FINAL REPORT

ANNUAL & FINAL REPORT FOR THE ARTHUR HILLS PROJECT

for the period
24 April 1999 to **11 March 2002**

Exploration Licences covered by this report:

EL9560 BARON
EL9561 KAISER

NORTHERN TERRITORY

Volume **1** of **1**

1:250,000 SHEET:	Mount Theo	SF52-08
	Mount Patricia	SF53-05
1:100,000 SHEET:	Patricia	5255
	Turners Dome	5254
	Studholme	5355
	Giles	5354

AUTHOR: E. Whittaker

TENEMENT HOLDERS: Normandy NFM Ltd.

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- ❑ Northern Territory Department of Business, Industry and Research Development
- ❑ Newmont Australia

SUMMARY

The area covered by the Arthur Hills Project is located approximately 300km north west of Alice Springs and 80km NNE of Yuendumu, was explored for economic gold mineralisation.

The Arthur Hills Project tenements described in this report were held by Normandy NFM Ltd in Joint Venture with Newmont Gold Exploration Pty Ltd. Normandy NFM Ltd was the tenement managers.

During 1998, Normandy NFM negotiated an agreement with the NT BIRD to provide a group reporting arrangement for the Arthur Hills Project exploration licences. It was also agreed that the report would cover a calendar year (field season) rather than anniversary year. A submission date of the 28th of February each year was established. This report represents a combined third Arthur Hills Project annual report and a final report and as such, describes the exploration activity pertaining to all granted exploration licences within the Project from 29/04/99 to the time of relinquishment. It thus includes exploration licences 9560 (Baron) and 9561 (Kaiser).

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1. INTRODUCTION

This document is the second project group report to be completed for the Arthur Hills Project. It describes exploration activities associated with exploration licences held by Normandy NFM, namely EL's 9560 and 9561. The document not only represents an interim report covering the period between the respective grant dates (Table 1) and the end of the field season (31/12/2001) but a final report as well.

2. TENEMENT DETAILS

Granted tenements within the Arthur Hills Project were originally comprised of EL's 8473, 9560 and 9561 which made up a total of 908 graticular blocks for 2923 sq km. In April 2001 EL 8473 was surrendered and a combined total of 402 blocks were relinquished from EL 9560 and 9561. A summary of current tenement details for the exploration licences is listed in Table 1 and displayed in Figure 1. The breakdown between the JV partners was as follows:

Normandy NFM Limited 50%

Newmont Gold Exploration Pty Ltd 50%

Table 1: Tenement Summary for the Arthur Hills Project

Licence	Detail	Date	Blocks	Km^2	Expiry
EL9560	Grant:	29/04/99	179	576	28/04/05
EL9561	Grant:	29/04/99	223	718	28/04/05
Total Blocks/Area			**402**	**1294**	

