

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

VENDOR : DSE O&G

EQUIPMENT TITLE : P&ID PRE-HEATER & FEED PUMP SKID

EQUIPMENT TAG NO(S) : X-5014 (X-5004)

GEAD Vendor Document Number

Purchase Order Number	Doc Type	Seq. No	Rev.	DATE
168397-200-PO-3380	MC2	001	9	1001/13

INCLUDES DOCUMENT CODES : TOTAL SHEETS : 1

Final (accepted) - manufacturing may proceed.

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

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

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 : *Shelly* Date : 29/1/13

NOTES

NOTE 1: DELETED

NOTE 2: CP=Control panel
CP-A Pre-heater Thyristor control panel A LPN-5004 A
CP-B Pre-heater Thyristor control panel B LPN-5004 B
CP-C Centrifuge Unit control panel A LPN-5004 C
CP-D Centrifuge Unit control panel B LPN-5004 D

NOTE 3: Pump start, stop, running & available signals

NOTE 4: - DELETED -

NOTE 5: ELEVATION OF PSV-50591 A/B TO BE ADVISED BY NEXEN, DSE TO ADJUST SET PRESSURE FOR STATIC HEAD DIFFERENCE

NOTE 6: FLANGE GUARDS TO BE PROVIDED BY THE PURCHASER

NOTE 7: HEAT TRACING & INSULATION BY PURCHASER

NOTE 8: TT-50522A/B FOR FLUID, TT-50523A/B FOR ELEMENTS

NOTE 9: DELETED

NOTE 10: FOR FRONT PANEL LAYOUT SEE 168397-200-PO-3380-EB3-001 & 002

NOTE 11: PACKAGE TRIP

NOTE 12: NOT BY DSE, SEE 3380-NEXEN-DSE-321

POS.	DESCRIPTION	TERMINATION POINTS		
		SIZE	RATING CLASS	FLG'S ACC. TO ANSI B 16.5
TP01	Diesel Inlet	3"	150 #	X
TP02	Diesel Outlet	3"	150 #	X
TP03	Skid Drain	2"	150 #	X
TP04	Relief valve inlet	2"	150 #	X
TP05	Relief valve inlet	2"	150 #	X

SAFETY RELIEF VALVE
SIZING CASE:
FIRE, BLOCKED OUTLET,
THERMAL, ETC.
SET @ 11 BARG, ACC. API 520
INLET 1 1/2"-150# RF
OUTLET 3"-150# RF
Orifice size "G"

- CP-A / CP-B (NOTE 2)
- Pre-Heater Common alarm UA-50504A/B
 - Pre-Heater in remote mode XS-50597A/B
 - Pre-Heater tripped XS-50512A/B
 - Pre-Heater running XI-50506A/B
 - Emergency Trip XS-50510A/B
 - Temperature setpoint TIC-50525A/B
 - Temperature transmitter TT-50522A/B
 - Temperature alarm trip transmitter TT-50523A/B
- 168397-200-PO-3380-MC2-002 (LPN-5004 C/D)

