Title	End of Well Report and Service Quality Meeting (SQM)					
Target Population	Field Engineers & Field Specialist					
This requirement is applicable to:	✓	JFE		FST		EOT
	✓	FE1		FS1		EO1
	✓	FE2		FS2		EO2
			✓	FS3		EO3

Objective:

DB is committed to providing Service Quality Excellence to our Clients.

The objective of this task is to ensure that employees who are required to compile and / or prepare the report knows the process and required reporting standard and understand the purpose of the report.

Tasks:

- Compile data about the operations performed in a particular well and prepare the End of well Report (EOWR) after operations finished as per Client's requirement. Include all results, analysis, incidents, lesson learned, action plans, suggestion and improvements.
- In case of any catastrophic, major or serious incident occurred during the operation, discuss with HSE manager, FSM and Job Supervisor the analysis and further action plans.
- Include the QHSE recommendations and final investigation report if present in the EOWR.
- Assist in the preparation of a Service Quality Meeting (SQM) with client and present the EOWR.

REQUIRED EVIDENCE:

1 End of Well Report ☐

OVERALL SCORE	STRONG			ADEQUATE			IMPROVEMENT NEEDED		
	10	(9)	8	7	6	5	4	3	2

MENTOR / ASSESSOR's Comments & Recommendation (Service Quality Engineer):			
Hafiz is capable and well verse in preparing end of well report as well as service quality meeting slide. Well present to the client.			
Signature		Assessment Date	14/10/2024
Name	MUHAMMAD NOORHAFIZAN BIN AB. MAJID	Position	SERVICE QUALITY ENG.

FSM / OM Comments & Recommendation: Manage to deliver task very well.			
Signature	 M. KHAIRUL RIDHWAN AZIZAN CTS FIELD SERVICE MANAGER Dimension Bid (M) Sdn Bhd	Assessment Date	14/10/24
Name		Position	FSM

PETRONAS

Neu Dimension
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SERVICE QUALITY MEETING (SQM)

CLIENT : PETRONAS

YEAR : 2024

QUARTER: Q4 2023, Q1 & Q2 2024

PRESENTATION DATE: 12th Aug 2024

1

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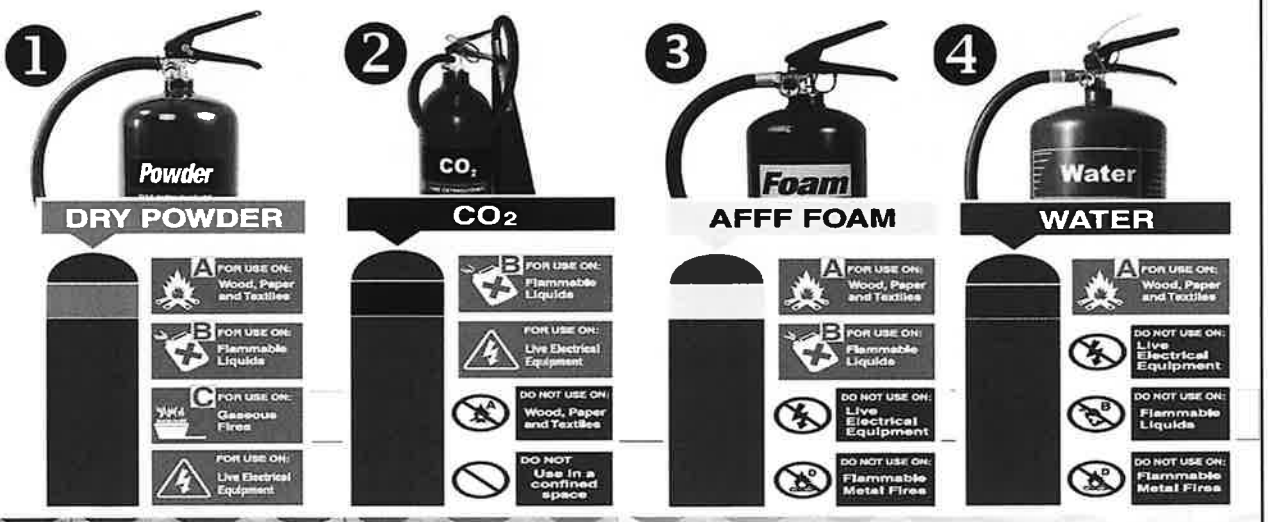
HEALTH, SAFETY, SECURITY & ENVIRONMENT (HSSE) – HSSE SHARING – KNOW YOUR FIRE EXTINGUISHER CODE



2

Integrity Moment

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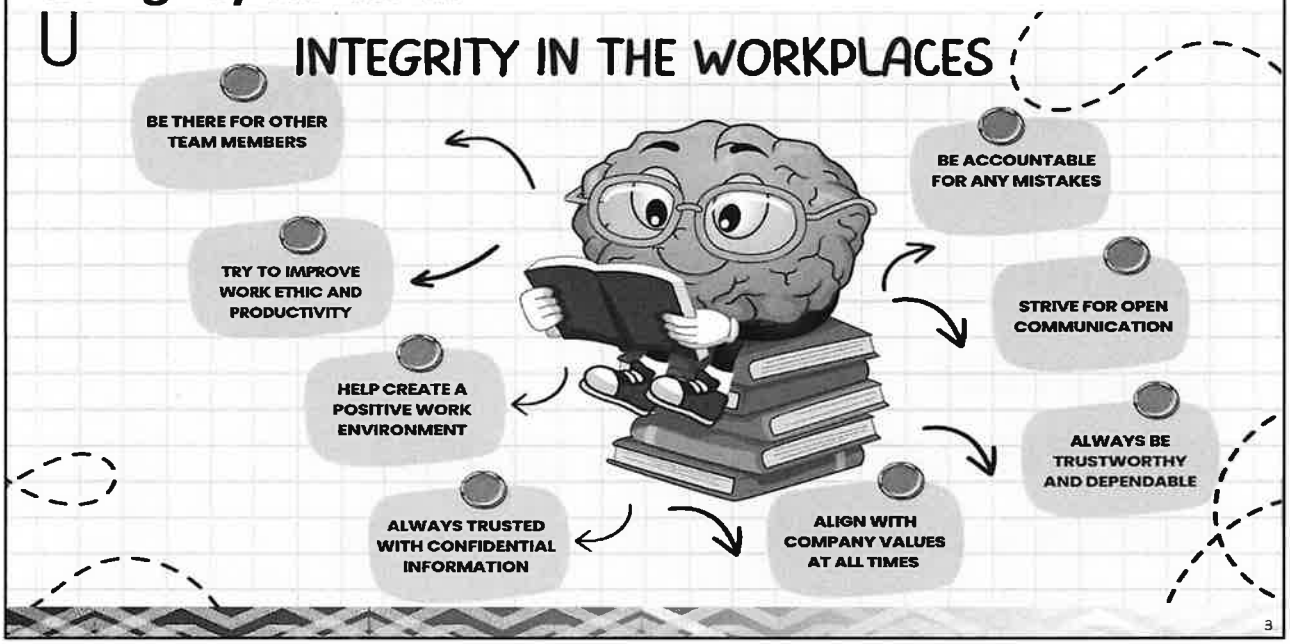
U

INTEGRITY IN THE WORKPLACES



3

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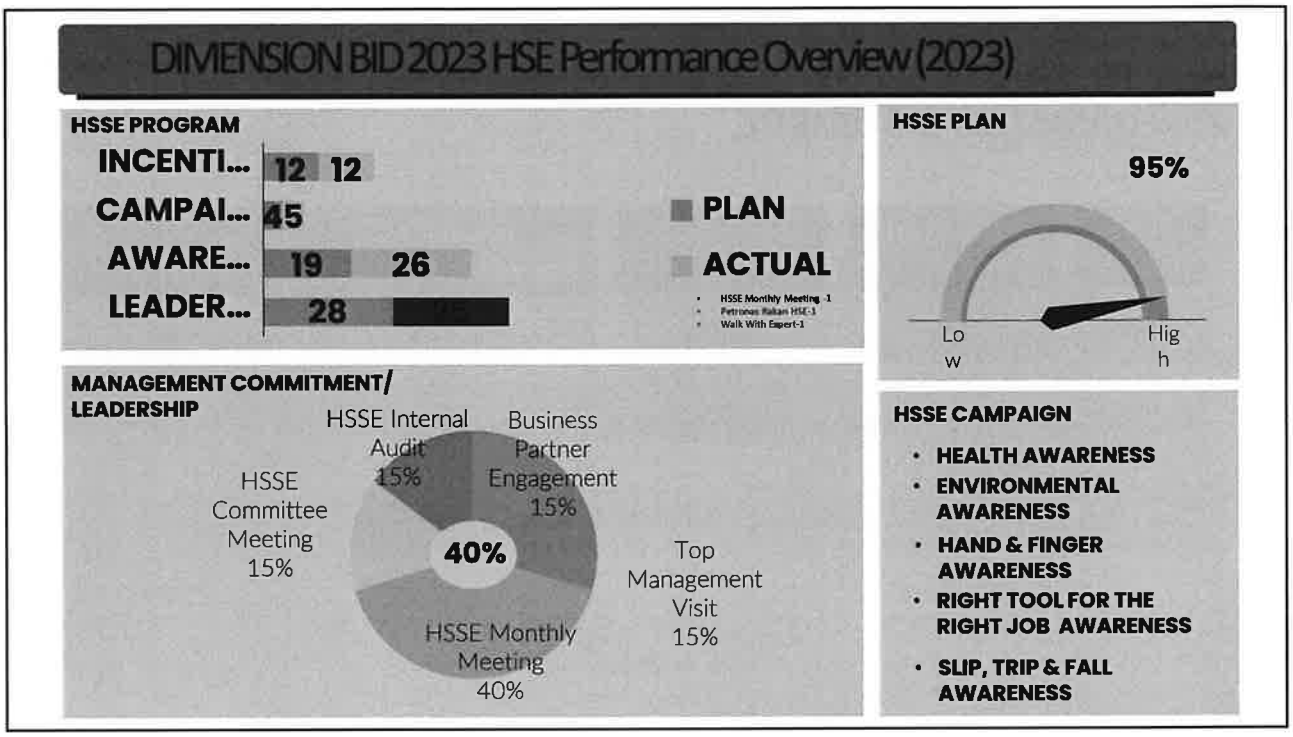
HEALTH, SAFETY, SECURITY & ENVIRONMENT (HSSE) – PERFORMANCE & STATISTIC

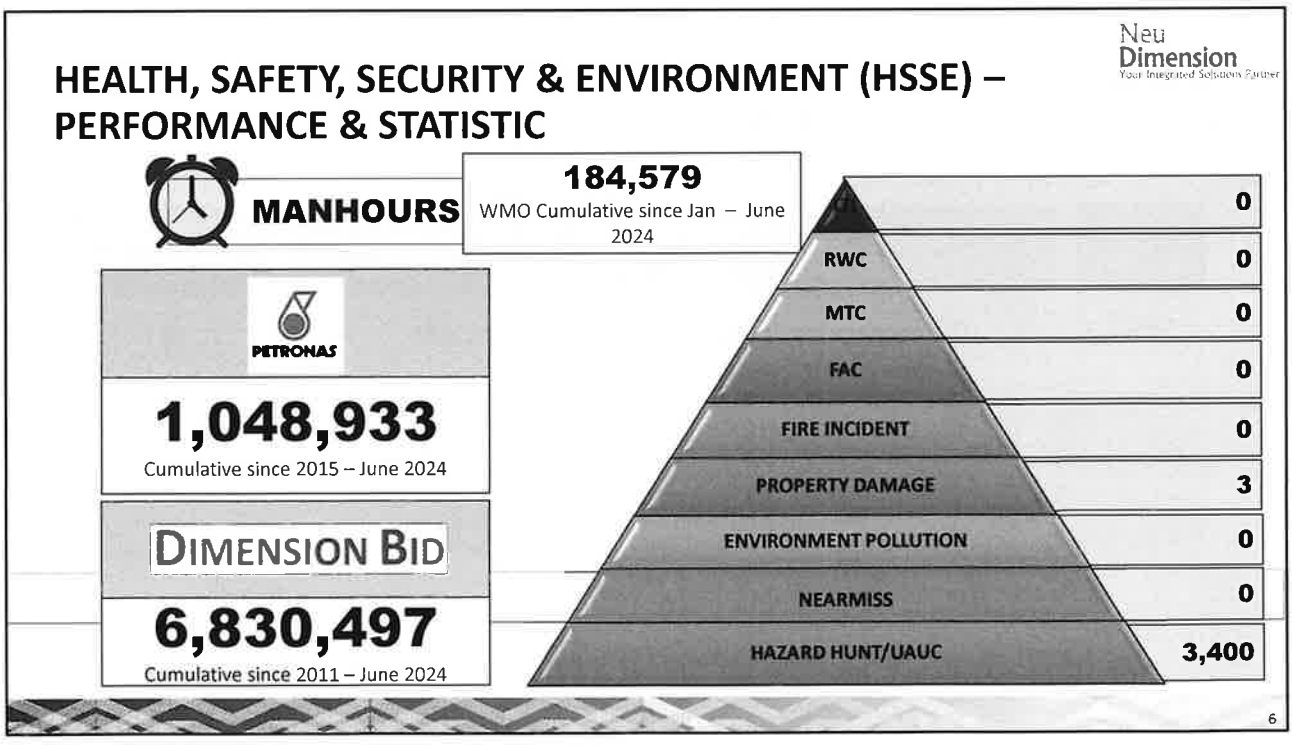
YEAR	QUARTER	MANHOURS	UNSAFE ACT UNSAFE CONDITION	RECORDABLE INCIDENT
2023	Q4	87,756	1,410	0

MANHOURS WORK FOR PCSB : 34,560

UAUC SUBMITTED FOR PCSB: 283

4


DIMENSION BID 2023 HSE Performance Overview (2023)
HSSE PROGRAM
INCENTI...
CAMPAI...
AWARE...
LEADER...
12
12
45
19
26
28
PLAN
ACTUAL
HSSE Monthly Meeting -1
Petronas Rakan HSE-1
Walk With Expert-1
HSSE PLAN
95%
Lo w
Hig h
MANAGEMENT COMMITMENT/ LEADERSHIP
HSSE Internal Audit 15%
Business Partner Engagement 15%
HSSE Committee Meeting 15%
40%
Top Management Visit 15%
HSSE Monthly Meeting 40%
HSSE CAMPAIGN
HEALTH AWARENESS
ENVIRONMENTAL AWARENESS
HAND & FINGER AWARENESS
RIGHT TOOL FOR THE RIGHT JOB AWARENESS
SLIP, TRIP & FALL AWARENESS


HEALTH, SAFETY, SECURITY & ENVIRONMENT (HSSE) – PERFORMANCE & STATISTIC
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MANHOURS
184,579
WMO Cumulative since Jan – June 2024
PETRONAS
1,048,933
Cumulative since 2015 – June 2024
DIMENSION BID
6,830,497
Cumulative since 2011 – June 2024
RWC 0
MTC 0
FAC 0
FIRE INCIDENT 0
PROPERTY DAMAGE 3
ENVIRONMENT POLLUTION 0
NEARMISS 0
HAZARD HUNT/UAUC 3,400
6

HEALTH, SAFETY, SECURITY & ENVIRONMENT (HSSE) – PERFORMANCE & STATISTIC

Neu Dimension
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YEAR	QUARTER	MANHOURS	UNSAFE ACT UNSAFE CONDITION	RECORDABLE INCIDENT
2024	Q1	78,596	1,765	0
MANHOURS WORK FOR PCSB : 27,636				
UAUC SUBMITTED FOR PCSB: 415				

7

HEALTH, SAFETY, SECURITY & ENVIRONMENT (HSSE) – PERFORMANCE & STATISTIC

Neu Dimension
Your Integrated Solutions Partner

YEAR	QUARTER	MANHOURS	UNSAFE ACT UNSAFE CONDITION	RECORDABLE INCIDENT
2024	Q2	105,983	1,635	0
MANHOURS WORK FOR PCSB : 62,052				
UAUC SUBMITTED FOR PCSB: 813				

8

HEALTH, SAFETY, SECURITY & ENVIRONMENT (HSSE) – CONTRACT HSSE PLAN (Q2 2024)

Neu Dimension
Your Integrated Solutions Partner

NO.	HSSE ACTIVITIES	FREQUENCY	TARGET	ACTUAL	MONTH											
					1	2	3	4	5	6	7	8	9	10	11	12
MANAGEMENT COMMITMENT/ LEADERSHIP/COMMUNICATION																
1	HSSE Monthly Meeting	Monthly	12	6												
2	HSSE Committee Meeting	Quarterly	4	2												
3	HSSE Audit & Walkabout	Quarterly	4	2												
4	Business Partner Engagement	Quarterly	4	2												
5	Walk With Expert	Yearly	1	0	Upon request by PSS											
6	PSS I-Care Visit	Yearly	1	0	Upon request by PSS											
7	Petronas Rakan HSE	Yearly	1	0	Upon request by PSS											
8	HSSE Plan 2025 (review)	Yearly	1	0												

9

HEALTH, SAFETY, SECURITY & ENVIRONMENT (HSSE) – CONTRACT HSSE PLAN

Neu Dimension
Your Integrated Solutions Partner

NO.	HSSE ACTIVITIES	FREQUENCY	TARGET	ACTUAL	MONTH											
					1	2	3	4	5	6	7	8	9	10	11	12
INCENTIVES																
9	HSSE Appreciation/Reward	Monthly	12	6												
TRAINING & PROGRAM																
10	New Employee HSSE Induction	Upon Reporting	100%	100%	Upon request by HR											
11	Toolbox Meeting & Safety Talk	Daily	100%	100%												
12	Safety Campaign	Quarterly														
	• Q1 – Ergonomics Awareness Campaign.		1	1												
	• Q2 – Chemical Management Awareness Campaign.		1	1												
	• Q3 – Drops Campaign.		1	0												
	• Q4 - Stop & Intervene Campaign.		1	0												
13	General Housekeeping	Monthly	12	6												
14	Fire Fighting Training	Yearly	1	0												

10

HEALTH, SAFETY, SECURITY & ENVIRONMENT (HSSE) – CONTRACT HSSE PLAN

Neu Dimension
Your Integrated Solutions Partner

NO.	HSSE ACTIVITIES	FREQUENCY	TARGET	ACTUAL	MONTH											
	TRAINING & PROGRAM				1	2	3	4	5	6	7	8	9	10	11	12
15	PPE Refresh Training	Yearly	1	1												
16	Chemical Management Awareness	Yearly	1	1												
17	Drops Awareness Training	Yearly	1	0												
18	Health & PPE Screening – Offshore personnel	Upon req. by Ops	100%	100%	Blood pressure test & PPE check prior crew mobilization to offshore											
19	Scheduled Waste Disposal	Twice per year	2	1												
20	HIRADC/JHA Review	Twice per year	2	1												
21	Emergency Exercise/Well Control Drill	Yearly	8	4												
22	Random Drug & Alcohol Test	Twice per year	2	1												

Percentage Completed	48%

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HSSE & FACILITIES FINDINGS UPDATE

13/10/2024 DIMENSION BID 12

SUMMARY OF WMO HSSE & FACILITY FINDING UPDATES

Neu Dimension
Your Integrated Solutions Partner

No.	Date Issue	Type of reporting	Location	Finding Highlight	Date Close	Status
1	28/2/2023	Hazard Hunt	Open Yard 20	Roof leaking at Office building	15/2/2023	Closed
2	12/12/2023	Hazard Hunt	Open Yard	No water supply near to N2 tank re-fill area.	2/3/2024	Closed
3	12/3/2024	Walkabout	Abu yard	Poor housekeeping and the oily surface at Abu Yard	24/4/2024	Closed
4	22/3/2024	Walkabout	WH41 SLS	Obstruction to the fire fighting equipment by the cargo basket	14/4/2024	Closed
5	23/2/2024	Walkabout	Open Yard 20	No flashback arrestor attached to the Oxy-acetylene hose	21/5/2024	Closed
6	17/4/2024	Hazard Hunt	Lab CTS	Current trip when switch on the lighting	6/5/2024	Closed
7	15/5/2024	Walkabout	Open Yard	Improper secure of gas cylinder	TBA	Open
8	21/5/2024	Walkabout	Abu Yard	Spillage kit not available at chemical storage area	27/5/2024	Closed
9	20/6/2024	Hazard Hunt	Open Yard	Ceiling dropped at in front of surau L1	TBA	Open

Total Findings : 9 | Findings Closed : 7 | Findings Open : 2 | Percentage close : 78%

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DB YARD IMPROVEMENT ACTIVITIES

SUMMARY OF 2024 WMO FACILITY PLAN & UPDATES

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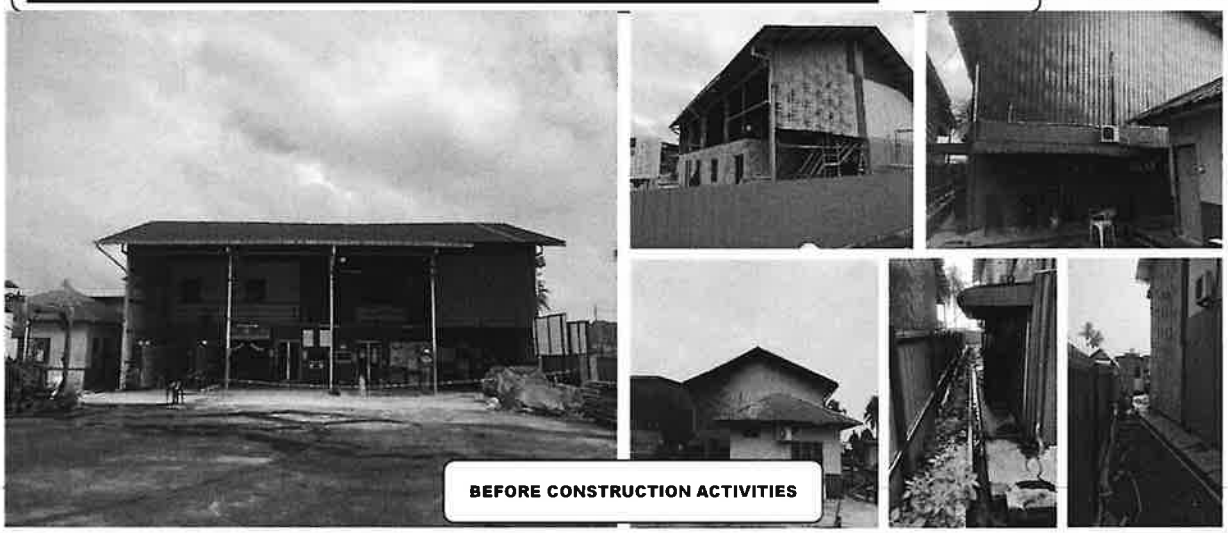
Your Integrated Solutions Partner

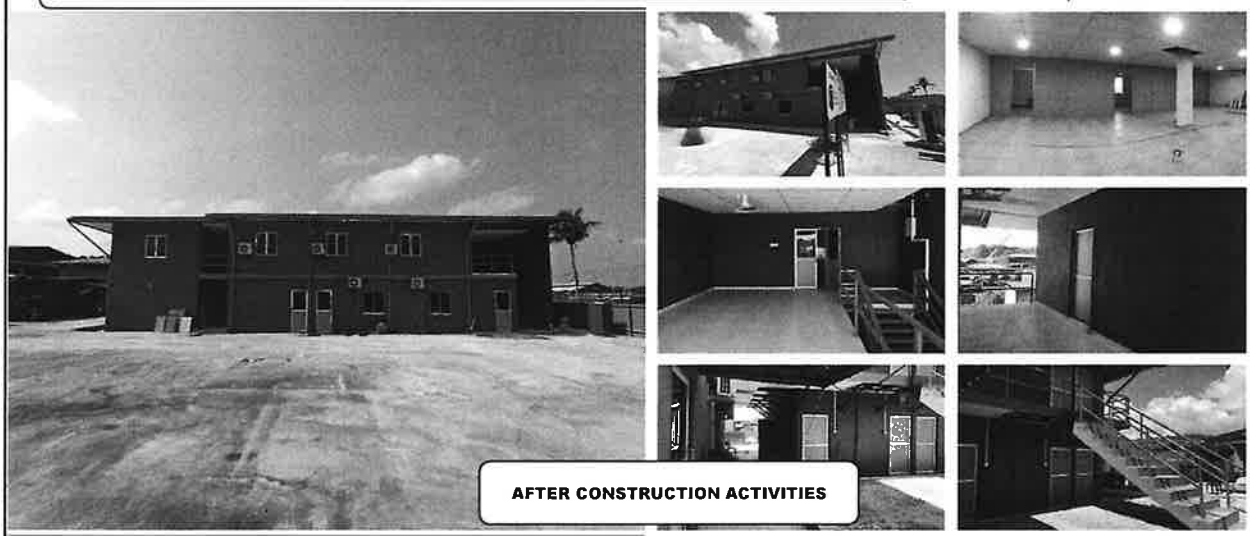


BEFORE CONSTRUCTION ACTIVITIES

Construction of new office building at Open Yard

SUMMARY OF 2024 WMO FACILITY PLAN & UPDATES

Neu Dimension
Your Integrated Solutions Partner



AFTER CONSTRUCTION ACTIVITIES

Construction of new office building at Open Yard

SUMMARY OF 2024 WMO FACILITY PLAN & UPDATES

Neu Dimension
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24 ea of workstation

Finance Room

FSM Room

GM Room

Interior furniture at new office buildings

SUMMARY OF 2024 WMO FACILITY PLAN & UPDATES

Neu Dimension
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Receptionist area at L1

