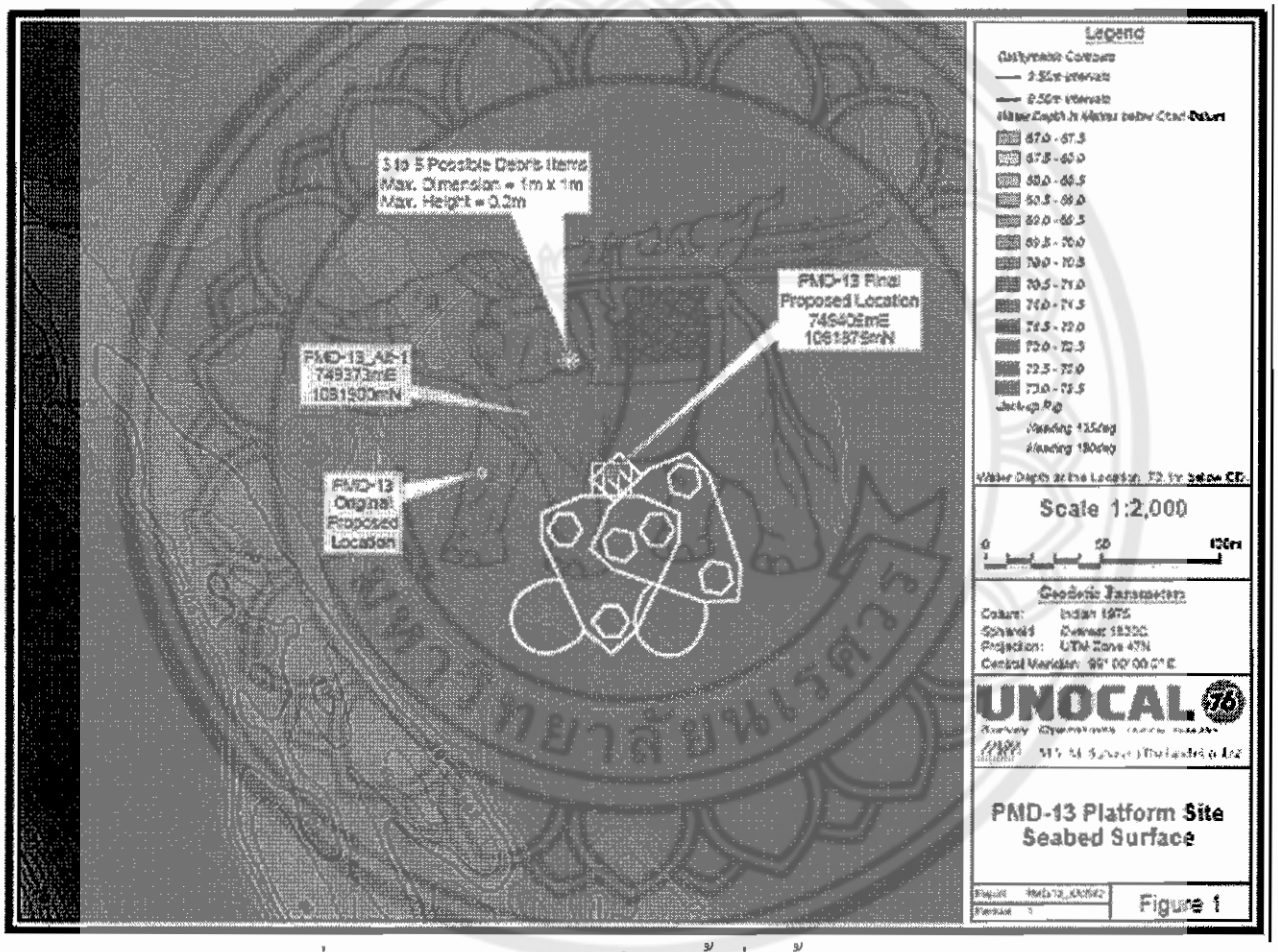
ภาคผนวก ก

สถานที่ติดตั้งขาแท่นขุดเจาะน้ำมันและก๊าซธรรมชาติ

(Unocal phase 28/6)

ตารางที่ ก.1 ตารางแสดงพิกัดตำแหน่งการติดตั้งแท่นขุดเจาะน้ำมันและก๊าซธรรมชาติ

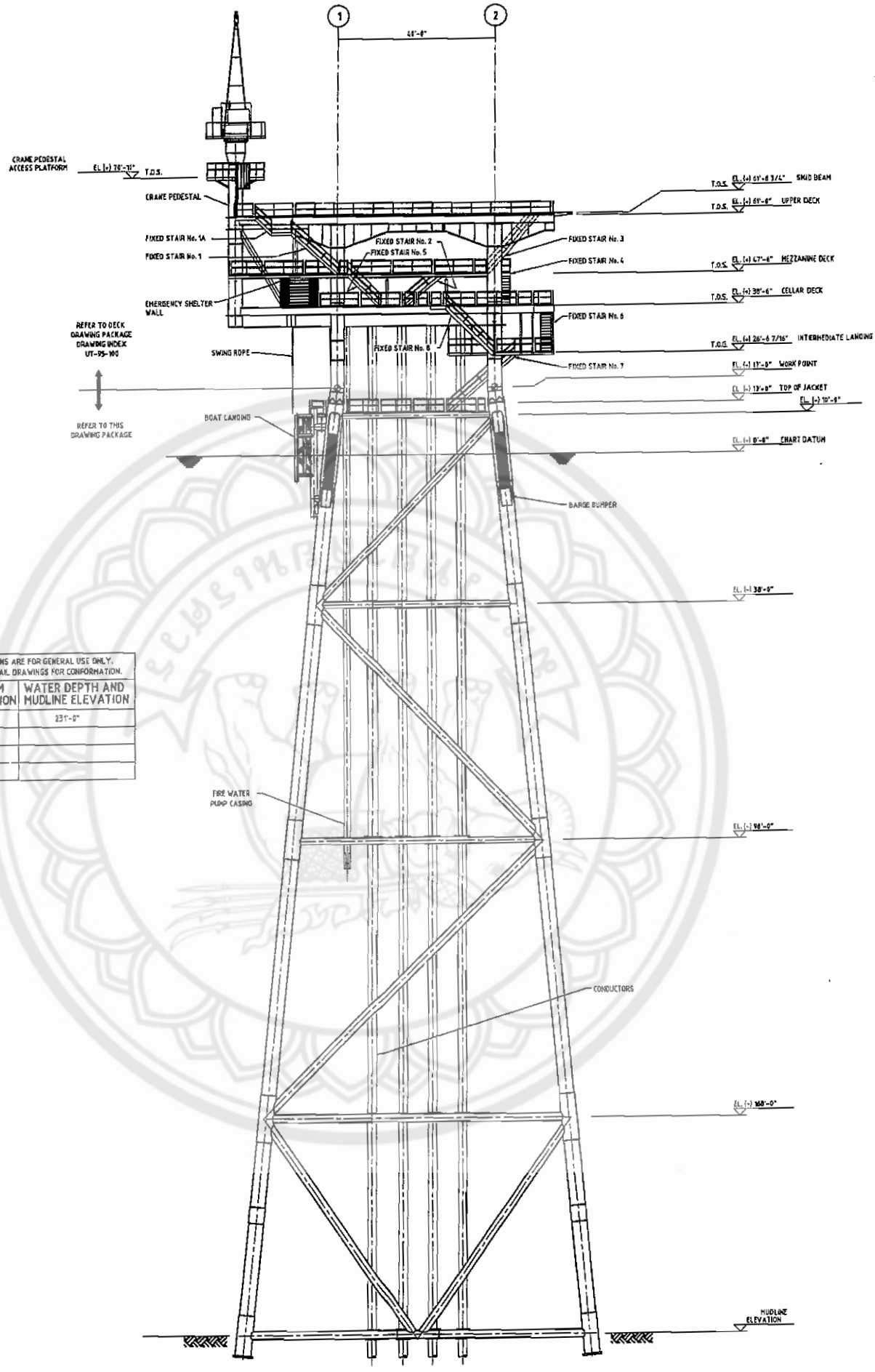
FINAL PROPOSED LOCATION (REFER UNOCAL-MVM REPORT)		
UTM: m E / m N	749,405	1,081,875
Geogs: Lat / Long	9° 46' 48.994"N	101° 16' 26.103"
REMARKS:	INDIAN 1975 DATUM / UTM ZONE 47 NORTH.	
WATER DEPTH (CD) m	72	
Geophysical Site Survey	Unocal-MVM report, ref 1	



ภาพที่ ก.1 แสดงพิกัดและความลึกของพื้นที่ติดตั้งบริเวณอ่าวไทย

ภาคผนวก ข

- Jacket Drawing
- Sling length Drawing
- Crane Chart
- Weight Control Report
- CUEL's Sling list
- CUEL's Shackle list



ALL ELEVATIONS ARE FOR GENERAL USE ONLY. REFER TO DETAIL DRAWINGS FOR CONFORMATION.	
PLATFORM DESIGNATION	WATER DEPTH AND MUDLINE ELEVATION
JWB	231'-0"

PLATFORM SOUTH ELEVATION

NOTES

FOR GENERAL NOTES & SPECIFICATIONS REFER TO WGL No. 95-011.

CUEL Limited
19 SCB Park Plaza, Tower B (Level 17th, 18th Floor, Unit 317C, 318C
Ratchadapisek Road, Ekachai,
Bangkok 10160, THAILAND

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DRAWING No.	REFERENCE DRAWINGS

No.	DATE	REVISION	DRAWN	CHKD	ENG
A	23/12/14	ISSUED FOR APPROVAL	AJR	TMC	VDS

No.	DATE	REVISION	DRAWN	CHKD	ENG

CUEL

SCALE AS NOTED

STRUCTURE
ASSEMBLY DRAWING SOUTH ELEVATION

UTL286-INS-PF-SK-100

REV. A

PHASE 2B

PLATFORM 28/6

SEDPY:S:\N:\N:\Dwg, Jan 17, 2015 - 3:16pm

GENERAL NOTES

RELEVANT TO ALL DRAWINGS

1. FABRICATION TO BE IN ACCORDANCE WITH UNOCAL CONSTRUCTION SPECIFICATION CS-500.
2. PAINTING TO BE IN ACCORDANCE WITH UNOCAL GENERAL SPECIFICATION GS-13 AND UNOCAL CONSTRUCTION SPECIFICATION CS-500.
3. STRUCTURAL STEEL PROCUREMENT SHALL BE IN ACCORDANCE WITH CONSTRUCTION SPECIFICATION CS-400. ALL PRIMARY STEEL SHALL BE CERTIFIED (REFER DESIGN CRITERIA FOR PRIMARY STEEL DEFINITION).
4. WELDING PROCEDURES TO COMPLY WITH AWS D1-1-98 OR LATEST REVISION UNLESS SUPERCEDED BY UNOCAL GENERAL SPECIFICATION GS-10.
5. WELDS TO BE CONTINUOUS AND FULL PENETRATION UNLESS NOTED OTHERWISE.
6. ALL BEAMS ARE Kg/m UNLESS NOTED OTHERWISE.
7. THE FOLLOWING STEEL GRADES ARE DEEMED "EQUIVALENT" AND SUBSTITUTIONS MAY BE IMPLEMENTED BY THE FABRICATOR WITH PRIOR APPROVAL FROM UNOCAL. THE FABRICATOR SHALL INFORM UNOCAL IN WRITING OF ANY MATERIAL GRADE SUBSTITUTIONS.

   ASTM A36 MAY BE SUBSTITUTED WITH API 5L GRB - FOR TUBULARS.
   ASTM A572 GR50 MAY BE SUBSTITUTED WITH API 5L GRX52 - FOR TUBULARS.
   API 2H GR50 (S1,S4) MAY BE SUBSTITUTED WITH
   API-2W GR50(THCP) (S1,S4) - FOR PLATE.
   ASTM A36 MAY BE SUBSTITUTED BY SS400 FOR SHAPES & PLATES.

   JACKET TUBULAR FIT-UP AND WELD PROFILES SHALL BE STRICTLY ENFORCED TO CONFORM TO AWS D1-1-98 OR LATEST REVISION

ABBREVIATIONS

BS	- BOTH SIDES	O/A	- OVER ALL
BTM	- BOTTOM	OD	- OUTSIDE DIAMETER
CL/CL	- CENTERLINE	OPP	- OPPOSITE HAND
COG	- CENTER OF GRAVITY	PL	- PLATE
C/W	- COMPLETE WITH	PCD	- PITCH CIRCLE DIAMETER
DIA/Ø	- DIAMETER	QTY	- QUANTITY
DIM	- DIMENSION	RAD/R	- RADIUS
DWG	- DRAWING	REF	- REFERENCE
EL	- ELEVATION	REQ'D	- REQUIRED
FB	- FLAT BAR	REV	- REVISION
FLG	- FLANGE	SECT	- SECTION
FS	- FAR SIDE	SHT	- SHEET
GALV	- GALVANISED	SS	- STAINLESS STEEL
GR	- GRADE	ST	- SHORT TONS
GRTG	- GRATING	SWL	- SAFE WORKING LOAD
HEX	- HEXAGONAL	T & B	- TOP & BOTTOM
HR	- HANDRAIL	TOG	- TOP OF GRATING
ID	- INSIDE DIAMETER	TOPL	- TOP OF PLATE
LG	- LONG	TOS	- TOP OF STEEL
MILS	- THOUSANDS OF AN INCH	TYP	- TYPICAL
NDT	- NON DESTRUCTIVE TESTING	UT	- ULTRASONIC TESTING
NO	- NUMBER	U/S	- UNDERSIDE
NOM	- NOMINAL	UNO	- UNLESS NOTED OTHERWISE
NS	- NEAR SIDE	WP	- WORK POINT
NTS	- NOT TO SCALE	&	- AND

SUBSTRUCTURE DESIGN CRITERIA

CORROSION PROTECTION

1. 40 MILS OF BALTOFLAKE TO BE APPLIED TO THE SPLASH ZONE ONLY IN ACCORDANCE WITH COMPANY PROTECTIVE COATING SPECIFICATION No GS-13 AND THE MANUFACTURERS RECOMMENDATIONS
2. THE SACRIFICIAL ANODES TO BE MANUFACTURED IN ACCORDANCE WITH THE GENERAL SPECIFICATION GS-40 "SACRIFICIAL ANODES FOR OFFSHORE PLATFORMS". THE TYPE OF ANODES USED ARE OF GALVALUM III OR KA-95, 540 POUND UNIT WITH A SYSTEM LIFE OF 15 YEARS.

JACKET APPURTENANCES

THE FOLLOWING APPURTENANCES ARE INCLUDED IN THE JACKET DESIGN.

1 No. BOAT LANDING
4 No. Ø10 3/4" RISER
18 No. Ø9 5/8" CASINGS
2 No. Ø13 3/8" CASINGS
66 No. ANODES

FATIGUE

BASED ON WAVE OCCURENCE DATA PROVIDED IN THE UNOCAL ENVIRONMENTAL SPECIFICATION GS-18, A DETERMINISTIC FATIGUE ANALYSIS YIELDED ALL JOINT DESIGN LIVES GREATER THAN 45 YEARS (3 x DESIGN LIFE).

NATURAL PERIOD

THE PRIMARY NATURAL PERIOD OF THE STRUCTURE IS DEPENDENT ON THE PLATFORM WATER DEPTH & THE ASSOCIATED PLATFORM LOADINGS

NATURAL PERIOD (SECS):

PLATFORM LOADING SENARIO	WATER DEPTH 180 FT	WATER DEPTH 240 FT
FATIGUE ENVIROMENT	2.4 SEC	3.1 SEC
OPERATIONAL STORM	3.1 SEC	3.9 SEC
EXTREME STORM	3.4 SEC	4.1 SEC

OPERATING & EXTREME NATURAL PERIODS HAVE INCLUDED ALL RELEVANT SIDE LOADS & DRILL DERICK LOADS. FATIGUE NATURAL PERIODS DO NOT INCLUDE DRILL LOADS & DRILL DERICK LOADS. FATIGUE NATURAL PERIODS DO NOT INCLUDE DRILL DERICK LOADS

SUBSTRUCTURE DESIGN CRITERIA - CONT'D

6. FOUNDATIONS

   SOIL P-Y, T-Z, AND Q-Z DATA WAS DEVELOPED FROM GENERIC ZONE 2 SOIL CRITERIA. DATA FOR Ø36" PILES IS PRESENTED IN THE BASIS OF DESIGN

7. PRIMARY STEEL

   THE FOLLOWING ITEMS ARE DEFINED AS PRIMARY

   JACKET LEGS AND ASSOCIATED CANS
   JACKET VERTICAL FRAME DIAGONAL BRACING
   JACKET PERIMETER PLAN BRACING
   JACKET LIFTING TRUNNIONS AND UPENDING PADEYES (MAIN AND CHEEK PLATES)
   PILES

8. AIR GAP

   PLATFORM ELEVATION SET BY REQUIREMENT FOR A 5 FT AIR GAP ABOVE THE 100 YEAR STORM WAVE CREST HEIGHT OF 29'-3"

9. JACKET DESIGN WEIGHT

JACKET	WORLEY DESIGN SHORT TON 180'-0"WD	WORLEY DESIGN SHORT TON 240'-0"WD	FABRICATOR ACTUAL METRIC TON	
TUBULAR STEEL	262	318		-
APPURTENANCES	56	63		-
ANODES	14	17		-
RIGGING & TEMP PLATFORMS	20	20		-
TOTAL LIFTING WEIGHT	352	418		-

10. PILES

    DIAMETER = 36"
    WALL THICKNESS AT MUDLINE = 1.5"
    PENETRATION = 332'-0" BELOW MUDLINE
    PILE PENETRATION IS BASED ON 100 YEAR ENVIRONMENTAL CONDITIONS

11. PILEHEAD LOADS

    THE FOLLOWING DESIGN PILEHEAD LOADS, BASED ON THE 1 YEAR/100 YEAR DESIGN CONDITIONS WERE ADOPTED
    MAXIMUM OPERATING DESIGN PILEHEAD COMPRESSIVE LOAD = 2383 KIPS
    (MOMENT=5833 KIP IN)
    MAXIMUM EXTREME DESIGN PILEHEAD COMPRESSIVE LOAD = 3747 KIPS
    (MOMENT=19037 KIP IN)

12. JACKET BUOYANCY - ONE PIECE JACKET ONLY

    JACKET RESERVE BUOYANCY FOR WATER DEPTH OF 240'-0" = 18.2%
    JACKET RESERVE BUOYANCY FOR WATER DEPTH OF 180'-0" = 11.1%
    THE MAXIMUM HYDROSTATIC HEAD THAT THE LOWER REGION OF THE JACKET LEGS CAN WITHSTAND BEFORE OVERSTRESSING OCCURS IS 135'-0"

13. JACKET ON-BOTTOM STABILITY

    THE PRE-PILED ON-BOTTOM STABILITY OF THE JACKET IS AS FOLLOWS

    FOR A FACTOR OF SAFETY OF 1.0 THE LIMITING INSTALLATION WAVE HEIGHT IS 7'-0" TOGETHER WITH OPERATING CURRENT
    FOR A FACTOR OF SAFETY OF 1.5 THE LIMITING INSTALLATION WAVE HEIGHT IS 4'-6" TOGETHER WITH OPERATING CURRENT

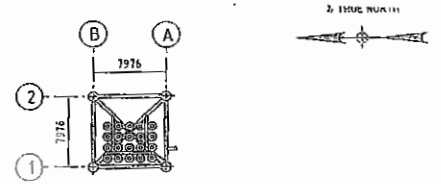
14. RESERVE STRENGTH (PUSHOVER)

