
 <b>NISOC</b>	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک								
	MECHANICAL DATA SHEETS FOR INSTRUMENT AIR RECEIVER								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	پروژه BK	بسته کاری GCS	صادر کننده PEDCO	تسهیلات 120	رشته ME	نوع مدرک DT	سریال 0008	نسخه D03	شماره صفحه: ۸ از ۱

## طرح نگهداشت و افزایش تولید ۲۷ مخزن

### MECHANICAL DATA SHEETS FOR INSTRUMENT AIR RECEIVER

#### نگهداشت و افزایش تولید میدان نفتی بینک

D03	SEP.2024	IFA	V.Amjadi	M.Fakharian	M. Sadeghian	
D02	OCT.2023	IFA	H.Ghadyani	M.Fakharian	S.Faramarzpour	
D01	SEP. 2022	IFA	H.Adineh	M.Fakharian	M.Mehrshad	
D00	NOV.2021	IFC	H.Adineh	M.Fakharian	M.Mehrshad	
Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

Class: 1

CLIENT Doc. Number:F0Z-708839

status:

**IDC:** Inter-Discipline Check

**IFC:** Issued For Comment

**IFA:** Issued For Approval

**AFD:** Approved For Design

**AFC:** Approved For Construction




**AFP:** Approved For Purchase

**AFQ:** Approved For Quotation

**IFI:** Issued For Information

**AB-R:** As-Built for CLIENT Review

**AB-A:** As-Built –Approved

 <b>NISOC</b>	<b>نگهداشت و افزایش تولید میدان نفتی بینک</b> <b>سطح الارض</b>						 		
	<b>احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک</b> <b>MECHANICAL DATA SHEETS FOR INSTRUMENT AIR RECEIVER</b>								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	پروژه BK	بسته کاری GCS	صادر کننده PEDCO	تسهیلات 120	رشته ME	نوع مدرک DT	سریال 0008	نسخه D03	شماره صفحه: ۸ از ۲

### REVISION RECORD SHEET

Page	D00	D01	D02	D03	D04	Page	D00	D01	D02	D03	D04
1	X	X	X	X		65					
2	X	X	X	X		66					
3	X	X				67					
4	X	X				68					
5	X	X	X	X		69					
6	X	X	X			70					
7	X	X		X		71					
8	X	X				72					
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نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR INSTRUMENT AIR RECEIVER



شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۸ از ۳
۰۵۳ - ۰۷۳ - ۹۱۸۴	BK	GCS	PEDCO	120	ME	DT	0008	D03	

General Notes

Rev	
	<p>1. The Asterisk * denotes information and/or confirmation required from VENDOR.</p> <p>2. Deleted</p> <p>3. VENDOR shall include for the services of a independent verification body for mechanical design, stage inspection, testing and stamping of the equipment (if possible).</p> <p>4. Painting and coating (internal &amp; external) shall be as per project 'Specification for Painting', Doc. No. BK-GNRL-PEDCO-000-PI-SP-0006. and Specification For Lining Doc. No. BK-GNRL-PEDCO-000-PI-SP-0007 respectively.</p> <p>5. Flanges shall comply with ASME B16.5. Nozzle bolt holes shall straddle the natural centrelines for horizontal nozzles. VENDOR to confirm maximum allowable nozzle loads and moments (RF: Raised Face, WN: Welding Neck)</p> <p>6. All reinforcement pads shall have 1/4" (6mm) tell-tale hole and 1/8" (3mm) vent hole as per Standard Detail Drawing For Pressure Vessels and Heat Exchangers', Doc. No. BK-GNRL-PEDCO-000-ME-DW-0001".</p> <p>7. Manways shall be supplied complete with blind flange, external grab handles, internal grab handle and ladder rungs, nuts, bolting, gasket and proof load test davits. Davits shall be proof load tested on the vessels to 1.5 x Safe Working Load (SWL) and shall be marked accordingly.</p> <p>8. All external bolts and nuts shall be hot dip galvanized. Internal bolts and nuts shall be stainless steel.</p> <p>9. Loads at support base, Shall be calculated and determined by vendor.</p> <p>10. Access Ladder &amp; Platform to be considered .</p> <p>11. Deleted</p> <p>12. All material, corrosion allowance and their suitability for the process fluid at design pressure and temperature to be confirmed by vendor.</p> <p>13. The vendor shall be responsible for mechanical strength of the equipment based on mentioned condition in data sheets.</p> <p>14. All nozzle locations and orientations to be finalized later.</p> <p>15. Instrumentation items are excluded from vendor's scope of supply.</p> <p>16. Any changes in material of construction, location &amp; orientation of the nozzles shall be confirmed by client.</p> <p>17. All materials shall be new and unused.</p> <p>18. Fabrication tolerances for vessel shall be in accordance with requirement of ASME code.</p> <p>19. Location and number of lifting lugs on vessels shall be specified on VENDOR drawing.</p> <p>20. All items shall be clearly match marked against vessel drawings to facilitate erection.</p> <p>21. Deleted</p> <p>22. Vendor shall supply details of all welding connections and give general specification of used materials.</p> <p>23. For equipment requiring PWHT, final inspection and acceptance by the CLIENT or its nominated representative shall only be undertaken against NDE after PWHT. All weldings shall be made before vessel heat treatment (if any).</p> <p>24. Equipment packaging, preparation for shipment and delivery shall be in accordance with the project Minimum Requirements for Marking, Packing, Shipment &amp; Storage' Document No. IPS-G-GN-210.</p> <p>25. Specified accessories and attachments shall be supplied by vendor.</p> <p>26. Gasket shall be spiral wound type, graphite filled with inner ring and outer ring S.S.316</p> <p>27. Deleted</p> <p>28. Deleted</p> <p>29. Two M12 earthing bosses shall be provided on vessel support. Material of Earthing Bosses shall be S.S. 316</p>



نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR INSTRUMENT AIR RECEIVER



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه

BK

بسته کاری

GCS

صادرکننده

PEDCO

تسهیلات

120

رشته

ME

نوع مدرک

DT

سریال

0008

نسخه



D03

شماره صفحه: ۴ از ۸

General Notes (Cont'd)

Rev

30. For standard detail of Earth lug execution refer to the Project "Standard Detail Drawing For Pressure Vessels and Heat Exchangers Doc. No. BK-GNRAL-PEDCO-000-ME-DW-0001".
31. Elliptical heads shall be Ultrasonic Tested for LAMINATION after forming.
32. The projection of equipment's nozzles should be considered as per 'Standard Detail Drawing For Pressure Vessels and Heat Exchangers', Doc. No. BK-GNRAL-PEDCO-000-ME-DW-0001". Projection of Horizontal & Vertical nozzles is from tangent line and centerline respectively.
33. The elevation of equipment's nozzels should be specified as follows :  
I. For vertical vessels : from bottom T.L.  
II. For horizontal vessels : from Left T.L.
34. Nozzles and flanges shall be suitably supported and reinforced based on nozzle loads provided in project Specification for Pressure Vessels, Document No. BK-GNRAL-PEDCO-000-ME-SP-0001.
35. Prior to sealing the vessel for shipping and storage, the inside surface of the equipment shall be 100% visually inspected. Internal surfaces shall be clean and thoroughly dried. The CLIENT or its nominated representative shall witness the cleanliness of internal surfaces. Flange faces shall be protected by wooden or plastic dummy flanges.
36. Minimum requirement for pre-commissioning, commissioning, start up and two years operation and spare parts shall be in accordance with document E&C-QC-SP-1.
37. Lifting Lugs / trunnions shall be provided to facilitate a single point lift. If a single point lift cannot be achieved without the use of a lifting beam, then VENDOR shall provide a suitable, certified, lifting beam.
38. Design pressure specified is at top of vessels. VENDOR design shall include static head for vessels flooded with specific gravity of the handled liquid.
39. VENDOR is to maximize shop fabrication based on the following transportation limits:  
- Maximum weight: 96 tonnes  
- Maximum load per axle: 12 tonnes  
- Maximum length: 50.0 m  
- Maximum width: 5.0 m  
- Maximum height: 5.2 m  
For items with dimensions and weights greater than the road capacity specified above, VENDOR may be required to split the package into several components.
40. All external attachments directly welded to the pressure part shall be the same material as vessel grade.
41. The Vendor shall be fully responsible for the complete mechanical design, preparing calculation book and supply of the vessel.
42. All dimensions shown are in mm unless otherwise indicated. All nozzle sizes are in inch.

