36	<1	6	<10	<0.01
434789	48	44	43	<1	12	<10	<0.01
434790	87	43	46	<1	4	65	<0.01
434790A	71	27	68	10	10	174	6.12
434791	118	21	44	1	5	<10	<0.01
434792	133	58	51	<1	<1	79	<0.01
434793	23	58	48	<1	<1	26	<0.01
434794	32	67	71	<1	24	131	<0.01
434795	17	49	39	<1	10	<10	<0.01
434796	78	49	65	1	11	63	<0.01
434797	39	46	30	<1	4	<10	<0.01
434798	22	113	23	1	13	<10	0.12
434799	14	68	19	<1	21	<10	<0.01
434800	19	204	78	<1	6	<10	<0.01
434801	27	264	53	1	10	<10	0.03
434802	26	180	68	<1	7	<10	0.06
434803	41	129	142	<1	6	115	0.17
434804	169	376	503	1	40	233	<0.01
434805	80	76	207	1	25	216	<0.01
434806	26	56	66	1	10	177	<0.01
434807	11	168	122	<1	<1	16	<0.01
434808	16	70	95	<1	<1	10	<0.01
434809	24	186	189	1	4	15	<0.01
434810	33	506	209	1	<1	131	<0.01
434810A	74	34	92	18	15	101	6.12
434811	139	1242	516	5	72	129	0.04
434812	713	232	335	1	61	117	0.28
434813	1115	179	289	2	82	242	0.13
434814	158	64	103	<1	24	47	0.32
434815	751	7200	7098	36	195	157	0.89
434816	501	66	97	1	37	147	0.41
434817	612	56	108	1	56	119	0.25
434818	466	73	110	1	10	107	0.22
434819	290	99	176	1	45	165	0.04
434820	18	107	115	<1	2	86	0.01
434821	13	94	113	<1	<1	49	<0.01
434822	35	67	105	<1	21	128	0.02
434823	184	57	111	1	22	302	0.30
434824	46	25	46	<1	16	148	0.06
434825	29	20	52	<1	20	<10	0.10
434826	15	30	38	<1	15	87	0.01
434827	11	29	73	<1	27	68	0.01
434828	26	71	127	<1	14	7	<0.01
434829	21	65	76	<1	10	41	<0.01
434830	58	82	139	<1	18	116	<0.01
434830A	73	35	68	16	20	127	6.00
434831	33	82	92	<1	34	80	<0.01
434832	50	41	75	<1	10	120	<0.01
434833	33	43	33	<1	19	10	<0.01
434834	71	69	498	<1	229	126	<0.01
434835	48	48	93	<1	19	<10	<0.01
434836	61	52	72	<1	39	53	<0.01
434837	44	35	44	<1	44	95	<0.01

434838	39	40	60	<1	27	168	<0.01
434839	13	26	32	<1	20	70	<0.01
434840	32	32	48	<1	15	<10	<0.01
434841	35	79	181	<1	21	65	0.03
434842	38	165	298	<1	2	80	<0.01
434843	37	121	195	<1	12	46	<0.01
434844	27	92	96	<1	24	40	<0.01
434845	51	162	1139	1	27	<10	<0.01
434846	59	176	341	1	40	<10	<0.01
434847	17	128	107	<1	28	109	0.03
434848	32	87	143	<1	25	38	0.01
434849	38	236	609	1	55	168	<0.01
434850	63	1285	2996	3	26	48	<0.01
434850A	76	34	79	19	14	210	6.08
434851	31	139	170	1	39	160	<0.01
434852	85	62	112	1	47	61	<0.01
434853	225	35	124	1	28	300	<0.01

Duplicates

Sample	Cu	Pb	Zn	Ag	Bi	As	Au
	ppm	ppm	ppm	ppm	ppm	ppm	ppm
434742	n/a	n/a	n/a	n/a	n/a	n/a	0.01
434752	328	60	204	1	4	186	n/a
434763	n/a	n/a	n/a	n/a	n/a	n/a	0.01
434774	81	30	50	<1	7	34	n/a
434783	n/a	n/a	n/a	n/a	n/a	n/a	0.01
434796	79	48	67	1	14	37	n/a
434804	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
434818	460	80	114	1	4	90	n/a
434825	n/a	n/a	n/a	n/a	n/a	n/a	0.06
434836	62	60	78	<1	31	34	n/a
434845	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
434853	230	28	130	1	21	258	n/a

Frontier Resources Ltd.
Job No. 20080828

Sample Type: Drillcore

Sample	Cu	Pb	Zn	Ag	As	Au
	ppm	ppm	ppm	ppm	ppm	ppm
434101	48	213	92	<1	79	<0.01
434102	156	424	406	3	231	0.01
434103	76	324	417	1	79	<0.01
434104	136	239	80	2	147	0.01
434105	105	96	37	1	442	0.18
434106	230	334	55	4	126	0.06
434107	619	6454	7874	11	268	0.03
434108	139	175	78	2	156	0.01
434109	157	51	22	1	<10	<0.01
434110	115	59	34	1	35	<0.01
434110A	n/a	n/a	n/a	n/a	n/a	5.73
434854	10	57	22	1	<10	0.36
434855	65	374	743	1	176	0.02
434856	26	190	85	1	67	0.01
434857	428	566	412	2	333	0.02
434858	149	1058	685	1	196	0.02
434859	1864	119	1864	3	869	0.13
434860	1738	910	126	9	1358	0.23
434861	1430	384	74	5	313	0.07
434862	635	12800	9032	20	69	0.22
434863	59	598	960	<1	154	0.01
434864	1125	8122	6151	36	515	1.16
434865	121	240	131	<1	576	0.12
434866	39	126	111	<1	177	0.05
434867	83	217	153	<1	139	0.03
434868	1157	1342	187	2	406	0.09
434869	1925	1324	276	2	365	0.30
434870	890	1656	5662	3	137	0.24
434871	416	759	1219	2	70	0.13
434872	173	236	651	1	314	0.15
434873	296	7388	7835	20	10	1.08
434874	123	124	231	1	232	0.09
434875	36	89	217	1	104	0.92
434875A	n/a	n/a	n/a	n/a	n/a	6.02
434876	997	48100	47500	58	290	3.69
434877	77	180	689	1	107	1.18
434878	334	4255	5393	9	66	0.46
434879	324	464	1687	2	116	2.59
434880	58	74	144	<1	<10	0.17
434881	7	65	67	<1	15	0.01
434882	7	53	61	<1	27	0.01
434883	25	261	195	1	47	0.01
434884	282	6960	7506	10	54	0.01
434885	158	34500	5233	61	<10	0.07
434886	63	585	352	1	<10	0.01
434887	91	476	254	1	11	0.02
434888	73	1566	1718	2	<10	<0.01
434889	110	2607	2464	3	10	0.01
434890	130	3497	2647	6	114	0.02
434891	123	1122	865	2	154	<0.01
434892	205	1864	1644	5	152	0.01
434893	116	9266	7350	11	107	0.03

434894	203	6422	6377	11	145	0.02
434895	218	3986	4917	9	213	0.01
434895A	n/a	n/a	n/a	n/a	n/a	6.08
434896	307	5988	4454	12	135	0.01
434897	309	4735	3914	7	200	0.01
434898	673	5683	2552	20	93	0.09
434899	373	4686	2907	13	20	0.03
434900	83	295	181	<1	90	<0.01

Duplicates

Sample	Cu	Pb	Zn	Ag	As	Au
	ppm	ppm	ppm	ppm	ppm	ppm
434864	n/a	n/a	n/a	n/a	n/a	1.35
434866	39	132	117	<1	121	n/a
434883	n/a	n/a	n/a	n/a	n/a	0.01
434889	107	2611	2451	3	26	n/a
434893	n/a	n/a	n/a	n/a	n/a	0.04

Frontier Resources Ltd.
Job No. 20080922

Sample Type: Drillcore

Sample	Cu	Pb	Zn	Ag	As	Co	Mo	Sn	WO_3	Au
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
433876	5	233	99	<1	14	<1	n/a	n/a	n/a	0.03
433877	64	64	116	<1	56	2	n/a	n/a	n/a	<0.01
433878	22	77	301	1	86	4	n/a	n/a	n/a	0.20
433879	106	88	248	1	177	5	n/a	n/a	n/a	0.04
433880	8	67	98	<1	10	3	n/a	n/a	n/a	<0.01
433881	4	8	47	<1	4	6	n/a	n/a	n/a	<0.01
433882	4	6	41	<1	131	4	n/a	n/a	n/a	<0.01
433883	11	10	54	<1	14	8	n/a	n/a	n/a	<0.01
433884	135	18	49	1	192	5	n/a	n/a	n/a	0.04
433885	175	4	80	1	216	6	n/a	n/a	n/a	0.06
433886	324	78	85	1	84	7	n/a	n/a	n/a	0.69
433887	92	32	28	1	172	6	n/a	n/a	n/a	<0.01
433888	72	24	28	<1	226	3	n/a	n/a	n/a	0.03
433889	81	147	26	1	166	2	n/a	n/a	n/a	0.04
433890	116	22	36	<1	52	6	n/a	n/a	n/a	<0.01
433891	155	21	35	<1	61	7	n/a	n/a	n/a	<0.01
433892	214	25	43	1	52	5	n/a	n/a	n/a	0.02
433893	5	26	53	<1	46	6	n/a	n/a	n/a	<0.01
433894	6	36	62	<1	317	10	n/a	n/a	n/a	<0.01
433895	12	13	68	<1	193	10	n/a	n/a	n/a	<0.01
433896	33	27	123	<1	169	11	n/a	n/a	n/a	<0.01
433897	80	23	153	<1	96	16	n/a	n/a	n/a	<0.01
433929	23	97	364	<1	208	13	n/a	n/a	n/a	<0.01
433930	56	115	56	<1	6	11	n/a	n/a	n/a	<0.01
433931	120	2301	2453	2	10	9	n/a	n/a	n/a	<0.01
433932	54	110	103	<1	11	9	n/a	n/a	n/a	<0.01
433933	57	382	543	1	153	15	n/a	n/a	n/a	0.02
433934	176	2229	611	4	203	27	n/a	n/a	n/a	0.02
433935	670	5752	5676	10	233	47	n/a	n/a	n/a	0.25
433936	1410	1431	1005	4	174	40	n/a	n/a	n/a	12.0
433937	697	2788	5424	9	346	25	n/a	n/a	n/a	0.70
433938	765	2663	3984	6	327	24	n/a	n/a	n/a	0.04
433939	1058	3339	5589	9	396	35	n/a	n/a	n/a	0.12
433940	956	2474	3563	11	357	23	n/a	n/a	n/a	0.04
433941	43	242	430	1	79	12	n/a	n/a	n/a	0.02
433942	35	82	169	<1	140	8	n/a	n/a	n/a	<0.01
433943	17	204	437	1	130	13	n/a	n/a	n/a	0.05
433944	128	3857	2654	6	483	23	n/a	n/a	n/a	0.12
433945	1557	16100	14700	24	1994	37	n/a	n/a	n/a	3.01
433946	813	3430	3131	12	407	27	n/a	n/a	n/a	0.33
433947	67	89	77	<1	1423	8	n/a	n/a	n/a	0.12
433948	173	83	100	2	1063	18	n/a	n/a	n/a	0.51
433949	675	43	67	2	527	25	n/a	n/a	n/a	1.16
433950	1421	41	53	2	1523	44	n/a	n/a	n/a	0.31
433951	1472	9084	8914	43	412	34	n/a	n/a	n/a	0.38
433952	608	105	2508	2	890	25	n/a	n/a	n/a	0.05
433953	600	576	5735	6	467	33	n/a	n/a	n/a	0.03
433954	759	246	261	4	476	28	n/a	n/a	n/a	0.03
433955	950	28600	20800	35	2553	38	n/a	n/a	n/a	0.53
433956	1329	120000	138000	226	488	50	n/a	n/a	n/a	1.30
433957	1171	93800	102000	118	324	43	n/a	n/a	n/a	5.95
433958	153	4255	4063	6	407	16	n/a	n/a	n/a	0.09
433959	1183	49500	48100	59	415	23	n/a	n/a	n/a	0.20
433960	511	58500	41800	86	285	22	n/a	n/a	n/a	0.15
433961	21	533	371	1	437	16	n/a	n/a	n/a	<0.01
433962	54	649	1639	1	16	8	n/a	n/a	n/a	<0.01
433963	91	144	207	<1	303	8	n/a	n/a	n/a	<0.01
433964	13	56	70	<1	139	8	n/a	n/a	n/a	<0.01
433965	22	118	340	<1	10	20	n/a	n/a	n/a	<0.01
433966	68	3092	1038	4	26	17	n/a	n/a	n/a	<0.01
433967	128	4519	4407	6	33	16	n/a	n/a	n/a	<0.01
433968	64	306	322	<1	132	11	n/a	n/a	n/a	<0.01
433969	147	8191	6889	10	67	12	n/a	n/a	n/a	<0.01
433970	48	2003	1959	3	95	11	n/a	n/a	n/a	<0.01
433971	78	2642	2225	2	257	13	n/a	n/a	n/a	<0.01
433972	147	613	119	7	49	8	n/a	n/a	n/a	<0.01

