

# DRILLING REPORT

and  
Preliminary Resource Estimation  
on EPL 4209

March/April 2013



Crawler truck mounted R/C rig drilling an inclined hole

Report prepared for TLP Investments 136 (Pty) Ltd  
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## Summary

An exploration and drilling campaign has been carried out on EPL 4209 on farm Naruchas, 60 km south of Windhoek. The major exploration targets were to localize and to assess the distribution of iron ore seams occurring in the Naos metasediments and to estimate the iron ore resources on the EPL. Exploration included field mapping, sampling, ground magnetic surveys and R/C drilling. Over 4 weeks 14 holes covering 807 m were drilled. Together with the iron rich drill chip samples channel samples were sent to the laboratory for analysis. Ground magnetic surveys were run across the prospective areas and clear indications (magnetic anomalies) for sand and flow covered iron mineralization found. With the help of geology, ground magnetic surveys, drilling and mapping, the Naruchas iron ore belt was defined and partitioned into 6 future mining blocks. For resource estimation data from drill holes and the magnetometer were used. Because of the low data density and only a few holes drilled, only “indicated” and “inferred” resources were estimated, being of a low level of confidence. The estimated total amount of iron ore on EPL 4209 is 109,500,400 t; divided into 23,007,800 t of indicated resources and 86,492,600 t of inferred resources. It is recommended to increase the level of confidence by additional drill holes and a comprehensive 2D ground magnetic survey.

## 1 Introduction

In March 2013 TLP Investment 136 (Pty) Ltd approached GeoExperts Consulting Services cc to guide their exploration activities on EPL 4209, in particular to plan and execute a drilling program for iron ore and, based on the obtained results, to conduct preliminary resource estimations. From end of March to early May 2013 GeoExperts carried out a combined geological, geophysical and geochemical survey on Farm Naruchas (EPL 4209). This survey included mapping and sampling of iron ore “reefs”, ground magnetic measurements in sand and flow covered areas and in-situ analyses of iron ore samples by a portable XRF spectrometer. Furthermore, 14 reverse circulation drill holes next to outcropping iron ore were planned, logged, sampled and the samples screened for their chemical composition by XRF.

For most of the time the exploration team – a Junior Geologist, a Geotechnician and two helpers – stayed in the field in a temporary tented camp and were logistically supported by TLP and GeoExperts. GeoExperts supervised the field work, developed daily work targets and assisted the crew in the field for at least 3 days a week.

Drilling was conducted by Hardrock Drilling cc of Karibib. The contractor used a crawler truck mounted R/C rig and a bulldozer to access drill sites situated at steep hill slopes, in

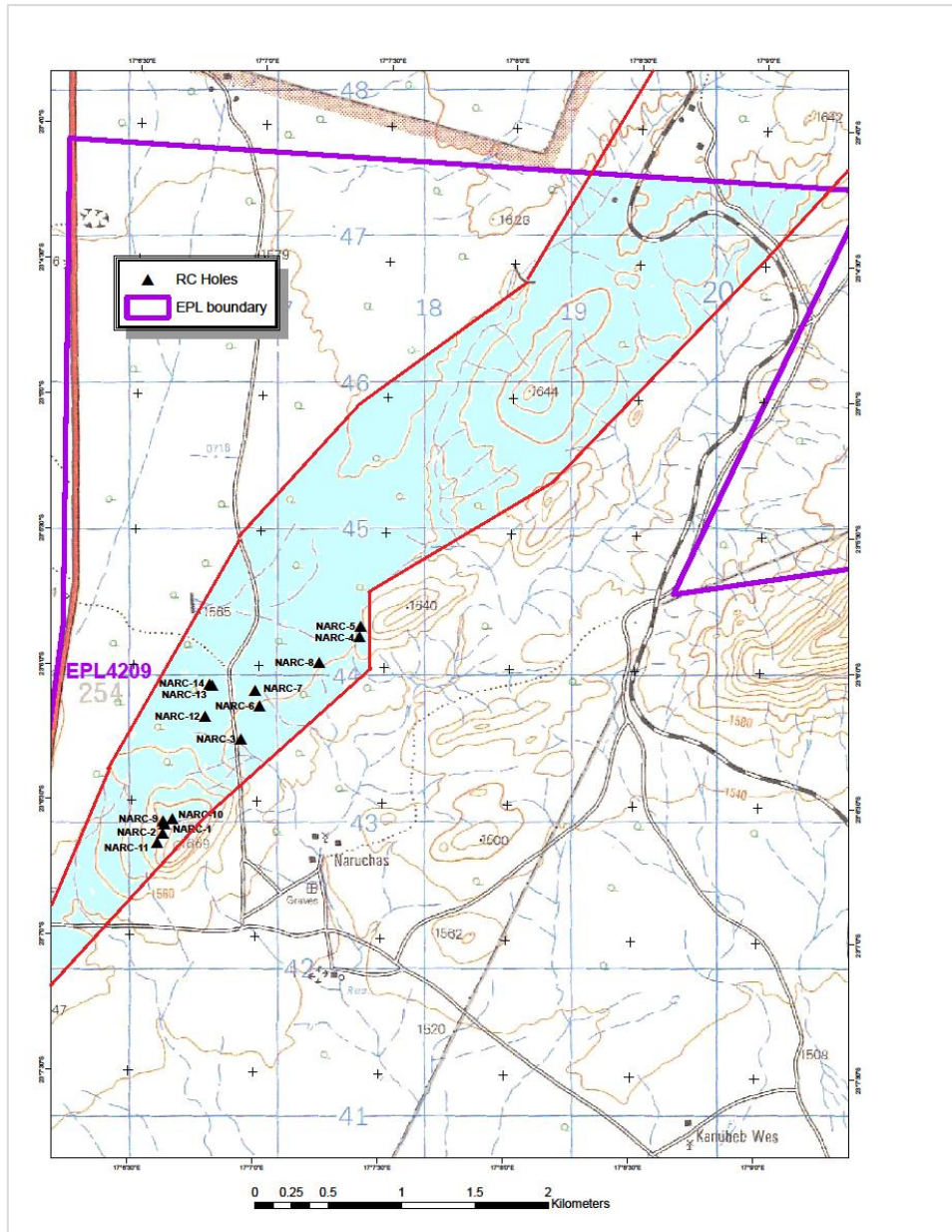
densely bush encroached areas and on soft sandy patches. About all the holes were drilled inclined at an angle of 60 degrees and about 20 m away from outcropping iron “reefs”. In this configuration, the almost vertical ore reef will be hit at about 35 m depth, enabling the geologist to calculate ore reserves from the surface down to the drilled interception with the ore body.

All iron rich drill hole samples and all channel samples were handed in to ActLabs in Windhoek for assay. ActLabs is an accredited reputable chemical laboratory, based in Ancaster (Canada), with 28 satellite laboratories all over the world. All samples were fused and analysed by wave length dispersive XRF spectrometry.

## **2 Exploration for Iron Ore**

The exploration campaign on EPL 4209 was based on the regional geological maps (sheets 2317A Rehoboth 1:100,000; 2316 Rehoboth 1:250,000), a basic aeromagnetic map of the area (total field), field observations of outcropping iron ore (“walls of iron ore”) and on old reports on exploration activities during the last century. Based on these sources the exploration target was defined being ferruginous quartz-mica schists, interbedded with diamictites, amphibolites, conglomerates and quartzites of the Naos Formation. This formation belongs to the Neoproterozoic Damara Sequence (Sturtian Period) and is part of the Hakos Group. Metasedimentary rocks of the Naos Formation strike in SW-NE direction and cross the tenement diagonal, i.e. from the main road B1 north-eastwards up to the railway line and outside of the concession area even further to the NE. The dip of the strata is almost vertical and, depending on their position in the Naruchas Syncline, point either slightly to the North resp. to the South. The ferruginous quartzites may contain lenticular iron ore bodies, several 100 m long and several 10 m wide, with Fe<sub>2</sub>O<sub>3</sub> contents up to 88%. Massive iron ore bodies form entire mountain ridges and erosional relicts in the shape of walls. All along the slopes of these iron containing mountain ridges and in river beds close to them huge amounts of iron ore containing debris flow have accumulated. Besides of the mountain ridges as a primary resource for iron ore, debris flows can be considered as secondary iron ore resources. About one quarter of the target area is sand covered and it was assumed that the visible iron ore bodies continue under the sand.

Exploration for iron ore on EPL 4209 focussed on a belt of outcropping massive magnetite and hematite ore bodies that stretches from about the main road B1 in the South-West to the railway line in the North-East, over a distance of about 7 km and 3 km wide (see Fig. 1). Due to the narrow time frame given for exploration and drilling, all other areas with outcropping iron ore were visited on a reconnaissance base and only grab samples taken.



**Fig. 1:** EPL 4209, iron mineralized “belt” (light blue) and EPL boundary (overview)

### 2.1 Surface mapping

Surface mapping of outcropping iron ore and related bed rocks already started in February 2013. In this pre-exploration phase emphasis was given on depicting the tectonic setting of the iron ore deposit, in particular on defining size and shape of the Naruchas syncline, with its southern limb being the main iron mineralization of the area. However, this exercise proved to be time consuming and did not really contribute to discover additional resources of iron ore. It was postponed to a later stage in exploration. From April 2013 on, systematic mapping of all iron ore occurrences was carried out, samples were taken and all sample points entered into a data base. Surface mapping of even minor iron ore occurrences should provide an idea of how the massive iron ore bodies are interlinked, even in sand covered areas.

## 2.2 Magnetic surveys

In the early phase of exploration GeoExperts provided a basic aeromagnetic map (total magnetic field) of the tenement. This map shows magnetic “highs” on Farm Naruchas and also on Farm Naub (EPL 4218). Furthermore, the aeromagnetic map depicts perfectly the course of the iron-bearing quartzitic schists of the Naos Formation all along the central mountain ridge (Nauaspoort Mountains), from the main road B1 in the West up to Dordabis in the East. This map, together with the geological map, was used as a base to define the target area for exploration.

Ground magnetic surveys provide valuable information on buried or sand/flow covered ore bodies, in particular when magnetic minerals such as magnetite, ilmenite or pyrrhotite are present. Depending on the nature and the size of the ore body, magnetic signals are received from depths even below 10 m. This enables the exploration geologist to trace ore seams and reefs in sand covered areas or along the slope of mountains with abundant flow covering the mineralized zones. On EPL 4209 most of the iron ore contains abundant magnetite. This produces a strong signal and helped to identify the subsurface position of covered iron ore bodies, even in areas with no visible outcrops.

The crew utilized a Geometrics G-386 Proton Precession Magnetometer which can be handled by a single operator (see Fig. 2), combined with a hand-held GPS receiver to record the geographical positions of the survey points. This instrument records the total magnetic field of the earth (unit: nT) and its deviations, caused by magnetite. In this phase of exploration, only single line surveys were carried out, in most of the cases perpendicular to the general strike direction (SW-NE) in the region. In total, 24 magnetic lines were surveyed, with all of them clearly indicating iron ore mineralization at depth. In a second phase of exploration, when the ore blocks to be mined have to be defined and delineated in detail, more magnetometer work has to be carried out on narrow-spaced 2-dimensional grids along the mineralized “belt”.

All data obtained from the ground magnetic surveys were plotted as single lines and the anomalous parts were outlined on a general map of the exploration area (see attachments).



**Fig. 2:** Proton Precession Magnetometer Geometrics G-386 operated by a Geotechnician

### *2.3 R/C drilling*

From 27 March to 23 April 2013, 14 holes (34 – 75 m deep; total: 807 m) were drilled alongside the most prominent iron ore reefs and occurrences. The drilling contractor, Hardrock Drilling cc of Karibib, used a crawler truck mounted R/C drilling rig and a caterpillar to drill inclined holes in all kind of terrain. This set-up enabled the crew to operate at steep hill slopes, in bush encroached areas and in sandy terrain where conventional rigs would not be able to access.

The idea to drill inclined and next to an existing iron ore body was to get information and sample material from the respective ore body at depths. This is a major prerequisite to calculate ore reserves and to make out changes in ore quality with depth. In most of the cases the drill hole was placed about 20 m away from the outcropping iron ore reef and drilled at an angle of 60 degrees towards the reef, either to the North or to the South. With the iron ore reefs being positioned about vertical, the drill would hit the reef after approximately 40 m, corresponding to 35 m total depth of the ore body.

In a few cases the targeted depths could not be reached. Here the drilling rods got displaced and stuck in a sequence of very soft (sand) and very hard (iron ore) material. In another case the drill hole collapsed in a sandy environment and even partial casing could not prevent it.



**Fig. 3:** R/C drilling and sampling

### **3 Sampling**

Three different methods of sampling were applied during field work. From the very beginning of the exploration campaign the crew collected **grab samples** from all outcropping iron ore occurrences in the target area. These samples were registered in a data base and their coordinates plotted on a general exploration map. **Channel samples** were taken next to the drill holes from all outcropping iron ore horizons and details (coordinates, thickness, kind of ore) registered in the data base. Their positions were marked as well on the general area map. Finally, all **drill holes** were sampled by the exploration team and log sheets produced from the collected chip samples. Both the channel samples and the iron-rich drill hole samples were handed in to the laboratory for analysis.

#### *3.1 Grab sampling*

Grab sampling aimed at recording all known outcrops of iron ore in the concession area, register the coordinates of the sampling points and to plot them on the general exploration map. Collected samples were taken to the camp and screened for their chemical composition by a portable XRF spectrometer. Another target of grab sampling was to understand the geological and tectonic setting of the occurrence, i.e. to identify the underlying and the overlying rocks and to determine strike and dip of the rock sequence.



At the present stage of exploration it is not scheduled to analyse the collected samples in a laboratory. This might become necessary at a later stage when the planning for mining is more advanced.

### *3.2 Channel sampling*

The target of channel sampling is to collect an average sample that represents the entire ore body at the selected site, both in its chemical and mineralogical composition. In practice, channel samples are taken by carving a channel over the whole width of the ore body and collecting all material released by this exercise. Channel samples may comprise up to several tens of kg of material, depending on the size and thickness of the ore body. Channel samples are needed to calculate ore reserves, from the surface down to the intersection of the drill hole with the iron ore body.

Channel samples were taken from all iron ore reefs close to the drill sites, up to 5 samples per site. In total, the crew collected 24 samples from 13 different locations. All channel samples were handed in to the laboratory for chemical analysis.

### *3.3 Chip sampling from R/C drill holes*

In reverse circulation drilling (R/C drilling) the rock to be penetrated is crushed by an in-hole pneumatic hammer and the resulting rock chips ejected by compressed air through an inner tube in the drilling rod to the surface. Compared to conventional percussion drilling where the rock chips are ejected at the outside of the drilling rod and multiple contamination may occur, R/C drilling provides more depth related samples and with less contamination. However, contamination cannot be prevented in total, in particular when rods are pulled and the whole system cleaned with compressed air.

All R/C drill holes were sampled on a 1m base; i.e. every drill meter about 30 kg of mixed material – mainly rock chips and dust – were collected in a cyclone and filled into marked plastic bags. The exploration team split the meter samples with a sample divider (riffler) into two smaller portions of 1 – 3 kg each, the A and the B samples. All bags were labelled and closed. All A samples are supposed to be sent to the laboratory for chemical analysis while the B samples will remain as duplicates with the EPL holder.

Already on-site the Junior Geologist drafted a log sheet of the drill hole petrography and tested the samples for magnetism. In total, 1614 samples were taken from the drill holes and split into A and B samples.

## **4 Sample analysis**

Iron ore samples were analysed for their chemical composition in different ways. Already in the field hand specimens and drill chips were assayed for their major components by a portable XRF spectrometer NITON XL3t which allows determining metal concentrations from about 10 ppm up to 100%. Furthermore, the XRF spectrometer was utilized to preselect samples to be sent to the laboratory for chemical analysis. Finally a geochemical

laboratory analysed the selected iron ore samples according to international standards and procedures.

#### *4.1 In-situ analysis with a portable XRF analyser*

Prior to designing the drilling program, outcropping iron ore bodies all over the tenement were screened for their iron and silicon content. When mapping the area, again hand specimens were analysed for their chemical compositions and their coordinates plot on an exploration map. During drilling, the crew analysed chip samples for their iron content to distinguish black shales and amphibolites from iron ore. This helped to log the drill holes in a correct way. The XRF analyser was also used to screen samples for copper and to assay marbles for their content of Ca and Mg (see chapter 7; resources for cement production).

#### *4.2 Sample selection for laboratory assay*

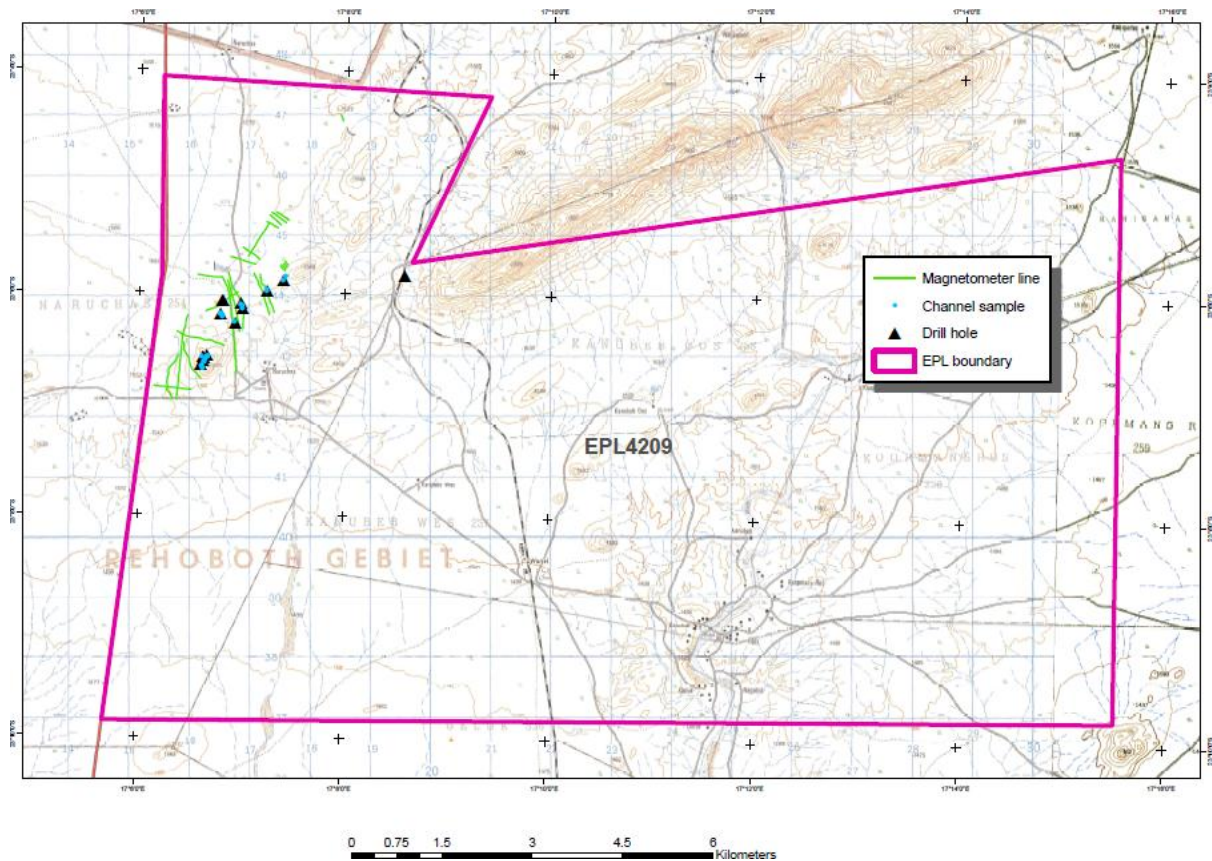
After termination of the drilling campaign all A and B samples were brought to Windhoek for chemical analysis. However, only samples with elevated iron content were handed in to the laboratory. Thus, all the A samples were screened for their iron content and only samples exceeding 25% Fe (equivalent to 35% Fe<sub>2</sub>O<sub>3</sub>) were selected to be analysed in the laboratory. 82 drill hole samples met the requirements and were handed in for analysis.