Smoking area at L1

Interior furniture at new office buildings

Neu Dimension
Your Integrated Solutions Partner

HSSE ACTIVITIES & PROGRAM Q4 2023 AND Q1&Q2 2024

VIDEO

Neu Dimension
Your Integrated Solutions Partner

CT#01 OPERATION – OVERVIEW

Neu Dimension
Your Integrated Solutions Partner

MONTH	WELL	PACKAGE	JOB DESCRIPTION	STATUS	SQ INCIDENT	OFFSHORE WORKING DAY (OWD)
Oct	Dulang – A19	CT#01	SCO	Suspend	No	14
Nov	Resak – A09	CT#01	SCO & Add perforation	In-progress	No	26
Dec	Resak – A09	CT#01	SCO & Add perforation	Completed	Yes	14
Dec	Resak – A17	CT#01	SCO	In-progress	No	16
Jan	Resak – A17	CT#01	SCO	In-progress	No	31
Feb	Resak – A17	CT#01	SCO	Completed	No	1
Mar	Dulang-C4S	CT#01	SCO & Cement packer	In – progress	Yes	30
Apr	Dulang C4S	CT#01	SCO & Cement packer	Completed	No	18
Apr	Dulang C15L	CT#01	SCO	In-Progress	No	12
May	Dulang C15L	CT#01	SCO	Completed	No	26
June	Besar A09	CT#01	SCO	Completed	Yes	25

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CT#02 OPERATION – OVERVIEW

Neu Dimension
Your Integrated Solutions Partner

MONTH	WELL	PACKAGE	JOB DESCRIPTION	STATUS	SQ INCIDENT	OFFSHORE WORKING DAY (OWD)
Oct	Dulang-C24	CT#02	Acid Wash	Completed	Yes	24
Oct	Dulang-C4S	CT#02	SCO & Cement packer	In – progress	No	7
Nov	Dulang-C4S	CT#02	SCO & Cement packer	In – progress	No	20
Dec	Dulang-C4S	CT#02	SCO & Cement packer	In – progress	No	9
Jan	Dulang-C4S	CT#02	SCO & Cement packer	In – progress	No	-
Feb	Dulang-C4S	CT#02	SCO & Cement packer	In – progress	No	10
Apr	Dulang D06	CT#02	Zone shut off	In-progress	No	26
May	Dulang D06	CT#02	Zone shut off	Suspend	No	19
May	Dulang D-02	CT#02	Acid Pumping	Completed	No	12
June	Dulang D	CT#02	CTU Standby during slickline pre-CTU	Completed	No	17
June	Dulang D-31	CT#02	SCO & Acid Wash	In-progress	No	13

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CT#03 OPERATION – OVERVIEW

Neu Dimension
Your Integrated Solutions Partner

MONTH	WELL	PACKAGE	JOB DESCRIPTION	STATUS	SQ INCIDENT	OFFSHORE WORKING DAY (OWD)
Dec	Angsi Besar –A9	CT#03	Proppant cleanout	In-progress	No	31
Jan	Angsi Besar –A9	CT#03	Proppant cleanout	Completed	No	2

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PP#01 OPERATION – OVERVIEW

Neu Dimension
Your Integrated Solutions Partner

MONTH	WELL	PACKAGE	JOB DESCRIPTION	STATUS	SQ INCIDENT	OFFSHORE WORKING DAY (OWD)
Oct	Dulang-A02, A18S & A30S	PP#1	Bullheading Injectivity test for donor well	In-progress	No	17
Nov	Dulang-A19	PP#1	Bullheading Injectivity test for donor well	Completed	No	3
Dec	Angsi-E5S	PP#1	Scale Treatment	In-progress	No	23
Jan	Angsi-E5S	PP#1	Scale Treatment	In-progress	No	31
Feb	Angsi-E5S	PP#1	Scale Treatment	In-progress	No	29
Marc	Angsi-E5S	PP#1	Scale Treatment	Completed	No	25
Marc	Angsi-E14	PP#1	Acid Screen Wash	In-progress	No	6
Apr	Angsi-E14	PP#1	Acid Screen Wash	Completed	No	10
Apr	Angsi-E14	PP#1	Equipment standby period due to WOW	Completed	No	11
Apr	Angsi E16	PP#01	Acid Screen Wash	In-progress	No	9
May	Angsi E-16	PP#01	Acid Screen Wash	Completed	No	9

24

PP#02 OPERATION – OVERVIEW

Neu Dimension
Your Integrated Solutions Partner

MONTH	WELL	PACKAGE	JOB DESCRIPTION	STATUS	SQ INCIDENT	OFFSHORE WORKING DAY (OWD)
Apr	Angsi B27S	PP#02	Acid Wash and SISQ Treatment	In-progress	No	6
Apr	Angsi B27S	PP#02	Equipment standby due to personnel work on E16	In-progress	No	9
May	Angsi B27S	PP#02	Equipment standby due to personnel work on E16	In-progress	No	4
May	Angsi B27S	PP#02	Acid Wash and SISQ Treatment	In-progress	No	22
May	Angsi B10S	PP#02	Acid Wash	In-progress	No	5
June	Angsi B10S	PP#02	Acid Wash	Completed	No	5
June	Angsi B11S	PP#02	Acid Wash & SISQ Treatment	Completed	No	25

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C/O#01 OPERATION – OVERVIEW

Neu Dimension
Your Integrated Solutions Partner

MONTH	WELL	PACKAGE	JOB DESCRIPTION	STATUS	SQ INCIDENT	OFFSHORE WORKING DAY (OWD)
Oct	Duyong A4	C/O #01	Resin Patch	Completed	No	20
Nov	Tiong A20	C/O #01	Resin Patch	Completed	No	29
Dec	Duyong C03	C/O #01	Resin Patch	Completed	No	11

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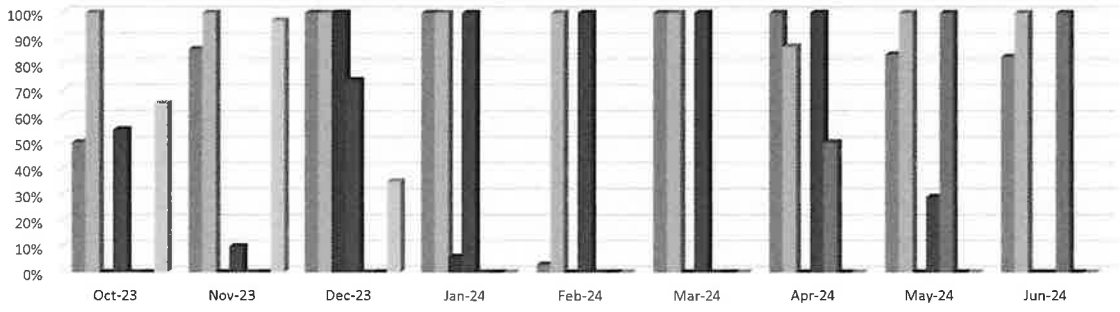
OPERATION – PACKAGE UTILIZATION

Neu Dimension
Your Integrated Solutions Partner

Average Utilization for Q4 2023, Q1 & Q2 2024



	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24
CT#01	50%	86%	100%	100%	3%	100%	100%	84%	83%
CT#02	100%	100%	100%	100%	100%	100%	87%	100%	100%
CT#03	0%	0%	100%	6%	0%	0%	0%	0%	0%
PP#01	55%	10%	24%	100%	100%	100%	100%	29%	0%
PP#02	0%	0%	0%	0%	0%	0%	50%	100%	100%
PP#03	0%	0%	0%	0%	0%	0%	0%	0%	0%
C/OM01 (Resin Patch)	65%	97%	35%	0%	0%	0%	0%	0%	0%

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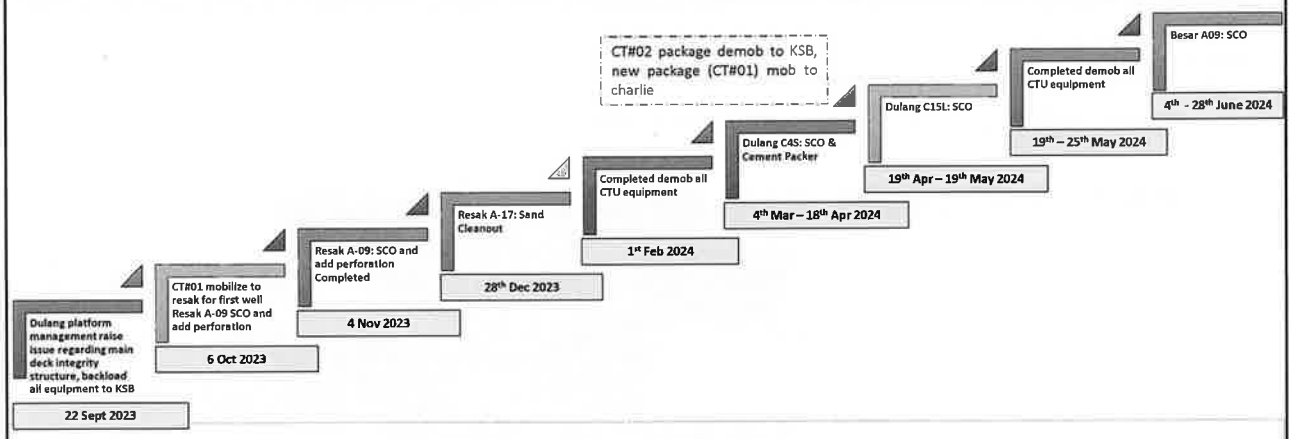
CT#01
RESAK A / DULANG C / BESAR A

28

CT#01 PACKAGE TIMELINE

Neu Dimension
Your Integrated Solutions Partner



OPERATION – ACTIVITY OVERVIEW FOR RESAK A-09 CT#01

Neu Dimension
Your Integrated Solutions Partner

RESAK A-09

HIGHLIGHT/ REMARKS

1. Completed sand cleanout until PBTD at depth 3,551m MDDF.
2. Completed add perforation at interval 3,504 – 3,510m MDDF.

Highlight:

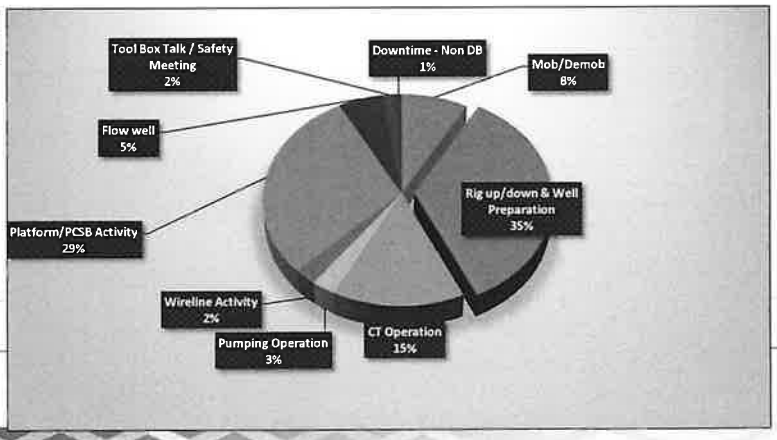
i. CT implemented real time data monitoring system. This has allowed town to view all the data remotely reducing the lead time of data gathering as well as data interpretation.

Lowlight:

i. Addressing on-going CT operation during bad weather.

Start Date	End Date
02-Nov-23 06:30	14-Dec-23 06:30

Activity	Hours	Days
Mob/Demob	03:30	00:08
Rig up/down & Well Preparation	300:55	12:32
CT Operation	289:50	12:04
Pumping Operation	23:30	00:58
Wireline Activity	00:00	00:00
Platform/PCSB Activity	243:00	10:07
Wait on Weather	37:30	01:33
Lifting Activity	82:00	03:25
Tool Box Talk / Safety Meeting	10:30	00:26
Stop Work	00:00	00:00
Monitor Well-Post LCM	09:00	00:22
Downtime - DB	00:00	00:00
Downtime - Non DB	00:00	00:00
Total (Planned Days 45)	999:45	41:39



OPERATION – ACTIVITY OVERVIEW FOR RESAK A-17 CT#01

Neu Dimension
Your Integrated Solutions Partner

RESAK A-17

HIGHLIGHT/ REMARKS

1. Completed CT Sand Cleanout until depth 2827m-MDDF

Highlight:

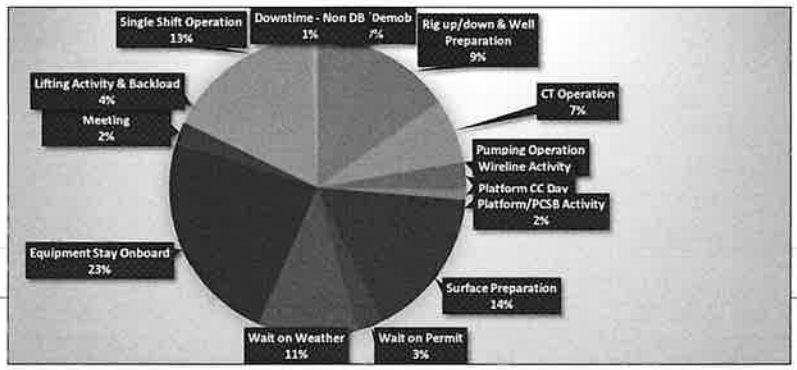
i. Overall operation were met objective and safely executed without any HSE issue.

Lowlight:

i. Prolong duration of backload and demob to KSB due to weather. Equipment standby at deck for 12 days.
ii. Single shift operation = SDFN

Start Date	End Date
14-Dec-23 06:30	01-Feb-24 10:30

Activity	Hours	Days
Mob/Demob	169:00	07:02
Rig up/down & Well Preparation	102:10	04:15
CT Operation	82:20	03:25
Wireline Activity	36:00	01:30
Platform CC Day	12:00	00:30
Platform/PCSB Activity	21:00	00:52
Surface Preparation	171:30	07:08
Wait on Permit	34:15	01:25
Wait on Weather	36:30	01:31
Equipment Stay Onboard	274:30	11:26
Tool Box Talk / Safety Meeting	27:45	01:09
Lifting Activity & Backload	45:30	01:53
Single Shift Operation	156:00	06:30
Downtime - Non DB	08:30	00:21
Total (Planned Days: 25)	1177:00	49:02



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OPERATION – ACTIVITY OVERVIEW FOR DULANG C15L CT#01

Neu Dimension
Integrated Solutions Partner

DULANG C15L

HIGHLIGHT/ REMARKS (Planned Days 17)

1. Completed CT Sand Cleanout

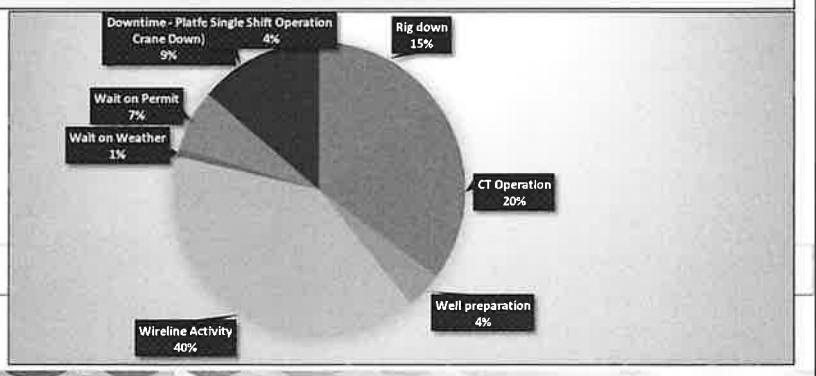
Highlight:

Lowlight:

i. Not enough vessel delay the demobilization activity
ii. Single Shift Operation : Work for 12 hours Operation Day Shift only
iii. Downtime Platform Crane down 1.56 days

Start Date	End Date
24-Apr-24 06:30	10-May-24 18:30

Activity	Hours	Days
Rig down	61.10	2.55
CT Operation	77.31	3.23
Well preparation	16.08	0.68
Wireline Activity	156.33	6.52
Wait on Weather	03.30	0.15
Wait on Permit	25.30	1.10
Downtime - Platform (Crane Down)	37.33	1.56
Single Shift Operation	17.05	0.71
	396:00	16.50



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OPERATION – ACTIVITY OVERVIEW FOR BESAR A09 CT#01

Neu Dimension
Your Integrated Solutions Partner

BESAR A09

HIGHLIGHT/ REMARKS

1. **No CT operation conducted due to slickline able to retrieve the sand screen and TCC until 2582m. DB assisted in flow the well thru flowback package.**

Highlight:

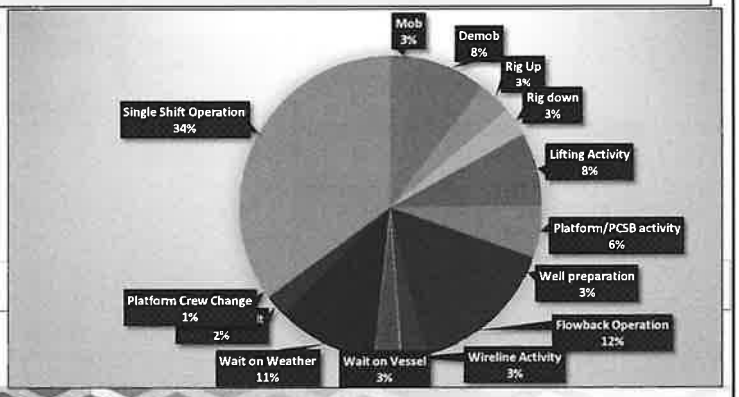
i. **Overall operation were met objective and safely executed without any HSE issue.**

Lowlight:

i. **N/A**

Start Date	End Date
04-Jun-24 18:30	13-Jun-24 06:30

Activity	Hours	Days
Mob	15:30	0.65
Demob	42:30	1.77
Rig Up	19:45	0.82
Rig down	17:15	0.72
Lifting Activity	43:30	1.81
Platform/PCSB activity	31:15	1.30
Well preparation	18:40	0.78
Flowback Operation	70:00	2.92
Wireline Activity	14:30	0.60
Wait on Vessel	16:00	0.67
Wait on Weather	60:15	2.51
Wait on Permit	13:30	0.56
Platform Crew Change	07:30	0.31
Single Shift Operation	188:20	7.85
Total (Planned Days: 21 days)	558:30	23.27



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Neu Dimension
Your Integrated Solutions Partner

CT#02
Dulang Field

34

CT#02 PACKAGE TIMELINE

Neu Dimension
Your Integrated Solutions Partner

- Dulang C-24: Acid wash. Operation suspend due to LOPC (Pipeline leaking). — 1st – 24th Oct 2023
- Dulang C4S: SCO & Cement Packer — 24th Oct 2023 – Feb 2024
- Swap CT#02 to CT#01 due to major maintenance CTU
- Dulang D06: Zone shut off — 5 – 16th May
- Dulang D02: Acid Pumping — 20th – 31st May
- Dulang D: CT standby period during slickline pre-CTU activity — 1st – 17th June
- Dulang D31: SCO & Acid wash — 18th – 27th June
- CTU standby period — 28th - 30th June

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OPERATION – ACTIVITY OVERVIEW FOR DULANG C24S CT#02

Neu Dimension
Your Integrated Solutions Partner

Dulang C24S

HIGHLIGHT/ REMARKS

1. Package transfer from delta to Charlie on 14th Sept 2023

Highlight:

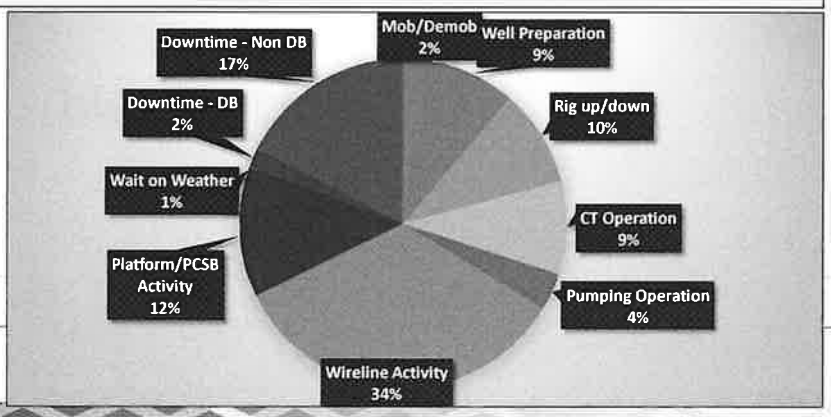
i. Overall operation were met objective and safely executed without any HSE issues.

Lowlight:

i. Delay in rig up activity due to pipeline LOPC and no standby boat to re-arrange CT equipment (limited deckspace)
ii. Downtime – Non DB including wait decision after pipeline LOPC

Start Date	End Date
14-Sep-23 06:30	24-Oct-23 06:30

Activity	Hours	Days
Mob/Demob	24:00	1.00
Well Preparation	83:50	3.49
Rig up/down	91:55	3.83
CT Operation	87:40	3.65
Pumping Operation	35:05	1.46
Wireline Activity	328:00	13.67
Platform/PCSB Activity	116:00	4.83
Wait on Weather	07:00	0.29
Downtime - DB	18:30	0.77
Downtime - Non DB	168:00	7.00
Total (Planned Days: 20)	**960:00**	**40.00**



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OPERATION – ACTIVITY OVERVIEW FOR DULANG C4S CT#02

Neu Dimension — Your Integrated Solutions Partner

Dulang C-4S

HIGHLIGHT/ REMARKS

1. Completed cement packer operation successfully for BCO

Highlight:

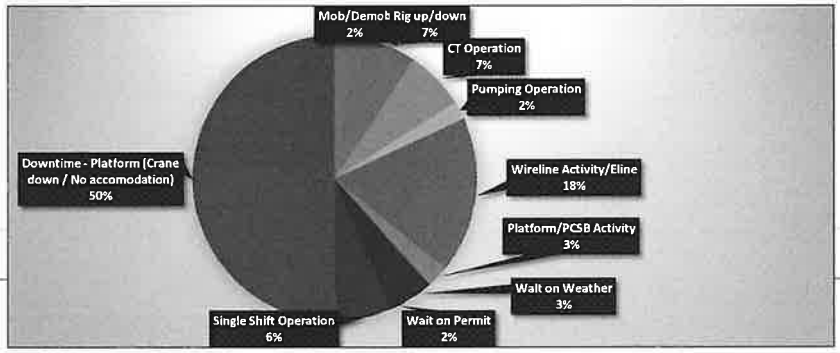
i. Initial plan to use cement retainer but due to tubing leak at Short string, unable to ensure the integrity of cement retainer. improvised by deploy modified cement retainer + with CT packer in order to ensure the integrity of cement retainer.

Lowlight:

i. Congested deck space due to no standby boat available for certain period of time, unable to fully rig-up CTU equipment, pro-long CTU rig-up process
ii. Crane issue at Dulang Charlie, unable to temporary backload CTU Equipment (Unable to resume CTU/Slickline operation due to bedding constraint)
iii. Pre-job CTU should be done prior any CT campaign. Ie; check on tubing integrity

Start Date	End Date
23-Oct-23 14:00	19-Apr-24 06:30

Activity	Hours	Days
Mob/Demob	102:00	4
Rig up/down	303:23	13
CT Operation	285:10	12
Pumping Operation	87:45	4
Wireline Activity/E-line activity	761:34	32
Platform/PCSB Activity	106:30	4
Wait on Weather	144:00	6
Wait on Permit	77:23	3
Single Shift Operation	268:15	11
Downtime - Platform (Crane down / No accomodation)	2152:30	90
Total (Planned Days – Part 1 SCO: 26 Planned Days – Part 2 – Cementing: 52)	4288:30	179



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OPERATION – ACTIVITY OVERVIEW FOR DULANG D06S CT#02

Neu Dimension — Your Integrated Solutions Partner

Dulang D-6S

HIGHLIGHT/ REMARKS

1. Injectivity test good however there is a communication between long, short and PCP

Highlight:

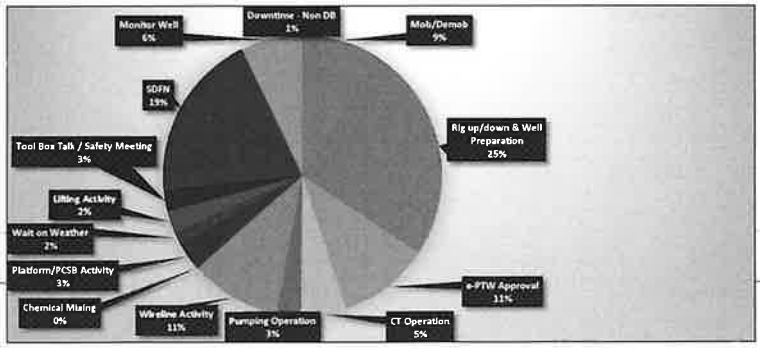
i. NIL

Lowlight:

i. Platform crane issue which cause delayed in rig up activity. Result from injectivity test on CR show the pressure is passing even perform at pump rate 0.5 bpm and 0.6 bpm. Due to unconvincing of CR integrity status, job was suspend.
ii. Job suspend due to during injectivity test thru CT, observed THP-SS buildup

Start Date	End Date
05-Apr-24 21:00	16-May-24 18:30

Activity	Hours	Days
Mob/Demob	94:00	03:55
Rig up/down & Well Preparation	265:57	11:04
e-PTW Approval	111:25	04:38
CT Operation	54:53	02:17
Pumping Operation	30:10	01:15
Wireline Activity	110:10	04:35
Chemical Mixing	01:30	00:03
Platform/PCSB Activity	34:00	01:25
Wait on Weather	16:00	00:40
Lifting Activity	25:35	01:03
Tool Box Talk / Safety Meeting	26:55	01:07
Stop Work	00:00	00:00
SDFN	203:30	08:28
Monitor Well	63:05	02:37
Downtime – DB	00:00	00:00
Downtime - Non DB	11:50	00:29
Total (Planned Days 19)	1049:00	43:42



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OPERATION – ACTIVITY OVERVIEW FOR DULANG D-02 CT#02

Neu Dimension
Your Integrated Solutions Partner

Dulang D-02

HIGHLIGHT/ REMARKS

1. Completed acidizing job for 3 zone via bullheading

Highlight:

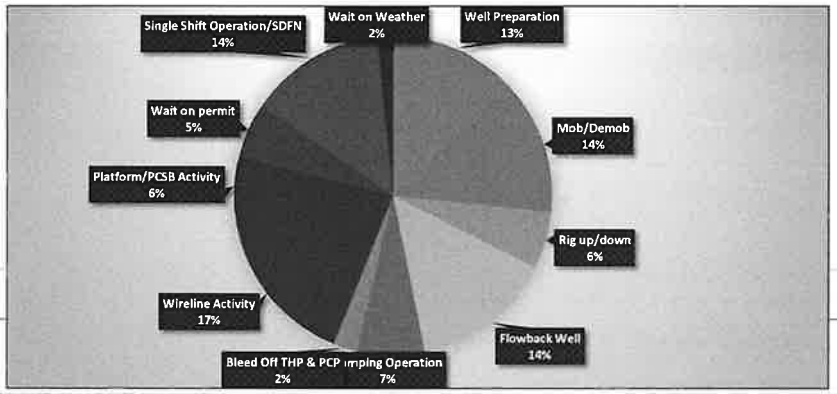
i. Overall operation were met objective (acidizing) with 700BOPD in oil gained and safely executed without any HSE issues.