433973	87	741	478	2	204	8	n/a	n/a	n/a	0.03
433974	276	120	199	1	270	10	n/a	n/a	n/a	<0.01
433975	413	48	118	1	1070	14	n/a	n/a	n/a	<0.01
433976	33	31	49	<1	120	4	n/a	n/a	n/a	<0.01
433977	317	2059	2678	8	255	13	n/a	n/a	n/a	<0.01
433978	354	9484	15100	30	219	18	n/a	n/a	n/a	0.02
433979	163	1277	1684	3	154	17	n/a	n/a	n/a	<0.01
433980	978	170	174	2	76	34	n/a	n/a	n/a	<0.01
433981	120	73	116	<1	167	14	n/a	n/a	n/a	<0.01
433982	96	26	28	<1	195	12	n/a	n/a	n/a	<0.01
433983	287	78	126	<1	103	20	n/a	n/a	n/a	<0.01
433984	93	10	24	<1	119	8	n/a	n/a	n/a	<0.01
433985	47	47	53	<1	100	7	n/a	n/a	n/a	<0.01
433986	71	7	39	<1	4	10	n/a	n/a	n/a	<0.01
433987	77	19	33	<1	236	9	n/a	n/a	n/a	<0.01
433988	684	39	58	1	553	14	n/a	n/a	n/a	<0.01
433989	473	198	1322	2	415	23	n/a	n/a	n/a	<0.01
433990	63	186	136	<1	103	14	n/a	n/a	n/a	<0.01
433991	422	353	254	1	172	42	n/a	n/a	n/a	<0.01
433992	966	1342	10500	16	708	22	n/a	n/a	n/a	1.29
433993	1645	103	185	2	2706	22	n/a	n/a	n/a	0.47
433994	862	34	67	1	363	10	n/a	n/a	n/a	0.18
433995	795	11600	6939	31	213	12	n/a	n/a	n/a	0.15
433996	73	223	334	<1	188	8	n/a	n/a	n/a	<0.01
433997	10	102	141	<1	314	10	n/a	n/a	n/a	<0.01
433998	48	122	297	<1	28	10	n/a	n/a	n/a	0.05
434111	62	46	70	<1	42	12	n/a	n/a	n/a	<0.01
434112	55	27	48	<1	91	10	n/a	n/a	n/a	<0.01
434113	230	459	1297	1	31	19	n/a	n/a	n/a	<0.01
434114	70	64	49	<1	116	6	n/a	n/a	n/a	<0.01
434115	175	23	40	<1	172	10	n/a	n/a	n/a	<0.01
434116	189	27	40	<1	199	13	n/a	n/a	n/a	0.02
434117	395	23	81	<1	146	17	n/a	n/a	n/a	0.02
434118	198	32	85	<1	33	12	n/a	n/a	n/a	<0.01
434119	111	439	2271	1	130	16	n/a	n/a	n/a	<0.01
434120	87	57	118	<1	14	14	n/a	n/a	n/a	<0.01
434121	75	266	453	1	255	9	n/a	n/a	n/a	<0.01
434122	109	749	1186	1	186	17	n/a	n/a	n/a	<0.01
434123	143	154	242	<1	269	19	n/a	n/a	n/a	<0.01
434124	75	186	968	<1	53	15	n/a	n/a	n/a	0.02
434125	15	211	477	<1	93	8	n/a	n/a	n/a	<0.01
434126	257	1414	2523	5	369	28	n/a	n/a	n/a	3.07
434127	81	868	908	1	164	12	n/a	n/a	n/a	0.05
434128	193	65	1045	<1	10	20	n/a	n/a	n/a	0.03
434129	407	140	187	1	66	33	n/a	n/a	n/a	1.30
434130	44	180	559	<1	118	16	n/a	n/a	n/a	0.04
434131	100	46	238	<1	52	18	n/a	n/a	n/a	0.09
434132	28	25	58	<1	9	10	n/a	n/a	n/a	0.05
434133	15	15	26	<1	187	8	n/a	n/a	n/a	<0.01
434134	34	45	182	<1	215	11	n/a	n/a	n/a	0.03
434135	61	18	47	<1	360	8	n/a	n/a	n/a	0.03
434136	47	21	42	<1	194	16	n/a	n/a	n/a	<0.01
434137	57	29	28	<1	152	19	n/a	n/a	n/a	<0.01
434138	24	91	28	1	117	32	n/a	n/a	n/a	0.06
434139	56	115	72	<1	179	8	n/a	n/a	n/a	0.02
434140	115	254	196	<1	292	20	n/a	n/a	n/a	<0.01
434141	42	266	102	<1	165	9	n/a	n/a	n/a	<0.01
434142	91	159	81	<1	219	8	n/a	n/a	n/a	<0.01
434143	444	1232	732	1	456	28	n/a	n/a	n/a	0.02
434144	34	441	318	<1	249	15	n/a	n/a	n/a	<0.01
434145	103	278	1102	1	496	16	n/a	n/a	n/a	<0.01
434146	36	220	288	<1	263	9	n/a	n/a	n/a	0.02
434147	49	303	112	<1	242	12	n/a	n/a	n/a	<0.01
434148	394	4220	7537	9	260	21	n/a	n/a	n/a	0.32
434149	53	514	197	1	223	17	n/a	n/a	n/a	0.09
434150	262	470	852	<1	293	18	n/a	n/a	n/a	0.05
434151	423	768	1669	2	458	9	n/a	n/a	n/a	1.41
434152	171	129	140	<1	636	11	n/a	n/a	n/a	0.69
434153	130	256	192	<1	405	9	n/a	n/a	n/a	0.39
434154	99	275	329	<1	178	7	n/a	n/a	n/a	0.05
434155	145	397	510	1	303	28	n/a	n/a	n/a	<0.01
434156	41	500	862	1	50	9	n/a	n/a	n/a	<0.01
434157	33	5470	4646	5	12	13	n/a	n/a	n/a	0.02
434158	47	1207	1557	3	22	15	n/a	n/a	n/a	<0.01

434159	77	146	117	1	146	12	n/a	n/a	n/a	<0.01
434160	33	44	168	1	144	16	n/a	n/a	n/a	<0.01
434161	842	28900	36500	35	193	33	n/a	n/a	n/a	0.57
434162	241	6704	7441	10	9	24	n/a	n/a	n/a	<0.01
434163	110	100	109	1	<1	8	n/a	n/a	n/a	<0.01
434164	449	3177	1102	10	60	18	n/a	n/a	n/a	<0.01
434165	722	13200	8984	29	99	33	n/a	n/a	n/a	0.11
434166	451	33000	18900	54	175	19	n/a	n/a	n/a	0.94
434167	709	90400	57500	120	127	24	n/a	n/a	n/a	0.67
434168	440	54900	44000	62	72	21	n/a	n/a	n/a	0.37
434169	333	48200	36500	60	122	14	n/a	n/a	n/a	0.29
434170	171	62100	15600	83	24	9	n/a	n/a	n/a	0.24
434171	98	421	2594	1	10	5	n/a	n/a	n/a	<0.01
434172	208	6183	12000	11	31	16	n/a	n/a	n/a	0.05
434173	733	58100	65600	67	162	35	n/a	n/a	n/a	0.35
434174	1189	104000	77400	142	249	41	n/a	n/a	n/a	0.42
434175	482	25700	18600	25	160	22	n/a	n/a	n/a	0.05
434176	235	1650	2127	3	<1	7	n/a	n/a	n/a	0.50
434177	213	22600	14400	28	12	13	n/a	n/a	n/a	0.06
434178	107	2254	1815	5	10	7	n/a	n/a	n/a	<0.01
434179	165	26100	394	34	16	3	n/a	n/a	n/a	0.07
434180	218	628	134	3	86	15	n/a	n/a	n/a	<0.01
434181	125	5900	2622	11	2	9	n/a	n/a	n/a	<0.01
434182	367	21600	12400	24	19	14	n/a	n/a	n/a	0.03
434183	256	21200	3274	29	4	7	n/a	n/a	n/a	<0.01
434184	447	5275	5662	10	62	15	n/a	n/a	n/a	<0.01
434185	120	4175	3301	8	16	9	n/a	n/a	n/a	<0.01
434186	85	3603	2459	4	94	9	n/a	n/a	n/a	<0.01
434187	85	217	621	1	119	10	n/a	n/a	n/a	<0.01
434188	32	84	175	1	110	9	n/a	n/a	n/a	<0.01
434189	72	119	323	1	83	12	n/a	n/a	n/a	0.12
434190	62	216	404	1	1	7	n/a	n/a	n/a	0.08
434191	1434	90200	109000	119	213	37	n/a	n/a	n/a	16.4
434192	681	28900	22700	26	130	19	n/a	n/a	n/a	1.42
434193	45	121	194	<1	4	5	n/a	n/a	n/a	0.08
434194	28	83	169	<1	14	4	n/a	n/a	n/a	0.11
434195	33	146	103	<1	20	6	n/a	n/a	n/a	0.09
434196	30	31	59	1	2	10	n/a	n/a	n/a	0.18
434197	192	25	77	1	40	14	n/a	n/a	n/a	0.06
434198	288	31	97	1	38	14	n/a	n/a	n/a	0.13
434201	31	134	75	<1	19	9	n/a	n/a	n/a	<0.01
434202	72	332	313	<1	61	16	n/a	n/a	n/a	<0.01
434203	292	278	436	2	137	39	n/a	n/a	n/a	<0.01
434204	125	147	82	<1	17	15	n/a	n/a	n/a	0.04
434205	1536	262	496	3	6361	31	n/a	n/a	n/a	0.39
434206	1043	508	208	3	344	17	n/a	n/a	n/a	0.14
434207	821	3106	4753	24	180	12	n/a	n/a	n/a	0.24
434208	40	113	164	1	101	7	n/a	n/a	n/a	<0.01
434209	22	96	141	1	14	12	n/a	n/a	n/a	0.03
434210	10	83	169	1	10	7	n/a	n/a	n/a	0.08
434211	<1	68	189	<1	<1	6	n/a	n/a	n/a	0.06
434212	2	18	151	1	191	4	n/a	n/a	n/a	<0.01
434213	75	105	190	1	289	8	n/a	n/a	n/a	0.10
434214	216	84	127	1	60	7	n/a	n/a	n/a	0.03
434215	<1	58	134	<1	192	6	n/a	n/a	n/a	<0.01
434301	703	42	119	2	493	18	n/a	n/a	n/a	0.23
434302	439	110	183	2	366	17	n/a	n/a	n/a	1.68
434303	430	149	220	3	254	20	n/a	n/a	n/a	0.37
434304	1057	2551	6636	8	164	31	n/a	n/a	n/a	0.15
434305	226	1617	2079	3	391	13	n/a	n/a	n/a	0.92
434306	196	2615	1905	7	6	4	n/a	n/a	n/a	0.26
434307	98	869	510	2	30	3	n/a	n/a	n/a	<0.01
434308	59	59	114	<1	155	3	n/a	n/a	n/a	<0.01
434309	190	78	120	1	56	1	n/a	n/a	n/a	<0.01
434310	185	4270	3332	7	88	7	n/a	n/a	n/a	0.02
434311	374	7683	6730	12	76	10	n/a	n/a	n/a	0.03
434312	222	4950	5375	8	149	12	n/a	n/a	n/a	0.02
434313	103	1137	909	2	109	10	n/a	n/a	n/a	<0.01
434314	103	2583	2966	5	2	10	n/a	n/a	n/a	0.02
434315	372	5664	3227	14	142	12	n/a	n/a	n/a	0.29
434316	155	1531	1854	4	<1	9	n/a	n/a	n/a	0.57
434317	n/a	n/a	n/a	n/a	n/a	n/a	14	120	490	0.06
434318	n/a	n/a	n/a	n/a	n/a	n/a	9	150	290	0.16
434319	n/a	n/a	n/a	n/a	n/a	n/a	<1	170	270	0.02

