

IN-SITU ORE RESERVE EVALUATION

DESCRIPTION : Vangorda B607 Reserves

TOTAL FOR ALL BENCHES

TOP ELEVATION : 1209.50 [m ]  
 BOTTOM ELEVATION : 1007.00 [m ]

INCREMENTAL RESULTS

CUT-OFF GRADES		ROCK-TYPE CODE	VOLUME		DENSITY [tn/bcm]	TONNAGE		AVERAGE GRADES			
FROM [Pb+Zn ]	TO [Pb+Zn ]		[bcm	x1000]		[ TONS x1000]	[Pb+Zn ]	[Pb % ]	[Zn % ]	[Ag g/t]	[Au g/t]
6.000	100.000	1	135.88	2.962	402.45	7.833	3.172	4.661	39.741	.679	
6.000	100.000	2	.41	3.685	1.49	7.414	6.404	1.010	57.510	1.769	
6.000	100.000	3	5.87	3.638	22.54	6.753	2.967	3.786	46.651	.796	
6.000	100.000	4	1.22	3.606	4.38	6.687	2.569	4.117	46.500	.634	
6.000	100.000	5	1240.92	4.172	5176.72	10.336	4.510	5.826	64.032	.751	
6.000	100.000	6	24.70	3.844	94.98	11.874	6.822	5.051	83.145	.541	
4.000	6.000	1	421.40	2.984	1257.26	4.882	1.859	3.023	26.476	.458	
4.000	6.000	2	59.33	3.444	204.34	4.417	2.340	2.077	25.820	.794	
4.000	6.000	3	77.96	3.875	302.09	4.680	2.277	2.403	33.179	.847	
4.000	6.000	4	55.28	3.953	218.51	4.768	1.897	2.871	37.939	.143	
4.000	6.000	5	36.65	3.943	144.51	5.229	2.467	2.762	36.961	.760	
4.000	6.000	6	5.06	3.978	20.14	5.378	2.433	2.946	34.306	.408	
.000	4.000	1	1276.16	3.069	3916.93	2.340	.904	1.436	12.483	.327	
.000	4.000	2	1341.56	3.447	4624.43	1.785	.789	.996	14.503	.652	
.000	4.000	3	502.00	3.864	1939.48	2.674	1.331	1.343	21.566	.942	
.000	4.000	4	82.01	3.840	314.92	2.899	1.504	1.395	17.481	.277	
.000	4.000	5	1.82	3.398	6.19	1.528	.666	.862	11.664	.650	
.000	4.000	6	3.04	3.150	9.57	.879	.387	.492	5.951	.080	
.000	9999.000	****	106812.50	2.495	266535.20	.000	.000	.000	.001	.000	
TOTAL			112083.80	2.544	285196.10	.322	.140	.182	2.046	.041	