Lowlight:

i. Platform/PCSB activity – well test, RT operation, pigging operation

Start Date	End Date
20-May-24 06:30	03-Jun-24 18:30

Activity	Hours	Days
Well Preparation	44:59	1.87
Mob/Demob	47:45	1.99
Rig up/down	20:00	0.83
Flowback Well	50:15	2.09
Pumping Operation	23:44	0.99
Bleed Off THP & PCP	08:32	0.36
Wireline Activity	58:30	2.44
Platform/PCSB Activity	21:00	0.88
Wait on permit	19:30	0.81
Single Shift Operation/SDFN	48:00	2.00
Wait on Weather	05:45	0.24
Total (Planned Days: 18)	348:00	14.50



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OPERATION – ACTIVITY OVERVIEW FOR DULANG D-31 CT#02

Neu Dimension
Your Integrated Solutions Partner

Dulang D-31

HIGHLIGHT/ REMARKS

1. Completed SCO and Acid wash operation

Highlight:

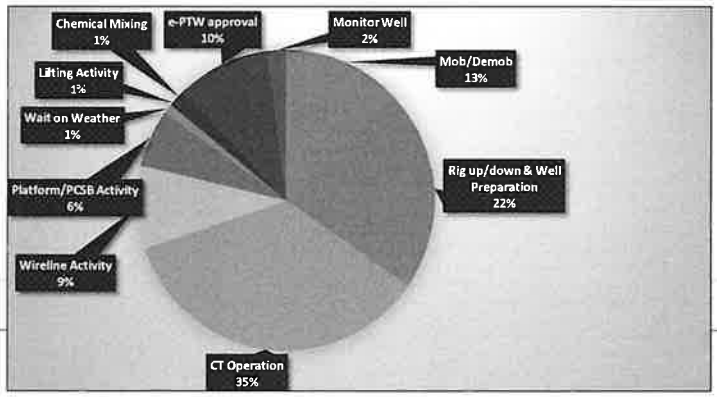
i. Overall operation were met objective (SCO & Bullheading Acid Wash) with 200BOPD oil gained and safely executed without any HSE issues.

Lowlight:

i. Prolong operation due to MSD

Start Date	End Date
16-Jun-24 12:00	27-Jun-24 11:30

Activity	Hours	Days
Mob/Demob	38:30	01:36
Rig up/down & Well Preparation	64:35	02:41
CT Operation	105:00	04:22
Pumping Operation	00:00	00:00
Wireline Activity	26:45	01:06
Platform/PCSB Activity	18:30	00:46
Wait on Weather	03:00	00:07
Lifting Activity	01:35	00:03
Tool Box Talk / Safety Meeting	05:00	00:12
Stop Work	00:00	00:00
Chemical Mixing	03:55	00:09
e-PTW approval	30:25	01:16
Monitor Well	06:00	00:15
Downtime - OB	00:00	00:00
Downtime - Non OB	00:00	00:00
Total (Planned Days: 14)	303:15	12:38



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Neu Dimension
Your Integrated Solutions Partner

CT#03
Besar A09 Redev

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OPERATION – ACTIVITY OVERVIEW FOR BESAR A09 CT#03

Neu Dimension
Your Integrated Solutions Partner

BESAR A09 REDEV

HIGHLIGHT/ REMARKS

1. **Completed CT milling and cleanout**

Highlight:

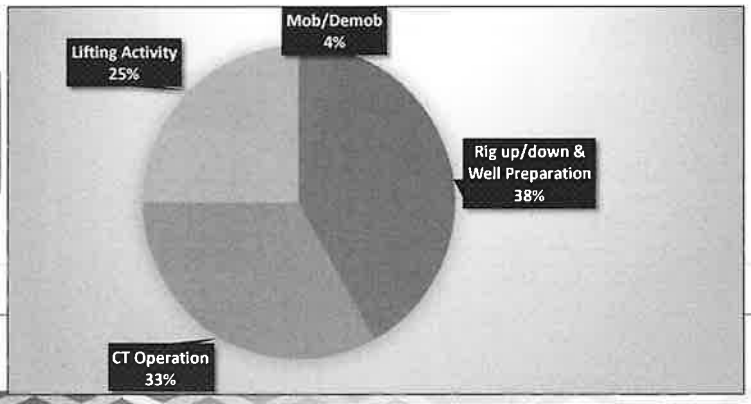
i. **Overall operation were met objective (Proppant Cleanout) and safely executed without any HSE issues.**

Lowlight:

i. **Prolong operation due to multiple contingency run (addendum)**

Start Date	End Date
02-Dec-23 12:30	01-Jan-24 06:00

Activity	Hours	Days
Mob/Demob	23:30	00:58
Rig up/down & Well Preparation	258:10	10:45
CT Operation	222:10	09:15
Wait on Weather	23:40	00:59
Lifting Activity	168:00	07:00
Total (Planned Days: 17)	695:30	28:58



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Neu Dimension
Your Integrated Solutions Partner

PP#01
Dulang-A/Angsi E

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OPERATION – ACTIVITY OVERVIEW FOR DULANG A PP#01

Neu Dimension
Your Integrated Solutions Partner

Dulang A-18S, A30S, A02S (12hrs operation)

HIGHLIGHT/ REMARKS

1. **Completed 3 well bullheading injectivity test.**

Highlight:

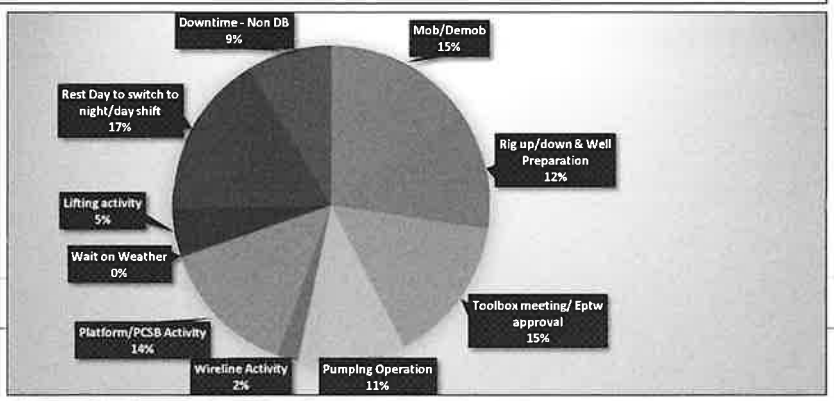
i. **Overall operation were met objective (injectivity test on donor well) and safely executed without any HSE issues.**

Lowlight:

i. **Downtime Non DB – Radiography test**
ii. **Platform/PCSB activity – standby 1.15 days wait on boat to demob**

Start Date	End Date
14-Oct-23 23:00	29-Oct-23 18:00

Activity	Hours	Days
Mob/Demob	32.00	01:20
Rig up/down & Well Preparation	25:35	01:03
Toolbox meeting/ Eptw approval	31:30	01:18
Pumping Operation	23:09	00:57
Wireline Activity	04:30	00:11
Platform/PCSB Activity	30:00	01:15
Wait on Weather	00:30	00:01
Lifting activity	09:45	00:24
Rest Day to switch to night/day shift	35:00	01:27
Downtime - Non DB	18:25	00:46
Total (Planned Days: 8)	**210:24**	**08:46**



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OPERATION – ACTIVITY OVERVIEW FOR ANGSI E05S PP#01

Neu Dimension
Your Integrated Solutions Partner

Angsi E05S (12hrs operation)

HIGHLIGHT/ REMARKS

1. Consist of 3 stages of intervention starting from Dec 2023 till Mar 2024.

Highlight:

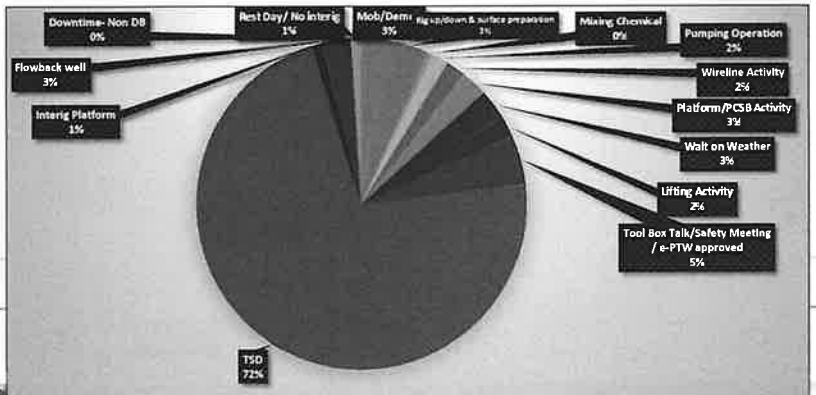
i. Overall operation were met objective (scale treatment) and safely executed without any HSE issues.
ii. Slickline able to tag until 2538.4m-MDDF.

Lowlight:

i. Equipment standby due to weather is around 78.37 days

Start Date	End Date
09-Dec-23 17:30	27-Mar-24 12:00

Activity	Hours	Days
Mob/Demob	41:30	03:27
Rig up/down & surface preparation	46:20	03:51
Mixing Chemical	06:45	00:33
Pumping Operation	21:25	01:47
Wireline Activity	25:15	02:06
Platform/PCSB Activity	34:00	02:50
Wait on Weather	38:30	03:12
Lifting Activity	27:00	02:15
Tool Box Talk/Safety Meeting / e-PTW approved	63:15	05:16
TSD	950:00	79:10
Interig Platform	15:00	01:15
Flowback well	36:50	03:04
Rest Day/ No interig	12:00	01:00
Downtime- Non DB	01:00	00:05
Total (Planned Days 10)	1318:50	109:54



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OPERATION – ACTIVITY OVERVIEW FOR ANGSI E14 PP#01

Neu Dimension
Your Integrated Solutions Partner

Angsi E14 (12hrs operation)

HIGHLIGHT/ REMARKS

1. Completed bullheading acid screen wash.

Highlight:

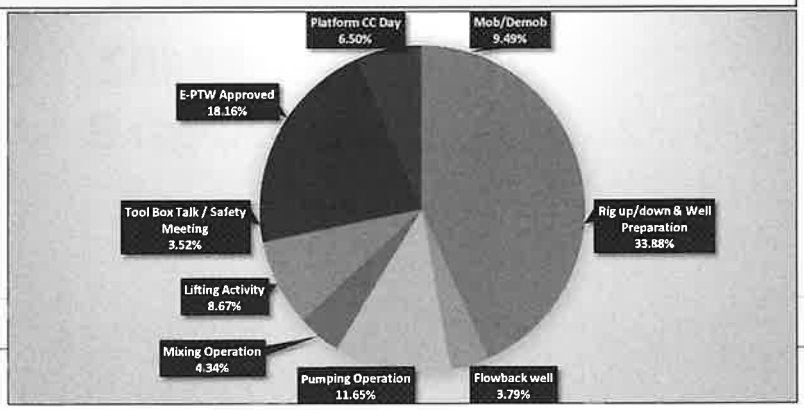
i. Overall operation were met objective (Acid screen wash) and safely executed without any HSE issues.

Lowlight:

i. Duration of platform crane down is 8 days. (Duration is inclusive in rig up & well preparation), 28 March - 4 Apr

Start Date	End Date
27-Mar-24 06:30	10-Apr-24 18:30

Activity	Hours	Days
Mob/Demob	17:30	01:27
Rig up/down & Well Preparation	62:30	05:12
Flowback well	07:00	00:35
Pumping Operation	21:30	01:47
Mixing Operation	08:00	00:40
Lifting Activity	16:00	01:20
Tool Box Talk / Safety Meeting	06:30	00:32
E-PTW Approved	33:30	02:47
Platform CC Day	12:00	01:00
Total (Planned Day 10)	184:30	15:22



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OPERATION – ACTIVITY OVERVIEW FOR ANGSI E16 PP#01

Neu Dimension
Your Integrated Solutions Partner

Angsi E16 (12hrs operation)

HIGHLIGHT/ REMARKS

1. **Completed bullheading acid screen wash**

Highlight:

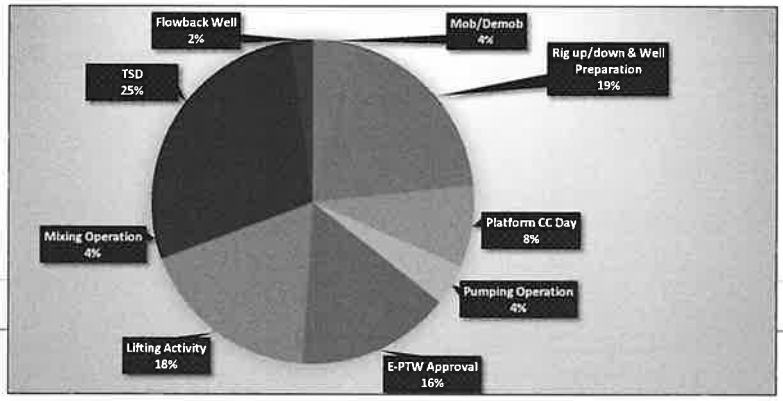
i. **Overall operation were met objective (Acid screen wash) and safely executed without any HSE issues.**

Lowlight:

i. **Not pursue with SISQ treatment due to platform crane problem – unable to lift the chemicals**

Start Date	End Date
17-Apr-24 06:30	04-May-24 18:30

Activity	Hours	Days
Mob/Demob	12:00	01:00
Rig up/down & Well Preparation	56:50	04:44
Platform CC Day	24:00	02:00
Pumping Operation	12:00	01:00
E-PTW Approval	45:30	03:47
Lifting Activity	54:00	04:30
Mixing Operation	12:10	01:00
TSD	72:00	06:00
Flowback Well	06:30	00:32
Total (Planned Day 12)	295:00	24:35



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Neu Dimension
Your Integrated Solutions Partner

PP#02
Angsi B

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OPERATION – ACTIVITY OVERVIEW FOR ANGSI B27SPP#02

Neu Dimension
Your Integrated Solutions Partner

Angsi B27S (12hrs operation)

HIGHLIGHT/ REMARKS

1. **Completed B27S acid wash and sisq treatment**

Highlight:

i. **Overall operation were met objective (Acid wash & SISQ) and safely executed without any HSE issues.**

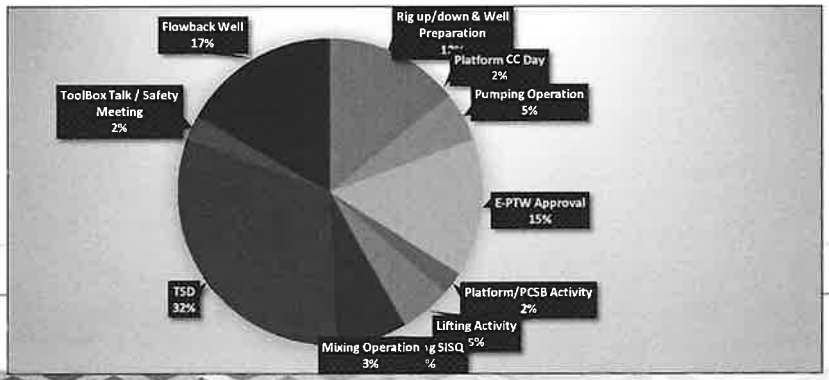
Lowlight:

i. **Prolong duration of flowback due to well unable to flow with multiple attempt made. Limited working duration max till 10pm permit. Bedding constraint unable to allocate additional personnel for 24hrs operation**

ii. **Equipment standby at main deck around 12.30 days due to personnel work at E-16**

Start Date	End Date
16-Apr-24 17:30	25-May-24 18:30

Activity	Hours	Days
Rig up/down & Well Preparation	61:30	05:07
Platform CC Day	09:00	00:45
Pumping Operation	25:50	02:09
E-PTW Approval	72:00	06:00
Platform/PCSB Activity	12:00	01:00
Lifting Activity	27:00	02:15
Soaking SISQ	24:00	02:00
Mixing Operation	13:00	01:05
TSD	156:00	13:00
ToolBox Talk / Safety Meeting	12:00	01:00
Flowback Well	83:30	06:57
Total (Planned Day 9)	495:50	41:19



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OPERATION – ACTIVITY OVERVIEW FOR ANGSI B10S PP#02

Neu Dimension
Your Integrated Solutions Partner

Angsi B10S (12hrs operation)

HIGHLIGHT/ REMARKS

1. **Completed acid wash for B10S**

Highlight:

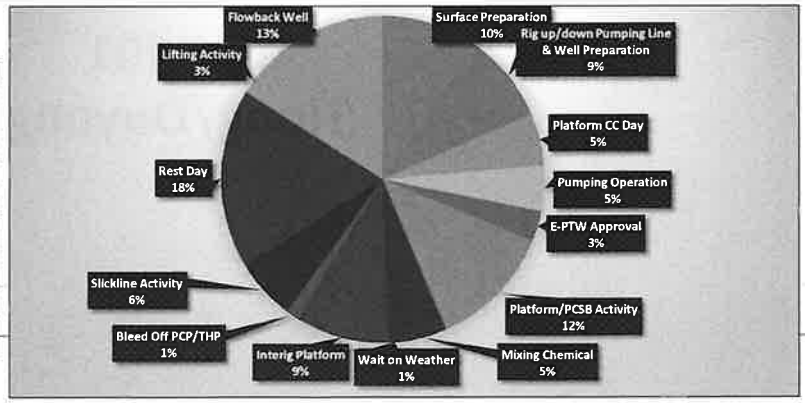
i. **Overall operation were met objective (Acid wash) and safely executed without any HSE issues.**

Lowlight:

i. **NIL**

Start Date	End Date
27-May-24 08:30	05-Jun-24 18:30

Activity	Hours	Days
Surface Preparation	13:15	01:06
Rig up/down Pumping Line & Well Preparation	11:50	00:59
Platform CC Day	07:00	00:35
Pumping Operation	06:05	00:30
E-PTW Approval	04:05	00:20
Platform/PCSB Activity	16:45	01:23
Mixing Chemical	06:25	00:32
Wait on Weather	01:30	00:07
Interig Platform	12:40	01:03
Bleed Off PCP/THP	01:45	00:08
Slickline Activity	08:25	00:42
Rest Day	24:00	02:00
Lifting Activity	03:45	00:18
Flowback Well	18:00	01:30
Total (Planned Days 13)	135:30	11:17



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OPERATION – ACTIVITY OVERVIEW FOR ANGSI B11S PP#02

Neu Dimension
Your Integrated Solutions Partner

Angsi B11S (12hrs operation)

HIGHLIGHT/ REMARKS

1. **Completed acid wash for B11S**

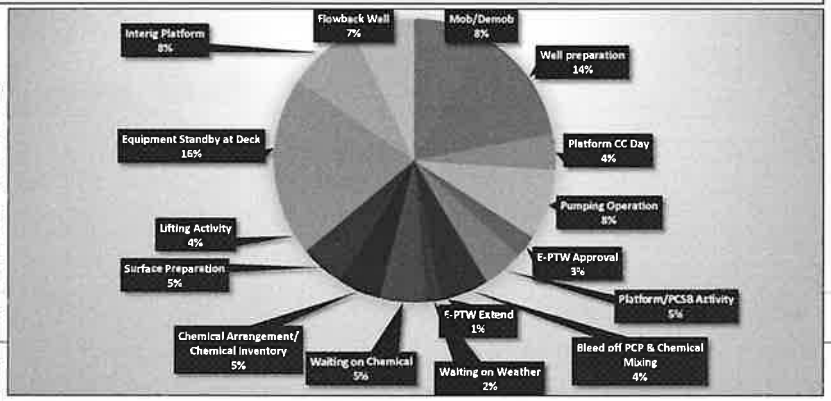
Highlight:

i. **Overall operation were met objective (Acid wash & SISQ) and safely executed without any HSE issues.**

Lowlight:

Start Date	End Date
06-Jun-24 06:30	29-Jun-24 18:30

Activity	Hours	Days
Mob/Demob	24:00	02:00
Well preparation	40:30	03:22
Platform CC Day	12:00	01:00
Pumping Operation	23:37	01:58
E-PTW Approval	07:45	00:38
Platform/PCSB Activity	13:30	01:07
Bleed off PCP & Chemical Mixing	12:10	01:00
E-PTW Extend	04:10	00:20
Waiting on Weather	04:45	00:23
Waiting on Chemical	15:45	01:18
Chemical Arrangement/ Chemical Inventory	14:38	01:13
Surface Preparation	14:50	01:14
Lifting Activity	12:30	01:02
Equipment Standby at Deck	48:00	04:00
Interig Platform	24:30	02:02
Flowback Well	20:50	01:44
Total (Planned Days 10)	293:30	24:27



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Neu Dimension
Your Integrated Solutions Partner

C/O#01
Tiong/Duyong

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OPERATION – ACTIVITY OVERVIEW FOR DUYONG A4 C/O#01

Neu Dimension
Your Integrated Solutions Partner

Duyong A4/Tiong A20 (12hrs operation)

HIGHLIGHT/ REMARKS

1. **Completed Resin patch at Duyong A4**

Highlight:

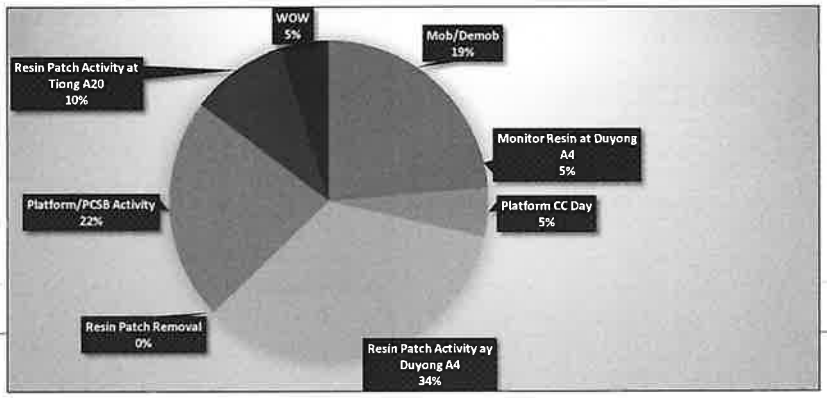
i. **Overall operation were met objective (resin patch) and safely executed without any HSE issues.**

Lowlight:

i. **NIL**

Start Date	End Date
04-Oct-23 11:30	23-Oct-23 11:30

Activity	Hours	Days
Mob/Demob	46:00	01:55
Monitor Resin at Duyong A4	12:00	00:30
Platform CC Day	12:00	00:30
Resin Patch Activity ay Duyong A4	84:00	03:30
Platform/PCSB Activity	55:00	02:17
Resin Patch Activity at Tiong A20	24:00	01:00
WOW	12:00	00:30
Total	245:00	10:12



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OPERATION – ACTIVITY OVERVIEW FOR TIONG A20 C/O#01

Neu Dimension
Your Integrated Solutions Partner

Tiong A20 (12hrs operation)

HIGHLIGHT/ REMARKS

1. **Completed hacking current Tiong A20 resin patch and prior pressure chamber installation**

Highlight:

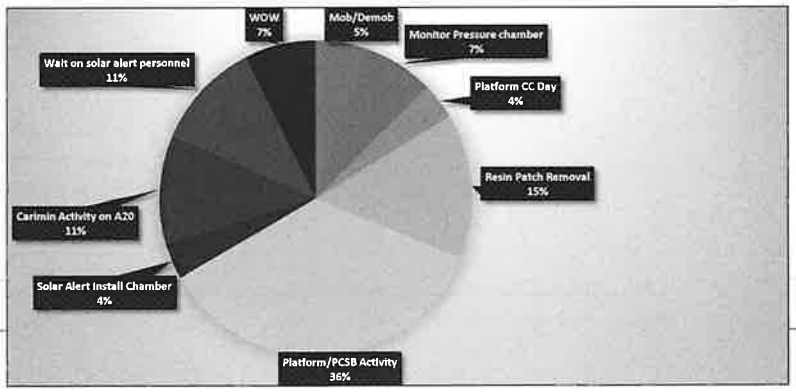
i. **Overall operation were met objective (resin removal) and safely executed without any HSE issues.**

Lowlight:

i. **Platform PCSB/Activity – 4 days permit hold by OIM due to current job IBO**

Start Date	End Date
03-Nov-23 11:30	30-Nov-23 18:30

Activity	Hours	Days
Mob/Demob	17:00	00:42
Monitor Pressure chamber	24:00	01:00
Platform CC Day	12:00	00:30
Resin Patch Activity	00:00	00:00
Resin Patch Removal	48:00	02:00
Platform/PCSB Activity	115:00	04:47
Solar Alert Install Chamber	12:00	00:30
Tool Box Talk / Safety Meeting	00:00	00:00
Carimin Activity on A20	36:00	01:30
Wait on solar alert personnel	36:00	01:30
WOW	24:00	01:00
Total	324:00	13:30