434320	n/a	n/a	n/a	n/a	n/a	n/a	21	180	320	0.02
434321	n/a	n/a	n/a	n/a	n/a	n/a	17	70	190	<0.01
434322	n/a	n/a	n/a	n/a	n/a	n/a	30	70	150	<0.01
434323	n/a	n/a	n/a	n/a	n/a	n/a	24	160	230	<0.01
434324	n/a	n/a	n/a	n/a	n/a	n/a	15	80	200	<0.01
434325	n/a	n/a	n/a	n/a	n/a	n/a	18	40	130	<0.01
434326	n/a	n/a	n/a	n/a	n/a	n/a	61	60	480	<0.01
434327	n/a	n/a	n/a	n/a	n/a	n/a	37	40	150	<0.01
434328	n/a	n/a	n/a	n/a	n/a	n/a	33	20	190	<0.01
434329	n/a	n/a	n/a	n/a	n/a	n/a	94	80	200	<0.01
434330	n/a	n/a	n/a	n/a	n/a	n/a	88	90	110	<0.01
434331	n/a	n/a	n/a	n/a	n/a	n/a	106	70	210	<0.01
434332	n/a	n/a	n/a	n/a	n/a	n/a	100	<10	140	<0.01
434333	n/a	n/a	n/a	n/a	n/a	n/a	115	10	1250	<0.01
434334	n/a	n/a	n/a	n/a	n/a	n/a	96	120	640	<0.01
434335	n/a	n/a	n/a	n/a	n/a	n/a	32	120	280	<0.01
434336	n/a	n/a	n/a	n/a	n/a	n/a	11	100	990	<0.01
434337	n/a	n/a	n/a	n/a	n/a	n/a	12	70	4920	<0.01
434338	n/a	n/a	n/a	n/a	n/a	n/a	14	20	890	<0.01
434339	n/a	n/a	n/a	n/a	n/a	n/a	26	60	1970	<0.01
434340	n/a	n/a	n/a	n/a	n/a	n/a	266	40	3510	<0.01
434341	n/a	n/a	n/a	n/a	n/a	n/a	384	30	10400	<0.01
434342	n/a	n/a	n/a	n/a	n/a	n/a	103	120	1570	<0.01
434343	n/a	n/a	n/a	n/a	n/a	n/a	117	90	1220	0.02
434344	n/a	n/a	n/a	n/a	n/a	n/a	65	30	320	0.07
434345	n/a	n/a	n/a	n/a	n/a	n/a	105	50	200	<0.01
434346	n/a	n/a	n/a	n/a	n/a	n/a	158	220	360	0.03
434347	n/a	n/a	n/a	n/a	n/a	n/a	72	50	200	<0.01
434348	n/a	n/a	n/a	n/a	n/a	n/a	46	60	150	<0.01
433885A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.50
433950A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.66
433970A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.66
433979A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.54
433990A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.66
434125A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.53
434140A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.52
434150A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.60
434160A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.57
434170A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.67
434180A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.77
434208A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.59
434303A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.46
434327A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.57

Duplicates

Sample	Cu	Pb	Zn	Ag	As	Co	Mo	Sn	WO_3	Au
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
433894	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
433929	23	96	363	<1	182	14	n/a	n/a	n/a	n/a
433947	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.09
433952	600	99	249	2	862	21	n/a	n/a	n/a	n/a
433961	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
433975	418	53	119	1	1067	14	n/a	n/a	n/a	n/a
433998	49	128	305	<1	19	10	n/a	n/a	n/a	n/a
434113	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
434133	14	20	30	<1	193	10	n/a	n/a	n/a	n/a
434134	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.03
434155	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
434156	40	492	871	1	60	7	n/a	n/a	n/a	n/a
434176	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.07
434179	167	26600	389	35	26	4	n/a	n/a	n/a	n/a
434191	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	14.0
434204	127	155	90	<1	20	18	n/a	n/a	n/a	0.04
434310	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.02
434312	227	4977	5350	8	120	13	n/a	n/a	n/a	n/a
434331	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
434335	n/a	n/a	n/a	n/a	n/a	n/a	30	n/a	n/a	n/a
434336	n/a	n/a	n/a	n/a	n/a	n/a	n/a	110	1050	n/a
434348	n/a	n/a	n/a	n/a	n/a	n/a	44	n/a	n/a	<0.01

Frontier Resources Ltd.
Job No. 20081022

Sample Type: Drillcore

Sample	Cu	Pb	Zn	Ag	As	Co	Au
	ppm	ppm	ppm	ppm	ppm	ppm	ppm
434216	3	67	93	1	20	9	<0.01
434217	4	55	88	1	51	6	<0.01
434218	2	7	49	1	19	8	<0.01
434219	1	11	37	<1	<10	4	<0.01
434220	1	2	40	<1	10	3	<0.01
434221	4	6	63	<1	<10	14	<0.01
434222	27	56	85	1	<10	9	<0.01
434223	64	65	89	<1	<10	11	<0.01
434224	48	42	74	1	<10	12	<0.01
434225	34	48	102	<1	<10	13	<0.01
434226	41	118	124	1	26	12	<0.01
434227	18	47	68	1	35	10	<0.01
434228	12	22	53	<1	22	8	<0.01
434229	10	20	85	<1	<10	8	<0.01
434230	27	54	128	<1	10	11	<0.01
434231	9	48	81	<1	<10	3	<0.01
434232	32	58	164	1	38	7	0.01
434233	18	93	409	<1	23	5	<0.01
434234	22	33	96	<1	<10	5	<0.01
434235	20	59	478	1	<10	11	0.04
434236	10	62	94	<1	<10	1	0.01
434237	32	50	88	<1	<10	9	<0.01
434238	64	56	106	1	<10	16	<0.01
434239	41	32	40	1	10	15	<0.01
434240	64	52	53	1	14	15	<0.01
434241	42	43	60	<1	21	11	<0.01
434242	8	33	49	<1	30	9	<0.01
434243	21	29	41	<1	10	20	<0.01
434244	100	22	76	<1	39	16	<0.01
434245	25	28	44	<1	52	11	<0.01
434246	99	21	28	<1	72	16	<0.01
434247	57	28	32	<1	11	9	<0.01
434248	62	50	46	<1	31	8	<0.01
434249	98	111	245	1	10	11	<0.01
434230A	n/a	n/a	n/a	n/a	n/a	n/a	5.59

Duplicates

Sample	Cu	Pb	Zn	Ag	As	Co	Au
	ppm	ppm	ppm	ppm	ppm	ppm	ppm
434217	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
434232	32	56	160	1	31	8	n/a
434238	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
434249	100	105	248	<1	17	12	n/a

Frontier Resources Ltd.
Job No. 20081120

Sample Type: Drillcore

Sample	Cu	Pb	Zn	Ag	As	Bi	Au
	ppm	ppm	ppm	ppm	ppm	ppm	ppm
520501	n/a	n/a	n/a	26	n/a	110	0.03
520502	n/a	n/a	n/a	12	n/a	100	<0.01
520503	n/a	n/a	n/a	7	n/a	57	<0.01
520504	n/a	n/a	n/a	3	n/a	55	<0.01
520505	n/a	n/a	n/a	3	n/a	55	0.04
520506	n/a	n/a	n/a	2	n/a	38	<0.01
520507	n/a	n/a	n/a	2	n/a	32	<0.01
520508	n/a	n/a	n/a	2	n/a	185	<0.01
520509	n/a	n/a	n/a	2	n/a	297	<0.01
520510	n/a	n/a	n/a	3	n/a	271	<0.01
520511	n/a	n/a	n/a	2	n/a	206	0.02
520512	n/a	n/a	n/a	2	n/a	242	0.02
520513	n/a	n/a	n/a	3	n/a	260	0.03
520514	n/a	n/a	n/a	2	n/a	380	0.16
520515	n/a	n/a	n/a	2	n/a	366	<0.01
520516	n/a	n/a	n/a	2	n/a	295	<0.01
520517	n/a	n/a	n/a	2	n/a	289	<0.01
520518	n/a	n/a	n/a	1	n/a	142	<0.01
520519	n/a	n/a	n/a	<1	n/a	50	<0.01
520520	n/a	n/a	n/a	<1	n/a	58	0.03
520521	n/a	n/a	n/a	1	n/a	66	<0.01
520522	n/a	n/a	n/a	1	n/a	91	<0.01
520523	n/a	n/a	n/a	1	n/a	66	<0.01
520524	n/a	n/a	n/a	<1	n/a	120	0.02
520525	n/a	n/a	n/a	1	n/a	156	<0.01
520526	n/a	n/a	n/a	1	n/a	166	<0.01
520527	n/a	n/a	n/a	1	n/a	99	<0.01
520528	n/a	n/a	n/a	1	n/a	69	<0.01
520529	n/a	n/a	n/a	1	n/a	58	<0.01
520530	n/a	n/a	n/a	1	n/a	66	<0.01
520531	n/a	n/a	n/a	1	n/a	25	<0.01
520532	n/a	n/a	n/a	2	n/a	56	<0.01
520533	n/a	n/a	n/a	1	n/a	57	<0.01
520534	n/a	n/a	n/a	<1	n/a	28	<0.01
520535	n/a	n/a	n/a	1	n/a	52	<0.01
520536	n/a	n/a	n/a	1	n/a	33	<0.01
520537	n/a	n/a	n/a	2	n/a	106	<0.01
520538	n/a	n/a	n/a	5	n/a	294	<0.01
520539	n/a	n/a	n/a	2	n/a	33	<0.01
520540	n/a	n/a	n/a	2	n/a	62	<0.01
520541	n/a	n/a	n/a	2	n/a	79	<0.01
520542	n/a	n/a	n/a	1	n/a	94	<0.01
520543	n/a	n/a	n/a	<1	n/a	11	<0.01
520544	n/a	n/a	n/a	<1	n/a	34	0.02
520545	n/a	n/a	n/a	1	n/a	43	0.16
520546	n/a	n/a	n/a	1	n/a	54	0.16
520547	n/a	n/a	n/a	1	n/a	48	0.10
520548	n/a	n/a	n/a	1	n/a	71	0.26
520549	n/a	n/a	n/a	<1	n/a	53	0.68
520550	n/a	n/a	n/a	1	n/a	16	0.10
520551	n/a	n/a	n/a	2	n/a	410	0.54
520552	n/a	n/a	n/a	5	n/a	1430	0.32

