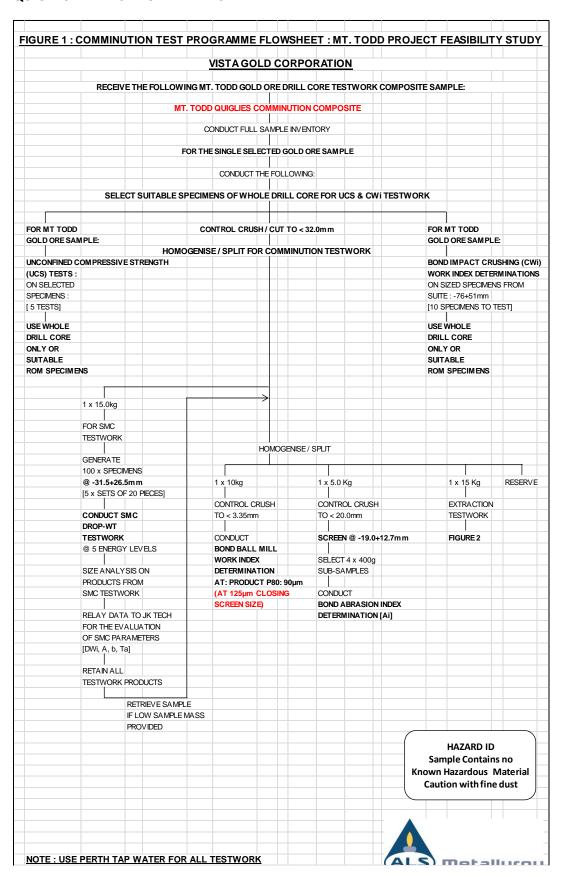
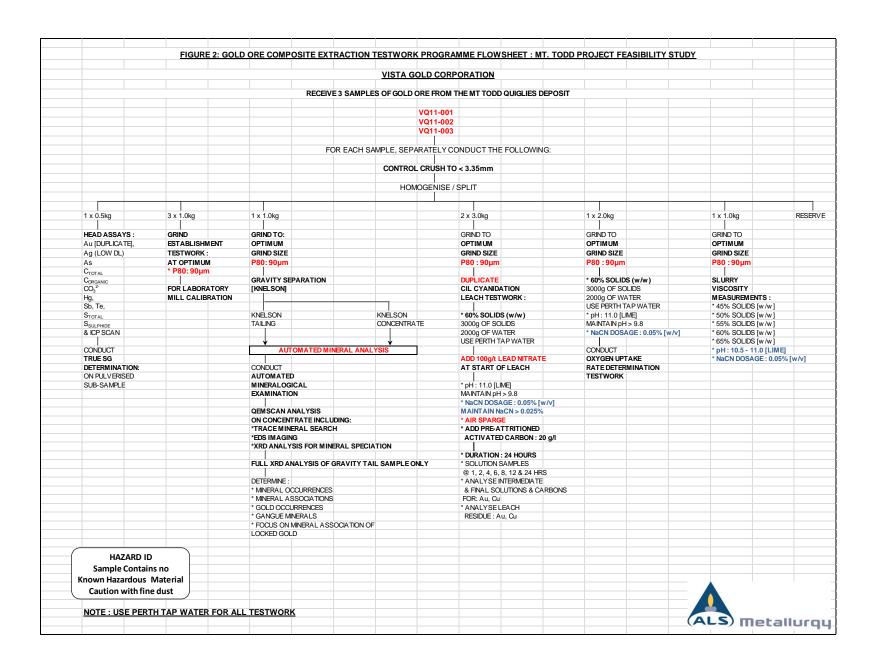
#### **QUIGLIES MET TESTWORK DETAILS**