017892

ZMAX = 1209.0  
 ZMIN = 1002.0  
 dz = 4.5

YMAX = 10640.0

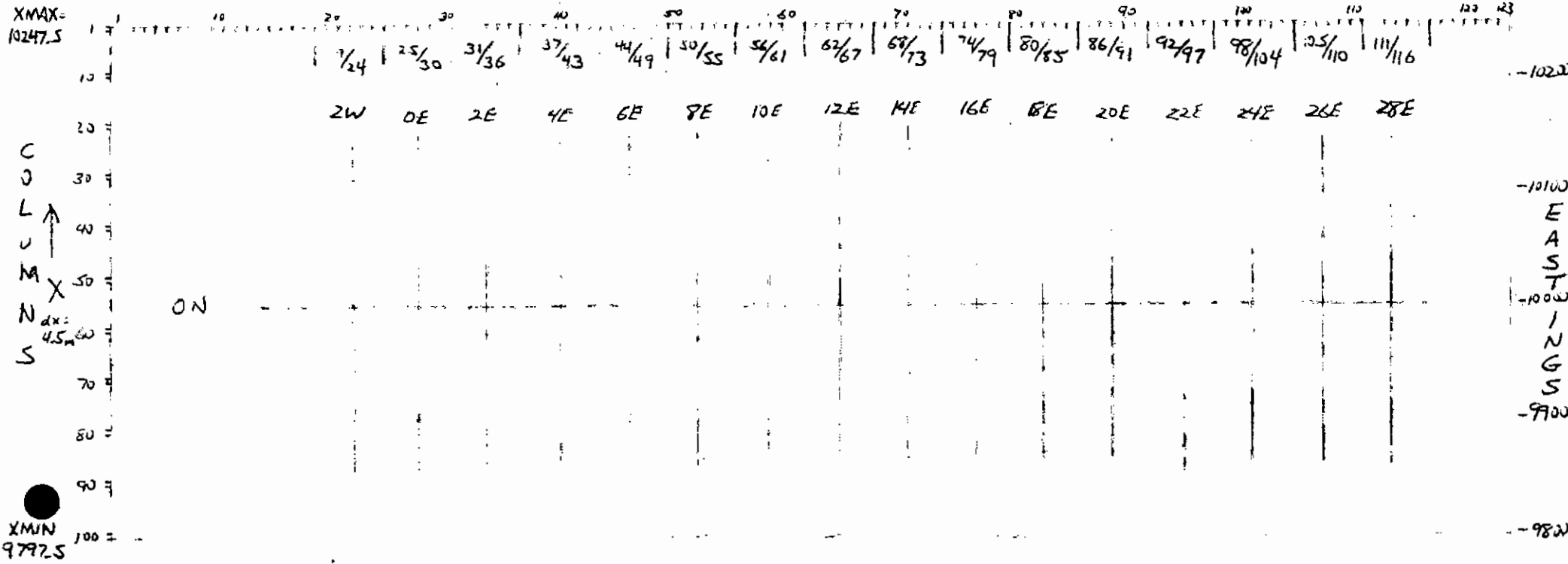
dy = 10.0 m  
 ← Y ROWS

YMIN = 9410.0 -10300

XMAX = 10247.5

C  
 U  
 L  
 M  
 N  
 S  
 dx = 4.5 m

XMIN = 9797.5



VANGORDA DEPOSIT 8606 MODEL

1:5000

10600 10500 10400 10300 10200 10100 10000 9900 9800 9700 9600 9500 9400

NORTHINGS

VANGORDA SECTIONAL MODEL

DDH's used.

<u>2W</u>	V2 (no assays in DB)	<u>6E</u>	V129	<u>12E</u>	V57R
	V28R ✓		V96R		V312
	V314 (no assays in DB)		V20R		V49R
	V313 ✓		V95R		V309
	V30R ✓		V47R		V63R
	V319 ✓		V94R		V322
	V29 (no assays in DB)		V35R		

V126R 14E

<u>0E</u>	V1R ✓		V38		81 VR01
	V315 ✓				81 VR02
	V26R ✓	<u>8E</u>	V64		81 VR03
	V316 ✓		V320		81 VR04
	V27R ✓		V53R		81 VR05
	V143R ✓		V302		P54V040
			V45R		P54V052
			V303		P55V097

<u>2E</u>	V311 ✓		V18R		P55V098
	V300 ✓		V317		
	V321 ✓			<u>16E</u>	81 VR06
	V119R ✓	<u>10E</u>	V117R		81 VR07
	V15R ✓		V46R		81 VR08
	<i>No problem with 46</i> V115R ✓		V114R		81 VR09
	V318 ✓		V50R		81 VR10
	V133R ✓		V110R		P54V044

V60R 18E

<u>4E</u>	V308		V123R		V301
	V306		V66		81 VR12
	V304				V72R
	V33R				81 VR11
	V305				V71R
	V307				P53V011
	V310				P53V012
	V140				P55V109
	V17				

VANGORDA SECTIONAL MODEL  
DOH's used (cont)

2 of 2

20E

PS3V008 ✓

PS3V005 ✓

81VR17 ✓

81VR13 ✓

81VR35 ✓

81VR16 ✓

81VR15 ✓

81VR14 ✓ all waste!