    THE FOLLOWING RESERVE STRENGTH RATIO (RSR) WAS OBTAINED FOR THE 240'-0" WATER DEPTH JACKET BASED ON THE 100 YEAR STORM EVENT
    OVERALL JACKET RSR = 1.50
    RSR WITH PILES FIXED AT MUDLINE = 2.42
    IN BOTH CASES THE CRITICAL DIRECTION WAS AN ATTACK FROM THE SOUTH-EAST

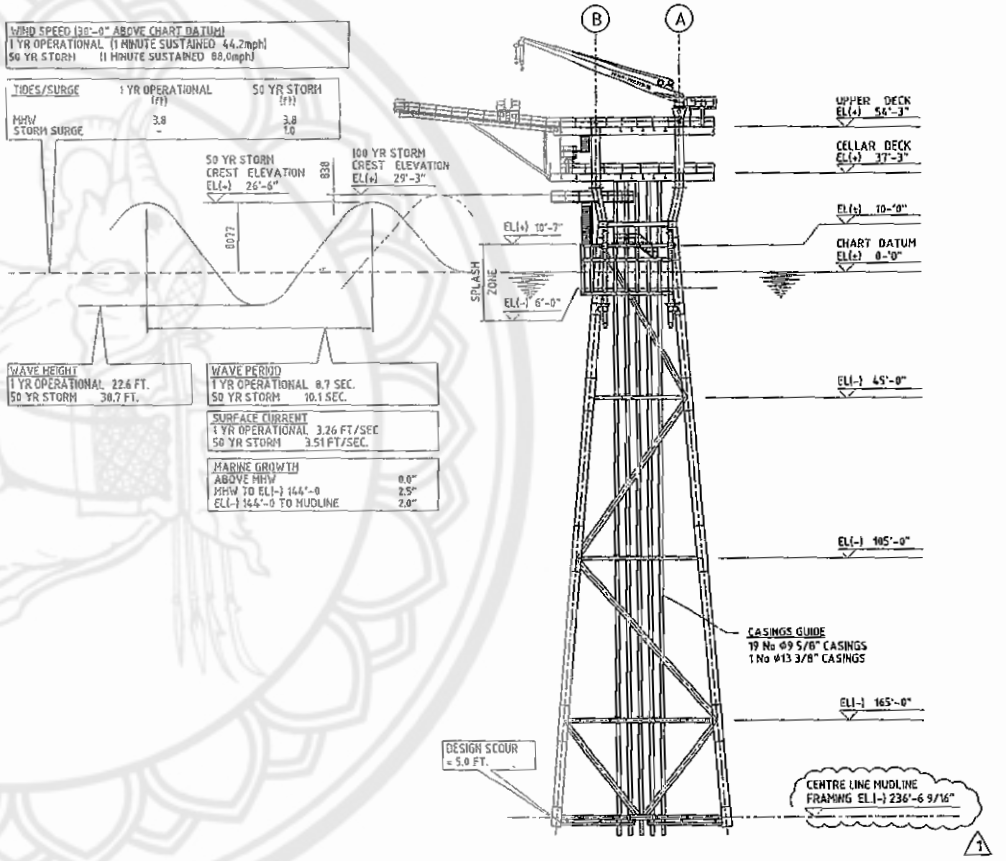
INSTALLATION

1. IT IS THE INSTALLATION CONTRACTORS RESPONSIBILITY TO DEVELOP THE INSTALLATION & LIFTING PROCEDURE. THE TRUNNION LOCATIONS, SIZE AND WELDING ARE SHOWN AS TYPICAL ONLY AND MUST BE REVIEWED TO BE SURE THEY ARE ADEQUATE AND COMPATIBLE WITH THE INSTALLATION EQUIPMENT TO BE USED. THE CONTRACTOR MUST DETERMINE THE CENTER OF GRAVITY LOCATION AND THE HOOK LOAD THAT MUST BE MAINTAINED AT THE TOP OF THE JACKET TO KEEP IT FLOATING IN A STABLE HORIZONTAL POSITION DURING INSTALLATION.

1



PLAN DIMENSIONS @ (+) 10'-0"



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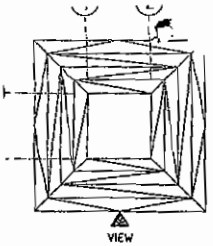
		3	02/08/05	RELEASE HOLD	RVS	AHS	DHA
AB-95-000	DRAWING INDEX - JACKET	0	10.1.04	ISSUED FOR FABRICATION	RVS	AHS	CHI

CUEL

DESIGN CRITERIA & GE L NOTES
JACKET

PHASE 28/6
PLATFORM



KEY PLAN
SCALE : NTS.

NOTES:

1. FOR GENERAL NOTES & DESIGN CRITERIA REFER TO DWG.No. 28/6-PAB-95-001.
2. FOR SURFACE PREPARATION AND PAINTING, REFER TO SPECIFICATION GS-13.
3. ALL STEEL TO BE ASTM A572 GR 50 UNO.
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
5. ALL TACKWELDS, SPATTERS AND BURRS SHALL BE REMOVED AND GROUND.
6. ALL PIECEMARKS TO BE PREFIXED BY 28/6-
   EX. 28/6-A1-P1 AND WELD JOINT No. INDICATED ◯

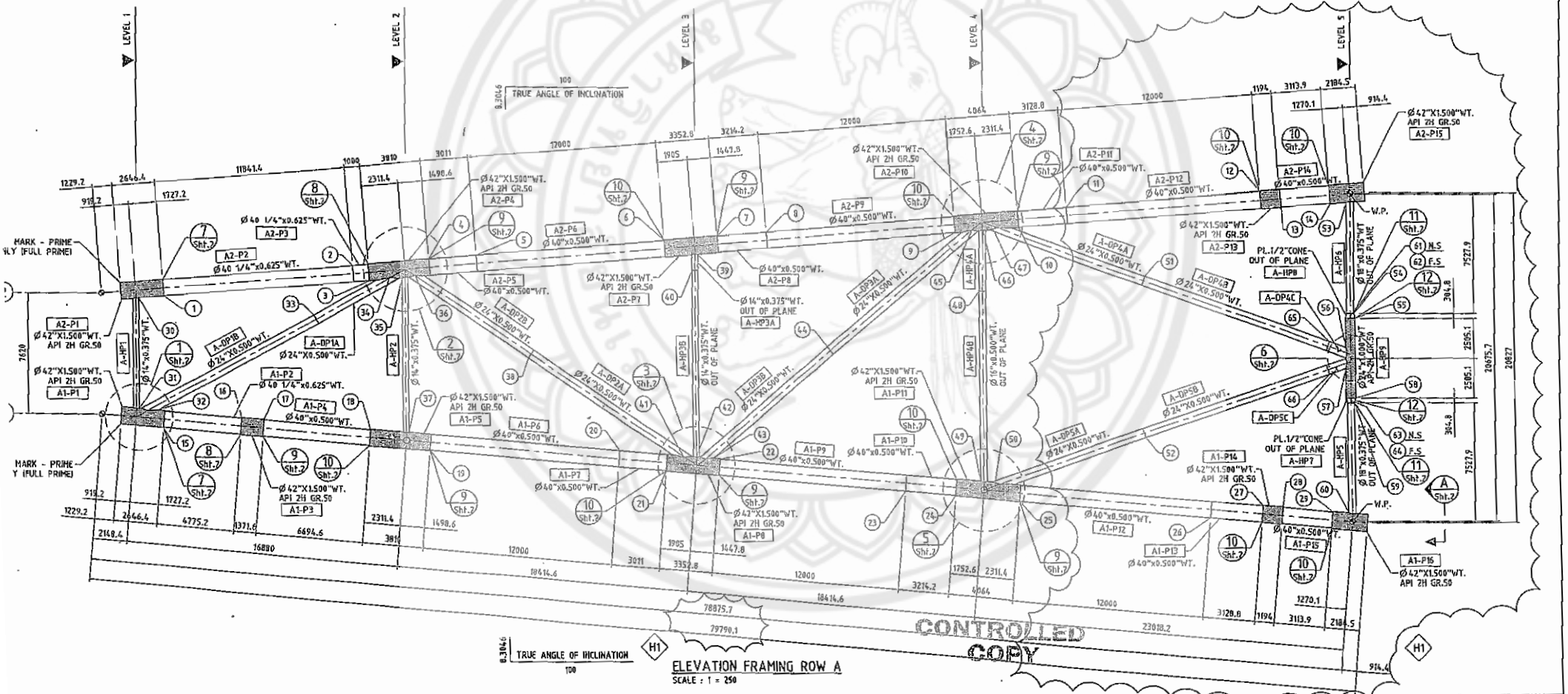
HOLD LIST

◇H1◇ - WATER DEPTH TO BE CONFIRMED

BILL OF MATERIALS

SHOP MARK	PCS REQ'D ALL	DESCRIPTION (AS NOTED)	LENGTH (mm)	REMARKS	MATL	S.A. (m²)	WT. TOT. (kg)
28/6-A2-P13	1	PIPE 42" Dia. x 1.500"	1194		API 2H GR.50	4.00	1151.1
28/6-A2-P14	1	PIPE 40" Dia. x 0.500"	3114		A572 GR.50	9.94	878.5
28/6-A2-P15	1	PIPE 42" Dia. x 1.500"	2184		API 2H GR.50	7.31	2111.4
28/6-A1-P1	1	PIPE 14" Dia. x 0.375"	5963		A572 GR.50	7.76	544.9
28/6-A1-P2	1	PIPE 14" Dia. x 0.375"	5767		A572 GR.50	10.54	793.1
28/6-A1-P3A	1	PIPE 14" Dia. x 0.375"	1004		A572 GR.50	1.72	81.3
28/6-A1-P3B	1	PIPE 14" Dia. x 0.375"	31841		A572 GR.50	13.33	952.6
28/6-A1-P4A	1	PIPE 16" Dia. x 0.500"	2037		A572 GR.50	5.83	485.5
28/6-A1-P4B	1	PIPE 16" Dia. x 0.500"	12508		A572 GR.50	35.22	1478.7
28/6-A1-P5	1	PIPE 16" Dia. x 0.375"	7070		A572 GR.50	18.15	743.5
28/6-A1-P6	1	PIPE 16" Dia. x 0.375"	7070		A572 GR.50	18.15	743.5
28/6-A1-P7	2	PL 12.7 x 385	819		A572 GR.50	1.31	65.4
28/6-A1-P8	2	PL 12.7 x 385	813		A572 GR.50	1.31	65.4
28/6-A1-P9	1	PIPE 24" Dia. x 1.000"	5010	HOLD 1	API 2H GR.50	9.59	1933.4
28/6-A1-P10A	1	PIPE 24" Dia. x 0.500"	6064		A572 GR.50	11.61	1133.7
28/6-A1-P10B	1	PIPE 24" Dia. x 0.500"	12000		A572 GR.50	22.98	2243.4
28/6-A1-P10C	1	PIPE 24" Dia. x 0.500"	12000		A572 GR.50	22.98	2243.4
28/6-A1-P11	1	PIPE 24" Dia. x 0.500"	8901		A572 GR.50	17.04	1612.7
28/6-A1-P12	1	PIPE 24" Dia. x 0.500"	11900		A572 GR.50	22.78	2213.4
28/6-A1-P13	1	PIPE 24" Dia. x 0.500"	10429		A572 GR.50	19.74	2014.5
28/6-A1-P14	1	PIPE 24" Dia. x 0.500"	11900	HOLD 1	A572 GR.50	21.87	2056.5
28/6-A1-P15	1	PIPE 24" Dia. x 0.500"	12000	HOLD 1	A572 GR.50	22.98	2243.4
28/6-A1-P16	1	PIPE 24" Dia. x 0.500"	1200	HOLD 1	A572 GR.50	2.49	243.0
28/6-A2-P1A	1	PIPE 24" Dia. x 0.500"	11900	HOLD 1	A572 GR.50	21.87	2056.5
28/6-A2-P1B	1	PIPE 24" Dia. x 0.500"	12000	HOLD 1	A572 GR.50	22.98	2243.4
28/6-A2-P1C	1	PIPE 24" Dia. x 0.500"	1200	HOLD 1	A572 GR.50	2.49	243.0
				TOTAL		256.62	37,856.6

SHOP MARK	PCS REQ'D ALL	DESCRIPT (AS NOTED)	LENGTH (mm)	REMARKS	MATL	S.A. (m²)	WT. TOT. (kg)
28/6-A1-P1	1	PIPE 42" Dia. x 1.500"	2642		API 2H GR.50	6.87	2527.5
28/6-A1-P2	1	PIPE 40 1/4" Dia. x 0.625"	4775		A572 GR.50	15.31	1851.5
28/6-A1-P3	1	PIPE 42" Dia. x 1.500"	1372		API 2H GR.50	4.69	1726.1
28/6-A1-P4	1	PIPE 40" Dia. x 0.500"	6695		A572 GR.50	21.37	2163.6
28/6-A1-P5	1	PIPE 42" Dia. x 1.500"	3810		API 2H GR.50	12.77	3682.6
28/6-A1-P6	1	PIPE 40" Dia. x 0.500"	12000		A572 GR.50	38.30	3770.4
28/6-A1-P7	1	PIPE 40" Dia. x 0.500"	2011		A572 GR.50	6.61	556.1
28/6-A1-P8	1	PIPE 42" Dia. x 1.500"	3357		API 2H GR.50	11.24	3240.9
28/6-A1-P9	1	PIPE 40" Dia. x 0.500"	12000		A572 GR.50	38.30	3770.4
28/6-A1-P10	1	PIPE 40" Dia. x 0.500"	3214		A572 GR.50	10.26	1009.9
28/6-A1-P11	1	PIPE 42" Dia. x 1.500"	4064		API 2H GR.50	13.62	3926.1
28/6-A1-P12	1	PIPE 40" Dia. x 0.500"	12000		A572 GR.50	38.30	3770.4
28/6-A1-P13	1	PIPE 40" Dia. x 0.500"	3129	HOLD 1	A572 GR.50	9.99	983.2
28/6-A1-P14	1	PIPE 42" Dia. x 1.500"	1194		API 2H GR.50	4.00	1151.1
28/6-A1-P15	1	PIPE 40" Dia. x 0.500"	3114		A572 GR.50	9.94	978.5
28/6-A1-P16	1	PIPE 42" Dia. x 1.500"	2184		API 2H GR.50	7.32	2111.4
28/6-A2-P1	1	PIPE 42" Dia. x 1.500"	2646		API 2H GR.50	6.87	2527.5
28/6-A2-P2	1	PIPE 40 1/4" Dia. x 0.625"	11841		A572 GR.50	38.03	4605.8
28/6-A2-P3	1	PIPE 40 1/4" Dia. x 0.625"	1000		A572 GR.50	3.21	394.6
28/6-A2-P4	1	PIPE 42" Dia. x 1.500"	2810		API 2H GR.50	13.77	3642.6
28/6-A2-P5	1	PIPE 40" Dia. x 0.500"	1011		A572 GR.50	1.99	157.7
28/6-A2-P6	1	PIPE 40" Dia. x 0.500"	12000		A572 GR.50	6.38	628.5
28/6-A2-P7	1	PIPE 42" Dia. x 1.500"	3353		API 2H GR.50	11.24	3240.9
28/6-A2-P8	1	PIPE 42" Dia. x 0.500"	2314		A572 GR.50	1.71	188.2
28/6-A2-P9	1	PIPE 40" Dia. x 0.500"	12000		A572 GR.50	38.30	3770.4
28/6-A2-P10	1	PIPE 42" Dia. x 1.500"	4064		API 2H GR.50	13.62	3926.1
28/6-A2-P11	1	PIPE 40" Dia. x 0.500"	3129	HOLD 1	A572 GR.50	9.99	983.2
28/6-A2-P12	1	PIPE 40" Dia. x 0.500"	12000		A572 GR.50	38.30	3770.4



TRUE ANGLE OF INCLINATION 8.304.6

ELEVATION FRAMING ROW A
SCALE : 1 = 250

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JOINT NO. USED : 1 ~ 66

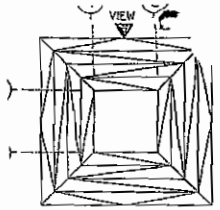
	28-95-001	DESIGN CRITERIA & GENERAL NOTES									
	28-95-000	DRAWING INDEX - JACKET	0	10.11.04	ISSUED FOR FABRICATION	RWS	ANP	CHI			
	DWG NO	REFERENCE DRAWINGS	REV.	DATE	DESCRIPTION	DRAWN	CHKED	APP'D	REV.	DATE	DESCRIPTION

CUEL

JACKET PRIMARY
GRID ROW A - ELEVATION FRAMING

PHASE 28/6
PLATFORM

SCALE | SHEET | REV A



KEY PLAN
SCALE : NTS.

NOTES:

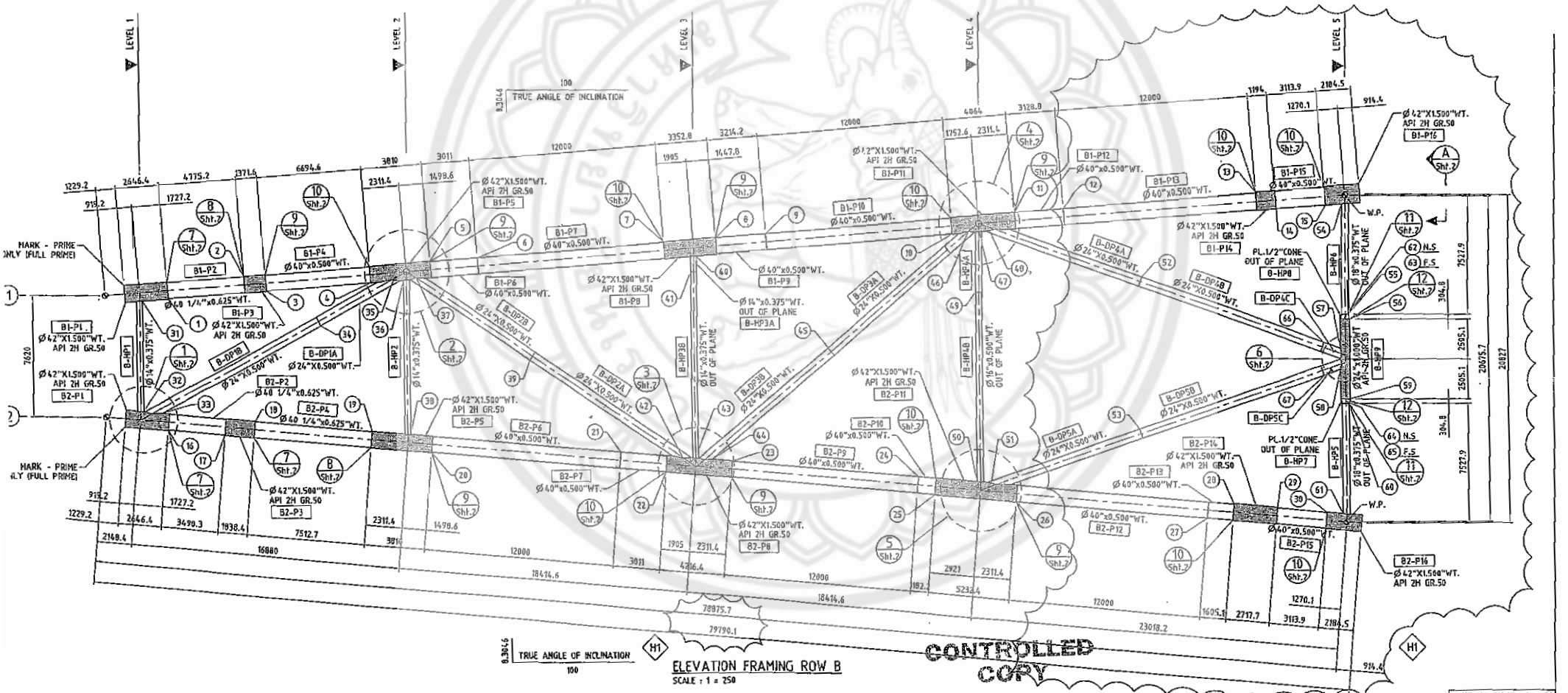
1. FOR GENERAL NOTES & DESIGN CRITERIA REFER TO DWG.No. 28/6-FAB-95-001.
2. FOR SURFACE PREPARATION AND PAINTING, REFER TO SPECIFICATION GS-13.
3. ALL STEEL TO BE ASTM A572 GR 50 UNO.
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
5. ALL TACKWELDS, SPATTERS AND BURRS SHALL BE REMOVED AND GROUND.
6. ALL PIECEMARKS TO BE PREFIXED BY 28/6-
   EX. 28/6-B1-P1 AND WELD JOINT No. INDICATED ◯