#### VISTA GOLD CORPORATION: MT TODD GOLD ORE SAMPLE - PRELIMINARY STUDY TESTWORK

	FIGURE 1 : GOLD ORE SAMPLE PREPARATION & COMMINUTION TESTWORK
1	Receive gold ore sample - weigh / conduct sample inventory
2	Prepare Mt Todd gold ore composite sample
3	Select suitable specimens for UCS and Cwi testwork
1	Unconfined compressive strength (UCS) determination - 5 tests
5	Bond impact crushing work index (Cwi) testwork
5	Control crush bulk gold ore composite to < 32.0mm
7	Homogenise / split bulk gold ore sample for comminution testwork
3	Conduct SMC testwork
9	Bond ball mill work index det'n on Bond Master Comp. (125µm closing screen size)
10	Bond Abrasion index determination
	FIGURE 2 : GOLD ORE SAMPLE EXTRACTION TESTWORK
11	Control crush suitable sub-sample to < 3.35mm
12	Homogenise / split -3.35mm ore for extraction testwork
13	Comprehensive head assays on gold ore
14	True SG determination via helium pycometer on gold ore
15	Grind establishment testwork - P80: 90μm
16	Gravity separation via Knelson to prepare conc. & tail for QEMSCAN Mineralogy
17	Basic Gold QEMSCAN mineralogical analysis - resin on conc only & XRD on tail
18	CIL cyanidation leach testwork at optimum grind & leach conditions - Duplicate test
19	Oxygen uptake rate determination test at optimum conditions
20	Slurry Viscosity measurements on comp. sample @ 45, 50, 55, 60 & 65% solids

METALLURGICAL SUPERVISION AND REPORTING

21

#### **SAMPLES SUBMITTED FOR TESTWORK:**

¼ core from the three Quiglies holes has been cut packaged and weighed, details are as follows

VQ11-001 8m @ 1.76 g/t 15.5 kg  $\frac{1}{2}$  core weight actual

SAMP ID	HÔLE ID	FROM	TÖ	INTERVAL	Au g/t	Cu g/t
VS20144	VQ11-001	223	223.4	0.4	0.04	39
VS20145	VQ11-001	223.4	223.7	0.3	5.85	603
VS20146	VQ11-001	223.7	224.52	0.82	0.34	408
VS20148	VQ11-001	224.52	225.16	0.64	14.3	984
VS20149	VQ11-001	225.16	226	0.84	0.11	13
VS20150	VQ11-001	226	227	1	0.02	150
VS20151	VQ11-001	227	228.15	1.15	1.13	362
VS20152	VQ11-001	228.15	229.1	0.95	0.37	81
VS20153	VQ11-001	229.1	230.15	1.05	0.55	39
VS20154	VQ11-001	230.15	231	0.85	0.61	31
				8.0	1.76	

VQ11-002 7.4m @ 0.93 g/t 13.5 kg ¼ core weight actual

SAMP ID	HOLE ID	FROM	TÖ	INTERVAL	Au g/t	Cu g/t
VS10233	VQ11-002	299.6	300	0.4	2.02	123
VS10234	VQ11-002	300	301	1	0.69	82
VS10235	VQ11-002	301	302	1	0.83	37
VS10236	VQ11-002	302	303	1	1.45	36
VS10238	VQ11-002	303	303.94	0.94	0.04	23
VS10239	VQ11-002	303.94	304.85	0.91	0.52	71
VS10240	VQ11-002	304.85	305.2	0.35	4.11	40
VS10241	VQ11-002	305.2	306	0.8	1.39	33
VS10242	VQ11-002	306	307	1	0.07	8
				7.4	0.93	

VQ11-003 9.7m @ 2.75 g/t 18.7 kg ¼ core weight actual

SAMP ID	HOLE ID	FROM	TÖ	INTERVAL	Au g/t	Cu g/t
VS20479	VQ11-003	112.4	112.7	0.3	1.76	44
VS20480	VQ11-003	112.7	113.9	1.2	0.01	
VS20481	VQ11-003	113.9	115	1.1	0.04	72
VS20482	VQ11-003	115	115.67	0.67	0.02	221
VS20484	VQ11-003	115.67	116.22	0.55	14.9	6717
VS20485	VQ11-003	116.22	116.9	0.68	3.58	3008
VS20486	VQ11-003	116.9	117.5	0.6	4.51	1893
VS20487	VQ11-003	117.5	118.17	0.67	14.1	5970
VS20488	VQ11-003	118.17	119.3	1.13	0.91	555
VS20490	VQ11-003	119.3	120.25	0.95	0.19	98
VS20491	VQ11-003	120.25	121	0.75	1.62	579
VS20492	VQ11-003	121	122.1	1.1	0.81	549
				9.7	2.75	

A further 2 samples were obtained from the Quiglies ROM pad,

BWi 14.9 Kg actual of selected samples

UCS 10cm 22.2 Kg +10cm samples

Hence,

5 20lt tubs have been packed and labelled with the samples, these were sent to;