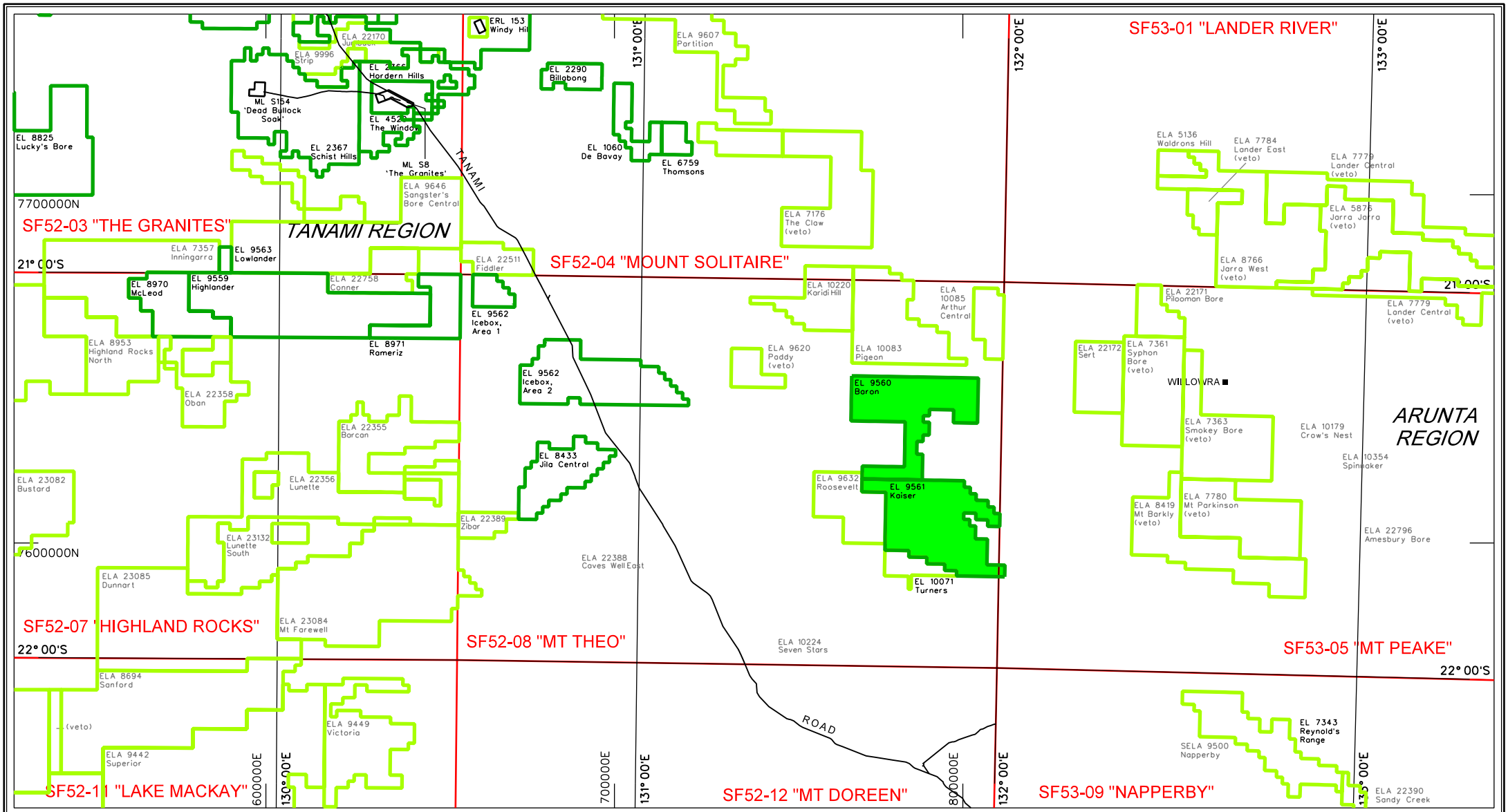
3. LOCATION AND ACCESS

Exploration Licences within the Arthur Hills Project are located approximately 300km north west of Alice Springs and 80km NNE of Yuendumu (Figure 1). Access from Alice Springs is via the Stuart Highway to the north, and then utilising the Tanami Road to the northwest. Old station tracks of variable quality are then used to gain access to the licences. Alternatively, access can be gained via the Stuart Highway to Aileron and thereafter utilising station tracks through the Pine Hill, Coniston and Mt Denison stations. The tenements are entirely within Aboriginal freehold land.

4. PREVIOUS EXPLORATION

4.1 Previous Exploration by Other Companies

Other exploration companies in and around the Arthur Hills Project area have conducted limited exploration. Sons of Gwalia explored for Granites, Callie and Tanami Mine-style gold mineralisation within areas to the north. This included lag sampling, regolith mapping, RAB, vacuum and aircore drilling. Gold results to 68ppb were returned from a mafic intrusive complex within the former EL7632 while a 30ppb gold result was obtained from the former EL7633. Also of note, was an 18ppb gold result from RAB drilling in metasediments within the former EL7632.



N
W E
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0 75km

SCALE 1:1,500,000

UTM Zone 52 (AGD66)

Normandy NFM Limited

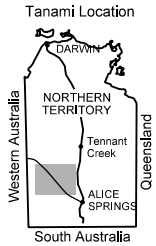
NORTH FLINDERS EXPLORATION

ARTHUR HILLS PROJECT

TENEMENT LOCATION MAP

FIGURE 1
30/01/2002

Tanami Location



...\arta001.dgn

775000E
800000E
132° 00'E
825000E
7650000N
7625000N
7600000N
7575000N
21° 30'S

ELA 10083
PIGEON

ELA 10085
ARTHUR
CENTRAL

ELA 22172
SERT

EL 9560
BARON

SILVER FOX

EL 9561
KAISER

ELA 9632
ROOSEVELT

ELA 10071
TURNERS

N
W
E
S
0
5000m
SCALE 1:250,000

UTM Zone 52 (AGD66)

Normandy NFM Limited
NORMANDY EXPLORATION PTY LTD

ARTHUR HILLS PROJECT

PROSPECT & LOCALITY PLAN
(showing previously relinquished ground)

12/06/2002

Blocks Relinquished
29 March 2001

FIGURE 1a

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5. GEOLOGY

5.1 Regional Geology

The Arunta Inlier is one of the largest Proterozoic Inliers in Australia. Mapping by the BMR during the 1960s and 1970s resulted in the subdivision of the Arunta Inlier into three major tectonic provinces: northern, central and southern (Shaw et al. 1984). Palaeo-Proterozoic stratigraphy was grouped into three major divisions: Division 1, Division 2 and Division 3, based on facies assemblages and lithological correlations, (Stewart et al. 1984). Division 1 rocks were inferred to be the oldest, comprising mafic and felsic granulites. Division 2 rocks are mainly represented by turbiditic metasediments. Division 3 rocks comprise platform-style quartzite, shale and carbonate sequences unconformably overlying Division 1 and 2 rocks. All three Palaeo-Proterozoic divisions are intruded by K-feldspar megacrystic granitoids. The three Proterozoic divisions, as well as the granitoids, are unconformably overlain by Neo-Proterozoic cover sequences.