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OPERATION – ACTIVITY OVERVIEW FOR DUYONG C03 C/O#01

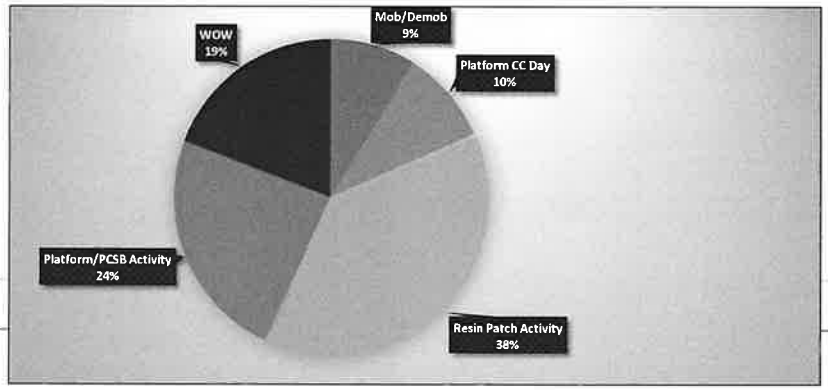
Neu Dimension
Your Integrated Solutions Partner

Duyong C03 (12hrs operation)

HIGHLIGHT/ REMARKS
1. Completed Duyong C3 Resin Patch
Highlight:
i. Overall operation were met objective (resin patch) and safely executed without any HSE issues.
Lowlight:

Start Date	End Date
08-Dec-23 12:30	18-Dec-23 11:30

Activity	Hours	Days
Mob/Demob	11:00	00:27
Platform CC Day	12:00	00:30
Resin Patch Activity	48:00	02:00
Platform/PCSB Activity	30:00	01:15
WOW	24:00	01:00
Total	125:00	05:12



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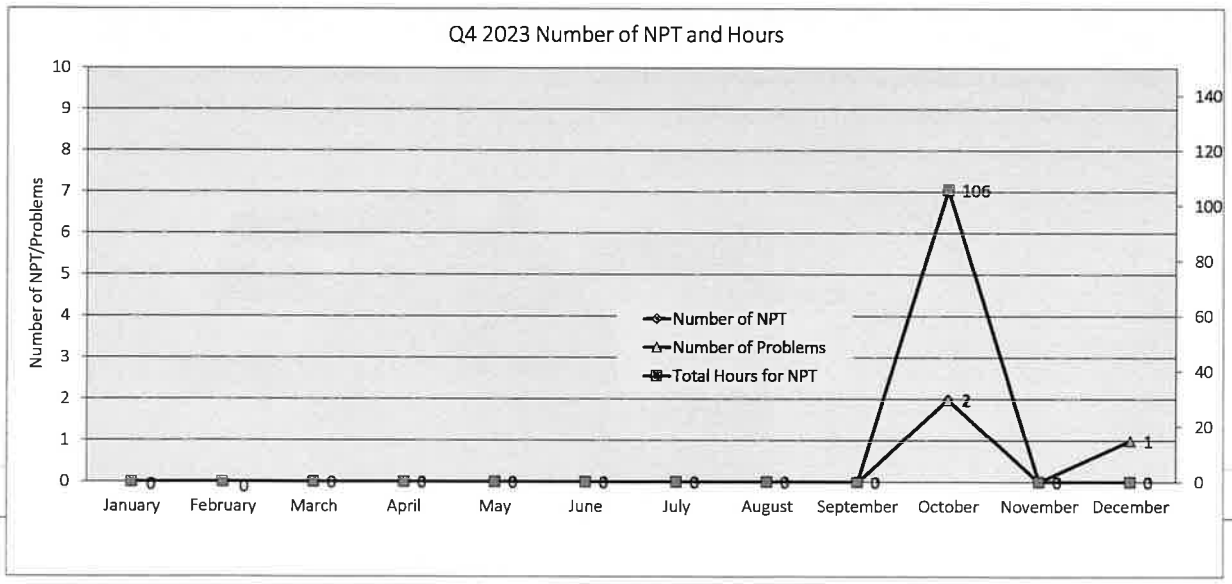
OPERATION – PROBLEM RECORDED

Neu Dimension
Your Integrated Solutions Partner



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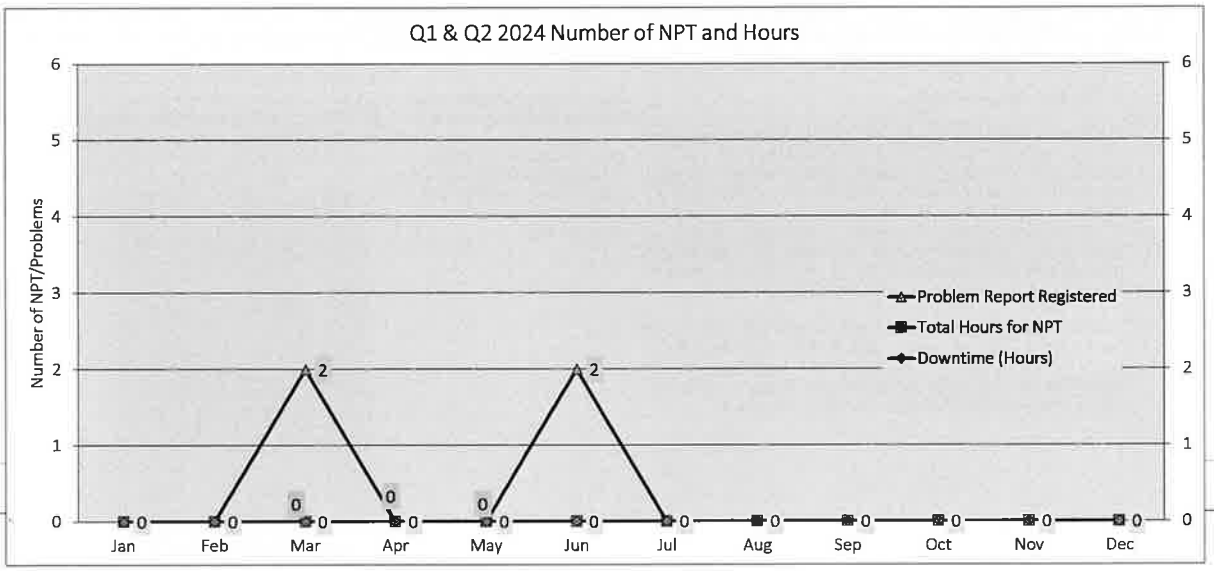
OPERATION – PROBLEM RECORDED



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OPERATION – PROBLEM REPORT REGISTER (Q4 2023 – Q2 2024)

Item No.	PR Registry No.	Date of Undesired Event	Location	Description of Event	Problem Report Raised by:	Status (Open/Closed)
1	PR2023-CTS-OCT-078	Dulang-C24L	PCSB PMA	DIDF Unable To Rotate During POOH	Dewanto Widiyarko	Closed
2	PR2023-CTS-OCT-080	Dulang-C24L	PCSB PMA	Mini Pump Broken Fan and Radiator Leaking	Dewanto Widiyarko	Closed
3	PR2023-CTS-DEC-092	RESAK-A09	PCSB PMA	Single Pump #01 Transmission Oil Leak	Muhammad Wizan	Closed
4	PR2024-CTS-MAR-012	Dulang / C-4S	PCSB PMA	Reel and Coiled String Damaged during backload activity from Maindeck to Supply Boat	Ahmad Shafri bin Mohamad	Closed
5	PR2024-CTS-JUN-034	Angsi Besar	PCSB PMA	Nitrogen Tank Collision	Muhammad Shahir Munaqib Bin Harun	Closed
6	PR2024-CTS-JUN-036	Angsi Besar	PCSB PMA	Single Pump Crash Beam Collided by Basket during Lifting	Muhammad Shahir Munaqib Bin Harun	Closed

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OPERATION – ROOT CAUSE FAILURE ANALYSIS

Neu Dimension

No	Problem Title (brief description)	Gap Identified (Root Cause)	Way Forward (Long Term Solution)
1	**DIDF Unable To Rotate During POOH** 9th Oct 2023, @Dulang Charlie The incident happen on 9th October 2023, at 21:00 hrs during 1st run SCO until top of tubing pack-off on well Dulang C-24L. RIH was smooth until CT reach at 1,000ft depth. Standard operating procedure is to perform weight check for every 1,000ft RIH. CT operator started to increase reel back tension pressure prior to POOH for weight check. CT operator observe that reel did not rotate and CT supervisor instruct to increase reel back tension pressure from 500psi up to 1,500psi. CT reel started to rotate at 1,500psi which is abnormal condition for POOH activity. At surface, mechanic and crew manage to rectify the issue resume the operation. The root cause of this problem is due to hydraulic brake line was clogged. Several steps have been done prior to confirm the root cause. The reel back tension pressure was back to normal after we change hydraulic brake fitting connection.	Wear & tear : Fitting for brake hydraulic hose badly corroded. Most corrosion is caused by environmental factors such as humidity, chemicals, and the seawater environment led to wear and tear.	1. Always do cleaning fittings at DIDF and control cabin connections before run unit. 2. To remind crew in consistently practice the hydraulic oil condition check during EMC 1 & EMC 2 (during pre-mob briefing).

Figure 1 : *Condition of fittings at DIDF side and control cabin*

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OPERATION – ROOT CAUSE FAILURE ANALYSIS

Neu Dimension

No	Problem Title (brief description)	Gap Identified (Root Cause)	Way Forward (Long Term Solution)
2	**Mini Pump Broken Fan and Radiator Leaking** 21th October 2023, @Dulang-Charlie At 0300 hrs during midnight, night shift crew were perform start up the engine of mini pump prior to warming up engine/running test. Suddenly the fan/blade touching radiator then the fan/blade broken, affected radiator leakage which is suspected the pulley tensioner bearing problem that cause belt tensioner loose and disclosed.	Wear & Tear: Damaged tensioner pulley bearing. Tensioner pulley bearing can be damaged by several reason such as lack of greasing, improper maintenance, long term usage without replacement and wear and tear.	1. To remind crew in consistently practice on check condition of tensioner pulley bearing during EMC 1, EMC 2 and during pre-mob briefing. 2. To remind crew always apply grease on tensioner pulley bearing during EMC 1, EMC 2 and during pre-mob briefing .

Figure 1 : *Leak radiator*

Figure 2 : *Parted fan blade*

Figure 3: *Suspected tensioner bearing problem*

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OPERATION – ROOT CAUSE FAILURE ANALYSIS

Neu Dimension

No	Problem Title (brief description)	Gap Identified (Root Cause)	Way Forward (Long Term Solution)
3	**Single Pump#01 Transmission Oil Leak** 2nd December 2023, @Resak-Alpha During the process of pressure-up coil to pressure test against stack-up, observe a splashing of oil coolant at the radiator of a single pump. The crew took action to shut down the single pump. Further inspection, found out the oil splashing was the transmission oil coolant. Currently, the crew is trying to rectify the issue with an assistant from town. Immediate action conducted : 1)Pre job testing - Connect inlet and outlet hose for transmission coolant. - Check all hoses and radiator line. No leak. - Test run pump for 2 hours. - Power end and transmission temperature maintain 40 degC. - Engine temperature maintain 85 degC. 2)On job monitoring - Pump operator to closely monitor on transmission and power end temperature using temp gun. - Monitor every 15 minutes during RIH. After 2 hours if everything normal can increase monitoring to every 30 minutes. - After reach cleanout depth. Will repeat to monitor every 15 minutes during RIH. After 2 hours if everything normal can increase monitoring to every 30 minutes. 3)Precaution For Run SPS 01 During Operation. - Regularly check Transmission and Power End temp every 15min - 30min. - Ensure Transmission and Power End Temperature not more than 110°C during operation. (Max is 130 degC).	Wear & tear – oil cooler body leak due to rusted condition. Inadequate maintenance and servicing In term cleaning the oil cooler.	1. Repair oil cooler body. 2. Cleaning oil cooler with Hydrosolv Liquid Cleaner and pressure test annually.

Figure 1 : *Splash of transmission oil splash observed.*

Figure 2 : *Monitoring on the power end oil sump temperature.*

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OPERATION – ROOT CAUSE FAILURE ANALYSIS

Neu Dimension

No	Problem Title (brief description)	Gap Identified (Root Cause)	Way Forward (Long Term Solution)
4	**Reel and Coiled String Damaged during backload activity from Maindeck to Supply Boat** 5th March 2024, @Dulang-Charlie 10:45 am During CT Reel backload activity to MV Setia Luhur, the boat suddenly rolled and was unable to maintain its position. Our CT Reel was hit at MV Setia Luhur crash bar, breaking one 1 (ea) of turnbuckle. Subsequently, CT Reel swung and struck the other side resulting in the breakage of total two (ea) turnbuckle in total and causing some damage on outer side Coiled tubing string. 11.00 am Observed CT Cradle was misaligned with CT Reel which posing a hazard for Setia Luhur deck crew handling the load (due to turnbuckle damage). DB team communicate with Crane operator and captain to lower the load for safety precautions. 11:10 am After 3 unsuccessful attempt to re-align CT reel with CT Cradle due to boat instability, decision was made to stop activity and unhook the sling to prevent further damage to CT String. 4 pax DB crew transfer to MV Setia Luhur for secure properly and offload to maindeck for retighten the CT Reel against CT Cradle with 3ea chains. Capacity per each chain	Unplanned development of workplace condition: Sudden weather pick-up which cause the boat rolled and unable to maintain its position.	• To emphasize and apply the STOP WORK when there is unsafe condition during operation. • To refer to the weather forecast prior the lifting activity.

Figure 1 : *Damage turnbuckle*

Figure 2 : *Damage turnbuckle (close view)*

Figure 3: *String Impacted from the collision*

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OPERATION – ROOT CAUSE FAILURE ANALYSIS

Neu Dimension

No	Problem Title (brief description)	Gap Identified (Root Cause)	Way Forward (Long Term Solution)
5	**Nitrogen Tank Collision** 7th June 2024, @Angsi Besar (Lifting Activity) An incident occurred involving a nitrogen tank and a boat anchor station during a lifting operation from one boat (Berkat Tenang) to another boat (Setia Ulung), resulting in a dented pipe on the nitrogen tank. The incident took place at Setia Ulung (the receiving boat). During the lifting activity, which was conducted under standard operating procedures, the nitrogen tank inadvertently collided with the anchor station on the receiving boat. The impact caused a visible dent in one of the pipes attached to the nitrogen tank. Fortunately, no injuries were reported among the crew members involved in the operation.	Unplanned development of workplace condition: Dented nitrogen tank pipe was caused by adverse weather conditions. The adverse oceanic conditions encountered during the lifting operation posed significant challenges in operational management, thereby elevating the risk of collisions.	• To emphasize and apply the STOP WORK when there is unsafe condition during operation. Conduct safety sharing about stop work policy before performing heavy lifting during bad weather.

Figure 1: *Dented pipe observed – tested and okay*

Figure 2 : *Damage at pipe's drip pan observed*

Figure 3 : *Nitrogen tank collided.*

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OPERATION – ROOT CAUSE FAILURE ANALYSIS

Neu Dimension

No	Problem Title (brief description)	Gap Identified (Root Cause)	Way Forward (Long Term Solution)
6	**Single Pump Crash Beam Collided by Basket during Lifting** 11th June 2024, @Angsi Besar (Lifting Activity) During the lifting activity from the boat (SK Power) to the platform (BsDP-A), the crash beam of single pump unit was observed to be bent and secure pin for single pump broken. This incident occurred in high ocean current conditions, which likely contributed to the difficulty and instability of the lifting process. One of DB crew saw Cargo basket collided with the pump which be the cause of the bent during lifting activity between AWB Setia Ulung and SK Power. Pedestal Crane AWB Setia Ulung need to reposition the basket from the front of the SK power to end of SK Power due to Crane BsDP-A cannot reach that area. While Cargo basket in hanging position, observe that the Boat rolling over which cause the cargo basket collide with the Single Pump. The swaying motion of the boat led to the cargo basket colliding with the single pump.	Unplanned development of workplace condition: caused by adverse weather conditions. Bending crash beam and broken secure pin were caused by adverse weather conditions.	Conduct safety sharing about stop work policy before performing heavy lifting during bad weather

Figure 1 : *Single Pump crash beam hit by basket during lifting.*

Figure 2 : *New Secure Pin installed*

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CSS ANALYSIS Q4 2023 (PCSB PMA)

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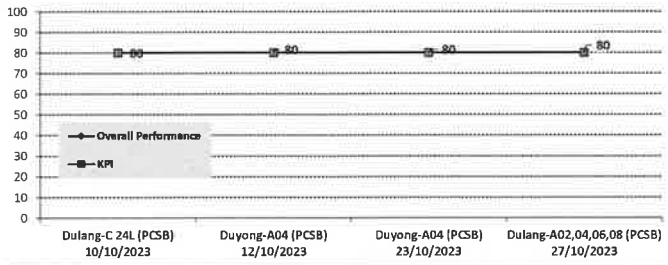
MONTHLY OVERALL PERFORMANCE SURVEY ANALYSIS OCTOBER 2023



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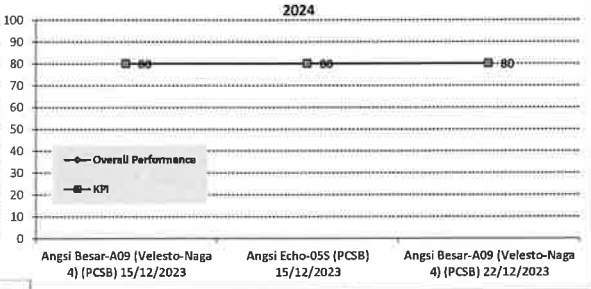
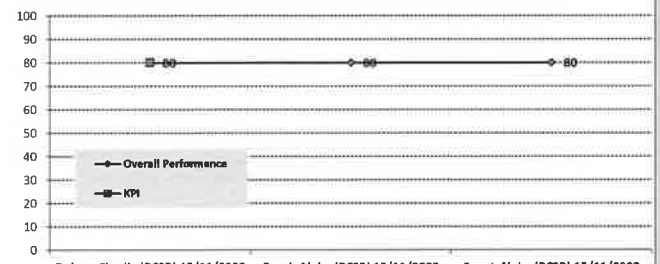


MONTHLY OVERALL PERFORMANCE SURVEY ANALYSIS NOVEMBER 2024



Supervisor Comment / Feedback

November 2023

1. Resak-A09 (PCSB PMA) 15/11/2023 - "Good planning and preparation." Nordin *Awang (WSS)*

December 2023

1. Angsi Besar-A09 (Velesto-Naga 4) (PCSB) 15/12/2024 –
   "i. Good supervision on overall rig/operation planning by the CTS team leader"
   ii. Please ensure daily report provide more details of operations and parameter taken while milling/RIH." Mohd Amin Zainal Abidin (Drilling Supervisor)
2. Angsi Echo-05S (PCSB) 15/12/2023 – Good Job *" Rosian Mohammad (WSS)*
3. Angsi Besar-A09 (Velesto-Naga 4) (PCSB) 22/12/2024 –
   "i. Very competent and reliable crew"
   ii. Need to improve on communication with DSV in updating job status, and seeking permission before executing next job phase/sequence.
   iii. Very proactive in supporting the site team in preparing the program despite the fast change in pace. However, need to improve communication style, particularly in giving direct instruction to site team without first information the DSV."
   iv. In overall, need to improve communication with the DSV onboard both from town and the team onsite."Mohd Amin Zainal Abidin" (Drilling Supervisor)

CSS ANALYSIS Q1 2024 (PCSB PMA)

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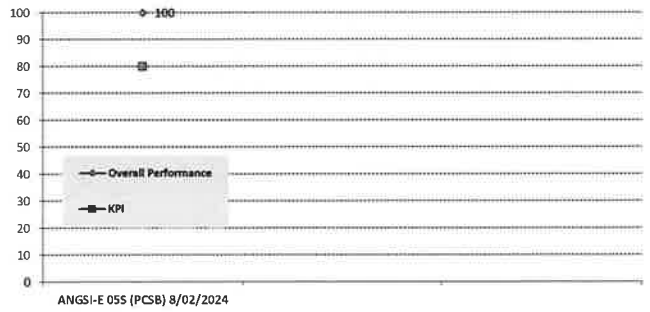
MONTHLY OVERALL PERFORMANCE SURVEY ANALYSIS FEBRUARY 2024



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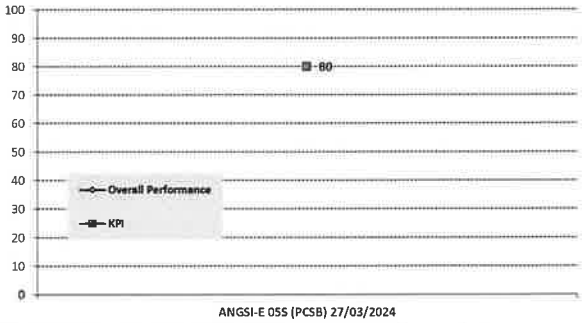

Supervisor Comment / Feedback

-Nil-

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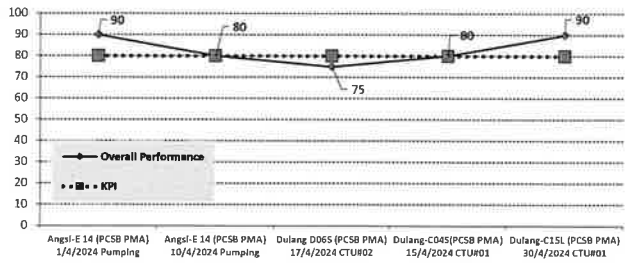
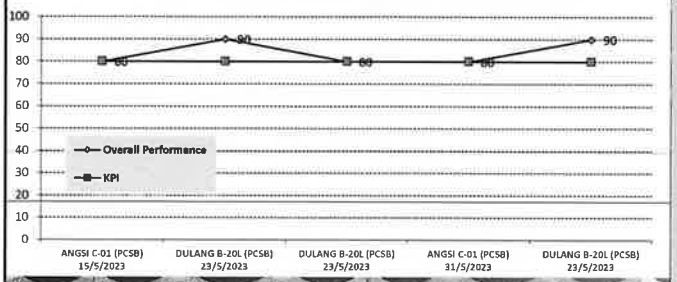
CSS ANALYSIS Q2 2024 (PCSB PMA)

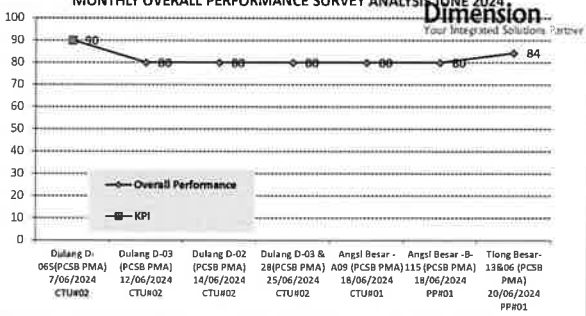
MONTHLY OVERALL PERFORMANCE SURVEY ANALYSIS APRIL 2024



MONTHLY OVERALL PERFORMANCE SURVEY ANALYSIS MAY 2024



MONTHLY OVERALL PERFORMANCE SURVEY ANALYSIS JUNE 2024



Supervisor Comment / Feedback

April 2024

1. **Angsi E14 -(PCSB PMA) 1/4/2024 - "Job for well E14 & 16 pending due to crane issue." *Nor Azizi Abdul Rahman (WSS)***
2. ***Dulang D-06S (PCSB PMA) 17/4/2024* – "SHO onboard to play his role to ensure safety on track. Good job execution observed and not incident reported". *Saiahudin Bin Othman (WSS)***
3. ***Dulang C-04S (PCSB PMA) 15/4/2024* – "Good job. Equipment maintenance is good. Ready for next well". *Mohd Zaki Omar (WSS)***

May 2024

1. **Angsi Besar –B27S (PCSB PMA) 15/5/2024 " Wilden pump not compatible with acid job." Ahmad Fauzi Mahajar (WSS)**
2. **Angsi Bravo B27S&10S (PCSB PMA) 29/5/2024 – "Delayed due to waiting on slickline to retrieve insert valve on well B10S." *Nor Azizi Abdul Rahman (WSS)***
3. **Dulang Delta (PCSB PMA) 31/5/2024 Good job done in safe manner". *Norazman Narudin (WSS)***

June 2024

1. **Dulang Delta –D03 (PCSB PMA) 12/6/2024 " Need to replacement on pull test x-over. Thread parted. " *Hamzah Tugiman (WSS)***
2. **Dulang Delta –D6S (PCSB PMA) 7/6/2024 " Expecting more from SHO. Dozen of permit audit. Zero findings?. To lead control drill with proper planning. SHO need to stop up and assure crew follow HSE rules. " *Mohd Azli (WIE)***

CSS ANALYSIS FOR THE YEAR OF Q4 2023 (PCSB PMA)

	Safety	Service Quality	Personnel	Equipment	Technical Support	Reporting	Overall
Total Rating Percentage (%)	83	81	80	80	79	80	80

CUMULATIVE MONTH	Safety			Service Quality			Personnel					Equipment		Technical Support			Reporting		Overall Service Performance
	PPE	Safety Awareness	House keeping	Job Planning & Prparation	Operation Efficiency	Quality of Job Execution	Profesionalism Personnel	Performance & Efficiency	Communication	Technical Knowledge	Time Keeping	Equipment & Tool Compatibility	Inventories System	Response / Feedback from town	Field Technical Advice	Delivery of Spare	Daily Report	QA/QC Data	
OCTOBER	8.00	7.00	8.00	7.50	7.50	6.50	7.50	6.50	7.50	7.50	7.00	7.00	8.00	8.00	7.00	7.50	8.50	6.50	8.00
NOVEMBER	8.70	9.30	8.00	9.30	8.00	9.30	8.70	8.70	8.70	8.70	7.30	8.70	8.00	8.70	8.00	8.00	8.70	8.70	8.00
DECEMBER	8.70	8.70	8.70	8.00	8.70	8.00	8.70	8.00	8.00	8.00	8.70	8.00	8.00	7.70	8.00	8.00	7.70	8.00	8.00
AVERAGE	8.5	8.3	8.2	8.3	8.1	7.9	8.3	7.7	8.1	8.1	7.7	7.9	8.0	8.1	7.7	7.8	8.3	7.7	8.0
PERCENTAGE	83.4			80.9			79.7					79.5		78.8			80.2		80.0

