



Nexen Petroleum (U.K.) Limited  
Golden Eagle Area Development

VENDOR : DSE O&G

EQUIPMENT TITLE : P&ID DIESEL CENTRIFUGE SKID

EQUIPMENT TAG NO(S) : X-5017 (X-5004)

GEAD Vendor Document Number

Purchase Order Number  
168397-200-PO-3380

Doc Type  
MC2

Seq. No.  
002

Rev.  
10

DATE  
27/08/14

INCLUDES DOCUMENT CODES : 1

TOTAL SHEETS : 1

F Final (accepted) - manufacturing may proceed

A Qualified Release - revise and re-submit. Manufacturing may proceed subject to incorporation of comments.

R Rejected - revise and re-submit. Manufacturing may not proceed.

I Accepted for information only.

Review of Vendor documents does not relieve Vendor of the responsibility for correctness under the Purchase Order. Permission to proceed does not constitute acceptance of design, detail and calculations, test methods or materials developed or selected by the Vendor and does not relieve the Vendor from full compliance with the Purchase Order or any other obligations, nor detract from any of the Purchaser's rights.

Engineer : J. Gool Date : 04/09/14

TERMINATION POINTS				
POS.	DESCRIPTION	SIZE	RATING CLASS	FLANGES ACCORDING TO ANSI B 16.5
TP01	Dirty DO Inlet	2"	150LBS	X
TP02	Dirty DO Return	2"	150LBS	X
TP03	Clean DO Outlet	2"	150LBS	X
TP04	Oily Sludge Outlet	2"	150LBS	X
TP05	Vent	2"	150LBS	X
TP06	Skid Drain	2"	150LBS	X
TP07	INSTR. AIR Inlet	3/4"	150LBS	X
TP08	Water Inlet	2"	150LBS	X
TP09	Vent	2"	150LBS	X

EXTENT OF APPROVAL OF THIS P&ID BY CB&I LTD IS LIMITED TO THOSE MODIFICATIONS MADE AND SHOWN AS A MARK-UP

CP-C / CP-D (NOTE 2)		
Pre-Heater Common alarm UA-50504A/B		168397-200-PO-3380-MC2-001 (LPN-5004 A/B)
Pre-Heater in remote mode XS-50597A/B		
Pre-Heater tripped XS-50512A/B		
Pre-Heater running XI-50506A/B		
Emergency Trip XS-50510 A/B		ICSS
Temperature setpoint TIC-50525A/B		
Temperature transmitter TT-50522A/B		
Temperature transmitter TT-50523A/B		
Common Alarm UA-50502A/B		MCC
Package Tripped UA-50503A/B		
Package Running XI-50505A/B		
Stop Process XS-50507 A/B		
Package Trip (PSD) XY-50509A/B		AMS (HART)
Start Feed Pump XMCR-50513A/B		
Stop Feed Pump XMCS-50513A/B		
Feedpump Running XMIR-50513A/B		
Feedpump Available XMAI-50513A/B		
RS-485 LINK		

INSULATION & HEAT TRACING SCOPE		
LINE TAG	TYPE	MAINTAIN AT
2-DF-50243-S1D-HT	Process heating	30°C
2-DF-50244-S1D-HT	Process heating	30°C
2-DF-50242-S1D	Process heating	30°C
2-DF-50213-S1D	Process heating	30°C
2-DF-50215-S1D-HT	Process heating	30°C
2-DF-50216-S1D-HT	Process heating	30°C
2-DF-50217-S1D-HT	Process heating	30°C
3/4-DH-50220-S1D-FP	Frost protection	2°C
3/4-DH-50221-S1D-FP	Frost protection	2°C
3/4-DH-50223-S1D-FP	Frost protection	2°C
2 / 1-DW-50230-S1D-FP	Frost protection	2°C
2 / 1-DW-50231-S1D-FP	Frost protection	2°C
3/4-DW-50232-S1D-FP	Frost protection	2°C
3/4-DW-50233-S1D-FP	Frost protection	2°C
3/4-DW-50234-S1D-FP	Frost protection	2°C
3/4-DW-50235-S1D-FP	Frost protection	2°C
2-DH-50222-S1D-FP	Frost protection	2°C
SLUDGE TANK T-5012A	Frost protection	2°C
SLUDGE TANK T-5012B	Frost protection	2°C

