DEPRIWANGGA
TECHNICAL INSPECTION & CERTIFICATION SERVICES

Worker Name	: BAYU YAHYA CHANDRA
Position	: QC INSPECTOR
Company (User)	: JOB Pertamina-Medco E&P Simenggaris
Contract No.	: 3510006786
Working Period	: 18 May 2022 - 17 June 2022

Day & Date	Number of Working Day	Work Description
18 May 2022	1	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
19 May 2022	2	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
20 May 2022	3	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
21 May 2022	4	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
22 May 2022	5	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
23 May 2022	6	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
24 May 2022	7	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
25 May 2022	8	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
26 May 2022		Travelling from Tarakan to Jakarta
27 May 2022		Off Day
28 May 2022		Off Day
29 May 2022		Off Day
30 May 2022	9	Inspection spare part for analyzer transmitter (revitalization) at PT Karya Energi Indonesia, Business Par Kebun Jeruk - Jakarta Barat
31 May 2022		Off Day
01 June 2022		Off Day
02 June 2022		Off Day
03 June 2022	10	FAT transfer pump at PT duraquipt Cemerlang, Jl Limo Raya No.9 Depok - Jawa Barat
04 June 2022		Off Day
05 June 2022	11	• Travelling from Jakarta to Tarakan
06 June 2022	12	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
07 June 2022	13	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
08 June 2022	14	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
09 June 2022	15	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
10 June 2022	16	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
11 June 2022	17	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
12 June 2022	18	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
13 June 2022	19	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
14 June 2022	20	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
15 June 2022	21	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
16 June 2022	22	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)
17 June 2022	23	• Field supervision for E&I at South Sembakung Development Project (Site Simenggaris)

Submitted by:	Acknowledge by : JOB Pertamina-Medco E&P Simenggaris	Approved by : JOB Pertamina-Medco E&P Simenggaris	Checked by : PT. Depriwangga
Bayu Yahya Chandra	Hendri Yanjaya	Purnomo Rusdiono	
17-Jun-2022	17-Jun-2022		
QC Inspector	QA/QC Coordinator	Project Control Section Head	

SURAT PERJALANAN DINAS
BUSINESS TRAVEL ORDER

Jakarta, 25 April 2022 No. SPDS-PRJ-026/III/2022

Dengan ini Perusahaan menugaskan pegawai/pejabat di bawah ini:
The Company hereby assigns the following employee/official below

Nama/*Name*	:	**Bayu Yahya Chandra**
Jabatan/*Position*	:	**QC Inspector**
Bagian/*Department*	:	**JOB Pertamina–Medco E&P Simenggaris**

Untuk melaksanakan perjalanan dinas keluar kota sbb:
To perform the mission as follows

Dari/*From*	:	Jakarta
Tempat Tujuan/*Destination*	:	Tarakan – Site Simenggaris
Tanggal Berangkat/*Departure date*	:	**10 Mei 2022**
Tanggal Kembali/*Date of return*	:	25 Mei 2022
Keperluan/*Purpose of mission*	:	Mobilisasi dan Demobilisasi
Berkendaraan/*Transportation*	:	Perusahaan
Akomodasi/*Accomodation*	:	Perusahaan
Pengikut/*Accompanied by*	:	-
Dibebankan ke/Charge to	:	***CCTR A160A40501 - Project***

Keterangan/*Note*:

Perjalanan Dinas dalam rangka mobilisasi on duty ke Site Simenggaris.

Yang bersangkutan	Menyetujui,	Mengetahui,
Bayu Yahya Chandra *QC Inspector*	Ditandatangani elektronik: Akhmad Zamroni 20-04-2022 06:31:04 WIB **Akhmad Zamroni** *Project Development Manager*	**Hendri Yanjaya** *QA-QC Coordinator*

SURAT PERJALANAN DINAS
BUSINESS TRAVEL ORDER

Jakarta, 20 May 2022 No. SPDS-PRJ-

Dengan ini Perusahaan menugaskan pegawai/pejabat di bawah ini:
The Company hereby assigns the following employee/official below

Nama/*Name*	:	**Bayu Yahya Chandra**
Jabatan/*Position*	:	**QC Inspector**
Bagian/*Department*	:	**JOB Pertamina–Medco E&P Simenggaris**

Untuk melaksanakan perjalanan dinas keluar kota sbb:
To perform the mission as follows

Dari/*From*	:	Jakarta
Tempat Tujuan/*Destination*	:	Tarakan – Site Simenggaris
Tanggal Berangkat/*Departure date*	:	**05 June 2022**
Tanggal Kembali/*Date of return*	:	**03 Juli 2022**
Keperluan/*Purpose of mission*	:	Mobilisasi dan Demobilisasi
Berkendaraan/*Transportation*	:	Perusahaan
Akomodasi/*Accomodation*	:	Perusahaan
Pengikut/*Accompanied by*	:	-
Dibebankan ke/Charge to	:	***CCTR A160A40501 - Project***

Keterangan/*Note*:

Perjalanan Dinas dalam rangka mobilisasi on duty ke Site Simenggaris.

