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REF No's 19577 - 19578

SW Report: 28481 / 1999/38

GEOTECHNICAL ASSESSMENT: FOUNDATION CONDITIONS

IMPACT FERTILISERS DRYER INSTALLATION RISDON

Client:

Jones & Jones Engineering Design Pty. Ltd.

43 055

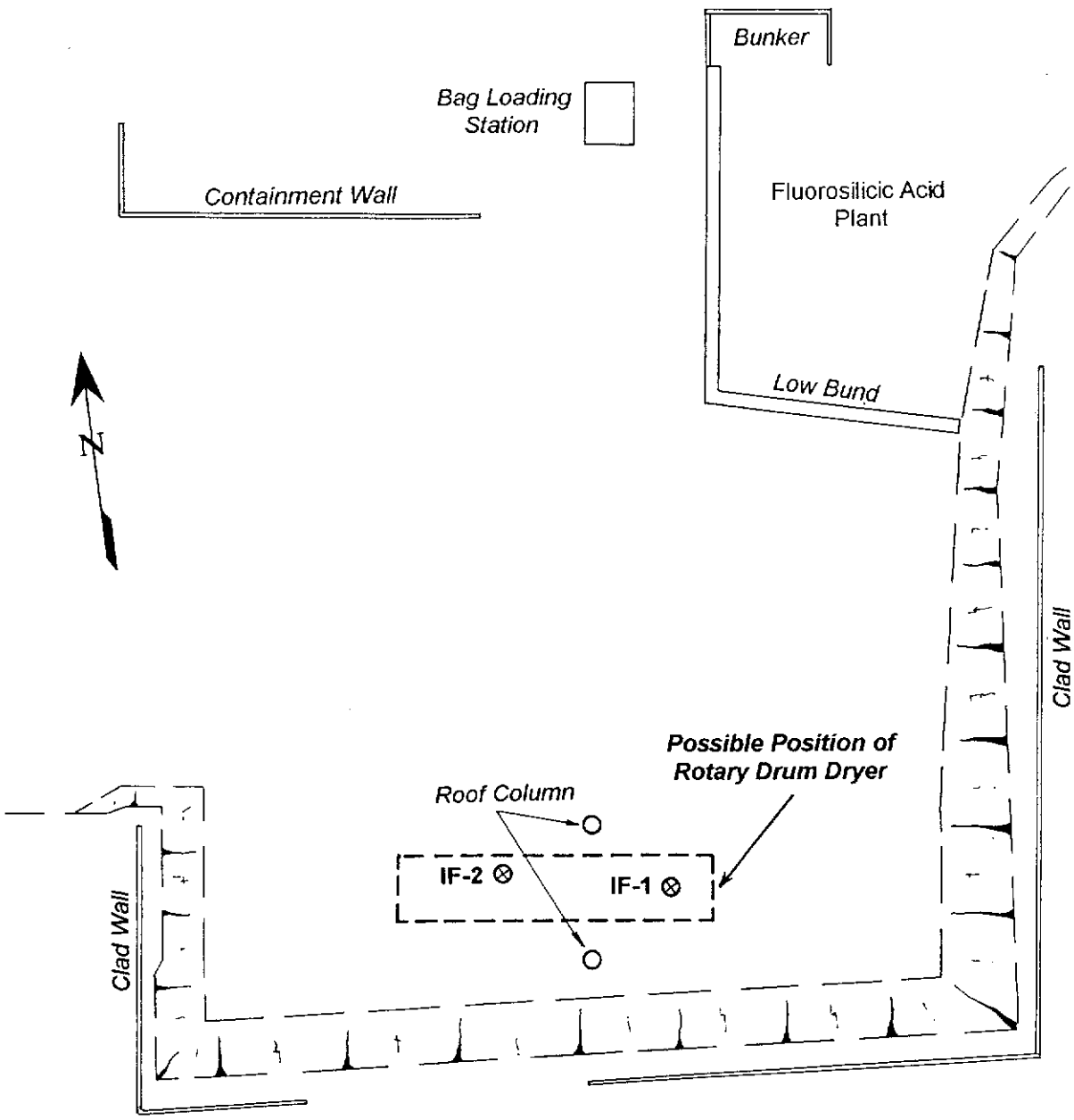

Figure 1. **SITE PLAN:**
Borehole locations for proposed rotary drum dryer,
Impact Fertiliser site, Risdon
Scale: 1:375 approximately
Client: JONES & JONES ENGINEERING DESIGN PTY. LTD
Sloane Weldon *Pty. Ltd.* SW 28481 / 1999 ***Plan:*** P 28481 / 1

43 056

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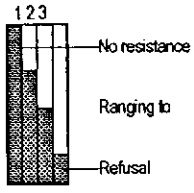
EXPLANATION SHEET FOR ENGINEERING LOGS

Borehole, Auger and Excavation log

Penetration



Water

22 Jan 96 Water level on date shown

Water inflow

Water outflow

Notes - samples and tests

UD50	Undisturbed sample 50mm diameter
ST35	Split tube sample 25mm diameter
D	Disturbed sample
N	Standard penetrometer blow count for 300mm
SV	Shear Vane test
PP	Hand penetrometer (kPa)

Material

Based on Unified Soil Classification System.

In Graphic Log materials are represented by clear contrasting symbols for each project.

Moisture content

D	Dry, looks and feels dry.
M	Moist, no free water on hand when remoulding.
W	Wet, free water on hand when remoulding.
LL	Liquid limit.
PL	Plastic limit.
PI	Plasticity index.

eg:
M>PL Moist, moisture content greater than plastic limit.