A more recent review of the tectonostratigraphic relations of the Arunta Inlier by Collins and Shaw (1995) has suggested that the Arunta Inlier should be sub-divided into only northern (older) and southern (younger) tectonic provinces, separated by the Redbank Thrust Zone. Furthermore, they consider that in the northern tectonic province boundaries between Division 1 and Division 2 rocks are gradational and that both are part of the same tectonostratigraphic unit. They have therefore proposed a revision of the tectonostratigraphic nomenclature, abandoning the Divisions in favour of lithological assemblages. In the northwestern Arunta Inlier, Divisions 1 and 2 are replaced by the "Lander Assemblage". Several deformations are recognised in the Lander Assemblage prior to deposition of the "Reynolds Assemblage" (formerly Division 3). These deformations are collectively termed the "First Tectonic Cycle". Further deformations occurred following deposition of the Reynolds Assemblage which collectively are termed the "Second Tectonic Cycle". Metamorphism associated with the first tectonic cycle is prograde, whereas metamorphism associated with the second tectonic cycle is retrograde.

A summary of geological history and nomenclature for the northwestern Arunta Inlier is presented in Table 2.

Table 2: Geological History of the Northern Arunta Inlier (after Collins et al, 1995)

Age	Regional Event	Tectonic Cycle
400-300 Ma	Alice Springs Orogeny	Third Tectonic Cycle
850 Ma	Deposition of Vaughan Springs Quartzite	
≥ 1635 Ma 1780 - 1760 Ma	Warbudali Tectonic Event (Mt Doreen- Yuendumu) (equivalent to Chewings Orogeny ?) Weldon Tectonic Event (Anmatjira - Reynolds Range) Hardy Tectonic Event (Mt Doreen - Yuendumu) (equivalent to Strangways Orogeny ?)	Second Tectonic Cycle (retrograde metamorphism)
1820 - 1780 Ma	Deposition of Reynolds Assemblage	
1860 - 1820 Ma 1880 Ma	Stafford Tectonic Event Yuendumu Tectonic Event (equivalent to Barramundi Orogeny ?)	First Tectonic Cycle (prograde metamorphism)
≥ 1880 Ma	Deposition of the Lander Assemblage	

5.2 Local Geology

BMR mapping in the Arthur Hills Project area is dominated by Quaternary cover sequences, principally aeolian sand, calcrete and red soil. In some areas sandstone, conglomerate grit and arenite are present. Small outcrops of Palaeo-Proterozoic Lander Rock Beds also are found, mostly in the north-west, west and north-east of the tenure. The BMR interpret the majority of the recent cover within the Arthur Hills Project area to be underlain by Lander Rock Beds.

West northwest-orientated, strike-extensive quartz veins traverse the northern reaches of the area including the 'Arthur Hills'.

6. WORK UNDERTAKEN

6.1 Work Completed during 1st Year of Tenure

During the first year of tenure no in-ground work was completed as Normandy NFM was unable to obtain a significant site clearance report from the Central Land Council.

Office based work included a Project-wide tenement review consisting of an analysis of all available data sets in order to refine the exploration program (Smith, 2000)

6.2 Work Completed During 2nd Year of Tenure

For locations of all samples, drillholes and traverses please see Figures 2 to 4. All digital data is supplied in Appendix 1, geophysical data is supplied in Appendix 2 and petrological descriptions are supplied in Appendix 4.

6.2.1 Surface Sampling

The second year of tenure saw the commencement of fieldwork. During the field-season 887 lag and 21 rock chip samples were collected Baron (EL9560) and Kaiser (EL9561). From this work the Silver Fox prospect was identified within the NW portion of Baron with peak Au values up to 11.3ppb with elevated arsenic.