Yang bersangkutan	Menyetujui,	Mengetahui,
Bayu Yahya Chandra *QC Inspector*	Ditandatangani elektronik: Akhmad Zamroni 23-05-2022 12:36:30 WIB **Akhmad Zamroni** *Project Development Manager*	**Hendri Yanjaya** *QA-QC Coordinator*

DEPRIWANGGA
TECHNICAL INSPECTION & CERTIFICATION SERVICES

SURAT PERMINTAAN KERJA LEMBUR

No. : /DW/...../...../2021

Kepada Medco Job Simenggaris

Mengharap bantuan Saudara untuk menugaskan :

Nama	:	Bayu Yahya Chandra
No.ID Card	:	
Bagian / Penempatan	:	QA/QC Inspector

Untuk melaksanakan kerja lembur :

Hari / Tanggal	:	30-May-22
Waktu	:	8:00 s/d 17:00 Jumlah : 8 Jam
Lokasi	:	Business Park Kebun Jeruk, Jakarta Barat
Pekerjaan Yang Dilemburi	:	Inspeksi spare part for analyzer transmitter (revitalization) at PT Karya Energi Indonesia

Jakarta, 27 May 2022

Submitted	Acknowledge	Approved
QA/QC Coordinator	Project Control Head	Project Manager
Hendri yanjaya	Pu	Akhi

Ditandatangani elektronik:
Purnomo Rusdiono
01-06-2022
21:06:07 WIB

Ditandatangani elektronik:
Akhmad Zamroni
02-06-2022
13:51:21 WIB

PT. MEINDO ELANG INDAH
Engineering and Construction
Committed & Reliable

Tanggal : Jakarta, 27 Mei 2022

PO No. : **21303-PO-SMN-MEP-000114 Spare Part for Analyzer Transmitter (Revitalization)**

Kepada : **JOB Pertamina - Medco E&P Simenggaris**
The Energy Building, 26th Floor
SCBD Lot 11A, Jl. Jend. Sudirman, Jakarta Selatan, Indonesia. 12190

UP : **Bp. Hendri Yanjaya**
QA QC Coordinator – JOB Simenggaris

Perihal : Undangan Inspeksi Spare Part for Analyzer Transmitter (Revitalization)

Dengan hormat,

Sehubungan dengan rencana pelaksanaan Witness *"Spare Part for Analyzer Transmitter (Revitalization)"* maka dengan ini kami mengundang personel pewakilan PERUSAHAAN untuk menyaksikan pelaksanaan agenda tersebut diatas, dengan rincian sebagai berikut:

Hari, Tanggal : Senin, 30 Mei 2022
Waktu : 10.00 - Selesai
Tempat : PT. Karya Energi Indonesia
Business Park Kebon Jeruk,
Jl. Meruya Ilir Blok C2 No.6
Kav. 88 Jakarta Barat 11620

Agenda : Inspeksi Spare Part for Analyzer Transmitter (Revitalization)
- Type 6 Membrane Kit
- Assy, AURORA HMI/DISPLAY LABEL

MEI's PIC : Ahmad (0819-9920-6315)

Demikian Undangan ini kami sampaikan, atas perhatian dan kehadirannya kami ucapkan terima kasih.

Hormat kami,

PT. MEINDO ELANG INDAH
QA/QC DEPARTMENT

Sekar Putri P.
QA QC Engineer

PT. MEINDO ELANG INDAH
Engineering and Construction

Committed & Reliable

Tanggal : Jakarta, 27 Mei 2022

PO No. : **21303-PO-SMN-MEP-000001 Condensate Transfer Pump PT. Duraquipt Cemerlang**

Kepada : **JOB Pertamina - Medco E&P Simenggaris**
The Energy Building, 26th Floor
SCBD Lot 11A, Jl. Jend. Sudirman, Jakarta Selatan, Indonesia. 12190

UP : **Bp. Hendri Yanjaya**
QA QC Coordinator – JOB Simenggaris

Perihal : Undangan Witness *FAT Condensate Transfer Pump*

Dengan hormat,

Sehubungan dengan rencana pelaksanaan Witness "*FAT Condensate Transfer Pump*" maka dengan ini kami mengundang personel pewakilan PERUSAHAAN untuk menyaksikan pelaksanaan agenda tersebut diatas, dengan rincian sebagai berikut:

Hari, Tanggal : Jumat, 3 Juni 2022
Waktu : 09.30 - Selesai
Tempat : PT. Duraquipt Cemerlang
Jl. Limo Raya No. 9
Kecamatan Limo. Kota Depok
Jawa barat 16515

Agenda : Performance Test (ITP Line 5.1)
Mechanical Run Test (ITP Line 5.2)
Tag No. SMN-PBA-331

MEI's PIC : Amri (0821-9882-8447)

Demikian Undangan ini kami sampaikan, atas perhatian dan kehadirannya kami ucapkan terima kasih.