520553	n/a	n/a	n/a	2	n/a	1097	0.06
520554	n/a	n/a	n/a	2	n/a	622	<0.01
520555	n/a	n/a	n/a	2	n/a	323	0.03
520556	n/a	n/a	n/a	1	n/a	114	<0.01
520557	n/a	n/a	n/a	3	n/a	425	<0.01
520558	n/a	n/a	n/a	1	n/a	158	<0.01
520559	n/a	n/a	n/a	<1	n/a	70	<0.01
520560	n/a	n/a	n/a	<1	n/a	76	<0.01
520561	n/a	n/a	n/a	<1	n/a	74	<0.01
520562	n/a	n/a	n/a	1	n/a	87	<0.01
520563	n/a	n/a	n/a	1	n/a	63	<0.01
520564	n/a	n/a	n/a	1	n/a	16	<0.01
520565	n/a	n/a	n/a	1	n/a	54	<0.01
520566	n/a	n/a	n/a	1	n/a	80	<0.01
520567	n/a	n/a	n/a	<1	n/a	<1	<0.01
520568	n/a	n/a	n/a	1	n/a	6	<0.01
520569	n/a	n/a	n/a	1	n/a	<1	<0.01
520570	n/a	n/a	n/a	1	n/a	67	<0.01
520571	n/a	n/a	n/a	1	n/a	20	<0.01
520572	n/a	n/a	n/a	1	n/a	24	<0.01
520573	n/a	n/a	n/a	1	n/a	20	<0.01
520574	n/a	n/a	n/a	1	n/a	54	<0.01
520575	n/a	n/a	n/a	<1	n/a	<1	<0.01
520576	n/a	n/a	n/a	<1	n/a	42	<0.01
520577	n/a	n/a	n/a	1	n/a	19	<0.01
520578	n/a	n/a	n/a	<1	n/a	15	<0.01
520579	n/a	n/a	n/a	<1	n/a	<1	<0.01
520580	n/a	n/a	n/a	<1	n/a	<1	<0.01
520585	41	34	53	<1	193	n/a	<0.01
520586	89	31	36	1	71	n/a	<0.01
520587	54	15	48	<1	115	n/a	<0.01
520588	325	327	2446	3	139	n/a	<0.01
520589	91	30	60	<1	94	n/a	<0.01
520590	70	33	41	<1	238	n/a	<0.01
520591	71	84	133	<1	246	n/a	<0.01
520592	57	5	36	<1	80	n/a	<0.01
520593	97	40	66	<1	138	n/a	<0.01
520594	93	17	28	<1	124	n/a	<0.01
520595	76	16	26	<1	167	n/a	<0.01
520596	139	13	204	2	238	n/a	<0.01
520597	31	52	58	1	210	n/a	<0.01
520598	73	17	29	<1	197	n/a	<0.01
521168	20	94	140	1	151	n/a	<0.01
521169	51	75	53	1	216	n/a	<0.01
521170	131	274	387	1	244	n/a	<0.01
521171	32	230	188	1	129	n/a	<0.01
521172	188	166	127	1	149	n/a	<0.01
521173	18	29	126	1	190	n/a	0.06
521174	42	65	173	1	55	n/a	0.17
521175	7	77	107	1	195	n/a	0.01
521176	9	87	106	1	50	n/a	<0.01
521177	10	64	69	1	37	n/a	<0.01
521178	8	71	77	<1	13	n/a	<0.01
521179	35	89	116	1	95	n/a	0.60
521180	17	247	138	2	189	n/a	4.29
521181	95	86	173	2	258	n/a	0.22
521182	236	70	184	2	179	n/a	0.11
521183	269	42	81	2	261	n/a	0.15
521184	159	58	99	1	162	n/a	0.05
521185	15	18	67	<1	146	n/a	<0.01

521186	10	22	46	1	204	n/a	<0.01
521187	12	16	65	1	373	n/a	<0.01
521188	61	16	129	2	179	n/a	<0.01
521189	37	33	74	<1	245	n/a	<0.01
521190	30	49	68	1	220	n/a	<0.01
521191	35	19	49	1	302	n/a	<0.01
521192	24	49	77	1	249	n/a	<0.01
521193	39	63	112	1	155	n/a	<0.01
521194	109	2248	2305	5	61	n/a	<0.01
521195	78	1537	2565	5	285	n/a	<0.01
521196	12	212	260	1	145	n/a	<0.01
521197	46	251	340	1	298	n/a	<0.01
521198	55	133	336	1	170	n/a	<0.01
521199	25	52	78	<1	363	n/a	<0.01
521200	104	115	282	1	362	n/a	<0.01
521280	n/a	n/a	n/a	2	n/a	68	<0.01
521281	n/a	n/a	n/a	1	n/a	55	0.03
521282	n/a	n/a	n/a	3	n/a	180	0.34
521283	n/a	n/a	n/a	1	n/a	78	<0.01
521284	n/a	n/a	n/a	2	n/a	350	0.90
521285	n/a	n/a	n/a	1	n/a	115	0.09
521286	n/a	n/a	n/a	1	n/a	48	<0.01
521287	n/a	n/a	n/a	2	n/a	118	0.03
521288	n/a	n/a	n/a	1	n/a	96	0.30
521289	n/a	n/a	n/a	1	n/a	70	0.02
521290	n/a	n/a	n/a	1	n/a	51	0.05
521291	n/a	n/a	n/a	3	n/a	224	0.61
521292	n/a	n/a	n/a	2	n/a	268	1.02
521293	n/a	n/a	n/a	7	n/a	116	0.01
521294	n/a	n/a	n/a	2	n/a	121	0.04
521295	n/a	n/a	n/a	4	n/a	484	0.30
521296	n/a	n/a	n/a	3	n/a	1081	0.07
521297	n/a	n/a	n/a	3	n/a	1777	0.23
521298	n/a	n/a	n/a	2	n/a	312	0.01
521299	n/a	n/a	n/a	2	n/a	272	0.02
521300	n/a	n/a	n/a	2	n/a	452	<0.01
521301	n/a	n/a	n/a	2	n/a	268	<0.01
521302	n/a	n/a	n/a	2	n/a	288	<0.01
521303	n/a	n/a	n/a	1	n/a	94	<0.01
521304	n/a	n/a	n/a	1	n/a	94	<0.01
521305	n/a	n/a	n/a	1	n/a	82	<0.01
521306	n/a	n/a	n/a	1	n/a	124	<0.01
521307	n/a	n/a	n/a	1	n/a	247	<0.01
521308	n/a	n/a	n/a	1	n/a	169	<0.01
521309	n/a	n/a	n/a	1	n/a	128	<0.01
521310	n/a	n/a	n/a	1	n/a	288	<0.01
521311	n/a	n/a	n/a	2	n/a	57	<0.01
521312	n/a	n/a	n/a	2	n/a	68	<0.01
521313	n/a	n/a	n/a	2	n/a	271	0.86
521314	n/a	n/a	n/a	2	n/a	164	0.20
521315	n/a	n/a	n/a	1	n/a	68	0.04
521316	n/a	n/a	n/a	2	n/a	85	0.76
521317	n/a	n/a	n/a	3	n/a	281	1.06
521318	n/a	n/a	n/a	3	n/a	511	2.00
521319	n/a	n/a	n/a	3	n/a	216	0.75
521320	n/a	n/a	n/a	1	n/a	61	<0.01
521321	n/a	n/a	n/a	1	n/a	104	0.01
521322	n/a	n/a	n/a	2	n/a	107	0.12
521323	n/a	n/a	n/a	2	n/a	74	0.01
521324	n/a	n/a	n/a	2	n/a	85	<0.01

521325	n/a	n/a	n/a	2	n/a	104	<0.01
521326	n/a	n/a	n/a	2	n/a	139	<0.01
521327	n/a	n/a	n/a	2	n/a	146	<0.01
521328	n/a	n/a	n/a	5	n/a	540	0.42
521329	n/a	n/a	n/a	4	n/a	589	0.11
521330	n/a	n/a	n/a	3	n/a	1096	0.23
521331	n/a	n/a	n/a	2	n/a	158	0.04
521332	n/a	n/a	n/a	1	n/a	72	<0.01
521333	n/a	n/a	n/a	2	n/a	259	0.01
521334	n/a	n/a	n/a	2	n/a	181	<0.01
521335	n/a	n/a	n/a	2	n/a	133	<0.01
521336	n/a	n/a	n/a	2	n/a	359	0.01
521337	n/a	n/a	n/a	2	n/a	310	<0.01
521338	n/a	n/a	n/a	2	n/a	226	<0.01
521339	n/a	n/a	n/a	1	n/a	110	0.01
521340	n/a	n/a	n/a	1	n/a	74	<0.01
521341	n/a	n/a	n/a	<1	n/a	<1	<0.01
521342	n/a	n/a	n/a	2	n/a	29	<0.01
521343	n/a	n/a	n/a	2	n/a	80	<0.01
521344	n/a	n/a	n/a	<1	n/a	4	<0.01
521345	n/a	n/a	n/a	1	n/a	40	0.09
521346	n/a	n/a	n/a	1	n/a	6	<0.01
521347	n/a	n/a	n/a	2	n/a	<1	<0.01
521348	n/a	n/a	n/a	2	n/a	<1	<0.01
521349	n/a	n/a	n/a	2	n/a	<1	<0.01
521350	n/a	n/a	n/a	1	n/a	47	<0.01
521351	n/a	n/a	n/a	1	n/a	29	<0.01
521352	n/a	n/a	n/a	1	n/a	43	<0.01
521353	n/a	n/a	n/a	1	n/a	<1	<0.01
521354	n/a	n/a	n/a	1	n/a	<1	<0.01
521355	n/a	n/a	n/a	1	n/a	30	<0.01
521356	n/a	n/a	n/a	3	n/a	251	0.14
521357	n/a	n/a	n/a	3	n/a	407	0.58
521358	n/a	n/a	n/a	2	n/a	219	0.19
521359	n/a	n/a	n/a	2	n/a	76	0.01
521360	n/a	n/a	n/a	1	n/a	53	<0.01
521361	n/a	n/a	n/a	2	n/a	107	<0.01
521362	n/a	n/a	n/a	1	n/a	85	<0.01
521363	n/a	n/a	n/a	1	n/a	68	<0.01
521364	n/a	n/a	n/a	1	n/a	54	<0.01
521365	n/a	n/a	n/a	2	n/a	188	0.10
521366	n/a	n/a	n/a	2	n/a	120	<0.01
521367	n/a	n/a	n/a	1	n/a	46	<0.01
521368	n/a	n/a	n/a	2	n/a	69	<0.01
521369	n/a	n/a	n/a	1	n/a	69	<0.01
521370	n/a	n/a	n/a	2	n/a	88	<0.01
521371	n/a	n/a	n/a	1	n/a	73	<0.01
521372	n/a	n/a	n/a	1	n/a	90	<0.01
521373	n/a	n/a	n/a	1	n/a	60	<0.01
521374	n/a	n/a	n/a	2	n/a	123	0.09
521375	n/a	n/a	n/a	2	n/a	87	0.04
521376	n/a	n/a	n/a	3	n/a	167	0.02
521377	n/a	n/a	n/a	2	n/a	153	0.01
521378	n/a	n/a	n/a	3	n/a	142	<0.01
521379	n/a	n/a	n/a	1	n/a	118	<0.01
521380	n/a	n/a	n/a	2	n/a	120	<0.01
521381	n/a	n/a	n/a	2	n/a	159	<0.01
521382	n/a	n/a	n/a	2	n/a	1841	0.21
521383	n/a	n/a	n/a	3	n/a	907	0.19
521384	n/a	n/a	n/a	2	n/a	451	0.11