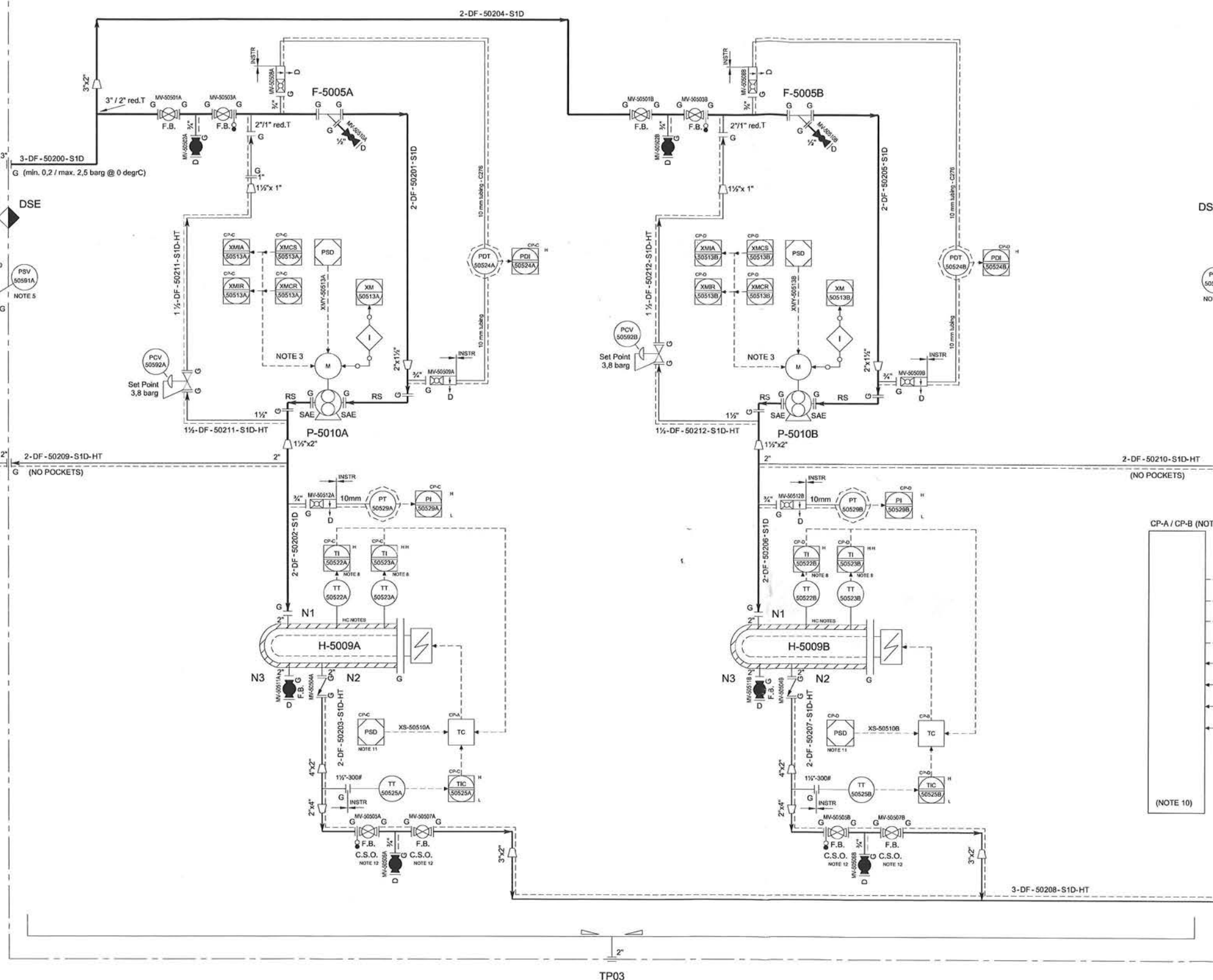
LINE TAG	TYPE	MAINTAIN AT
2-DF-50200-S1D	Process heating	30°C
2-DF-50201-S1D	Process heating	30°C
2-DF-50202-S1D	Process heating	30°C
2-DF-50204-S1D	Process heating	30°C
2-DF-50203-S1D-HT	Process heating	30°C
2-DF-50205-S1D	Process heating	30°C
2-DF-50206-S1D	Process heating	30°C
2-DF-50207-S1D-HT	Process heating	30°C
3-DF-50208-S1D-HT	Process heating	30°C
2-DF-50209-S1D-HT	Process heating	30°C
2-DF-50210-S1D-HT	Process heating	30°C
1 1/2-DF-50211-S1D-HT	Process heating	30°C
1 1/2-DF-50212-S1D-HT	Process heating	30°C

AS BUILT
DSE Oil and Gas B.V.
Dutch Separation Engineering

Revision	Date	Description	By	App.
08	23-11-2012	AS BUILT	DSE/STR	DSE/RNR
07	08-10-2012	FOR APPROVAL	DSE/STR	DSE/RNR
06	17-07-2012	FOR APPROVAL	DSE/STR	DSE/RNR
05	08-06-2012	FOR APPROVAL	DSE/STR	DSE/RNR
04	12-03-2012	FOR APPROVAL	DSE/STR	DSE/RNR

Note:

Description:
P&ID DIESEL CENTRIFUGE PRE-HEATER & FEED PUMP SKID X-5014
Project nr.: 400734
Drawing nr.: 400734-MC2-001



PREHEATER H-5009A/B	VALUE
- Duty (kW)	80
- Design pressure (BarG)	13
- Design temperature (°C)	-7,6/65

FEED PUMP P-5010A/B	VALUE
- Rated capacity (m³/h)	5
- Differential head (m)	60
- Design pressure (BarG)	25
- Design temperature (°C)	-7,6/65
- Motor rating (kW)	2,2

INSULATION THICKNESS ACC. NEXEN (BY PURCHASER)			
SIZE	-10 to 10 / 40 to 100 degC FROST PROTECTION	10 to 50 degC ELECTRICAL TRACED / HT	51 to 100 degC ELECTRICAL TRACED / HT
3/4"	30 mm	30 mm	30 mm
1"	30 mm	30 mm	30 mm
2"	30 mm	30 mm	30 mm
3"	N.A.	30 mm	30 mm
4"	N.A.	30 mm	30 mm
8" HEATER (HEAT CONTRIBUTION)	30 mm	N.A.	N.A.