#### *4.3 Laboratory procedures*

All 24 channel samples and 82 selected drill chip samples were handed in to the ActLabs Laboratory in Windhoek for analysis. ActLabs is an international company, based in Canada, with satellite laboratories all over the world. The samples were crushed, pulverized and fused for XRF analysis. The assay included Fe<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, MnO, TiO<sub>2</sub>, Cr<sub>2</sub>O<sub>3</sub>, CaO, MgO, K<sub>2</sub>O, Na<sub>2</sub>O, V<sub>2</sub>O<sub>5</sub>, P<sub>2</sub>O<sub>5</sub> and “loss on ignition” (LOI). ActLabs used internal and international standards for calibration and issued certificates on the obtained results. Sample preparation was done by ActLabs of Windhoek, while the main laboratory of ActLabs in Ancaster/Canada assayed the samples by XRF spectrometry.

## **5 Results**

Drill hole positions, ground magnetic lines and channel sample locations are depicted on Fig. 4. The locations for grab sampling are shown on a separate map. The whole set of information has been used for a preliminary resource estimation of the mineralized belt. Results are presented on the position of the iron reefs, ground magnetic anomalies, chemical composition of channel samples and iron occurrence in drill-holes.



**Fig. 4:** Overview of EPL 4209 with drill holes, magnetometer lines and channel sample locations. More details shown on Fig. 5

### 5.1 Mapping of iron ore reefs

The Naruchas iron ore deposit is made up of vertically oriented lenticular ore bodies, each a few 100 m long and a few 10 of metres wide, embedded in quartzites and schists. Up to 6 ore horizons may occur in parallel to each other and form a belt, about 7 km long and up to 3 km wide, reaching from the main road B1 in the West and crossing the EPL area diagonally (SW – NE), up to the railway line in the East and all along the Nauaspoort Mountains. These reefs can be followed at the surface in strike direction for several kilometres and are traced even under sand cover by magnetometer readings in non-exposed areas. The entire rock sequence at Farm Naruchas – quartz-mica schist, diamictite, ferruginous quartzite (target horizon), amphibolite and conglomerate of the Naos Formation and the older graphite schist and grey and white marble of the Blaukrans and Waldburg Formation, have been intensely folded and fractured. They form a syncline about 2 km wide, with the southern limb representing Blocks A and B of the Naruchas iron ore deposit and the northern limb being Blocks C and D (see Chapter 6: preliminary resource estimation). Single ore-bodies may be fractured and dislocated for about 10 – 20 m. Around the mountains iron ore containing debris flow covers the slopes and fills the river channels.

More details on the course of the major iron ore reefs are discussed in Chapter 6.

## 5.2 Geomagnetic Anomalies

In the Naruchas exploration area the strength of the total magnetic field of the earth is about 28,250 nano Tesla (nT). Deviations from the average value, either positive or negative, point to ferromagnetic objects in the subsoil, mainly magnetite containing iron ore. Hematite bearing ore does not give a similar signal. The magnetometer is ideally used in sand covered areas to trace buried iron ore bodies. Depending on the size of the ore body and its content in magnetite, targets down to 10 m can be discovered.

During the exploration campaign 23 ground magnetic lines were surveyed, most of them perpendicular to the strike direction of the iron ore seams (see Fig. 5). Peak values on the lines reached from as low as 8,040 nT up to 33,100 nT on outcropping magnetite ore. All values below 27,500 nT and above 29,000 nT were considered anomalous and used as an indicator for buried magnetite ore. Sharp peaks – a low value followed by a high value or vice versa – point to shallow iron ore seams, while huge areas with either elevated or reduced magnetic strength are characteristic for covered iron ore flows, i.e. boulders of magnetitic iron ore covered by overburden.

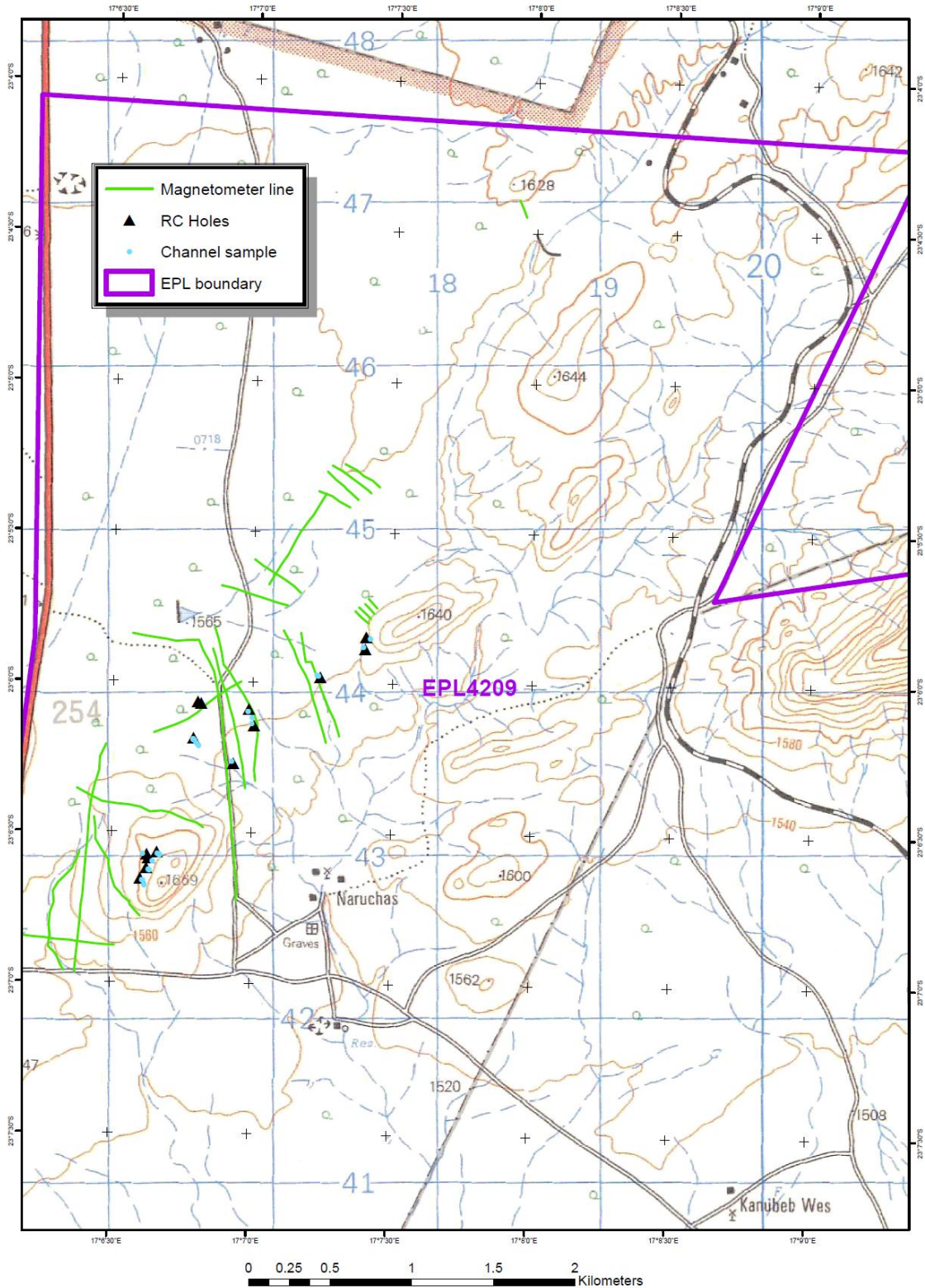
All ground magnetic lines were processed as single lines and the anomalous sections displayed on the exploration maps, both on the topographic and on the geological layer. It becomes evident that the iron reefs can be followed even under a sand cover of several metres thickness. By combining positions of outcropping iron ore with ground magnetic anomalies the course of the iron ore seams becomes visible. This is depicted in Fig. 6.

At a later stage of exploration, ground magnetic surveys should be carried out all over the iron ore containing belt on the EPL. This will provide the necessary knowledge on how to shape the mining blocks and where to expect high-grade iron ore.

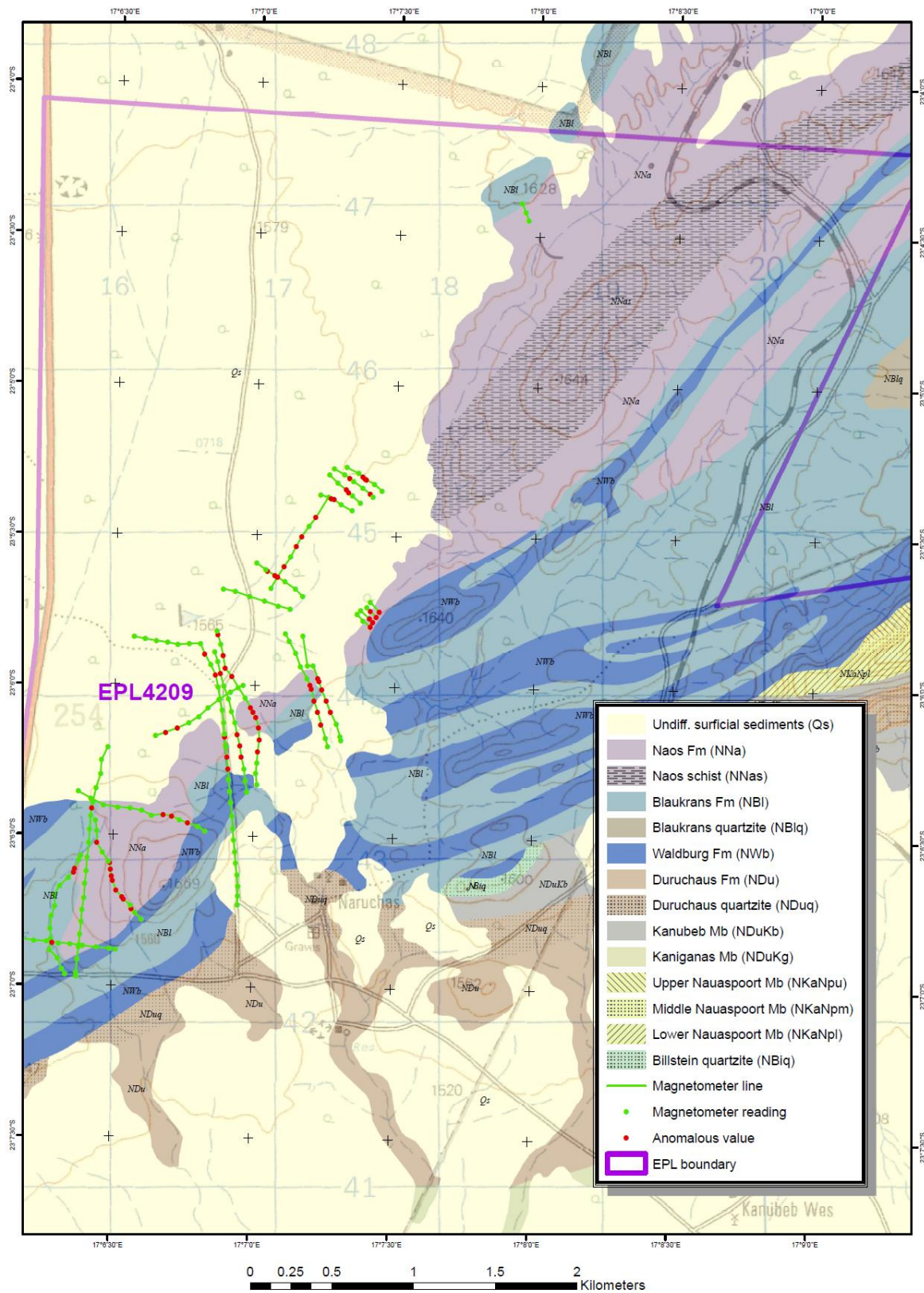
### **Definition indicated and inferred resources**

- “Indicated resources are economic mineral occurrences that have been sampled (from locations such as outcrops, trenches, pits and drill holes) to a point where an estimate has been made, at a reasonable level of confidence, of their contained metal, grade, tonnage, shape, density and physical characteristics”.
- “Inferred resources is that part of a mineral resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence, and assumed but not verified geological or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be of limited or uncertain quality and reliability”.

SAMREC/SAMCODE



**Fig. 5:** General exploration map of the Naruchas iron ore deposit showing drill-hole locations (black triangles), channel sampling sites (light blue dots) and magnetometer profile lines (green)



**Fig. 6:** Magnetometer survey lines (green) with anomalies (red) indicating iron ore. All anomalies are situated in metasedimentary rocks of the Naos Formation (light purple).

### 5.3 Drilling results

As shown in Fig. 5, drilling concentrated on areas with outcropping iron ore bodies. Five R/C holes (NARC-1, 2, 9, 10, 11) were drilled along Mountain 1 in the proposed Mining Block A; six holes were placed in a mainly sand covered area between Mountain 1 and Mountain 2 (NARC-3 until NARC-8; the proposed Mining Block B) and the remaining three holes between Mountain 1 and the northern Naruchas farmhouse (NARC-12, 13, 14; Mining Block C). Both mining blocks A and B are considered to be the southern limb of the Naruchas syncline while mining block C is part of the northern limb.

#### 5.3.1 Drill hole petrography and occurrence of iron ore

Twelve of the fourteen drilled holes intersected iron ore, between 1 and 17 m thick. Holes NARC-2, 4, 8, 9, 10, 11 and 12 penetrated up to four different layers of iron ore. In total, 114 m of iron ore were intersected. Appendices 1 – 14 show the lithological logs in detail. In most of the cases the iron ore layers are embedded in schist, in a few cases in quartzite. Drill hole petrography shows all transitions from brownish quartzite to mica schist with variable iron content. Iron ore occurs in reef-like arrangements with different reefs separated from each other by quartzite or schist. In the southern drill holes the content in magnetite was higher than in the North where the iron ore is mainly composed of hematite.

#### 5.3.2 Chemical composition (grade) of iron ore

Iron ore samples from the drill holes show concentrations from 27.5 to 75.7% Fe<sub>2</sub>O<sub>3</sub> with about 50% Fe<sub>2</sub>O<sub>3</sub> on average. Channel samples taken at the surface next to the drill holes range in their iron content from 46.6 to 85.9% Fe<sub>2</sub>O<sub>3</sub>; their average is 66.3% Fe<sub>2</sub>O<sub>3</sub>. This difference in the iron content can be explained by technical shortcomings of the R/C drilling technique where compressed air is used to blow the rock fragments from final drilling depth to the surface through an inner tube of the rods. In an uncased hole sand and dust from all depth intervals can accumulate at the bottom of the hole and contaminate (dilute) the iron ore sample with non-mineralized sediment. For this reason, the real average in iron in the drill hole samples is supposed to be at 55 – 60% Fe<sub>2</sub>O<sub>3</sub>.

## 6 Preliminary Resource Estimation

The presented resource estimation is based on the petrographic and geochemical results obtained from 14 R/C drill holes, 28 channel samples, anomalies located by ground magnetic surveys, geological mapping and a follow-up of the iron ore reefs in the north-western part of EPL 4209. Only less than half of the prospective “iron ore belt” on Farm Naruchas has been explored and the acquired data is not sufficient enough to calculate reserves, but only to estimate the “indicated” and “inferred” resources. For resource classification, refer to page 12.

For converting the estimated volume of iron ore containing rock into tonnages, the volume was multiplied by the specific gravity of low-grade iron ore, being 3.4. This value was gained by testing four different iron ore samples for their SG and calculating their average.

### *6.1 Characterization of the ore deposit*

For resource estimation it is assumed that the iron ore occurs in a well-defined belt ("Naruchas iron ore belt") bound to the lower part of the Naos Formation and stretching from the main road B1 in the South-West to the railway line (and further on) in the North-East. The prospective area is made up of a meta-sedimentary series of ferruginous quartzite, hematite-mica schist, dolomitic marble and up to 10 m wide bands of magnetitic and hematitic iron ore. This series forms a syncline, with its southern limb being a line from mountain 1, passing mountain 2, up to mountain 4, and its northern limb passing the northern farm house up to mountain 3 and the railway line (see Fig. xx). It is further assumed that the iron ore seams are continuous over longer distances and only vary in thickness. All the iron ore seams are vertical, i.e. form "walls" and dykes. They may be dislocated by fracturing for about 10 – 20 m. Based on ground magnetic data it is confirmed that the iron ore seams continue in sand covered areas and follow the general strike direction (SW-NE). All available data have been considered to estimate iron ore resources: areal extent of Naos Formation, depth and mineralization of drill holes, ground magnetic anomalies, composition of channel samples and iron ore outcrops.

### *6.2 Block model (drilled area)*

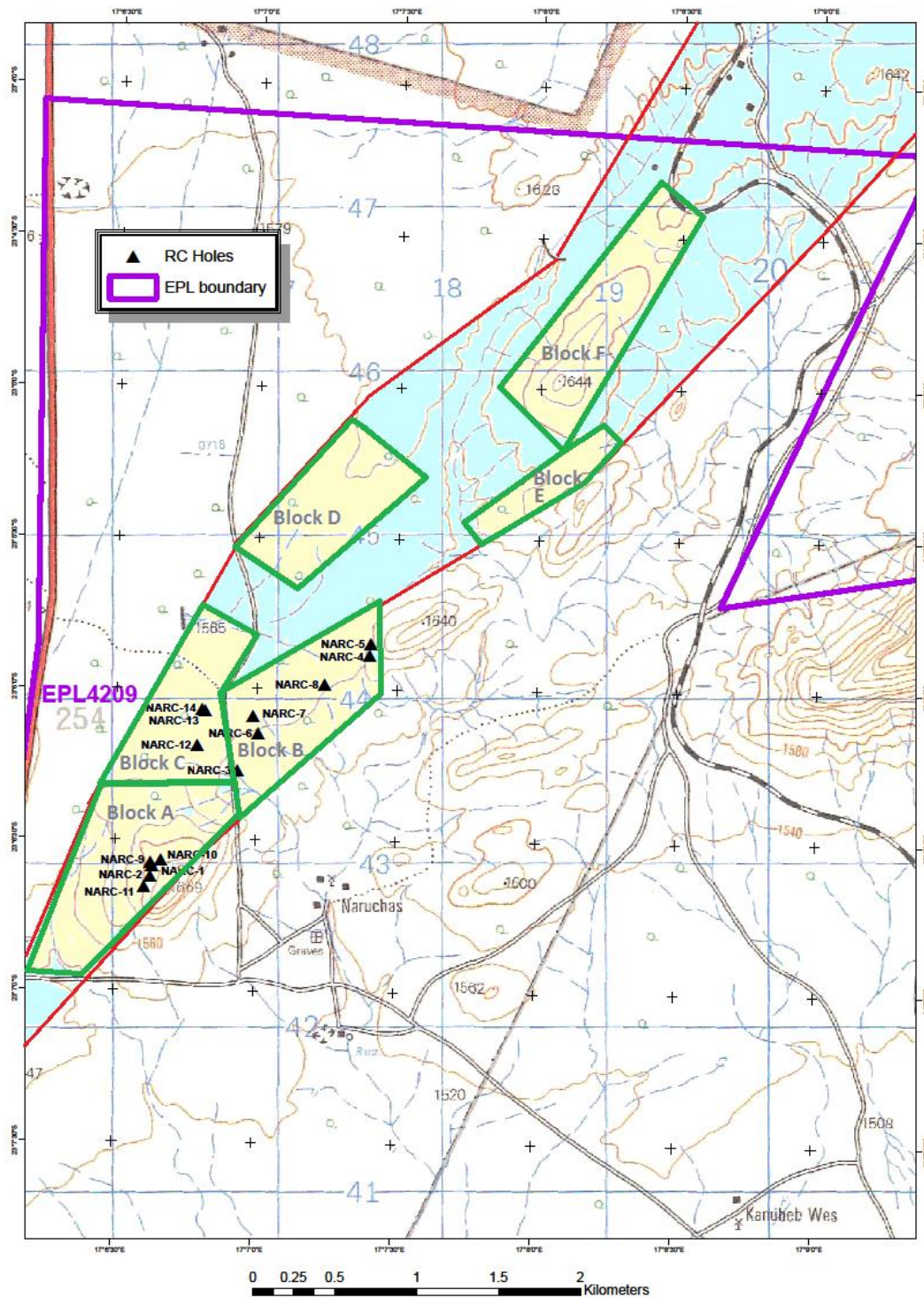
For resource estimation the Naruchas iron ore belt was partitioned into 6 different mining blocks: Three blocks (A – C) have been drilled and three blocks (D – F) only show outcrops and magnetometer anomalies (see Fig. xx). For this reason, blocks A – C yield indicated and inferred reserves while blocks D – F only give inferred reserves.