HOLD LIST

H1 - WATER DEPTH TO BE CONFIRMED

SHOP MARK	PCS. REQ'D	DESCRIPTION	LENGTH (mm)	REMARKS	MAT'L	S.A. (m²)	WT. TOT. (kgs.)
28/6-B2-P13	1	PIPE 40" Dia. x 0.500"	1605	HOLD 1	A572Gr50	5.38	504.3
28/6-B2-P14	1	PIPE 42" Dia. x 1.500"	2718		API 2H GR.50	8.49	2627.1
28/6-B2-P15	1	PIPE 40" Dia. x 0.500"	3114		A572Gr50	10.44	976.5
28/6-B2-P16	1	PIPE 42" Dia. x 1.500"	2184		API 2H GR.50	7.32	2111.6
28/6-B-HP1	1	PIPE 14" Dia. x 0.375"	6993		A572Gr50	7.78	566.0
28/6-B-HP2	1	PIPE 14" Dia. x 0.375"	9957		A572Gr50	10.90	793.1
28/6-B-HP3A	1	PIPE 14" Dia. x 0.375"	1000		A572Gr50	1.12	81.3
28/6-B-HP3B	1	PIPE 14" Dia. x 0.375"	11841		A572Gr50	13.23	962.6
28/6-B-HP4A	1	PIPE 16" Dia. x 0.500"	3937		A572Gr50	5.05	485.5
28/6-B-HP4B	1	PIPE 16" Dia. x 0.500"	12000		A572Gr50	15.32	1479.7
28/6-B-HP5	1	PIPE 18" Dia. x 0.375"	7070		A572Gr50	10.15	743.5
28/6-B-HP6	1	PIPE 18" Dia. x 0.375"	7070		A572Gr50	10.15	743.5
28/6-B-HP7	2	PL 13 x 365	899		A572Gr50	1.31	65.4
28/6-B-HP8	2	PL 13 x 365	899		A572Gr50	1.31	65.4
28/6-B-HP9	1	PIPE 24" Dia. x 0.750"	5610	HOLD 1	API 2H GR.50	9.59	1390.0
28/6-B-DP1A	1	PIPE 24" Dia. x 0.500"	6087		A572Gr50	11.69	1138.0
28/6-B-DP1B	1	PIPE 24" Dia. x 0.500"	12000		A572Gr50	22.98	2243.4
28/6-B-DP2A	1	PIPE 24" Dia. x 0.500"	12000		A572Gr50	22.98	2243.4
28/6-B-DP2B	1	PIPE 24" Dia. x 0.500"	9824		A572Gr50	17.28	1897.0
28/6-B-DP3A	1	PIPE 24" Dia. x 0.500"	12000		A572Gr50	22.98	2243.4
28/6-B-DP3B	1	PIPE 24" Dia. x 0.500"	16528		A572Gr50	30.74	2824.5
28/6-B-DP4A	1	PIPE 24" Dia. x 0.500"	11000	HOLD 1	A572Gr50	21.07	2056.5
28/6-B-DP4B	1	PIPE 24" Dia. x 0.500"	12000	HOLD 1	A572Gr50	22.98	2243.4
28/6-B-DP4C	1	PIPE 24" Dia. x 0.500"	1200	HOLD 1	A572Gr50	2.49	243.0
28/6-B-DP5A	1	PIPE 24" Dia. x 0.500"	11000	HOLD 1	A572Gr50	21.07	2056.5
28/6-B-DP5B	1	PIPE 24" Dia. x 0.500"	12000	HOLD 1	A572Gr50	22.98	2243.4
28/6-B-DP5C	1	PIPE 24" Dia. x 0.500"	1200	HOLD 1	A572Gr50	2.49	243.0
				TOTAL		760.91	102,315.6

SHOP MARK	PCS. REQ'D	DESCRIPTION (AS NOTED)	LENGTH (mm)	REMARKS	MAT'L	S.A. (m²)	WT. TOT. (kgs.)
28/6-B1-P1	1	PIPE 42" Dia. x 1.500"	2646		API 2H GR.50	8.87	2557.5
28/6-B1-P2	1	PIPE 40 1/4" Dia. x 0.625"	4775		A572 Gr50	15.34	1691.5
28/6-B1-P3	1	PIPE 42" Dia. x 1.500"	1372		API 2H GR.50	4.59	1325.1
28/6-B1-P4	1	PIPE 40" Dia. x 0.500"	5695		A572 Gr50	21.37	2103.4
28/6-B1-P5	1	PIPE 42" Dia. x 1.500"	3810		API 2H GR.50	12.77	3692.6
28/6-B1-P6	1	PIPE 40" Dia. x 0.500"	3011		A572 Gr50	9.61	946.1
28/6-B1-P7	1	PIPE 40" Dia. x 0.500"	12000		A572 Gr50	38.30	3770.8
28/6-B1-P8	1	PIPE 42" Dia. x 1.500"	3353		API 2H GR.50	11.24	3249.3
28/6-B1-P9	1	PIPE 40" Dia. x 0.500"	3214		A572 Gr50	10.26	1009.9
28/6-B1-P10	1	PIPE 40" Dia. x 0.500"	12000		A572 Gr50	38.30	3770.8
28/6-B1-P11	1	PIPE 42" Dia. x 1.500"	4054		API 2H GR.50	13.62	3928.1
28/6-B1-P12	1	PIPE 40" Dia. x 0.500"	3179	HOLD 1	A572 Gr50	9.99	983.2
28/6-B1-P13	1	PIPE 40" Dia. x 0.500"	12000	HOLD 1	A572 Gr50	38.30	3770.8
28/6-B1-P14	1	PIPE 42" Dia. x 1.500"	1194		API 2H GR.50	4.00	1154.1
28/6-B1-P15	1	PIPE 40" Dia. x 0.500"	3114		A572 Gr50	9.94	978.5
28/6-B1-P16	1	PIPE 42" Dia. x 1.500"	2184		API 2H GR.50	7.32	2111.6
28/6-B2-P1	1	PIPE 42" Dia. x 1.500"	2646		API 2H GR.50	8.87	2557.5
28/6-B2-P2	1	PIPE 40 1/4" Dia. x 0.625"	3490		A572 Gr50	11.21	1375.2
28/6-B2-P3	1	PIPE 42" Dia. x 1.500"	1838		API 2H GR.50	6.16	1776.6
28/6-B2-P4	1	PIPE 40 1/4" Dia. x 0.625"	7513		A572 Gr50	24.13	2860.4
28/6-B2-P5	1	PIPE 42" Dia. x 1.500"	3810		API 2H GR.50	12.77	3692.6
28/6-B2-P6	1	PIPE 40" Dia. x 0.500"	13360		A572 Gr50	13.41	3860.5
28/6-B2-P7	1	PIPE 40" Dia. x 0.500"	3011		A572 Gr50	9.38	970.1
28/6-B2-P8	1	PIPE 42" Dia. x 1.500"	4216		API 2H GR.50	2.35	679.2
28/6-B2-P9	1	PIPE 40" Dia. x 0.500"	12000		A572 Gr50	38.30	3770.8
28/6-B2-P10	1	PIPE 40" Dia. x 0.500"	1192		A572 Gr50	3.72	371.4
28/6-B2-P11	1	PIPE 42" Dia. x 1.500"	5232		API 2H GR.50	17.53	5057.1
28/6-B2-P12	1	PIPE 40" Dia. x 0.500"	12000	HOLD 1	A572 Gr50	[illegible]	3770.8



ELEVATION FRAMING ROW B
SCALE : 1 = 250

JOINT NO. USED : 1 ~ 67

	28/6-FAB-95-001	DESIGN CRITERIA & GENERAL NOTES												
	28/6-FAB-95-000	DRAWING INDEX - JACKET	0	10.11.06	ISSUED FOR FABRICATION	RWS	AHP	CH						
	NO	REFERENCE DRAWINGS	REV.	DATE	DESCRIPTION	DRAWN	CHKED	APP'D	REV.	DATE	DESCRIPTION	DRAWN	CHKED	APP'D

B.O.H. INPUT 1

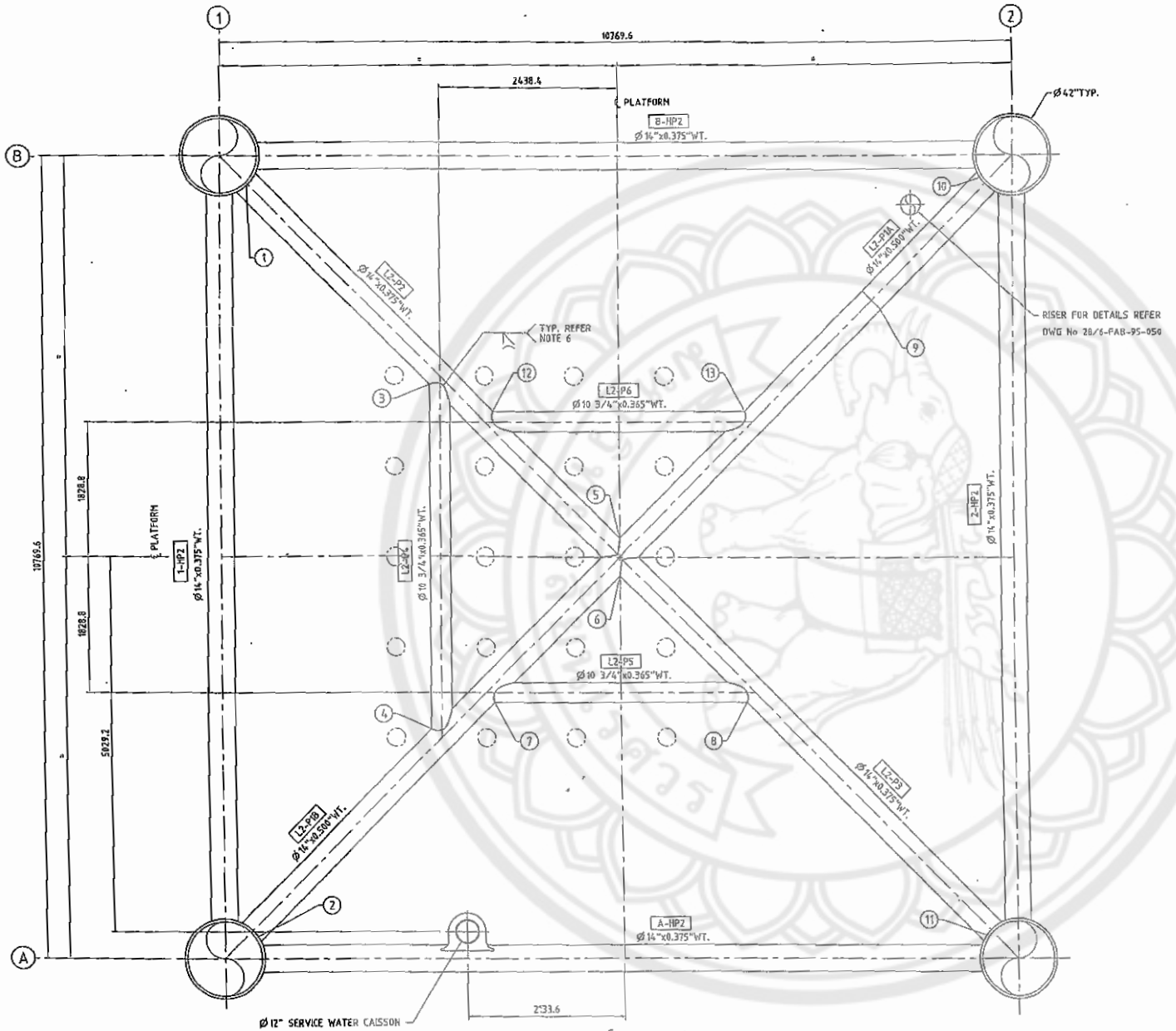
CUEL

JACKET PRIMARY
GRID ROW B - ELEVATION-FRAMING

PHASE 28/6
PLATFORM

SCALE AS NOTED | 28/6-FAB-95-006 | SHEET | REV. A

PLATFORM NORTH
≠ TRUE NORTH



PLAN AT ℄ EL(-) 45'-0"
SCALE : 1 = 60
CASING GUIDES NOT SHOWN FOR CLARITY

BILL OF MATERIALS

SHOP MARK	PCS. REQ'D ALL	DESC (AS NOTED)	LENGTH (mm)	REMARKS	MAT'L	S.A. (m²)	WT. TOT. (kgs.)
28/6-L2-P1A	1	PIPE 14" Dia. x 0.500"	2210		A572 GR.50	2.46	238.0
28/6-L2-P1B	1	PIPE 14" Dia. x 0.500"	12080		A572 GR.50	13.41	1298.8
28/6-L2-P2	1	PIPE 14" Dia. x 0.375"	7030		A572 GR.50	7.89	573.3
28/6-L2-P3	1	PIPE 14" Dia. x 0.375"	7030		A572 GR.50	7.89	573.3
28/6-L2-P4	1	PIPE 10 3/4"Dia. x 0.365"	4606		A572 GR.50	3.97	275.1
28/6-L2-P5	1	PIPE 10 3/4"Dia. x 0.365"	3409		A572 GR.50	2.93	205.6
28/6-L2-P6	1	PIPE 10 3/4"Dia. x 0.365"	3409		A572 GR.50	2.93	205.6
				TOTAL		41.46	3163.6

NOTES:

1. FOR GENERAL NOTES & DESIGN CRITERIA REFER TO DWG.No. 28/6-FAB-95-001.
2. FOR SURFACE PREPARATION AND PAINTING, REFER TO SPECIFICATION GS-13.
3. ALL STEEL TO BE ASTM A572 GR 50 UNO.
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
5. ALL PIECEMARKS TO BE PREFIXED BY 28/6-
   EX. 28/6-L2-P1 AND WELD JOINT No. INDICATED ◯
6. THE 10 3/4" OD. BRACE TO DIAGONAL BRACE WELDS FOR EL(-) 45'-0" ARE TO BE PROFILED IN ACCORDANCE WITH API RP2A 20th EDITION SECTION 11.1.3D
7. ALL TACKWELDS, SPATTERS AND BURRS SHALL BE REMOVED AND GROUND.
8. FOR NOTES ON WELDING, REFER TO SPECIFICATION GS-10

CONTROLLED COPY

JOINT NO. USED : 1 ~ 13

	28/6-FAB-95-001	DESIGN CRITERIA & GENERAL NOTES										
	28/6-FAB-95-000	DRAWING INDEX - JACKET	0	10.11.04	ISSUED FOR FABRICATION	RWS	ANP	CB				
	DG NO	REFERENCE DRAWINGS	REV.	DATE	DESCRIPTION	DRAWN	CHKED	APP'D	REV.	DATE	DESCRIPTION	

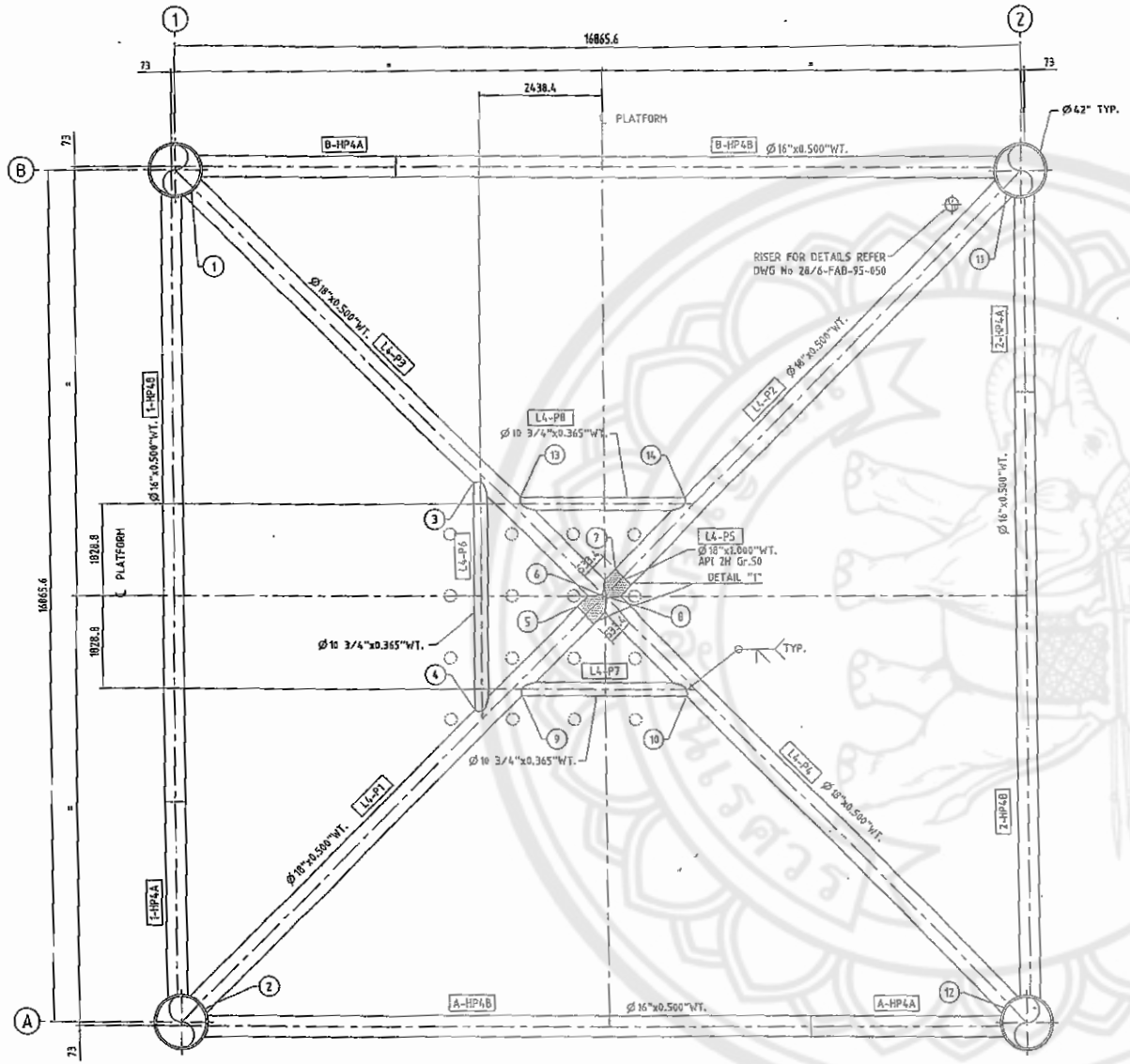
CUEL

JACKET - PRIMARY
EL(-) 45'-0" - HORIZONTAL FRAMING

PHASE 28/6
PLATFORM

SCALE | SHEET | REV. A

PLATFORM NORTH
& TRUE NORTH



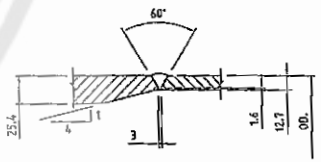
PLAN AT ℄ EL(-) 165'-0"
SCALE : 1 = 100
CASING GUIDES NOT SHOWN FOR CLARITY