Table 3. Lag Sampling at Baron (EL9560), Kaiser (EL9561) and Feral (EL8473)

Sample Numbers	Total	Genalysis	Elements
5002871E, 5002872-888, 890-899, 903-912, 914-889, 891-923, 925-950, 952-960 5002962-990, 994-3000 5003141-150, 201-204 206-207, 209-232, 234-274, 276-324 5003617-639, 641-674 676-709, 711-729, 731-749 5003801-820, 822-834, 836-856, 858-873, 875-894, 896-908, 5005198-199, 201-211, 216-234, 236-250, 375-376, 378-400, 5005405-418, 494-513, 515-541, 543-559, 561-577, 651-652, 654-679, 681-707, 709-736, 738-757, 801-820, 822-870, 872-890, 892-901, 903-920, 922-950	887	B*ETA A/MS	Au Th, Mo, Sb, W, Bi, Sn, U, As, Pb, Ni, Fe, Cu, Zn, Co, Ag
			887 samples

Table 4. Rock Chip Sampling at Baron (EL9560), Kaiser (EL9561) and Feral (EL8473)

Sample Numbers	Total	Genalysis	Elements
5102365-5102378, 5102392, 5102880-5102885	21	B*ETA A/MS	Au Th, Mo, Sb, W, Bi, Sn, U, As, Pb, Ni, Fe, Cu, Zn, Co, Ag
			21 samples

6.2.2 Geophysical Surveys

Ground magnetics was used as an aid for the targeting of magnetic features. In total 125 line-kilometres of ground magnetics data were acquired along approved drilling traverses.

6.2.3 Aircore Drilling

Aircore drilling was used to test targets defined by the ground magnetic data as well as to test the nature of the regolith profiles. At Baron 25 holes were drilled for a total of 861 metres and 291 samples and at Kaiser 15 holes were drilled for a total of 1218 metres.

Table 5. Aircore Sampling at Baron (EL9560), Kaiser (EL9561) and Feral (EL8473)

Drillhole ID	Total Holes	Total Metres	Sample Type	Sample Numbers	Total	Laboratory	Method	Elements Analysed
AHAC 0001-0046	46	2487	3m composites	5308005-085, 087-200, 205-309, 311-342, 344-382, 384-421, 426-436, 438-529, 531-588, 590-600, 605-636, 638-693, 695-755, 757-856	829	Amdel	ARM1	Au, Ag, As, Bi, Cd, Co, Cu, Mo, Ni, Pb, Sb, Se, Te, Zn
	46 holes for 2487m				**829 samples**			

A total of 31 samples from the aircore drilling were submitted to Pontifex and Associates for thin section preparation and analysis to confirm the transported nature of the samples and bedrock.

For further information regarding the second year of tenure the reader is referred to Harrison, 2001.

6.3 Work Completed During 3rd Year of Tenure

No further field work was undertaken after the second year of tenure.

EL 9560
Baron

SILVER FOX

Numerous small claypans

EL 9632
ROOSEVELT

770000E
775000E
780000E
785000E
790000E
795000E
800000E
805000E

7645000N
7640000N
7635000N
7630000N
7625000N
7620000N

LEGEND

- △ CRC Sample
- ▢ Lag Sample
- ⊗ AC Drillhole

Normandy NFM Limited

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Tanami Reconnaissance : Northern Territory

ARTHUR HILLS PROJECT

EL9560 - Baron

Sample & Drillhole Locality Plan

Transverse Mercator Projection - UTM Zone 52
Australian Geodetic Datum - AGD66

1000 0 1000 2000 3000 4000 metres

SCALE 1:50,000

DATA BY :	Normandy NFM		PLAN No. :	Figure 2
DATE :	FEB 2001	AMEND : 20/03/2001		

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770000E
775000E
780000E
785000E
790000E
795000E
800000E
805000E

7615000N
7610000N
7605000N
7600000N
7595000N
7590000N

ELA 9632
Roosevelt

EL 9561
Kaiser

ELA 10071
Turners

5002870
5002852
5002876
5002868
5002875
5002864
5002865
5002866
5002868
5002226
5002227
AHAC0833
AHAC0832
5102377
5102378
NUNGURMANU HILL
Average height of sandridges 5 metres
KALGA HILLS
Rocky ridges
TURNERS DOME
Rocky ridges
Rocky ridges

T:\MSDAT\diagram\arthur\arta/002.dgn

LEGEND

△ CRC Sample
▢ Lag Sample
⁕ AC Drillhole

Normandy NFM Limited

NORMANDY EXPLORATION PTY LTD

Tanami Reconnaissance : Northern Territory

ARTHUR HILLS PROJECT

EL9561 - KAISER

SAMPLE & DRILLHOLE LOCALITY PLAN

Transverse Mercator Projection - UTM Zone 52
Australian Geodetic Datum - AGD66

metres
1000 0 1000 2000 3000 4000

SCALE 1:50,000

DATA BY :	Normandy NFM	PLAN No. :	Figure 3
DATE :	FEB 2001	AMEND : 20/03/2001	

LEGEND

- △ CRC Sample
- ▢ Lag Sample
- ⊗ Aircore Drillhole
- —— Ground Magnetics Traverse