521385	n/a	n/a	n/a	2	n/a	289	0.01
521386	n/a	n/a	n/a	2	n/a	254	<0.01
521387	n/a	n/a	n/a	1	n/a	166	<0.01
521388	n/a	n/a	n/a	2	n/a	86	<0.01
521389	n/a	n/a	n/a	1	n/a	65	<0.01
521390	n/a	n/a	n/a	<1	n/a	<1	<0.01
521391	n/a	n/a	n/a	<1	n/a	<1	<0.01
521392	n/a	n/a	n/a	1	n/a	45	<0.01
521393	n/a	n/a	n/a	1	n/a	63	<0.01
521394	n/a	n/a	n/a	<1	n/a	204	1.07
521395	n/a	n/a	n/a	1	n/a	345	1.09
521396	n/a	n/a	n/a	1	n/a	188	0.31
521397	n/a	n/a	n/a	1	n/a	444	0.79
521398	n/a	n/a	n/a	1	n/a	641	0.81
521399	n/a	n/a	n/a	2	n/a	80	0.23
521400	n/a	n/a	n/a	2	n/a	130	0.07
520520A	n/a	n/a	n/a	n/a	n/a	n/a	5.48
520540A	n/a	n/a	n/a	n/a	n/a	n/a	5.28
520560A	n/a	n/a	n/a	n/a	n/a	n/a	5.30
520595A	n/a	n/a	n/a	n/a	n/a	n/a	5.25
521180A	n/a	n/a	n/a	n/a	n/a	n/a	5.45
521300A	n/a	n/a	n/a	n/a	n/a	n/a	5.50
521320A	n/a	n/a	n/a	n/a	n/a	n/a	5.60
521340A	n/a	n/a	n/a	n/a	n/a	n/a	5.47
521360A	n/a	n/a	n/a	n/a	n/a	n/a	5.41
521380A	n/a	n/a	n/a	n/a	n/a	n/a	5.39

Duplicates

Sample	Cu	Pb	Zn	Ag	As	Bi	Au
	ppm	ppm	ppm	ppm	ppm	ppm	ppm
520502	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
520521	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
520523	n/a	n/a	n/a	1	n/a	46	n/a
520540	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
520546	n/a	n/a	n/a	1	n/a	30	n/a
520560	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
520569	n/a	n/a	n/a	1	n/a	7	n/a
520581	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
520596	140	8	199	2	160	n/a	n/a
521171	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
521188	68	18	131	1	354	n/a	n/a
521200	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
521290	n/a	n/a	n/a	1	n/a	53	n/a
521300	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
521313	n/a	n/a	n/a	2	n/a	254	n/a
521321	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
521336	n/a	n/a	n/a	2	n/a	367	n/a
521342	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
521359	n/a	n/a	n/a	1	n/a	82	n/a
521371	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
521382	n/a	n/a	n/a	2	n/a	1769	n/a
521391	n/a	n/a	n/a	n/a	n/a	n/a	<0.01
521400	n/a	n/a	n/a	2	n/a	133	n/a

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Job No. 20090203

Sample Type: Pulps

Sample	Mo	Sn	WO_3
	ppm	ppm	ppm
433975	<1	80	190
433976	134	50	240
433977	4	150	170
434196	<1	110	320
434197	3	150	1950
434198	1	110	460
434301	<1	250	320
434302	3	480	280
434303	10	340	280
434304	18	400	110
434305	1	360	270
434306	<1	190	180
434307	2	110	250
434308	<1	140	400
434309	47	130	3380
434310	<1	190	170
434311	<1	140	140
434312	6	230	19800
434313	13	80	240
434314	<1	160	270
434868	<1	330	480
434869	1	150	310
434870	<1	190	270
434871	<1	640	240
434994	<1	240	150
434995	3	260	150
434996	1	510	210

Duplicates

Sample	Mo	Sn	WO_3
	ppm	ppm	ppm
434814	n/a	140	250
434996	1	n/a	n/a

Appendix 6: Narrawa Creek Resource Calculation 2008

Copies distributed:

1 x Frontier Tasmania Office, TAS
1 x Frontier Perth Office, WA
1 x Geostat Services Office, WA

FRONTIER RESOURCES LTD
NARRAWA CREEK PROJECT

RESOURCE ESTIMATE

MARCH 2008

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EXECUTIVE SUMMARY

Geological model

- The Narrawa Creek deposit is characterised by an intrusion-related Au-Pb-Zn-Ag complex with the main mineralised area striking broadly NW-SE. The lodes are interpreted as dipping steeply towards the north-east, with a late brittle fault truncating the resource to the south-west.
- Three wireframes were delineated from sectional outlines to represent all mineralisation in the Narrawa Creek deposit. A combination of assays and lithology was used to define these wireframe envelopes, with a cut-off of approximately 0.5 g/t Au to separate mineralisation from waste within the broad skarn complex lithology.

Statistics

- Location statistics of mineralised composites reveal a moderate Au population, with the two main lodes exhibiting mean cut grades of 2.45 g/t Au and 3.31 g/t Au.
- Top-cuts were applied to composites within lodes in order to constrain extreme values and reduce their impact on estimated grades. A top-cut of 10-12 g/t Au was applied to the main lodes. Upper inflexion points in probability distribution plots and a high coefficient of variation were used as a guide to determining top-cuts for these wireframes.

Block model

- A block model of parent cell size 5m (N) x 10m (E) x 5m (RL) subcelled to 1.25m x 2.5m x 1.25m was built for the Narrawa Creek deposit. Grades were estimated using inverse distance squared interpolation for all lodes. A minimum of 4 composites and a maximum of 20 composites were used in interpolation of grades into blocks. Search ellipses for initial interpolation of grades comprised 30m x 15m x 10m. A second subsequent interpolation pass was employed with expanded search ellipses in order to fill blocks in areas of sparse drill density within the lodes.
- A classified mineral resource for the Narrawa Creek deposit was calculated as at March 2008 above a cut-off of 0.5 g/t Au, totalling 190,000 tonnes at 2.74 g/t Au, 1.59% Pb, 1.21% Zn and 22 g/t Ag. Classification of the resource involved several criteria, including drillhole spacing, sampling density, sampling locations, kriging variance, lode geometry and confidence in grade continuity. Lodes were classified as wholly Inferred on the basis of the above criteria. A density of 2.96t/m^3 was used to estimate resource block tonnage for all lodes.

Recommendations

- Infill drilling is recommended to consolidate and extend the current delineation of mineralisation at Narrawa Creek. It is recommended to infill the current drill density to 12.5m spacings, to provide more composites for interpolation and to enable a possible upgrade of the resource to Indicated status.
- A formal survey of the current Higgs pit and all underground workings where possible is recommended to enable an accurate topography surface to be applied to the model.
- It is recommended that more specific gravity values be obtained with the planned infill drilling to support the current densities applied.
- A local grid is recommended for the Narrawa Creek deposit, such that the mineralised lodes strike directly north. This will allow optimal filling of blocks and thorough interrogation of the block model.

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NARRAWA CREEK RESOURCE ESTIMATE

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1.0 INTRODUCTION

Geostat Services (Geostat) was commissioned by Frontier Resources Ltd (Frontier) to undertake a geostatistical resource estimate of the Narrawa Creek deposit in March 2008. This deposit is located in the central north of Tasmania, approximately 20km south-west of Sheffield and 40 km from Devonport. The aim of this work was to provide an updated 3D geostatistical resource of the Narrawa Creek deposit, using the latest available drilling assays and the greater understanding of the deposit geology.

Historically, the deposit was drilled by previous owners, Jervois and TasGold. Jervois compiled a primitive resource estimate, based on weighted averaged grades from two diamond drillholes. The Tas Gold resource estimate was calculated on a sectional basis, using Mapinfo and Discover, which uses a two-dimensional inverse distance weighted interpolator to produce a grid of intopolated values within the boundary defined for the resource, with a total of 16 diamond drillholes drilled by these companies.

Previous resources released by former owners and Frontier are tabulated in Table 1.1 below. These estimates have relied on an assumed density of 2.8 in the absence of bulk dry density information.

Author/Model Date	Tonnes	Au g/t	Pb %	Zn %	Ag g/t	Method
McKenna Model (2003)	215,000	3.50	1.50	1.30	23	Weight average of NC6 & 12
TasGold Model (2005)	205,000	2.70	1.38	1.07	41	2D sectional resource

Table 1.1 Previous Resources of the Narrawa Creek Deposit

2.0 DATA

Geostat was provided with comma-delimited files comprising drillhole collar, assay, survey and lithology data covering the Narrawa Creek deposit by Frontier. Drillholes comprise a mixture of diamond holes and channel face samples, with a total of 20 holes drilled for 857m. Diamond drillhole depths vary from 21m to 84m, with an average depth of 60m. Table 2.1 lists the drillholes used in the resource.

Drillhole data spacing throughout the Narrawa Creek deposit is variable, with 8 oblique drill sections averaging 25m spacing along-strike. Drillholes were often drilled in fans on these sections and oriented to intersect the lodes at various depths.

Limited validation of the database was performed by Geostat, however, a thorough validation was considered to have been completed by Frontier prior to receiving the data. It was not within the

scope of the brief to assess data quality and integrity. No information was provided regarding different analytical procedures and all assays have been processed as one dataset.