CSS ANALYSIS FOR THE YEAR OF Q1 & Q2 2024 (PCSB PMA)

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	Safety	Service Quality	Personnel	Equipment	Technical Support	Reporting	Overall
Total Rating Percentage (%)	86.3	85.7	86.9	83.4	86.1	86.6	85.2

CUMULATIVE MONTH	Safety			Service Quality			Personnel					Equipment		Technical Support			Reporting		Overall Service Performance
	PPE	Safety Awareness	House keeping	Job Planning & Preparation	Operation Efficiency	Quality of Job Execution	Profesionalism Personnel	Performance & Efficiency	Communication	Technical Knowledge	Time Keeping	Equipment & Tool Compatibility	Inventories System	Response / Feedback from town	Field Technical Advice	Delivery of Spare	Daily Report	QA/ QC Data	
JANUARY	No Operation at Offshore																		
FEBRUARY	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	8.00	10.00	10.00	10.00	10.00	10.00	10.0
MARCH	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.0
APRIL	8.40	8.60	8.00	8.00	8.20	8.00	8.20	8.20	8.60	8.20	8.00	7.80	8.00	8.00	8.00	7.80	8.20	8.40	8.3
MAY	8.20	8.80	8.60	8.40	8.40	8.20	8.80	8.80	8.80	8.80	8.80	8.80	8.10	8.80	8.80	8.80	8.70	8.80	8.40
JUNE	8.40	8.00	8.40	8.60	8.40	8.40	8.40	8.40	8.40	8.40	8.40	8.30	8.40	8.30	8.30	8.30	8.10	8.40	8.43
AVERAGE	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	8.00	10.00	10.00	10.00	10.00	10.00	10.0
PERCENTAGE	86.3			85.7			86.9					83.4		86.1			86.6		85.2

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Q1 2024 SQ ACTIVITY

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Figure 1 : DB-SBA SQM (Q4 2023) @ Menara Petronas KK

Figure 2 : Ops Support Internal Audit @ Labuan Warehouse

Figure 3 : EMO SQ Day (1) 2024 @ Labuan Warehouse

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Q1 2024 SQ ACTIVITY

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Figure 4 : Ops Support Internal Audit @ KSB

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Q1 2024 SQ ACTIVITY

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Figure 5 : WMO SQ Day @ KSB

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Q2 2024 SQ ACTIVITY

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Figure 6 : Operation & Maintenance Activity Internal Audit @ KSB

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Q2 2024 SQ ACTIVITY

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Figure 7 : Training & Awareness Session (QMS and Maintenance Procedure

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Q2 2024 SQ ACTIVITY

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Figure 8 : Supplier Assessment & Site Visit

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OPERATION – HIGHLIGHT

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Highlight		
NO	CATEGORY (*operational, safety, quality, technical)	DESCRIPTION
1	Operational	• Successfully perform SCO & Add perforation thru CT for Resak A09 that has contributed to instantaneous gain of 7 MMSCF/D as well as A17 17MMSCF/D
2	Operational	• Completed Cement packer operation at Dulang C4S that has contributed to higher instantaneous gain of 700 BOPD
2	Operational	• Completed acid stimulation via bullheading using PDA-15 for 5 well at Angsi Bravo and Echo and resulting in oil gained of 1200 BOPD
3	Operational	• Acid stimulation via bullheading operation D02 resulting in oil gained 700 BOPD and reduction in water cut
4	Operational	• Successfully cleared scale HUD across tubing as well as restriction at every SSD via CT at Dulang 31 • Acid stimulation via bullheading using PDA-15 resulting in oil gained 200 BOPD
5	Technical	• Implemented 1st real time data monitoring system which allowed town to view and diagnos all the data remotely during Resak A09 CT operation
6	Technical	• Completed cement packer operation for C4S by deploying modified cement retainer and CT packer
7	Safety	• Additional record monitoring of total manhours and uauc submission for daily operation update for all offshore location

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OPERATION – LOWLIGHT

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Lowlight		
NO	**CATEGORY (*operational, safety, quality, technical)**	**DESCRIPTION**
1	Operational	• Prolong operation during Dulang C4S due to bedding constraint from 3rd week of November 2023 till 3rd week of February 2024
2	Operational	• Prolong operation during Angsi E5S due to weather condition from 4th week December 2024 till 4th week of January and 3rd week February till 2nd week March
3	Operational	• Equipment damage during lifting activity at Angsi Besar during June 2024 execution
4	Operational	• Actual Job exceeded plan timeline for most of the pumping GPSC at Angsi Echo and Bravo. As an impact, it required additional PO top-up
5	Quality	• GIA Audit finding for completed jobs invoices not tally with JCT
6	Safety	• Shorter rest duration for night shift personnel that accommodating at Petra Orbit for Dulang C operation due to the boat movement (FCB) gave priority to construction team to interig to remote platform

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AOB

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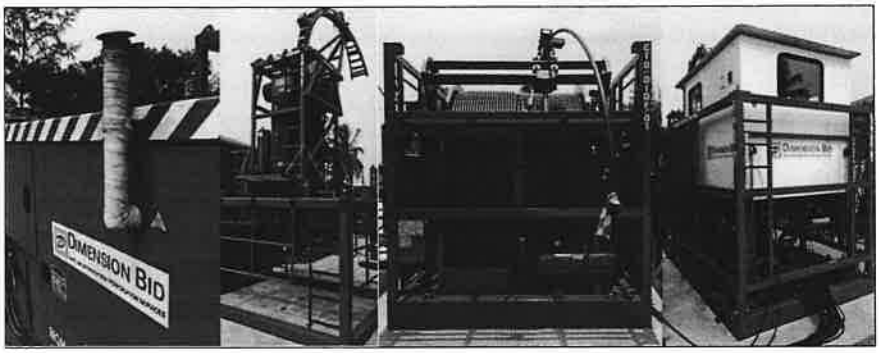
THANK YOU
Q&A SESSION

DIMENSION BID
WELL INTERVENTION | PERFORATION SERVICES

PETRONAS CARIGALI



END OF WELL REPORT
ANGSI B-02L

Revision:	Rev 0
Prepared for:	
Date Prepared:	4th May 2021
Well:	B-02L
Field:	Angsi B
Operation Region:	PMA
Country:	Malaysia
Prepared by:	Muhammad Hafiz Saharuddin
Phone:	+60 019 2640410
Email:	Hafiz.saharuddin@neudimension.com

Table of Contents

1. Executive Summary

This post-job report on Well Angsi B-02L has been prepared by Dimension Bid (M) Sdn Bhd at the request of Petronas Carigali Sdn Bhd. The work scope Angsi B-02L job is to perform sand clean out until EOT, total depth 2130 m MDDF using 2 1/8 Multi Jet Nozzle and to perform drift run to 2129.2 m. The treatment was started on 15th April 2021 and its consist of five runs. First run is to perform sand clean out inside tubing until insert valve. After POOH, continue with second run to perform another sand clean out after Slickline fail to retrieve insert valve. Job continue with third run to perform sand cleanout inside tubing until EOT. For the fourth run, perform Drift run until No-go nipple. During this run, CT face few HUD and need to proceed with contingency plan – soaking 15% HCL solution to dissolve the suspected scale. Run 5 is additional Job, Acid soaking request by client after suspect that Calcite issue that could potentially plug off the annulus area between perforation tunnel I-68 and the production tubing. Completed on 1st May 2021, including monitor the return fluid pH level.

1.1 Job Objective

The objectives of this job are:

1. To perform sand cleanout in long string from last held up depth reported at 135m MDDF until EOT at 2130 m MDDF to enable production from I-68 (SSD#3) flow into the long string.

1.2 Job Summary

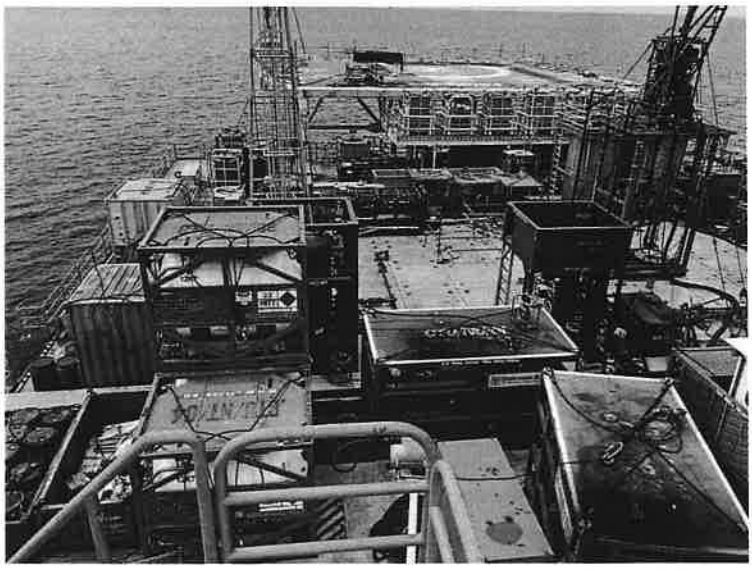
No	Job Scope	Details
1	Dimension Bid	Spot and rig up coil tubing equipment
2	Dimension Bid	CT Run #1 Sand clean out inside tubing until SCSSV (INSERT VALVE)
3	Dimension Bid	CT Run #2 Additional Sand clean out inside tubing until SCSSV (INSERT VALVE) after Slickline fail to retrieve insert Valve

4	Dimension Bid	CT Run #3 Sand cleanout inside tubing until EOT
5	Dimension Bid	CT Run #4 Drift run until No-GO Nipple
6	Dimension Bid	CT Run #5 Acid Soaking

1.3 Well Data

Input Parameter	Parameter Value
Field	Angsi Bravo
Max. Deviation (degrees)	47.9 degree @ 1,005m MDDF / 896m TVDDF
Min. Restriction (inch)	2.69" (XN Nipple) @ 2,129.2m MDDF
Type of Fluid & Density	9.5 ppg Inhibited Brine (based on data in Well Diagram)
Top of Fluid	TBA
Current Well Status	idle
Reservoir Pressure	2,428 psia (I-68 Reservoir based on SGS 2018 Data)
Reservoir Temperature	245 deg.F
Fracture Gradient	0.70 psi/ft (assumed)
H2S Content	N/A
CO2 Content	N/A
Mercury, HG	N/A

1.4 Equipment Layout



2. Job Execution

2.1 CT Run #1 Sand clean out inside tubing until top of insert valve

Configuration BHA from upper to below for Run#1:

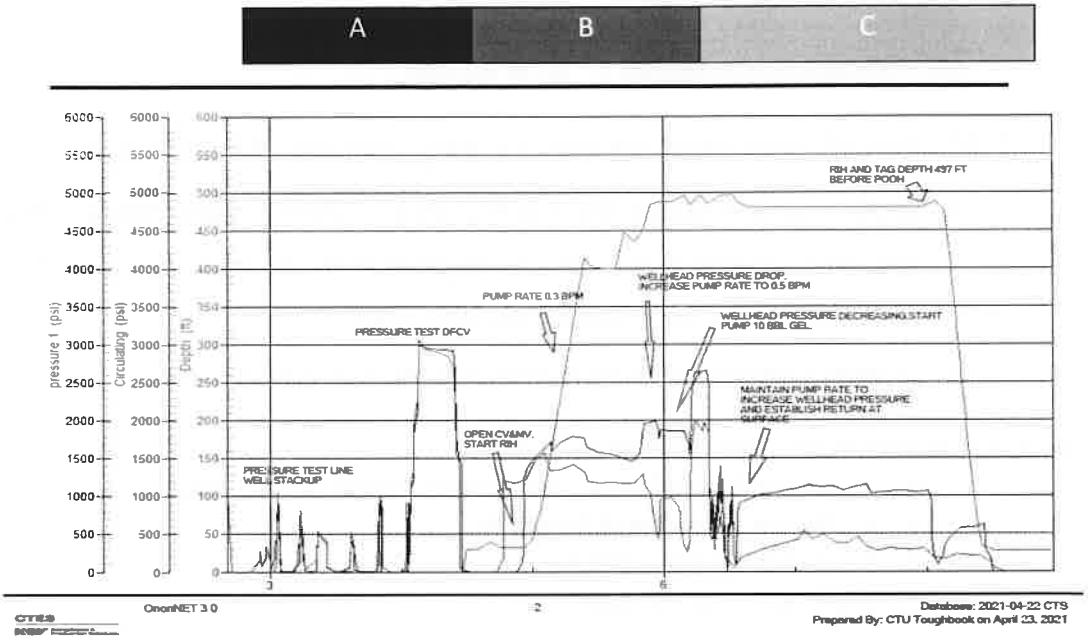
- 2-1/8-inch Coiled Tubing Connector (External Dimple Type)
- 2-1/8-inch Motor Head Assembly
- 2-1/8-inch 5 + 3 Straight Bar
- 2-inch Hi-Jet Nozzle

Pressure test: -

PT Type	Pressure (PSI)	Duration (Minutes)
A	3000	10
B	1500	10

Function test Nozzle: -

Pump Rate (BPM)	Pressure (PSI)
0.3	155
0.5	690
0.8	1500
1.0	2400
1.1	3090
1.2	3400
1.3	4500



Graph 1 B02L Run 1

Section	Notes
A	• Rig up treating line to the well, perform low and high pressure test to ensure no leak in line • Perform PT-A and PT-B
B	• Open well MV and CV : 18 Turns • Start RIH with minimum idle pumping rate : 0.3 bpm • Wellhead pressure continue to drop from 1400 psia and no return at surface (gas), Continue to increase pump rate slowly to 0.5 BPM (1850 psi circulation pressure) • Solid return at surface (water), continue to penetrate using 0.5 BPM • Hard tag at depth 497 ft (3 times), -1500lbs • POOH to depth 480 ft and continue jetting with 0.5 BPM, return sand at surface
C	• Wellhead pressure drop, possibility unable to lift the sand to the surface, switch to pump 10 bbl Gel • Maintain pump rate 0.5 BPM, wellhead pressure increasing and return gel + sand at surface • Clear return at surface, CT RIH tag at TD,497 ft

	• Proceed to POOH • CT at surface

2.2 CT Run #2 Sand clean out inside tubing until top of insert valve

1. Slickline run 2.7" Gauge ring and HUD @137 m /449.7 ft, proceed run LIB and get impression of sand. Run 3" GS w/o dog to HUD @ 137 m, pin not shear. Run 2.25" hydrostatic Pump bailer and recover 400 ml sand.
2. CT enter to RIH for 2nd time to clean out until top of insert valve.

Configuration BHA from upper to below for Run#2:

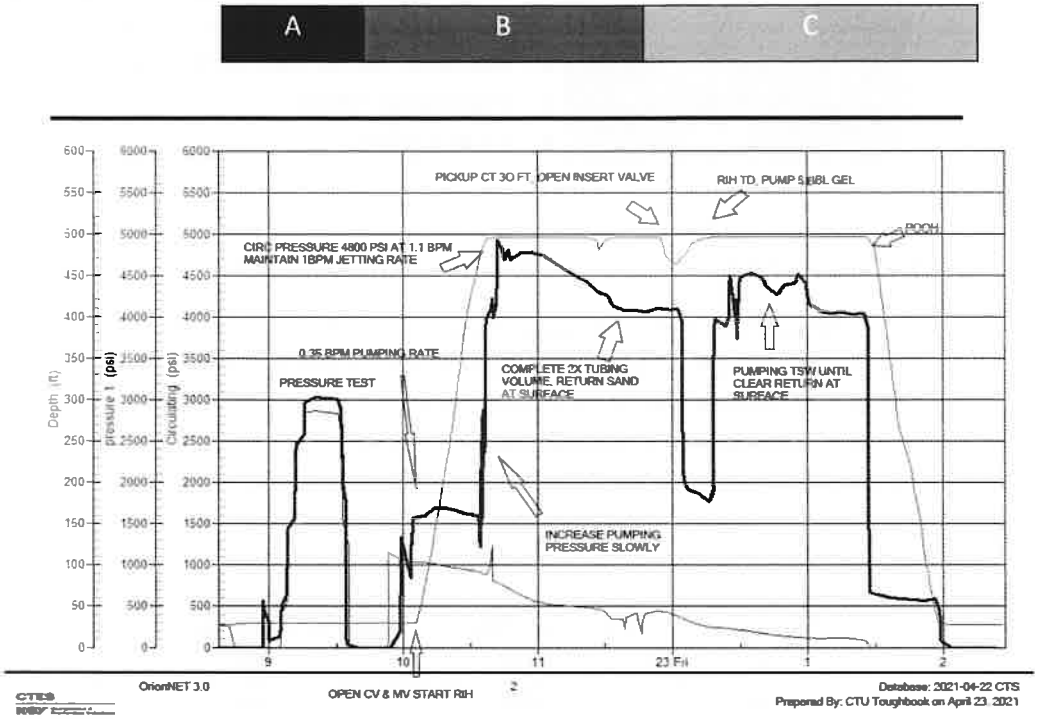
- 2-1/8-inch Coiled Tubing Connector (External Dimple Type)
- 2-1/8-inch Motor Head Assembly
- 2-1/8-inch 5 + 3 Straight Bar
- 2-1/8-inch MultiJet Nozzle

Pressure test: -

PT Type	Pressure (PSI)	Duration (Minutes)
A	3000	10
B	1500	10

Function test Nozzle: -

Pump Rate (BPM)	Pressure (PSI)
0.3	155
0.5	690
0.8	1500
1.0	2400
1.1	3090
1.2	3400
1.3	4500



Graph 2 BO2L RUN 2

Section	Notes
A	• Perform PT-A and PT-B • Open well MV and CV : 18 Turns
B	• Start RIH with minimum idle pumping rate : 0.35 bpm • Continue to pump 0.35 bpm until return establish at surface while RIH • CT tag at TD, Solid return (water) at surface • Slowly increase the pumping pressure, Circulation pressure almost 5k PSI @ 1.1 BPM, reduce jetting rate to 1 BPM • Continue jetting with 1 BPM, complete pump 2x Tubing volume and recover sand at surface
C	• CT POOH 30 ft above before open insert valve

	• After open insert valve, RIH to TD and start pump 5 bbl gel to suspend sand to surface • Continue pump TSW until clear return at surface • Proceed to POOH • CT at surface

2.3 CT Run #3 Sand cleanout inside tubing until EOT

Configuration BHA from upper to below for Run#3:

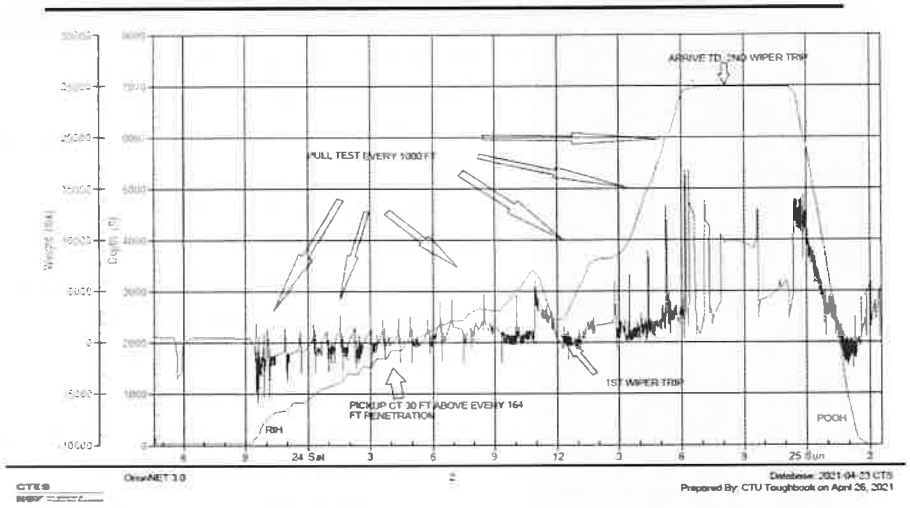
- 2-1/8-inch Coiled Tubing Connector (External Dimple Type)
- 2-1/8-inch Motor Head Assembly
- 2-1/8-inch 5 + 3 Straight Bar
- 2-1/8-inch MultiJet Nozzle

Pressure test: -

PT Type	Pressure (PSI)	Duration (Minutes)
A	3000	10
B	1500	10

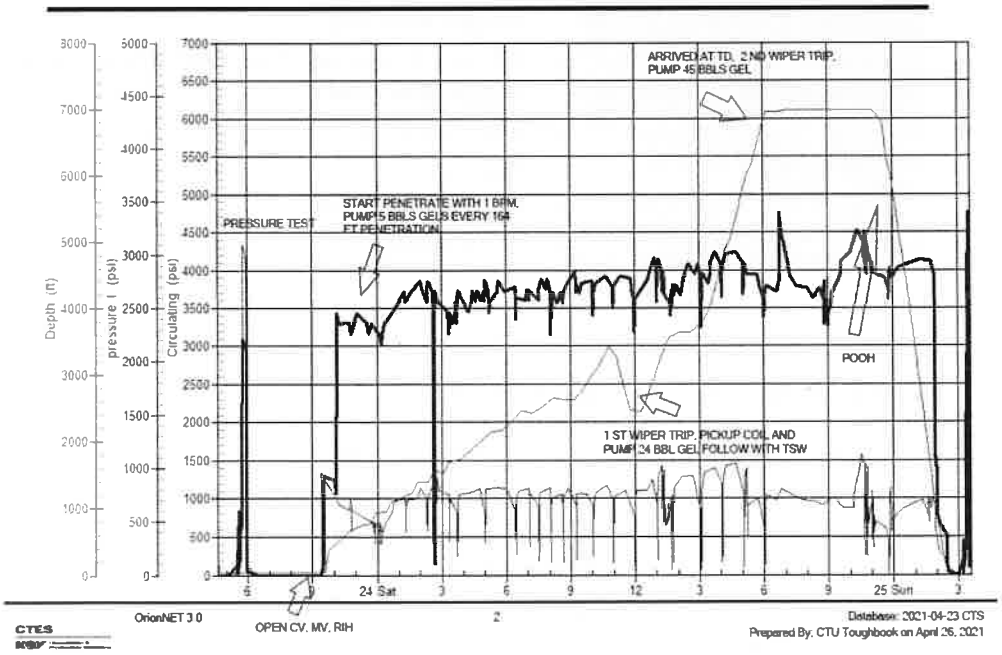
Function test Nozzle: -

Pump Rate (BPM)	Pressure (PSI)
0.3	155
0.5	690
0.8	1500
1.0	2400
1.1	3090
1.2	3400
1.3	4500



Graph 3 B02L RUN 3.1

A | B | C



Graph 4 B02L RUN 3.2

Section	Notes
A	• Perform PT-A and PT-B • Open well MV and CV : 18 Turns
B	• Start RIH with minimum idle pumping rate : 0.35 bpm • Continue to pump 0.3 bpm until return establish at surface while RIH • CT pass through the IV, slowly increase the pumping rate to 1 bpm to penetrate until TD • Swap and circulate with 5 bbl Gel every 50 m/164 ft penetration as per job program • Pull test every 1000 ft as per standard practice • CT reach depth 3495 ft, pick up coil to depth 2447 ft before start first wiper trip, 24 bbl gel. • Complete circulation volume, continue to penetrate until TD • No HUD while continue penetrate to target depth, no gel pump during this stage
C	• CT reach TD @ 6983 ft, tag twice at depth 6983 (suspected EOT), • CT start 2nd wiper Trip, switch to pump 45 bbl Gels follow with TSW. • After finish CBU and observe clear return at surface, flag coil • Proceed to POOH • CT at surface

2.4 CT Run #4 Drift run using 2.75 FC

Configuration BHA from upper to below for Run#4:

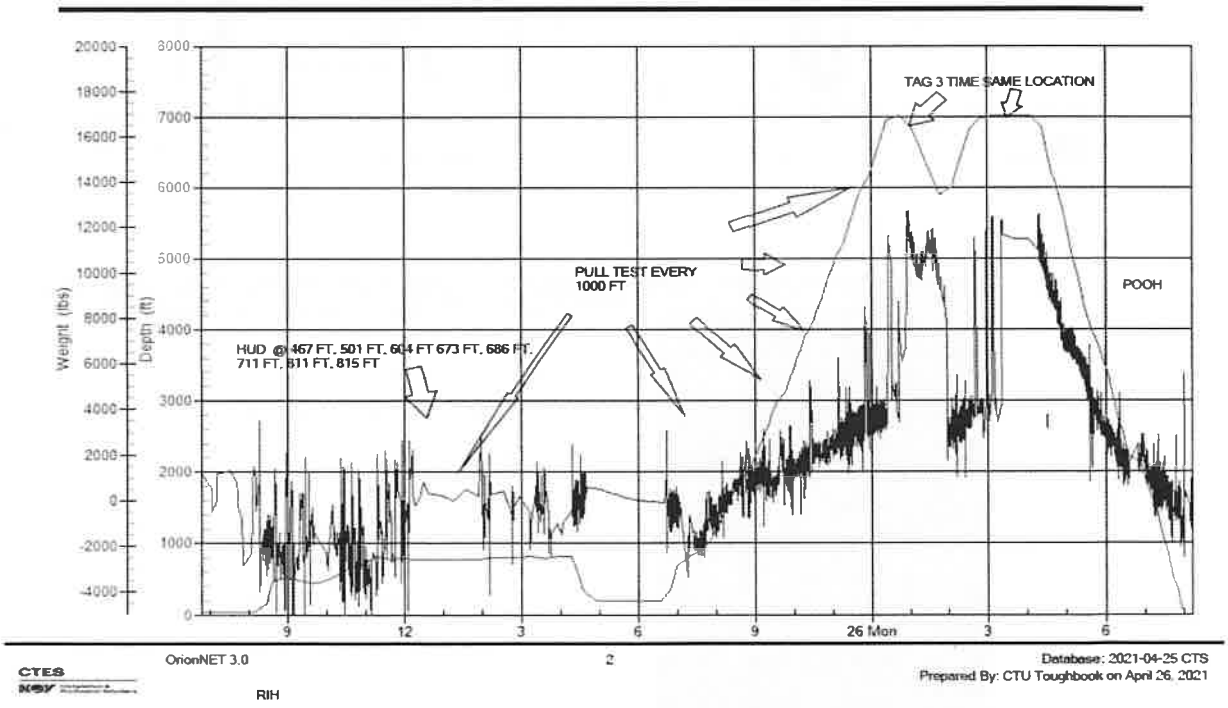
- 2-1/8-inch Coiled Tubing Connector (External Dimple Type)
- 2-1/8-inch Motor Head Assembly
- 2-1/8-inch 5 + 3 Straight Bar
- 2.75-inch Flute Centralizer
- 2-1/8-inch MultiJet Nozzle