BILL OF MATERIALS

SHOP MARK	PCS REQ'D	DESCRIP	LENGTH (mm)	REMARKS	MATL	S.A. (m^2)	WT. TOT. (kgs.)
	ALL	(AS NOTED)					
28/6-L4-P1	1	PIPE 18" Dia. x 0.500"	10905		A572 GR.50	15.66	1518.2
28/6-L4-P2	1	PIPE 18" Dia. x 0.500"	10905		A572 GR.50	15.66	1518.2
28/6-L4-P3	1	PIPE 18" Dia. x 0.500"	11303		A572 GR.50	16.32	1582.0
28/6-L4-P4	1	PIPE 18" Dia. x 0.500"	11303		A572 GR.50	16.32	1582.0
28/6-L4-P5	1	PIPE 18" Dia. x 1.000"	1067		API 2H GR.50	1.53	288.8
28/6-L4-P6	1	PIPE 10 3/4"Dia. x 0.365"	4465		A572 GR.50	3.85	270.5
28/6-L4-P7	1	PIPE 10 3/4"Dia. x 0.365"	3266		A572 GR.50	2.80	197.0
28/6-L4-P8	1	PIPE 10 3/4"Dia. x 0.365"	3266		A572 GR.50	2.80	197.0
				TOTAL		74.95	7153.3

NOTES:

1. FOR GENERAL NOTES & DESIGN CRITERIA REFER TO DWG.No. 28/6-FAB-95-001.
2. FOR SURFACE PREPARATION AND PAINTING, REFER TO SPECIFICATION G5-13.
3. FOR NOTES ON WELDING, REFER TO SPECIFICATION G5-10
4. ALL STEEL TO BE ASTM A572 GR 50 UNO.
5. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
6. ALL TACKWELDS, SPATTERS AND BURRS SHALL BE REMOVED AND GROUND.
7. ALL PIECEMARKS TO BE PREFIXED BY 28/6-
   EX. 28/6-L4-P1 AND WELD JOINT No. INDICATED ◯



DETAIL 1
SCALE: 1 = 5

CONTROLLED COPY

JOINT NO. USED : 1 ~ 14

NO	REFERENCE DRAWINGS	REV.	DATE	DESCRIPTION	DRAWN	CHKED	APP'D	REV.	DATE	DESCRIPTION
28/6-FAB-95-001	DESIGN CRITERIA & GENERAL NOTES									
28/6-FAB-95-002	DRAWING INDEX - JACKET	0	10.11.04	ISSUED FOR FABRICATION	WNS	ANP	CH			

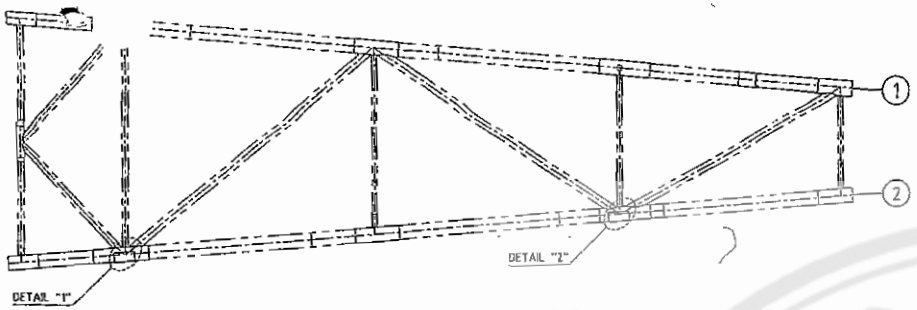
B.O.M. INPUT ☑

CUEL

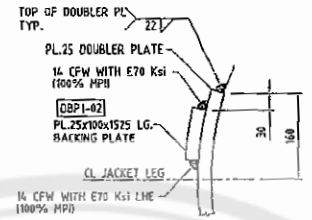
JACKET - PRIMARY
EL(-) 165'-0" - HORIZONTAL FRAMING

PHASE 28/6
PLATFORM

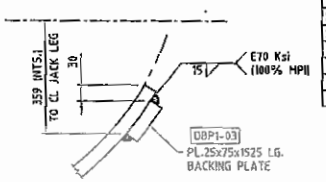
SCALE



ELEVATION FRAMING ROW "A"
SCALE : 1 = 400



DETAIL "3"
SCALE : 1 = 10
TYPICAL BACKING PLATE WELD DETAIL



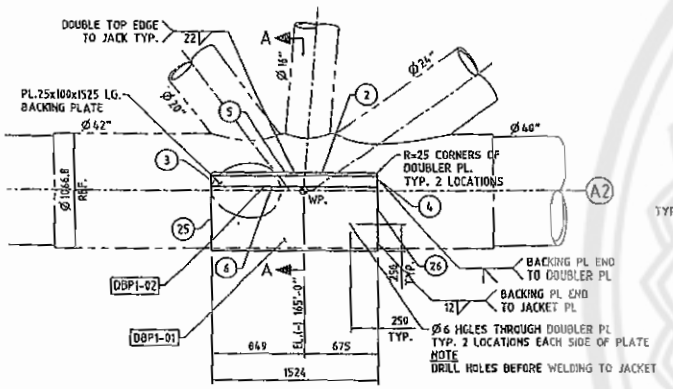
DETAIL "4"
SCALE : 1 = 10

BILL OF MATERIALS

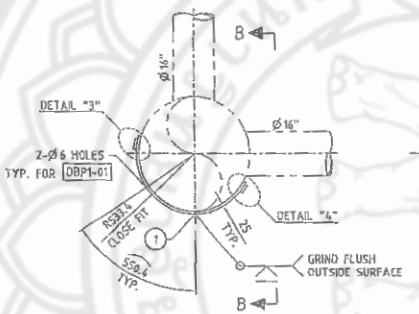
SHOP MARK	PCS. REQ'D	DESC	LENGTH (mm)	REMARKS	MAT'L	S.A. (m²)	WT. TOT (kgs.)
	ONE	DOUBLER & 6.	C-28/6-DBP1				
28/6- DBP1-01	2	PL. 25 x 1524	1524		A572 Gr50	6.24	612.5
28/6- DBP1-02	2	PL. 25 x 100	1525		A572 Gr50	0.61	59.9
28/6- DBP1-03	2	PL. 25 x 75	1525		A572 Gr50	0.46	44.9
28/6- DBP1-04	1	PL. 25 x 658	1524		A572 Gr50	2.62	256.6
28/6- DBP1-05	1	PL. 25 x 658	1524		A572 Gr50	2.62	256.6
					MAKE : ONE	12.94	1230.5

NOTES

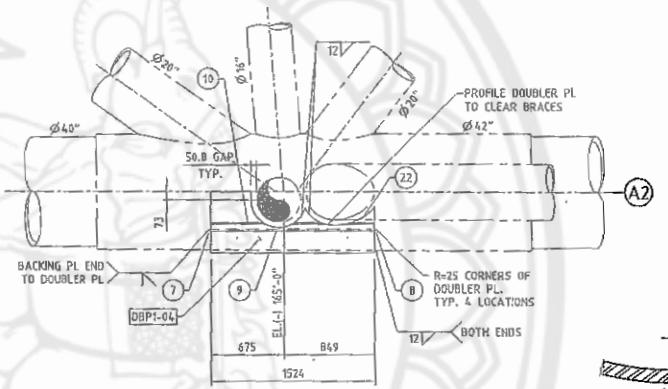
1. ALL FABRICATION TO AISC (USA) MANUAL OF STEEL CONSTRUCTION 9th EDITION
2. ALL MATERIAL TO BE GRADE 350 Fy (50 Ksi).
3. ALL WELDING IN ACCORDANCE WITH AWS D1.1 USING E70 KSI LOW HYDROGEN ELECTRODES.
4. ALL STEEL TO BE FULLY WELDED UNO
5. ALL WELDS TO BE 8 CFW UNO
6. ALL BUTT WELDS TO BE FULL PENETRATION VEE GROOVE WELDS IN ACCORDANCE WITH AWS D1.1
7. WELD TESTING
   10% MPI TO FILLET WELDS
   10% X-RAY/UT TO BUTT WELDS
   100% UT TO ALL PADEYE BUTT WELDS
8. ALL STEEL PLATE TO BE 12mm THICK UNO.
9. ALL HOLES TO BE Ø22 TO SUIT M20 GR 8.8 BOLTS UNO.
10. ALL SHIMS TO BE 15mm UNO
11. ALL RADII TO BE 20mm UNO
12. ALL ITEMS TO BE MARKED WITH RELATIVE ITEM NUMBER PREFIXED WITH DRAWING NUMBER.
13. FOR DOG PLATE DETAILS REFER DRAWING DWG No. 28/6-FAB-95-0319
14. ALL PIECEMARKS TO BE PREFIXED BY 28/6- EX. 28/6-DBP2-01 AND WELD JOINT No. INDICATED ◯



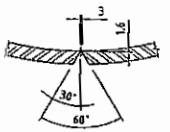
DETAIL "1" DETAIL FOR JACKET LEG "A2"(SEAFASTENING J1)
SCALE : 1 = 50



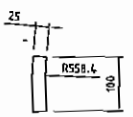
SECTION A-A
SCALE : 1 = 50



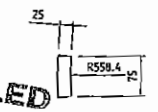
SECTION B-B
SCALE : 1 = 50



DETAIL "S"
SCALE : 1 = 10

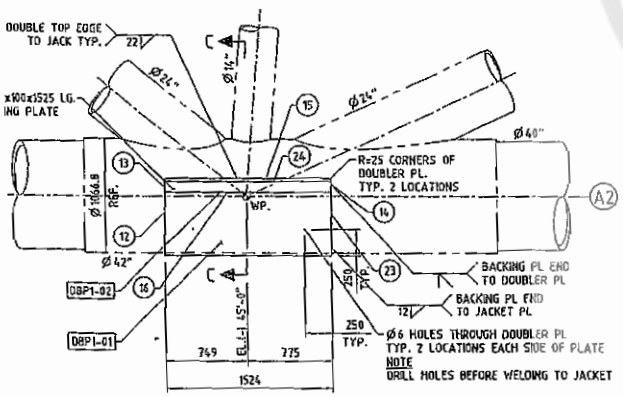


DETAIL OF DBP1-02
SCALE : 1 = 10

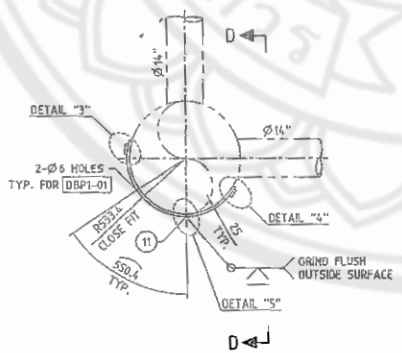


DETAIL OF DBP1-03
SCALE : 1 = 10

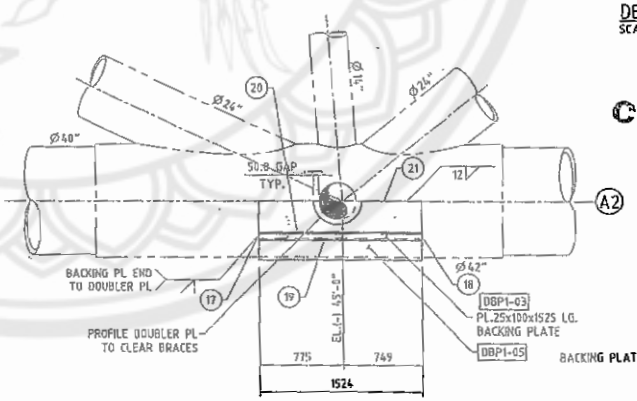
CONTROLLED COPY



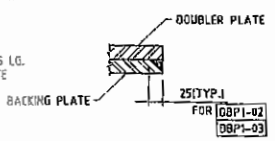
DETAIL "2" DETAIL FOR JACKET LEG "A2"(SEAFASTENING J4)
SCALE : 1 = 50



SECTION C-C
SCALE : 1 = 50



SECTION D-D
SCALE : 1 = 50



WELD BACKING PLATE DETAIL
SCALE : 1 = 10

JOINT NO. USED : 1 - 26

	28/6-FAB-95-001	DESIGN CRITERIA & GENERAL NOTES										
	28/6-FAB-95-000	DRAWING INDEX - JACKET	0	24.11.04	ISSUED FOR FABRICATION	RAS	AMY	DRA				
	WING NO	REFERENCE DRAWINGS	REV.	DATE	DESCRIPTION	DRAWN	CHKED	APP'D	REV.	DATE	DESCRIPTION	DRAWN CHKED APP'D

B.O.M. INPUT

CUEL

JACKET INSTALLATION
DOUBLER PL. AND BACKING PL.
DETAILS R'

PHASE 28/6
PLATFORM

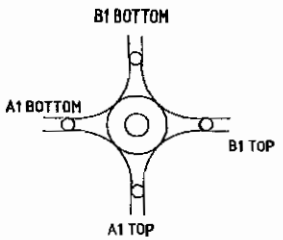
SCALE AS NOTED | 28/6-FAB-95-015 | SHEET | REV. A

NOTES.

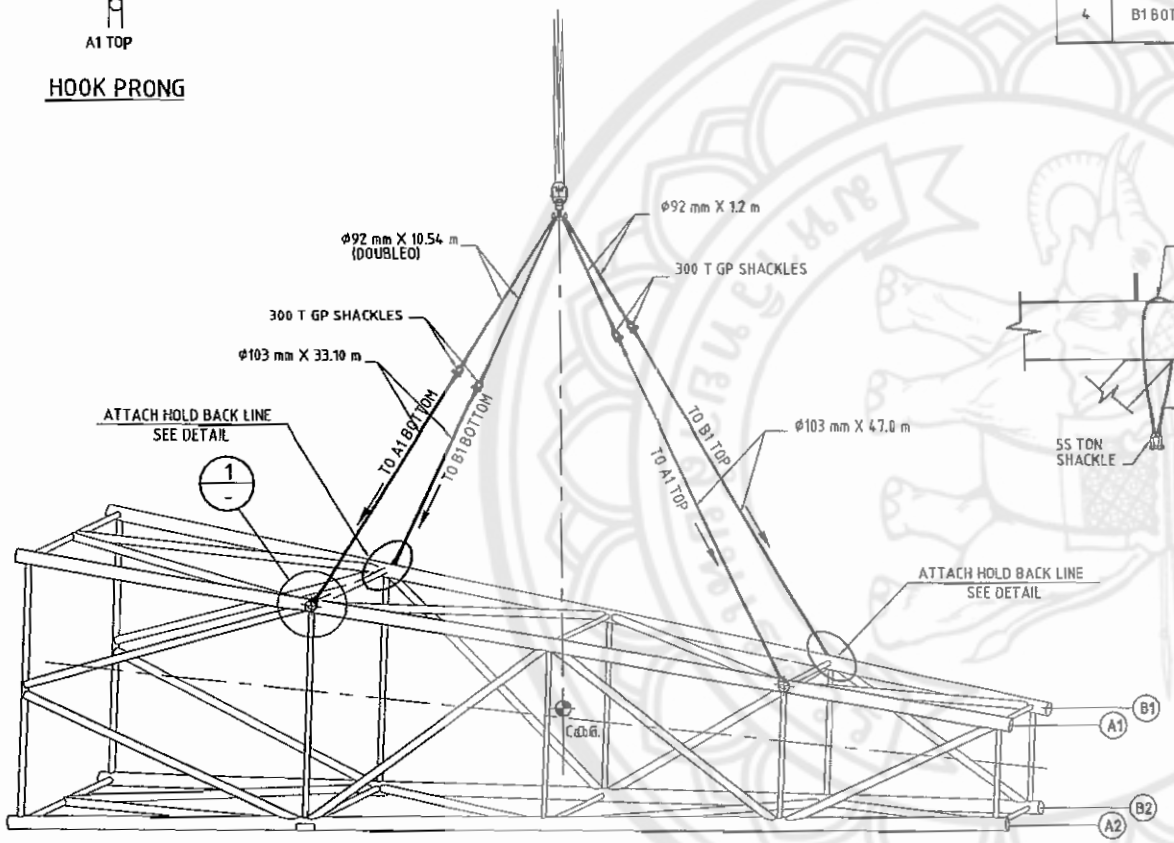
1. ALL WIRES/SHACKLES/FITTINGS TO BE CERTIFIED.
2. SLING FERRULES TO BE STAMPED WITH CERTIFICATE No. SLING SIZE & LENGTH.
3. ORIGINAL OF ALL MATERIAL & RIGGING CERTIFICATES PLUS COPY TO BE PROVIDED.

RIGGING SCHEDULE

No	LIFT POINT	SLING ID	DIA. & LENGTH	CSBL (MT)	SHACKLE ID	SWL
1	A1 TOP	UCU2-0001-C-96	ϕ92 mm X 1.2 m	506.7	UCU2-0001-C-16	300 MT
		UCU2-0001-C-47	ϕ103 mm X 47.0 m	978		300 MT
2	B1 TOP	UCU2-0001-C-97	ϕ92 mm X 1.2 m	506.7	UCU2-0001-C-17	300 MT
		UCU2-0001-C-49	ϕ103 mm X 47.0 m	978		300 MT
3	A1 BOTTOM	UCU2-0001-C-55	ϕ103 mm X 33.10 m	632	UCU2-0001-C-20	300 MT
		UCU2-0001-C-73 (DOUBLED)	ϕ92 mm X 10.54 m	632		300 MT
4	B1 BOTTOM	UCU2-0001-C-56	ϕ103 mm X 33.10 m	632	UCU2-0001-C-21	300 MT
		UCU2-0001-C-74 (DOUBLED)	ϕ92 mm X 10.54 m	632		300 MT

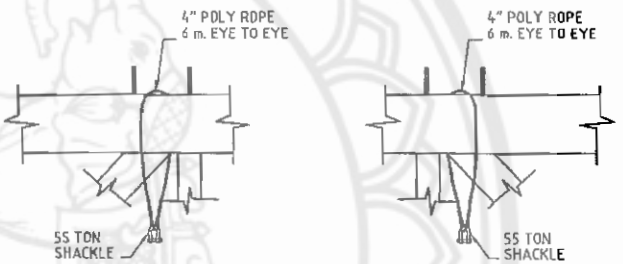


HOOK PRONG

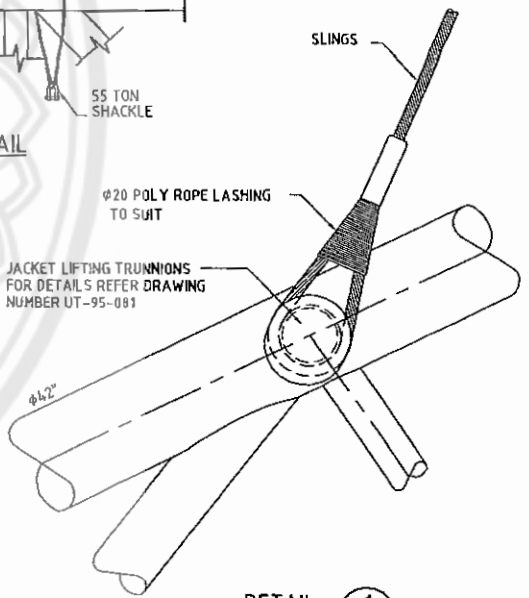


PMWI (28/6) - WATER DEPTH 236' - 6 5/8"

JACKET HORIZONTAL LIFT RIGGING ARRANGEMENT



HOLD BACK LINE DETAIL



DETAIL 1
NTS

SIMILAR 4 POSITIONS

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36-INS-PF-SK-205.dwg, Feb 24, 2006 - 1:07pm