Block A is the area along the northern slope of Mountain 1; Block B reaches from the old Rehoboth road up to Mountain 2; and Block C stretches from Mountain 1 to the North, up to the Naruchas farmhouse.

#### *6.2.1 Mining Block "A"*

In Mining Block A five holes have been drilled and iron ore was intersected down to about 50m vertically corrected depth. Five different iron ore seams crop out at the surface and have been drilled and sampled. Magnetometer readings show that the main SW-NE striking ore bodies continue both to the North and South, even under debris flow coverage. The area of indicated resources was defined to be 130 x 360 m up to 50 m depth and yielded a resource block of 2,340,000 m<sup>3</sup>.





**Fig. 7:** Position of Mining Blocks A – F in the Naruchas iron ore belt

Most of Mining Block A is made up of iron containing metasediments of the Naos Formation. All areas covered by these sediments, showing magnetic anomalies and/or iron ore outcrops were considered as inferred resources. This makes up an area of 1300 x 400 m at an assumed depth of 20 m. The inferred resource block measures 8,060,000 m<sup>3</sup>.

### 6.2.2 Mining Block “B”

Mining Block B comprises six drill holes, is cross covered by nine ground magnetic survey lines and eight channel samples were taken. The area of the indicated resources comprises three blocks, around and in between the drill holes, measuring 100 x 450 m (at 35 m depth), 80 x 550 m (at 35 m depth) and 100 x 160 m (at 40 m depth). This constitutes an indicated resource block of 3,755,000 m<sup>3</sup>.

The inferred resources are mainly defined by anomalous magnetic readings on the nine survey lines. They cover sub-blocks of 330 x 280 m, 290 x 660 m, 480 x 120 m and 360 x 40 m, all calculated down to 20 m depth. The total inferred resource of iron ore in Mining Block B is 3,361,000 m<sup>3</sup>.

### 6.2.3 Mining Block “C”

This block is covered by three drill holes, four ground magnetic survey lines, six channel samples and a few outcrops of iron ore. Most of the block is sand covered. Indicated resources can only be estimated around the drill holes and are defined by an area of 120 x 140 m, at 40 m depth. This results in a block of 672,000 m<sup>3</sup> of indicated resources.

Inferred resources are mainly based on ground magnetic anomalies, pointing to covered iron ore seams, and a few outcrops of iron ore. Two sub-blocks of 370 x 250 m and 630 x 280 m, both 20 m deep, make up inferred resources of 4,706,000 m<sup>3</sup>.

## 6.3 Further ore blocks on Farm Naruchas (not drilled yet)

Within the narrow time frame of exploration on Farm Naruchas, additional occurrences of iron ore were located and ground magnetic surveys carried out around and across them. This concerns mainly the North-Eastern part of the concession, up to the railway line. However, more field work is needed to delineate the iron ore seams and to follow them in detail. This applies for the mountain ridge in Block D, the continuation of iron ore across mountain 4 (Block E), the extension of the iron ore reefs on mountain 3 (Block F) and the link between blocks D and F. Finally, all these targets have to be drilled.

### 6.3.1 Block “D”

Block D is situated in the West of the Naruchas iron ore belt. It is mainly represented by an iron ore reef that crosses the block in SE-NW direction. Major parts of the area are sand covered. Block D was explored by 6 ground magnetic survey lines. Based on their results and the positions of the outcropping iron ore, two sub-blocks were defined, measuring 700 x 180 m and 180 x 520 m, both 20 m deep. This ends up in a block of inferred resources of 4,392,000 m<sup>3</sup>.

### 6.3.2 Block “E”

This block only comprises two small occurrences of iron ore outcropping at the surface, with no magnetic surveys done yet. The two outcrops extend along the slope of Mountain 4, from the river bed in the South uphill, and end underneath the peak of the mountain. More surveying is needed to follow the structure. The two sub-blocks measure 400 x 60 m and 600 x 95 m, at a depth of 20 m. This results in inferred ore resources of 1,620,000 m<sup>3</sup>.

### 6.3.3 Block “F”

Block F is represented by a narrow zone of outcropping iron ore, following Mountain 3, an elongated ridge that runs in strike direction from SW to NE. Along the top of this ridge, 6 iron ore seams occur. This huge outcrop has to be followed to the SW to find any connection with Block D and to the NE to track its course up to the concession border. Block F was subdivided into two blocks, 800 x 75 m and 1050 x 100 m in size and 20 m deep. This yields in inferred resources of 3,300,000 m<sup>3</sup>.

Figure 8 shows the compiled results of estimated iron ore resources in Mining Blocks A – F. The total amount of estimated iron ore resources of the Naruchas iron ore belt are about 23 million tons of category “indicated” and about 86.5 million tons of category “inferred”. These data are – by definition – of low confidence. To increase the level of confidence, more drilling, ground magnetic surveys, trenching and mapping is needed.

Mining Block	Indicated Resources	Inferred Resources
A	2,340,000	8,060,000
B	3,755,000	3,361,000
C	672,000	4,706,000
D	-	4,392,000
E	-	1,620,000
F	-	3,300,000
	6,767,000 m <sup>3</sup>	25,439,000 m <sup>3</sup>
x density	3.4	3.4
TOTAL	23,007,800 t	86,492,600 t

**Fig. 8:** Estimation of “indicated” and “inferred” iron ore resources in the Naruchas iron ore belt

### 6.4 Further resources of iron ore on Farm Naruchas

Besides of the already discovered, sampled and drilled occurrences of iron ore, there is a high potential of finding more iron ore, in particular in the North-Eastern part of the concession area and between blocks D, E and F. Because of the very dense time frame of exploration on the tenement, this area was only of low priority. However, the main focus of

exploration work up there should be on ground magnetic surveys with routine measurements on regular 2-D grids. Furthermore, discovered outcrops and anomalies should be drilled to see their continuation with depth and chemical composition.

Over millions of years the iron ore bearing layers on the concession have been eroded and the more massive and durable iron ore accumulated on hill slopes and in valleys to form secondary deposits. It would be worthwhile to trench the talus along and in between the hills to obtain data on thickness and quality of the accumulated detrital iron ore.

#### 6.5 Potential resources of iron ore outside of Farm Naruchas

Iron ore is not restricted to EPL 4209 alone but can also be found on neighbouring tenements such as EPL 4218 (also held by TLP) or EPL 4446 (held by Mr Dennis Lawrence). In the area of Farm Naub on EPL 4218, iron ore occurs in different geological environment, i.e. in metasediments (schist, quartzite) similar to Naruchas and linked to basalts. The iron ore of Naub also shows above-average contents in manganese. To get a clear understanding of the geological situation, exploration has to be carried out over a longer time and finally should result in drilling the ore bodies.

The Naruchas iron ore belt continues to the North-East up to Dordabis and forms isolated reefs of several meters thickness. Although exploration for metals takes place on the neighbouring EPL 4446, focus is not on iron, but on base and precious metals. At the stage of mining iron ore on Farm Naruchas, it should be negotiated with the neighbouring EPL holder to mine or to purchase his iron ore and to treat it in the TLP processing plant.

### **7 Additional mineral resources on the tenement (EPLs 4209 and 4218)**

Following the geological map and the mineral resources map of Namibia, commodities other than iron ore occur on EPLs 4209 and 4218 and comprise cement raw material (limestone, marble, clay, schist, sand), pure calcite, base metals (copper, nickel) and precious metals (silver, gold). While cement raw material has already been considered for mining in the early 1980ies and a pre-feasibility study drafted, only little is known about copper, nickel, gold and silver. Several old mining sites (trenches, holes, diggings) can be found on both EPLs and are marked on the local geological maps, but no detailed reports have yet been sourced in the archives of the Ministry of Mines and Energy. Recent drilling on claims enclosed by EPL 4218 are reported to have proven copper and nickel mineralization at bigger depths, but no specific data has been published yet.

GeoExperts is presently working on a study about the quality and distribution of limestone and marble on EPL 4209. The outcome will be availed to TLP.

## 8 Recommendations

Despite of having run a successful survey and drilling campaign, much more exploration data is needed to calculate iron ore reserves on a higher level of confidence. Furthermore, field exploration has to be intensified to discover additional ore bodies, even under a sand cover. To achieve these targets, the following steps should be taken:

- Purchase high-resolution airborne magnetic data from the Ministry of Mines and Energy;
- Do ore treatment tests in order to be able to define a realistic cut-off grade for iron ore;
- Cover the entire Naruchas iron ore belt with a regular grid of ground magnetic survey lines and produce a local ground magnetic map;
- Drill 15 - 20 additional R/C holes along the iron ore reefs to define the exact positions and shapes of the ore bodies;
- Continue mapping of the entire EPL area, record positions with outcropping iron ore (GPS coordinates, Fe and Si content) and compile a map showing all iron ore occurrences on the EPL;
- Obtain the EIA certificate and apply for a mining licence;
- Once granted, start “test mining” in Mining Block A with extended trenching perpendicular to the iron ore seams.

To carry out the field work, an exploration team of five people is needed. The team should be composed of a Senior Geologist (GeoExperts), a Junior Geologist, a Geotechnician (magnetometer), a magnetometer helper and a helper for the Junior Geologist. Except the Senior Geologist who should be available for 2 days a week, all the other team members have to be on site over the full week. It is recommended not to accommodate the crew in a tent camp, but to rent the old farm house at Naruchas (southern side).

Windhoek, 21 May 2013



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P.O.Box 99284

Windhoek / Namibia

[geo.experts@hotmail.com](mailto:geo.experts@hotmail.com)

## List of Appendices

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- Appendix 2: Log sheet drill hole NARC-01
- Appendix 3: Log sheet drill hole NARC-02
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- Appendix 6: Log sheet drill hole NARC-05
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**CODES:**

(for Proto-Itabirites Naruchas)

**Codes for “shade”:**

D = dark  
L = light  
M = medium

**Codes for “colour”:**

Bk = black  
Bl = blue  
Br = brown  
Gn = green  
Gy = grey  
Or = orange  
Ov = olive  
Pk = pink  
Pu = purple  
Rd = red  
Wh = white  
Ye = yellow

**Codes for “Rock Detail”:**

CALC = Calcrete  
FLOW = Debris flow  
IROH = Hematitic Iron Ore  
IROM = Magnetitic Iron Ore

KSND = Kalahari Sand  
MARG = Grey Marble  
MARW = White Marble  
QRZB = Quartz blocks  
QRZV = Quartz veins  
QUAF = Fine quartzite  
QUAH = Hematite quartzite

**Codes for “Rock Group”:**

BLOK = Blocks  
GNEIS = Gneiss  
IRON = Iron ore  
LIME = Limestone  
MARB = Marble  
NCHP = No RC chips recovered  
QRZ = Quartz  
QUAR = Quartzite  
SCHI = Schist  
SEDS = superficial sediments

**Codes for “Main mineral”:**

QTZ = Quartz  
GARN = Garnet  
HEM = Hematite  
MAG = Magnetite  
PYR = Pyrite

SCHH = Hematite schist  
SCHM = Mica schist  
SHAL = Shale (black, non-magnetic)  
SNDF = Ferruginous, fine, quartz-bearing moderately magnetic sand

**Codes for “Weathering”:**

FRES = Fresh  
PWET = Partly weathered  
DCOM = Fully decomposed

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS										Comments:				
Hole ID: NARC1														
Logging date: 27/03/2013					Coordinates: 0716131 / 7442783									
Geologist: Matthews Nakalemo					Signature: MN									
Date started: 27/03/2013			EOH: 40m		Date completed: 27/03/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
0-1	M	Gy	Bk	PWET	QUAR	QUAH	GTZ		IRON	FLOW	MAG			
1-2	M	Gy	Bk	PWET	QUAR	QUAH	GTZ		IRON	FLOW	MAG			
2-3	M	Gy	Bk	PWET	QUAR	QUAH	GTZ		IRON	FLOW	MAG			
3-4	M	Gy		PWET	SCHI	SCHM	MICAS							
4-5	M	Gy		PWET	SCHI	SCHM	MICAS							
5-6	M	Gy		PWET	SCHI	SCHM	MICAS							
6-7	M	Gy		PWET	SCHI	SCHM	MICAS							
7-8	M	Gy		PWET	SCHI	SCHM	MICAS							
8-9	M	Gy		PWET	SCHI	SCHM	MICAS							
9-10	M	Gy		PWET	SCHI	SCHM	MICAS							
10-11	M	Gy		PWET	SCHI	SCHM	MICAS							
11-12	M	Gy		PWET	SCHI	SCHM	MICAS							
12-13	M	Gy		PWET	SCHI	SCHM	MICAS							
13-14	L	Br		PWET	QUAR	QUAF	QTZ		SCHI	SCHM	MICAS			
14-15	D	Bk		PWET	IRON	IROM	MAG							
15-16	D	Bk		PWET	IRON	IROM	MAG					A-01	51.04	34.62
16-17	D	Bk		PWET	IRON	IROM	MAG							
17-18	D	Bk		PWET	IRON	IROM	MAG							
18-19	D	Bk		PWET	IRON	IROM	MAG					A-02	61.50	17.68
19-20	D	Bk		PWET	IRON	IROM	MAG					A-03	41.23	36.77
20-21	D	Bk		PWET	IRON	IROM	MAG					A-04	71.90	20.67
21-22	D	Bk		PWET	IRON	IROM	MAG							
22-23	D	Bk		PWET	IRON		MAG		IROM			A-05	75.68	18.48
23-24	D	Bk	Bk	PWET	QUAR	QUAF	QTZ		IRON	IROM	MAG	A-06	50.93	40.79
24-25	D	Bk	Bk	PWET	QUAR	QUAF	QTZ		IRON	IROM	MAG			



GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET					
Drilling Area: NARUCHAS										Comments:					
Hole ID: NARC1															
Logging date: 27/03/2013					Coordinates: 0716131 / 7442783										
Geologist: Matthews Nakalemo					Signature: MN										
Date started: 27/03/2013			EOH: 40m		Date completed: 27/03/2013										

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
25-26	D	Bk		PWET	QUAR	QUAF	QTZ							
26-27	M	Ye		PWET	QUAR	QUAF	QTZ							
27-28	M	Ye		PWET	QUAR	QUAF	QTZ							
28-29	M	Ye		PWET	QUAR	QUAF	QTZ							
29-30	M	Gy		PWET	QUAR	QUAF	QTZ							
30-31	M	Ye		PWET	QUAR	QUAF	QTZ							
31-32	M	Ye		PWET	QUAR	QUAF	QTZ							
32-33	M	Ye		PWET	QUAR	QUAF	QTZ							
33-34	M	Ye		PWET	QUAR	QUAF	QTZ							
34-35	M	Gy		PWET	QUAR	QUAF	QTZ							
35-36	M	Gy		PWET	QUAR	QUAF	QTZ							
36-37	M	Gy		PWET	QUAR	QUAF	QTZ							
37-38	M	Gy		PWET	QUAR	QUAF	QTZ							
38-39	M	Gy		PWET	QUAR	QUAF	QTZ							
39-40	M	Gy		PWET	QUAR	QUAF	QTZ							

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS										Comments:				
Hole ID: NARC 2														
Logging date: 27/03/2013					Coordinates: 0716141 / 7442764									
Geologist: Matthews Nakalemo					Signature: MN									
Date started: 27/03/2013			EOH: 70M		Date completed: 28/03/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
0-1	L	Rd	Bk	PWET	BLOK	IROM	MAG	60	QUAR	QRZB	QTZ			
1-2	L	Rd	Bk	PWET	BLOK	IROM	MAG	60	QUAR	QRZB	QTZ			
2-3	L	Rd	Bk	PWET	BLOK	IROM	MAG	60	QUAR	QRZB	QTZ			
3-4	L	Rd	Bk	PWET	BLOK	IROM	MAG	60	QUAR	QRZB	QTZ			
4-5	L	Gy		PWET	SCHI	SCHH	MICAS							
5-6	L	Gy		PWET	SCHI	SCHH	MICAS							
6-7	L	Gy		PWET	QUAR	QUAF	QTZ							
7-8	D	Bk		PWET	IRON	IROM	MAG							
8-9	D	Bk		PWET	IRON	IROM	MAG							
9-10	D	Bk		PWET	IRON	IROM	MAG					A-07	52.18	38.81
10-11	D	Bk		PWET	IRON	IROM	MAG							
11-12	D	Bk		PWET	IRON	IROM	MAG							
12-13	L	Br		PWET	SCHI	SCHH	MICAS							
13-14	L	Br		PWET	SCHI	SCHH	MICAS							
14-15	L	Pk		PWET	SCHI	SCHH	MICAS							
15-16	L	Br		PWET	SCHI	SCHH	MICAS							
16-17	L	Br		PWET	SCHI	SCHH	MICAS							
17-18	L	Br		PWET	SCHI	SCHH	MICAS							
18-19	L	Br		PWET	SCHI	SCHH	MICAS					A-08	43.84	42.06
19-20	D	Rd		PWET	IRON	IROH	HEM							
20-21	L	Br	Gy	PWET	QUAR	QUAH	QTZ		SCHI	SCHM	MICAS			
21-22	L	Br	Gy	PWET	QUAR	QUAH	QTZ		SCHI	SCHM	MICAS			
22-23	D	Bk	Pk	PWET	IRON	IROH	HEM		QUAR	QRZV	QTZ			
23-24	D	Bk	Pk	PWET	IRON	IROH	HEM		QUAR	QRZV	QTZ			
24-25	D	Bk	Pk	PWET	IRON	IROH	HEM		QUAR	QRZV	QTZ			