Pressure test: -

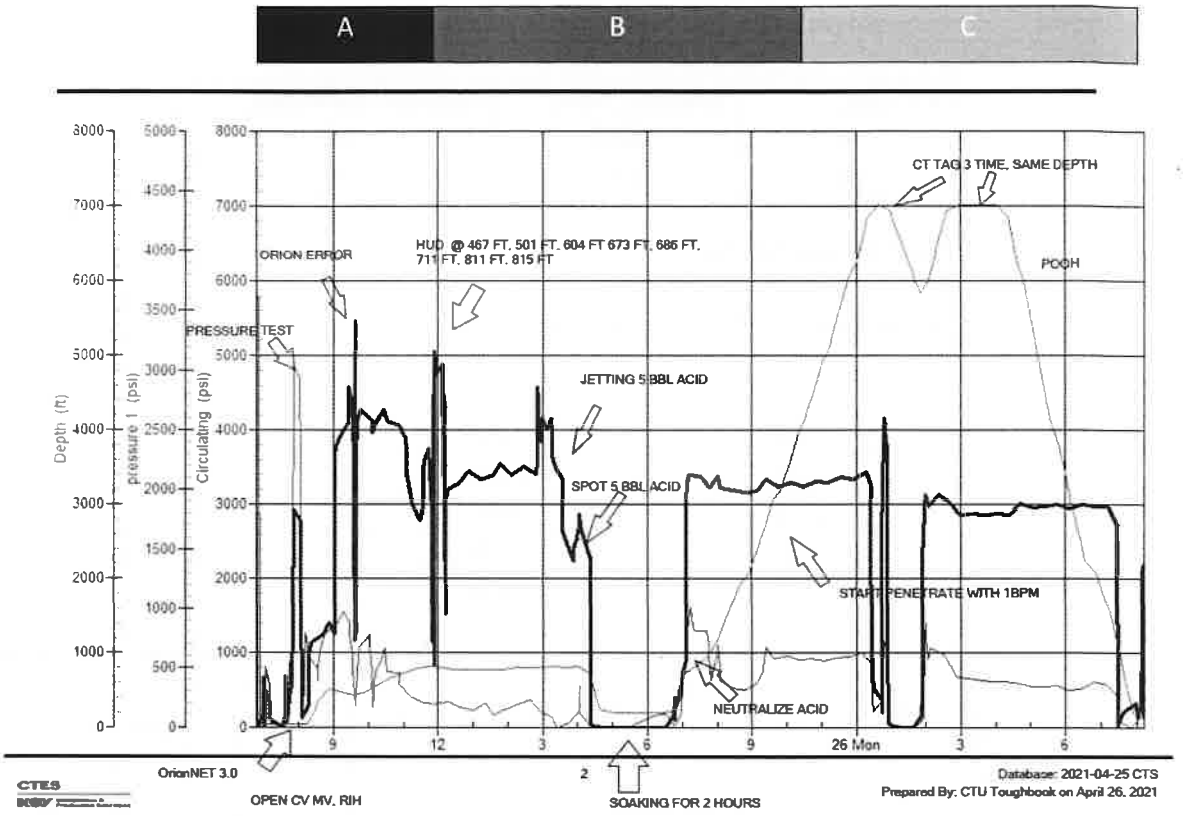
PT Type	Pressure (PSI)	Duration (Minutes)
A	3000	10
B	1500	10

Function test Nozzle: -

Pump Rate (BPM)	Pressure (PSI)
0.3	155
0.5	690
0.8	1500
1.0	2400
1.1	3090
1.2	3400
1.3	4500



Graph 5 B02L RUN 4.1



Graph 6 B02L RUN 4.2

Section	Notes
A	• Perform PT-A and PT-B • Open well MV and CV : 18 Turns • Reduce gas lift from 8% to 4 % to reduce the wellhead pressure • Start with idle rate 0.4 bpm until first HUD at depth 467 ft, start increase to 1 bpm to penetrate the HUD (circulation pressure around 4300 psi). • CT encounter few HUD at depth 467, 501, 604, 673, 686, 711, 811 and 815 ft. • For HUD at depth 467 till 711 ft, CT able to penetrate after pickup 30ft, Re-Run while penetrate with 1bpm.
B	• Unable

	• CT pass through the IV, slowly increase the pumping rate to 1 bpm to penetrate until TD • Swap and circulate with 5 bbl Gel every 50 m/164 ft penetration as per job program • Pull test every 1000 ft as per standard practice • CT reach depth 3495 ft, pick up coil to depth 2447 ft before start first wiper trip, 24 bbl gel. • Complete circulation volume, continue to penetrate until TD • No HUD while continue penetrate to target depth, no gel pump during this stage
C	• CT reach TD @ 6983 ft, tag twice at depth 6983 (suspected EOT), • CT start 2nd wiper Trip, switch to pump 45 bbl Gels follow with TSW. • After finish CBU and observe clear return at surface, flag coil • Proceed to POOH • CT at surface

Summary for the run as per below:

1. At HUD 811 ft after CT fail to penetrate for 3rd time with high jetting rate, 10 bbl 15% acid system were mixed inside batch mixer tank.
2. After jetting 5 bbl 15% acid, able to pass through HUD at 811 ft, but encounter second HUD at depth 815 ft. Start pump remaining 5 bbl acid and soaked it for 2 Hours, while CT POOH at safe depth (200 ft).
3. 5 bbl soda ash were pumped inside the tubing to neutralize the acid, continue RIH to TD (able to pass through last HUD).
4. Pull test were conducted as per standard practice, every 1000 ft.
5. CT station 10 metre above XN Nipple, perform pull test and record it.
6. CT experienced hard tag (3times) at depth 6997 ft, continue circulate 90 bbl TIW, after complete CBU, CT start POOH to surface.
7. Below is the graph for this run;

2.5 CT Run #5 Acid Soaking

Configuration BHA from upper to below for Run#5:

- 2-1/8-inch Coiled Tubing Connector (External Dimple Type)
- 2-1/8-inch Motor Head Assembly
- 2-1/8-inch 5 + 3 Straight Bar
- 2-1/8-inch 45 deg DownJet Nozzle

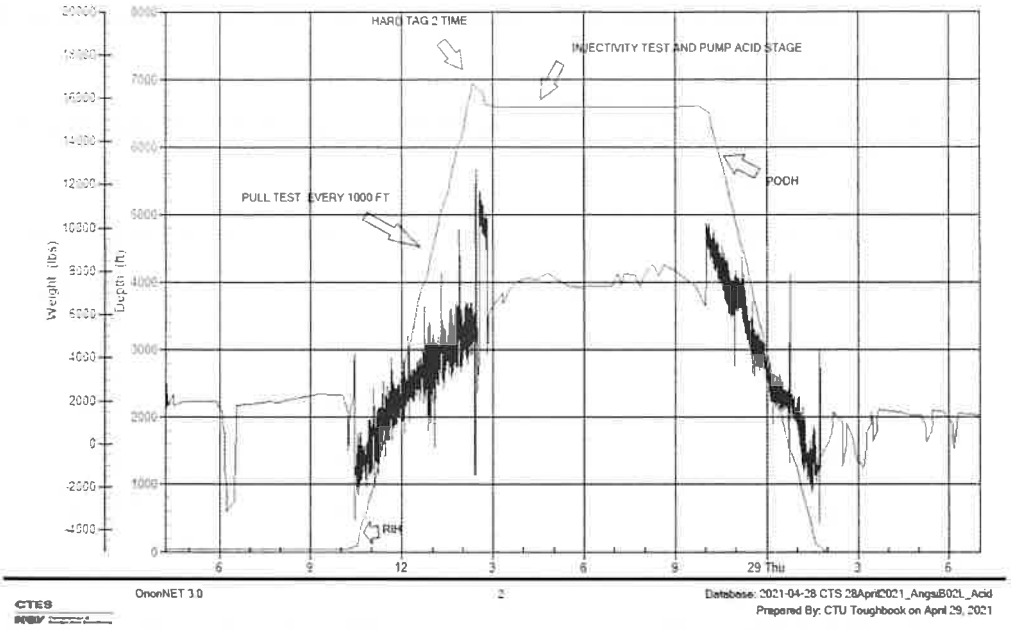
Summary for the run as per below:

1. Due to the calcite issue that potentially plug off the annulus area between perforation tunnel I-68 and the production tubing, 15% acid soaking were proposed.
2. First of all, 250 bbl of Fresh water were bunker from Boat, 200 bll for TFW and another 50 bbl for Acid mixing.

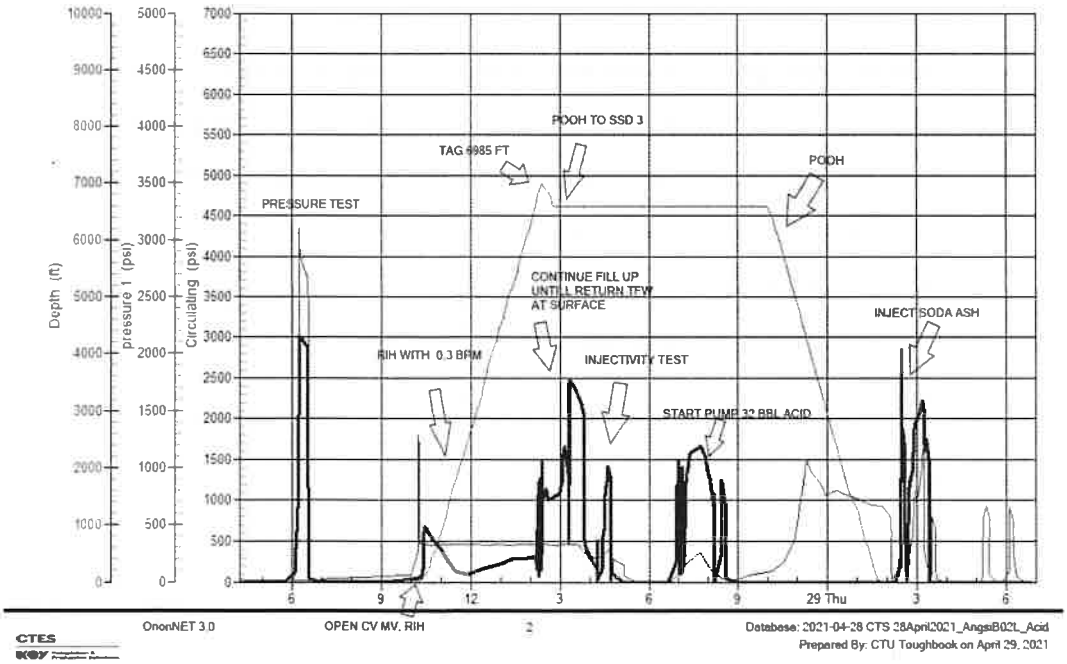
3. CT RIH to 6985-MDDF (EOT), after tag 2 time same depth, pickup CT to depth 6595 ft (SSD#3).
4. Gas return at surface, no solid water return, continue to fill up well until 140 bbl (1.5 x Completion volume).
5. After fill up, Injectivity test were performed, results as per table below;

Rate, BPM	THP	PCP	Circulating
0.3	148	900	120
0.5	150	900	160
0.7	215	900	1100
0.8	275	900	1500

6. Start pump 32 bbl acid with return and wing valve line closed, soaking for 1 hour.
7. Production started flow the well and CT POOH to surface, continue monitor at sampling point.
8. Soda ash injected to the well when got pH reading less than 7.
9. After the temperature for the return sample start increase and stable around 60 deg C, with pH average around 7-8, stop monitor the well and handover the well to Geowell to set Insert Valve back.
10. Refer Flowback monitoring checklist in reference section.
11. Below is the graph for this run;

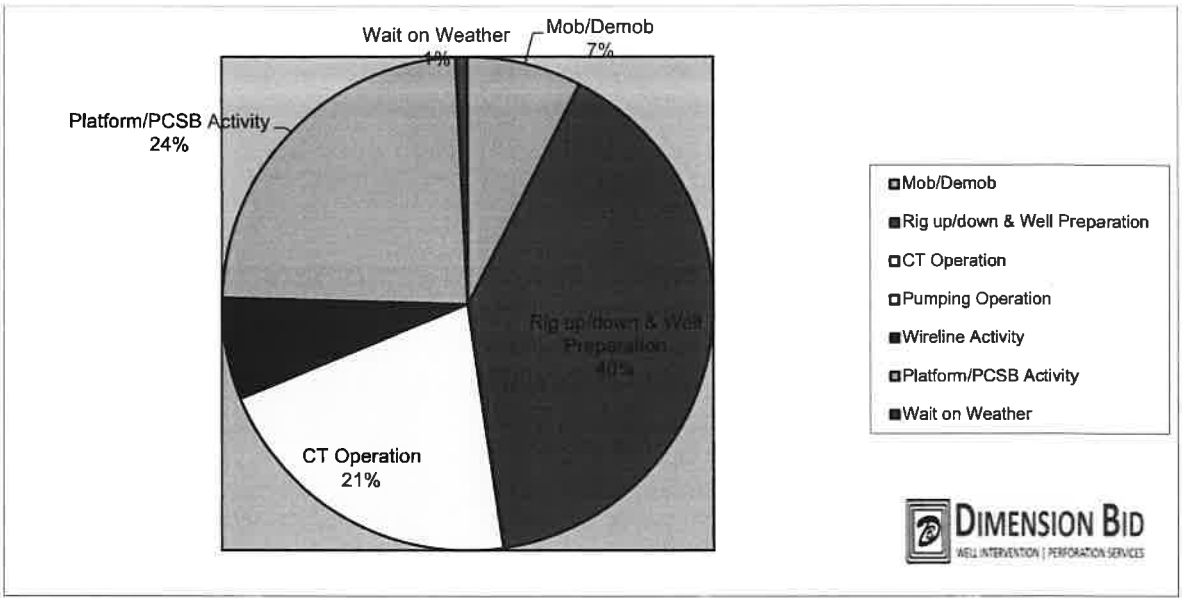


GRAPH 7B02L RUN 5.1



GRAPH 8 B02L RUN 5.2

3. Utilization Rate



Activity	Hours	Day
Mob/Demob	29	1:12
Rig up/down & Well Preparation	154:20	6:25
CT Operation	81:00	3:22
Pumping Operation	0	0
Wireline Activity	25:40	1:04
Wait on Weather	3:00	0:07
Platform/PCSB Activity	91:30	3:48
Downtime-DB	0	0
Downtime-Non DB	0	0
Total	**384:30**	**16:01**

4. Lessons Learned & Way forward

1) Contingency plan must be ready to execute during failed operation in order to reduce production lost time.

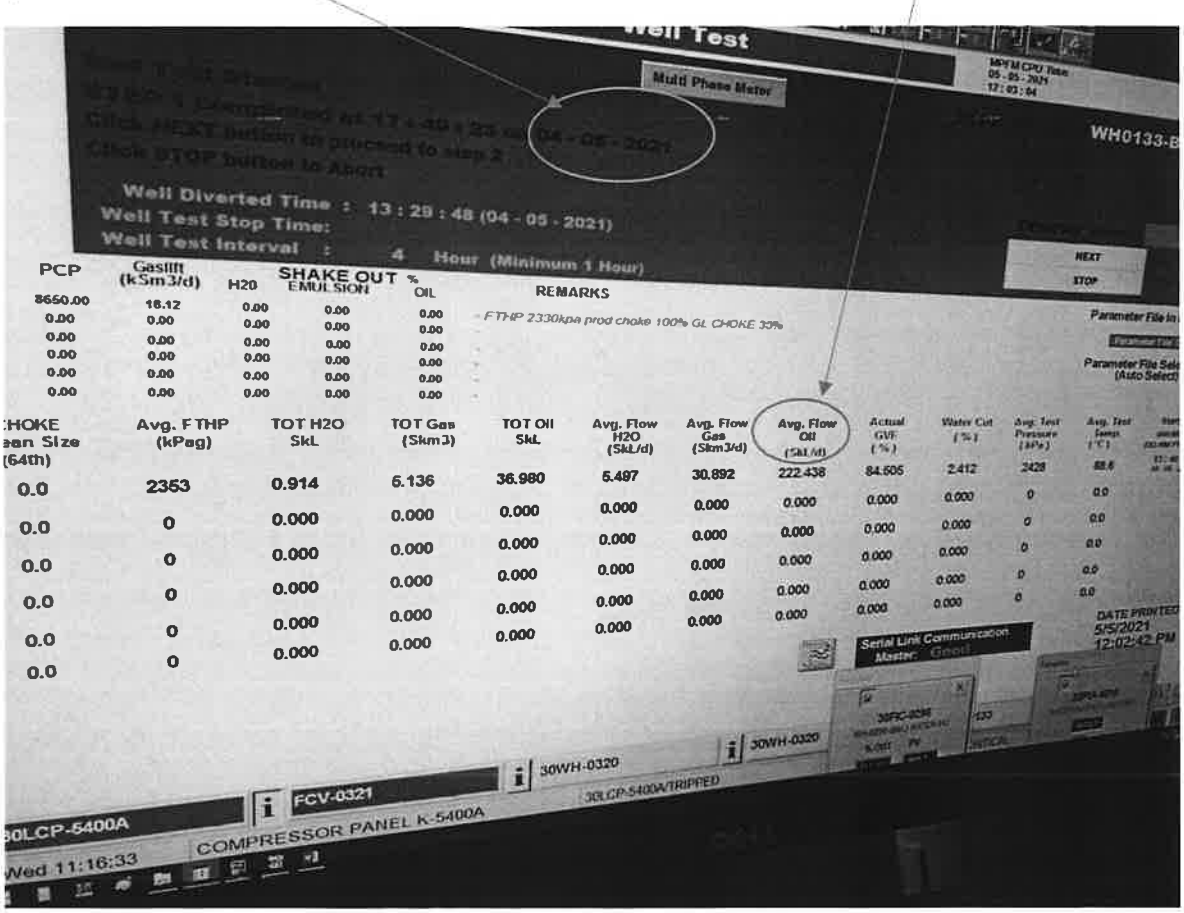
2) Reserve fresh water in a tank must be provided in case of emergency or failed operation. Otherwise, it will take long time to re-bunker from vessel.

3) Prepare 3" HP Hoses to bunker fresh water from Ship, as per discuss with Captain of Setia Qaseh, 2" Hoses is not suitable to be used due to low pressure rating and the connection for the spring hose sometimes open during bunker process.

5. Conclusion

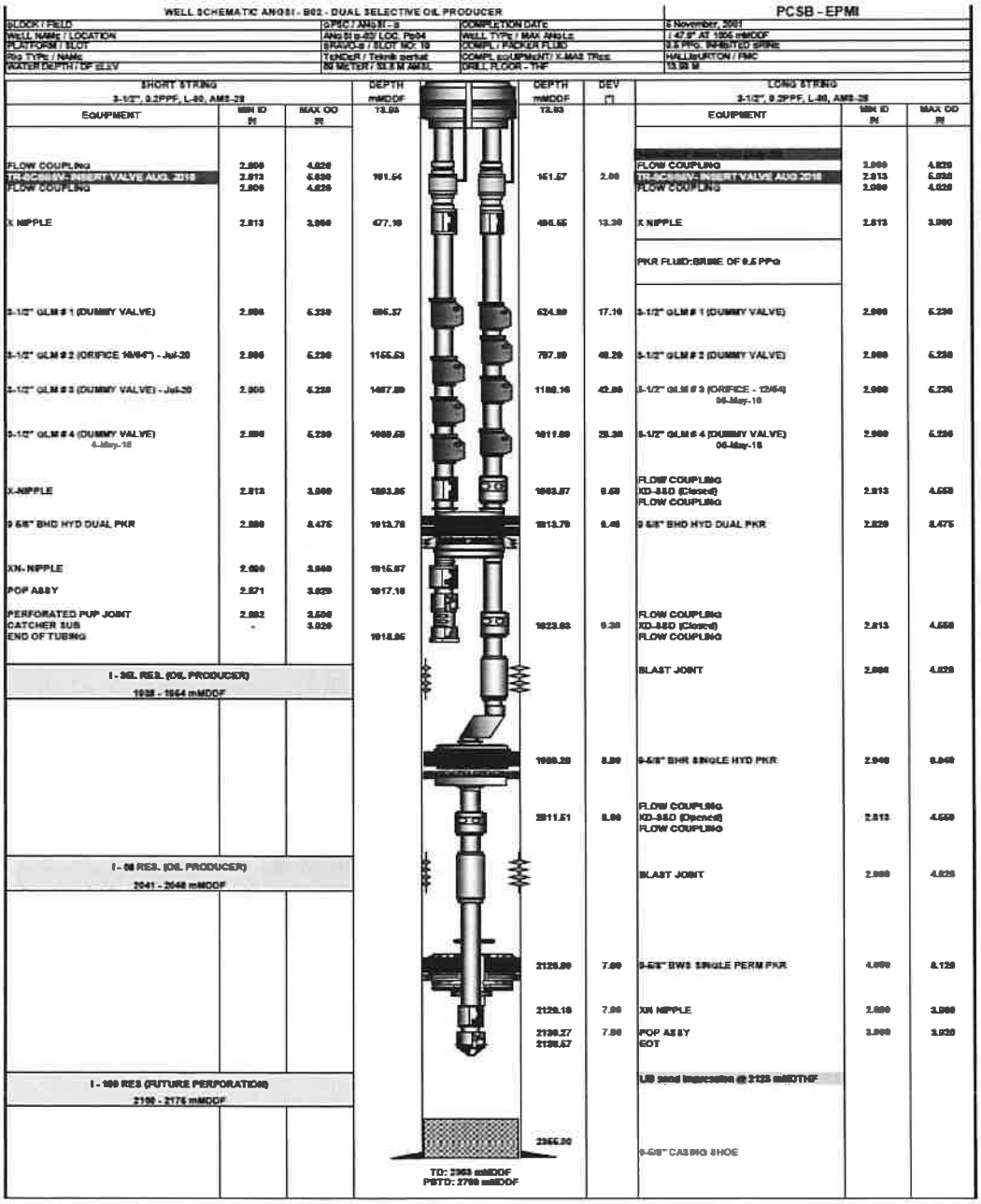
The job was finally successful despite of challenges faced. Lessons learnt from the operation will be highlighted for future operation. Result from well test obtained for B02L show slightly increase in volume of oil.