DIAMOND DRILLHOLES				
HOLE	**EASTING**	**NORTHING**	**RL**	**DEPTH**
NC06	425471.28	5406685.49	524	42.3
NC07	425451.09	5406698.87	525	27.8
NC08	425434.18	5406709.54	526	21.3
NC12	425491.9	5406679.93	521	40.7
NC18	425521.6	5406680.95	519	61
NC19	425499.2	5406693.86	517	71
NC20	425476.9	5406694.2	518	81.5
NC22	425514	5406619	543	81
NC27	425514	5406619	543	83.8
NC28	425514	5406619	543	82.5
NC29	425514	5406618.85	543	79.5
NC32	425538	5406615	545	54
NC34	425573	5406633	536	57.1
CHANNEL SAMPLE HOLES				
HOLE	**EASTING**	**NORTHING**	**RL**	**DEPTH**
NCCS2	425507.75	5406635.92	535	5
NCCS3	425496.79	5406647.38	533	3.1
NCCS4	425501.8	5406644.41	533.5	31.3
NCCS9	425466.45	5406657.8	538	2.3
NCCS10	425471.69	5406654.04	538	4.1
NCCS12	425452.98	5406693.5	528	8
NCCS13	425447.94	5406688.41	526	20

Table 2.1 Narrawa Creek Drillholes used in Resource

3.0 WIREFRAMING

The Narrawa Creek deposit characterises an intrusion-related gold skarn complex, comprising a stratabound series of lodes on the western limb of an anticline shallowly plunging to the north-west. Three 3D wireframe envelopes were delineated for the Narrawa Creek deposit, based primarily on assays and lithology, with an approximate 0.5g/t Au equivalent cut-off used to separate mineralisation from waste within the broad sulphidic skarn lithology. Consideration was also given to anomalous Pb, Zn and Ag assays in the absence of gold assays. The deposit comprises two lodes (100 & 200) trending 125°, truncated from a smaller lode 300 by an interpreted north-east striking, south-east dipping late brittle fault (Figure 3.1). The two main lodes dip steeply towards the north-east at -70°, with the 200 lode steepening to -85° in the south-east. The 300 lode exhibits a 100° strike with a steep dip of -80° towards the north-north-east. The lodes extend over a distance of 180m along-strike, with a maximum down-dip extent of 80m.

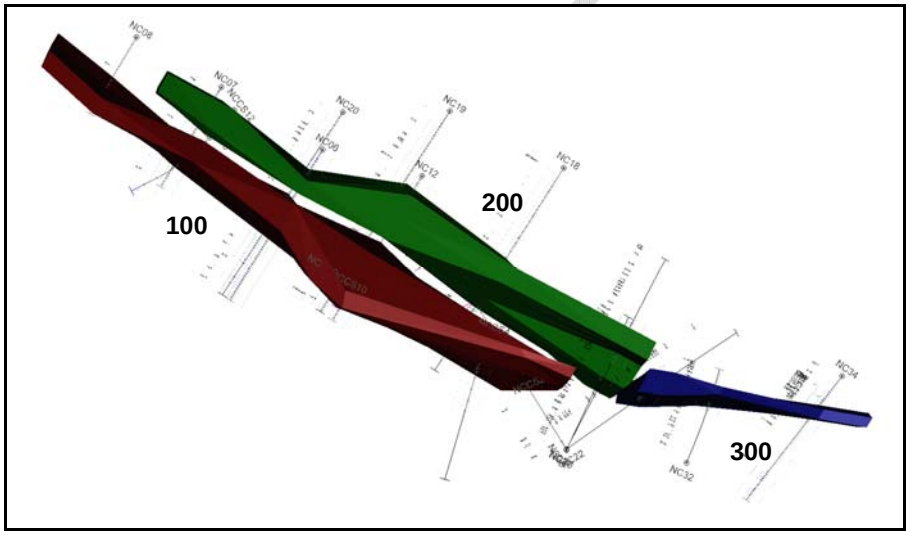

Figure 3.1 3D plan- view of Narrawa Creek wireframes

4.0 STATISTICS

4.1 Compositing of sample data

Sample intervals within the resource database were examined to determine the dominant sample length. Within the mineralisation wireframes, the majority of all samples comprised 1m interval lengths, and thus the data was composited to 1m intervals, honouring drillhole-wireframe intersections.

4.2 Top-cutting of composite data

Composite data within the resource database was assessed for the need of a top-cut to be applied to data prior to grade estimation. The determination of a high-grade cut is made on the basis of probability plots and ranked data values, with the general criteria for the top-cuts being a marked change, a kink, or pronounced disintegration at the higher end of the probability distribution, or a clear break within ranked composite data.

Top-cuts were only applied to grade variables within these lodes where the coefficient of variation was high, and/or there was a large variance present, in addition to the above criteria. These top-cuts are conservative, with a very low impact to the overall mean grade. Top-cuts for each lode are summarised below in Table 4.1.

ELEMENT	LODE		
	100	200	300
Au	12	10	-
Pb	-	100,000	-
Zn	-	70,000	70,000
Ag	100	100	100
Cu	-	-	-
As	-	300	-

Table 4.1 Top-cuts applied to Lodes, Narrawa Creek

4.3 Descriptive Statistics

Statistics were run within the resource database for all constrained uncut and cut composite data by lode, and are presented in Table 4.2.

Location statistics of mineralised composites reveal moderate cut Au grades within lodes 100 and 200 containing respective mean grades of 3.31 g/t Au and 2.45 g/t Au, with a lower mean Au grade of 0.67 g/t in the 300 lode. This lode contains a limited number of composite data, and more composites are needed to assess the true grade population of this lode. Narrawa Creek lodes also contain low copper and arsenic grades, which are considered to be at uneconomic levels for these elements.

The low number of composites has prevented conclusive histogram analysis of the data populations within each lode. It is recommended that infill drilling be completed to boost the data levels and allow more comprehensive statistical analysis of the Narrawa Creek lodes.

Variography analysis was not completed on composite data, due to insufficient data levels.

Element/ Statistic	AU			PB			ZN		
	100	200	300	100	200	300	100	200	300
Number	71	65	21	68	65	21	68	65	21
Minimum	0.017	0.11	0.013	40.6	45	900	35	62.5	400
Maximum	23.01	28.00	1.96	59710	187000	61700	52700	150000	90700
Mean	3.50	2.88	0.67	12566	23020	14060	10111	15401	14614
Median	1.57	1.47	0.40	2225	2740	4925	2800	840	4700
Std Dev	4.36	4.36	0.68	16660	39401	18143	13714	26887	21120
Variance	19.01	18.99	0.46	277568699	1552460178	329171705	188068333	722906329	446045376
Coeff Var	1.24	1.51	1.02	1.33	1.71	1.29	1.36	1.75	1.45
Topcut	12	10	-	-	100000	-	-	70000	70000
No Cut	2	2	-	-	4	-	-	2	1
Cut mean	3.31	2.45	-	-	20297	-	-	13904	13629
Cut COV	1.12	1.01	-	-	1.48	-	-	1.52	1.29

Element/ Statistic	CU			AG			AS		
	100	200	300	100	200	300	100	200	300
Number	62	65	21	59	59	21	39	44	21
Minimum	5	5	197	0.5	0.5	5.5	0.5	0.5	120
Maximum	1860	3072	3543	171.5	460	110	210	2720	430
Mean	498	868	1617	22	30	27	35	177	239
Median	410	580	1100	11	3	17	17	75	213
Std Dev	420	838	1075	29	71	27	49	414	92
Variance	176350	702722	1155402	862	5102	714	2394	171776	8426
Coeff Var	0.84	0.97	0.67	1.35	2.38	0.99	1.40	2.34	0.38
Topcut	-	-	-	100	100	100	-	300	-
No Cut	-	-	-	1	3	1	-	3	-
Cut mean	-	-	-	20.6	20.7	26.6	-	111.4	-
Cut COV	-	-	-	1.17	1.45	0.95	-	0.86	-

Table 4.2 Uncut & Cut Composite Statistics by Lode

4.4 Correlation Analysis

To be compiled.

6.0 BLOCK MODELLING AND GRADE INTERPOLATION

6.1 Block model creation and extents

A 3D block model, *narrawacreek_march08.mdl* was generated using Surpac software with origin, extents and attributes defined below in Table 6.1. Parent blocks of 5m x 10m x 5m size (Y x X x Z) were subdivided into sub-blocks of 1.25m x 2.5m x 1.25m in order to fill areas adjacent to wireframe boundaries. The wireframes were used to limit the blocks available for grade interpolation, with block centroid locations used to define the blocks and sub-blocks for interpolation.

Model Parameters	**Y**	**X**	**Z**
Minimum Coordinates	5406600	425400	450
Maximum Coordinates	5406750	425600	550
Model Extent	150m	200m	100m
Parent Block Size	5m	10m	5m
Minimum Block Size	1.25m	2.5m	1.25m
Attribute	**Type**	**Description**	
ag	Float	Ag estimated grade	
as	Float	As estimated grade	
au	Float	Au estimated grade	
cu	Float	Cu estimated grade	
density	Float	SG	
lodecode	Integer	Lode code	
no_samp	Integer	No of samples used to fill block	
pb	Float	Pb estimated grade	
resclass	Integer	Classification code	
zn	Float	Zn estimated grade	

Table 6.1 Narrawa Creek Resource Model Extents

6.2 Estimation parameters and methodology

Inverse distance squared interpolation was used to estimate Au, Pb, Zn, Cu, As and Ag grades for the Narrawa Creek deposit.

6.2.1 Grade interpolation

Each lode was treated as a separate hard boundary, restricting the grade interpolation to drillhole data located within each lode. A minimum of 4 samples and a maximum of 20 samples were used to interpolate grades into each block. A discretisation array of 5 (east) by 5 (north) by 5 (RL) was used to refine the kriging weights for each model block.

Two interpolation passes were conducted for all lodes, with Table 6.2 outlining the search ellipse dimensions for each pass. Only those blocks unfilled by the first pass were interpolated by the second pass, and grades estimated from the first interpolation pass were left unchanged.

Element	SEARCH ELLIPSE DIMENSIONS	
	1st Pass	2nd Pass
Au	30m x 15m x 10m	50m x 25m x 17m
Pb	30m x 15m x 10m	50m x 25m x 17m
Zn	30m x 15m x 10m	50m x 25m x 17m
Cu	30m x 15m x 10m	50m x 25m x 17m
Ag	30m x 15m x 10m	60m x 30m x 20m
As	30m x 15m x 10m	60m x30m x 20m

Table 6.2 Search Ellipse Dimensions for each Interpolation Pass

Table 6.3 below lists the strike and dip orientations employed for each lode. The 200 lode was split into two domains using 425,500mE as a boundary, as the dip of this lode steepens from -70° to -85° around this easting.

LODE	STRIKE	DIP
100	125°	-70/035
200 west	125°	-85/035
200 east	125°	-70/035
300	100°	-80/010

Table 6.3 Search Ellipse Orientations

All blocks within lodes were filled for Au, Pb, Zn and Cu. However, due to the lower data levels of Ag and As, a small number of blocks remained unfilled for these elements. Hence, the average estimated value of these grade elements were assigned to unfilled blocks, these being 22.7 g/t Ag and 29 g/t As respectively.

6.2.2 Density

A total of 49 density values were supplied for the block model, with bulk density determinations using the wax-encapsulation method. The drillcore samples were weighed, and then sprayed with a lacquered hair spray, with multiple coats used for porous samples to protect pores and voids from water saturation. The samples were then weighed in water. The SG was determined by:

SG = weight in air / (weight in air – weight in water)

Density values were averaged for all lodes, with a combined average of 2.96 t/m^3 used in the resource model. One outlier value of 5.70 was removed from the dataset prior to the average calculations, as this value was deemed to be incorrect and likely resulted from erroneous analysis.

6.3 Block model validation

The Narrawa Creek block model was validated by several methods, including visual validations on-screen, global statistical comparisons of input and block grades, and local grade/depth relationships. The model was validated visually by viewing vertical sections and plans of the block model, with spatial comparison of interpolated block grades against input composite grades to ensure grade trends were represented correctly.