Hormat kami,

PT. MEINDO ELANG INDAH
QA/QC DEPARTMENT

Sekar Putri P.
QA QC Engineer

skkmigas PERTAMINA MEDCOENERGI Oil & Gas

JOINT OPERATING BODY
PERTAMINA MEDCO E&P SIMENGGARIS
DAILY REPORT QA/QC

Report No: MEI-KEI-01
PO No.: 21303-PO-SMN-MEP-000114
Contractor : PT. Meindo Elang Indah
Supplier: PT. Karya Energi Indonesia
Location: Business Park Kebon Jeruk, Jakarta Barat
Equipment: Spare part for analyzer transmitter (revitalization)
Date of inspection : 30-May-2022
Next inspection schedule : N/A

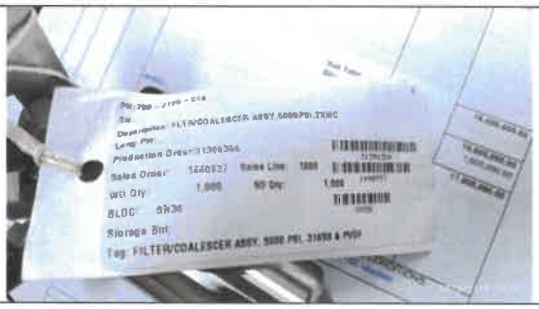
Detail of Inspection Activity :

1. Visual & Quantity check

Sample Photograph Records :

Membran Genie Filter, Part#101-506 (2 EA)

Assy Aurora HMI/Display (1 EA)



Filter Coaslescer Assembly ; 5000 PSIG, 316SS, 0.1 Micron, ¼" Compression Fittings

MINUTES OF MEETING
INSPECTION PT MEINDO ELANG

PO Number : 21303 - PO - SMN - MEP - 000114
Item : Spare part for Analyzer Transmitter
Minutes Of Meeting Recap :

Date : 30 / 05 / 2022

No	SUBJECT ITEM	DESCRIPTION OF DISCUSSION	PIC/Source	Action/Output of MOM
1.	1	Spare part for analyzer transmitter <Revitalization>. - Type 6 membran kit <contain 5 membran and 5 flow celostomer ORing PN 701 505		ok.
2.	2.	Assy aurora HMI/Disp/ Label PN 705-1277 02.		
3.	3	Doc COO dan COE.		
4.				
5.				
6.				

1. PT. KEI : AUP - S.

2. PT MEI
Ahmad

3. JOB - PMEPS
BAYU Y.C

-- End of MoM --

Daftar Hadir Inspeksi Barang

No PO:

- 21239-PO-JAWA1-MEP-000208
- 21303-PO-SMN-MEP-000114

No	Tanggal	Nama	Perusahaan	No Telepon / HP	Email
	30/05/2022	Alif Suryanto.	PT. Karya Energi Indonesia	085707062287	alif@karya-energi.com
	30/05/2022	BAYU YAHYA CHANDRA	JOB - RMEPS	0813 1449 81 27	bayuchandra29@gmail.com
	30/05/2022	Ahmad Shalehuddin	PT MEI	081 999 206 315	Ahmad.Shalehuddin@meindo.com ahmad.shalehuddin@gmail.com

PT Karya Energi Indonesia

Alif. S.

PT Meindo Elang Indah

Ahmad.

DEPRIWANGGA

TECHNICAL INSPECTION & CERTIFICATION SERVICES

SURAT PERMINTAAN KERJA LEMBUR

No. : /DW/...../...../2021

Kepada Medco Job Simenggaris

Mengharap bantuan Saudara untuk menugaskan :

Nama	:	Bayu Yahya Chandra
No.ID Card	:	
Bagian / Penempatan	:	QA/QC Inspector

Untuk melaksanakan kerja lembur :

Hari / Tanggal	:	3-Jun-22
Waktu	:	8:00 s/d 17:00 Jumlah : 8 Jam
Lokasi	:	Depok - Jawa Barat
Pekerjaan Yang Dilem	:	FAT Condensate Transfer Pump at PT Duraquipt Cemerlang, Jl Limo Raya No.9, Depok- Jawa Barat

Jakarta, 27 May 2022

Submitted	Acknowledge	Approved
QA/QC Coordinator	Project Control Head	Project Manager
Hendri yanjaya	Pur	Akh

Ditandatangani elektronik:
Purnomo Rusdiono
30-05-2022
14:52:25 WIB

Ditandatangani elektronik:
Akhmad Zamroni
31-05-2022
08:49:05 WIB

PT. DURAQUIPT CEMERLANG
YOUR TRUSTED PARTNER IN INDUSTRIAL PUMP & VALVE SOLUTION
Jl. Limo Raya No. 9, Limo, Depok
West Java, Indonesia
Email : ptdqc@cbn.net.id, Website: www.ptdqc.com

ATTENDEES LIST

DATE : 3 Juni 2022
TIME : 9.30 - Selesai
VENUE : Meeting room H-1
SUBJECT : FAT

No.	NAME	COMPANY / POSITION	SIGNATURE
1.	Fedi	Duraquipt	
2.	Elen	— " —	
3.	BAYU YAHYA CHANDRA	JOB P-MEPS	
4.	M. Yandhy	MEI / mech eng	
5.	Ibnu Dwijat Wijayanto	MEI / Mech eng	
6.	ANRI USMAWAN	MEI / QC	
7.	ANGGA PRASTIAWAN	RMI / Inspector	
8.	S. afif	JOB P-MEPS / Elect	
9.	SUHARYANTO	— " — / MECH.	