Attn Wayne Harding, 6 Macadam Place Balcatta WA 6021

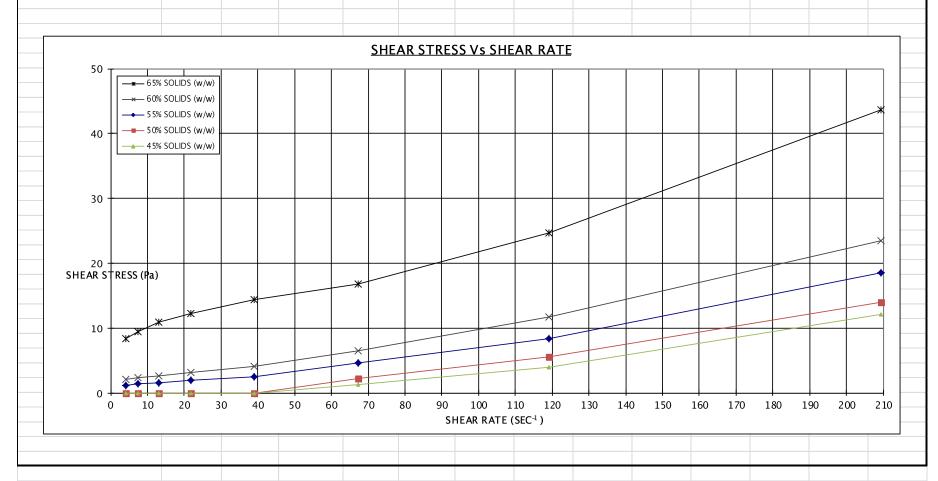
#### **SUMMARY OF RESULTS:**

The results obtained showed less than ideal recoveries from the Quiglies samples, the preliminary testwork has confirmed the earlier work carried out at Quiglies, however further work is now recommended on discrete samples to quantify the recoveries in relation to mineralogy and geospatial data.

## A16157: SLURRY RHEOLOGY TESTWORK

## **QUIGLEYS EXTRACTION COMPOSITE**

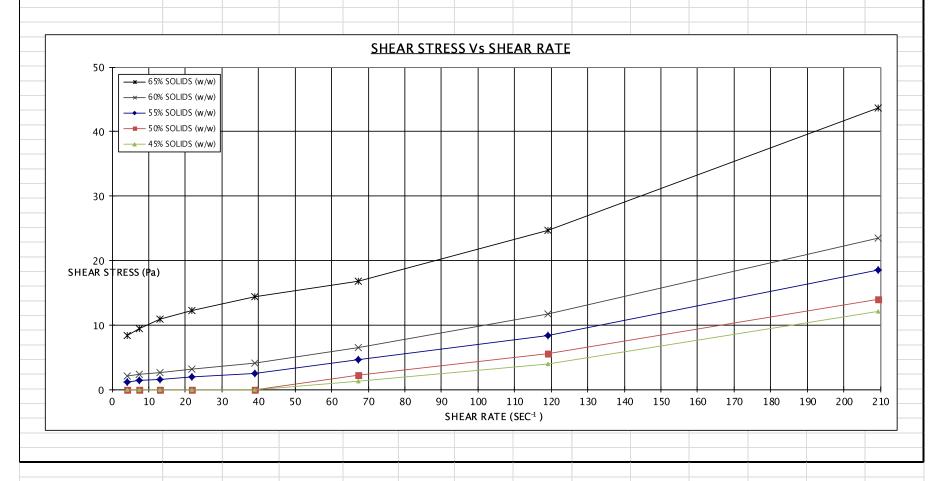
Sample	Grind Size	Test Water	Slurry Temp.	Pulp Density			Shear:	<u>Bohlin \</u> Stress @ S	<u>/isco 88</u> hear Rate (	(Sec <sup>-1</sup> )		
ldentity	P80 (μm)		(°C)	% Solids (w/w)	4.2 (Pa)	7.4 (Pa)	13.1 (Pa)	21.9 (Pa)	38.9 (Pa)	67.4 (Pa)	119.2 (Pa)	209.5 (Pa)
	1 90 1	Perth Tap – Water –	24.7	65.0	8.33	9.43	10.85	12.26	14.31	16.82	24.68	43.70
			24.6	60.0	2.04	2.36	2.67	3.14	4.09	6.45	11.63	23.42
QUIGLIES EXTRACTION COMPOSITE			24.5	55.0	1.10	1.41	1.57	1.89	2.52	4.56	8.33	18.55
			24.8	50.0	0.00	0.00	0.00	0.00	0.00	2.20	5.50	13.99
			24.7	45.0	0.00	0.00	0.00	0.00	0.00	1.26	3.93	12.10