DATE	AVG FLOW WATER (skl/day)	AVG FLOW OIL (skl/day)
4/4/2021 (Last well test result before DB CT enter)	1.22	188
4/5/2021	5.497	222.438



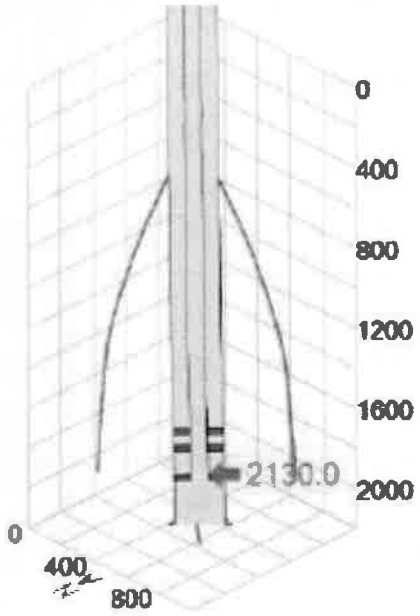
6. Appendices

6.1 Appendix A: Well Diagram



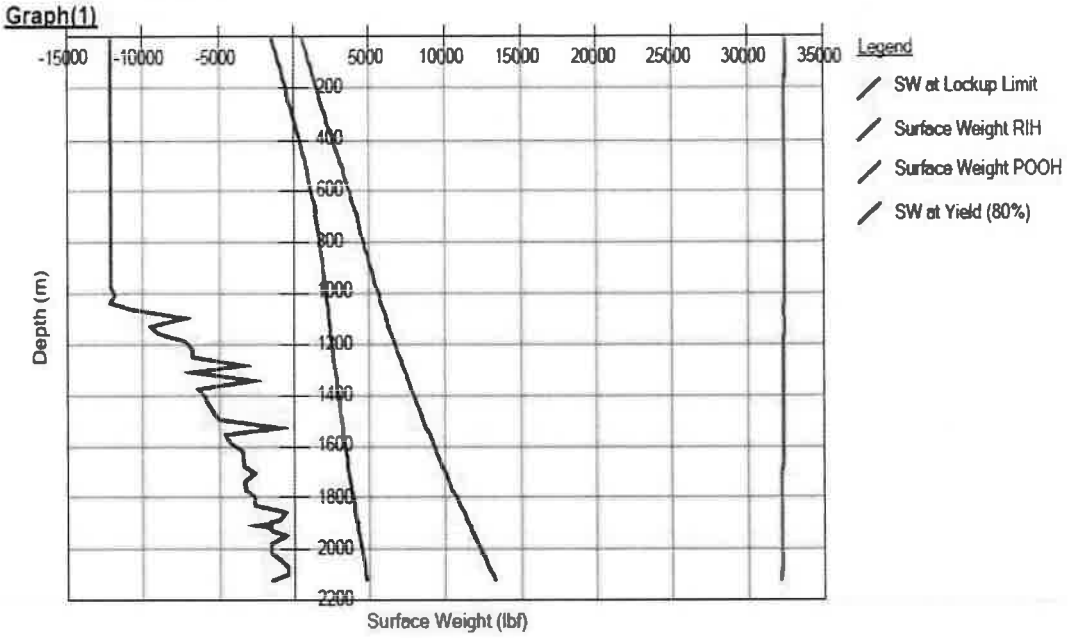
6.2 Appendix B: Cerberus Analysis

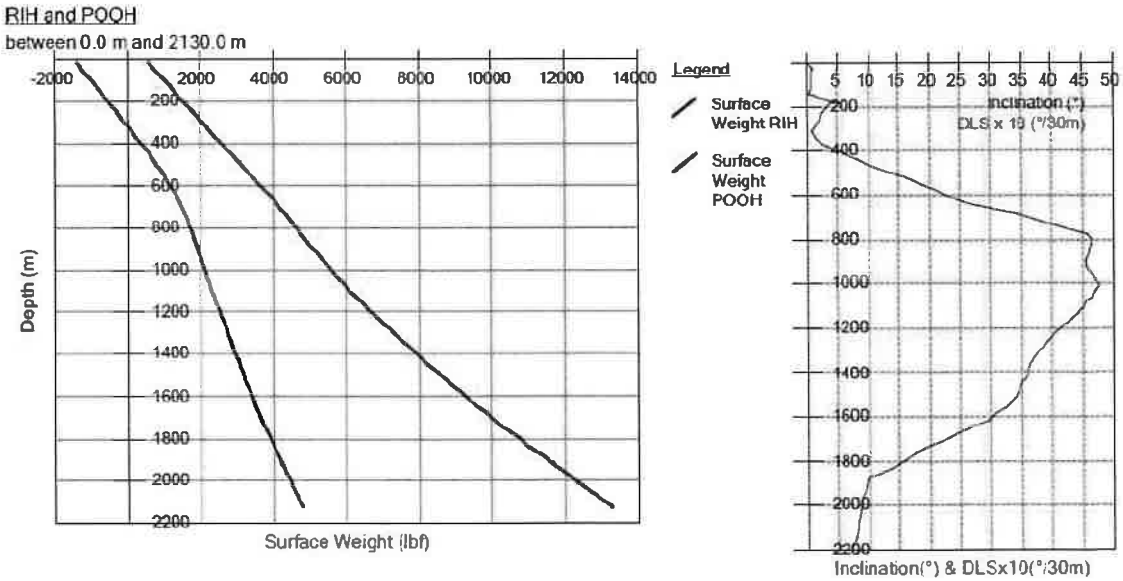
6.2.1 Well Trajectory

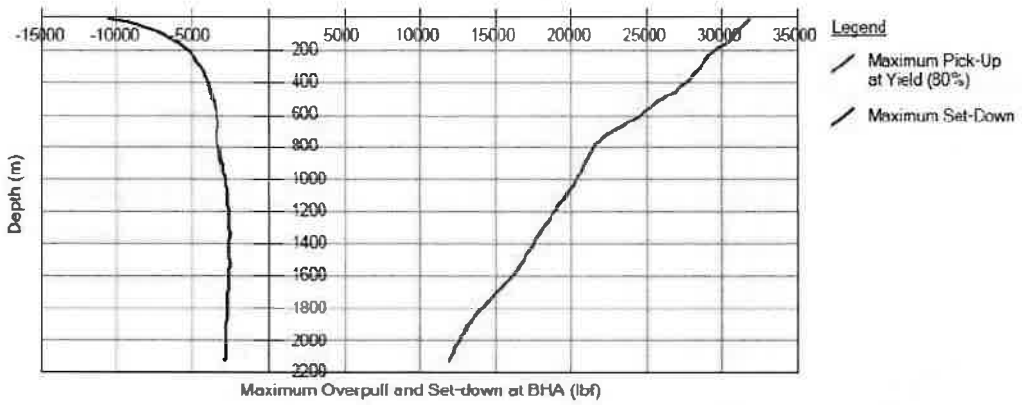


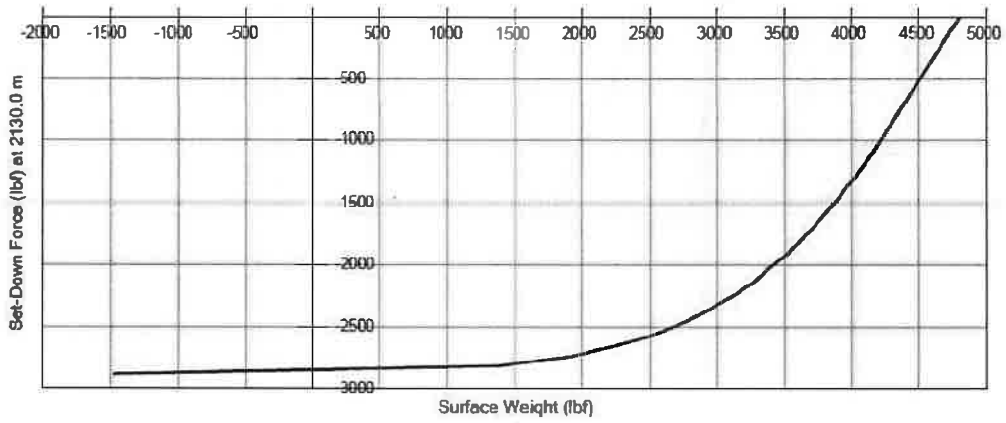
Well name: Angsi B-02L TFA
Total depth: 2363.1 m
Max Inclination: 47.9° at 1005.6 m
Max DLS: 5.745 °/100ft at 185.0 m
Min ID: 2.690 in at 2129.3 m
WHP: 150 psi

6.2.2 Orpheus Simulation (Tubing Forces)



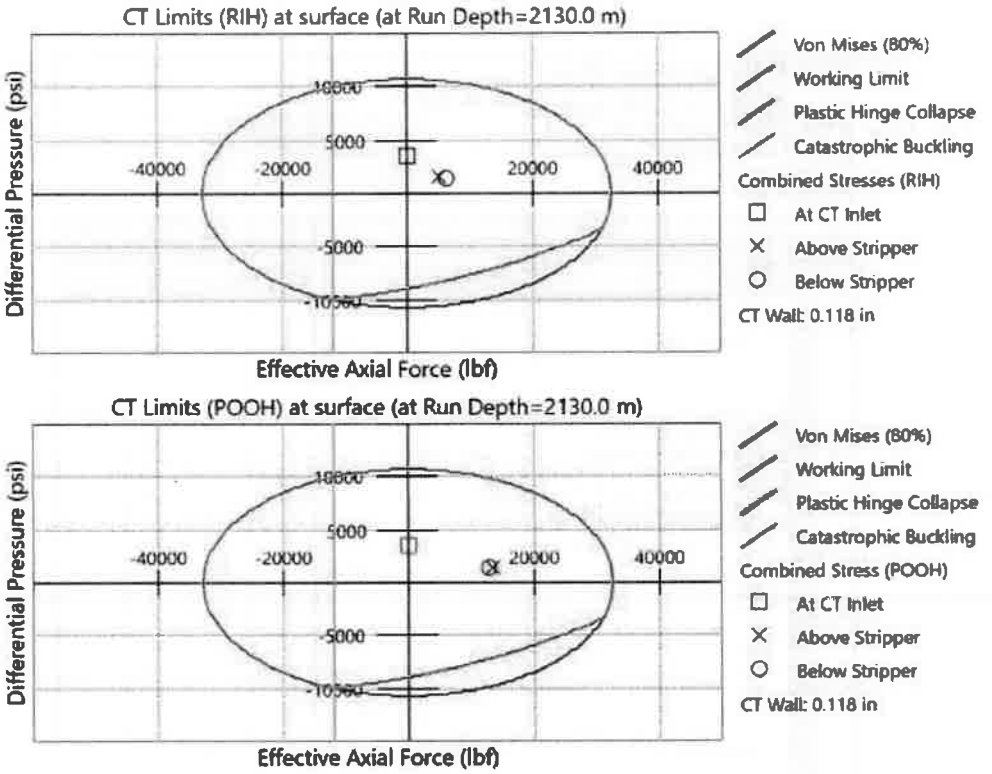



-15000
-10000
-5000
5000
10000
15000
20000
25000
30000
35000
200
400
600
800
1000
1200
1400
1600
1800
2000
2200
Depth (m)
Maximum Overpull and Set-down at BHA (lbf)
Legend
Maximum Pick-Up at Yield (80%)
Maximum Set-Down


-2000
-1500
-1000
-500
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
500
1000
1500
2000
2500
3000
Set-Down Force (lbf) at 2130.0 m
Surface Weight (lbf)

6.2.3 Hercules Simulation (CT Limit)

CT Limits



6.3 Appendix C: BHA Diagram

6.3.1 2-1/8" MultiJet Nozzle

DIMENSION BID

BHA DIAGRAM #1- 2-1/8" MultiJET Nozzle BHA

Client	Petronas Carigali	Well	B-02L
Field	Angsi Bravo	Min Restriction	2.69"
Job Type	CT Sand Cleanout	BHP	2428 psia
Job No.		BHT	245 Deg F

BHA DRAWING	DESCRIPTION	CONNECTION		ID	OD	TOOL LENGTH	CUMULATIVE LENGTH
		UPHOLE	DOWNHOLE	INCH	INCH	FT	FT
	External Dimple	1.5" CT	1.5" AMMT PIN		2.125	0.6	0.6
	MHA Disconnect drop ball 3/4" Shear pressure 5,456 psi Circulating drop ball 10/16" Shear pressure 2,520 psi Burst Disc 5000 psi	1.5" AMMT BOX	1.5" AMMT PIN		2.125	2.5	3.1
	5 ft Straight Bar	1.5" AMMT BOX	1.5" AMMT PIN		2.125	5.0	8.1
	3 ft Straight Bar	1.5" AMMT BOX	1.5" AMMT PIN		2.125	3.00	11.1
	MultiJET Nozzle	1.5" AMMT BOX			2.125	0.8	11.9

6.3.2 2-1/8" MultiJet Nozzle c/w 2.75" OD FC

DIMENSION BID

BHA DIAGRAM #1- 2-1/8" MultiJET Nozzle c/w 2.75" OD FC BHA

Client	Petronas Carigali	Well	B-02L
Field	Angsi Bravo	Min Restriction	2.69"
Job Type	CT Sand Cleanout	BHP	2428 psia
Job No.		BHT	245 Deg F

BHA DRAWING	DESCRIPTION	CONNECTION		ID	OD	TOOL LENGTH	CUMULATIVE LENGTH
		UPHOLE	DOWNHOLE	INCH	INCH	FT	FT
	External Dimple	1.5" CT	1.5" AMMT PIN		2.125	0.6	0.6
	MHA Disconnect drop ball 3/4" Shear pressure 5,456 psi Circulating drop ball 10/16" Shear pressure 2,520 psi Burst Disc 5000 psi	1.5" AMMT BOX	1.5" AMMT PIN		2.125	2.5	3.1
	5 ft Straight Bar	1.5" AMMT BOX	1.5" AMMT PIN		2.125	5.0	8.1
	3 ft Straight Bar	1.5" AMMT BOX	1.5" AMMT PIN		2.125	3.00	11.1
	2.75" ID Flute Centralizer	1.5" AMMT BOX	1.5" AMMT PIN		2.750	1.0	12.1
	MultiJET Nozzle	1.5" AMMT BOX			2.125	0.8	12.9

6.3.3 45 Deg Downjet Nozzle

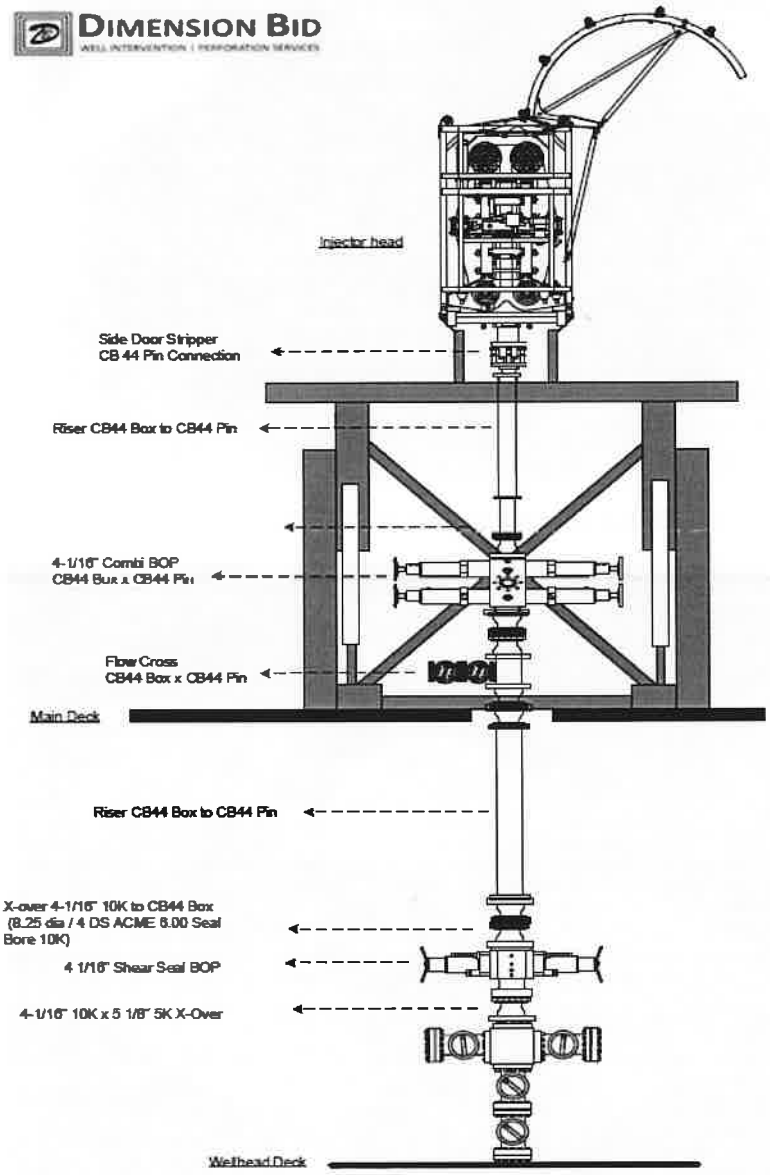
DIMENSION BID

BHA DIAGRAM #1- 2-1/8" 45 Deg Downjet Nozzle BHA

Client	Petronas Carigali	Well	B-02L
Field	Angsi Bravo	Min Restriction	2.69"
Job Type	CT Acid Soaking	BHP	2428 psia
Job No.		BHT	245 Deg F

BHA DRAWING	DESCRIPTION	CONNECTION		ID	OD	TOOL LENGTH	CUMULATIVE LENGTH
		UPHOLE	DOWNHOLE	INCH	INCH	FT	FT
	External Dimple	1.5" CT	1.5" AMMT PIN		2.125	0.6	0.6
	MHA Disconnect drop ball 3/4" Shear pressure 5,456 psi Circulating drop ball 10/16" Shear pressure 2,520 psi Burst Disc 5000 psi	1.5" AMMT BOX	1.5" AMMT PIN		2.125	2.5	3.1
	5 ft Straight Bar	1.5" AMMT BOX	1.5" AMMT PIN		2.125	5.0	8.1
	3 ft Straight Bar	1.5" AMMT BOX	1.5" AMMT PIN		2.125	3.00	11.1
	45 Deg Downjet Nozzle LOT 15-097-1-10652	1.5" AMMT BOX			2.125	0.8	11.9

6.4 Appendix D: Well Stack Configuration



6.5 Appendix E: Sand from 2nd and 3rd Run

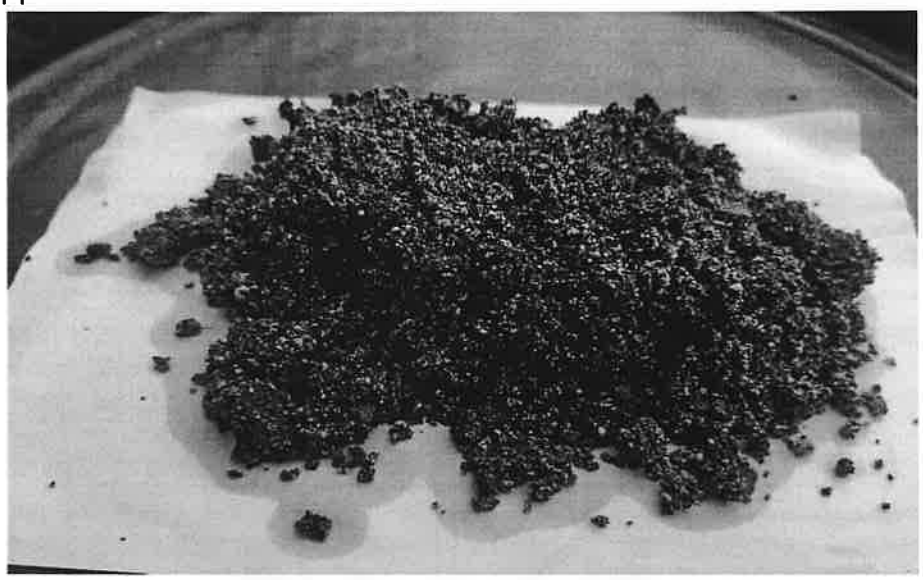


Figure 9 SAND RECOVERED FROM 1ST AND 2ND RUN

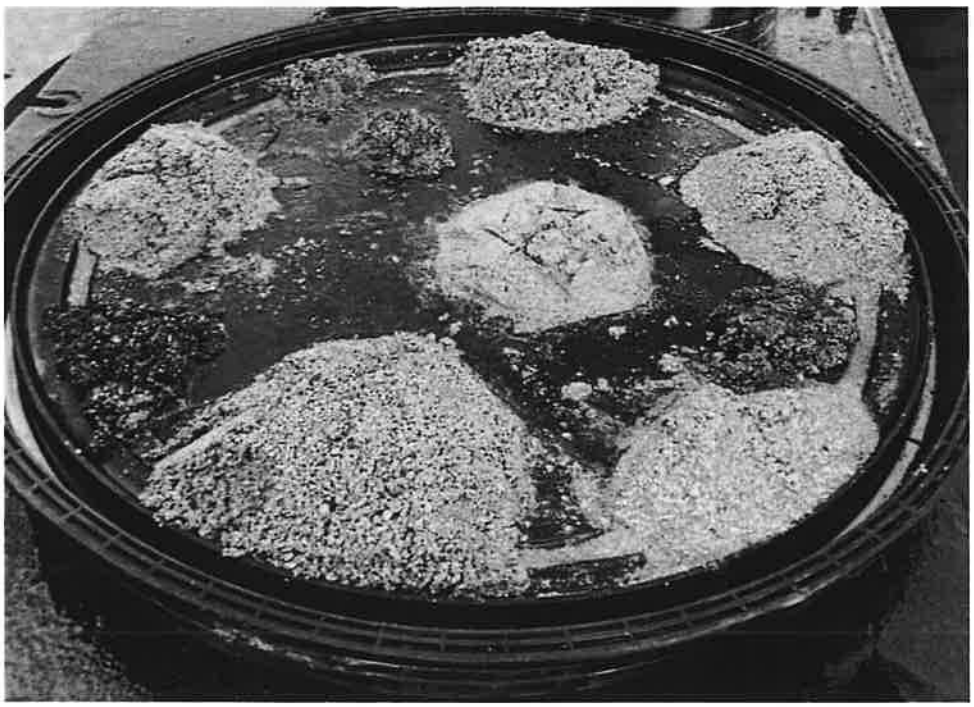


Figure 10 SAND RECOVERED FROM 3RD RUN

6.6 Appendix F: Flowback Monitoring Checklist

Monitoring Checklist

Field/Platform/Well : B02L

Engineer : Muhammad Hafiz Bin Saharuddin

No.	Date	Time	Choke Size	pH.	% Water Cut	Bbl Counter	FLT (DegC)	FTHP (PSI)	Remark
1	28/4/2021	23:45	100%	-			31.8	400	Gas
2	29/4/2021	0:00	100%	-			34.1	400	Gas
3	29/4/2021	0:15	100%	-			37.4	400	Gas
4	29/4/2021	0:30	100%	-			37.3	400	Gas
5	29/4/2021	0:45	100%	-			40	400	Gas
6	29/4/2021	1:00	100%	-			42.1	400	Gas
7	29/4/2021	1:15	100%	-			43.8	400	Gas
9	29/4/2021	1:30	100%	-			44.4	400	Gas
10	29/4/2021	1:45	100%	-			44.5	400	Gas
11	29/4/2021	2:00	100%	5			44.2	400	Gas + Fluid
12	29/4/2021	2:15	100%	-				400	Gas
13	29/4/2021	2:30	100%	4			44.5	400	Gas + Fluid
14	29/4/2021	2:45	100%	-				400	Gas
15	29/4/2021	3:00	100%	4			44.2	400	Gas + Fluid
16	29/4/2021	3:15	100%	-				400	Gas
17	29/4/2021	3:30	100%	7			42	400	Gas + Fluid
18	29/4/2021	3:45	100%	5			37.2	400	Gas + Fluid
19	29/4/2021	4:00	100%	5			39.2	400	Gas + Fluid
20	29/4/2021	4:30	100%	-			40.1	400	Gas + Fluid
21	29/4/2021	5:00	100%	4			40.1	400	Gas + Fluid
22	29/4/2021	5:30	100%	10			35.8	400	Gas + Fluid
23	29/4/2021	6:00	100%	6			40	400	Gas + Fluid
24	29/4/2021	6:30	100%	9			39.4	400	Gas + Fluid
25	29/4/2021	7:30	100%	3			45	400	Gas + Fluid
26	29/4/2021	7:45	100%	6			45	400	Gas + Fluid
27	29/4/2021	8:00	100%	7			52	400	Gas + Fluid
28	29/4/2021	8:30	100%	7			48	390	Gas + Fluid
29	29/4/2021	9:00	100%	7			51	390	Gas + Fluid
30	29/4/2021	9:30	100%	8			55	390	Gas + Fluid
31	29/4/2021	10:00	100%	5			60	390	Gas + Fluid
32	29/4/2021	10:30	100%	5			62	390	Gas + Fluid

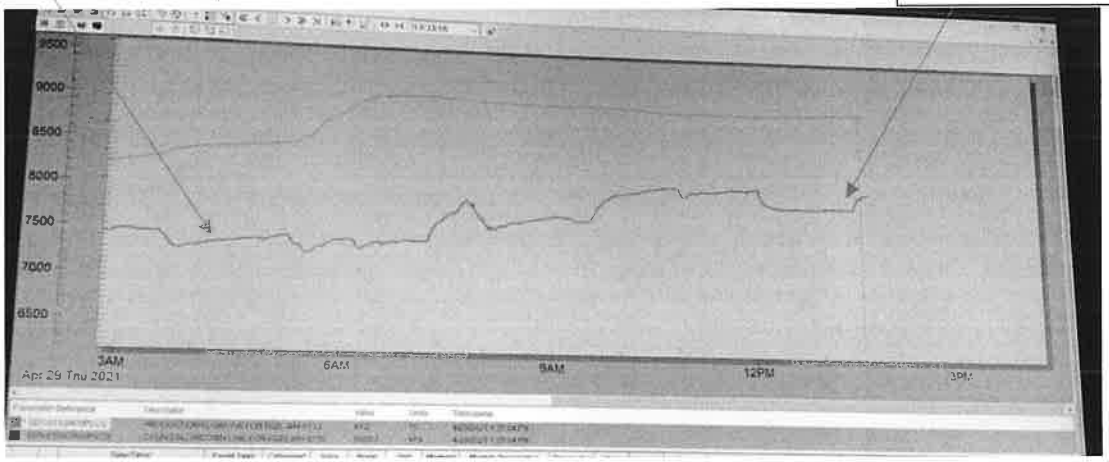
38	33	29/4/2021	11:00	100%	5			61	390	Gas + Fluid
39	34	29/4/2021	11:30	100%	6			62	390	Gas + Fluid
40	35	29/4/2021	12:00	100%	6			58	390	Gas + Fluid
41	36	29/4/2021	12:30	100%	8			57	390	Gas + Fluid
42	37	29/4/2021	13:00	100%	8			56	390	Gas + Fluid
43	38	29/4/2021	13:30	100%	6			62	390	Gas + Fluid
44	39	29/4/2021	14:00	100%	6			64	390	Gas + Fluid
45	40	29/4/2021	14:30	100%	6			62	390	Gas + Fluid
46	41	29/4/2021	15:00	100%	6			62	390	Gas + Fluid
47	42	29/4/2021	15:30	100%	6			62	390	Gas + Fluid
48	43	29/4/2021	16:00	100%	6			60	400	Gas + Fluid
49	44	29/4/2021	16:30	100%						
50	45	29/4/2021	17:00	100%	7			62	400	Gas + Fluid
51	46	29/4/2021	17:30	100%						
52	47	29/4/2021	18:00	100%	7			63	400	Gas + Fluid
53	48	29/4/2021	20:00	100%	8			64.1	400	Gas + Fluid
54	49	29/4/2021	21:00	100%	7			63.2	400	Gas + Fluid
55	50	29/4/2021	22:00	100%	8			64.5	400	Gas + Fluid
56	51	29/4/2021	23:00	100%	9			64.4	400	Gas + Fluid
57	52	30/4/2021	0:00	100%	9			64.2	400	Gas + Fluid
58	53	30/4/2021	1:00	100%	9			64.4	400	Gas + Fluid
59	54	30/4/2021	2:00	100%	8			64.2	400	Gas + Fluid
60	55	30/4/2021	3:00	100%	9			64.3	400	Gas + Fluid
61	56	30/4/2021	4:00	100%	8			64.4	400	Gas + Fluid
62	57	30/4/2021	5:00	100%	9			64.4	400	Gas + Fluid
63	58	30/4/2021	6:00	100%	8			64.4	400	Gas + Fluid
64	59									
65	60									
66										

6.7 Appendix G: Return Sample with temperature Graph

Figure 11 RETURN SAMPLE

RETURN SAMPLE TEMPERATURE, 40 DEG C

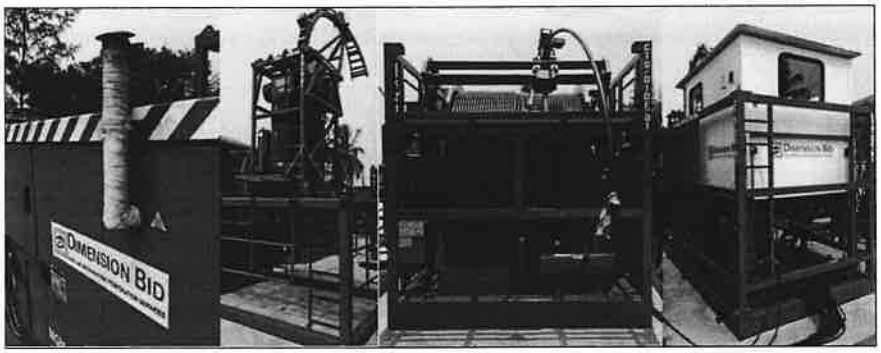
RETURN SAMPLE TEMPERATURE, 60 DEG C



GRAPH 12 GRAPH FOR RETURN SAMPLE TEMPERATURE

DIMENSION BID
WELL INTERVENTION | PERFORATION SERVICES

PETRONAS CARIGALI



END OF WELL REPORT
BEKOK C-17

Revision:	Rev 0
Prepared for:	
Date Prepared:	16th August 2021
Well:	C-17
Field:	Bekok-C
Operation Region:	PMA
Country:	Malaysia
Prepared by:	Muhammad Hafiz Saharuddin
Phone:	+60 019 2640410
Email:	Hafiz.saharuddin@neudimension.com

Table of Contents

1. Executive Summary

This post-job report on Well Bekok C-17 has been prepared by Dimension Bid (M) Sdn Bhd at the request of Petronas Carigali Sdn Bhd. The work scope Bekok C-17 job is to perform Fine stabilizer treatment on upper zone K30 to prevent fines migration and maintain production. The treatment was started on 28th July 2021 and completed on 16th August 2021. Job started with Uzma to perform re-perforation on zone K-30. After Slickline set PXN Plug, DB enter by performed Tubing integrity test. Result from the test showed there are no leak between tubing and packer (PCP pressure remain the same), Slickline retrieve the plug follow by tubing pickling to clean the tubing. The main treatment started by pumping pre-flush solvent to conditioning the well follow with Fine stabilizer and post flush to push the fine stabilizer into the formation. Campaign completed on 16th august 2021, including demobilization of crew and equipment via Setia Qaseh.