DRAWING No.	REFERENCE DRAWINGS	No.	DATE	REVISION	DRAWN	CHK'D	ENG	No.	DATE	REVISION	DRAWN	CHK'D	ENG
		B	02/11/16	ISSUED FOR CONSTRUCTION	AKS	UDS	UDS						
		A	19/12/15	ISSUED FOR APPROVAL	AKS	UDS	UDS						

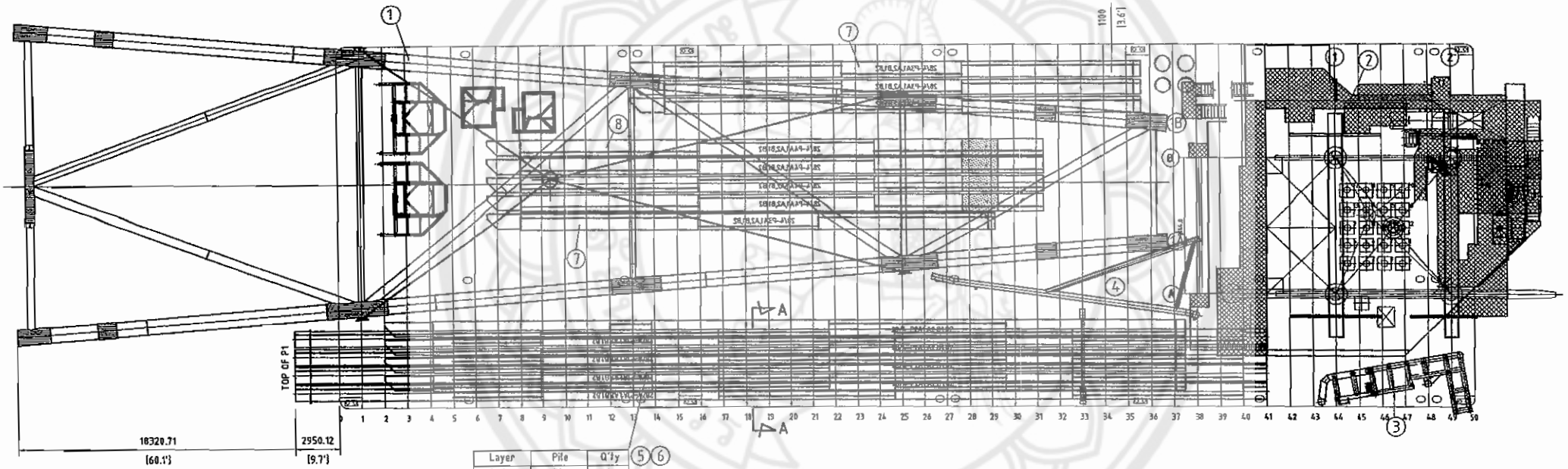
CUEL

JACKET INSTALLATION
PHASE 28/6 JACKET
LIFT RIGGING SCHEMATIC

PHASE 28
PLATFORM 28/6
SCALE NTS
UTL286-INS-PF-SK-205
REV. A

ructure Loadout Weight

Item	Description	Dimen. (m)	Q'ty	Weight (MT)	Note
1	Jacket	-	1	368.9	-
2	Deck	-	1		-
	Upper	-	1		-
	Cellar	-	1	403.1	-
	Below cellar	-	1		-
	Access platform	-	1		-
3	Boat landing	-	1	19.5	-
4	Flare boom	-	1	10.7	-
5	Pile P1	ø36"x65.38	4	139.1516	-
6	Pile P2	ø36"x50.8	4	167.420	-
7	Pipe P3	ø36"x32.1	4	105.9048	-
8	Pipe P4	ø36"x33.7	4	111.1248	-
			Total	1325.8	



Layer	Pile	Q'ty
2nd	P1	4
1st	P2	4
	Total	8

Section A-A

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No.	DATE	REVISION	DRAWN	CHK'D	ENG

CUEL

28/6 JACKET, DECK, ETC. LAYOUT ARRANGEMENT ON MARITIME MIGHT

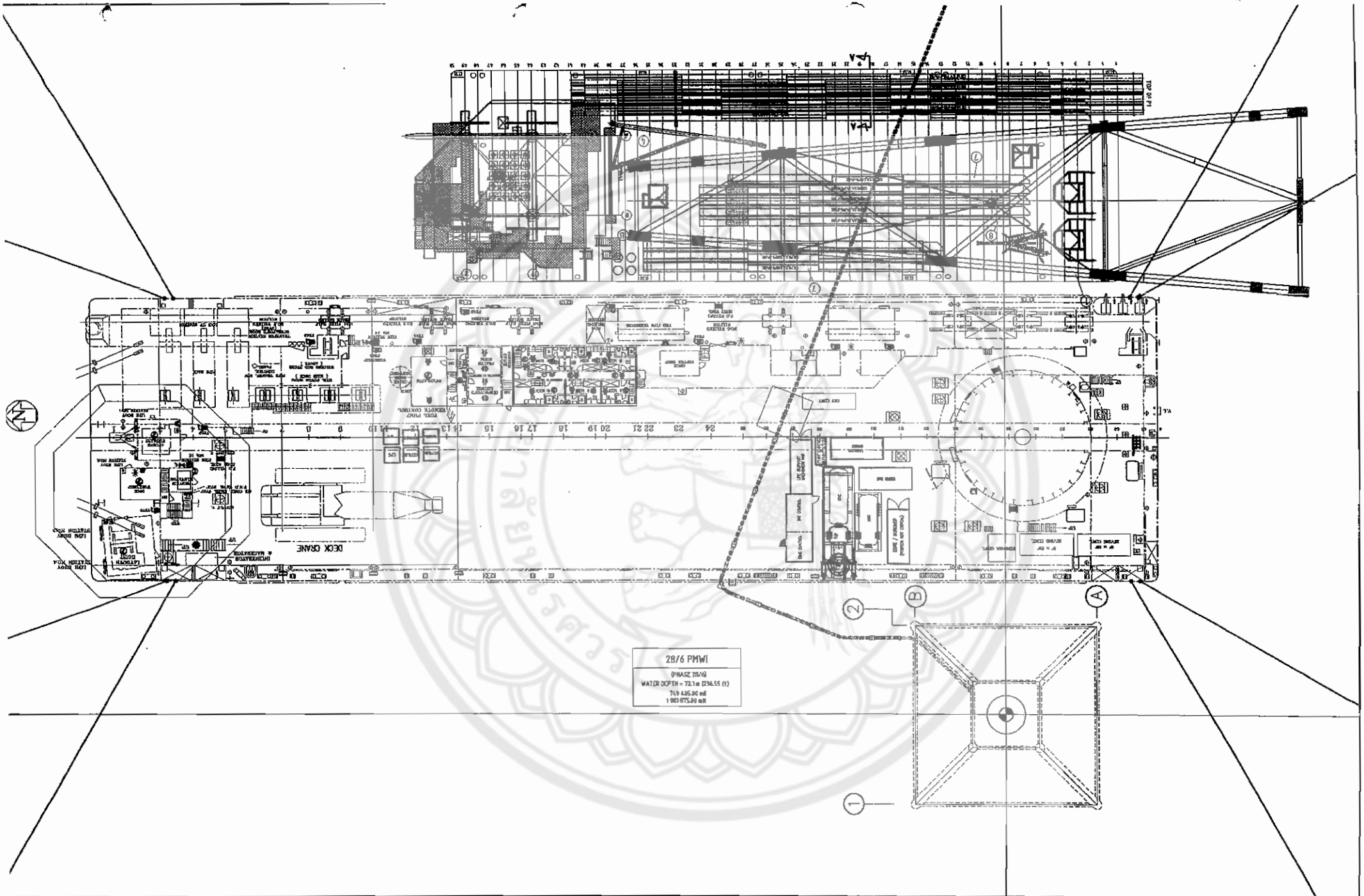
PHASE 28

PLATFORM 28/6

SCALE NTS

UTL286-INS-PF-SK-201

REV. A



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A	19/12/05	ISSUED FOR APPROVAL	AHS	UDS	UDS						

CUEL

DB26 SETUP FOR JACKET AND PILES INSTALLATION

PHASE 28

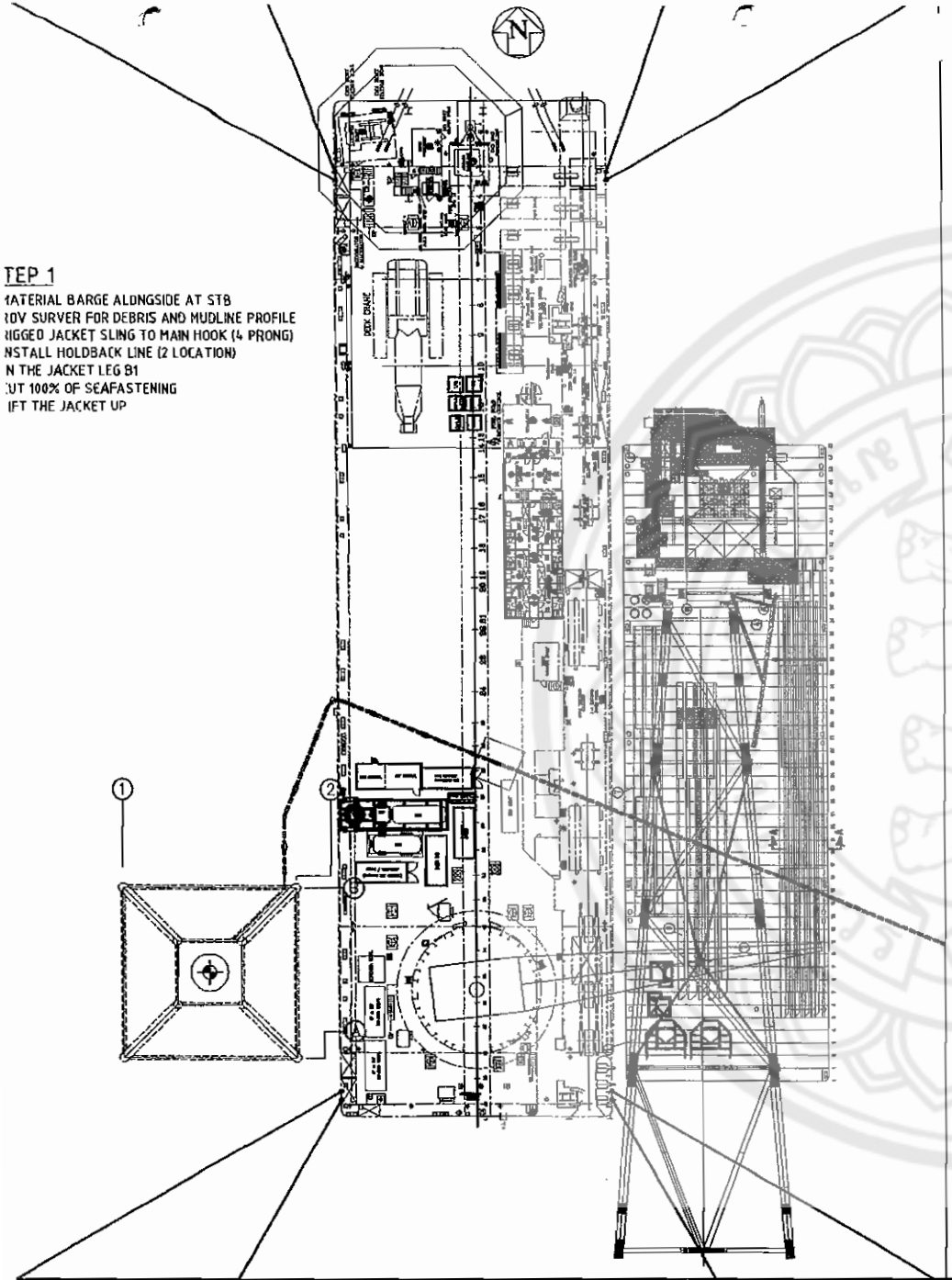
PLATFORM 28/6

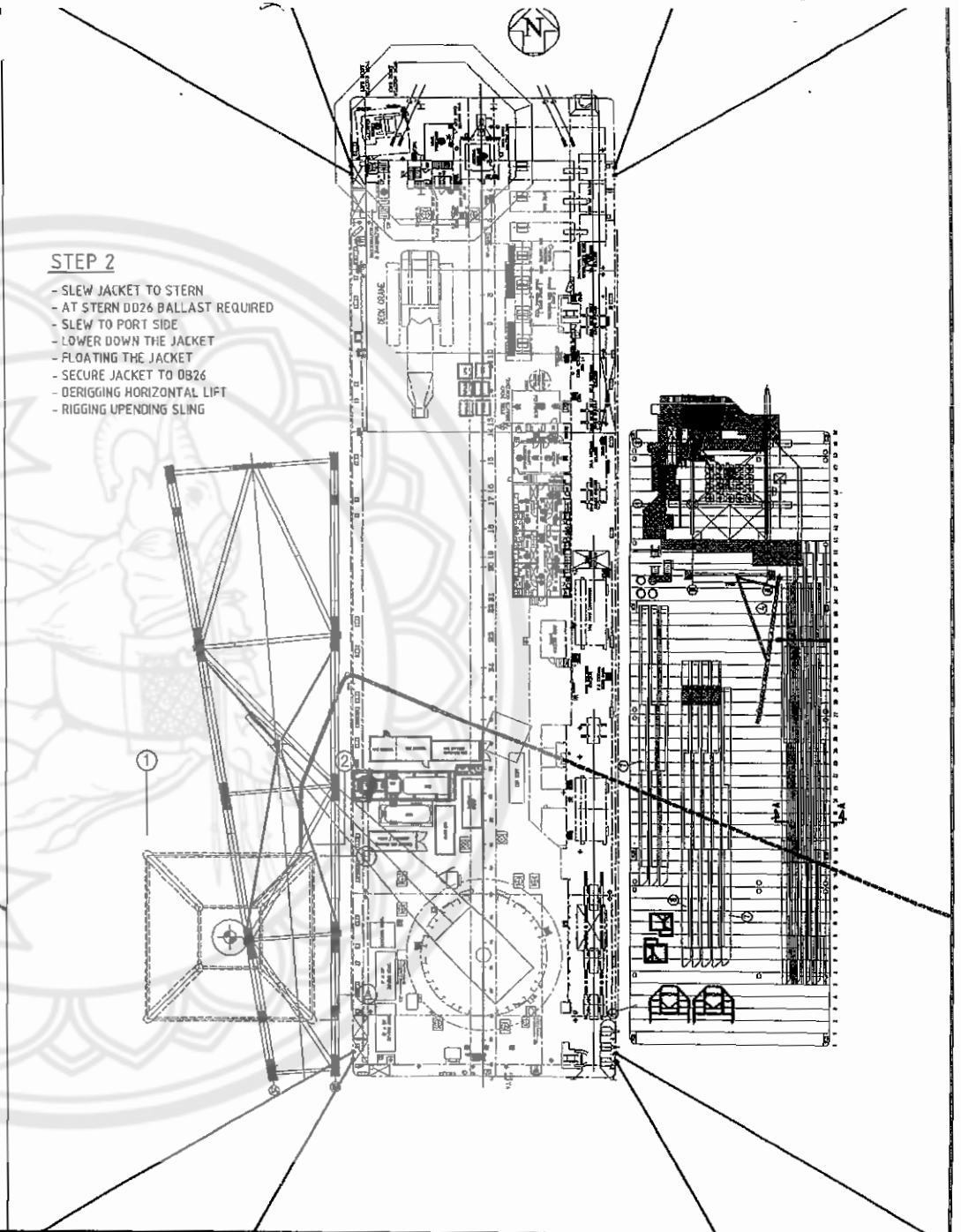
SCALE NTS

UTL286-INS-PF-SK-204

REV. A

T:\Installation\Phase 28\2806\PF\UTL286-INS-PF-SK-204.dwg, Jan 17, 2006 - 2:06pm





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CUEL

JACKET HORIZONTAL LIFTING SEQUENCE

PHASE 28

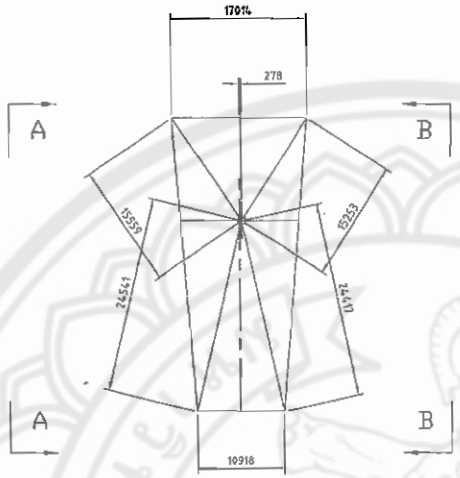
PLATFORM 28/6

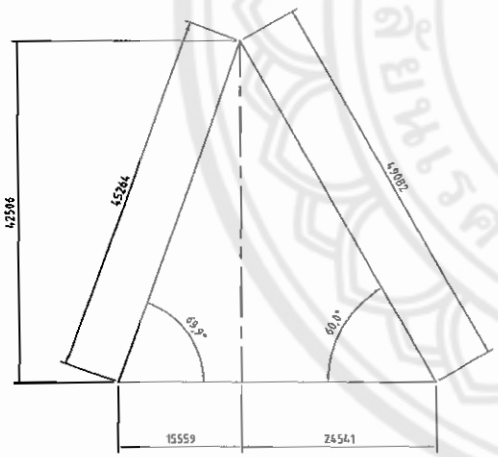
SCALE NTS

UTL286-INS-PF-SK-207

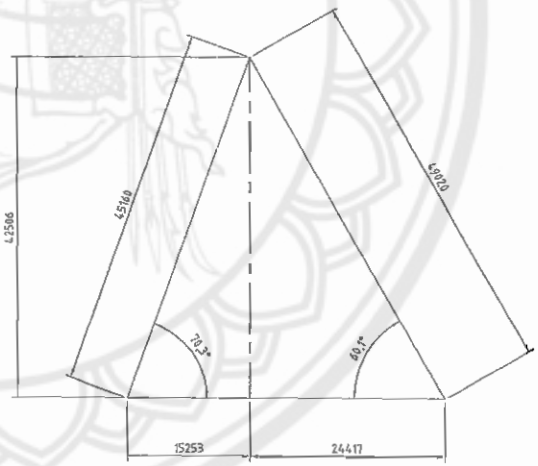
REV. A

stallation\Phase 28\2806\PF\UTL286-INS-PF-SK-207.dwg, Jan 13, 2016 - 2:46pm





SECTION "A"



SECTION "B"

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		A	15/11/24	ISSUED FOR APPROVAL	PRY	UDS	UDS						