PT. DURAQUIPT CEMERLANG
YOUR TRUSTED PARTNER IN INDUSTRIAL PUMP SOLU
Jl. Raya Limo No. 9, Ds. Limo, Depok 16515, Jawa Barat – INDONESIA
Phone (62-21) 7535559, Fax (62-21) 7536031. Website : www.ptdqc.com

CLYDEUNION PUMPS AUTHORISED SERVICE PROVIDER

CERTIFICATE NO.10870

MINUTES OF MEETING

Subject	**FAT Condensate Pump PO 21303-PO-SMN-MEP-000001 Duraquipt**			
Date	3 Juni 2022			
Attendance	Name	Sign	Name	Sign
	BAYU YAHYA C.			
	M. Yandhy			
	Ibnu Drajat			
	Amri Usmanwan			
	Angga Prastiawan			

No.	Item Discussion	Action By	Due Date	Status
1	FAT pompa yang meliputi visual & dimensional check, performance test dan Mech Run Test sudah dilakukan dengan hasil terlampir			Info
2	Punch list FAT yang harus diselesaikan sebelum pengiriman - Nameplate pompa & nameplate package - Oiler belum terpasang - Rotation arrow pompa belum terpasang - Coupling guard (permanent) belum terpasang - Nut mounting pompa dan motor masih menggunakan temporary - Pump drain belum terpasang - Dokumen plan system 75 agar dilampirkan dalam MDR - Touch up painting	Duraquipt	8-Jun-22	
3	Pump curve versi lemigas dengan SG 0.8 agar dimunculkan Kembali di dalam dokumen pump performance curve SMN-V-DQC-M-DS-00-002 dengan menambahkan informasi NPSH margin	Duraquipt	6-Jun-22	
4	JOB meminta supaya Duraquipt memastikan item NPSHR pompa dilakukan pengetesan sehingga nilai nya sesuai dengan yang tercantum dalam			

PT. DURAQUIPT CEMERLANG
YOUR TRUSTED PARTNER IN INDUSTRIAL PUMP SOLUTION
Jl. Limo Raya No. 9, Ds. Limo, Depok 16515, Jawa Barat - INDONESIA
Phone (62-21) 7535559, Fax (62-21) 7536031, Website : www.ptdqc.com

CERTIFIED OCCUPATIONAL HEALTH AND SAFETY SYSTEM
ISO 9001 CERTIFIED ORGANIZATION
ISO 9001 2000 Cert No.10670

BERITA ACARA FAT
POMPA (PERALATAN PUTAR)

Pada tanggal Tiga Juni Dua Ribu Dua Puluh Dua telah dilakukan pemeriksaan teknis dan FAT terhadap satu (1) unit pompa sentrifugal (API Pump) untuk disupply ke PT. Meindo Elang Indah (untuk kemudian digunakan oleh JOB PERTAMINA MEDCO E&P SIMENGGARINS sebagai end user) sesuai dengan kontrak PO nomor 21303-PO-SMN-MEP-000001 yang dilakukan di PT Duraquipt Cemerlang Jl. Limo Raya No.9, Depok, sesuai data pompa sebagai berikut

1. Tag No : SMN-PBA-331
   Name : Condensate Transfer Pump

Pemeriksaan dan pengujian yang dilakukan adalah sebagai berikut :

1. Penelaahan dokumen teknis peralatan, antara lain :
   a. FAT Procedure
   b. Datasheet Pompa
   c. Sertifikat kalibrasi peralatan ukur

2. Verifikasi dan pemeriksaan fisik/visual peralatan
   a. Performance Test
   b. Mechanical Running Test

3. Hasil pengujian telah dilakukan dengan hasil sudah sesuai dan diterima seperti terlampir.

Demikian Berita Acara ini dibuat agar dapat digunakan sebagai mana mestinya.

Depok, 3 Juni 2022

PT. Duraquipt Cemerlang	PT Meindo Elang Indah	JOB PERTAMINA MEDCO E&P SIMENGGARIS	PT. Radiant Utama Interinsco tbk.	Ditjen Migas
	03/22/6 Amri	03/22/06	3/22/6	
	Amri Gunawan	BATU YAHYA C.	Angga Prastiawan	
Melakukan	Menyaksikan	Menyaksikan	Menyaksikan	Menyaksikan

skkmigas PERTAMINA MEDCOENERGI Oil & Gas

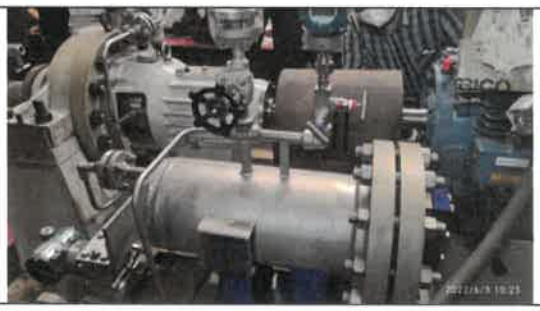
JOINT OPERATING BODY
PERTAMINA MEDCO E&P SIMENGGARIS
DAILY REPORT QA/QC

Report No: MEI-DQC-01
PO No.: 21303-PO-SMN-MEP-000001
Contractor : PT. Meindo Elang Indah
Supplier: PT. Duraquipt Cemerlang
Location: Jl. Limo Raya No.9, Depok – Jawa Barat
Equipment: Condensate Transfer Pump (Tag No. SMN-PBA-331)
Date of inspection : 3-June-2022
Next inspection schedule : TBA