Normandy NFM Limited

NORMANDY EXPLORATION PTY LTD

Tanami Reconnaissance : Northern Territory

ARTHUR HILLS PROJECT

EL8473-Feral, EL9560-Baron & EL9561-Kaiser

Sample, Drillhole & Ground Magnetics Traverse

Locality Plan

Transverse Mercator Projection - UTM Zone 53
Australian Geodetic Datum - AGD66

metres
1000 0 1000 2000 3000 4000

SCALE 1:50,000

DATA BY :	Normandy NFM	PLAN No. :	Figure 4
DATE :	FEB 2001	AMEND : 20/03/2001	

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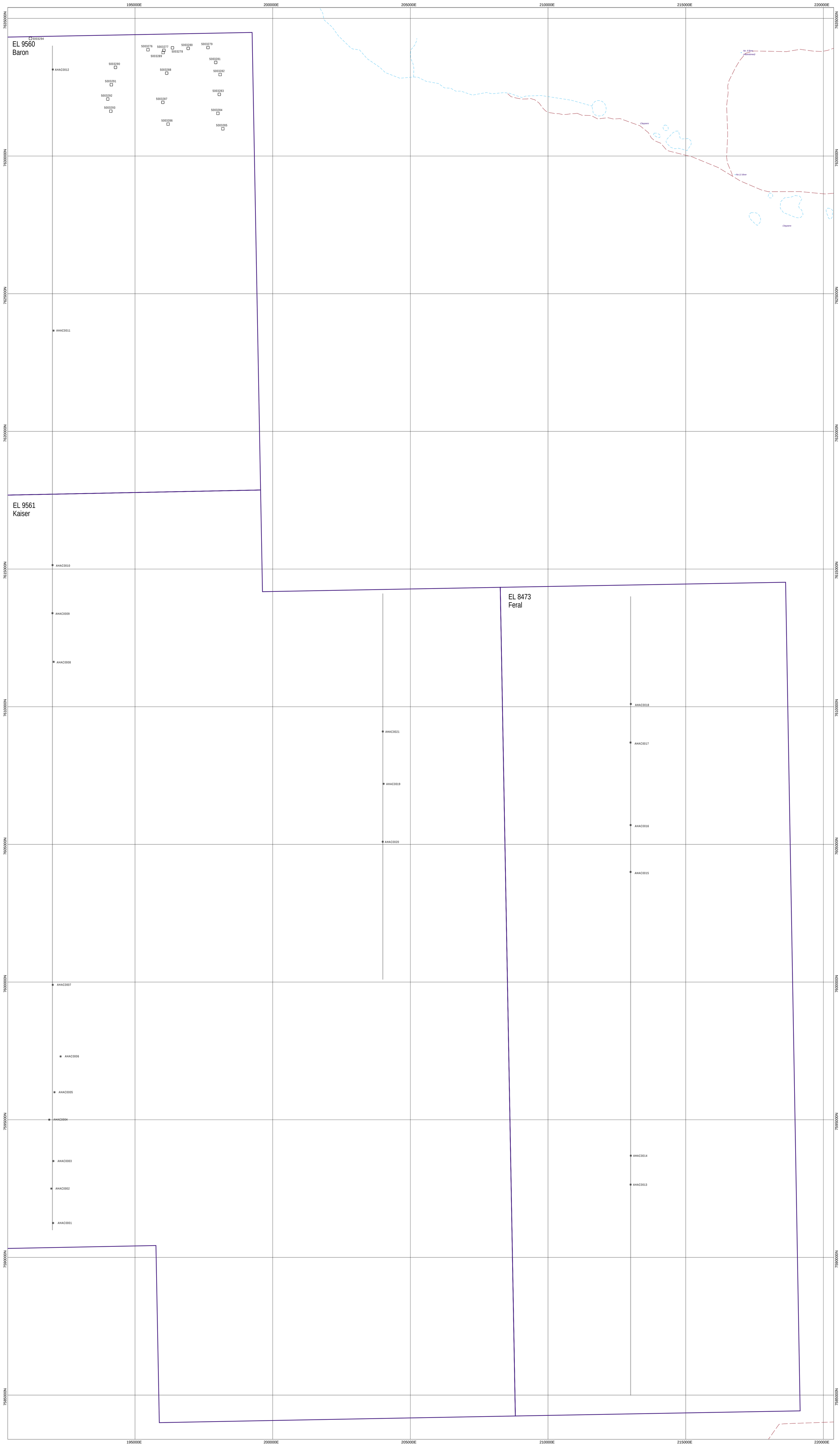

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Smith, M.E., 2000. Report for the Arthur Hills Project covering the 1999 Field Season. Normandy NFM Ltd.

APPENDIX 1 – DIGITAL DATA, ASSAYS AND LOGS

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APPENDIX 2 – GEOPHYSICAL SURVEY DATA

APPENDIX 3 – SAMPLE METHODOLOGY

SURFACE SAMPLES

CRC (Composite Rock Chip)

A composite technique is adopted whereby approximately 4-5kg of material comprising 10 to 15 grab samples is collected from within a 2m radius of the designated sample site. A description of sample material is recorded in the sample logs.