CUEL

HORIZONTAL JACKET LIFT

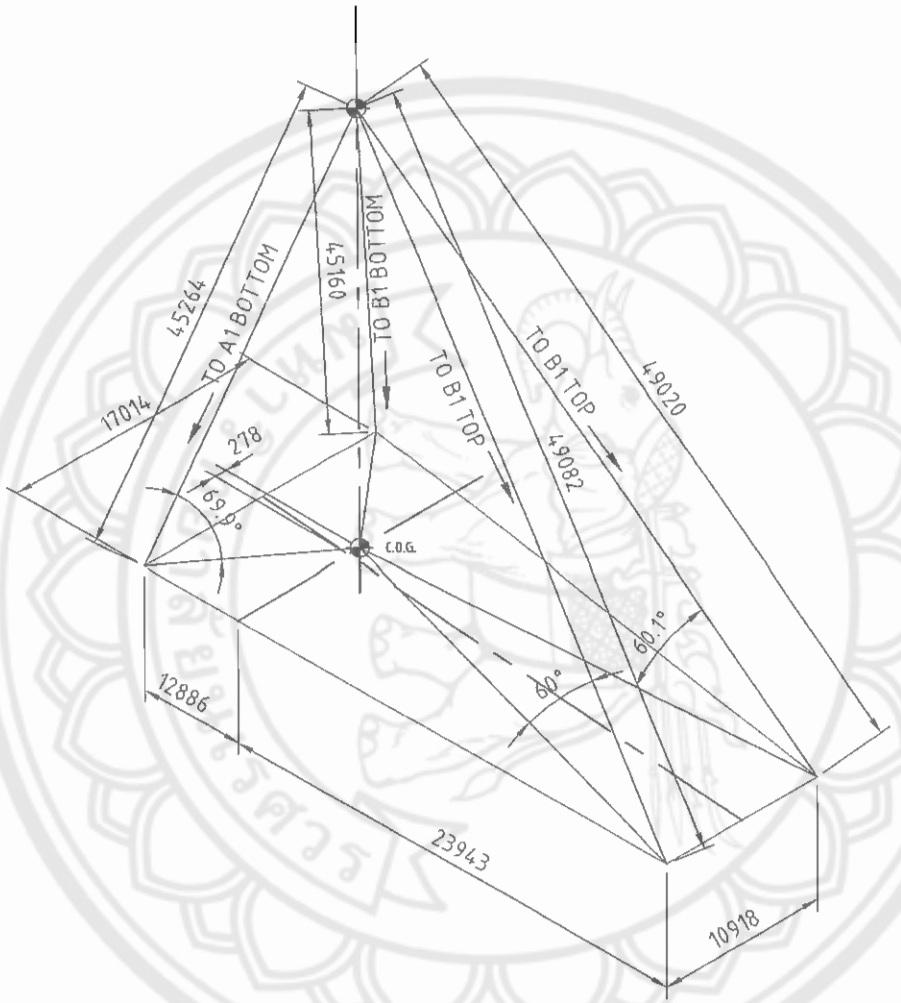
PHASE -

PLATFORM -

SCALE AS NOTED

CUE-INS-PL-SK-001

REV. A



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A	15/01/16	ISSUED FOR APPROVAL	AHS	UDS	UDS						

CUEL

HORIZONTAL JACKET LIFT

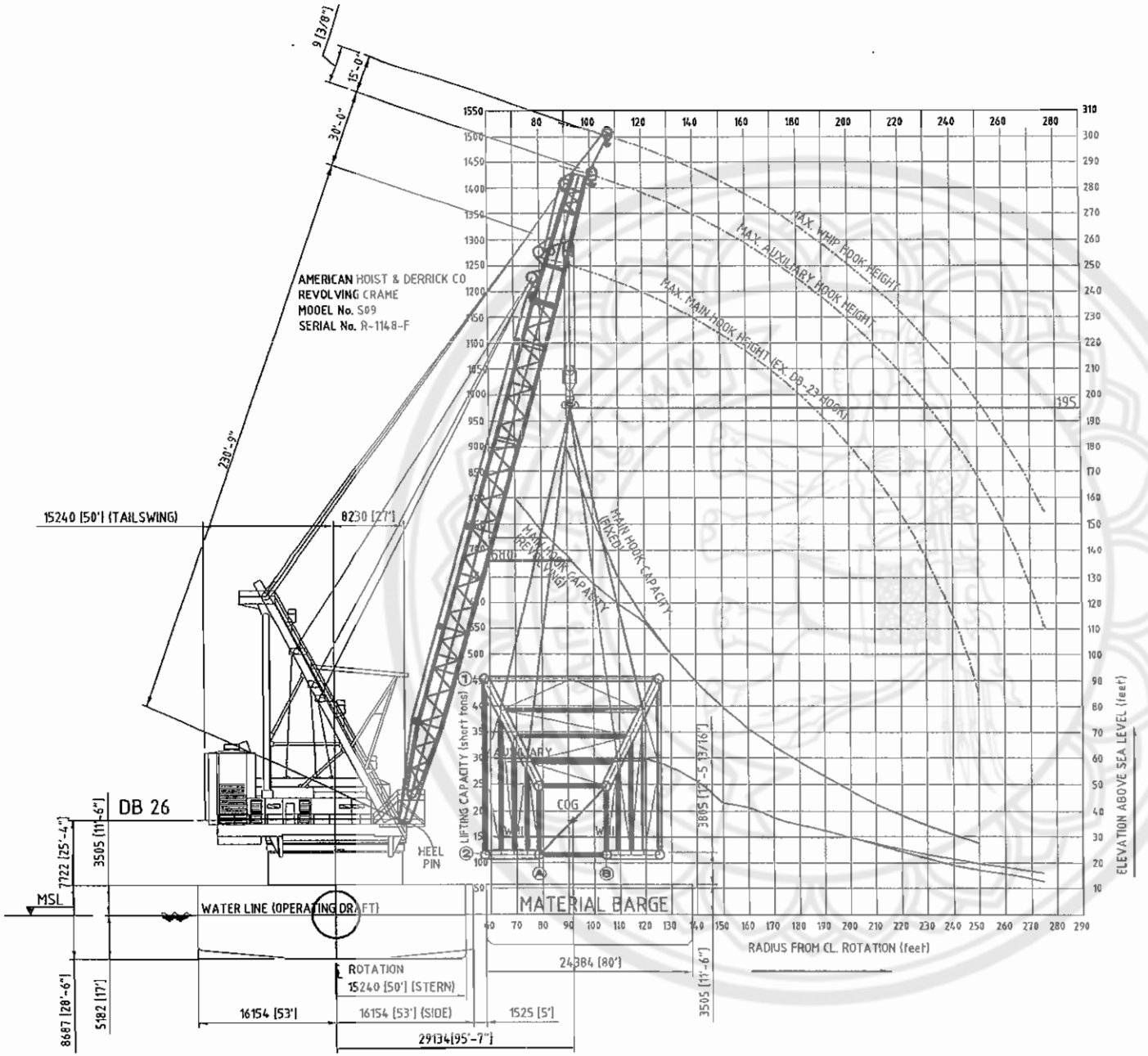
PHASE -

PLATFORM -

SCALE AS NOTED

CUE-INS-PL-SK-002

REV. A



McDERMOTT DERRICK BARGE 26

LIFT RADIUS : 95'-7"
LIFT CAPACITY : 660 ST (REVOLVING)
LIFT WEIGHT : 467.87 ST (INCLUDING RIGGING AND 10% DAF)
HOOK HEIGHT : 195'

NOTES :

1) MAIN FIXED CAPACITY :
LIFT WITH BOOM DIRECTLY OVER BARGE STERN. 1 ° MAXIMUN CROSS ANGLE OF LOAD TO PLANE OF BOOM. LIMITED SWING FOR LOAD SPOTTING.

2) MAIN FULL REVOLVING CAPACITY:
BARGE ROLL DUE TO SEAS LIMITED TO 2 ° SINGLE APLITUDE.

3) LIFTS AT OR NEAR CAPACITY (i.e 95 %) SHOULD BE CHECKED BY ENGINEERING.

4) MAIN HOOK HEIGHT SHOWN 6 FT BELOW ORIGINAL HEIGHT DUE TO INSTALLATION OF EX DB-23 HOOK.

5) ANY LIFTS TO BE PERFORMED BEYOND THE LIMITS OF THE CAPACITY CURVE ARE TO BE GIVEN SPECIFIC CRANE MANUFACTURE APPROVAL.

PHASE 28/6 JACKET TOTAL LIFT WEIGHT

1. JACKET WEIGHT = 368.93 MT
2. RIGGING WEIGHT = 17.74 MT
3. 10% DAF = 38.67 MT

TOTAL WEIGHT = 425.34 MT
= 467.87 ST

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A	19/12/15	ISSUED FOR APPROVAL	AKS	UCL	UCL						

CUEL

DB-26 LIFT CHART
FOR
JACKET INSTALLATION

PHASE 28
PLATFORM 28/6
SCALE NTS
UTL286-INS-PF-SK-203
REV. A

X:\UTL\InsPallaFlen\Phase 28\2806\PF\UTL286-INS-PF-SK-203.dwg, Jan 16, 2006 - 5:13pm

CUEL

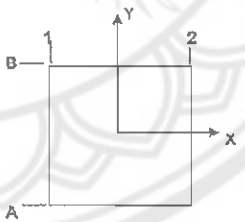
WEIGHT CONTROL REPORT - PHASE 28/6 JACKET, 236'- 6"5/8 WD

PROJECT: PHA6E 28 WEIGHT CONTROL REPORT
BY: VborrasakN — CHECKED: Y.W. CHI
REVISION: 0
DATE: 10 May 05

DWG. NO.	DESCRIPTION	WT. TOT. kg	Distance X	Distance Y	Distance Z	Moment Wx	Moment Wy	Moment Wz	REMARKS
28/6 -FAB- 95- 005-014,040,065	JACKET TUBULAR STEEL (INCLUDED CASING GUIDE,ANODE)	326,285.9	0.005	0.095	-37.629	1514.2	31047.2	-12277850.5	
28/6 -FAB- 95- 030-031	APPURTENANCES - BOATING LANDING PLANS & ELEVATIONS	15,780.3	-5.945	1.729	0.107	-93806.1	27277.7	1689.2	
28/6 -FAB- 95- 032	APPURTENANCES - BOATING LANDING PLANS & ELEVATIONS	1,814.4	-5.014	0.000	-0.018	-9094.3	0.0	-31.3	
28/6 -FAB- 95- 033	APPURTENANCES - STAIR DETAILS ST1	360.9	-5.521	-0.259	2.798	-1992.5	-93.6	1009.8	
28/6 -FAB- 95- 034-035	APPURTENANCES - BOAT LANDING HANDRAIL & GRATING DETAILS	1,782.0	-4.972	1.478	2.948	-8859.6	2633.9	5253.4	
28/6 -FAB- 95- 043	APPURTENANCES - COOLER PIPE (Included support)	-	-	-	-	-	-	-	
28/6 -FAB- 95- 045	APPURTENANCES - MUDMAT	15,893.6	0.000	0.000	-72.897	0.0	0.0	-1158587.2	
28/6 -FAB- 95- 050-052	APPURTENANCES - RISER SUPPORT	2,870.1	4.711	5.873	-26.296	13521.3	16855.0	-75470.7	
28/6 -FAB- 95- 055	APPURTENANCES - SERVICE WATER CAISSON	1,050.7	-2.133	-5.034	-5.698	-2241.1	-5289.2	-5986.6	
28/6 -FAB- 95- 056-057	APPURTENANCES - FLOODING SYSTEM	2,849.9	-0.217	-0.217	-22.933	-618.4	-618.4	-65071.8	
28/6 -FAB- 95- 061	APPURTENANCES - GRADING & HANDRAIL DETAILS EL(+)10'	-	-	-	-	-	-	-	
28/6 -FAB- 95- 081	INSTALLATION LIFTING TRUNION DETAILS	899.3	-6.861	0.000	-32.004	-6170.1	0.0	-28781.2	
28/6 -FAB- 95- 082	INSTALLATION UPENDING LIFTING PADEYES	1,095.2	0.000	0.000	3.310	0.0	0.0	3625.1	
28/6 -10"- G- JP1-1030	10" RISER PIPE	8,512.7	6.395	7.132	-33.536	54436.3	60711.9	-285478.3	
	CONTINGENCY 2.5%	9,474.9							
						-52310.0	132524.3	-13685679.9	
						X	Y	Z	
	TOTAL :	368,469.9				-0.139	0.341	-35.745	CENTER OF CHART DATUM
	(W/O BOAT LANDING) TOTAL :	368,932.3				0.164	0.278	-37.659	CENTER OF CHART DATUM

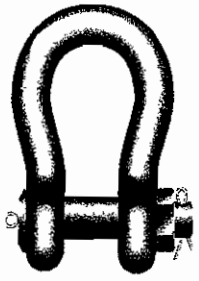
REMARKS:

1. The jacket tubular steel are including additional bracing.

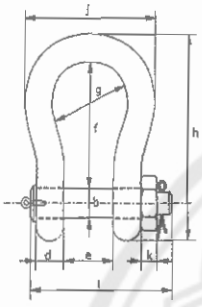


Green Pin® Heavy Duty Shackles

bow shackles with safety bolt



P-6036



- **Material** : bow and pin alloy steel, Grade 8 quenched and tempered
- **Safety Factor** : MBL equals 5 x WLL
- **Finish** : shackle bow painted silver, pin painted green (120 tons shackle is hot dipped galvanized)
- **Certificates** : at no extra charges this product can be supplied with a works certificate, certificate of basic raw material, manufacturer test certificate, EC Declaration of Conformity and all shackles starting from 150 tons are supplied with a Lloyd's Register of Shipping Certificate on proof load
- **Note** : +5% forging tolerance on inside width and length

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	length bolt	width	thickness nut	weight each
	a	b	c	d	e	f	g	h	i	j	k	
tons	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
120	95	95	215	89	144	381	238	667	440	416	50	110
150	105	108	245	100	165	400	275	702	490	485	60	160
200	120	130	288	110	175	500	290	854	520	530	60	235
250	130	140	308	115	200	540	305	921	560	565	65	285
300	140	150	335	120	200	600	305	1018	575	585	70	340
400	170	175	387	160	225	650	325	1137	690	665	70	560
500	180	185	410	160	250	700	350	1213	710	710	70	685
600	200	205	458	185	275	700	375	1267	810	775	70	880
700	210	215	468	200	300	700	400	1287	850	820	70	980
800	210	220	478	200	300	700	400	1294	870	820	70	1100
900	220	230	500	210	320	700	420	1320	920	860	70	1280
1000	240	240	530	210	340	700	420	1360	940	900	70	1460
1250	260	270	600	225	360	700	450	1430	1020	970	70	1990
1500	280	290	640	225	360	700	450	1480	1060	1010	70	2400

In inch

working load limit	diameter bow	diameter pin	diameter eye	width eye	width inside	length inside	width bow	length	length bolt	width	thickness nut	weight each
	a	b	c	d	e	f	g	h	i	j	k	
tons	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	inch	lbs
120	3 3/4	3 3/4	8 1/2	3 17/32	5 11/16	15	9 11/32	26 9/32	17 5/16	16 3/8	2	243
150	4	4 1/4	9 5/8	3 15/16	6 17/32	15 3/4	10 13/16	27 5/8	19 9/32	19 1/8	2 3/8	353
200	4 3/4	5 1/8	11 11/32	4 5/16	6 29/32	19 11/16	11 7/16	33 5/8	20 1/2	20 7/8	2 3/8	518
250	4 7/8	5 1/2	12 1/8	4 17/32	7 7/8	21 9/32	12	36 9/32	22	22 1/4	2 9/16	628
300	5 5/16	5 7/8	13 3/16	4 23/32	7 7/8	23 5/8	12	40	22 5/8	23	2 3/4	750
400	6 1/2	6 7/8	15 1/4	6 5/16	8 7/8	25 19/32	12 25/32	44 3/4	27 5/32	26 1/4	2 3/4	1235
500	6 7/8	7 1/4	16 5/32	6 5/16	9 13/16	27 1/2	13 25/32	47 3/4	28	28	2 3/4	1510
600	7 5/8	8 1/16	18	7 9/32	10 13/16	27 1/2	14 3/4	49 7/8	31 7/8	30 1/2	2 3/4	1940
700	8 1/16	8 1/2	18 7/16	7 7/8	11 13/16	27 1/2	15 3/4	50 11/16	33 1/2	32 3/8	2 3/4	2161
800	8 1/4	8 5/8	18 13/16	7 7/8	11 13/16	27 1/2	15 3/4	51	34 1/4	32 3/8	2 3/4	2425
900	8 5/8	9 1/16	19 11/16	8 9/32	12 19/32	27 1/2	16 9/16	52	36 1/4	33 7/8	2 3/4	2822
1000	9 1/16	9 7/16	20 7/8	8 9/32	13 3/8	27 1/2	16 9/16	53 9/16	37	35 1/2	2 3/4	3219
1250	10 1/4	10 5/8	23 5/8	8 7/8	14 5/32	27 1/2	17 23/32	56 5/16	40 1/4	38 1/4	2 3/4	4387
1500	11	11 7/16	25 3/16	8 7/8	14 5/32	27 1/2	17 23/32	58 5/16	41 3/4	39 3/4	2 3/4	5291