 <b>NISOC</b>		<b>نگهداشت و افزایش تولید میدان نفتی بینک</b> <b>سطح الارض</b>									
		<b>احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک</b>									
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴		پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۵ از ۸	
		BK	GCS	PEDCO	120	ME	DT	0008	D03		
Mechanical Data Sheets For Instrument Air Receiver (V-2203) / sheet 1 of 4											
Rev	<b>DATA SHEET</b>									Rev	
1	Description : <i>Instrument Air Receiver</i>										
2	Tag No. : <i>V-2203</i> Quantity : <i>1 Set</i>										
3	Type : <i>Pressure Vessel</i>										
4	<b>Process Design Data</b>										
5	Contents		Corrosive / Erosive								
6	Operating Temp. (°C)		65		Liquid Flow (kg/h)						
7	Operating Press. (barg)		8		Vap. Molec. Weight (kg/kmol)						
8	Gas Flow (kg/h)				Liquid Sp. Gravity						
9	Liquid Viscosity (cP)				Service:		N/A				
10	<b>Mechanical Design Data</b>										
11	Design Temp. (°C)		85		Vessel Orientation		Vertical				
12	Design Press. (barg)		12.5		LLL (mm)		300				
13	Test Press. (barg)		Per Code & Spec Requirements								
14	Internal Vacuum (barg)		-		In. Dia. Of Boots (mm)		N/A				
15	In. Dia. of Shell (mm)		1500		Boot Length (mm)		N/A				
16	Tan/Tan Dim. (mm)		5000		Boot Head Type		N/A				
17	Vessel Head Type		2:1 elliptical		Corr. Allowance (mm)		1.6				
18	Shell Wall Thk. (mm)		*		Joint Efficiency		0.7 (Skirt)/0.85 (Shell) / 1 (Head)				
19	Head Wall Thk. (mm)		* (After forming)		Ambient Temp. (°C)						
D03	20	Seismic Design		Site Class: D, Code: ASCE 7-10 Fa=1, FV=1.33, S1=0.46, Ss=1.125, I=1.25		MDMT (°C)		5			
D03	21	Wind Design		Speed: 232 Km/hr (Max.), Code: ASCE 7-10		Insulation Required		-			
22	<b>Materials</b>										
D03	23	Code		ASME II / ASTM		Nozzle Necks:					
D03	24	Shell / Heads		A 516 Gr. 70N		Pipes		A 106 Gr.B			
D03	25	Heads		A 516 Gr. 70N		Plates		A 516 Gr.70N			
D03	26	Lining / Cladding		Epoxy Coating		Forgings		A 105N			
D03	27	Skirt (Top / Bottom)		A 516 Gr. 70N / A 283 Gr. C		Flanges		A 105N			
D03	28	Platform Gratings		Hot Dip Galvanized C.S.		Fittings		A 234 Gr. WPB			
D03	29	Gaskets		Note 26		External Bolts		A 193 Gr. B7 (Note 8)			
D03	30	Lifting Lugs		A 516 Gr.70N / A 283 Gr. C		External Nuts		A 194 Gr.2H (Note 8)			
D03	31	Reinforcing Pads		A 516 Gr.70N		Internal Bolts / Nuts		S.S.			
D03	32	Ladder & Platform		C.S.		Name Plate		S.S. 316			
33	<b>REFERENCE STANDARDS &amp; DOCUMENTS</b>										
34	Mechanical Design Code		ASME Sec VIII Div 1, IPS-G-ME-150								
35	Specification for Pressure Vessels		BK-GNRAL-PEDCO-000-ME-SP-0001								
36	Process Basis of Design		BK-GNRAL-PEDCO-000-PR-DB-0001								
37	Piping & Instrument Diagram (P&ID)		BK-GCS-PEDCO-120-PR-PI-0015								
38	Specification for Painting		BK-GNRAL-PEDCO-000-PI-SP-0006								
39	Specification for Insulation		BK-GNRAL-PEDCO-000-PI-SP-0019								
40	Specification For Material Requirements in Sour service		BK-GNRAL-PEDCO-000-PI-SP-0008								
41											
42	<b>Fabrication and Inspection Requirements</b>										
43	Inspection Authority		TPI & Client								
44	Material Certification		In Accordance with BS EN 10204:2004, Type 3.1, Minimum for Pressure Containing and Attachments								
45	Hydro Test Medium		Water		Hydro Test Procedure		Yes; Per Code & Spec. Requirements & (IPS-GE-ME-150)				
46	Post Weld Heat Treatment		Per Code & Spec. Requirements		PT		100%				
47	MT		100 % on Lifting Lug Fillet Welds		UT		Yes; Per Code & Spec. Requirements				
48	RT		100 % On T-Joints and Head Joints Butt-Welds,								
49			Spot On Shell Longitudinal and Circumferential Joints Butt-Welds,								
50			100 % On Nozzle Neck to Flange & Fabricated Nozzle Neck Longitudinal Butt-Welds,								
51	RT Report		Yes; Per Code & Spec. Requir.		PT Report		Yes; Per Code & Spec. Requirements				
52	MT Report		Yes; Per Code & Spec. Requir.		UT Report		Yes; Per Code & Spec. Requirements				
53	Fabrication Quality Control Plan (With Offer)		Yes								
54	Welding Procedure Review / Approval		Yes								
55	Surface Preparation & Coating		Specification for Painting Doc. No. BK-GNRAL-PEDCO-000-PI-SP-0006								
56			Specification for Lining Doc. No. BK-GNRAL-PEDCO-000-PI-SP-0007								
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## احداث ردیف تہ اکم گاز در ایستگاه جمع آوری سنک