6.3.1 Global statistical validations

Average cut composite grades were statistically compared with mean block grades by lode, with summary results tabulated in Table 6.4 below.

ELEMENT	LODE	NO OF COMPOSITES	COMP CUT MEAN AU	MODEL MEAN AU	% DIFFERENCE COMPS VS MODEL
AU	100	71	3.31	3.01	-9.0%
	200	65	2.45	2.96	20.8%
	300	21	0.67	0.66	-0.9%
AG	100	59	20.57	22.70	10.4%
	200	59	20.72	18.60	-10.2%
	300	21	26.60	26.80	0.8%
AS	100	39	35.02	29.02	-17.1%
	200	44	111.40	101.52	-8.9%
	300	21	239.29	236.48	-1.2%
PB	100	68	12566.37	13439.16	6.9%
	200	65	20296.60	18417.10	-9.3%
	300	21	14060.48	14577.12	3.7%
ZN	100	68	10111.15	10477.71	3.6%
	200	65	13904.00	12944.92	-6.9%
	300	21	13628.60	13941.95	2.3%
CU	100	62	497.91	483.14	-3.0%
	200	65	868.38	867.86	-0.1%
	300	21	1616.67	1583.36	-2.1%

Table 6.4 Global statistical validation of model grades

A good overall reconciliation exists between average input composite grades and mean block grades, with most model mean grades reporting within 10% of composite averages. The Ag and As grade reconciliations suffer from the absence of sample data in critical drillhole locations, hence the influence of existing sample data is disproportionate to that of other elements, with spreading of grades into large uninformed areas. Hence, this information effect has resulted in elevated or reduced average block grades in comparison to the mean composite grades for these wireframes. With respect to Au in the 200 lode, high-grade composites within drillhole NC27 are unconstrained at upper levels, hence these composites have a larger influence over these blocks and thus an elevated model grade is reported.

6.3.2 Grade/Depth validations

Figures 6.2 to 6.7 illustrate the grade/depth relationship of all elements for the combined lodes within the Narrawa Creek deposit. Both input composite data and model grade data were averaged within 10m depth increments, and plotted together with the number of composites to assess the reliability of the block model.

Comparisons of model grades with composite grades illustrate a good broad reconciliation, with model grades reproducing the trends in composite grades. The lower As model grade relative to the composites is a function of the 100 lode solely comprising As grades at the detection limit, thus reduced grades are reflected in a large number of blocks.

7.0 RESOURCE CLASSIFICATION AND REPORTING

The Mineral Resource for the Narrawa Creek deposit has been classified in accordance with the guidelines outlined in the "Australian Code for Reporting of Identified Mineral Resources and Ore Reserves" (JORC, 2004 edition). Assessment criteria include drillhole spacing, sample locations, sampling density, lode geometry, geological confidence and grade continuity.

7.1 Methodology

The Narrawa Creek resource has been wholly classified as Inferred, on the basis of sampling density and confidence in grade continuity. Lodes are defined by a relatively low number of drillholes, with limited drillhole intercepts per section, and forced large extrapolations of composite grades during grade interpolation. Hence, all blocks within the lodes were assigned an Inferred category.

7.2 Results

The classified Mineral Resource is tabulated in Table 7.1 as at March 2008 and is reported above a cut-off of 0.5 g/t Au. The model was reported below the topography surface which includes the shallow Higgs pit, and also excluded all historical underground workings.