GPS equipment is used to determine reconnaissance sample locations in the absence of a local grid. Sampled sites have been marked with flagging tape and numbered aluminium permatags affixed to the outcrop or nearby tree.

Lag/DSL (Drill-derived Stone Line)

Lag is any hard surficial material varying from a coarse sand to rock fragments.

The sample is obtained via a shallow surface scrape, sieved to obtain approximately 250g of material and collected into a plastic zip seal bag. The size of the sieved fraction, which is variable from project to project, is listed in the sample logs.

Reconnaissance spaced sample sites are not marked, however infill sample sites are flagged in the absence of a local grid. Sample type, quality, description and size is noted at the time of collection and recorded via codes oulined in Appendix 1 of this report.

A **DSL** sample is a drill derived “buried” lag sample. Other than using a drill rig to bring the sample to surface, collection methods are identical to lag.

DRILLING SAMPLES

Composite samples are taken of all RAB/Aircore drill spoil. Samples are taken as 3 metre composite (i.e. 1 drill rod) intervals. Drill spoil is collected in a bucket beneath the cyclone and at the end of each drill rod, the sample is speared using a plastic tube to gain a representative sample. This sample is placed into a calico bag (approximately 8”x12” in size, weighing 2kg) and sent to the laboratory for analysis.

APPENDIX 4 – PETROLOGICAL DESCRIPTIONS

Report #	Author	Date	Work	Geo	Prospect				Notes
Petrology #	Count	ID	Type	NFM	Sample #	From	To	Easting	Northing	Description
Arthur Hills										
P8042	**PO**	**0/10/2000**		**SH**	**Arthur Hills**					
P06671	1	AHAC16	DC			78	81	213600	7665702	Not transported overburden as defined but consists of 3 chips of coarse to very coarse hydrothermal quartz with minute fluid inclusions, also rare small inclusions of tourmaline and muscovite.
P06672	2	AHAC16	DC			42	45	213000	7605702	25% limonitic cement, Grains - average size 0.5mm (range 0.1-3mm), 30% quartz, 30% K-spar, 5% plagioclase, 7% detrital muscovite, 10% composite feldspar-quartz.
P06673		AHAC25	DC			27	30	793998	7630495	35% limonitic cement. Grains av 0.25mm (range 0.1-3), 30% quartz, 25% K-spar, 5% plagioclase, 4% detrital muscovite, <5% composite feldspar-quartz. Finer, Better sorted equivalent of P06672.
P06674	4	AHAC26	DC			75	78	793995	7634750	40-60% lateritic, minor kaolin cement. Grains av 0.2mm (range 0.1-1.5). 15-20% quartz, early lateritic nodules in later lateritic cement. Essentially laterite.
P06675	5	AHAC27	DC			18	21	775000	7636300	Completely weathered/supergene altered in-situ bedrock (regolith). No quartz. Essentially smectite +/- carbonate replicas afeter coarse random former amphibole or pyroxene, within a matrix of ultrafine, indefinite kaolin-minor admixed carbonate replacing ex-plagioclase. Veinlets of supergene carbonate, accessory disseminated opaque oxides, with original primary distribution seen on polished section to be oxidised primary magnetite. Interpreted as original dolerite (undeformed) completely supergene-altered.
P06676	6	AHAC28	DC			3	6	775000	7636850	Intensely ferruginised massive kaolinitic rock, minort scattered fine residual micas, including decussate masses, nil/negligible quartz. Basically laterite. Not within normal sandy overburden, but possibly a laterised ferruginised supergene clay layer.
P06677	7	AHAC31	DC			3	6	775000	7642500	In-situ bedrock (regolith). Massive medium to coarse grained aggregate of primary or metamorphic quartz mosaic (50-60%), minor, random muscovite and oxidised biotite (10-15%), minor completely kaolin-altered feldspar in one chip up to 10%. Accessory tourmaline, trace zircon. Possible granitoid but fibrous sillimanite in quartz in one chip to suggest a possible high grade metasediment (No equivalent elsewhere in this Baron Prospect suite, but may compare with P06682 at Atlee Creek.
P06678	8	AHAC34	DC			6	9	775000	7644900	Kaolin matrix in 2 chips, 60%. Laterite matrix in 1 chip 60%. Grains av 0.4 (range 0.2-1 mm), 35% quartz, 1-2% detrital muscovite.
P06679	9	AHAC34	DC			9	12	775000	7644900	80-85% matrix. Grains av 0.8mm (range 0.1-2.5), 15-20% quartz. Very extensive (clear) kaolin matrix (of several gneerations). Included quartz grains very corroded.
P06680	10	AHAC36	DC			15	18	775000	7645100	70-80% matrix. Grains av 0.5mm (range 0.1-1mm), 25-30% quartz. Like P06679 but more quartz grains, less kaolin matrix.
P06681	11	AHAC46	DC			27	30	775000	7645700	Cement 25% coarse decussate limonitic (ex-micaceous). Grains av 1.0mm (range 0.1-0.25mm) 50% quartz (many composite grains), 10-15% detrital muscovite, high concentration of quartz and muscovite (now kaolinised). Probably very close to bedrock, but ex-feldspar completely altered.
P06881	12	AHAC1	DC			72	75	192025	7591250	40% limonitic cement. Grains av 0.35 (range 0.1-1mm), 40% quartz, 5-7% K-spar, 1-2% plagioclase, 3-5% detrital muscovite, 5% quartz-muscovite composites, 5% laterie particles. Oxide grains variably limonitic/leucoxenitic, haematitic.
P06882	13	AHAC2	DC			57	60	191960	7592500	Cement 10-15% limonitic. Grains av 0.5mm (range 0.1-1.5mm), 60% quartz, 15%K-spar, 5% plagioclase, 3% detrital muscovite, 5% fragments of sericite. Kaolin cement notably minor.
P06883	14	AHAC3	DC			57	60	192035	7593500	Cement 15-60%. Grains av 0.5mm (range 0.1-0.8mm), 10-50% quartz, 5-15% K-spar, 1-5% plagioclase. 2 chips, very silty kaolin also fine muscovite-rich. One chip like P06882.