26E

V104 (No Assays  
in DB)

V102 (No assays  
in DB)

V101R ✓

81VR31 ✓

V84R ✓

V718R ✓

V55R ✓

81VR32 (DONT USE)

V116 (No assays in DB)

V108 (No assays in DB)

22E

81VR19 ✓

81VR21 ~~PS3V009~~ ✓

81VR20 ✓

81VR22 ✓

81VR23 ~~PS3V009~~ ✓

81VR18 ✓

PS3V009 ✓

28E

81VR30 ✓

81VR29 ✓

81VR28 ✓

24E

81VR24 ✓

81VR25 ✓

81VR26 ✓

81VR27 ✓

81VR34 ✓

81VR33 ✓

PS4V081 ✓

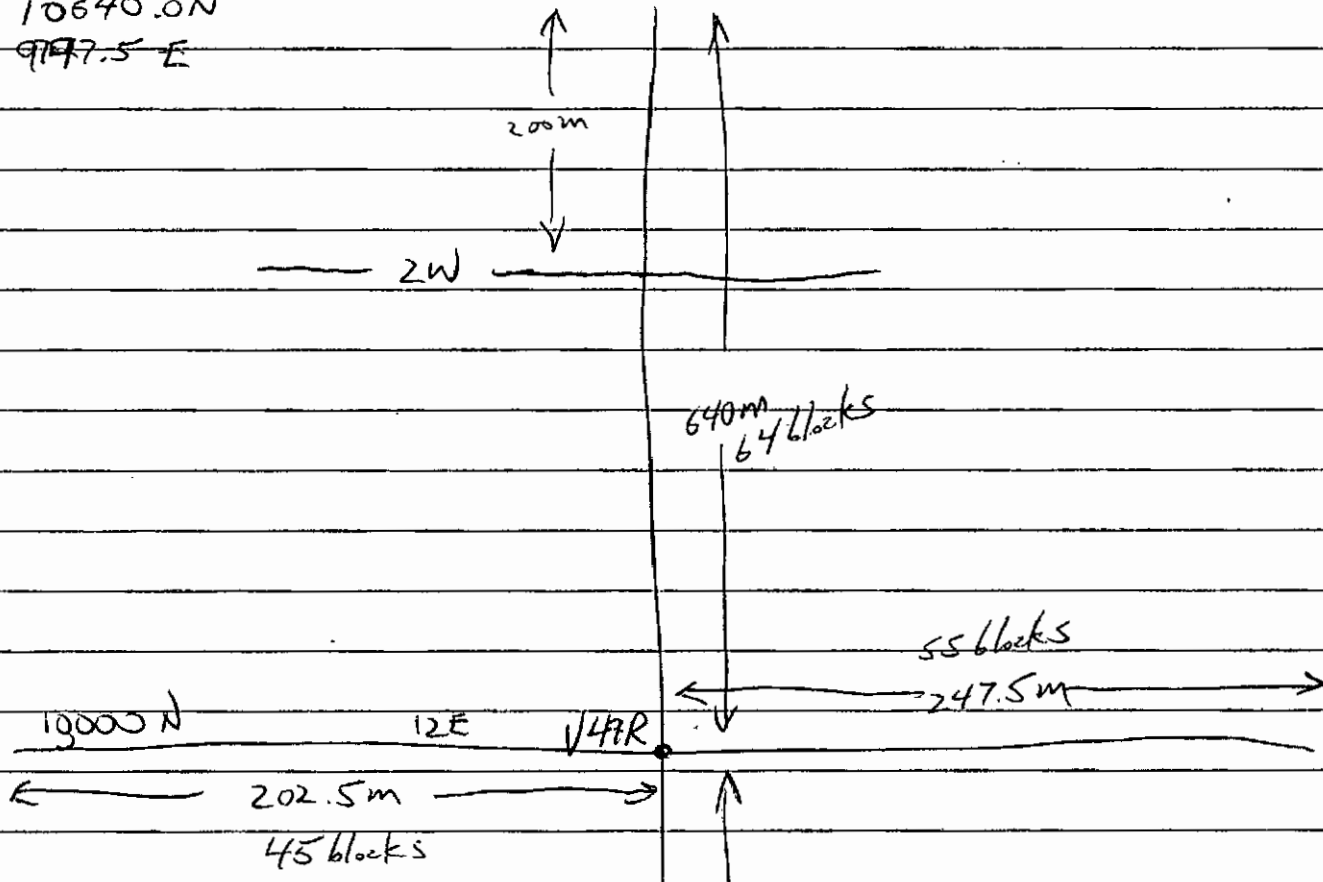
PS4V080 ✓

10,000 E

100 blocks x 123 blocks

+ 10640.0N  
9797.5 E

+



X MIN = 9797.5 E
X MAX = 10247.5 E
dx = 4.5
Y MIN = 9410.0 N
Y MAX = 10640.0 N
dy = 10.0
Z MAX = 1205.0 m
Z MIN = 1040.0 m
dz = 4.5 m

