SITE VISIT REPORT AT NEW KIBOROGIN MINING PROJECT

(2nd VISIT)

OKAZETTA COMPANY LIMITED

Prepared by: Eng. Yohane E. Marwa

Tittle: Mining Engineer

Date: 01st December, 2020

EXECUTIVE SUMMARY

This report aims at showing the actual demarcation of the projects and to give a guideline upon trial mining which has to be conducted so as to increase the degree of confidence upon grade and to see whether it will be economical to commence mining or not. The span of extension of mine is not known for now but according to the data collected and informations from the past underground workers the mine has not been extend that much far. But in-order to get the exact dimensions on how the mine has extended underground survey has to be conducted and dewatering process has to be done. Due to the presence of stream at Control points C and D water that will be pumped out from the mine can be directed to the stream during trial mining since that underground water have no any (very minimal) harmful element to living things. But later if the mine commences more geological survey and exploration have to be conducted so as to get higher degree of confidence upon mineralization.

Table of Content

List of tables

List of Attachments

List of Figure.

Abbreviations

ASM – Artisanal Small-scale Miners

m – Meter

mRL – Reduced meter level

RC drilling – Reverse Circulation Drilling

AREA DEMARCATION

The project area is owned by two families and the place with main reef is on the hill (*ABCE area as seen in figure 1*). The downhill area might have some mineralization extending deep but the area of interest is the up-hill area. The total project area is 18.5 acres (*this is as per control points established which were shown by one member of the family*). This area was obtained by using triangular method and computations can be seen in *Annex 1 and 2. Attachment 2 and 1* shows the control points established and actual site location respectively. Control points for other structures like trenches, old pits, Portal and shafts can be seen in *Annex 3.* All these control points were established using hand GPS.

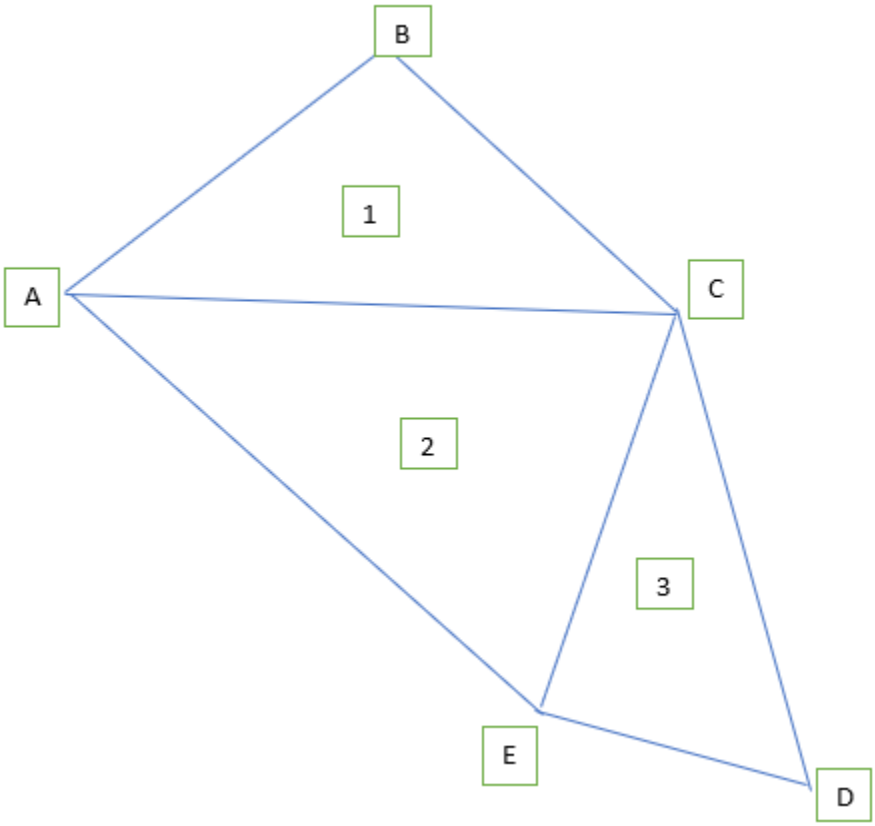


Figure 1 Demarcation of project area

MAIN REEF CURRENT DEVELOPMENT

For the purpose of this report compass directions have been off-set so as to give better directions. After entering at the portal left side in West, right side is East and front is North.