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS										Comments:				
Hole ID: NARC 2														
Logging date: 27/03/2013					Coordinates: 0716141 / 7442764									
Geologist: Matthews Nakalemo					Signature: MN									
Date started: 27/03/2013			EOH: 70m		Date completed: 28/03/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
25-26	M	Gy		FRES	SCHI	SCHM	MICAS							
26-27	M	Gy		PWET	SCHI	SCHM	MICAS							
27-28	M	Gy		PWET	SCHI	SCHM	MICAS							
28-29	M	Gy		PWET	SCHI	SCHM	MICAS							
29-30	M	Gy		PWET	SCHI	SCHM	MICAS							
30-31	M	Gy		PWET	SCHI	SCHM	MICAS							
31-32	M	Gy		PWET	SCHI	SCHM	MICAS							
32-33	M	Gy		PWET	SCHI	SCHM	MICAS							
33-34	M	Gy		PWET	SCHI	SCHM	MICAS							
34-35	M	Gy		PWET	SCHI	SCHM	MICAS							
35-36	M	Gy		PWET	SCHI	SCHM	MICAS							
36-37	M	Gy		PWET	SCHI	SCHM	MICAS							
37-38	M	Gy		PWET	SCHI	SCHM	MICAS							
38-39	M	Gy		PWET	SCHI	SCHM	MICAS							
39-40	M	Gy		PWET	SCHI	SCHM	MICAS							
40-41	M	Gy		PWET	SCHI	SCHM	MICAS							
41-42	D	Bk		PWET	IRON	IROH	HEM							
42-43	D	Bk		PWET	IRON	IROH	HEM					A-09	56.68	29.48
43-44	D	Bk		PWET	IRON	IROH	HEM					A-10	35.29	49.34
44-45	D	Bk		PWET	IRON	IROH	HEM					A-11	59.48	30.22
45-46	D	Bk		PWET	IRON	IROH	HEM					A-12	45.41	36.56
46-47	D	Bk		PWET	IRON	IROH	HEM					A-13	63.45	23.26
47-48	D	Bk		PWET	IRON	IROH	HEM					A-14	53.83	30.93
48-49	M	Bk		PWET	SCHI	SCHM	MICAS					A-15	27.50	54.76
49-50	M	Bk		PWET	SCHI	SCHM	MICAS							



GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET					
Drilling Area: NARUCHAS										Comments:					
Hole ID: NARC 3															
Logging date: 01/04/2013					Coordinates: 0716663 / 7443341										
Geologist: Matthews Nakalemo					Signature: MN										
Date started: 01/04/2013			EOH: 50M		Date completed: 02/04/2013										

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
0-1	D	Bk		PWET	BLOK	FLOW	HEM							
1-2	M	Gy		PWET	SCHI	SCHM	MICAS		IRON	IROH	HEM			
2-3	M	Gy	Bk	PWET	SCHI	SCHM	MICAS		IRON	IROH	HEM			
3-4	M	Gy	Bk	PWET	SCHI	SCHM	MICAS		IRON	IROH	HEM			
4-5	M	Pk	Bk	PWET	SCHI	SCHM	MICAS		IRON	IROH	HEM			
5-6	M	Gy	Bk	PWET	SCHI	SCHM	MICAS		IRON	IROH	HEM			
6-7	M	Gy	Bk	PWET	SCHI	SCHM	MICAS		IRON	IROH	HEM			
7-8	D	Bk		PWET	IRON	IROH	HEM							
8-9	D	Bk		PWET	IRON	IROH	HEM					A-24	55.58	38.15
9-10	D	Bk		PWET	IRON	IROH	HEM							
10-11	D	Bk		PWET	IRON	IROH	HEM							
11-12	M	Gn		PWET	SCHI	SCHM	MICAS							
12-13	M	Gn		PWET	SCHI	SCHM	MICAS							
13-14	M	Gn		PWET	SCHI	SCHM	MICAS							
14-15	M	Rd		PWET	SCHI	SCHM	MICAS							
15-16	M	Rd		PWET	SCHI	SCHM	MICAS							
16-17	M	Rd		PWET	SCHI	SCHM	MICAS							
17-18	M	Gn		PWET	SCHI	SCHM	MICAS							
18-19	M	Gn		PWET	SCHI	SCHM	MICAS							
19-20	M	Gn		PWET	SCHI	SCHM	MICAS							
20-21	M	Gn		PWET	SCHI	SCHM	MICAS							
21-22	M	Gn		PWET	SCHI	SCHM	MICAS							
22-23	M	Rd		PWET	SCHI	SCHM	MICAS							
23-24	M	Gy		PWET	SCHI	SCHM	MICAS							
24-25	M	Gy		PWET	SCHI	SCHM	MICAS							

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS										Comments:				
Hole ID: NARC 3														
Logging date: 01/04/2013					Coordinates: 0716663 / 7443341									
Geologist: Matthews Nakalemo					Signature: MN									
Date started: 01/04/2013			EOH: 50M		Date completed: 02/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
25-26	M	Gy		PWET	SCHI	SCHM	MICAS							
26-27	M	Gy		PWET	SCHI	SCHM	MICAS							
27-28	M	Gy		PWET	SCHI	SCHM	MICAS							
28-29	M	Gy		PWET	SCHI	SCHM	MICAS							
29-30	M	Gy		PWET	SCHI	SCHM	MICAS							
30-31	M	Gy		PWET	SCHI	SCHM	MICAS							
31-32	M	Gy		PWET	SCHI	SCHM	MICAS							
32-33	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHM	PYR			
33-34	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHM	PYR			
34-35	D	Bk	Wh	PWET	SCHI	SCHM	MICAS		QRZ	QRZV	QTZ			
35-36	D	Bk	Wh	PWET	SCHI	SCHM	MICAS		QRZ	QRZV	QTZ			
36-37	D	Bk	Wh	PWET	SCHI	SCHM	MICAS		QRZ	QRZV	QTZ			
37-38	D	Bk	Wh	PWET	SCHI	SCHM	MICAS		QRZ	QRZV	QTZ			
38-39	D	Bk		PWET	SCHI	SCHM	MICAS							
39-40	D	Bk		PWET	SCHI	SCHM	MICAS							
40-41	D	Bk		PWET	SCHI	SCHM	MICAS							
41-42	D	Bk		PWET	SCHI	SCHM	MICAS							
42-43	D	Bk		PWET	SCHI	SCHM	MICAS							
43-44	D	Bk		PWET	SCHI	SCHM	MICAS							
44-45	D	Bk		PWET	SCHI	SCHM	MICAS							
45-46	D	Bk		PWET	SCHI	SCHM	MICAS							
46-47	D	Bk		PWET	QUAR	QUAH	QTZ							
47-48	D	Bk		PWET	QUAR	QUAH	QTZ							
48-49	D	Bk		PWET	QUAR	QUAH	QTZ							
49-50	D	Bk		PWET	QUAR	QUAH	QTZ							

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET					
Drilling Area: NARUCHAS										Comments: NOT DRILLED UNTIL THE					
Hole ID: NARC 4										PROPOSED DEPTH AS CASINGS HAVE					
Logging date: 02/04/2013					Coordinates: 0717472 / 7444038					DEFLECTED.					
Geologist: Matthews Nakalemo					Signature: MN										
Date started: 02/04/2013			EOH: 56M			Date completed: 02/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
0-1	L	Rd		PWET	BLOK	FLOW	QTZ							
1-2	M	Gy		PWET	SCHI	SCHM	MICAS							
2-3	M	Gy		PWET	SCHI	SCHM	MICAS							
3-4	M	Gy		PWET	SCHI	SCHM	MICAS							
4-5	M	Gy		PWET	SCHI	SCHM	MICAS							
5-6	L	Gy	Wh	PWET	SCHI	SCHM	MICAS		QRZ	QRZV	QTZ			
6-7	M	Gy		PWET	SCHI	SCHM	MICAS							
7-8	M	Gy		PWET	SCHI	SCHM	MICAS							
8-9	M	Gy		PWET	SCHI	SCHM	MICAS							
9-10	M	Gy		PWET	SCHI	SCHM	MICAS							
10-11	M	Gy		PWET	SCHI	SCHM	MICAS							
11-12	M	Gy		PWET	SCHI	SCHM	MICAS							
12-13	M	Gy		PWET	SCHI	SCHM	MICAS							
13-14	M	Gy		PWET	SCHI	SCHM	MICAS							
14-15	M	Br		PWET	SCHI	SCHM	MICAS							
15-16	M	Br		PWET	SCHI	SCHM	MICAS							
16-17	M	Br		PWET	SCHI	SCHM	MICAS							
17-18	M	Gy		PWET	SCHI	SCHM	MICAS							
18-19	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHM	MICAS			
19-20	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHM	MICAS			
20-21	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHM	MICAS			
21-22	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHM	MICAS			
22-23	M	Gy		PWET	SCHI	SCHM	MICAS							
23-24	M	Gy		PWET	SCHI	SCHM	MICAS							
24-25	M	Gy	Wh	PWET	SCHI	SCHM	MICAS		QRZ	QRZV	QTZ			

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET					
Drilling Area: NARUCHAS										Comments: NOT DRILLED UNTIL THE					
Hole ID: NARC 4										PROPOSED DEPTH AS CASINGS HAVE					
Logging date: 02/04/2013					Coordinates: 0717472 / 7444038					DEFLECTED.					
Geologist: Matthews Nakalemo					Signature: MN										
Date started: 02/04/2013			EOH: 56M			Date completed: 02/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
25-26	M	Gy		PWET	SCHI	SCHM	MICAS							
26-27	M	Gy		PWET	SCHI	SCHM	MICAS							
27-28	M	Gy		PWET	SCHI	SCHM	MICAS							
28-29	M	Gy		PWET	SCHI	SCHHH	MAG							
29-30	M	Gy		PWET	SCHI	SCHHH	MAG							
30-31	M	Gy		PWET	SCHI	SCHHH	MAG							
31-32	M	Gy		PWET	SCHI	SCHHH	MAG							
32-33	M	Gy		PWET	SCHI	SCHHH	MAG							
33-34	M	Gy		PWET	SCHI	SCHHH	MAG							
34-35	M	Gy		PWET	SCHI	SCHHH	MAG							
35-36	M	Gy		PWET	SCHI	SCHHH	MAG							
36-37	M	Gy		PWET	SCHI	SCHHH	MAG							
37-38	M	Gy		PWET	SCHI	SCHHH	MAG							
38-39	L	Pk	Gy	PWET	PEG	PEG	KSPAR		SCHI	SCHH	MAG			
39-40	D	Bk		PWET	IRON	IROM	MAG					A-25	40.39	37.73
40-41	D	Bk		PWET	IRON	IROM	MAG					A-26	28.42	48.01
41-42	D	Bk		PWET	IRON	IROM	MAG					A-27	32.78	45.71
42-43	D	Bk		PWET	IRON	IROM	MAG							
43-44	D	Bk		PWET	IRON	IROM	MAG							
44-45	D	Bk		FRES	SCHI	SCHH	MAG							
45-46	D	Bk		FRES	SCHI	SCHH	MAG							
46-47	D	Bk		FRES	SCHI	SCHH	MAG							
47-48	D	Bk		FRES	SCHI	SCHH	MAG							
48-49	D	Bk		FRES	SCHI	SCHH	MAG							
49-50	D	Bk		FRES	SCHI	SCHH	MAG							



GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET					
Drilling Area: NARUCHAS										Comments: NOT DRILLED UNTIL THE					
Hole ID: NARC 4										PROPOSED DEPTH AS CASINGS HAS					
Logging date: 02/04/2013					Coordinates: 0717472 / 7444038					DEFLECTED.					
Geologist: Matthews Nakalemo					Signature: MN										
Date started: 02/04/2013			EOH: 56M			Date completed:02/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
50-51	D	Bk		FRES	SCHI	SCHH	MAG							
51-52	D	Bk		FRES	SCHI	SCHH	MAG							
52-53	D	Bk		FRES	SCHI	SCHH	MAG							
53-54	D	Bk		FRES	SCHI	SCHH	MAG							
54-55	D	Bk		FRES	SCHI	SCHH	GARN							
55-56	D	Bk		FRES	SCHI	SCHH	GARN							

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS										Comments:				
Hole ID: NARC 5														
Logging date: 04/04/2013					Coordinates: 0717479 / 7444113									
Geologist: Matthews Nakalemo					Signature: MN									
Date started: 03/04/2013			EOH: 56M		Date completed: 04/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
0-1	M	Br	Rd	PWET	BLOK	FLOW	MAG		SEDS	KSND	HEM			
1-2	L	Wh	Bk	PWET	QRZ	QRZV	QTZ		IRON	IROM	MAG			
2-3	L	Wh	Bk	PWET	QRZ	QRZV	QTZ		IRON	IROM	MAG			
3-4	L	Wh	Bk	PWET	QRZ	QRZV	QTZ		IRON	IROM	MAG			
4-5	L	Wh		PWET	QRZ	QRZV	QTZ							
5-6	L	Wh		PWET	QRZ	QRZV	QTZ							
6-7	D	GY	Wh	PWET	SCHI	SCHM	MICAS		QRZ	QRZV	QTZ			
7-8	D	GY	Wh	PWET	SCHI	SCHM	MICAS		QRZ	QRZV	QTZ			
8-9	D	GY	Wh	PWET	SCHI	SCHM	MICAS		QRZ	QRZV	QTZ			
9-10	D	GY	Wh	PWET	SCHI	SCHM	MICAS		QRZ	QRZV	QTZ			
10-11	D	GY	Bk	PWET	SCHI	SCHM	MICAS		IRON	IROM	MAG			
11-12	D	GY	Bk	PWET	SCHI	SCHM	MICAS		IRON	IROM	MAG			
12-13	D	GY	Bk	PWET	SCHI	SCHM	MICAS		IRON	IROM	MAG			
13-14	D	GY	Bk	PWET	SCHI	SCHM	MICAS		IRON	IROM	MAG			
14-15	D	GY	Bk	PWET	SCHI	SCHM	MICAS		IRON	IROM	MAG			
15-16	M	GY	Wh	PWET	SCHI	SCHM	MICAS		QRZ	QRZV	QTZ			
16-17	M	GY	Br	PWET	SCHI	SCHM	MICAS		IRON	IROM	MAG			
17-18	M	GY	Br	PWET	SCHI	SCHM	MICAS		IRON	IROM	MAG			
18-19	M	GY	Br	PWET	SCHI	SCHM	MICAS		IRON	IROM	MAG			
19-20	M	GY	Br	PWET	SCHI	SCHM	MICAS		IRON	IROM	MAG			
20-21	M	GY	Br	PWET	SCHI	SCHM	MICAS		IRON	IROM	MAG			
21-22	M	GY	Br	PWET	SCHI	SCHM	MICAS		IRON	IROM	MAG			
22-23	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHM	MICAS			
23-24	D	Bk		PWET	IRON	IROM	MAG					A-28	48.29	37.31
24-25	D	Bk		PWET	IRON	IROM	MAG					A-29	52.75	36.19

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS										Comments:				
Hole ID: NARC 5														
Logging date: 04/04/2013					Coordinates: 0717479 / 7444113									
Geologist: Matthews Nakalemo					Signature: MN									
Date started: 03/04/2013			EOH: 56M		Date completed: 04/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
25-26	D	Bk		PWET	IRON	IROM	MAG							
26-27	D	Bk		PWET	IRON	IROM	MAG							
27-28	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHM	MICAS			
28-29	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHM	MICAS			
29-30	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHM	MICAS			
30-31	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHM	MICAS	A-30	36.63	48.50
31-32	D	Gy		PWET	SCHI	SCHH	HEM							
32-33	D	Gy		PWET	SCHI	SCHH	HEM							
33-34	D	Gy		PWET	SCHI	SCHH	HEM							
34-35	D	Gy		PWET	SCHI	SCHH	HEM							
35-36	D	Gy		PWET	SCHI	SCHH	HEM							
36-37	D	Gy		PWET	SCHI	SCHH	HEM							
37-38	L	Wh	Gy	PWET	QRZ	QRZV	QTZ		SCHI	SCHM	MICAS			
38-39	L	Wh	Gy	PWET	QRZ	QRZV	QTZ		SCHI	SCHM	MICAS			
39-40	L	Wh	Gy	PWET	QRZ	QRZV	QTZ		SCHI	SCHM	MICAS			
40-41	D	Gy		PWET	SCHI	SCHH	HEM							
41-42	D	Gy		PWET	SCHI	SCHH	HEM							
42-43	D	Gy		PWET	SCHI	SCHH	HEM							
43-44	D	Gy		PWET	SCHI	SCHH	HEM							
44-45	D	Gy		PWET	SCHI	SCHH	HEM							
45-46	D	Gy		PWET	SCHI	SCHH	HEM		QRZ	QRZV	QTZ			
46-47	D	Gy		PWET	SCHI	SCHH	HEM							
47-48	D	Gy		PWET	SCHI	SCHH	HEM							
48-49	D	Gy		PWET	SCHI	SCHH	HEM		QRZ	QRZV	QTZ			
49-50	D	Gy		PWET	SCHI	SCHH	HEM							

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS										Comments:				
Hole ID: NARC 5														
Logging date: 04/04/2013					Coordinates: 0717479 / 7444113									
Geologist: Matthews Nakalemo					Signature: MN									
Date started: 03/04/2013			EOH: 56M		Date completed: 04/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
50-51	M	Gy		PWET	SCHI	SCHH	HEMHE							
51-52	M	Gy		PWET	SCHI	SCHH	HEM							
52-53	M	Gy		PWET	SCHI	SCHM	MICAS							
53-54	M	Gy		PWET	SCHI	SCHM	MICAS							
54-55	M	Gy		PWET	SCHI	SCHM	MICAS							
55-56	M	Gy		PWET	SCHI	SCHM	MICAS							

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS										Comments:				
Hole ID: NARC 6														
Logging date: 12/04/2013					Coordinates: 0716791 / 7443569									
Geologist: Matthews Nakalemo					Signature: MN									
Date started: 12/04/2013			EOH: 51M		Date completed: 12/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
0-1	M	Rd	Bk	PWET	SCHI	SCHM	MICAS		IRON	FLOW	HEM			
1-2	M	Gy		PWET	SCHI	SCHM	MICAS		IRON	FLOW	HEM			
2-3	M	Gy		PWET	SCHI	SCHM	MICAS							
3-4	M	Gy		PWET	SCHI	SCHM	MICAS							
4-5	M	Gy		PWET	SCHI	SCHM	MICAS							
5-6	M	Gy		PWET	SCHI	SCHM	MICAS							
6-7	M	Gy		PWET	SCHI	SCHM	MICAS							
7-8	M	Gy		PWET	SCHI	SCHM	MICAS							
8-9	M	Gy		PWET	SCHI	SCHM	MICAS							
9-10	M	Gy		PWET	SCHI	SCHM	MICAS							
10-11	M	Gy		PWET	SCHI	SCHM	MICAS							
11-12	M	Gy		PWET	SCHI	SCHM	MICAS							
12-13	M	Gy		PWET	SCHI	SCHM	MICAS							
13-14	M	Gy		PWET	SCHI	SCHM	MICAS							
14-15	M	Gy		PWET	SCHI	SCHM	MICAS							
15-16	M	Gy		PWET	SCHI	SCHM	MICAS							
16-17	M	Gy		PWET	SCHI	SCHM	MICAS							
17-18	M	Gy		PWET	SCHI	SCHM	MICAS							
18-19	M	Gy		PWET	SCHI	SCHM	MICAS							
19-20	M	Gy		PWET	SCHI	SCHM	MICAS							
20-21	D	Gy		PWET	SCHI	SCHM	MICAS							
21-22	D	Gy		PWET	SCHI	SCHM	MICAS							
22-23	D	Bk		PWET	SCHI	SCHM	MICAS							
23-24	D	Bk		PWET	SCHI	SCHM	MICAS							
24-25	D	Bk		PWET	SCHI	SCHM	MICAS							