Report # Petrology #	Author Count	Date ID	Work Type	Geo NFM	Prospect Sample #	From	To	Easting	Northing	Notes Description
P06884	15	AHAC5	DC			6	9	192075	7596000	Cement 20%. Grains av 0.5mm (range 01-2.5mm), 40% quartz, 35% K-spar, 5% plagioclase, 2% detrital muscovite, 5% quartz-sericite fragments. Anomalously feldspar-rich. Sericite alteration in some coarse quartz may be hydrothermal.
P06885	16	AHAC5	DC			30	33	192075	7596000	One chip of overburden (same as P06681 - abundant residual angular quartz grains in kaolin cement which is quite intensely limonitised. Two chips of coarse vein quartz, apparently hydrothermal, randomely inequigranular, microbrecciated, strongly stressed and irregularly recrystallised, incorporating minor, shredded-schistose fine muscovite.
P06886	17	AHAC6	DC			84	87	192297	7597300	30% limonitic cement. Grains av 0.5mm (range 0.1-2.5mm), 5o% quartz, 15%K-spar, 3%plagioclase, 3% detrital muscovite, 5% sericitic fragments, quartz-muscovite fragments.
P06887	18	AHAC6	DC			87	90	192297	7597300	40-50% limonitic cement. Grains a4 0.4mm (range 0.1-1mm), 40% quartz, 10-15% K-spar, 5% plagioclase, 1-2% detrital muscovite.
P06888	19	AHAC8	DC			24	27	192045	7611630	One chip 15% limonitic cement. Grains av 0.8mm (range 0.1-5mm), 30% quartz, 35% K-spar, 7-0% plagioclase, 10% quartz-feldspaar>quartz-muscovite composites. Second chip, matrix 75% of patchy micro-cryptocrystalline supergene calcite (calcrete) with minor intricately mixed kaolin. Minor angular, residual quartz grains (15%) to 1.5mm randomly scattered. Identified as kaolin-rich calcrete. Unique in this Kaiser suite.
P06889	20	AHAC9	DC			39	42	192001	7613397	35% cement. Grains av 0.4mm (range 0.1-1.5mm), 20% quartz, 15% K-spar, 3% plagioclase, 15% detrital muscovite, 15% numerous quartz feldspar composites. Abundant fine muscovite in kaolin cement.
P06890	21	AHAC15	DC			27	30	212998	7604000	Two chips - Massive, apparent primary igneous fine (0.3mm) to medium grained (1-2mm) mosaic. Dominant quartz (50%) subordinate and generally finer K-spar (30%), minor plagioclase (5-10%) and numerous scattered extremely fine (0.1mm) accessory grains of biotite, tourmaline, opaque oxide, apatite. Tentatively classified as (potassic) mciro-aplite. Unique in this suite. One chip - of transported overburden, loose packed aggregate of fine to coarse quartz grains (rare feldspar), ubiquitous intergranular limonite permeation but not distinctly kaolinitic as in other chips of typically transported overburden. Somewhat unique (sic) within the whole suite.
P06891	22	AHAC17	DC			54	57	212996	7608700	Two chips composed entirely of massive recrystallised quartz. One apparent hydrothermal vein quartz, very coarse has protomylonitic stress fabric, subparallel fissures healed by stringers of very fine recrystal;ised quartz. The other chip possibly a former quartzite, equigranular, relict very stressed grains as residuals within intergranular, extremely fien recrystallised quartz. Alternatively may be an ex-quartz rich gneiss, with any other former minerals obliterated (some similarities with mylonitic P06898).
P06892	23	AHAC18	DC			48	51	213008	7610100	Two chips - 50-60% cement. Grains av 0.25mm (range 0.1-1.5mm), 10-20% quartz, 5% K-spar, 5-30% fine detrital muscovite in matrix. Compares with P06883. Four chips - 20-35% limonitic cement 30% quartz, 15% K-spar, 5% plagioclase, 5% detrital muscovite, 10-15% sericitic fragments. Finer and better sorted equivalent of P06884 and others.
P06893	24	AHAC19	DC			87	90	204030	7607201	Three chip - 35-40% limonitic cement. Grains av 0.25mm (range 0.1-1.5mm), 25-30% quartz, 7% K-spar, 3% plagioclase, 3% detrital muscovite. Like P06893. One chip - 15% unoxidised kaolin matrix. Grains av 0.25mm (range 0.1-1.5mm), 35-40% quartz, 30% K-spar, 5% plagioclase, 10% detrital muscovite (some in fine matrix), quartz-feldspar composites. Fine equivalent of P06882.
P06894	25	AHAC20	DC			18	21	203997	7605097	25% cement. Grains av 0.4mm (range 0.1-0.6mm) 30% quartz, 30% K-spar. 3% plagioclase, 10% detrital muscovite integrated in kaolin matrix. Similar to P06882-884 and P06893, unusually well sorted.
P06895		AHAC22	DC			81	84	794000	7602900	50-60% limonitic cement. Grains av 0.4mm (range 0.1-1mm), 30-35% quartz, <5% K-spar. Clay matrix commonly with undulating foliae texture.