MECHANICAL DATA SHEETS FOR INSTRUMENT AIR RECEIVER



شماره صفحه: ۶ از ۸

**شماره پیمان:**

• 03 - • 73 - 9184

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D03	0008	DT	ME	120	PEDCO	GCS	BK

Mechanical Data Sheets For Instrument Air Receiver (V-2203) / sheet 2 of 4

Rev.

1

2

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ACCESSORIES , NOZZLES LIST & LOADS @ BASE

Accessories & Attachments (Note 25)

Supporting Saddles

Access Ladder & Platform

Insulation Support

Insulation

Insulation Cover

Fireproofing Support

Lifting Lugs

Internal/ External Clips

Tamplate

Boot

Davit for Manhole

Internal Lining (By Painting)

NO

YES

NO

NO

NO

NO

YES

YES

YES

NO

YES

YES

Name Plate Bracket

Name Plate

Earthing Lug (Note 30)

Tailing Lug

Cathodic Protection (Sacrificial Anodes)

Anchor Bolts

Instrumentations

Skid

Support Clips

Vortex Breaker

Rung & Grip

Heating Coil

YES

YES

YES

YES

NO

NO

NO

NO

YES

NO

NO

NO

Nozzles List (Note 1)

Mark

Qty.

Description

Size

Thk.

Sch.

Type

Rate.

Face

Proj. (mm)

(Note 32)

Reinforcement

Thk.

O.D.

Remarks

A

1

Inlet

2"

WN

#150

RF

965\*

B

1

Gas Outlet

2"

WN

#150

RF

See DWG

PSV

1

Pressure Safety Valve

2"

WN

#150

RF

965\*

V

1

Vent

2"

WN

#150

RF

See DWG

M

1

Manhole

24"

WN

#150

RF

1170

\*

\*

Note 7

P

1

Pressure Gauge

2"

WN

#300

RF

965

D

1

Drain

2"

WN

#150

RF

See DWG

L 1,2

2

Level Gauge

2"