9797.5 E

+ 9410 N

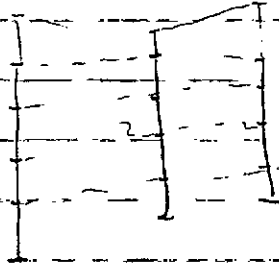
10247.5 E

+ 9410 N

3

re PC mine upgrading

Usefull utility might be not only to conn. sect  
geol to benches but to conn. long sect. geol to X sect  
of intermed spacing



# Vangorda Sectional Model

## Comments

1) In order to simplify sections it is necessary to lump ore types in many cases. Thus a massive variably baritic ore type has been used and called 4EG - this is not truly 4EG but is a mixture of 4G and 4E - strict 4G metallurgy should not be applied

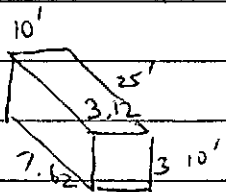
~~1)~~ Similarly 4EC is variably siliceous nearly massive ore - generally quite low grade

## 2) Dimensions

Min elev required 1040 m

Max " " 1190 m

$\Delta = 150 \text{ m} \Rightarrow$  min poss bench height =  
dz = 3m.



cross strike width needed 400m  $\Rightarrow$  min possible dx  
200m N-S of RLON 15 3.12m

long direction

2900' OE  $\rightarrow$  28E+100'

300 OE  $\rightarrow$  2W+100'

} 3200'  $\Rightarrow$  975.36m  $\Rightarrow$  7.62m is min  
dy distance.

Maybe a good size would be 6m x 6m x 15m

have described as 4.5 high x 6m x 15m

now revised (12 June) to 4.5m hi x 4.5m EW x 10m NS

# VANGORDA SECTIONAL MODEL

Lithologies used on sections

	11	56	53	33	77	55	11
	11	55	33	22	66	44	11
2W	4A	4EG					
0E	4A	4EG	4EC	4C	4H		
2E	4A	4EG	4EC	4C	4H		
4E	4A	4EG	4EC	4C	4DHA		
6E	4A	4EG	4EC	4C	4HL	4E	
8E	4A	4EG	4EC	4C		4E	
10E	4A	4EG		4C		4E	
12E	4A	4EG		4C		4E	
14E	4A	4EG	4EC	4C		4E	
16E	4A	4EG	4EC	4C		4E	
18E	4A	4EG	4EC	4C		4E	
20E	4A	4EG	4EC				
22E	4A	4EG	4EC	4C		4E	4ACD
24E	4A	4EG		4C			
26E	<del>4A</del>	4EG	4EC	4C			4AB
28E		4EG		4C			
	1	5	3	2	6	4	

Air	0
4A	1
4C	2
4EC	3
4E	4
4EG	5
4H	6
Waste	10
ovb	11
Pat	12

codes used

missed 50 se → 6E  
 pt 19m c/o.

2  
 A  
 BED  
 E

VANGDDH.DAT is file

to edit `cd edit VANGDDH.DAT`

don't use numeric keypad

may have to use space instead of arrows

esc to escape visual mode go into command mode

\*

to exit file in save

`!ex`

`!ex`

delete lines

to delete n lines put cursor on 1st of the n lines  
esc to command mode  
nK esc esc