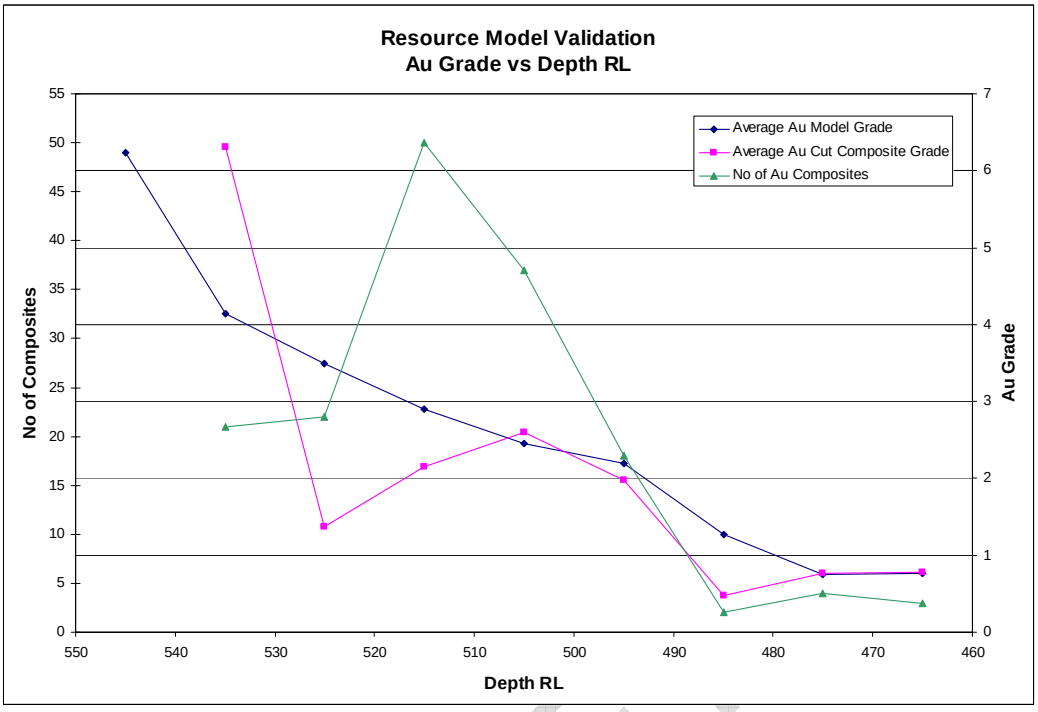

Figure 6.2 Au Grade vs Depth validation plot – All Lodes

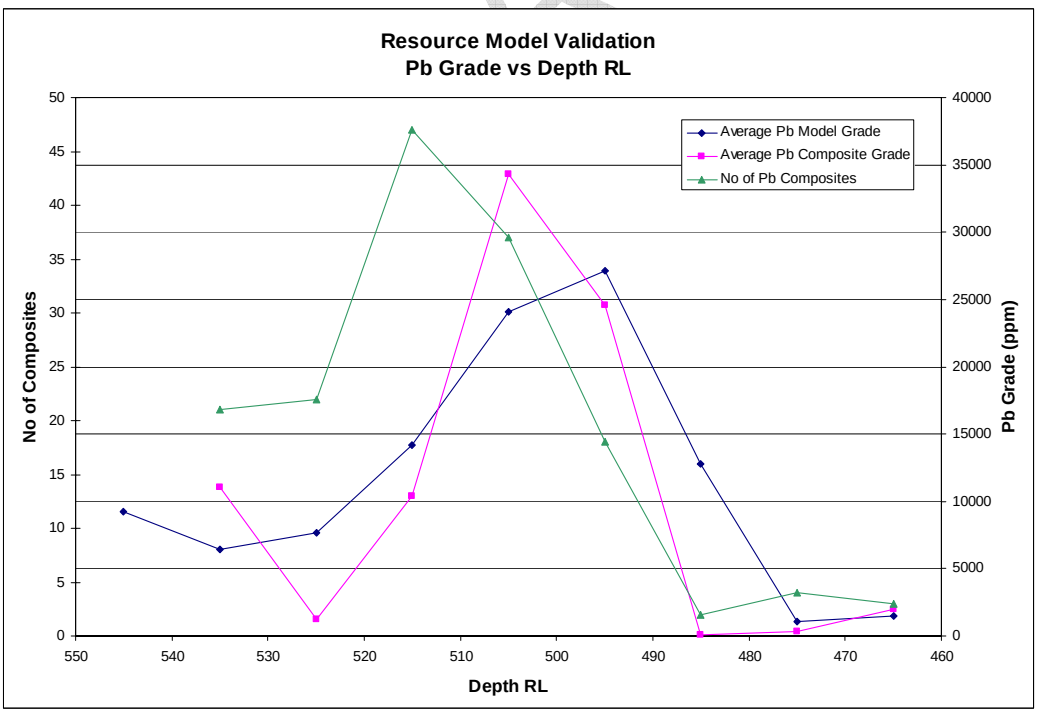

Figure 6.3 Pb Grade vs Depth validation plot – All Lodes

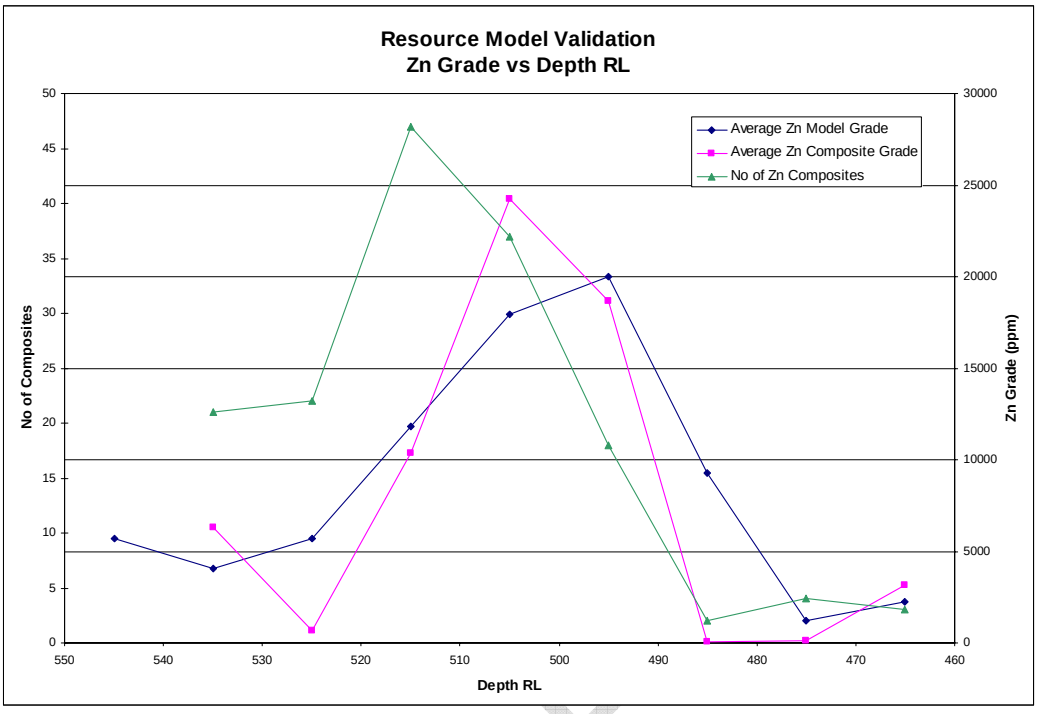

Figure 6.4 Zn Grade vs Depth validation plot – All Lodes

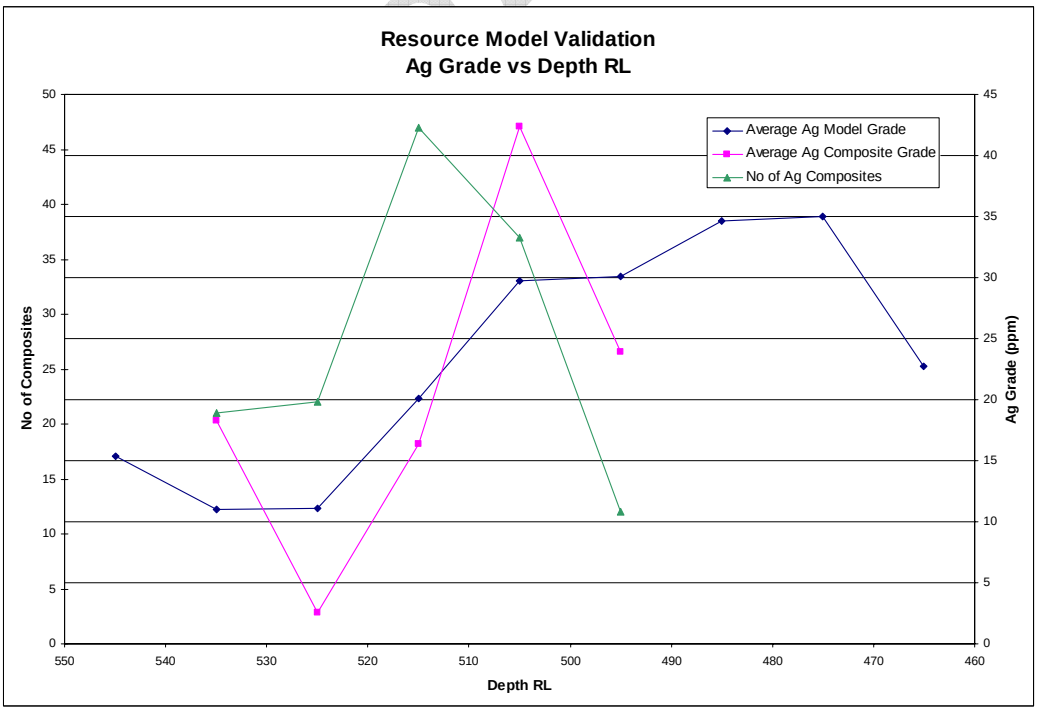

Figure 6.5 Ag Grade vs Depth validation plot – All Lodes

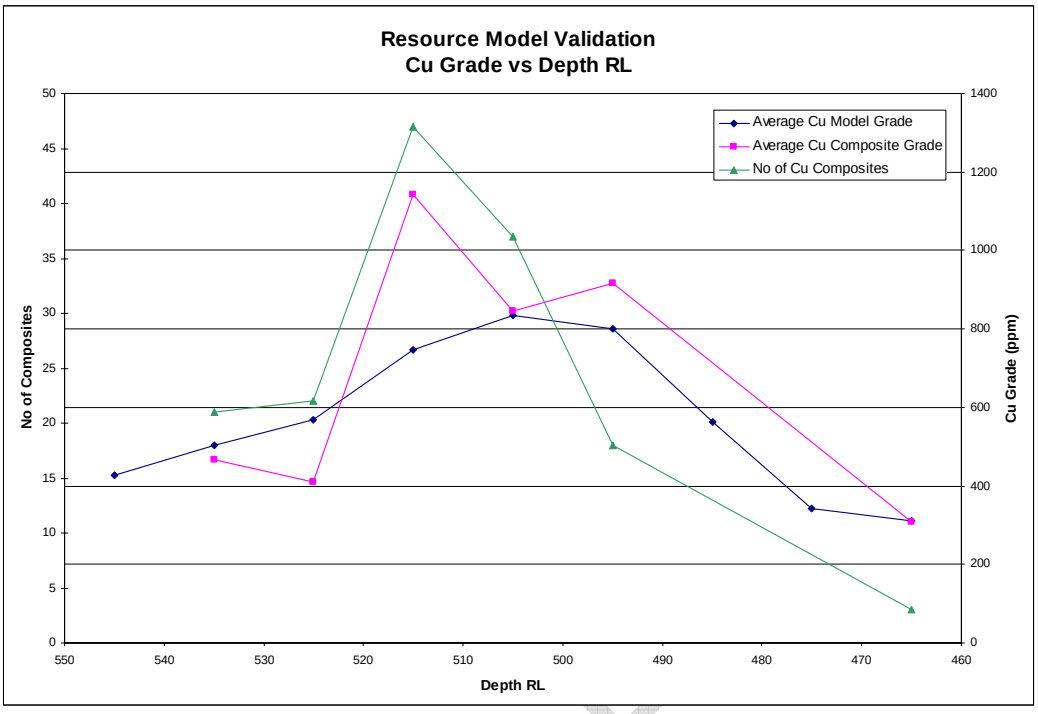

Figure 6.6 Cu Grade vs Depth validation plot – All Lodes

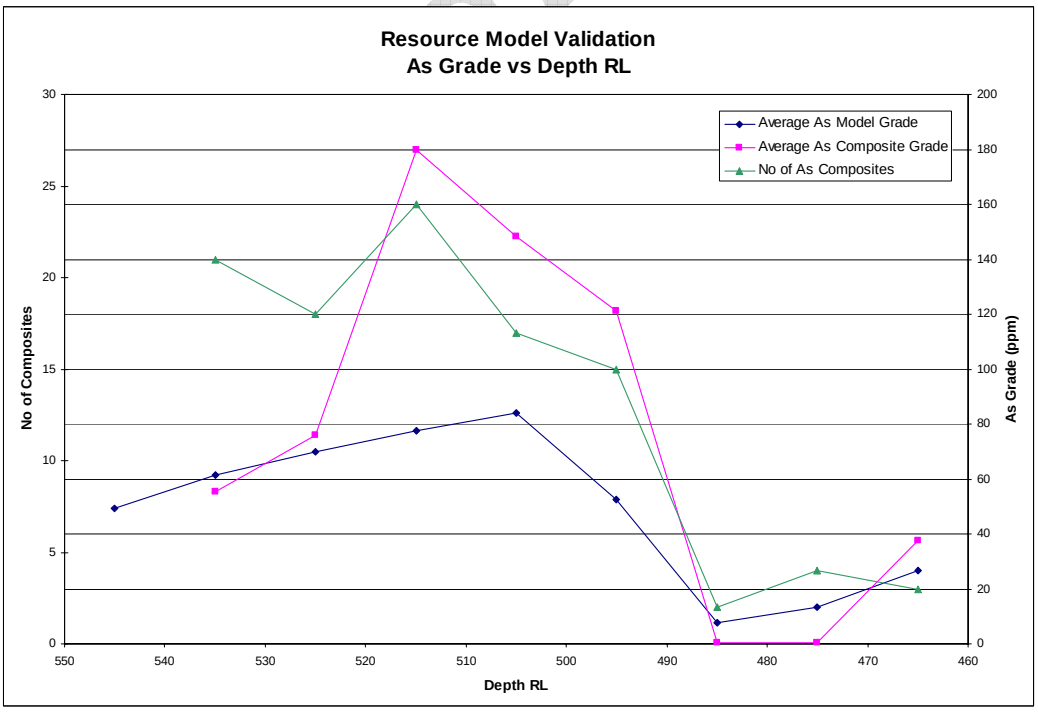

Figure 6.7 As Grade vs Depth validation plot – All Lodes

Lode	Volume	Tonnes	Au g/t	Pb %	Zn %	Ag g/t
100	37,684	111,543	2.81	1.41	1.12	24
200	23,094	68,358	2.94	1.91	1.34	19
300	3,438	10,175	0.70	1.35	1.34	26
TOTAL	**64,215**	**190,076**	**2.74**	**1.59**	**1.21**	**22**

Table 7.1 Narrawa Creek Classified Mineral Resource as at March 2008

Figure 7.1 illustrates the grade-tonnage relationship for all wireframes for Narrawa Creek at a range of Au cut-off grades from 0 to 5 g/t Au, to test the sensitivity of the model to the cut-off grade applied. Au cut-off grades are bracketed next to points representing the tonnage and average grade applicable at these cut-off grades.

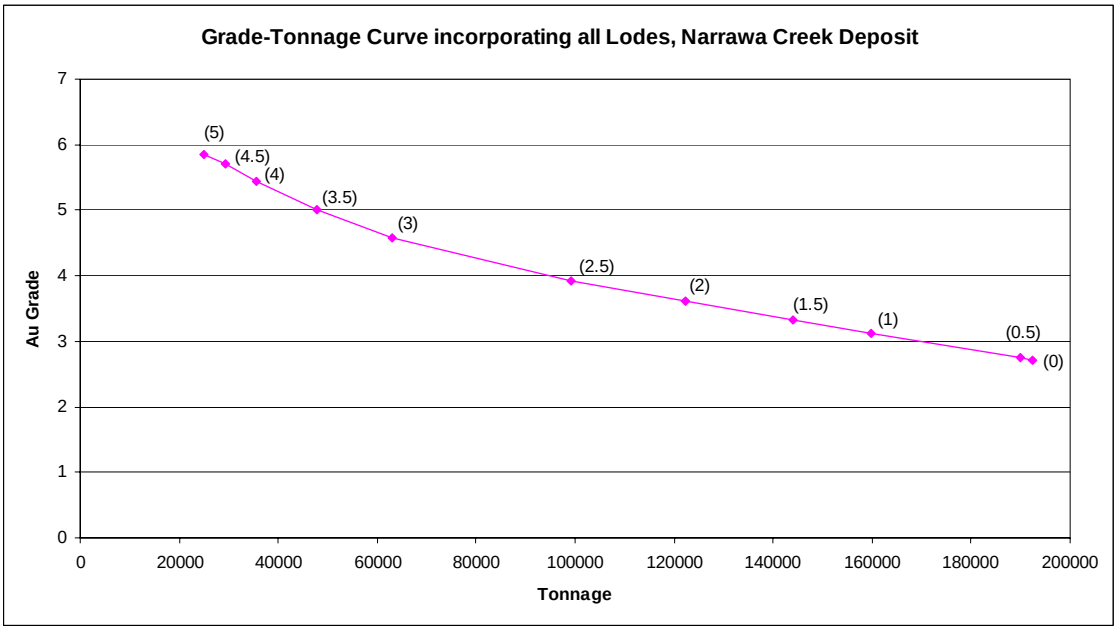

Figure 7.1 Grade Tonnage Curve for all Lodes

8.0 RECOMMENDATIONS

A number of recommendations are made in light of the completed resource model for Narrawa Creek, including infill drilling along-strike and across-strike, additional drilling to improve definition of wireframes, more specific gravity values, and lithology coding recommendations.

Excellent potential exists for continuation of mineralisation along-strike to the north-west and at depth. It is recommended to infill the current drilling to 12.5m spacing in order to provide more data for geostatistical analysis, to enable ordinary kriging interpolation of the deposit and a possible upgrade of the resource to Indicated status. The area around the interpreted brittle fault in the south-west is lacking in definition, and more drilling information is needed in this area to further define the throw of this fault, its offset and impact on mineralisation.

A photogrammetric definition of the topography surface was supplied at 2m spacing, and the approximate location of the Higgs pit and underground workings surface dtms were manipulated onto this topography surface. It is recommended that the Higgs pit and underground workings be formally surveyed where possible to provide an accurate location and extent of these features for cutting the resource model.

Density values from wax-encapsulation analysis were also supplied towards the completion of the current resource model. It is recommended that further SG values are obtained with all planned drillholes to support the current densities applied.

The AMG grid is currently used for the Narrawa Creek deposit, with the lodes oriented at an obtuse angle to this coordinate system. It is recommended that a local grid be employed for this deposit such that the lodes strike directly north. This will enable improved filling of model blocks and interrogation of the resource model.