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS										Comments:				
Hole ID: NARC 6														
Logging date: 12/04/2013					Coordinates: 0716791 / 7443569									
Geologist: Matthews Nakalemo					Signature: MN									
Date started: 12/04/2013			EOH: 51M		Date completed: 12/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
25-26	D	Bk		PWET	SCHI	SCHM	MICAS							
26-27	D	Bk		PWET	SCHI	SCHM	MICAS							
27-28	D	Bk		PWET	SCHI	SCHM	MICAS							
28-29	D	Bk		PWET	SCHI	SCHM	MICAS							
29-30	D	Bk		PWET	SCHI	SCHM	MICAS							
30-31	D	Bk		PWET	SCHI	SCHM	MICAS							
31-32	D	Bk		PWET	SCHI	SCHM	MICAS							
32-33	D	Bk		PWET	SCHI	SCHM	MICAS							
33-34	D	Bk		PWET	SCHI	SCHM	MICAS							
34-35	D	Bk		PWET	SCHI	SCHM	MICAS							
35-36	D	Bk		PWET	SCHI	SCHM	MICAS							
36-37	D	Bk		PWET	SCHI	SCHM	MICAS							
37-38	D	Bk		PWET	IRON	IROH	HEM					A-31		
38-39	D	Gy		PWET	SCHI	SCHM	MICAS							
39-40	L	Rd		PWET	QUAR	QUAH	QTZ							
40-41	L	Rd	Rd	PWET	QUAR	QUAH	QTZ		SCHI	SCHM	MICAS			
41-42	L	Rd		PWET	QUAR	QUAH	QTZ							
42-43	L	Rd		PWET	QUAR	QUAH	QTZ							
43-44	L	Ye		PWET	QUAR	QUAH	QTZ							
44-45	L	Ye		PWET	QUAR	QUAH	QTZ							
45-46	L	Ye	Rd	PWET	QUAR	QUAH	QTZ		SCHI	SCHM	MICAS			
46-47	L	Ye		PWET	QUAR	QUAH	QTZ							
47-48	L	Pk		PWET	QUAR	QUAH	QTZ							
48-49	L	Pk		PWET	QUAR	QUAH	QTZ							
49-50	L	Pk		PWET	QUAR	QUAH	QTZ							

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS										Comments:				
Hole ID: NARC 6														
Logging date: 12/04/2013					Coordinates: 0716791 / 7443569									
Geologist: Matthews Nakalemo					Signature: MN									
Date started: 12/04/2013			EOH: 51M		Date completed: 12/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
50-51	L	Gy		PWET	QUAR	QUAH	QTZ							

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET					
Drilling Area: NARUCHAS										Comments:					
Hole ID: NARC 7															
Logging date: 12/04/2013					Coordinates: 0716759 / 7443674										
Geologist: Matthews Nakalemo					Signature: MN										
Date started: 12/04/2013			EOH: 53M			Date completed: 12/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
0-1	M	Rd	Bk	PWET	QUAR	QRZB	QTZ		IRON	FLOW	HEM			
1-2	M	Rd	Bk	PWET	QUAR	QUAH	QTZ		IRON	IROH	HEM			
2-3	M	Rd	Bk	PWET	QUAR	QUAH	QTZ							
3-4	M	Rd	Bk	PWET	QUAR	QUAH	QTZ							
4-5	M	Rd		PWET	QUAR	QUAF	QTZ							
5-6	M	Rd		PWET	QUAR	QUAF	QTZ							
6-7	M	Rd		PWET	QUAR	QUAF	QTZ							
7-8	M	Rd		PWET	QUAR	QUAF	QTZ							
8-9	M	Rd		PWET	QUAR	QUAF	QTZ							
9-10	M	Br		PWET	QUAR	QUAF	QTZ							
10-11	M	Rd		PWET	QUAR	QUAF	QTZ							
11-12	D	Gy		PWET	SCHI	SCHH	MICAS							
12-13	D	Gy		PWET	SCHI	SCHH	MICAS							
13-14	D	Bk		PWET	SCHI	SCHH	MICAS							
14-15	D	Bk		PWET	SCHI	SCHH	MICAS							
15-16	D	Bk		PWET	SCHI	SCHH	MICAS					A-32	26.28	62.13
16-17	D	Bk		PWET	SCHI	SCHH	MICAS							
17-18	D	Bk		PWET	SCHI	SCHH	MICAS							
18-19	D	Bk		PWET	SCHI	SCHH	MICAS							
19-20	D	Bk		PWET	SCHI	SCHH	MICAS							
20-21	D	Bk		PWET	SCHI	SCHH	MICAS							
21-22	D	Bk		PWET	SCHI	SCHH	MICAS							
22-23	D	Bk		PWET	SCHI	SCHH	MICAS							
23-24	D	Bk		PWET	SCHI	SCHH	MICAS							
24-25	D	Bk	Bk	PWET	SCHI	SCHH	MICAS							



GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET					
Drilling Area: NARUCHAS										Comments:					
Hole ID: NARC 7															
Logging date: 12/04/2013					Coordinates: 0716759 / 7443674										
Geologist: Matthews Nakalemo					Signature: MN										
Date started: 12/04/2013			EOH: 53M			Date completed: 12/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
25-26	D	Bk		PWET	SCHI	SCHH	MICAS							
26-27	D	Bk		PWET	SCHI	SCHH	MICAS							
27-28	D	Bk		PWET	SCHI	SCHH	MICAS							
28-29	D	Bk		PWET	SCHI	SCHH	MICAS							
29-30	L	Wh		PWET	QUAR	QUAF	QTZ							
30-31	L	Wh		PWET	QUAR	QUAF	QTZ							
31-32	L	Wh		PWET	QUAR	QUAF	QTZ							
32-33	D	Bk		PWET	SCHI	SCHH	MICAS							
33-34	D	Bk		PWET	SCHI	SCHH	MICAS							
34-35	D	Bk		PWET	SCHI	SCHH	MICAS					A-33	31.91	46.25
35-36	D	Bk		PWET	SCHI	SCHH	MICAS							
36-37	D	Bk		PWET	SCHI	SCHH	MICAS							
37-38	D	Bk		PWET	SCHI	SCHH	MICAS							
38-39	D	Bk		PWET	SCHI	SCHH	MICAS							
39-40	D	Bk		PWET	SCHI	SCHH	MICAS							
40-41	D	Bk		PWET	SCHI	SCHH	MICAS							
41-42	D	Bk		PWET	SCHI	SCHH	MICAS							
42-43	D	Bk		PWET	SCHI	SCHH	MICAS							
43-44	D	Bk		PWET	SCHI	SCHH	MICAS							
44-45	D	Bk		PWET	SCHI	SCHH	MICAS							
45-46	D	Br		PWET	SCHI	SCHH	MICAS							
46-47	D	Br		PWET	SCHI	SCHH	MICAS							
47-48	D	Bk		PWET	SCHI	SCHH	MICAS							
48-49	L	Wh		PWET	QUAR	QUAF	QTZ							
49-50	L	Wh		PWET	QUAR	QUAF	QTZ							

GEO EXPERTS CONSULTING SERVICES CC												DRILL HOLE LOGGING SHEET			
Drilling Area: NARUCHAS												Comments:			
Hole ID: NARC 7															
Logging date: 12/04/2013						Coordinates: 0716759 / 7443674									
Geologist: Matthews Nakalemo						Signature: MN									
Date started: 12/04/2013				EOH: 53M		Date completed: 12/04/2013									
m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %	
50-51	L	Wh		PWET	QUAR	QTZ									
51-52	L	Wh		PWET	QUAR	QTZ									
52-53	L	Br		PWET	QUAR	QTZ									

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET					
Drilling Area: NARUCHAS										Comments:					
Hole ID: NARC 8															
Logging date: 11/04/2013					Coordinates: 0717197 / 7443866										
Geologist: Matthews Nakalemo					Signature: MN										
Date started: 11/04/2013			EOH: 75M			Date completed: 11/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
0-1	L	Rd		PWET	SEDS	SNDF	QTZ							
1-2	L	Rd		PWET	SEDS	SNDF	QTZ							
2-3	M	Gy		PWET	SCHI	SCHH	MICAS							
3-4	M	Gy		PWET	SCHI	SCHH	MICAS							
4-5	M	Gy		PWET	SCHI	SCHH	MICAS							
5-6	D	Gy		PWET	SCHI	SCHH	MICAS							
6-7	D	Gy		PWET	SCHI	SCHH	MICAS							
7-8	D	Gy		PWET	SCHI	SCHH	MICAS							
8-9	D	Gy		PWET	SCHI	SCHH	MICAS							
9-10	D	Gy		PWET	SCHI	SCHH	MICAS							
10-11	D	Gy		PWET	SCHI	SCHH	MICAS							
11-12	D	Gy		PWET	SCHI	SCHH	MICAS							
12-13	D	Rd		PWET	IRON	IROH	HEM							
13-14	D	Gy		PWET	SCHI	SCHH	MICAS							
14-15	D	Gy		PWET	SCHI	SCHH	MICAS							
15-16	D	Gy		PWET	SCHI	SCHH	MICAS							
16-17	D	Bk		PWET	IRON	IROH	HEM							
17-18	D	Gy		PWET	SCHI	SCHH	MICAS							
18-19	D	Gy		PWET	SCHI	SCHH	MICAS							
19-20	D	Gy		PWET	SCHI	SCHH	MICAS							
20-21	D	Bk	Gy	PWET	IRON	IROH	HEM		SCHI	SCHH	MICAS			
21-22	D	Bk		PWET	IRON	IROH	HEM		SCHI	SCHH	MICAS	A-34	54.26	40.30
22-23	L	Wh		PWET	QRZ	QRZV	QTZ							
23-24	L	Gy		PWET	QRZ	QUAF	QTZ							
24-25	L	Gy		PWET	QRZ	QUAF	QTZ							

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS										Comments:				
Hole ID: NARC 8														
Logging date: 11/04/2013					Coordinates: 0717197 / 7443866									
Geologist: Matthews Nakalemo					Signature: MN									
Date started: 11/04/2013			EOH: 75M		Date completed: 11/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
25-26	L	Gy		PWET	QRZ	QUAF	QTZ							
26-27	L	Gy		PWET	QRZ	QUAF	QTZ							
27-28	L	Gy		PWET	QRZ	QUAF	QTZ							
28-29	L	Gy		PWET	QRZ	QUAF	QTZ							
29-30	D	Br		PWET	SCHI	SCHM	MICAS							
30-31	D	Br		PWET	SCHI	SCHM	MICAS							
31-32	D	Br		PWET	SCHI	SCHM	MICAS							
32-33	D	Br		PWET	SCHI	SCHM	MICAS							
33-34	D	Br		PWET	SCHI	SCHM	MICAS							
34-35	D	Gy		PWET	SCHI	SCHM	MICAS							
35-36	D	Gy		PWET	SCHI	SCHM	MICAS							
36-37	D	Gy		PWET	SCHI	SCHM	MICAS							
37-38	D	Gy		PWET	SCHI	SCHM	MICAS							
38-39	D	Gy		PWET	SCHI	SCHM	MICAS							
39-40	D	Gy		PWET	SCHI	SCHM	MICAS							
40-41	D	Gy		PWET	SCHI	SCHM	MICAS							
41-42	D	Gy		PWET	SCHI	SCHM	MICAS							
42-43	D	Gy		PWET	SCHI	SCHM	MICAS							
43-44	D	Gy		PWET	SCHI	SCHM	MICAS							
44-45	D	Gy		PWET	SCHI	SCHM	MICAS							
45-46	M	Rd		PWET	IRON	IROH	HEM					A-35	44.86	46.03
46-47	M	Rd		PWET	IRON	IROH	HEM							
47-48	L	Gy		PWET	SCHI	SCHM	MICAS							
48-49	L	Gy		PWET	SCHI	SCHM	MICAS							
49-50	L	Gy		PWET	SCHI	SCHM	MICAS							

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS										Comments:				
Hole ID: NARC 8														
Logging date: 11/04/2013					Coordinates: 0717197 / 7443866									
Geologist: Matthews Nakalemo					Signature: MN									
Date started: 11/04/2013			EOH: 75M		Date completed: 11/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
50-51	M	Rd		PWET	SCHI	SCHM	MICAS							
51-52	D	Gy		PWET	SCHI	SCHM	MICAS							
52-53	D	Gy		PWET	SCHI	SCHM	MICAS							
53-54	D	Gy		PWET	SCHI	SCHM	MICAS							
54-55	D	Gy		PWET	SCHI	SCHM	MICAS							
55-56	D	Gy		PWET	SCHI	SCHM	MICAS							
56-57	D	Gy		PWET	SCHI	SCHM	MICAS							
57-58	D	Gy	Bk	PWET	SCHI	SCHM	MICAS		IRON	IROH	HEM			
58-59	D	Gy	Bk	PWET	SCHI	SCHM	MICAS		IRON	IROH	HEM			
59-60	D	Gy	Bk	PWET	SCHI	SCHM	MICAS		IRON	IROH	HEM			
60-61	D	Gy	Bk	PWET	SCHI	SCHM	MICAS		IRON	IROH	HEM			
61-62	D	Gy	Bk	PWET	SCHI	SCHM	MICAS		IRON	IROH	HEM			
62-63	L	Br		PWET	QUAR	QUAF	QTZ							
63-64	L	Br		PWET	QUAR	QUAF	QTZ							
64-65	L	Br		PWET	QUAR	QUAF	QTZ							
65-66	L	Br		PWET	QUAR	QUAF	QTZ							
66-67	L	Wh	Gy	FRES	QRZ	QRZV	QTZ		SCHI	SCHM	MICAS			
67-68	L	Wh	Gy	FRES	QRZ	QRZV	QTZ		SCHI	SCHM	MICAS			
68-69	D	Gy	Wh	PWET	SCHI	SCHM	MICAS		FRES	QRZ	QTZV			
69-70	D	Gy	Wh	PWET	SCHI	SCHM	MICAS		FRES	QRZ	QTZV			
70-71	D	Gy	Wh	PWET	SCHI	SCHM	MICAS		FRES	QRZ	QTZV			
71-72	D	Gy		PWET	SCHI	SCHM	MICAS							
72-73	D	Gy		PWET	SCHI	SCHM	MICAS							
73-74	D	Gy		PWET	SCHI	SCHM	MICAS							
74-75	D	Gy		PWET	SCHI	SCHM	MICAS							

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS										Comments:				
Hole ID: NARC 9														
Logging date: 15/04/2013					Coordinates: 0716194 / 7442801									
Geologist: Matthews Nakalemo					Signature: MN									
Date started: 15/04/2013					EOH: 73M					Date completed: 15/04/2013				

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
0-1	M	Rd	Bk	PWET	SCHI	SCHM	MICAS		IRON	FLOW	HEM			
1-2	M	Gy	Bk	PWET	SCHI	SCHM	MICAS		IRON	FLOW	HEM			
2-3	M	Gy	Bk	PWET	SCHI	SCHM	MICAS		IRON	FLOW	HEM			
3-4	M	Gy	Wh	PWET	SCHI	SCHM	MICAS		QRZ	QRZV	QTZ			
4-5	M	Gy	Wh	PWET	SCHI	SCHM	MICAS		QRZ	QRZV	QTZ			
5-6	M	Gy		PWET	SCHI	SCHM	MICAS							
6-7	M	Br		PWET	SCHI	SCHM	MICAS							
7-8	M	Br		PWET	SCHI	SCHM	MICAS							
8-9	M	Br		PWET	SCHI	SCHM	MICAS					A-36	35.19	45.02
9-10	D	Br		PWET	IRON	IROH	HEM					A-37	51.22	32.62
10-11	L	Wh	Br	PWET	QRZ	QRZV	QTZ		IRON	IROH	HEM			
11-12	D	Bk		PWET	SCHI	SCHM	MICAS							
12-13	D	Bk		PWET	SCHI	SCHM	MICAS							
13-14	D	Bk		PWET	SCHI	SCHM	MICAS							
14-15	D	Bk		PWET	SCHI	SCHM	MICAS							
15-16	D	Bk		PWET	SCHI	SCHM	MICAS							
16-17	D	Bk		PWET	SCHI	SCHM	MICAS					A-38	40.48	43.57
17-18	D	Gy		PWET	SCHI	SCHM	MICAS							
18-19	D	Gy		PWET	SCHI	SCHM	MICAS							
19-20	D	Gy		PWET	SCHI	SCHM	MICAS							
20-21	D	Gy		PWET	SCHI	SCHM	MICAS							
21-22	D	Gy		PWET	SCHI	SCHM	MICAS							
22-23	D	Gy		PWET	SCHI	SCHM	MICAS							
23-24	D	Gy		PWET	SCHI	SCHM	MICAS							
24-25	D	Gy		PWET	SCHI	SCHM	MICAS							

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS										Comments:				
Hole ID: NARC 9														
Logging date: 15/04/2013					Coordinates: 0716194 / 7442801									
Geologist: Matthews Nakalemo					Signature: MN									
Date started: 15/04/2013			EOH: 73M		Date completed: 15/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
25-26	D	Gy		PWET	SCHI	SCHH	MICAS							
26-27	D	Bk		PWET	SCHI	SCHH	MICAS							
27-28	D	Bk	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROM	MAG			
28-29	D	Bk		PWET	IRON	IROM	MAG							
29-30	D	Bk		PWET	IRON	IROM	MAG							
30-31	D	Gy	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROM	MAG			
31-32	D	Gy	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROM	MAG			
32-33	D	Gy	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROM	MAG			
33-34	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHH	MICAS			
34-35	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHH	MICAS			
35-36	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHH	MICAS	A-39	40.59	44.10
36-37	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHH	MICAS			
37-38	D	Gy		PWET	SCHI	SCHH	MICAS							
38-39	D	Gy		PWET	SCHI	SCHH	MICAS							
39-40	D	Gy		PWET	SCHI	SCHH	MICAS							
40-41	D	Gy		PWET	SCHI	SCHH	MICAS							
41-42	D	Br		PWET	IRON	IROM	MAG					A-40	47.61	40.99
42-43	D	Br		PWET	SCHI	SCHH	MICAS							
43-44	D	Br	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROM	HEM			
44-45	D	Br		PWET	SCHI	SCHH	MICAS							
45-46	D	Br		PWET	SCHI	SCHH	MICAS							
46-47	D	Gy		PWET	SCHI	SCHH	MICAS							
47-48	D	Gy		PWET	SCHI	SCHH	MICAS							
48-49	D	Gy		PWET	SCHI	SCHH	MICAS							
49-50	D	Bk		PWET	IRON	IROM	HEM					A-41	51.84	34.60

GEO EXPERTS CONSULTING SERVICES CC											DRILL HOLE LOGGING SHEET			
Drilling Area: NARUCHAS											Comments:			
Hole ID: NARC 9														
Logging date: 15/04/2013						Coordinates: 0716194 / 7442801								
Geologist: Matthews Nakalemo						Signature: MN								
Date started: 15/04/2013				EOH: 73M			Date completed: 15/04/2013							

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
50-51	D	Gy		PWET	SCHI	SCHH	MICAS							
51-52	D	Gy		PWET	SCHI	SCHH	MICAS							
52-53	D	Bk		PWET	IRON	IROM	MAG					A-42	39.33	43.44
53-54	D	Bk		PWET	IRON	IROM	MAG					A-43	35.09	50.42
54-55	D	Bk		PWET	SCHI	SCHH	MICAS							
55-56	D	Bk		PWET	SCHI	SCHH	MICAS							
56-57	D	Bk		PWET	SCHI	SCHH	MICAS							
57-58	D	Bk		PWET	SCHI	SCHH	MICAS							
58-59	D	Gy		PWET	SCHI	SCHH	MICAS							
59-60	D	Gy		PWET	SCHI	SCHH	MICAS							
60-61	D	Br		PWET	SCHI	SCHH	MICAS							
61-62	D	Br		PWET	SCHI	SCHH	MICAS							
62-63	D	Br		PWET	SCHI	SCHH	MICAS							
63-64	D	Br		PWET	SCHI	SCHH	MICAS							
64-65	D	Br		PWET	SCHI	SCHH	MICAS							
65-66	D	Br		PWET	SCHI	SCHH	MICAS							
66-67	D	Br		PWET	SCHI	SCHH	MICAS							
67-68	D	Gy		PWET	SCHI	SCHH	MICAS							
68-69	D	Br		PWET	SCHI	SCHH	MICAS							
69-70	D	Br		PWET	SCHI	SCHH	MICAS							
70-71	D	Gy		PWET	SCHI	SCHH	MICAS							
71-72	D	Gy		PWET	SCHI	SCHH	MICAS							
72-73	D	Br		PWET	SCHI	SCHH	MICAS							



GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET					
Drilling Area: NARUCHAS										Comments:					
Hole ID: NARC 10															
Logging date: 16/04/2013					Coordinates: 0716128 / 7442705										
Geologist: Matthews Nakalemo					Signature: MN										
Date started: 16/04/2013			EOH: 70M			Date completed: 16/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
0-1	M	Rd		PWET	IRON	FLOW	MAG							
1-2	D	Bk		PWET	IRON	IROM	MAG							
2-3	M	Gy	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROM	MAG			
3-4	M	Gy	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROM	MAG			
4-5	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHH	MICAS			
5-6	M	Gy	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROM	MAG			
6-7	M	Gy	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROM	MAG			
7-8	D	Bk		PWET	IRON	IROM	MAG							
8-9	D	Bk		PWET	IRON	IROM	MAG							
9-10	D	Bk		PWET	IRON	IROM	MAG					A-44	41.95	39.50
10-11	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHH	MICAS	A-45	30.41	53.65
11-12	D	Bk	Gy	PWET	IRON	IROM	MAG		SCHI	SCHH	MICAS			
12-13	D	Bk		PWET	IRON	IROM	MAG					A-46	65.79	26.60
13-14	M	Gy		PWET	SCHI	SCHH	MICAS							
14-15	M	Br		PWET	QUAR	QUAF	QTZ							
15-16	M	Br		PWET	QUAR	QUAF	QTZ							
16-17	M	Br		PWET	QUAR	QUAF	QTZ							
17-18	M	Br		PWET	QUAR	QUAF	QTZ							
18-19	M	Gy		PWET	SCHI	SCHH	MICAS							
19-20	M	Gy		PWET	SCHI	SCHH	MICAS							
20-21	M	Gy		PWET	QUAR	QUAF	QTZ							
21-22	M	Gy		PWET	QUAR	QUAF	QTZ							
22-23	D	Gy		PWET	SCHI	SCHM	MICAS							
23-24	D	Gy		PWET	SCHI	SCHM	MICAS							
24-25	M	Br		PWET	QUAR	QUAF	QTZ							

GEO EXPERTS CONSULTING SERVICES CC											DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS											Comments:				
Hole ID: NARC 10															
Logging date: 16/04/2013						Coordinates: 0716128 / 7442705									
Geologist: Matthews Nakalemo						Signature: MN									
Date started: 16/04/2013				EOH: 70M			Date completed: 16/04/2013								

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
25-26	M	Br		PWET	QUAAR	QUAF	QTZ							
26-27	D	Gy		PWET	SCHI	SCHH	MICAS							
27-28	D	Gy		PWET	SCHI	SCHH	MICAS							
28-29	D	Gy		PWET	SCHI	SCHH	MICAS							
29-30	D	Gy		PWET	SCHI	SCHH	MICAS							
30-31	D	Gy		PWET	SCHI	SCHH	MICAS							
31-32	D	Rd		PWET	SCHI	SCHH	MICAS							
32-33	D	Rd		PWET	SCHI	SCHH	MICAS							
33-34	D	Bk		PWET	SCHI	SCHH	MICAS							
34-35	D	Bk	Bk	PWET	IRON	IROM	MAG		SCHI	SCHH	MICAS	A-47	41.74	41.90
35-36	D	Bk	Bk	PWET	IRON	IROM	MAG		SCHI	SCHH	MICAS	A-48	62.22	23.21
36-37	D	Bk	Bk	PWET	IRON	IROM	MAG		SCHI	SCHH	MICAS			
37-38	D	Bk	Bk	PWET	IRON	IROM	MAG		SCHI	SCHH	MICAS	A-49	35.79	46.70
38-39	D	Bk	Bk	PWET	IRON	IROM	MAG		SCHI	SCHH	MICAS			
39-40	D	Bk	Bk	PWET	IRON	IROM	MAG		SCHI	SCHH	MICAS			
40-41	D	Bk	Bk	PWET	IRON	IROM	MAG		SCHI	SCHH	MICAS			
41-42	D	Bk	Bk	PWET	IRON	IROM	MAG		SCHI	SCHH	MICAS	A-50	58.50	24.99
42-43	M	Gy	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROM	MAG	A-51	46.08	34.96
43-44	D	Bk		PWET	IRON	IROM	MAG							
44-45	D	Gy		PWET	SCHI	SCHH	MICAS							
45-46	D	Br		PWET	SCHI	SCHH	MICAS							
46-47	D	Br		PWET	SCHI	SCHH	MICAS							
47-48	D	Br		PWET	SCHI	SCHH	MICAS							
48-49	D	Br		PWET	SCHI	SCHH	MICAS							
49-50	D	Br		PWET	SCHI	SCHH	MICAS							

GEO EXPERTS CONSULTING SERVICES CC											DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS											Comments:				
Hole ID: NARC 10															
Logging date: 16/04/2013						Coordinates: 0716128 / 7442705									
Geologist: Matthews Nakalemo						Signature: MN									
Date started: 16/04/2013				EOH: 70M			Date completed: 16/04/2013								

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
50-51	D	Br		PWET	SCHI	SCHH	MICAS							
51-52	D	Br		PWET	SCHI	SCHH	MICAS							
52-53	D	Br		PWET	SCHI	SCHH	MICAS							
53-54	D	Br		PWET	SCHI	SCHH	MICAS							
54-55	D	Br		PWET	SCHI	SCHH	MICAS							
55-56	D	Br		PWET	SCHI	SCHH	MICAS							
56-57	D	Gy		PWET	SCHI	SCHH	MICAS							
57-58	D	Gy	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROH	HEM	A-52	47.86	38.23
58-59	D	Gy	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROH	HEM	A-53	39.34	43.69
59-60	D	Gy		PWET	SCHI	SCHH	MICAS							
60-61	D	Br		PWET	SCHI	SCHH	MICAS							
61-62	D	Br		PWET	SCHI	SCHH	MICAS							
62-63	D	Br		PWET	SCHI	SCHH	MICAS							
63-64	D	Br		PWET	SCHI	SCHH	MICAS							
64-65	D	Br	Br	PWET	SCHI	SCHH	MICAS		QUAR	QUAF	QTZ			
65-66	D	Rd	Br	PWET	SCHI	SCHH	MICAS		IRON	IROH	HEM			
66-67	D	Rd	Br	PWET	SCHI	SCHH	MICAS		IRON	IROH	HEM			
67-68	D	Br		PWET	SCHI	SCHH	MICAS							
68-69	D	Br	Br	PWET	SCHI	SCHH	MICAS		QUAR	QUAF	QTZ			
69-70	D	Gy	Br	PWET	SCHI	SCHH	MICAS		QUAR	QUAF	QTZ			

GEO EXPERTS CONSULTING SERVICES CC											DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS											Comments:				
Hole ID: NARC 11															
Logging date: 18/04/2013						Coordinates: 0716090 / 7442640									
Geologist: Matthews Nakalemo						Signature: MN									
Date started: 16/04/2013				EOH: 70M			Date completed: 18/04/2013								

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
0-1	M	Rd	Bk	PWET	BLOK	QRZB	QTZ		IRON	IROM	MAG			
1-2	M	Rd	Bk	PWET	BLOK	QRZB	QTZ		IRON	IROM	MAG			
2-3	M	Rd	Bk	PWET	BLOK	QRZB	QTZ		IRON	IROM	MAG			
3-4	M	Rd	Bk	PWET	BLOK	QRZB	QTZ		IRON	IROM	MAG			
4-5	M	Rd	Bk	PWET	BLOK	QRZB	QTZ		IRON	IROM	MAG			
5-6	D	Gy	Gy	PWET	QUAR	QUAH	QTZ		SCHI	SCHH	MICAS			
6-7	D	Pk	Gy	PWET	QUAR	QUAH	QTZ		SCHI	SCHH	MICAS			
7-8	D	Pk	Gy	PWET	QUAR	QUAH	QTZ		SCHI	SCHH	MICAS			
8-9	D	Gy		PWET	SCHI	SCHH	MICAS							
9-10	D	Gy		PWET	SCHI	SCHH	MICAS							
10-11	D	Gy		PWET	SCHI	SCHH	MICAS							
11-12	D	Gy		PWET	SCHI	SCHH	MICAS							
12-13	D	Gy		PWET	SCHI	SCHH	MICAS							
13-14	D	Gy		PWET	SCHI	SCHH	MICAS							
14-15	D	Gy		PWET	SCHI	SCHH	MICAS							
15-16	D	Gy	Ye	PWET	SCHI	SCHH	MICAS		QRZ	QRZV	QTZ			
16-17	L	Ye		PWET	QRZ	QRZV	QTZ							
17-18	M	Br		PWET	SCHI	SCHH	MICAS					A-54	40.41	49.71
18-19	M	Br		PWET	SCHI	SCHH	MICAS					A-55	39.04	52.81
19-20	M	Br		PWET	SCHI	SCHH	MICAS							
20-21	M	Br		PWET	SCHI	SCHH	MICAS							
21-22	M	Br		PWET	SCHI	SCHH	MICAS							
22-23	D	Bk	Gy	PWET	IRON	IROH	HEM	50	SCHI	SCHH	MICAS	A-56	48.34	43.55
23-24	D	Bk	Gy	PWET	IRON	IROH	HEM	50	SCHI	SCHH	MICAS	A-57	70.79	23.95
24-25	D	Bk	Gy	PWET	IRON	IROH	HE	50	SCHI	SCHH	MICAS	A-58	53.32	38.70

GEO EXPERTS CONSULTING SERVICES CC											DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS											Comments:				
Hole ID: NARC 11															
Logging date: 18/04/2013						Coordinates: 0716090 / 7442640									
Geologist: Matthews Nakalemo						Signature: MN									
Date started: 16/04/2013				EOH: 70M			Date completed: 18/04/2013								

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
25-26	D	Br	Bk	PWET	SCHI	SCHH	MICAS	60	IRON	IROH	HEM			
26-27	D	Re	Br	PWET	IRON	IROH	HEM	60	SCHI	SCHH	MICAS			
27-28	D	Re	Br	PWET	IRON	IROH	HEM	60	SCHI	SCHH	MICAS			
28-29	D	Re	Br	PWET	IRON	IROH	HEM	60	SCHI	SCHH	MICAS	A-59	67.03	25.21
29-30	L	Br	Br	PWET	QRZ	QRZV	QTZ		IRON	IROH	HEM	A-60	43.10	49.45
30-31	D	Bk		PWET	IRON	IROM	MAG					A-61	65.07	27.85
31-32	D	Bk		PWET	IRON	IROM	MAG					A-62	67.19	24.94
32-33	D	Bk		PWET	IRON	IROM	MAG					A-63	67.41	27.21
33-34	D	Bk		PWET	IRON	IROM	MAG							
34-35	D	Gy		PWET	SCHI	SCHM	MICAS							
35-36	L	Pk		PWET	QRZ	QRZV	QTZ							
36-37	L	Pk		PWET	QRZ	QRZV	QTZ							
37-38	D	Gy		PWET	SCHI	SCHM	MICAS							
38-39	D	Bk		PWET	SCHI	SCHM	MICAS							
39-40	D	Bk		PWET	SCHI	SCHM	MICAS							
40-41	D	Rd	Bk	PWET	IRON	IROM	MAG	80	SCHI	SCHM	MICAS	A-64	50.91	38.47
41-42	M	Gy	Gy	PWET	SCHI	SCHH	MICAS		QUAR	QUAH	QRZ			
42-43	D	Rd	Gy	PWET	IRON	IROH	HEM		SCHI	SCHH	MICAS			
43-44	D	Gy	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROH	HEM			
44-45	D	Rd	Gy	PWET	IRON	IROH	HEM	50	SCHI	SCHH	MICAS			
45-46	D	Gy	Rd	PWET	SCHI	SCHH	MICAS		IRON	IROH	HEM			
46-47	D	Bk	Gy	PWET	IRON	IROH	HEM	80	SCHI	SCHH	MICAS			
47-48	D	Gy	Gy	PWET	QUAR	QUAH	QTZ		SCHI	SCHH	MICAS			
48-49	D	Gy		PWET	SCHI	SCHH	MICAS							
49-50	D	Gy		PWET	SCHI	SCHH	MICAS							

GEO EXPERTS CONSULTING SERVICES CC											DRILL HOLE LOGGING SHEET				
Drilling Area: NARUCHAS											Comments:				
Hole ID: NARC 11															
Logging date: 18/04/2013						Coordinates: 0716090 / 7442640									
Geologist: Matthews Nakalemo						Signature: MN									
Date started: 16/04/2013				EOH: 70M			Date completed: 18/04/2013								

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
50-51	L	Pk	Gy	PWET	QUAR	QUAF	QTZ		SCHI	SCHM	MICAS			
51-52	L	Pk	Gy	PWET	QUAR	QUAF	QTZ		SCHI	SCHM	MICAS			
52-53	M	Gy	Br	PWET	SCHI	SCHM	MICAS	70	QUAR	QUAF	QTZ			
53-54	M	Gy	Br	PWET	SCHI	SCHM	MICAS	70	QUAR	QUAF	QTZ			
54-55	L	Pk		PWET	QUAH	QUAF	QTZ							
55-56	L	Pk		PWET	QUAH	QUAF	QTZ							
56-57	L	Pk		PWET	QUAH	QUAF	QTZ							
57-58	L	Pk		PWET	QUAH	QUAF	QTZ							
58-59	L	Pk		PWET	QUAH	QUAF	QTZ							
59-60	L	Or		PWET	QUAH	QUAF	QTZ							
60-61	L	Wh		PWET	QUAH	QUAF	QTZ							
61-62	L	Pk		PWET	QUAH	QUAF	QTZ							
62-63	L	Pk		PWET	QUAH	QUAF	QTZ							
63-64	L	Pk		PWET	QUAH	QUAF	QTZ							
64-65	M	Gy		PWET	SCHI	SCHM	MICAS							
65-66	M	Gy		PWET	SCHI	SCHM	MICAS							
66-67	M	Gy		PWET	SCHI	SCHM	MICAS							
67-68	M	Gy		PWET	SCHI	SCHM	MICAS							
68-69	M	Gy		PWET	SCHI	SCHM	MICAS							
69-70	M	Gy		PWET	SCHI	SCHM	MICAS							

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET					
Drilling Area: NARUCHAS										Comments:					
Hole ID: NARC 12															
Logging date: 19/04/2013					Coordinates: 0716420 / 7443498										
Geologist: Matthews Nakalemo					Signature: MN										
Date started: 19/04/2013					EOH: 60M					Date completed: 19/04/2013					

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
0-1	M	Rd	Rd	PWET	BLOK	FLOW	HEM		QUAR	QRZB	QTZ			
1-2	D	Bk	Bk	PWET	IRON	IROM	MAG	75	SCHI	SCHH	MICAS			
2-3	D	Bk	Bk	PWET	IRON	IROM	MAG	75	SCHI	CHH	MICAS			
3-4	D	Bk	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROH	HEM			
4-5	D	Bk	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROH	HEM			
5-6	D	Bk		PWET	IRON	IROM	MAG							
6-7	D	Bk		PWET	IRON	IROM	MAG					A-65	46.46	38.02
7-8	D	Bk		PWET	IRON	IROM	MAG					A-66	49.59	44.28
8-9	D	Bk		PWET	IRON	IROM	MAG					A-67	45.35	45.05
9-10	D	Bk		PWET	IRON	IROM	MAG					A-68	49.81	39.88
10-11	D	Bk	Bk	PWET	IRON	IROM	MAG	85	SCHI	SCHH	MICAS	A-69	50.99	40.05
11-12	D	Bk	Bk	PWET	IRON	IROM	MAG	85	SCHI	SCHH	MICAS	A-70	41.53	42.99
12-13	D	Bk	Bk	PWET	IRON	IROM	MAG	85	SCHI	SCHH	MICAS	A-71	41.70	44.43
13-14	D	Bk	Bk	PWET	IRON	IROM	MAG	85	SCHI	SCHH	MICAS	A-72	36.05	49.85
14-15	D	Bk	Bk	PWET	IRON	IROM	MAG	85	SCHI	SCHH	MICAS	A-73	40.80	40.44
15-16	D	Bk	Bk	PWET	IRON	IROM	MAG	85	SCHI	SCHH	MICAS			
16-17	D	Bk	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROH	HEM			
17-18	D	Bk	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROH	HEM			
18-19	D	Bk	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROH	HEM			
19-20	D	Bk	Bk	PWET	SCHI	SCHH	MICAS		IRON	IROH	HEM			
20-21	D	Br		PWET	SCHI	SCHM	MICAS							
21-22	D	Bk		PWET	SCHI	SCHM	MICAS							
22-23	D	Bk		PWET	SCHI	SCHM	MICAS							
23-24	D	Bk		PWET	SCHI	SCHM	MICAS							
24-25	L	Or		PWET	QUAR	QUAF	QTZ							

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET					
Drilling Area: NARUCHAS										Comments:					
Hole ID: NARC 12															
Logging date: 19/04/2013					Coordinates: 0716420 / 7443498										
Geologist: Matthews Nakalemo					Signature: MN										
Date started: 19/04/2013			EOH: 60M			Date completed: 19/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
25-26	L	Or		PWET	QUAR	QUAF	QTZ							
26-27	L	Or		PWET	QUAR	QUAF	QTZ							
27-28	L	Or		PWET	QUAR	QUAF	QTZ							
28-29	L	Or		PWET	QUAR	QUAF	QTZ							
29-30	L	Or		PWET	QUAR	QUAF	QTZ							
30-31	L	Or		PWET	QUAR	QUAF	QTZ							
31-32	L	Or		PWET	QUAR	QUAF	QTZ							
32-33	L	Or		PWET	QUAR	QUAF	QTZ							
33-34	L	Or		PWET	QUAR	QUAF	QTZ							
34-35	D	Bk		PWET	SCHI	SCHM	MICAS							
35-36	D	Bk		PWET	SCHI	SCHM	MICAS							
36-37	D	Bk		PWET	SCHI	SCHM	MICAS							
37-38	D	Bk		PWET	SCHI	SCHM	MICAS							
38-39	D	Bk		PWET	SCHI	SCHM	MICAS							
39-40	D	Bk		PWET	SCHI	SCHM	MICAS							
40-41	D	Bk		PWET	SCHI	SCHM	MICAS							
41-42	M	Gy		PWET	SCHI	SCHM	MICAS							
42-43	M	Gy		PWET	SCHI	SCHM	MICAS							
43-44	M	Gy		PWET	SCHI	SCHM	MICAS							
44-45	D	Bk		PWET	SCHI	SCHM	MICAS							
45-46	D	Bk		PWET	SCHI	SCHM	MICAS							
46-47	D	Bk		PWET	SCHI	SCHM	MICAS							
47-48	D	Bk		PWET	SCHI	SCHM	MICAS							
48-49	D	Bk		PWET	SCHI	SCHM	MICAS							
49-50	D	Bk		PWET	SCHI	SCHM	MICAS							



GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET					
Drilling Area: NARUCHAS										Comments:					
Hole ID: NARC 12															
Logging date: 19/04/2013					Coordinates: 0716420 / 7443498										
Geologist: Matthews Nakalemo					Signature: MN										
Date started: 19/04/2013			EOH: 60M			Date completed: 19/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
50-51	M	Gy		FRES	SCHI	SCHM	MICAS							
51-52	M	Gy		FRES	SCHI	SCHM	MICAS							
52-53	D	Bk		FRES	SCHI	SCHM	MICAS							
53-54	D	Bk		FRES	SCHI	SCHM	MICAS							
54-55	D	Bk		FRES	SCHI	SCHM	MICAS							
55-56	D	Bk		FRES	SCHI	SCHM	MICAS							
56-57	M	Br	Bk	PWET	QUAR	QUAF	QTZ		SCHI	SCHM	MICAS			
57-58	M	Br		PWET	QUAR	QUAF	QTZ							
58-59	L	Wh		PWET	QUAR	QUAF	QTZ							
59-60	L	Wh		PWET	QUAR	QUAF	QTZ							

GEO EXPERTS CONSULTING SERVICES CC			DRILL HOLE LOGGING SHEET		
Drilling Area: NARUCHAS			Comments: HOLE STARTED TO COL		
Hole ID: NARC 13			LAPSE IN AT 4M AND 31M AND WAS		
Logging date: 22/04/2013		Coordinates: 0716466 / 7443711		FREED.	
Geologist: Matthews Nakalemo		Signature: MN			
Date started: 22/04/2013		EOH: 34M		Date completed: 22/04/2013	

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
0-1	M	Rd	Rd	PWET	BLOK	QRZB	QTZ		BLOK	IROH	HEM			
1-2	M	Rd	Rd	PWET	BLOK	QRZB	QTZ		BLOK	IROH	HEM			
2-3	M	Rd	Rd	PWET	BLOK	QRZB	QTZ		BLOK	IROH	HEM			
3-4	L	Gy		PWET	QUAR	QUAF	QTZ							
4-5	L	Gy		PWET	QUAR	QUAF	QTZ							
5-6	L	Gy		PWET	QUAR	QUAF	QTZ							
6-7	L	Gy		PWET	QUAR	QUAF	QTZ							
7-8	L	Gy		PWET	QUAR	QUAF	QTZ							
8-9	L	Gy	Gy	PWET	QUAR	QUAF	QTZ		SCHI	SCHM	MICAS			
9-10	L	Gy	Gy	PWET	QUAR	QUAF	QTZ		SCHI	SCHM	MICAS			
10-11	L	Gy		PWET	QUAR	QUAH	QTZ							
11-12	L	Gy		PWET	QUAR	QUAH	QTZ							
12-13	L	Gy		PWET	QUAR	QUAH	QTZ							
13-14	M	Rd	Rd	PWET	IRON	IROH	HEM	80	QUAR	QUAF	QTZ	A-74	42.75	47.28
14-15	M	Rd	Rd	PWET	IRON	IROH	HEM	80	QUAR	QUAF	QTZ	A-75	41.38	47.33
15-16	M	Rd		PWET	IRON	IROH	HEM					A-76	55.59	38.28
16-17	M	Rd		PWET	IRON	IROH	HEM					A-77	64.94	30.62
17-18	D	Bk	Bk	FRES	SCHI	SCHH	MICAS		IRON	IROM	MAG	A-78	39.08	49.53
18-19	D	Bk		FRES	SCHI	SCHH	MICAS		IRON	IROM	MAG	A-79	37.12	50.21
19-20	D	Bk		FRES	SCHI	SCHH	MICAS		IRON	IROM	MAG			
20-21	D	Bk		FRES	SCHI	SCHH	MICAS		IRON	IROM	MAG			
21-22	M	Gy	Pk	PWET	SCHI	SCHM	MICAS		PEG	PEG	KSPAR			
22-23	M	Gy	Pk	PWET	SCHI	SCHM	MICAS		PEG	PEG	KSPAR			
23-24	M	Gy	Pk	PWET	SCHI	SCHM	MICAS		PEG	PEG	KSPAR			
24-25	M	Gy	Gy	PWET	SCHI	SCHM	MICAS	90	QUAR	QRZV	QTZ			

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET						
Drilling Area: NARUCHAS										Comments: HOLE STARTED TO COL						
Hole ID: NARC 13										LAPSE IN AT 4M AND 31M AND WAS						
Logging date: 22/04/2013					Coordinates: 0716466 / 7443711					FREED.						
Geologist: Matthews Nakalemo					Signature: MN											
Date started: 22/04/2013				EOH: 34M			Date completed: 22/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
25-26	M	Gy	Gy	PWET	SCHI	SCHM	MICAS	90	QUAR	QRZV	QTZ			
26-27	M	Gy	Gy	PWET	SCHI	SCHM	MICAS	90	QUAR	QRZV	QTZ			
27-28	M	Gy	Gy	PWET	SCHI	SCHM	MICAS	90	QUAR	QRZV	QTZ			
28-29	M	Gy	Gy	PWET	SCHI	SCHM	MICAS	90	QUAR	QRZV	QTZ	A-80	41.38	46.66
29-30	M	Ye		PWET	QUAR	QUAF	QTZ							
30-31	M	Ye		PWET	QUAR	QUAF	QTZ							
31-32	M	Ye		PWET	QUAR	QUAF	QTZ							
32-33	M	Ye		PWET	QUAR	QUAF	QTZ							
33-34	M	Ye		PWET	QUAR	QUAF	QTZ							
41-42												A-81	35.81	41.62
43-44												A-82	35.25	45.75

GEO EXPERTS CONSULTING SERVICES CC			DRILL HOLE LOGGING SHEET
Drilling Area: NARUCHAS			Comments: COLLAPSING STARTED
Hole ID: NARC 14			AT 1- 3M.
Logging date: 23/04/2013		Coordinates: 0716448 / 7443720	
Geologist: Matthews Nakalemo		Signature: MN	
Date started: 23/04/2013	EOH: 49M	Date completed: 23/04/2013	

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
0-1	M	Rd	Bk	PWET	BLOK	QRZB	QTZ		BLOK	IROH	HEM			
1-2	D	Bk	Bk	PWET	QUAR	QUAF	QTZ	55	BLOK	IROH	HEM			
2-3	D	Bk	Bk	PWET	QUAR	QUAF	QTZ	55	BLOK	IROH	HEM			
3-4	M	Br	Br	PWET	PEG	PEG	KAOLIN		QUAR	QUAF	QTZ			
4-5	M	Br	Br	PWET	PEG	PEG	KAOLIN		QUAR	QUAF	QTZ			
5-6	M	Br	Br	PWET	PEG	PEG	KAOLIN		QUAR	QUAF	QTZ			
6-7	M	Br		PWET	PEG	PEG	KAOLIN		QUAR	QUAF	QTZ			
7-8	M	Bk	Bk	PWET	PEG	PEG	KAOLIN	80	BLOK	IRON	HEM			
8-9	M	Bk		PWET	PEG	PEG	KAOLIN		QUAR	QUAF	QTZ			
9-10	M	Bk		PWET	PEG	PEG	KAOLIN		QUAR	QUAF	QTZ			
10-11	M	Wh		PWET	PEG	PEG	KAOLIN							
11-12	M	Wh		PWET	PEG	PEG	KAOLIN							
12-13	M	Wh		PWET	PEG	PEG	KAOLIN							
13-14	M	Rd		PWET	PEG	PEG	KAOLIN							
14-15	M	Rd		PWET	PEG	PEG	KAOLIN							
15-16	M	Gy		PWET	PEG	PEG	KAOLIN							
16-17	M	Gy		PWET	PEG	PEG	KAOLIN							
17-18	M	Gy		PWET	PEG	PEG	KAOLIN							
18-19	M	Gy		PWET	PEG	PEG	KAOLIN							
19-20	M	Gy		PWET	SCHI	SCHM	MICAS							
20-21	M	Gy		PWET	SCHI	SCHM	MICAS							
21-22	D	Gy		PWET	SCHI	SCHM	MICAS							
22-23	D	Gy		PWET	SCHI	SCHM	MICAS							
23-24	D	Gy	Gy	PWET	SCHI	SCHM	MICAS		QUAR	QUAF	QTZ			
24-25	D	Gy	Gy	PWET	SCHI	SCHM	MICAS		QUAR	QUAF	QTZ			

GEO EXPERTS CONSULTING SERVICES CC										DRILL HOLE LOGGING SHEET					
Drilling Area: NARUCHAS										Comments: COLLAPSING STARTED					
Hole ID: NARC 14										AT 1- 3M.					
Logging date: 23/04/2013					Coordinates: 0716448 / 7443720										
Geologist: Matthews Nakalemo					Signature: MN										
Date started: 23/04/2013			EOH: 49M			Date completed: 23/04/2013									

m	Shade	Colour 1	Colour 2	Weath	Rock Group 1	Rock Detail	Main Mineral	Min %	Rock Group 2	Rock Detail	Main Mineral	Lab No.	Fe2O3 %	SiO2 %
25-26	D	Gy	Gy	PWET	SCHI	SCHM	MICAS		QUAR	QUAF	QTZ			
26-27	D	Gy	Gy	PWET	SCHI	SCHM	MICAS		QUAR	QUAF	QTZ			
27-28	D	Gy	Gy	PWET	SCHI	SCHM	MICAS		QUAR	QUAF	QTZ			
28-29	D	Gy	Gy	PWET	SCHI	SCHM	MICAS		QUAR	QUAF	QTZ			
29-30	D	Gy	Gy	PWET	SCHI	SCHM	MICAS		QUAR	QUAF	QTZ			
30-31	M	Gy	Gy	PWET	QUAR	QUAF	QTZ		SCHI	SCHM	MICAS			
31-32	M	Gy	Gy	PWET	QUAR	QUAF	QTZ		SCHI	SCHM	MICAS			
32-33	M	Gy	Gy	PWET	QUAR	QUAF	QTZ		SCHI	SCHM	MICAS			
33-34	M	Gy	Gy	PWET	QUAR	QUAF	QTZ		SCHI	SCHM	MICAS			
34-35	M	Gy	Gy	PWET	QUAR	QUAF	QTZ		SCHI	SCHM	MICAS			
35-36	M	Gy		PWET	QUAR	QUAF	QTZ							
36-37	D	Bk		PWET	QUAR	QUAF	QTZ							
37-38	M	Pk		PWET	QUAR	QUAF	QTZ							
38-39	M	Pk		PWET	QUAR	QUAF	QTZ							
39-40	D	Bk		PWET	SCHI	SCHM	MICAS							
40-41	D	Bk		PWET	SCHI	SCHM	MICAS							
41-42	D	Bk		PWET	SCHI	SCHM	MICAS							
42-43	D	Rd		PWET	SCHI	SCHM	MICAS							
43-44	D	Bk		PWET	SCHI	SCHM	MICAS							
44-45	D	Bk		PWET	SCHI	SCHM	MICAS							
45-46	D	Bk		PWET	SCHI	SCHM	MICAS							
46-47	D	Bk		PWET	SCHI	SCHM	MICAS							
47-48	D	Bk		PWET	SCHI	SCHM	MICAS							
48-49	D	Bk		PWET	SCHI	SCHM	MICAS							

## Channel Sampling Naruchas

Sample No.	Lab No.	Coordinates X	Coordinates Y	Thickness (m)	Location	Content Fe <sub>2</sub> O <sub>3</sub> (%)	Content SiO <sub>2</sub> (%)
CHS - NARC1 (R1)	CHS-01	716108	7442791	17.70	20m North of NARC1	67.79	28.48
CHS - NARC2(R1)	CHS-02	716168	7442745	24.00	20m South of NARC2	72.44	23.07
CHS- NARC3(R1)	CHS-03	716655	7443354	3.00	21m North of NARC3	66.29	30.98
CHS - NARC4(R1)	CHS-04	717463	7444052	3.10	17m North of NARC4	67.28	27.89
CHS - NARC5(R1)	CHS-05	717507	7444101	17.00	34m South of NARC5	77.37	19.97
CHS - NARC6(R1)	CHS-06	717189	7443875	1.20	13m North of NARC6	65.19	31.37
CHS - NARC6(R2)	CHS-07	717177	7443880	0.60	32m North of NARC6	59.69	37.23
CHS - NARC7(R1)	CHS-08	716779	7443586	4.40	24m North of NARC7	65.69	32.08
CHS - NARC8(R1)	CHS-09	716756	7443658	2.30	11m South of NARC8	50.96	44.93
CHS - NARC8(R2)	CHS-10	716780	7443621	0.80	51m South of NARC8	85.88	10.65
CHS - NARC9(R1)	CHS-11	716199	7442789	3.00	10m South of NARC9	57.44	37.11
CHS -NARC9(R2)	CHS-12	716211	7442786	4.10	19m South of NARC9	67.16	30.42
CHS - NARC9(R3)	CHS-13	716211	7442780	1.50	22m South of NARC9	84.29	14.23
CHS - NARC10(R1)	CHS-14	716143	7442695	7.00	13m South from NARC10	74.15	22.19
CHS - NARC10(R2)	CHS-15	716148	7442689	13.70	22m South of NARC10	72.19	24.86
CHS - NARC10(R3)	CHS-16				NN	70.99	23.96
CHS - NARC11(R1)	CHS-17	716104	7442629	1.50	13m South of NARC11	74.64	20.96
CHS - NARC11(R2)	CHS-18	716109	7442624	5.70	21m South of NARC11	71.48	21.89
CHS - NARC11(R3)	CHS-19	716116	7442596	4.00	34m SW of NARC11	65.62	30.81
CHS - NARC12(R1)	CHS-20	716420	7443493	1.70	2m South west of 12	55.12	39.54
CHS - NARC12(R2)	CHS-21	716420	7443487	1.60	9m SW of NARC12	48.56	44.38
CHS - NARC12(R3)	CHS-22	716427	7443484	7.30	11m South of NARC12	53.84	43.43
CHS - NARC12(R4)	CHS-23	716440	7443465	0.80	37m South from NARC12	85.15	15.36
CHS - NARC12(R5)	CHS-24	716452	7443449	1.90	57m South of NARC12	39.80	58.76
CHS - NARC13(R1)	CHS-25				NN	57.55	39.30

Quality Analysis ...



Innovative Technologies

Date Submitted: 25-Apr-13  
Invoice No.: A13-04921  
Invoice Date: 07-May-13  
Your Reference:

TLP Investment 13t (Pty) Ltd  
Windhoek  
Namibia

ATTN: Pieter Schrek

### CERTIFICATE OF ANALYSIS

82 Pulp samples were submitted for analysis.

The following analytical package was requested: Code 8-Iron One Analysis XRF Fusion-XRF

REPORT A13-04921

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Notes:

CERTIFIED BY :

A handwritten signature in black ink, appearing to read "Emmanuel Esame".

Emmanuel Esame , Ph.D.

Quality Control



ACTIVATION LABORATORIES LTD.  
1306 Smith Drive, Ansoord, Orange Garden LUG 413 TELEPHONE: +1-505-646-9611 or  
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Quality Analysis ...



Innovative Technologies

Date Submitted: 30-Apr-13  
Invoice No.: A13-05042  
Invoice Date: 07-May-13  
Your Reference: NA/RC

TLP Investments 136 (Pty) Ltd  
Windhoek  
Namibia

ATTN: Pieter Schreck

### CERTIFICATE OF ANALYSIS

25 Pulp samples were submitted for analysis.

The following analytical package was requested:

Code 8-Iron Ore Analysis XRF Fusion-XRF

REPORT     **A13-05042**

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Notes:

CERTIFIED BY :

A handwritten signature in black ink, appearing to read "Emmanuel Esame".

Emmanuel Esame, Ph.D.

Quality Control



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Analyte Symbol		Fe2O3(T)	SiO2	Al2O3	TiO2	MnO	MgO	CaO	Na2O	K2O	P2O5	Cr2O3	LOI	V2O5	Total
Unit Symbol		%	%	%	%	%	%	%	%	%	%	%	%	%	%
Detection Limit		0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.003	0.01
Laboratory No	R/C hole	FUG-XRF	FUG-XRF	FUG-XRF	FUG-XRF	FUG-XRF	FUG-XRF	FUG-XRF	FUG-XRF	FUG-XRF	FUG-XRF	FUG-XRF	FUG-XRF	FUG-XRF	FUG-XRF
A-01	NARC-1	51.04	34.62	3.22	0.19	1.19	0.25	3.52	1.44	0.51	0.46	< 0.01	2.87	0.01	99.32
A-02	NARC-1	61.50	17.68	4.34	0.26	0.55	0.63	5.31	1.09	1.32	0.54	0.01	6.14	0.01	99.37
A-03	NARC-1	41.23	36.77	7.04	0.35	0.31	0.56	3.72	2.39	2.11	0.42	< 0.01	4.06	0.01	98.98
A-04	NARC-1	71.90	20.67	2.23	0.17	0.34	0.06	1.19	0.89	0.52	0.44	< 0.01	1.09	0.01	99.51
A-05	NARC-1	75.68	18.48	1.49	0.11	0.39	0.07	1.00	0.64	0.18	0.64	< 0.01	0.46	0.01	99.14
A-06	NARC-1	50.93	40.79	3.20	0.17	0.23	0.21	0.62	1.18	0.84	0.41	< 0.01	0.61	0.01	99.20
A-07	NARC-2	52.18	38.81	2.20	0.14	0.39	0.39	1.33	< 0.01	0.90	0.67	< 0.01	2.34	0.01	99.36
A-08	NARC-2	43.84	42.06	2.58	0.16	0.51	0.68	3.51	0.13	0.94	0.53	< 0.01	3.97	0.01	98.92
A-09	NARC-2	56.64	29.48	2.81	0.17	0.40	0.27	3.77	0.60	0.99	0.54	< 0.01	3.26	0.00	98.93
A-10	NARC-2	35.29	49.34	4.18	0.21	0.41	0.54	3.13	1.07	1.55	0.36	< 0.01	3.12	0.01	99.21
A-11	NARC-2	59.48	30.22	1.74	0.12	0.38	0.16	2.94	0.42	0.60	0.50	< 0.01	2.57	0.01	99.12
A-12	NARC-2	45.41	36.56	2.77	0.15	0.56	0.24	6.19	0.96	0.78	0.61	< 0.01	5.13	0.01	99.38
A-13	NARC-2	63.45	23.26	3.12	0.21	0.48	0.20	3.09	1.08	0.90	0.67	< 0.01	2.62	0.01	99.09
A-14	NARC-2	53.83	30.93	4.47	0.26	0.62	0.31	2.80	1.70	1.15	0.55	< 0.01	2.62	0.01	99.25
A-15	NARC-2	27.50	54.76	6.93	0.34	0.62	0.63	1.87	2.04	2.47	0.40	< 0.01	1.95	0.01	99.51
A-16	NARC-2	47.74	36.85	6.05	0.36	1.09	0.54	0.95	1.96	1.88	0.66	< 0.01	1.28	0.01	99.37
A-17	NARC-2	44.19	38.36	7.14	0.37	0.57	0.64	0.85	2.37	2.54	0.56	< 0.01	0.92	0.01	98.52
A-18	NARC-2	60.51	28.76	4.70	0.25	0.38	0.35	0.92	1.43	1.48	0.67	0.01	0.80	0.01	100.30
A-19	NARC-2	72.36	20.48	2.52	0.15	0.49	0.15	1.03	0.56	0.97	0.79	0.02	0.86	0.01	100.40
A-20	NARC-2	68.61	22.54	3.46	0.19	0.54	0.15	0.93	1.01	1.11	0.70	< 0.01	0.92	0.01	100.20
A-21	NARC-2	73.83	18.03	2.37	0.16	0.52	0.09	0.93	0.67	0.71	0.69	< 0.01	0.84	0.01	98.86
A-22	NARC-2	38.63	46.40	6.38	0.34	0.62	0.44	0.95	2.59	1.44	0.69	< 0.01	0.87	0.01	99.36
A-23	NARC-2	35.71	49.81	6.22	0.30	0.74	0.47	0.60	1.81	2.17	0.43	< 0.01	0.96	0.01	99.23
A-24	NARC-3	55.58	38.15	1.71	0.11	0.10	0.36	0.55	< 0.01	0.69	0.51	< 0.01	0.96	0.00	98.73
A-25	NARC-4	40.39	37.75	7.64	0.36	1.06	2.24	2.21	2.24	2.29	0.44	< 0.01	2.41	0.01	99.06
A-26	NARC-4	28.42	48.01	8.24	0.44	1.21	1.76	2.67	2.72	2.36	0.41	< 0.01	3.27	0.01	99.52
A-27	NARC-4	32.78	45.71	7.88	0.36	0.91	1.46	2.15	3.32	1.50	0.46	< 0.01	2.07	< 0.003	98.60
A-28	NARC-5	48.29	37.31	3.53	0.20	0.90	1.12	3.14	< 0.01	1.37	0.53	< 0.01	3.25	0.01	99.65
A-29	NARC-5	52.75	36.19	2.28	0.14	0.73	0.82	2.57	< 0.01	0.92	0.55	< 0.01	2.07	0.01	99.03