Consistency

		(kPa)
VS	Very soft.	< 25
S	Soft.	25 - 50
F	Firm.	50 - 100
St	Stiff.	100 - 200
VSt	Very stiff.	200 - 400
H	Hard.	> 400
Fb	Friable.	

Notes: x on log is test result
▬ is range of results.

Density index

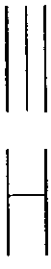
		%
VL	Very loose.	0 - 15
L	Loose.	15 - 35
MD	Medium dense	35 - 65
D	Dense.	65 - 85
VD	Very dense.	85 - 100

Pedal Structure

Term	*Size of Blocks*	*Shape of Blocks*	
BLOCKY	>60mm	BULKY	Equally developed along three axes.
CLODDY	20 to 60mm	ELONGATED	Developed mainly along axis normal to ground surface.
NUTTY	6 to 20mm		
GRANULAR	0.6 to 6 mm	LENTICULAR	Lenticular, platy or wedge shaped (sharp corners).
PRISMATIC	Representative dimension stated in description.		
SHATTERED	Generally <10mm; range of dimension stated in description.		

Cored Borehole log

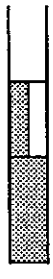
Case - lift



Casing used.

Barrel withdrawn.

Fluid loss

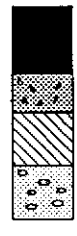


No loss.

50% loss.

100% loss.

Graphic log



Core loss assumed at top of run unless otherwise indicated.

Rock substances represented by clear, contrasting symbols consistent for each project.

Weathering

Fr	Fresh.
SW	Slightly weathered.
HW	Highly weathered.
EW	Extremely weathered.

Strength

		Point load strength Index $I_{s(50)}$ (MPa)
EL	Extremely low.	< 0.03
VL	Very low.	0.03 - 0.1
L	Low.	0.1 - 0.3
M	Medium.	0.3 - 1.0
H	High.	1.0 - 3.0
VH	Very high.	3.0 - 10.0
EH	Extremely high.	> 10

Note: x on log is test result.

Significant defects

Significant defects shown graphically.

Joint.

Sheared zone.

Crushed seam.

Infill seam.

Extremely weathered seam.

C:\00logsheets\1_blanks\explain3.ifd

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REF 19577

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ENGINEERING LOG - Cored Borehole

Borehole no.: **IF1**
sheet: 1 of: 1

Project : **Impact Fertilizer Rotary Drum Dryer.** Location : **No.4 Silo Building** (Refer to site Diagram.)

Co-ordinates	: Refer to Site plan	Drill type	: Pioneer P160	Hole Commenced	: 2/6/99
R.L.	: Approx. 29.3m A.H.D.	Drill method	: NQTT	Hole Completed	: 2/6/99
Inclination	: Vertical	Drill fluid	: Polymer - water	Logged by	: BDW
Bearing	: - 525400 E 5257850 N	Contractor	: K.M.R. Drilling	Checked by	: DJS

Drilling Information						Rock substance			Rock mass defects		
case lift	fluid loss	water	notes	depth metres	graphic log	substance description rock type: grain characteristics; colour; structure and minor components.	weathering	strength EL VL L M H VH EH	RQD %	defect spacing mm 30 100 300 1000 3000	defect description thickness, type, inclination, planarity, roughness, coating. significant / general
				0.055		**CONCRETE**					
						CORE LOSS	MW				Possible fill containing wood immediately below concrete.
				0.525		**DOLERITE:** Medium grained; light grey/ blue with light brown/ orange iron staining up to 3mm distance from defect surfaces.	SW MW Fr MW Fr		25		Joints mostly sub-horizontal and at 30° & 60° to horizontal; usually rough planar to irregular surfaces with iron staining up to 3mm into rock from defect surface; subvertical joints.
				1.0							
				1.36							
				1.5					78		
				1.63			SW-MW SW				5mm thick seam of ?calcite.
				2.0					0		
				2.5			SW-MW				
				2.80		**CORE LOSS**					
						TERMINATED: Required depth.					
				3.0							

43 058

REF 19578

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ENGINEERING LOG - Cored Borehole

Borehole no.: **IF2**
sheet: 1 of: 1

Project : **Impact Fertilizer Rotary Drum Dryer.** Location : **No.4 Silo Building** (Refer to site Diagram.)

Co-ordinates	: Refer to Site plan	Drill type	: Pioneer P160	Hole Commenced	: 2/6/99
R.L.	: Approx. 29.3m A.H.D.	Drill method	: NQTT	Hole Completed	: 2/6/99
Inclination	: Vertical	Drill fluid	: Polymer - water	Logged by	: BDW
Bearing	: - 525400 E 5257850 N	Contractor	: K.M.R. Drilling	Checked by	: DJS

Drilling Information						Rock substance			Rock mass defects		
case lift	fluid loss	water	notes	depth metres	graphic log	substance description rock type: grain characteristics; colour; structure and minor components.	weathering	strength EL VL L M H VH EH	RQD %	defect spacing mm 30 100 300 1000 3000	defect description thickness, type, inclination, planarity, roughness, coating. significant / general
				0.065		**CONCRETE**					
				0.265		**CORE LOSS**					
				0.5		**DOLERITE:** Medium grained; light grey/ blue with light brown/ orange iron staining up to 10mm distance from defect surfaces.	MW		21		
				0.80			SW-Fr				
				1.0					50		
				1.5			MW-SW				
				2.05			Fr				Joints mostly sub-horizontal and at 30° & 60° to horizontal; usually rough planar to irregular surfaces with iron staining up to 10mm into rock from defect surface; trace subvertical joints.
				2.5		**TERMINATED:** Required depth.					
				3.0							

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