WN

#300

RF

965



نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR INSTRUMENT AIR RECEIVER



شماره پیمان:  
۰۵۳ - ۰۷۳ - ۹۱۸۴

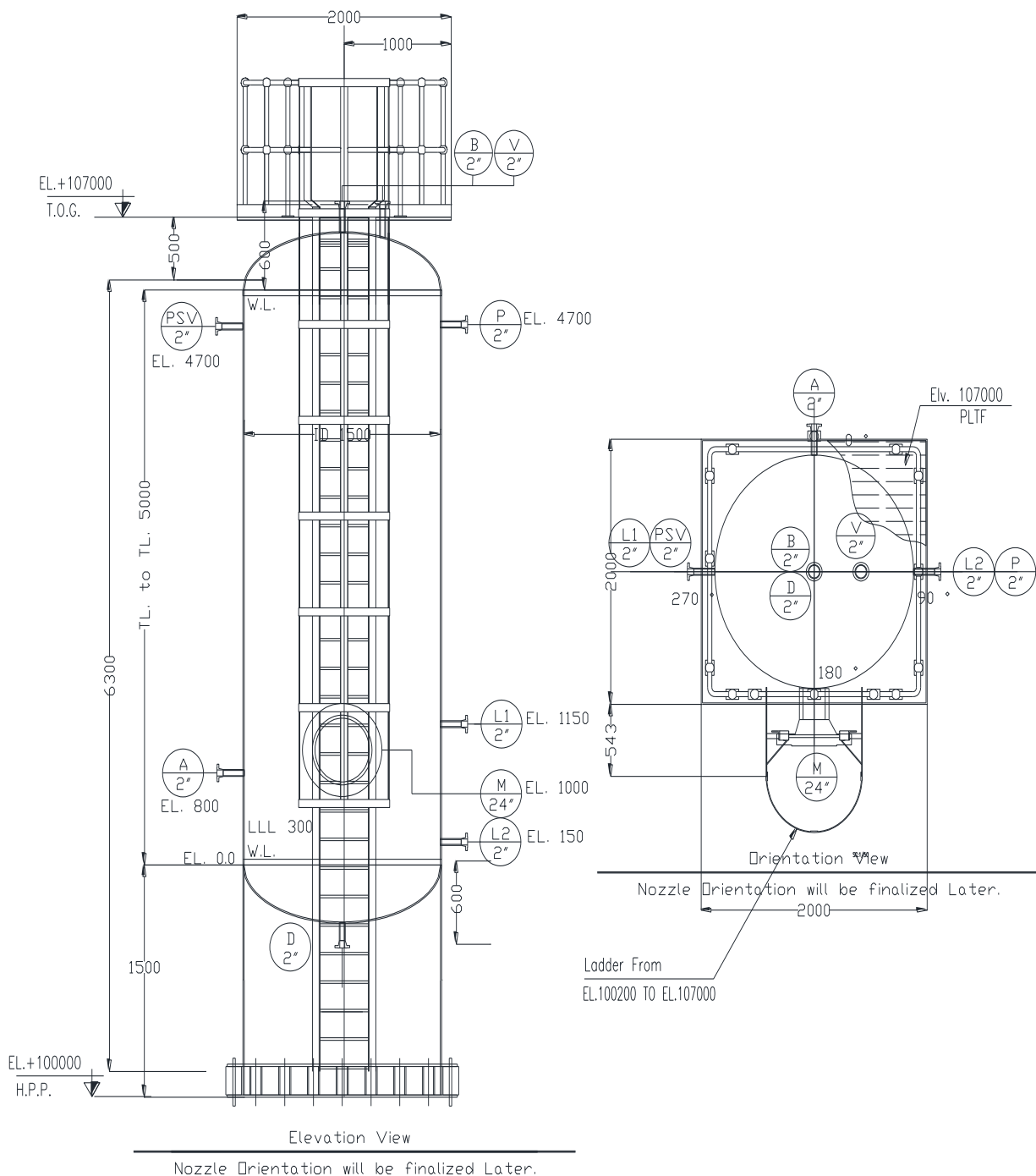
نسخه	سریال	نوع مدرک	رشته	تهیيات	صادر کننده	پسته کاری	پروژه
D03	0008	DT	ME	120	PEDCO	GCS	BK

شماره صفحه: ۸ از ۷

Mechanical Data Sheets For Instrument Air Receiver (V-2203) / sheet 3 of 4

Sketch

D03





نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR INSTRUMENT AIR RECEIVER



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
BK	GCS	PEDCO	120	ME	DT	0008	D03

شماره صفحه: ۸ از ۸

Mechanical Data Sheets For Instrument Air Receiver (V-2203) / sheet 4 of 4

Rev.	WEIGHT						Rev.
1	<b>WEIGHT CONTROL DATA SHEET SI UNIT *</b>					<b>1/1</b>	
2							
3							
4							
5							
6	Service :	Instrument Air Receiver			Location :	Bushehr (Binak Oilfield)	
7	Type :				Quotation No. :		
8	No. trains :				Serial No. :		
9	No. stages :						
10	Supplier :						
11	Manufacturer :						
12	Model :						
13							
14	Note: Information to be completed by equipment vendor.						
15							
16	<b>Total weight (kg) *</b>						
17	Fabrication	Erection	Operation	Hydrostatic Test	Removable internal	Ladder & Platform	
18							
19							
20							
21							
22							
23	<b>WEIGHT AND C OF G DATA REQUIRED *</b>						
24	CONDITION	WEIGHT ACCURACY %	WEIGHT (kg)	CENTER OF GRAVITY (mm)			
25				X	Y	Z	
26	Dry						
27							
28							
29							
30	<b>SKETCH</b>						
31	<p>Page 1</p>						
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52	<b>NOTES</b>						
53	1) All lifting points to be load tested and certified.						
54	2) Any spreader beam to be load tested and certified.						
55	3) Lifting / rigging plan for skid mounted equipment to be provided by the Vendor.						
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