Portal area has constant water flow and covered with few natural vegetation. At the portal area one control point has been established as seen in *Table 1* and on *attachment 1* and the span for portal can be seen at *Table 3*. From the portal to the center is 18.288m. 2.384m from the center going on the west there is a shaft that was developed by Artisanal Small-scale miner, the depth of the shaft is 9.2m. 17.069m from the center going west there is another shaft which has been filled with water. Also, at this point there is unfinished raise that was developed so that it can act as another access to the mine. Going far west ore development proceeds but could not be analyzed because there is no passage since the access has been filled with water. The span of ore drift is undulating since ASM tend to mine following only the ore vein, but the average ore drift size is 1.8m height and 2m width as seen on *Table 2*.

On the Eastern side after entering at the portal, the span of ore drift is almost the same but the side has been filled with water so it could not be analyzed in-detail. The drift also extends as going further.

Table 1: UTM coordinates for established control points

UTM (36 N)				REMARKS
POINTS	**EASTINGS**	**NORTHINGS**	**ELEVATION (mRL)**	
A	0730593	0001088	1889	uphill from the 1st shaft on top of the portal
B	0730758	0001240	1887	Uphill from the two old back-filled shafts
C	0730904	0001092	1838	Stream points
D	0730945	0000815	1817	
E	0730782	0000893	1829	On the roadway, at the curvet

Table 2: Ore drift size on the western side

Aaccess on the western side			REMARKS
POINTS	**WIDTH (m)**	**HEIGHT (m)**	
1	2.5	1.8	
2	2.2	1.7	
3	1.8	1.8	

Table 3: Portal size

PORTAL			
POINTS	WIDTH (m)	HEIGHT (m)	REMARKS
1	2.4	2.6	Entrance
2	2.1	2.1	Portal drift going inside the mine
3	2	1.6	
4	1.8	1.5	
5	1.6	1.5	

TRIAL MINING

In order to be confident with the grade and mineralization trial mining need to be conducted so as to have a sense on how production is going to be if mining is to be commenced and to increase confidence upon ore grade. Also, this trial mining will be a guiding point upon cost estimation. The equipments associated with trial mining can be seen in *Table 3*. The trial mining will be conducted in four stages which are

i. Underground dewatering
ii. Drilling and blasting
iii. Material Hauling and transportation from underground to a desired processing area
iv. Ore processing and assay checking

All required Personal Protective Equipments should be adhered for the safety of underground workers.

1. Underground Dewatering

This stage will concern with pumping out water from the access areas and shafts so as drilling and blasting can be conducted and also to give a room for geologist to conduct more surveys in underground. Since it is a trial mining all required tools, equipment and machinery will be hired. the equipment to be hired can be seen on *Table 3*, so the associated cost can be obtained from proforma invoice from the supplier.

2. Drilling and Blasting

This is excavation stage where rock will be drilled and blasted so as to get ore fragments for processing. This stage will also be a guiding point for underground mine design and planning ore dilution. In this stage only explosives are the one which will be bought but other equipment can be hired.

3. Material hauling and transportation

Blasted materials will be hauled from underground to surface through shaft which is located on the western side 2.834m from the center. The means of hauling will be Roller which will be hired from the ASM around the area or can be constructed using timber. Transportation of material can be done through nylon bags which will be easy to pack them to the truck or 1 dump truck can be hired.

4. Ore Processing and Assay checking

The blasted ore will be transported to a desired place where ore processing will be conducted and simultaneously ore samples can be taken for further assay checking. Metallurgist will provide cost estimation for this stage