## A16157: SLURRY RHEOLOGY TESTWORK

# **QUIGLEYS EXTRACTION COMPOSITE**

Sample	Grind Size	Test Water	Slurry Temp.	Pulp Density			Shear!		<u>/isco 88</u> hear Rate (	(Sec <sup>-1</sup> )		
ldentity	P80 (μm)		(°C)	% Solids (w/w)	4.2 (Pa)	7.4 (Pa)	13.1 (Pa)	21.9 (Pa)	38.9 (Pa)	67.4 (Pa)	119.2 (Pa)	209.5 (Pa)
	(μπ)		24.7	65.0	8.33	9.43	10.85	12.26	14.31	16.82	24.68	43.70
	1 90 1	Perth Tap — Water —	24.6	60.0	2.04	2.36	2.67	3.14	4.09	6.45	11.63	23.42
			24.5	55.0	1.10	1.41	1.57	1.89	2.52	4.56	8.33	18.55
		Water	24.8	50.0	0.00	0.00	0.00	0.00	0.00	2.20	5.50	13.99
			24.7	45.0	0.00	0.00	0.00	0.00	0.00	1.26	3.93	12.10



# A16157 MT TODD -QUIGLIES PROJECT TESTWORK QUIGLIES EXTRACTION COMPOSITE: HEAD ANALYSIS

ANALYTE	UNIT	QUIGLIES EXTRACTION COMPOSITE					
Au	g/t	2.19 / 2.22					
Ag	g/t	0.9					
As	ppm	8250					
Al	%	7.04					
Ва	ppm	580					
Be	ppm	< 20					
Bi	ppm	25					
Ctotal	%	0.18					
Corganic	%	0.09					
Ccarbonate	%	0.45					
Ca	ppm	1875					
Cd	ppm	< 20					
Со	ppm	20					
Cr	ppm	25					
Cu	ppm	650					
Fe	%	5.56					
Hg	ppm	< 0.1					
K	%	3.05					
Li	ppm	<20					
Mg	ppm	9200					
Mn	ppm	340					
Мо	ppm	< 20					
Na	ppm	2400					
Ni	ppm	20					
P	ppm	250					
Pb	ppm	220					
Stotal	%	1.98					
Ssulfide	%	1.94					
Sb	ppm	4.2					
SiO <sub>2</sub>	%	68.2					
Sr	ppm	15					
Te	ppm	0.2					
Ti	ppm	3000					
V	ppm	65					
Υ	ppm	< 100					
Zn	ppm	330					
True SG	g/mL	2.875					

#### ALS METALLURGY **UNCONFINED COMPRESSIVE STRENGTH DETERMINATION PROJECT** A16157 MT TODD -QUIGLIES VISTA GOLD CORPORATION CLIENT SAMPLE QUIGLIES COMMINUTION COMPOSITE SPECIMEN # 1 DATE Oct -14 Instrument: Servo-Tronic 2000kN machine. Rate Of Load Application = 10 kN / minute Sample Details: Test Results: Sample type: Failure At : **ROM ORE** 30.000 (kN) Diameter (mm): 28.94 Failure Mode: SHEAR Height (mm): U.C.S. : 45.607 (mPa) 69.11 Area $(mm^2)$ : 657.8 Weight (kg) 0.120 SG (kg/dm<sup>3</sup>) 2.631 Typical Compressive Strengths: Descriptive Strength Terms: Rock Type U.C.S. (mPa) U.C.S. Strength Saturated (mPa) Basalt 106-168 85-223 Pyroclastic Basalt 143 Very Weak 64 <6 Dolomite 114 95 6-20 Weak 98-119 Granite 104-114 20-60 Med' Strong Pyrophyritic Granite 86 95 60-200 Strong Tourmaline Granite 158 107 > 200 Very Strong Granulite 151 82 Gneiss 96-155 91-174 Granitic Gneiss 106-159 72-135 Limestone 73-85 48<del>-9</del>8 Quartzite 256 206 Sandstone 81 73 ALS Metallurgy