



*NOTE: PLEASE REFER ISOMETRIC DRAWING J45/110-16/ID-071 FOR PIPING ACTUAL LAYOUT

No	Anomaly ID	Distance from Section Start, mm	Ref. Weld	Anomaly Distance from Ref. Weld, mm		Anomaly Orientation			Anomaly Dimensions, mm		
				U/S	D/S	Rotations Direction	Distance from 12 o'clock, mm	hh:mm	Length, L	Width, W	Max Depth, d
13	D1-13	9,200	WJ1-13	-	20	Clockwise	60	0:54	600	150	0.9
14	D1-14	12,518	WJ1-17	-	2,028	Clockwise	215	3:00	4,365	490	0.9
15	D1-15	14,850	WJ1-18	55	-	Clockwise	420	5:52	300	470	3.5
16	D1-16	15,490	WJ1-19	95	-	Anticlockwise	300	7:48	280	150	2.6
17	D1-17	16,025	WJ1-20	-	240	Anticlockwise	355	7:01	782	714	1.2

Legend:

WJ1-15 Circumferential Weld

D1-13 Anomaly ID

+ Center of Anomaly

Area of Anomaly

A0	ISSUE FOR SUBMISSION	SAM	KIO	IJA	05-10-2016
REV.	DESCRIPTION	BY	CHK	APPR.	DATE
NOTE : ALL DIMENSION IN MILLIMETERS (mm). THE DRAWING AND THE INFORMATION REVEALED BY IT IS CONFIDENTIAL. CONFIDENTIAL AND PROPRIETARY PROPERTY OF MRA INTERNATIONAL AND IT IS NOT TO BE DISCLOSED TO OTHERS WITHOUT WRITTEN PERMISSION. UNAUTHORIZED USE IS EXPRESSLY FORBIDDEN. ALL RIGHTS RESERVED.					
PROJECT TITLE: PROVISION OF HYBRID ACOUSTIC TECHNOLOGY SYSTEM (HATs) INSPECTION FOR CARBON STEEL PIPING AT BINTULU CRUDE OIL TERMINAL (BCOT), BINTULU, SARAWAK					
PROJECT OWNER: PETRONAS CARIGALI SDN BHD - SARAWAK OPERATION (GAS)					
CONTRACTOR: MRA INTERNATIONAL SDN BHD					
JOBSITE: PCSB SKO - BCOT		CANDIDATE: 10"-FW-632-1101 Scheme 1			
SCALE/ SIZE: N.T.S		DRAWING TITLE: ANOMALY MAPPING FOR PIPE 10"-FW-632-1101 Scheme 1			
DATE : 05-10-2016		DRAWN : SAM		CHECKED : KIO	
				APPROVED : IJA	
DWG. NO. : J45/110-16/DM-49-2		FILENAME : J45 CARBON STEEL PIPINGS		REF. DWG. NO.	
				SHT. NO. 2 of 2	
				REV A0	