Table 4: Tools, Equipment and Machinery needed in Trial Mining

S/N	EQUIPMENT	QUANTITY	PURPOSE	STATUS	STAGE
1	Sub - immersible Pump	1 Pc	water pumping	Hire	Dewatering
2	Flexible pipes	50m	water channelling	Hire	
3	Air compressor	1 pc	machinery driving	Hire	
4	Jack hummer	1 pc	rock drilling and support	Hire	Drilling and Blasting
5	Drill rods	4 Pc (6ft and 4ft size)	rock drilling and support	Hire	
6	Magnum explosives	10 kg	rock blasting	Buy	
7	split sets	20 Pcs	Rock support	Buy	
8	Cortex cord	100m	rock blasting	Buy	
9	Bags	100Pcs	material hauling	Buy	Material hauling and transportation
10	Rope	100m	material hauling	Buy	
11	Roller	1 Pc	material hauling	Hire	
12	Dump truck	1 truck	material hauling	Hire	
13	Personal Protective Equipments	As per number of workers	Safety purpose	Buy	

CONCLUSION

Ore samples and host rock samples have been taken to laboratory for assaying so that ore grade can be established with higher degree of confidence. But as explained above, trial mining has to be conducted so as to increase the degree of confidence upon ore grade and to see whether it will be profitable to operate the mine with such conditions of underground water and unknown mineralization. During trial mining all equipment necessary for production have to be hired from surrounding ASM and only bought if there is no means of hiring them.

But in-order to increase confidence in grade and mineralization, more geological exploration and survey have to be done. Diamond drilling exploration has to be conducted and if possible, RC drilling for grade control. The results from these geological findings will give a starting point of creating a geological model and possibly gold resource estimation can be obtained.

Annex

Annex 1: Length Calculations

Length = $\sqrt{(Easting1 - Easting2)^2 + (Northing1 - Northing2)^2}$

Length AB (m) =$\sqrt{(730758 - 730593)^2 + (1240 - 1088)^2}$

= 224.341 m

Length BC (m) =$\sqrt{(730904 - 730758)^2 + (1092 - 1240)^2}$

= 207.894 m

Length CD (m) =$\sqrt{(730945 - 730904)^2 + (815 - 1092)^2}$

= 280.018 m

Length DE (m) =$\sqrt{(730782 - 730945)^2 + (893 - 815)^2}$

= 180.701 m

Length AE (m) =$\sqrt{(730782 - 730593)^2 + (893 - 1088)^2}$

= 271.562 m

Length AC (m) =$\sqrt{(730904 - 730593)^2 + (1092 - 1088)^2}$

= 311.026 m

Length CE (m) =$\sqrt{(730782 - 730904)^2 + (893 - 1092)^2}$

= 233.420 m

Annex 2: Project area calculation

Using Heron's formula

S = $\frac{a+b+c}{2}$

A = $\sqrt{S\,(S-a)(S-b)(S-c)}$ Where S = Perimeter of Triangle

A = Area of Triangle

a, b, c = Sides of the triangle

a) Perimeter (S)

First Triangle (T1), S1 = $\frac{AB+BC+AC}{2}$

= $\frac{224.341+207.894+311.026}{2}$

= 371. 631 m

Second Triangle (T2), S2 = $\frac{AC+CE+AE}{2}$

$$= \frac{311.026+233.420+271.562}{2}$$

= 408.004 m

Third Triangle (T3) S3 = $\frac{CE+CD+DE}{2}$

$$= \frac{233.420+ 280.018+180.701}{2}$$

= 347.070 m

b) Area (A)