Detail of Inspection Activity :

1. Visual & Dimension Check
2. Performance Test
3. Mechanical Run Test (4 hours)

Sample Photograph Records :

<table>
<tr><td> </td><td>  </td></tr>
<tr><td>Skid of Condensate Transfer Pump</td><td>Plan System 75</td></tr>
<tr><td> </td><td> </td></tr>
<tr><td>Name Plate Motors</td><td>Mechanical Run Test on Flow Rated 140 GPM</td></tr>
<tr><td> </td><td> </td></tr>
<tr><td>Discharge Pressure (Psi) on on Flow Rated 140 GPM</td><td>Suction Pressure (Psi) on on Flow Rated 140 GPM</td></tr>
</table>

PT. DURAQUIPT CEMERLANG
Your Trusted Partner in Industrial Pump And Valves Solution

FACTORY - MECHANICAL RUN TEST

QH2 PUMP

QUALITY ASSURANCE DEPT.

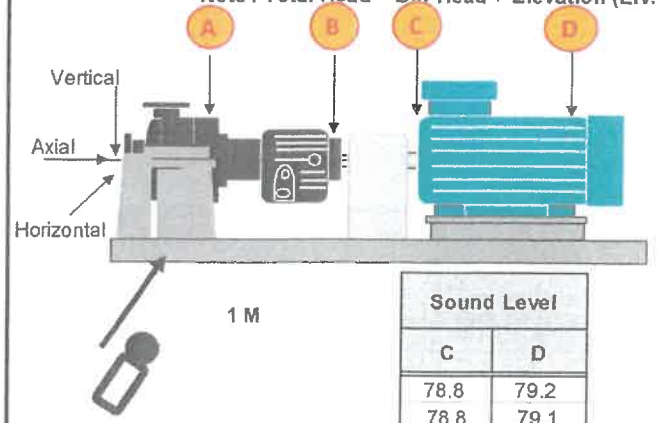
PUMP DATA							
CUSTOMER	JOB PERTAMINA - MEDCO E&P SIMENGGARIS	PUMP MANUF.	DURA PUMP			IMPELLER DIA	307.00
PROJECT	SOUTH SEMBAKUNG GAS PLANT	MODEL / SIZE	ATC J1.5X13			PUMP EFFICIENCY	38.7 %
PO No.	21303-PO-SMN-MEP-00001	TOTAL HEAD (FT)	368			Shut Off Head	440 FT
SO No.	21700278	FLOW RATE (GPM)	140	RPM	2960	Power	32.90 HP
TAG No.	SMN-PBA-331	PUMP S/N	221010				

MOTOR DATA							
Brand	ABB	Power (kW)	30	Phase	3	Amp	51.9
Frame	M3KP 200MLC	Freq. (Hz)	50	Voltage	400	Motor Efficiency	92.40%
Type	INDUCTION	Speed (Rpm.)	2946	PF	0.89	Serial no.	3G1F2152808409

MECHANICAL RUN TEST RECORD

No	Time	Flow (GPM)	Pump Speed (Rpm)	Disch Press (Psi)	Suction Press (Psi)	Diff Head (FT)	Elevation (FT)	Diff VelocityHead (FT)	* Total Head (FT)	Motor Amp.	Voltage (V)	Motor PF	Liquid Power (HP)	Shaft Power (HP)	Pump Efficiency (%)	Temperature (°C)					Ambient (°C)
																Pump		Motor			
																DE	NDE	DE	Centre	NDE	
1	11.25	140.1	2960	164	4.6	368.2	0.30	0.00	368.51	42.3	380	0.89	13.0	30.7	42.5	53.8	39.8	66.3	34.4	36.1	30.5
2	11.55	140.2	2962	164	4.6	368.2	0.30	0.00	368.51	42.4	380	0.89	13.0	30.8	42.4	56.7	43.5	69.9	49.0	37.8	31.7
3	12.25	140.4	2964	164	4.5	368.4	0.30	0.00	368.75	41.9	380	0.89	13.1	30.4	43.0	58.9	46.3	72.7	52.5	39.4	32.8
4	12.55	140.2	2964	164	4.5	368.4	0.30	0.00	368.75	42.4	380	0.89	13.1	30.8	42.4	59.8	47.3	73.4	53.7	40	33
5	13.30	140	2950	164	4.5	368.4	0.30	0.00	368.75	43.6	380	0.89	13.0	31.6	41.2	60.1	48.3	73.8	52.1	40.5	32.9
6	14.00	140	2960	164	4.3	368.9	0.30	0.00	369.21	43.7	380	0.89	13.1	31.7	41.2	60.7	48	73.2	54.4	40.6	32.8