Dynamic load. = 212.5 Tonne

RIGGING REGISTER AND INSPECTION SCHEDULE

No.	Description of Slings	Specific For..... Projects	Job	Date of Purchase	Certification Number	ID Number Proj. No.	Visual Inspection Performed 1st	Date	2nd	Date	3rd	Date	4th	Date	Conducted By	Comments	Used for Project on first mob 1	2	3
		UCU Phases	Platform / 240' Jacket lift				☐ A		☐ B		☐ C		☐ D						
1	1 x 92mm Dia. X 40.3m long Sling c/w SE/BE (SWL 186 T)	22	190' Jacket lift Overboarding	14/6/2001	01-SG 110679-1	UCU2-0001-C- 57	☑ A	16/03/04	☐ B		☐ C		☐ D				~~29/3~~	29/3	
2	1 x 92mm Dia. X 40.3m long Sling c/w SE/BE (SWL 186 T)	22	190' Jacket lift Overboarding	14/6/2001	01-SG 110679-1	UCU2-0001-C- 58	☑ A	16/03/04	☐ B		☐ C		☐ D			A-1911	~~29/3~~	29/3	
	1 x 103mm Dia. X 33.7m long Sling c/w SE/BE (SWL 238 T)	22	190' Jacket lift Overboarding	14/6/2001	01-SG 110679-1	UCU2-0001-C-55	☑ A	16/03/04	☐ B		☐ C		☐ D				~~29/3~~	29/3	
4	1 x 103mm Dia. X 33.7m long Sling c/w SE/BE (SWL 238 T)	22	190' Jacket lift Overboarding	14/6/2001	01-SG 110679-1	UCU2-0001-C-56	☑ A	16/03/04	☐ B		☐ C		☐ D				~~29/3~~	29/3	
5	1 x 92mm Dia. X 30.4m long Sling c/w SE/BE (SWL 186 T)	22	240'Jacket lift Overboarding	14/6/2001	01-SG 110679-1	UCU2-0001-C- 51	☑ A	19/05/04	☐ B		☐ C		☐ D						29/3
6	1 x 92mm Dia. X 30.4m long Sling c/w SE/BE (SWL 186 T)	22	240'Jacket lift Overboarding	14/6/2001	01-SG 110679-1	UCU2-0001-C- 52	☑ A	19/05/04	☐ B		☐ C		☐ D						29/3
7	1 x 92mm Dia. X 30.4m long Sling c/w SE/BE (SWL 186 T)	22	240'Jacket lift Overboarding	14/6/2001	01-SG 110679-1	UCU2-0001-C- 53	☐ A		☐ B		☐ C		☐ D						
8	1 x 92mm Dia. X 30.4m long Sling c/w SE/BE (SWL 186 T)	22	240'Jacket lift Overboarding	14/6/2001	01-SG 110679-1	UCU2-0001-C- 54	☐ A		☐ B		☐ C		☐ D						
9	1 x 103mm Dia. X 47m long Sling c/w SE/BE (SWL 238 T)	22	240'Jacket lift Overboarding	14/6/2001	01-SG 110679-1	UCU2-0001-C-47	☑ A	19/05/04	☐ B		☐ C		☐ D				29/2 ~~28/6~~	M15	
10	1 x 103mm Dia. X 47m long Sling c/w SE/BE (SWL 238 T)	22	240'Jacket lift Overboarding	14/6/2001	01-SG 110679-1	UCU2-0001-C-48	☐ A		☐ B		☐ C		☐ D			A-1910	~~29/1~~	M15	
11	1 x 103mm Dia. X 47m long Sling c/w SE/BE (SWL 238 T)	22	240'Jacket lift Overboarding	14/6/2001	01-SG 110679-1	UCU2-0001-C-49	☑ A	15/03/04	☐ B		☐ C		☐ D				~~29/1~~ ~~28/6~~		
12	1 x 103mm Dia. X 47m long Sling c/w SE/BE (SWL 238 T)	22	240'Jacket lift Overboarding	14/6/2001	01-SG 110679-1	UCU2-0001-C-50	☑ A	15/03/04	☐ B		☐ C		☐ D				29/1		
13	1 x 92mm Dia. X 15.2m long Sling c/w SE/BE (SWL 186 T)	22	Jacket Upending	14/6/2001	01-SG 110679-1	UCU2-0001-C-59	☑ A	15/03/04	☐ B		☐ C		☐ D				28/6	M15	29/3
14	1 x 92mm Dia. X 15.2m long Sling c/w SE/BE (SWL 186 T)	22	Jacket Upending	14/6/2001	01-SG 110679-1	UCU2-0001-C-60	☑ A	16/03/04	☐ B		☐ C		☐ D			A-1912	28/6	M15	29/3
15	1 x 92mm Dia. X 15.2m long Sling c/w SE/BE (SWL 186 T)	22	Jacket Upending	14/6/2001	01-SG 110679-1	UCU2-0001-C-61	☑ A	15/03/04	☐ B		☐ C		☐ D				28/6	M15	29/3
16	1 x 92mm Dia. X 15.2m long Sling c/w SE/BE (SWL 186 T)	22	Jacket Upending	14/6/2001	01-SG 110679-1	UCU2-0001-C-62	☑ A	15/03/04	☐ B		☐ C		☐ D				28/6	M15	29/3
17	1 x 92mm Dia. X 15.2m long Sling c/w SE/BE (SWL 186 T)	22	Jacket Upending	14/6/2001	01-SG 110679-1	UCU2-0001-C-63	☑ A	16/03/04	☐ B		☐ C		☐ D				29/1	29/3	
18	1 x 92mm Dia. X 15.2m long Sling c/w SE/BE (SWL 186 T)	22	Jacket Upending	14/6/2001	01-SG 110679-1	UCU2-0001-C-64	☑ A	16/03/04	☐ B		☐ C		☐ D				29/1	29/3	
19	1 x 92mm Dia. X 15.2m long Sling c/w SE/BE (SWL 186 T)	22	Jacket Upending	14/6/2001	01-SG 110679-1	UCU2-0001-C-65	☑ A	16/03/04	☐ B		☐ C		☐ D				29/1	29/3	
20	1 x 92mm Dia. X 15.2m long Sling c/w SE/BE (SWL 186 T)	22	Jacket Upending	14/6/2001	01-SG 110679-1	UCU2-0001-C-66	☑ A	15/03/04	☐ B		☐ C		☐ D				29/1	29/3	
21	1 x 92mm Dia. X 15.2m long Sling c/w SE/BE (SWL 186 T)	22	Jacket Upending	14/6/2001	01-SG 110679-1	UCU2-0001-C-67	☑ A	15/03/04	☐ B		☐ C		☐ D				29/2	29/4	
22	1 x 92mm Dia. X 15.2m long Sling c/w SE/BE (SWL 186 T)	22	Jacket Upending	14/6/2001	01-SG 110679-1	UCU2-0001-C-68	☑ A	15/03/04	☐ B		☐ C		☐ D				29/2	29/4	
23	1 x 92mm Dia. X 15.2m long Sling c/w SE/BE (SWL 186 T)	22	Jacket Upending	14/6/2001	01-SG 110679-1	UCU2-0001-C-69	☑ A	15/03/04	☐ B		☐ C		☐ D			Damaged can not used			
24	1 x 92mm Dia. X 15.2m long Sling c/w SE/BE (SWL 186 T)	22	Jacket Upending	14/6/2001	01-SG 110679-1	UCU2-0001-C-70	☑ A	15/03/04	☐ B		☐ C		☐ D				29/2	29/4	
25	1 x 92mm Dia. X 15.2m long Sling c/w SE/BE (SWL 101 T)	CH3	Jacket Upending	16/9/2005		CH3-4033-01-A	☐ A		☐ B		☐ C		☐ D				29/2	29/4	
26	1 x 92mm Dia. X 15.2m long Sling c/w SE/BE (SWL 101 T)	CH3	Jacket Upending	16/9/2005		CH3-4033-01-B	☐ A		☐ B		☐ C		☐ D						
	1 x 58mm Dia. X 10m long Sling c/w SE/BE (SWL 40 T)	22	Pile lift/ Upending	14/6/2001	01-SG 110679-2	UCU2-0001C-81	☐ A		☐ B		☐ C		☐ D						
	58mm Dia. X 10m long Sling c/w SE/BE (SWL 40 T)	22	Pile lift/ Upending	14/6/2001	01-SG 110679-2	UCU2-0001C-82	☐ A		☐ B		☐ C		☐ D						
29	1 x 92mm Dia. X 10.544m long Sling c/w SE/BE (SWL 186 T)	22	Lower Deck lifting	14/6/2001	01-SG 110679-1	UCU2-0001-C-73	☐ A		☐ B		☐ C		☐ D				28/6	M15	
30	1 x 92mm Dia. X 10.544m long Sling c/w SE/BE (SWL 186 T)	22	Lower Deck lifting	14/6/2001	01-SG 110679-1	UCU2-0001-C-74	☐ A		☐ B		☐ C		☐ D				28/6	M15	
31	1 x 92mm Dia. X 7.474m long Sling c/w SE/BE (SWL 186 T)	22	Lower Deck lifting	14/6/2001	01-SG 110679-1	UCU2-0001-C-71	☐ A		☐ B		☐ C		☐ D						
32	1 x 92mm Dia. X 8.178m long Sling c/w SE/BE (SWL 186 T)	22	Lower Deck lifting	14/6/2001	01-SG 110679-1	UCU2-0001-C-72	☐ A		☐ B		☐ C		☐ D						
33	1 x 92mm Dia. X 9.702m long Sling c/w SE/BE (SWL 186 T)	22	Lower Deck lifting	14/6/2001	01-SG 110679-1	UCU2-0001-C-75	☐ A		☐ B		☐ C		☐ D				29/1	29/4	
34	1 x 92mm Dia. X 9.702m long Sling c/w SE/BE (SWL 186 T)	22	Lower Deck lifting	14/6/2001	01-SG 110679-1	UCU2-0001-C-76	☑ A	19/05/04	☐ B		☐ C		☐ D				29/1	29/4	
35	1 x 70mm Dia. X 13.72m long Sling c/w SE/BE (SWL 110 T)	22	Upper Deck lifting	14/6/2001	01-SG 110679-2	UCU2-0001C-77	☐ A		☐ B		☐ C		☐ D			Use for split deck only			
36	1 x 70mm Dia. X 13.72m long Sling c/w SE/BE (SWL 110 T)	22	Upper Deck lifting	14/6/2001	01-SG 110679-2	UCU2-0001C-78	☐ A		☐ B		☐ C		☐ D			Use for split deck only			
37	1 x 70mm Dia. X 14.22m long Sling c/w SE/BE (SWL 110 T)	22	Upper Deck lifting	14/6/2001	01-SG 110679-2	UCU2-0001C-79	☑ A		☐ B		☐ C		☐ D			Use for split deck only			
38	1 x 70mm Dia. X 14.22m long Sling c/w SE/BE (SWL 110 T)	22	Upper Deck lifting	14/6/2001	01-SG 110679-2	UCU2-0001C-80	☐ A		☐ B		☐ C		☐ D			Use for split deck only			
39	1 x 92mm Dia. X 1.20m long Grommet (SWL 264 T)	22	Jacket Grommet	14/6/2001	01-SG 110679-3	UCU2-0001C-96-A	☑ A	15/03/04	☐ B		☐ C		☐ D				28/6	29/3	
40	1 x 92mm Dia. X 1.20m long Grommet (SWL 264 T)	22	Jacket Grommet	14/6/2001	01-SG 110679-3	UCU2-0001C-96-B	☑ A	15/03/04	☐ B		☐ C		☐ D						
41	1 x 92mm Dia. X 1.20m long Grommet (SWL 264 T)	22	Jacket Grommet	14/6/2001	01-SG 110679-3	UCU2-0001C-97-A	☑ A	15/03/04	☐ B		☐ C		☐ D				28/6	29/3	
42	1 x 92mm Dia. X 1.20m long Grommet (SWL 264 T)	22	Jacket Grommet	14/6/2001	01-SG 110679-3	UCU2-0001C-97-B	☑ A	15/03/04	☐ B		☐ C		☐ D			A-1913			
43	1 x 114mm Dia. X 1.20m long Grommet (SWL 191 T)	CH3	Jacket Grommet	20/5/2005	05-18223-SG	CH3-S4001-01-AB	☐ A		☐ B		☐ C		☐ D				29/1	M15	
44	1 x 114mm Dia. X 1.20m long Grommet (SWL 191 T)	CH3	Jacket Grommet	20/5/2005	05-18223-SG	CH3-S4001-02-AB	☐ A		☐ B		☐ C		☐ D				29/1	M15	
45	1 x 176mm Dia. X 33.5m long Sling c/w SE/BE (SWL T)	CH3	240'Jacket lift	20/5/2005	SG-1406596-83	CH3-S4000-01-A	☐ A		☐ B		☐ C		☐ D				29/1	M15	29/3
46	1 x 176mm Dia. X 33.5m long Sling c/w SE/BE (SWL T)	CH3	240'Jacket lift	21/5/2005	SG-1406596-84	CH3-S4000-01-B	☐ A		☐ B		☐ C		☐ D				29/1	M15	29/3
47	1 x 176mm Dia. X 34.299m long Sling c/w SE/BE (SWL241.5 T)	CH3	240'Jacket lift	21/5/2005	SG-1406596-85	CH3-S4000-02-A	☐ A		☐ B		☐ C		☐ D				~~29/6~~ ~~28/6~~	29/4	
48	1 x 176mm Dia. X 34.299m long Sling c/w SE/BE (SWL241.5 T)	CH3	240'Jacket lift	21/5/2005	SG-1406596-86	CH3-S4000-02-B	☐ A		☐ B		☐ C		☐ D				~~29/6~~ ~~28/6~~	29/4	
49	1 x 92mm Dia. X 40.9m long Sling c/w SE/BE (SWL 130 T)	24	240'Jacket lift	10/6/2003	03-SG 16858	UCU24-4560-01-A	☑ A	15/03/04	☐ B		☐ C		☐ D						
50	1 x 92mm Dia. X 40.9m long Sling c/w SE/BE (SWL 130 T)	24	240'Jacket lift	10/6/2003	03-SG 16858	UCU24-4560-01-B	☑ A	15/03/04	☐ B		☐ C		☐ D						
	90mm Dia. X 40.30m long Sling c/w SE/BE (SWL 131 T)	PL1	240'Jacket lift	23/11/2004	04-17809-SG	UCUPL1-4001-01-A	☐ A		☐ B		☐ C		☐ D						
52	1 x 90mm Dia. X 40.30m long Sling c/w SE/BE (SWL 131 T)	PL1	240'Jacket lift	23/11/2004	04-17809-SG	UCUPL1-4001-01-B	☐ A		☐ B		☐ C		☐ D						
53	1 x 103mm Dia. X 33.10m long Sling c/w SE/BE (SWL 318 T)	22	240'Jacket lift	3/7/2004	SG-1339790-01	UCU2-0001-A-1910	☐ A		☐ B		☐ C		☐ D				29/2 ~~28/6~~	29/4	
54	1 x 103mm Dia. X 33.10m long Sling c/w SE/BE (SWL 318 T)	22	240'Jacket lift	3/7/2004	SG-1339790-01	UCU2-0001-A-1911	☐ A		☐ B		☐ C		☐ D				29/2 ~~28/6~~	29/4	
55	1 x 103mm Dia. X 33.70m long Sling c/w SE/BE (SWL 144 T)	PL1	240'Jacket lift	23/11/2004	04-17809-SG	UCUPL1-4001-02-A	☐ A		☐ B		☐ C		☐ D						
56	1 x 103mm Dia. X 33.70m long Sling c/w SE/BE (SWL 144 T)	PL1	240'Jacket lift	23/11/2004	04-17809-SG	UCUPL1-4001-02-B	☐ A		☐ B		☐ C		☐ D						

RIGGING REGISTER AND INSPECTION SCHEDULE

	Description of Slings	Specific For.... Projects	Job	Date of Purchase	Certification Number	ID Number Proj. No	Visual Inspection Performed 1st	Date	2nd	Date	3rd	Date	4th	Date	Conducted By	Comments	Used for Project on first mob 1	2	3
	m Dia. X 39.77m long Sling c/w SE/BE (SWL 75 T)	27	240'Jacket lift			UCU27-4407-14	☐A		☐B		☐B		☐B						
	0mm Dia. X 39.77m long Sling c/w SE/BE (SWL 75 T)	27	240'Jacket lift			UCU27-4407-14													
	1xoffUsed Cable Laid Steel Wire Rope Sling C/W 10' SE/BE		Deck lifting		SG -1224369-57	6750-55-SEA-01	☐A		☐B		☐C		☐D						
	xoffUsed Cable Laid Steel Wire Rope Sling C/W 10' SE/BE		Deck lifting		SG -1224369-58	6750-55-SEA-02	☐A		☐B		☐C		☐D						
61	1xoffUsed Cable Laid Steel Wire Rope Sling C/W 10' SE/BE		Deck lifting		SG -1224369-59	6750-55-SEA-03	☐A		☐B		☐C		☐D						
62	1xoffUsed Cable Laid Steel Wire Rope Sling C/W 10' SE/BE		Deck lifting		SG -1224369-60	6750-55-SEA-04	☐A		☐B		☐C		☐D						
63	1x4" Dia x 15Ft long slings C/W SE/BE (SWL 220 T)	PL1	Deck lifting		05-17945/1-SG		☐A		☐B		☐C		☐D				M15	M 15	
64	1x4" Dia x 15Ft long slings C/W SE/BE (SWL 220 T)	PL1	Deck lifting		05-17945/1-SG		☐A		☐B		☐C		☐D				M15	M 15	
65	1x132mm Dia x 16.7m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 139 T)	26	Deck lifting			5200-55-FR-01	☐A		☐B		☐B		☐B				28/6 29/2		
66	1x132mm Dia x 16.7m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 139 T)	26	Deck lifting			5200-55-FR-02	☐A		☐B		☐C		☐D				28/6 29/2		
67	1x132mm Dia x 16.7m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 139 T)	26	Deck lifting			5200-55-FR-03	☐A		☐B		☐C		☐D						
68	1x132mm Dia x 16.7m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 139 T)	26	Deck lifting			5200-55-FR-04	☐A		☐B		☐C		☐D						
69	1x132mm Dia x 17.5m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 139 T)	26	Deck lifting			5200-57-FR-01	☐A		☐B		☐C		☐D						
70	1x132mm Dia x 17.5m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 139 T)	26	Deck lifting			5200-57-FR-02	☐A		☐B		☐C		☐D						
71	1x132mm Dia x 17.5m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 139 T)	26	Deck lifting			5200-57-FR-03	☐A		☐B		☐C		☐D						
72	1x132mm Dia x 17.5m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 139 T)	26	Deck lifting			5200-57-FR-04	☐A		☐B		☐C		☐D						
73	1x171mm Dia x 13.0m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 274.5 T)	PL1	Deck lifting			UCUPL1-4003-01-A	☐A		☐B		☐C		☐D						
74	1x171mm Dia x 13.0m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 274.5 T)	PL1	Deck lifting			UCUPL1-4003-01-B	☐A		☐B		☐C		☐D						
75	1x171mm Dia x 13.0m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 274.5 T)	PL1	Deck lifting			UCUPL1-4003-01-C	☐A		☐B		☐C		☐D						
76	1x171mm Dia x 13.0m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 274.5 T)	PL1	Deck lifting			UCUPL1-4003-01-D	☐A		☐B		☐C		☐D						
77	1x321mm Dia x 62.511m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 775.0 T)	PL2	Deck lifting			UCUUPL2-4422-01-A	☐A		☐B		☐C		☐D			Stay in Gaylin yard in Singapore			
78	1x321mm Dia x 62.511m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 775.0 T)	PL2	Deck lifting			UCUUPL2-4422-02-A	☐A		☐B		☐C		☐D			Stay in Gaylin yard in Singapore			
79	1x321mm Dia x 62.511m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 775.0 T)	PL2	Deck lifting			UCUUPL2-4422-03-A	☐A		☐B		☐C		☐D			Stay in Gaylin yard in Singapore			
80	1x321mm Dia x 62.511m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 775.0 T)	PL2	Deck lifting			UCUUPL2-4422-04-A	☐A		☐B		☐C		☐D			Stay in Gaylin yard in Singapore			
	x308mm Dia x 30.825m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 691 MT)	PL2	Deck lifting			UCUUPL2-4422-05-A	☐A		☐B		☐C		☐D						
82	1x176mm Dia x 16.7m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 244.6 T)	CH3	Deck lifting			CH3-4006-02-A	☐A		☐B		☐C		☐D				28/6	M15	29/5
83	1x176mm Dia x 16.7m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 244.6 T)	CH3	Deck lifting			CH3-4006-02-B	☐A		☐B		☐C		☐D				28/6		29/5
84	1x176mm Dia x 16.7m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 244.6 T)	CH3	Deck lifting			CH3-4006-02-C	☐A		☐B		☐C		☐D				29/1	29/3	
85	1x176mm Dia x 16.7m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 244.6 T)	CH3	Deck lifting			CH3-4006-02-D	☐A		☐B		☐C		☐D				29/1	29/3	
86	1x176mm Dia x 17.5m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 244.6 T)	CH3	Deck lifting			CH3-4006-01-A	☐A		☐B		☐C		☐D				28/6	M15	29/5
87	1x176mm Dia x 17.5m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 244.6 T)	CH3	Deck lifting			CH3-4006-01-B	☐A		☐B		☐C		☐D				28/6	M15	29/5
88	1x176mm Dia x 17.5m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 244.6 T)	CH3	Deck lifting			CH3-4006-01-C	☐A		☐B		☐C		☐D				29/1	29/3	
89	1x176mm Dia x 17.5m long Cable Laid Steel Wire Rope Sling C/W SE/BE (SWL 244.6 T)	CH3	Deck lifting			CH3-4006-01-D	☐A		☐B		☐C		☐D				29/1	29/3	
90	1x176mm Dia x 17.5m Gator Laid Sling (MBL 978 T)	C0005	Deck lifting	new		C0005-00161-01-A	☐A		☐B		☐C		☐D				29/2	29/4	
91	1x176mm Dia x 17.5m Gator Laid Sling (MBL 978 T)	C0005	Deck lifting	new		C0005-00161-01-B	☐A		☐B		☐C		☐D				29/2	29/4	
92	1x176mm Dia x 16.7m Gator Laid Sling (MBL 978 T)	C0005	Deck lifting	new		C0005-00161-02-A	☐A		☐B		☐C		☐D				29/2	29/4	
93	1x176mm Dia x 16.7m Gator Laid Sling (MBL 978 T)	C0005	Deck lifting	new		C0005-00161-02-B	☐A		☐B		☐C		☐D				29/2	29/4	
94	92mm Dia x 10.54m IWRC Galv'd EEIPS Both End Spliced (MBL 563 T)	UCU29	Jacket lift	new		UCU29-S4001-01-A	☐A		☐B		☐C		☐D				29/2		29/5
95	92mm Dia x 10.54m IWRC Galv'd EEIPS Both End Spliced (MBL 563 T)	UCU29	Jacket lift	new		UCU29-S4001-01-B	☐A		☐B		☐C		☐D				29/2		29/5
96	132mm Dia x 16.7m Gator Laid Sling (MBL 632 T)	C0005	Jacket lift	new		C0005-00161-03-A	☐A		☐B		☐C		☐D				28/6 29/2		
97	132mm Dia x 16.7m Gator Laid Sling (MBL 632 T)	C0005	Jacket lift	new		C0005-00161-03-B	☐A		☐B		☐C		☐D				28/6 29/2		
							☐A		☐B		☐C		☐D						