then in visual

`:COPY VANGDDH.DAT PRN`

CODE UNIT SG

1 = 4A 3.23

2 = 4C 3.45

3 = 4EC 3.75

4 = 4E 4.32

5 = 4FG 4.35

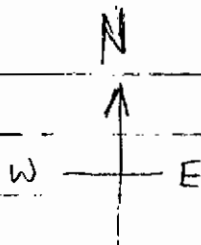
6 = 4H 4.00

10 = waste 2.70

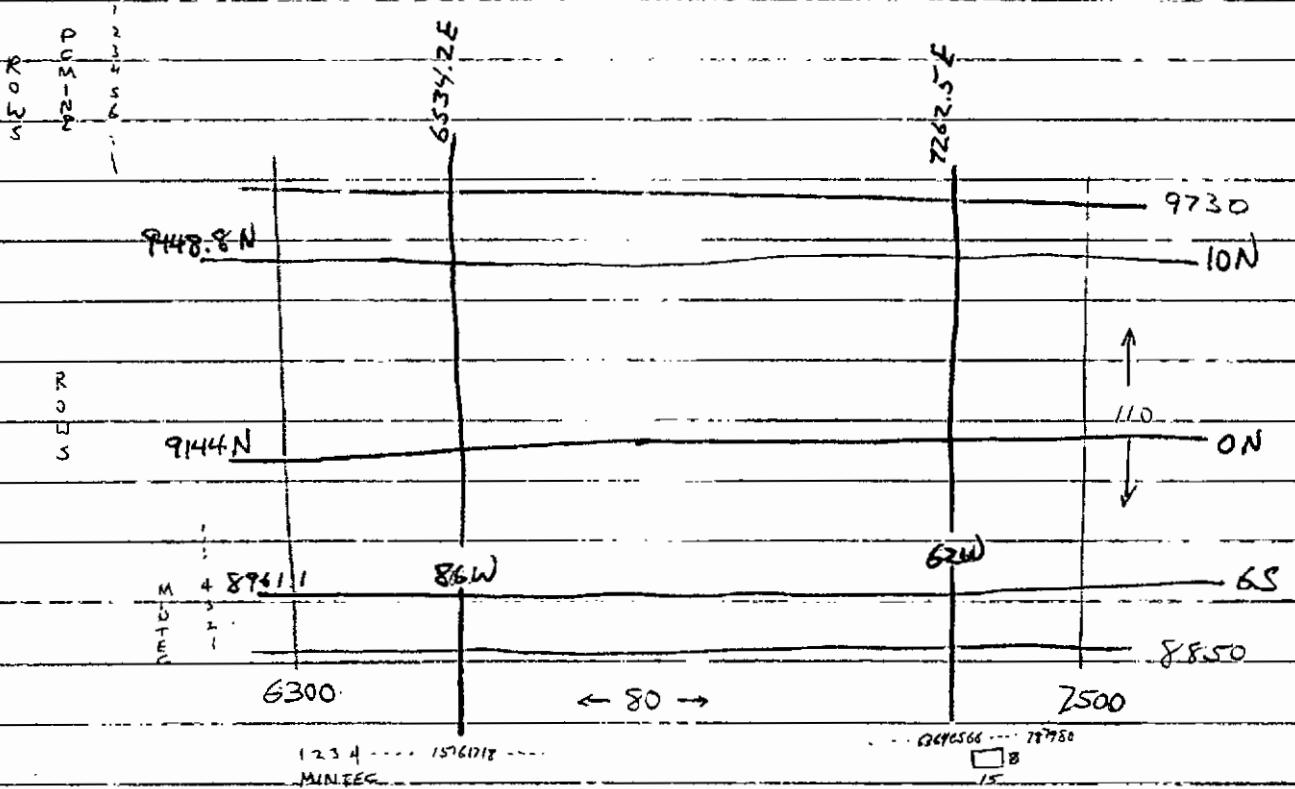
11 = OVRDN 2.10

12 = PAT 2.10

MODEL



COLUMNS  
PERMITS  
123456



1234 ..... 157617 .....  
MINTEC

..... 629556 ..... 78750  
B  
15

COLUMNS

GRUM MODEL

# UTM TO VANGORDA GRID ROTATION

V49R CO-ORD AS 10,000, 10,000

ANGLE  $\alpha = 41.845278$

ANTICLOCKWISE ROTATION

$$V_N = \left[ (N_{UTM} - \overset{889,052.74}{\delimiterscript{889,188.14}}) \cos \alpha - (E_{UTM} - \overset{593397.40}{\delimiterscript{593215.50}}) \sin \alpha \right] \cdot 99950853$$

$$V_E = \left[ (N_{UTM} - \overset{889,052.74}{\delimiterscript{889,188.14}}) \sin \alpha + (E_{UTM} - \overset{593397.40}{\delimiterscript{593215.50}}) \cos \alpha \right] \cdot 99950833$$

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