*** Note : Total Head = Diff Head + Elevation (Elv. Dicsh pres to pump centre) + Diff velocity head**



Sound Level	
C	D
78.8	79.2
78.8	79.1
80.4	79.8
79.2	80.0
80.2	80.4
79.2	80.6

VIBRATION RECORD (mm/s)													Sound Level	
FLOW (M3/Hr)	A			B			C			D				
	H	V	A	H	V	A	H	V	A	H	V	A	A	B
140.1	0.52	0.47	0.68	0.93	1.01	0.55	1.35	0.32	1.32	1.33	1.00	0.90	80.4	80.3
140.2	0.56	0.54	0.69	0.95	1.03	0.47	1.35	0.54	1.41	1.45	0.80	0.95	80.1	80.4
140.4	0.58	0.52	0.98	0.98	1.09	0.47	1.42	1.25	0.98	1.36	1.03	1.00	80.6	80.4
140.2	0.56	0.49	0.91	0.91	0.97	0.47	1.35	0.52	1.29	1.35	1.02	0.95	80.9	79.9
140	0.47	0.54	0.86	0.86	1.02	0.50	1.52	0.35	1.18	1.47	0.78	0.98	81.2	80.3
140	0.52	0.52	0.85	0.85	0.98	0.48	1.35	1.35	1.30	1.32	1.00	0.94	80.9	80.3

Tested By	Witnes By				
Donasio / Erwan	Amzi.L	Ibnu Dayat	M. Syarifu	BAN Y. C	Angga . P
Date: 3 June '22	03-6-22	03-6-22	03-06-22	03/06/22	03/06/22

PT. DURAQUIPT CEMERLANG

Your Trusted Partner in Industrial Pump And Valves Solution

FACTORY - PERFORMANCE TEST

OH2 PUMP

QUALITY ASSURANCE DEPT.

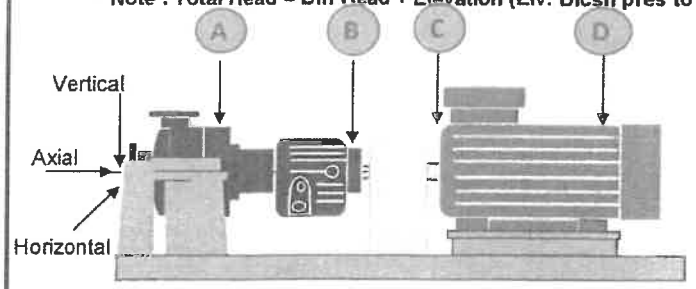
PUMP DATA							
CUSTOMER	JOB PERTAMINA - MEDCO E&P SIMENGGARIS	PUMP MANUF.	DURA PUMP			IMPELLER DIA	307.00
PROJECT	SOUTH SEMBAKUNG GAS PLANT	MODEL / SIZE	ATC J1.5X13			PUMP EFFICIENCY	38.7 %
PO No.	21303-PO-SMN-MEP-00001	TOTAL HEAD (FT)	368			Shut Off Head	440 FT
SO No.	21700278	FLOW RATE (GPM)	140	RPM	2960	Power	32.90 HP
TAG No.	SMN-PBA-331	PUMP S/N	221010				

MOTOR DATA							
Brand	ABB	Power (kW)	30	Phase	3	Amp	51.9
Frame	M3KP 200MLC	Freq. (Hz)	50	Voltage	400	Motor Efficiency	92.40%
Type	INDUCTION	Speed (Rpm.)	2946	PF	0.89	Serial no.	3G1F2152808409

PUMP PERFORMANCE TEST RECORD

No	Time	Flow (GPM)	Pump Speed (Rpm)	Disch Press (Psi)	Suction Press (Psi)	Diff Head (FT)	Elevation (FT)	Diff VelocityHead (FT)	* Total Head (FT)	Motor Amp.	Voltage (V)	Motor PF	Liquid Power (HP)	Shaft Power (HP)	Pump Efficiency (%)	Temperature (oC)				
																Pump		Motor		
																DE	NDE	DE	CENTER	NDE
1	11.18	0	2977	202	5.0	455.1	0.30	0.00	455.37	26	380	0.89	0.0	18.9	0.0	-	-	-	-	-
2	11.15	28	2974	198	4.9	446.1	0.30	0.38	446.74	29.6	380	0.89	3.2	21.5	14.7	53.1	39.0	66.3	43.8	35.9
3	11.09	136.0	2956	167	4.7	374.9	0.30	8.88	384.09	43.3	380	0.89	13.2	31.4	42.0	50.3	36.5	62	43.1	34.6
4	**10.51**	**140.5**	**2969**	**164**	**4.8**	**367.8**	**0.30**	**9.48**	**377.53**	**43.6**	380	**0.89**	**13.4**	**31.6**	**42.3**	**42.4**	**29.5**	**50.8**	**33.9**	**30.3**
5	10.58	187	2957	110	4.4	243.9	0.30	16.79	261.02	49.3	380	0.89	12.3	35.8	34.4	47.6	34.4	60.2	39.5	33.1