Sludge pump P-5018A/B	Value	Diesel centrifuge Y-5013A/B	Value	Sludge tank T-5012A/B	Value
- Rated capacity (ltr/min)	0 - 58	- Capacity (m³/h)	5	- Dimensions inside (LxWxH mm)	850x273x328
- Design pressure (BarG)	9.0	- Design pressure (BarG)	6	- Design pressure (BarG)	0.49 / F.V.
- Design temperature (°C)	-18 / 80	- Design temperature (°C)	-7.6 / 65	- Design temperature (°C)	-7.6 / 65
- Air driven		- Installed power (kW)	7.5	- Materials	SS316
- Discharge pressure	below 1 barG			- Volume	76 ltr
- Materials	SS316 / PE				

NOTES

NOTE 1: For reference to preheater and feed pump skid, see MC2-001

NOTE 2: CP-C/Control panel

NOTE 3: CP-A: Pre-heater Thyristor control panel A, LPN-5004 A

NOTE 4: CP-B: Pre-heater Thyristor control panel B, LPN-5004 B

NOTE 5: CP-C: Centrifuge Unit control panel A, LPN-5004 C

NOTE 6: CP-D: Centrifuge Unit control panel B, LPN-5004 D

NOTE 7: Level transmitter is equipped with level indicator

NOTE 8: Air MANIFOLD, SEE 168397-200-PO-3380-HE-1001 SHT 0013

NOTE 9: PACKAGE TRIP CONNECTION PROVIDED TO DISCHARGE SLUDGE WHEN OPEN DRAINAGE SYSTEM IS NOT AVAILABLE

NOTE 10: FLANGE GUARDS TO BE PROVIDED BY PURCHASER

NOTE 11: HEAT TRACING & INSULATION BY PURCHASER

NOTE 12: DELETED

NOTE 13: SLUDGE PUMP ON / OFF

NOTE 11: THR. REDUCING BUSH USED 3/4" / 1/2"

NOTE 12: INSTR. CONN., SEE 168397-200-PO-3380-HE-1001 SHT 0028

NOTE 13: FOR FRONT OF PANEL LAYOUT SEE 168397-200-PO-3380-EB3-003 & 004

NOTE 14: OPEN "BOWL" VALVE

NOTE 15: CLOSE "BOWL" VALVE

NOTE 16: FILL & DISPLACEMENT VALVE

INSULATION THICKNESS ACC. NEXEN (BY PURCHASER)

SIZE

10 to 100 mm

10 to 50 mm

51 to 100 mm

3/4"

30 mm

N.A.

N.A.

1"

30 mm

N.A.

N.A.

2"

30 mm

N.A.

N.A.

3"

N.A.

N.A.

N.A.

4"

N.A.

N.A.

N.A.

SLUDGE TANK

30 mm

N.A.

N.A.

AUTOCAD DRAWING

10 08-07-2013 FINAL DSE/UK DSE/RRK

09 08-02-2013 FINAL DSE/RRK DSE/RRK

08 23-11-2012 AS BUILT DSE/RRK DSE/RRK

07 08-10-2012 FOR APPROVAL DSE/RRK DSE/RRK

06 17-07-2012 FOR APPROVAL DSE/RRK DSE/RRK

Revision Date Description

By App.

DSE Oil and Gas B.V.

Dutch Separation Engineering

Description: P&ID DIESEL CENTRIFUGE SKID X-5017

Project nr.: 400734

Drawing nr.: 168397-200-PO-3380-MC2-002

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