Report # Petrology #	Author Count	Date ID	Work Type	Geo NFM	Prospect Sample #	From	To	Easting	Northing	Notes Description
P06896	27	AHAC24	DC			81	84	794006	7618602	Chips of fresh but strongly stressed granitoid dominated by coarse unaltered microcline, composite with stressed, finer quartz, also stringers of apparent recrystallised and mobilised K-spar micromosaic. Minor associated very fine biotite.
P06897	28	AHAC25	DC			72	75	793998	7630495	Chips of completely altered granitoid gneiss (possibly tectonised granite). Has irregular lenses and incipient foliae of (recrystallised) quartz micromosaic (30%) as residuals within irregular grains of former feldspar (35%) which is pseudomorphically replaced by cryptocrystalline kaolin. Also former irregular lenses of pre-existing biotite (35%) completely altered to indefinite decussate oxidised ?hydromica/smectitic clay/kaolin.
P06898	29	AHAC25	DC			78	81	793998	7630495	Two chips - sheared and recrystallised quartz-rich (gneiss or quartzite). Consists of protomylonitic elongate quartz grains about 1mm average size (75080%), incorporating minor feldspar, lesser muscovite, as an integral part of the fabric, apparently relict from protlith. May be a metasediment. Possibly a former granitoid but with unknown explanation for quartz-enrichment/feldspar depletion.
P06899	30	AHAC26	DC			42	45	793995	7634750	40% limonitic cement. Grains av 04mm (range 0.1-1.5mm), 35% quartz, 5-7% K-spar, 5-7% detrittal muscovite, 10% lateritic micronodules. Similar to Po6881, P06885 and P06895.
P06900	31	AHAC26	DC			87	90	793995	7634750	One chip - coherent and basicaaly fresh fine quartz-muscovite schist with numerous accessory grains of metamorphic tourmaline up to 0.25mm size. Schistose muscovite through the fine metamorphic-micromosaic locally has a weak micro-crenulation. One chip - Coherent metaquartzite, grain size mostly about 1mm. This one chip has a small remnant of fine muscovite schist with a tourmaline crystal consistent with the other chip described above.

BIBLIOGRAPHIC DATA SHEET

REPORT NUMBER	29452	
REPORT TITLE	ANNUAL & FINAL REPORT FOR THE ARTHUR HILLS PROJECT FOR THE PERIOD 24 April 1999 to 11 March 2002	
PROSPECT NAME	Baron, Kaiser, Silver Fox	
LICENCE NUMBERS	EL9560, EL9561	
OWNER/JV PARTNERS	Normandy NFM Ltd. 50% (managers), Newmont Gold Exploration Pty Ltd. 50%	
COMMODITIES	Gold	
TECTONIC UNITS	Arunta Province	
STRATIGRAPHIC NAMES	Lander Rock Beds	
1:250 000 MAPSHEET	Mount Theo Mount Peake	SF52-08 SF53-05
1:100 000 MAPSHEET	Patricia Turners Dome Studholme Giles	5255 5254 5355 5354
KEYWORDS	Aircore Drilling, Lag Sampling, Rock Chip Sampling, Petrography, Ground Magnetics Survey	