* Note : Total Head = Diff Head + Elevation (Elv. Dicsh pres to pump centre) + Diff velocity head



VIBRATION RECORD (mm/s)													
FLOW (M3/Hr)	A			B			C			D			Sound Level
	H	V	A	H	V	A	H	V	A	H	V	A	
0													
28	0.37	0.53	0.62	0.84	0.99	0.42	1.26	0.58	1.49	1.30	1.11	1.10	75.3
136	0.58	0.54	0.76	0.92	0.98	0.46	1.17	0.39	1.10	1.20	0.63	0.82	79.9
140.5	**0.58**	**0.38**	**0.79**	**0.90**	**1.09**	**0.61**	**1.14**	**0.48**	**1.10**	**1.14**	**0.78**	**0.84**	**80.1**
187	0.94	0.82	1.69	1.43	1.88	1.25	1.20	0.52	1.10	1.18	0.90	0.90	84.3

Correction to rated speed 2960 rpm **SG 0.8**

No	Pump Speed (Rpm)	Flow (GPM)	Head (FT)	Shaft Power (HP)	Eff (%)
1	2960	0.0	450.2	14.8	0.0
2	2960	27.9	442.5	16.9	14.7
3	2960	136.2	385.1	25.2	42.0
4	**2960**	**140.1**	**375.2**	**25.1**	**42.3**
5	2960	187.2	261.6	28.7	34.4

Tested By	Witness By	REMARKS	As per API 610 11th edt at Rated Flow
		ACCEPTED ☑	1. Head tolerance -3% ~ +3%
			Test result 375.2 FT, Deviation : 2.0%
		REJECTED ☐	2. Shutt Off Head -8% ~ +8%
			Test resul 450.2 FT, Deviation : 2.3%
			3. Vibration Max 3 mm/s
			Test Result max 1.88 mm/s RMS
			4. Power + 4%
			Test result 25.1 HP, Deviation : -23.7%
Donasto / Erwan	Ahmad Ibnu D M. Yordan Batu Y.C		
Date: 3 June '22	03-6-22 03-6-22 03-06-22 03/06/22		

FACTORY - PERFORMANCE TEST

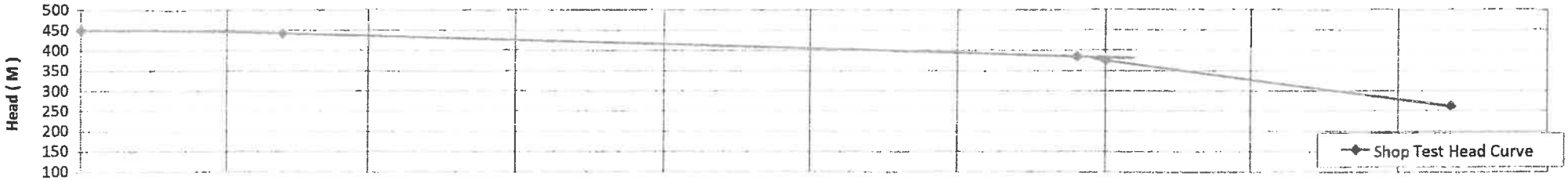
QH2 PUMP

QUALITY ASSURANCE DEPT.

PUMP DATA							
CUSTOMER	JOB PERTAMINA - MEDCO E&P SIMENGGARIS	PUMP MANUF.	DURA PUMP			IMPELLER DIA	307.00
PROJECT	SOUTH SEMBAKUNG GAS PLANT	MODEL / SIZE	ATC J1.5X13			PUMP EFFICIENCY	38.7 %
PO No.	21303-PO-SMN-MEP-00001	TOTAL HEAD (FT)	368			Shut Off Head	440 FT
SO No.	21700278	FLOW RATE (GPM)	140	RPM	2960	Power	32.90 HP
TAG No.	SMN-PBA-331	PUMP S/N	221010				

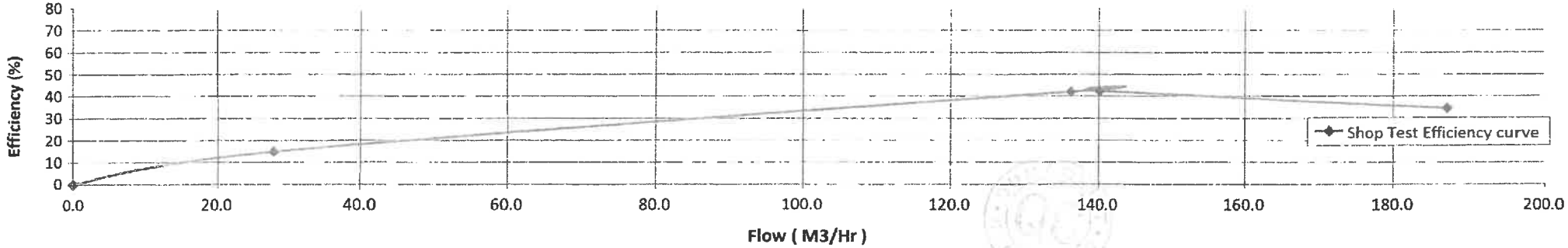
PUMP PERFORMANCE CURVE

HEAD CURVE



POWER CURVE

EFFICIENCY CURVE



	kurva. Pengujian menggunakan softstarter untuk mengetahui in rush current dan temperature rise Noise level diukur ulang pada saat flow 28 & 136 m3/hr Melampirkan megger test report untuk motor PT. Duraquipt akan menyampaikan kepada Meindo dan JOB pengetesan yang bisa dilakukan			
5	Informasi pompa ready exwork 9-Jun-22			Info