		Phase	Description	Cap	Qty	Company	Number	Serial	Idenficication	Note	Used for Project onfirst mob		
											Project 1	Project 2	Project 3
	ackle	23	130t Bolt Type Anchor Shackle	130	1	UCU	2	0001	C-26				
	nackle	23	130t Bolt Type Anchor Shackle	130	1	UCU	2	0001	C-27				
	Shackle	23	130t Bolt Type Anchor Shackle	130	1	UCU	2	0001	C-28				
4	Shackle	23	130t Bolt Type Anchor Shackle	130	1	UCU	2	0001	C-29				
5	Shackle	23	150t Green pin Safety Bow Shackle	150	1	UCU	2	0001	C-111	attached to hammaer			
6	Shackle	23	200t Green pin Safety Bow Shackle	200	1	UCU	2	0001	C-99		29/1	29/3	
7	Shackle	23	200t Green pin Safety Bow Shackle	200	1	UCU	2	0001	C-100		29/2	29/4	
8	Shackle	23	200t Green pin Safety Bow Shackle	200	1	UCU	2	0001	C-103		29/2	29/4	
9	Shackle	23	200t Green pin Safety Bow Shackle	200	1	UCU	2	0001	C-104		29/2	29/4	
10	Shackle	23	200t Green pin Safety Bow Shackle	200	1	UCU	2	0001	C-105		28/6	M15	29/5
11	Shackle	23	200t Green pin Safety Bow Shackle	200	1	UCU	2	0001	C-106		28/6	M15	29/5
12	Shackle	23	200t Green pin Safety Bow Shackle	200	1	UCU	2	0001	C-107		29/2	29/4	
13	Shackle	23	200t Green pin Safety Bow Shackle	200	1	UCU	2	0001	C-108				
14	Shackle	23	200t Green pin Safety Bow Shackle	200	1	UCU	2	0001	C-109		29/1	29/3	
15	Shackle	23	200t Green pin Safety Bow Shackle	200	1	UCU	2	0001	C-110		29/1	29/3	
16	Shackle	23	200t Green pin Safety Bow Shackle	200	1	UCU	2	0001	C-01				
17	Shackle	23	200t Green pin Safety Bow Shackle	200	1	UCU	2	0001	C-154		29/1	29/3	
18	Shackle	23	200t Green pin Safety Bow Shackle	200	1	UCU	2	0001	C-155				
19	Shackle	23	200t Green pin Safety Bow Shackle	200	1	UCU	2	0001	C-156				
20	Shackle	23	200t Green pin Safety Bow Shackle	200	1	UCU	2	0001	C-157				
21	Shackle	22	200t Green pin Safety Bow Shackle	200	1	HV			010342				
22	Shackle	22	200t Green pin Safety Bow Shackle	200	1	HV			010344		28/6	M15	29/5
23	Shackle	26	200t Green pin Safety Bow Shackle	200	1	GP		200	001				
24	Shackle	26	200t Green pin Safety Bow Shackle	200	1	GP		200	002				
25	Shackle	26	200t Green pin Safety Bow Shackle	200	1	GP		200	003				
26	Shackle	26	200t Green pin Safety Bow Shackle	200	1	GP		200	004		28/6	M15	29/5
27	Shackle	23	250t Crosby G2140 Shackle	250	1	UCU	2	0001	C-02		28/6	M15	29/5
28	Shackle	23	250t Crosby G2140 Shackle	250	1	UCU	2	0001	C-03		28/6	M15	29/5
29	Shackle	23	250t Crosby G2140 Shackle	250	1	UCU	2	0001	C-04		28/6	M15	29/5
30	Shackle	23	250t Crosby G2140 Shackle	250	1	UCU	2	0001	C-05		28/6	M15	29/5
31	Shackle	23	250t Crosby G2140 Shackle	250	1	UCU	2	0001	C-06		29/1	29/3	
32	Shackle	23	250t Crosby G2140 Shackle	250	1	UCU	2	0001	C-07		29/1	29/3	
33	Shackle	28	250t Crosby G2140 Shackle	250	1	C0005		00019	A-01		29/1	29/3	
34	Shackle	28	250t Crosby G2140 Shackle	250	1	C0005		00019	A-02		29/1	29/3	
35	Shackle	23	250t Green pin Safety Bow Shackle	250	1	UCU	2	0001	C-08				
36	Shackle	23	300t Green pin Shackle	300	1	UCU	2	0001	C-15		28/6	M15	
37	Shackle	23	300t Green pin Shackle	300	1	UCU	2	0001	C-16		28/6	M15	
38	Shackle	23	300t Green pin Shackle	300	1	UCU	2	0001	C-17		28/6	M15	
39	Shackle	23	300t Green pin Shackle	300	1	UCU	2	0001	C-18		28/6	M15	
40	Shackle	23	300t Green pin Shackle	300	1	UCU	2	0001	C-19		29/1	29/4	
41	Shackle	23	300t Green pin Shackle	300	1	UCU	2	0001	C-20		29/1	29/4	
42	Shackle	23	300t Green pin Shackle	300	1	UCU	2	0001	C-21		29/1	29/3	
43	Shackle	23	300t Green pin Shackle	300	1	UCU	2	0001	C-22		29/1	29/4	
44	Shackle	23	300t Green pin Shackle	300	1	UCU	2	0001	C-23		29/1	29/3	
45	Shackle	23	300t Green pin Shackle	300	1	UCU	2	0001	C-24		29/1	29/4	
46	Shackle	23	300t Green pin Shackle	300	1	UCU	2	0001	C-25		28/6	M15	29/5
47	Shackle	TNS	300t Green pin Shackle	300	1	GP		300	16		29/2		29/5
48	Shackle	TNS	300t Green pin Shackle	300	1	GP		300	25		29/2		29/5
49	Shackle	TNS	300t Green pin Shackle	300	1	GP		300	26		29/2		29/5
50	Shackle	TNS	300t Green pin Shackle	300	1	GP		300	27		29/2		29/5
51	Shackle	TNS	300t Green pin Shackle	300	1	GP		300	29		29/1	29/3	
52	Shackle	TNS	300t Green pin Shackle	300	1	GP		300	30		~~29/1~~ 28/6		
54	Shackle	TNS	300t Green pin Shackle	300	1	GP		300	32		29/1	29/3	
55	Shackle	TNS	300t Shackle	300	1	MCK		300	06				
56	Shackle	TNS	300t Shackle	300	1	MCK		300	09				
57	Shackle	TNS	300t Shackle	300	1	MCK		300	12				
58	Shackle	TNS	300t Shackle	300	1	MCK		300	13				
59	Shackle	29	300t Crosby G2140 Shackle	300	1	C0005	00161	05	A	new	29/2	29/4	
60	Shackle	29	300t Crosby G2140 Shackle	300	1	C0005	00161	05	B	new	29/2	29/4	
61	Shackle	29	250t Crosby G2140 Shackle	250	1	C0005	00161	04	C-02	new	29/2	29/4	
62	Shackle	29	250t Crosby G2140 Shackle	250	1	C0005	00161	04	C-03	new	29/2	29/4	
63	Shackle	29	250t Crosby G2140 Shackle	250	1	C0005	00161	04	C-04	new	29/2	29/4	
4	Shackle	29	250t Crosby G2140 Shackle	250	1	C0005	00161	04	C-05	new	29/2	29/4	
65	Shackle		300t Green pin Shackle	300	1	GP		300	BTM (1)			M15	~~SP250~~ BTM 29/5
66	Shackle		300t Green pin Shackle	300	1	GP		300	BTM (2)		~~28/6~~	29/5	
67	Shackle		300t Green pin Shackle	300	1	GP		300	BTM (3)			~~M15~~ 29/5	
68	Shackle		300t Green pin Shackle	300	1	GP		300	BTM (4)			~~M15~~ 29/4	
69	Shackle		300t Green pin Shackle	300	1	GP		300	BTM (5)			~~M15~~ 29/4	
70	Shackle		300t Green pin Shackle	300	1	GP		300	BTM (6)			~~M15~~	
71	Shackle		250t Crosby G2140 Shackle	250	1	GP		250	BTM (1)			M15	

ภาคผนวก ค

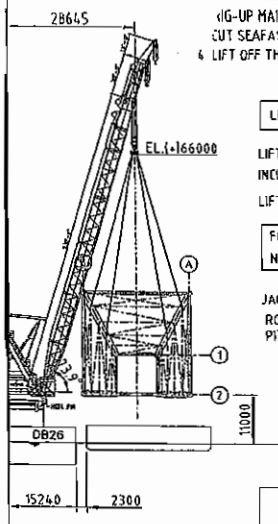
Installation Procedure Drawing

ภาพการติดตั้งขาเท่นขุดเจาะ (Horizontal jacket lift)

ณ สถานที่จริง วันที่ 29 มกราคม 2549

STEP 1

ST-UP MATERIAL BARGE AT THE STERN OF DB26.
IG-UP MAIN RIGGING ON MAIN BLOCK
CUT SEAFASTENING
& LIFT OFF THE JACKET FROM MATERIAL BARGE.

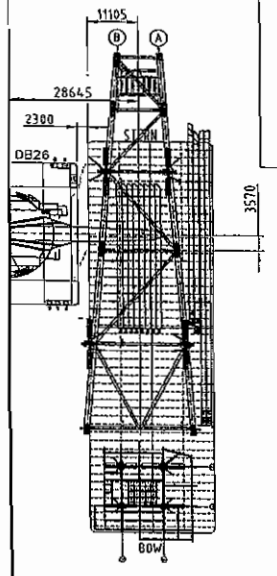


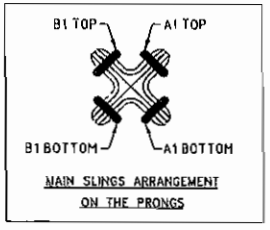
LIFT RADIUS = 28.645 M

LIFT WEIGHT IN AIR
INCLUDING RIGGING = 575 MT
LIFT CAPACITY = 766 MT

FOR LIFT CHART REF DWG
NO. 02584-PR-OF-9305

JACKET ORIENTATION.
ROLL = 0.1 DEG
PITCH = -5.8 DEG

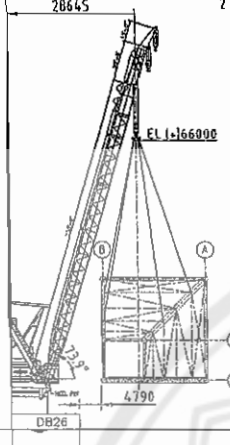




MAIN SLINGS ARRANGEMENT
ON THE PRONGS

STEP 2

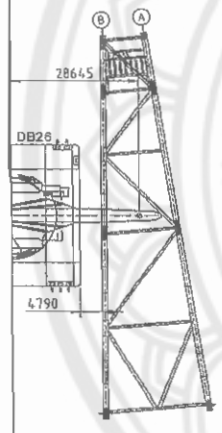
1. TOW AWAY MATERIAL BARGE.
2. ROTATE THE JACKET IN AIR TO MAKE R' PARALLEL TO DB26 STERN FOR ADEQUATE CLL.



LIFT RADIUS = 28.645 M

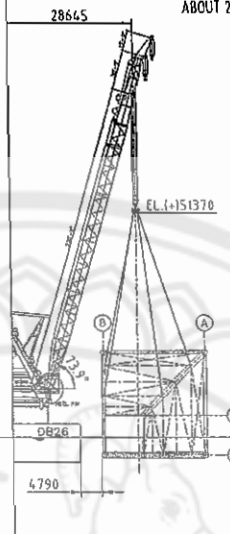
HOOK LOAD.
MAIN HOOK = 575 MT
LIFT CAPACITY = 766 MT

JACKET ORIENTATION.
ROLL = 0.1 DEG
PITCH = -5.8 DEG



STEP 3

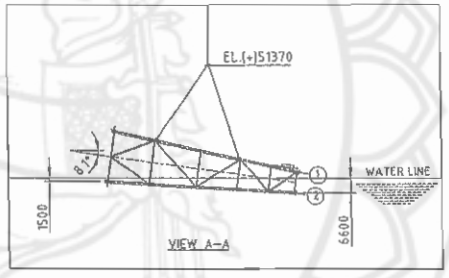
1 LOWER THE JACKET INTO WATER TILL HOOK LOAD ABOUT 285 MT



LIFT RADIUS = 28.645 M

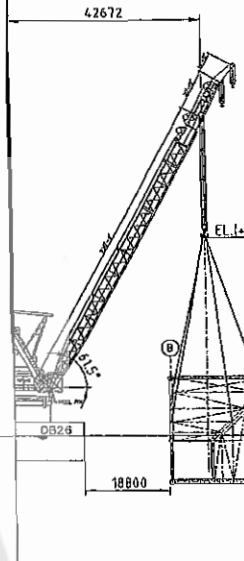
HOOK LOAD.
MAIN HOOK = 285 MT
LIFT CAPACITY = 766 MT

JACKET ORIENTATION
ROLL = 0.3 DEG
PITCH = -8.1 DEG



STEP 4

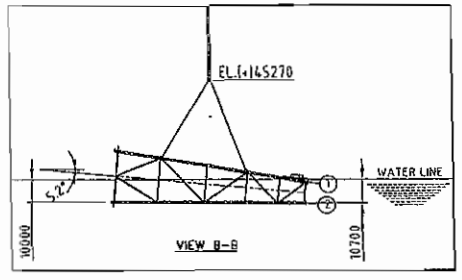
1 BOC TO 61.5



LIFT RADIUS = 42.672 M

HOOK LOAD:
MAIN HOOK = 194 MT
LIFT CAPACITY = 404 MT

JACKET ORIENTATION:
ROLL = 0.3 DEG
PITCH = 5.2 DEG



PROJECT:
ARTHIT CONSTRUCTION PROJECT PHASE IIB-1
WELLHEAD PLATFORM AWP1

KBR

PTT EXPLORATION & PRODUCTION PUBLIC COMPANY LIMITED

J.RAY McDERMOTT

DRAWING TITLE
AWP1 JACKET
LIFT, FLOATATION & UPENDING SEQUENCE
(DB26)
(SHT 1/3)

SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
	DA	EVA	MGZ

PROJECT	DRAWING No	DATE	REV
R2584	R2584-PR-OF-9301	14 AUG 05	B

REFERENCES	
REFERENCE DRAWING NO.	REF. DRAWING TITLE

ISSUE RECORD

REV NO.	BY	DATE	REVISIONS	PREPARED BY NAV. ARCH	REVIEWED BY OPNS ENGR	REVIEWED BY SUPV. CSE	REVIEWED BY DEN. SUPDT	APPROVED BY DIV. CHF ENGR
B	EVA	24 AUG 05	ISSUED FOR APPROVAL	DA	AL	SN		
A	EVA	15 AUG 05	ISSUED FOR COMMENTS	DA	AL	SN		

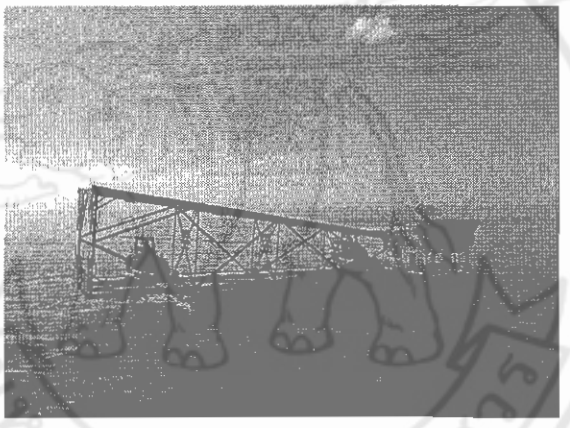
APPROVED
DATE
CHOUEENDIS APPROVAL

	BY	DATE
PROJECT		
STRUCTURAL		
PIPEING		
MATERIAL ARCH		

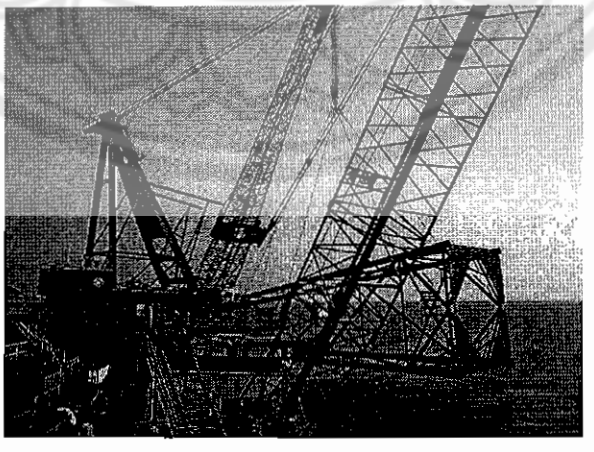
SIZE: A3 FILE NAME: \FAR EAST PROJECTS\R2584-ARTHIT PHASE IIB-1\PROCEDURE\02584-PR-OF-9301

การติดตั้งจริง บริเวณอ่าวไทย ณ วันที่ 29 มกราคม 2545

รูปที่ 1ค การเตรียมชิ้นงานไปสู่พื้นที่ติดตั้ง (Set up/Anchor on bottom)

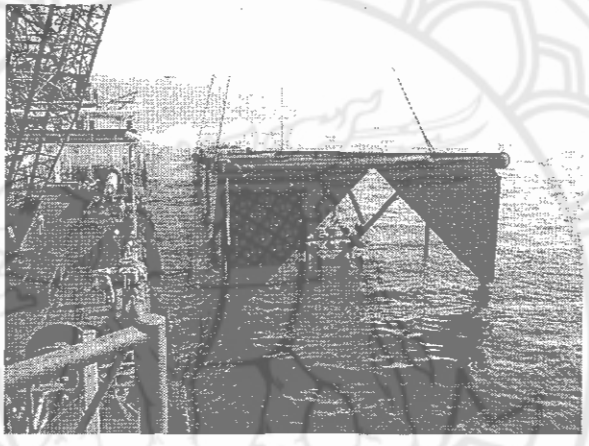


รูปที่ 2ค นำชิ้นงานลงเรือเพื่อนำสู่จุดติดตั้ง (Mat'l barge alon side and secure)

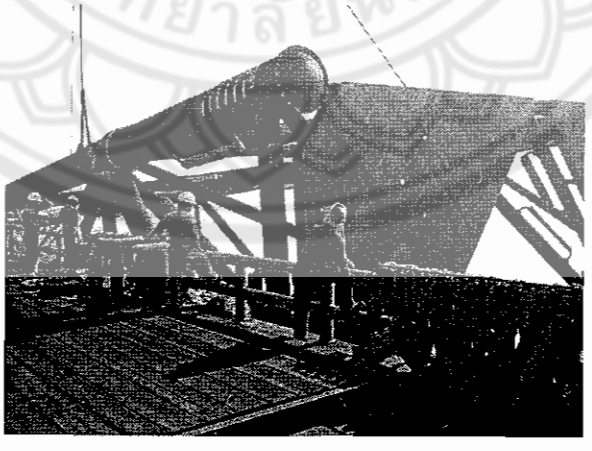


รูปที่ 3ค ยกขาแท่นขุดเจาะจากเรือขนชิ้นงาน (Jacket lift from jacket barge)

รูปที่ 4ค รักษาความสมดุลของเรือยกชิ้นงาน (DB Ballasting)



รูปที่ 5ค นำขาแท่นขุดเจาะน้ำมันและก๊าซธรรมชาติลงสู่พื้นน้ำทะเลย (floating)



รูปที่ 6ค รักษาระยะห่างระหว่างขาแท่นขุดเจาะฯกับเรือยกชิ้นงาน (Secure jacket to DB)

รูปที่ 7ค นำสลิงที่ใช้ในการยกออก (Derrigging horizontal lifting sling)

มหาวิทยาลัยนเรศวร