A-30	NARC-5	36.63	48.50	3.41	0.19	0.44	0.87	3.78	1.04	0.73	0.42	< 0.01	3.07	0.01	99.08
A-31	NARC-6	35.04	51.52	5.22	0.28	0.05	1.31	1.17	1.67	1.31	0.37	< 0.01	0.79	0.01	98.73
A-32	NARC-7	26.28	62.13	5.27	0.28	0.14	0.13	0.67	1.58	2.08	0.33	< 0.01	0.72	0.01	99.61
A-33	NARC-7	31.91	46.25	3.24	0.19	1.40	1.20	3.56	0.05	1.51	0.46	< 0.01	9.75	0.01	99.53
A-34	NARC-8	54.26	40.30	1.51	0.11	0.23	0.12	0.42	< 0.01	0.58	0.56	< 0.01	0.88	0.00	98.97
A-35	NARC-8	44.86	46.03	2.36	0.15	0.56	0.16	1.80	< 0.01	0.91	0.47	< 0.01	2.15	0.01	99.46
A-36	NARC-9	35.19	45.02	2.17	0.15	1.76	1.31	3.72	< 0.01	0.88	0.40	< 0.01	8.10	0.01	98.71
A-37	NARC-9	51.22	32.62	2.11	0.15	1.37	1.74	3.14	< 0.01	0.92	0.62	< 0.01	5.72	0.01	99.61
A-38	NARC-9	40.48	43.57	4.80	0.24	0.31	1.07	3.06	1.87	0.84	0.25	< 0.01	3.21	0.01	99.71
A-39	NARC-9	40.59	44.10	5.92	0.32	0.43	0.24	1.44	2.33	1.13	0.67	< 0.01	1.89	0.01	99.07
A-40	NARC-9	47.61	40.99	2.72	0.14	0.20	0.57	2.00	0.54	0.76	0.45	< 0.01	2.97	0.01	98.97
A-41	NARC-9	51.84	34.60	2.66	0.14	0.50	0.26	3.90	0.83	0.87	0.47	< 0.01	3.41	0.00	99.48
A-42	NARC-9	39.33	43.44	2.81	0.16	0.69	0.46	4.76	0.87	0.90	0.53	< 0.01	4.59	0.00	98.56
A-43	NARC-9	35.09	50.42	3.20	0.16	0.51	0.48	3.74	0.83	1.19	0.29	< 0.01	3.70	< 0.003	99.62
A-44	NARC-10	41.95	39.50	8.00	0.40	0.27	0.51	1.34	3.15	2.19	0.52	< 0.01	1.33	0.01	99.16
A-45	NARC-10	30.41	53.65	6.36	0.28	0.20	0.36	1.65	1.99	2.50	0.35	< 0.01	1.49	0.00	99.25
A-46	NARC-10	65.79	26.60	1.16	0.10	0.43	0.05	1.93	0.38	0.34	0.62	< 0.01	1.40	0.01	98.81
A-47	NARC-10	41.74	41.90	3.71	0.18	0.46	0.45	4.32	1.54	0.68	0.43	< 0.01	3.91	0.01	99.32
A-48	NARC-10	62.22	23.21	1.50	0.10	0.38	0.32	5.27	0.49	0.46	0.50	< 0.01	4.46	0.01	98.92
A-49	NARC-10	35.79	46.70	4.97	0.25	0.40	0.82	3.63	1.57	1.81	0.36	< 0.01	3.35	0.01	99.65
A-50	NARC-10	58.50	24.99	3.62	0.22	1.21	0.73	3.52	1.48	0.97	0.80	< 0.01	3.43	0.01	99.48
A-51	NARC-10	46.08	34.96	4.93	0.27	0.83	0.95	3.37	1.83	1.57	0.52	< 0.01	3.52	0.01	98.85
A-52	NARC-10	47.86	38.23	4.73	0.22	0.41	0.28	1.63	1.30	1.77	0.59	< 0.01	1.58	0.01	98.60
A-53	NARC-10	39.34	43.69	6.50	0.34	1.08	0.48	1.51	2.44	1.91	0.59	< 0.01	1.71	0.01	99.60
A-54	NARC-11	40.41	49.71	0.90	0.08	0.67	0.25	1.21	0.08	0.37	0.93	< 0.01	4.16	0.01	98.78
A-55	NARC-11	39.04	52.81	0.33	0.06	0.64	0.18	1.20	< 0.01	0.22	0.94	< 0.01	4.04	0.02	99.47
A-56	NARC-11	48.34	43.55	0.84	0.09	0.24	0.10	1.21	< 0.01	0.40	0.96	< 0.01	2.81	0.01	98.55
A-57	NARC-11	70.79	23.95	0.46	0.06	0.49	0.04	0.69	< 0.01	0.18	0.64	< 0.01	2.36	0.01	99.59
A-58	NARC-11	53.32	38.70	0.65	0.07	0.38	0.20	0.80	< 0.01	0.31	0.62	< 0.01	3.77	0.01	98.83
A-59	NARC-11	67.03	25.21	1.59	0.14	0.17	0.18	1.04	< 0.01	0.54	0.82	< 0.01	1.94	0.01	98.68
A-60	NARC-11	43.10	49.45	2.61	0.14	0.17	0.30	0.59	0.75	0.51	0.41	< 0.01	1.37	0.01	99.43
A-61	NARC-11	65.07	27.85	0.73	0.10	0.42	0.13	1.32	< 0.01	0.35	1.07	0.02	1.89	0.01	98.97
A-62	NARC-11	67.19	24.94	1.70	0.14	0.27	0.18	1.00	0.20	0.47	0.74	< 0.01	2.04	0.01	98.89

A-63	NARC-11	67.41	27.21	1.13	0.10	0.23	0.11	0.65	0.18	0.25	0.50	< 0.01	1.59	0.01	99.38
A-64	NARC-11	50.91	38.47	3.90	0.21	0.35	0.17	0.74	1.14	1.45	0.54	< 0.01	0.87	0.01	98.76
A-65	NARC-12	46.46	38.02	2.92	0.18	0.25	0.48	4.55	0.17	1.00	0.52	< 0.01	4.26	0.01	98.81
A-66	NARC-12	49.59	44.28	2.36	0.15	0.08	0.41	0.60	0.29	0.78	0.42	< 0.01	0.67	0.01	99.64
A-67	NARC-12	45.35	45.05	2.89	0.17	0.28	0.42	1.19	0.72	0.68	0.51	< 0.01	1.61	0.01	98.87
A-68	NARC-12	49.81	39.88	2.88	0.17	0.09	0.42	2.20	0.69	0.71	0.54	< 0.01	2.12	0.01	99.52
A-69	NARC-12	50.99	40.05	2.64	0.16	0.21	0.40	1.14	0.54	0.67	0.59	< 0.01	1.44	0.01	98.83
A-70	NARC-12	41.53	42.99	2.20	0.14	0.20	0.33	5.40	0.56	0.52	0.40	< 0.01	4.48	0.01	98.76
A-71	NARC-12	41.70	44.43	3.20	0.19	0.15	0.52	3.65	0.81	0.86	0.47	< 0.01	3.16	0.01	99.14
A-72	NARC-12	36.05	49.85	4.06	0.23	0.15	0.72	3.15	0.92	1.19	0.40	< 0.01	3.11	0.01	99.84
A-73	NARC-12	40.80	40.44	4.50	0.25	0.22	0.78	4.49	1.11	1.15	0.42	0.01	4.53	0.01	98.71
A-74	NARC-13	42.75	47.28	4.50	0.28	0.11	0.07	0.54	1.96	0.22	0.39	< 0.01	1.26	0.02	99.37
A-75	NARC-13	41.38	47.33	4.85	0.30	0.08	0.09	0.54	1.88	1.16	0.39	< 0.01	0.67	0.01	98.68
A-76	NARC-13	55.59	38.28	2.12	0.15	0.08	0.03	0.72	0.77	0.47	0.54	< 0.01	0.63	0.01	99.39
A-77	NARC-13	64.94	30.62	1.03	0.08	0.17	0.01	0.74	0.39	0.05	0.57	< 0.01	0.77	0.01	99.38
A-78	NARC-13	39.08	49.53	5.02	0.26	0.26	0.25	0.56	2.04	0.29	0.37	< 0.01	1.86	0.01	99.53
A-79	NARC-13	37.12	50.21	5.11	0.31	0.44	0.34	0.58	2.18	0.27	0.38	< 0.01	2.03	0.01	98.98
A-80	NARC-13	41.38	46.66	4.15	0.19	0.41	0.21	1.71	0.48	0.99	0.54	< 0.01	2.56	0.00	99.28
A-81	NARC-13	35.81	41.62	6.88	0.37	1.05	1.04	3.24	2.88	1.64	0.61	< 0.01	3.53	0.01	98.68
A-82	NARC-13	35.25	45.75	6.31	0.30	0.75	0.97	2.73	1.82	2.34	0.46	< 0.01	3.06	0.01	99.75

Report: A13-05042

Report Date: 5/7/2013

**Final Report**  
**Activation Laboratories**

Analyte Symbol	SiO2	TiO2	Al2O3	Fe2O3(T)	MnO	MgO	CaO	Na2O	K2O	P2O5	Cr2O3	LOI	V2O5	Total
Unit Symbol	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Detection Limit	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		0.003	0.01
Analytic Method	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF	FUS-XRF
CHS-01	28.48	0.05	0.33	67.75	0.44	0.05	0.11	< 0.01	0.1	0.33	< 0.01	2.42	0.005	100.1
CHS-02	23.07	0.06	0.4	72.44	0.75	0.02	0.17	< 0.01	0.14	0.44	< 0.01	2.79	0.004	100.3
CHS-03	30.98	0.07	0.65	66.29	0.07	0.07	0.28	< 0.01	0.21	0.51	< 0.01	1.05	0.005	100.2
CHS-04	27.89	0.08	0.74	67.28	0.27	0.04	0.54	< 0.01	0.29	0.49	< 0.01	1.08	0.005	98.7
CHS-05	19.97	0.06	0.33	77.37	0.21	0.02	0.17	< 0.01	0.05	0.49	< 0.01	0.74	0.007	99.41
CHS-06	31.37	0.08	0.89	65.19	0.38	0.06	0.17	< 0.01	0.34	0.21	< 0.01	1.17	0.006	99.86
CHS-07	37.23	0.1	1.19	59.69	0.2	0.06	0.17	< 0.01	0.41	0.15	< 0.01	0.64	0.006	99.85
CHS-08	32.08	0.06	0.39	65.69	0.12	0.02	0.17	< 0.01	0.14	0.17	< 0.01	0.69	0.006	99.54
CHS-09	44.93	0.09	1.12	50.96	0.05	< 0.01	0.3	0.2	0.45	0.33	< 0.01	0.52	0.009	98.97
CHS-10	10.65	0.07	0.52	85.88	0.19	0.08	0.41	< 0.01	0.31	0.28	< 0.01	1.13	0.023	99.54
CHS-11	37.11	0.07	0.68	57.44	0.67	0.08	0.83	0.22	0.09	0.36	< 0.01	1.8	0.004	99.36
CHS-12	30.42	0.05	0.3	67.16	0.24	0.02	0.34	< 0.01	0.05	0.26	< 0.01	0.64	0.006	99.49
CHS-13	14.23	0.05	0.19	84.29	0.11	< 0.01	0.39	< 0.01	0.07	0.33	< 0.01	0.94	0.006	100.6
CHS-14	22.19	0.05	0.31	74.15	0.84	0.09	0.23	< 0.01	0.16	0.28	< 0.01	1.74	0.007	100.1
CHS-15	24.86	0.07	0.44	72.19	0.34	0.07	0.19	< 0.01	0.19	0.57	< 0.01	1.73	0.007	100.7
CHS-16	23.96	0.05	0.38	70.99	0.53	0.05	0.08	< 0.01	0.15	0.26	< 0.01	2.21	0.004	98.66
CHS-17	20.96	0.06	0.55	74.64	0.41	0.06	0.41	< 0.01	0.18	0.34	< 0.01	2.43	0.007	100.1
CHS-18	21.89	0.07	0.62	71.48	0.42	0.03	0.46	< 0.01	0.18	0.78	< 0.01	3.1	0.009	99.05
CHS-19	30.81	0.06	0.62	65.62	0.41	0.05	0.54	< 0.01	0.2	0.52	< 0.01	0.89	0.004	99.72
CHS-20	39.54	0.15	2.13	55.12	0.03	0.2	0.3	< 0.01	0.84	0.27	< 0.01	0.89	0.009	99.48
CHS-21	44.38	0.19	3.17	48.56	0.07	0.38	0.29	< 0.01	1.21	0.28	< 0.01	1.25	0.013	99.79
CHS-22	43.43	0.08	0.93	53.84	0.06	0.01	0.32	0.06	0.45	0.3	< 0.01	0.08	0.006	99.56
CHS-23	15.36	0.06	0.26	85.15	0.02	0.01	0.11	< 0.01	0.08	0.08	< 0.01	-0.51	0.011	100.6
CHS-24	58.76	0.03	0.04	39.8	0.06	< 0.01	0.14	< 0.01	0.08	0.1	< 0.01	0.04	0.003	99.05
CHS-25	39.3	0.06	0.69	57.55	0.03	< 0.01	0.14	< 0.01	0.18	0.21	< 0.01	1.53	0.006	99.69

Drill hole No.	Inclined depth	angle	vertical depth	seam no.	depth hit	calc. depth	calculated thickness	seam no.	depth hit	calculated depth	calculated thickness	seam no.	depth hit	calculated depth	calculated thickness
NARC-1	40	60	34.64	1	15 - 24	13 - 21	(8 m) 4 m	2	-	-	-	3	-	-	-
NARC-2	70	50	53.62	1	07 - 12	5.4 - 9.2	(5 m) 3.2 m	2	42 - 49	32.2 - 37.5	(7 m) 4.5 m	3	54 - 63	41.4 - 48.3	(9 m) 6.9 m
NARC-3	50	60	43.30	1	07 - 11	6.1 - 9.5	(4 m) 2 m	2	32 - 34	27.7 - 29.4	(2 m) 1 m	3	-	-	-
NARC-4	56	60	48.50	1	18 - 22	15.6 - 19.1	(4 m) 2 m	2	39 - 44	33.8 - 38.1	(5 m) 2.5 m	3	-	-	-
NARC-5	56	90	56.00	1	22 - 31	22 - 31	9 m	2	-	-	-	3	-	-	-
NARC-6	51	60	44.17	1	37 - 38	32 - 32.9	(1 m) 0.5 m	2	-	-	-	3	-	-	-
NARC-7	53	60	45.90	1	15 - 16	13 - 13.9	(1 m) 0.5 m	2	34 - 35	29.4 - 30.3	(1 m) 0.5 m	3	-	-	-
NARC-8	75	60	64.95	1	12 - 13	10.4 - 11.3	(1 m) 0.5 m	2	20 - 22	17.3 - 19	(2 m) 1 m	3	45 - 47	39 - 40.7	(2 m) 1 m
NARC-9	73	60	63.22	1	08 - 10	6.9 - 8.7	(2 m) 1 m	2	16 - 17	13.9 - 14.7	(1 m) 0.5 m	3	28 - 30	24.2 - 26	(2 m) 1 m
NARC-10	70	60	60.62	1	07 - 13	6 - 11.3	(6 m) 3 m	2	34 - 43	29.4 - 37.2	(9 m) 4.5 m	3	57 - 59	49.4 - 51	(2 m) 1 m
NARC-11	70	60	60.62	1	17 - 19	14.7 - 16.5	(2 m) 1 m	2	22 - 34	19 - 29.4	(12 m) 6 m	3	40 - 43	34.6 - 37.2	(3 m) 1.5 m
NARC-12	60	60	51.96	1	05 - 16	4.3 - 13.8	(11 m) 5.5 m	2	-	-	-	3	-	-	-
NARC-13	34	60	29.44	1	13 - 19	11.3 - 16.5	(6 m) 3 m	2	41 - 44	35.5 - 38.1	(3 m) 1.5 m	3	-	-	-
NARC-14	49	60	42.44	1	-	-	-	2	-	-	-	3	-	-	-

Drill hole No.	seam no.	depth hit	calc. depth	calc. thickness	seam no.	depth hit	calculated depth	calc. thickness	average Fe2O3	Channel sample	seam no.	measured thickness	average Fe2O3
NARC-1	4	-	-	-	5	-	-	-	58.71	CHS-01	1	17.7 m	67.79
NARC-2	4	-	-	-	5	-	-	-	52.06	CHS-02	1 - 3	24 m	72.44
NARC-3	4	-	-	-	5	-	-	-	55.58	CHS-03	1	3 m	66.29
NARC-4	4	-	-	-	5	-	-	-	33.86	CHS-04	1	3.1 m	67.28
NARC-5	4	-	-	-	5	-	-	-	45.89	CHS-05	1	17 m	77.37
NARC-6	4	-	-	-	5	-	-	-	35.04	CHS-06, 07	1 - 2	1.8 m	62.44
NARC-7	4	-	-	-	5	-	-	-	29.09	CHS-08	1	4.4 m	65.69
NARC-8	4	-	-	-	5	-	-	-	49.56	CHS-09, 10	1 - 2	3.10 m	68.42
NARC-9	4	33 - 42	28.6 - 36.4	(9 m) 4.5 m	5	49 - 54	42.4 - 46.8	(5 m) 2.5 m	42.67	CHS-11...13	1 - 3	8.60 m	69.63
NARC-10	4	-	-	-	5	-	-	-	47.00	CHS-14...16	1 - 3	20.7 m	72.44
NARC-11	4	-	-	-	5	-	-	-	56.17	CHS-17...19	1 - 3	11.2 m	70.58
NARC-12	4	-	-	-	5	-	-	-	44.70	CHS-20...24	1 - 5	13.3 m	56.50
NARC-13	4	-	-	-	5	-	-	-	43.70	CHS-25	1	-	57.55
NARC-14	4	-	-	-	5	-	-	-	-	-	-	-	-
									Average	45.67			67.26