PT. DURAQUIPT CEMERLANG
Your Trusted Partner in Industrial Pump And Valves Solution

URS CERTIFICATE NO 16870 Issue No 2

FACTORY - MECHANICAL RUN TEST
OH2 PUMP
QUALITY ASSURANCE DEPT.

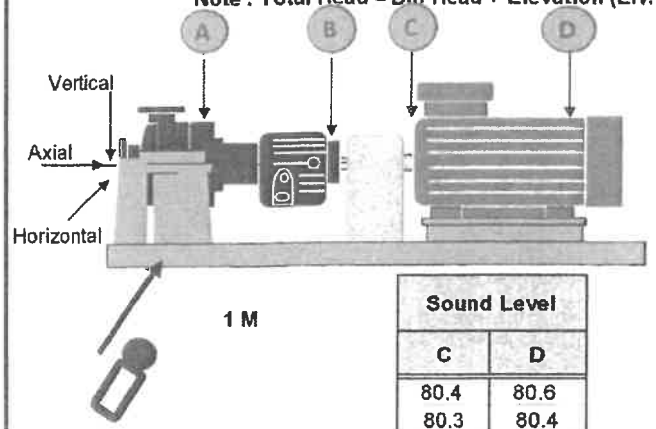
PUMP DATA					
CUSTOMER	JOB PERTAMINA - MEDCO E&P SIMENGGARIS	PUMP MANUF.	DURA PUMP	IMPELLER DIA	307.00
PROJECT	SOUTH SEMBAKUNG GAS PLANT	MODEL / SIZE	ATC J1.5X13	PUMP EFFICIENCY	38.7 %
PO No.	21303-PO-SMN-MEP-00001	TOTAL HEAD (FT)	368	Shut Off Head	440 FT
SO No.	21700278	FLOW RATE (GPM)	140 RPM 2980	Power	32.90 HP
TAG No.	SMN-PBA-331	PUMP S/N	221010		

MOTOR DATA							
Brand	ABB	Power (kW)	30	Phase	3	Amp	51.9
Frame	M3KP 200MLC	Freq. (Hz)	50	Voltage	400	Motor Efficiency	92.40%
Type	INDUCTION	Speed (Rpm.)	2946	PF	0.89	Serial no.	3G1F2152808409

MECHANICAL RUN TEST RECORD

No	Time	Flow (GPM)	Pump Speed (Rpm)	Disch Press (Psi)	Suction Press (Psi)	Diff Head (FT)	Elevation (FT)	Diff VelocityHead (FT)	* Total Head (FT)	Motor Amp.	Voltage (V)	Motor PF	Liquid Power (HP)	Shaft Power (HP)	Pump Efficiency (%)	Temperature (°C) Pump DE	Pump NDE	Motor DE	Motor Centre	Motor NDE	Ambient (°C)
7	14.30	140.5	2960	164	4.3	368.9	0.30	0.00	369.21	42.6	380	0.89	13.1	30.9	42.4	60.1	48.1	71.8	54.2	39.9	32.2
8	15.00	140.3	2962	164	4.3	368.9	0.30	0.00	369.21	42.7	380	0.89	13.1	31.0	42.2	60.3	47.9	69.4	53.3	39.1	31.3
9	15.30	140.2	2958	164	4.3	368.9	0.30	0.00	369.21	42.8	380	0.89	13.1	31.1	42.1	58.8	46.8	66.6	50.7	37.1	30.3

*** Note : Total Head = Diff Head + Elevation (Elv. Dicsh pres to pump centre) + Diff velocity head**



Sound level meter

Sound Level C	Sound Level D
80.4	80.6
80.3	80.4
80	80.3

VIBRATION RECORD (mm/s)

FLOW (M3/Hr)	A H	A V	A A	B H	B V	B A	C H	C V	C A	D H	D V	D A	Sound Level A	Sound Level B
140.5	0.54	0.48	0.78	0.97	1.02	0.52	1.38	0.61	1.26	1.36	1.00	1.02	81.2	80
140.3	0.52	0.55	0.96	0.96	1.02	0.45	1.28	0.42	1.10	1.35	0.96	0.84	81	80.2
140.2	0.57	0.56	0.94	0.95	0.98	0.52	1.24	0.35	0.83	1.15	0.79	0.72	81	80.3

Tested By	Witnes By			
Donasta / Erwan	Amri.L	Ibnu Drajat	BAYU Y. C	Angga. P
Date: 3 June '22	03-6-22	03-6-22	03/06/22	03/06/22