First Triangle (T1),

A1 = $\sqrt{371.631\ (371.631-224.341)(371.631-207.894)(371.631-311.026)}$

= 23,306 m^2

A1 = $\sqrt{408.004\ (408.004-311.026)(408.004-233.420)(408.004-271.562)}$

= 30,701 m^2

A1 = $\sqrt{347.070\ (347.070-233.420)(347.070-280.018)(347.070-180.701)}$

= 20,977 m^2

Total Area = A1 + A2 + A3

= 23,306 + 30,701 + 20,977

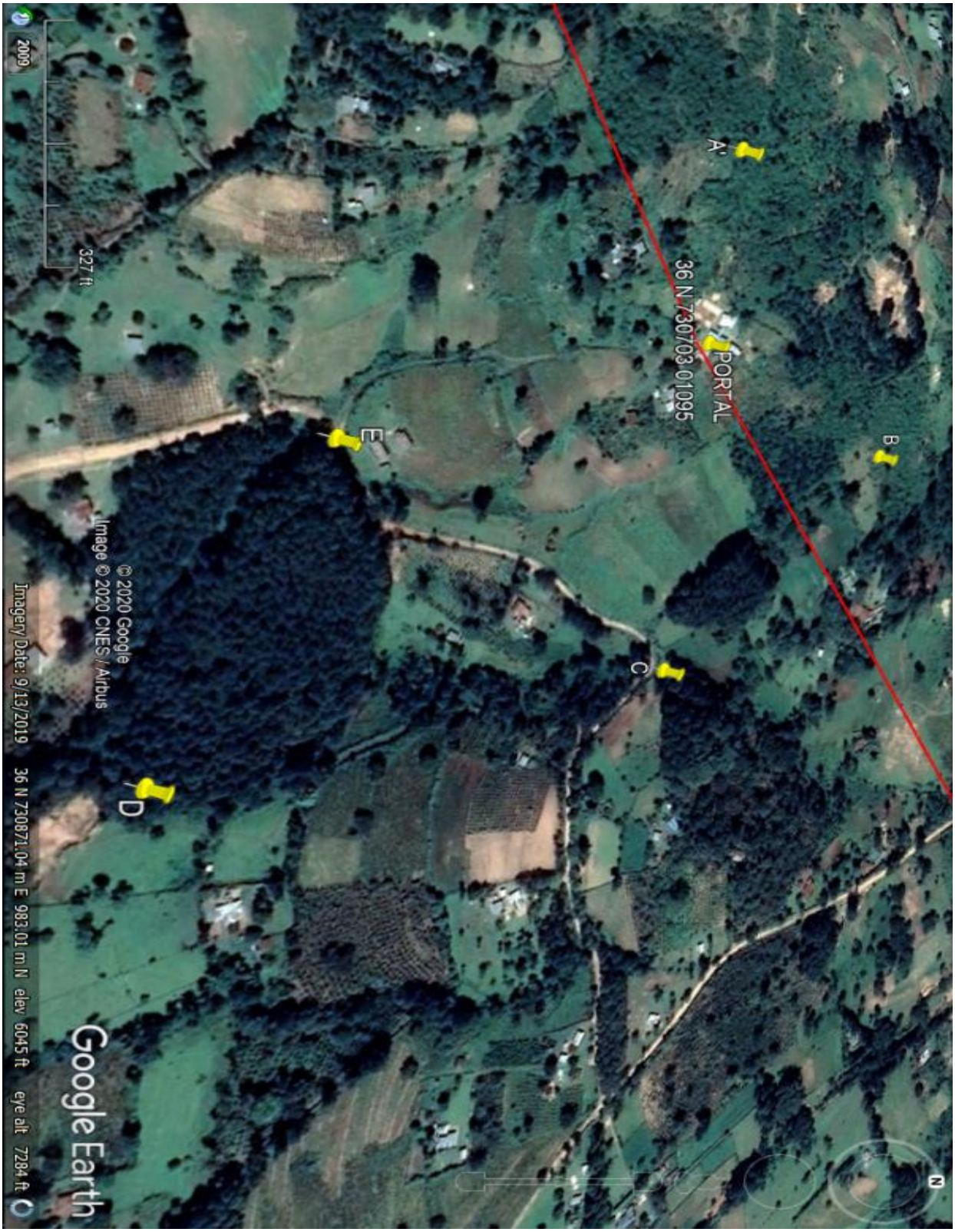
= 74,984 m^2

= 18.5 Acre

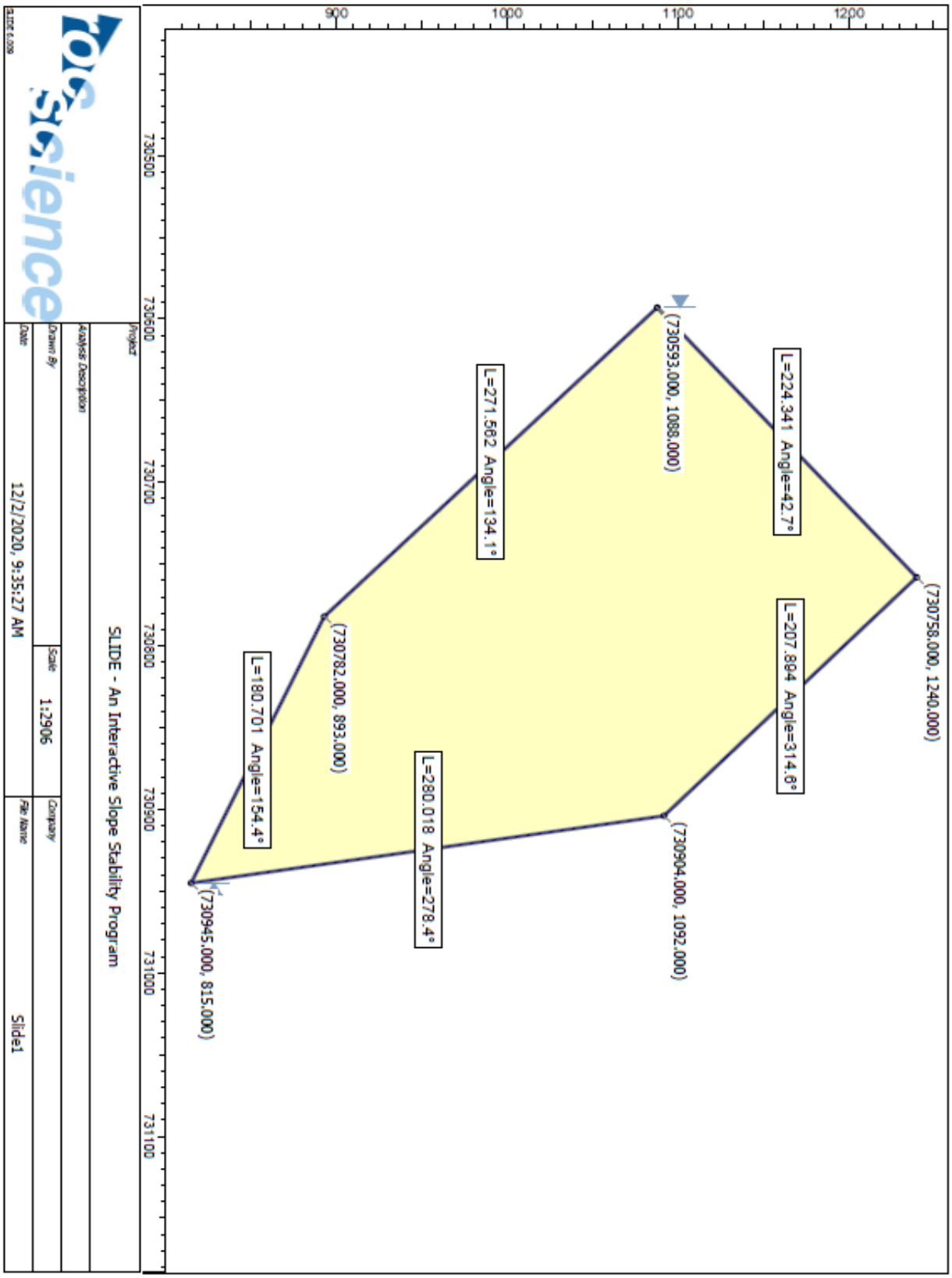
= 7.5 Hectare

Annex 3 : Control points for different structures

STRUCTURE	UTM (36 N)				REMARKS
	POINT	EASTINGS	NORTHINGS	ELEVATION (mRL)	
PORTAL	1	0730703	0001095	1875	at the portal entance
SHAFTS	1	0730685	0001112	1875	potruding to the mine, ASM shafts
	2	0730713	0001137	1869	Filled with water. ASM shafts
	3	0730774	0001152	1870	old back-filled shafts
	4	0730798	0001169	1867	old back-filled shafts
TRENCHES	1	0730750	0001107	1863	1st trench located near by old pits
	2	0730737	0001139	1868	
	3	0730761	0001138	1868	
	1	0730808	0001175	1867	2nd trench located near by back-filles shafts
	2	0730805	0001178	1869	
OLD PITS	1	0730715	0001138	1872	located between 1st trench and small scalers shafts
	2	0730716	0001141	1872	
	3	0730718	0001146	1874	
	4	0730725	0001142	1872	



Attachment 1: Actual Site location



Attachment 2: Established control Points