1.1 Job Objective

The objectives of this job are:

1. To perform Fine Stabilizer treatment on upper zone K30 to prevent fines migration and maintain production.

1.2 Job Summary

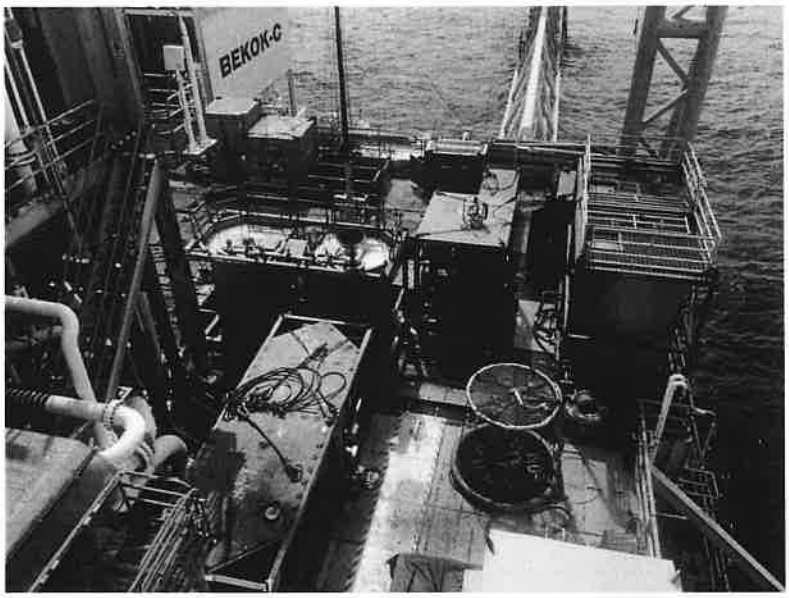
No	Job Scope	Details
1	Geowell	Performed TCC and ensure SSD is in closed position Set PXN plug at X-N Nipple
2	Dimension Bid	Performed Tubing Integrity Test
3	Geowell	Retrieved plug at X-N Nipple
4	Dimension Bid	Performed Bullheading pumping tubing pickling Flowback well, 1.5 x pumped volume

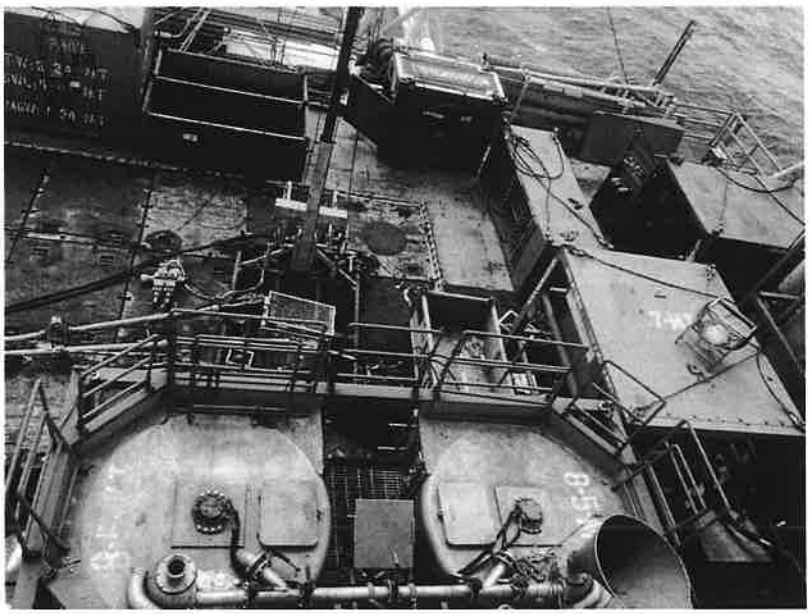
5	Dimension Bid	Performed Bullheading pumping fine stabilizer treatment on zone K-30 Flowback well, 1.5 x pumped volume

1.3 Well Data

Input Parameter	Parameter Value
Field	Bekok-C17
Depth of zone	K-30 : 2,930-m – 2,955-m MDDF (2,088 – 2,103.8-m TVD)
Reservoir Pressure	2,265psi
Reservoir Temperature	30 – 60deg C
Porosity	18%
Permeability	10 – 100mD
Fracture Gradient	0.70psi/ft (TBA)

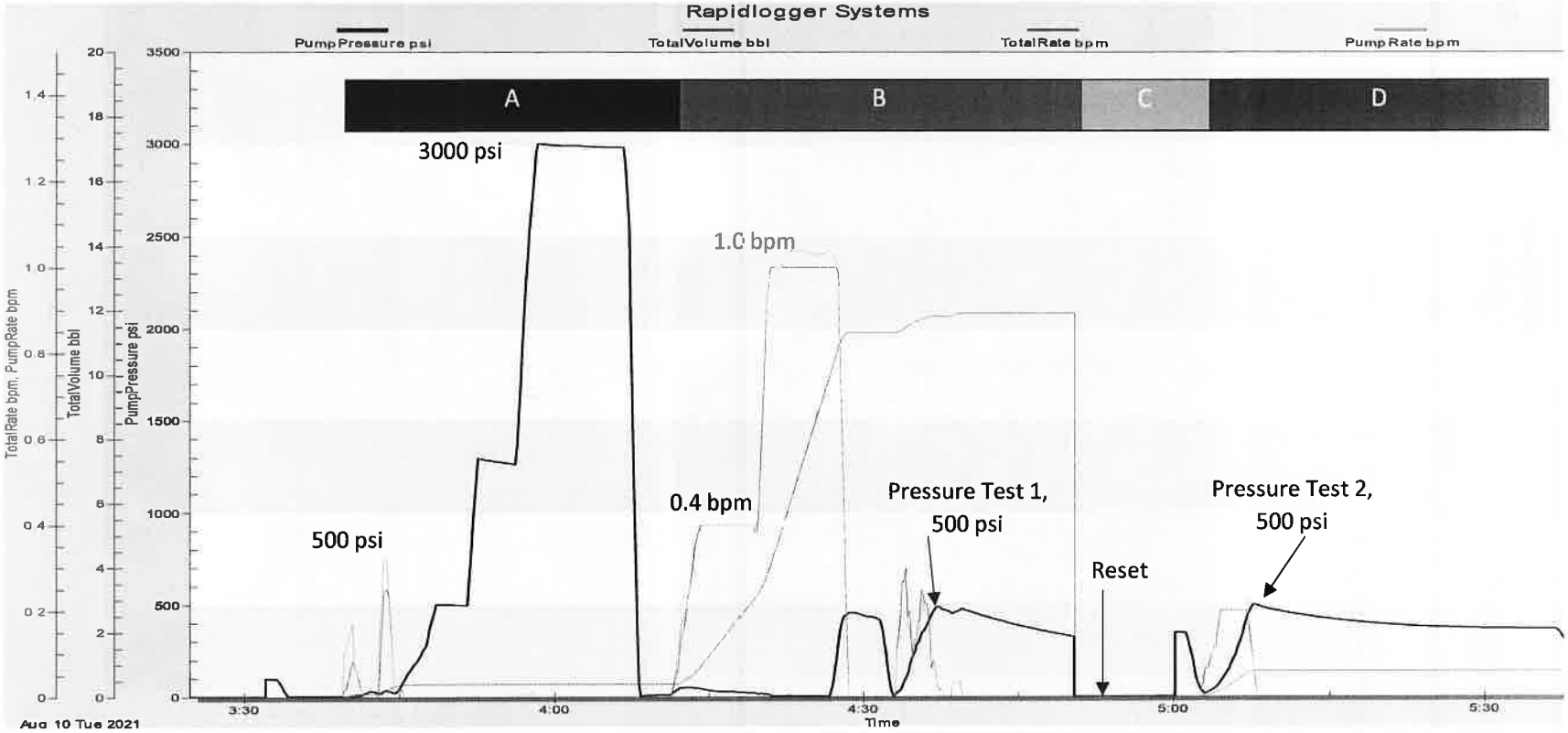
1.4 Equipment Layout





2. Job Execution

2.1 Tubing Integrity Test



Graph 1 Tubing Integrity Test

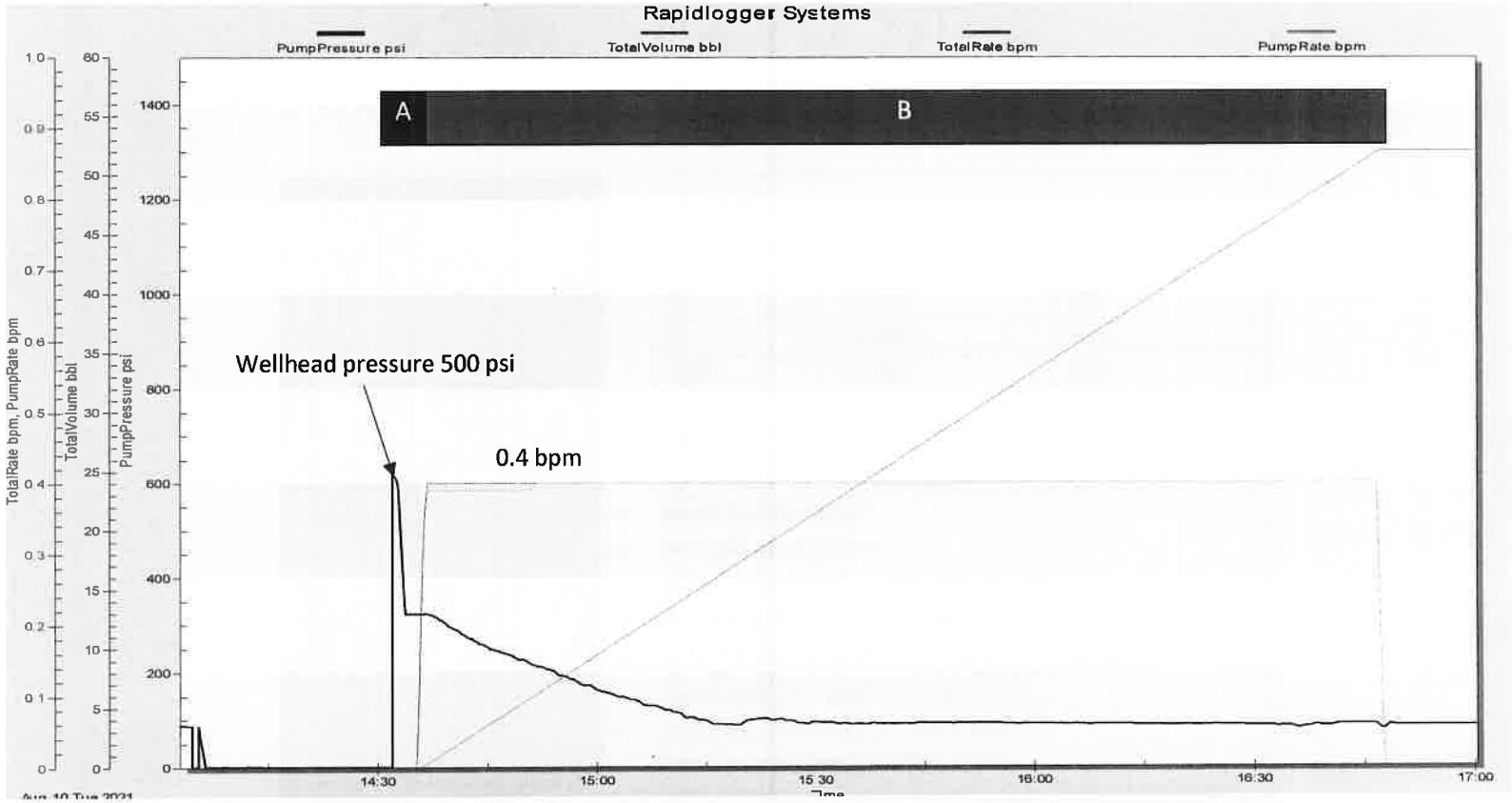
<table>
<tr><th>Section</th><th>Notes</th></tr>
<tr><td>A</td><td>• Bleed THP to 0 psi, stop bleed PCP (247 psi)
• Low- and High-Pressure Test surface treating line
• Pressure Test 500 psi and 3000 psi, pressure holding</td></tr>
<tr><td>B</td><td>• Start pump to fill up tubing with idle rate pump
• Slowly increase pump rate to 1 bbl/min
• Pumping pressure slowly increase, and solid water return at needle valve
• Stop pump, bleed pressure to 0 psi
• Slowly increase pressure to 500 psi as per job program, PCP maintain 247 psi
• Refer below table, time interval 5 min
<table>
<tr><th>THP (PSI)</th><th>PCP (PSI)</th></tr>
<tr><td>500</td><td>247</td></tr>
<tr><td>440</td><td>247</td></tr>
<tr><td>440</td><td>247</td></tr>
<tr><td>315</td><td>247</td></tr>
<tr><td>282</td><td>247</td></tr>
</table></td></tr>
<tr><td>C</td><td>• Rapid Logger suddenly reset
• Restart Rapid logger
• Wellhead pressure increase 40 psi from 282 to 350 psi, Wrong setting pressure in rapid logger software
• Restart TIT</td></tr>
<tr><td>D</td><td>• Increase Pumping pressure to 500 psi</td></tr>
</table>

[redacted]

- Refer below table

THP (PSI)	PCP (PSI)
500	247
431	247
407	247
380	247
369	247
365	247
363	247

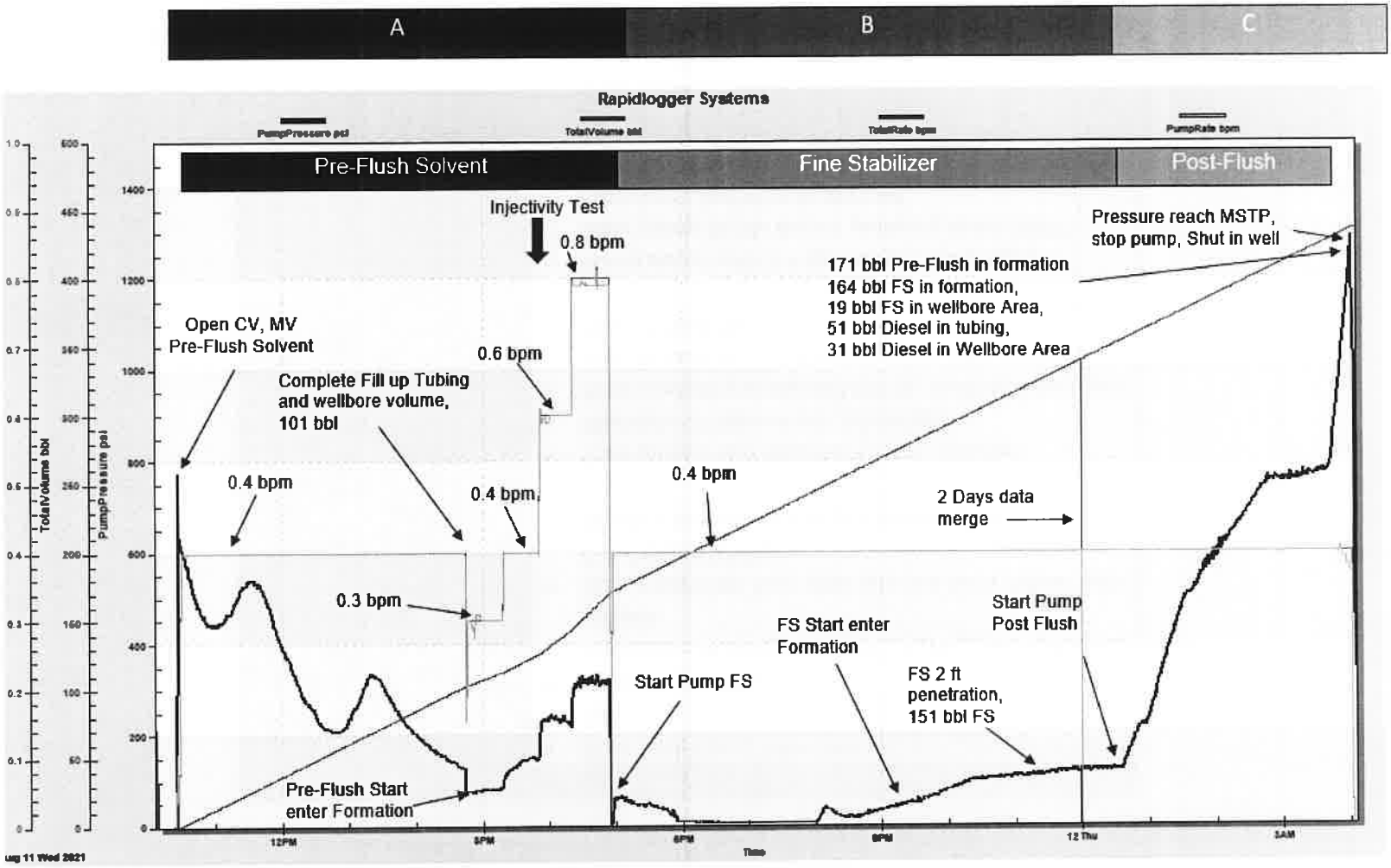
2.2 CT Tubing Pickling – PFA



Graph 2 Tubing Pickling

<table>
<tr><th>Section</th><th>Notes</th></tr>
<tr><td>A</td><td>• Open Crown and Master Valve
• Close all downstream wing valve
• SITHP 600 psi, bleed to 200 psi</td></tr>
<tr><td>B</td><td>• Start pump, slowly increase to 0.4 bbl/min
• Wellhead pressure slowly drop,
• Total Fluid pump 51 bbl PFA, 2 bbl TFW
• Soaking for 4 hours
• Refer below table,
<table>
<tr><th>THP (PSI)</th><th>PCP (PSI)</th><th>FLV (KPA)</th></tr>
<tr><td>200</td><td>319</td><td>1800</td></tr>
<tr><td>150</td><td>319</td><td>1100</td></tr>
<tr><td>150</td><td>319</td><td>800</td></tr>
<tr><td>0</td><td>319</td><td>300</td></tr>
<tr><td>0</td><td>319</td><td>200</td></tr>
<tr><td>0</td><td>319</td><td>200</td></tr>
</table>
</td></tr>
</table>

2.3 Main Treatment Pumping – Fine Stabilizer



Graph 3 Main Treatment Pumping

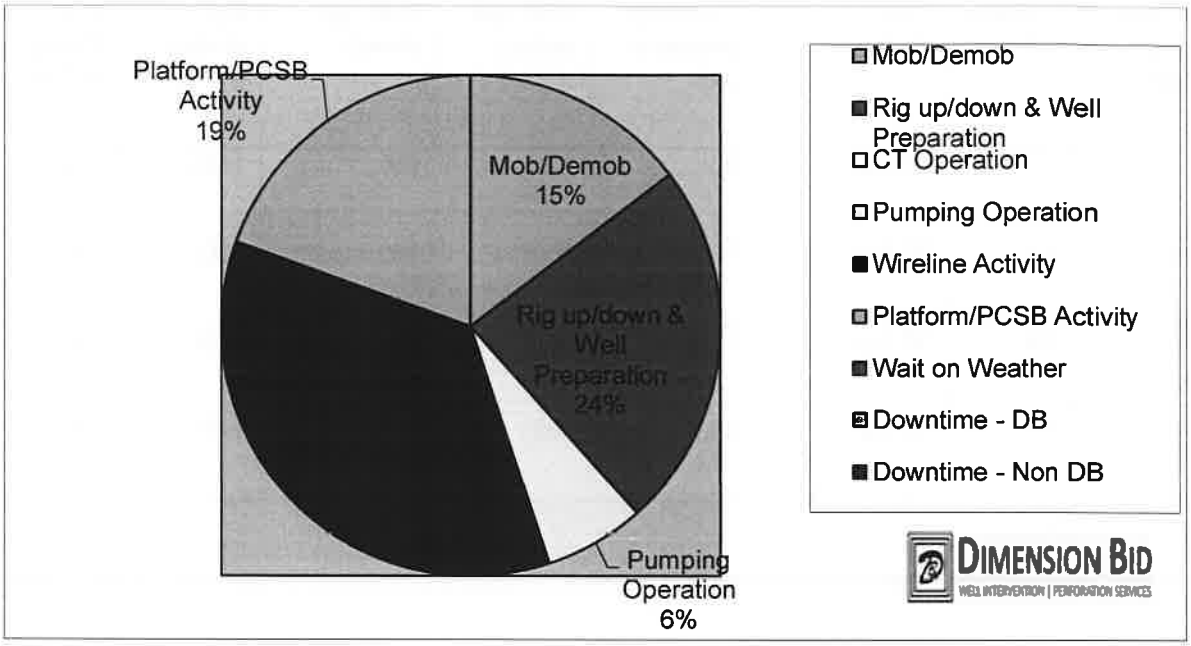
Section	Notes
A	• Start with bleed THP until 650 psi and pcp to 1800 kpa • Open CV and MV • Maintain 0.4 bpm, fill up 101 tubing and wellbore volume • Start Injectivity Test with rate 0.3 bpm follow with 0.4, 0.6 and 0.8 bpm • Result Injectivity test as per below table;
B	• Start pump main treatment, Fine stabilizer • Maintain 0.4 bpm as per job program • After complete pump 183 bbl FS, Wellhead pressure start to increase (reservoir start to full), switch fluid to post-flush fluid
C	• Pump diesel with 0.4 bpm as per job program • After pump 82 bbl diesel, pumping reach MSTP • Stop pump and shut in the well • Soak for 24 hours

	Pre-Flush Solvent	Fine stabilizer	Post-Flush
Pumping Volume (bbl)	171	183	82

Injectivity Test

Fluid Rate, bpm	Volume (bbl)	Time duration	Pumping pressure, psi	THP, psi (initial)	THP, psi (Final)	FLV (Initial) (KPA)	FLP (Final) (KPA)	PCP (Maintain) (kPa)
0.3	9	30 min	90	100	100	1800	1500	1400
0.4	12	30 min	100	100	180	1500	1400	1400
0.6	18	30 min	175	250	300	1400	1400	1400
0.8	24	30 min	300	350	350	1400	1400	1400

3. Utilization Rate



Activity	Hours	Day
Mob/Demob	72	3:00
Rig up/down & Well Preparation	117:00	4:52
CT Operation	0	0
Pumping Operation	32	1:20
Wireline Activity	175:00	7:17
Wait on Weather		
Platform/PCSB Activity	96:0	4:00
Downtime-DB	0	0
Downtime-Non DB	0	0
Total	**492:00**	**20:30**

4. Lessons Learned & Way forward

1) Contingency plan must be ready to execute during failed operation in order to reduce production lost time.

2) Reserve fresh water in a tank must be provided in case of emergency or failed operation. Otherwise, it will take long time to re-bunker from vessel.

3) Prepare 3" HP Hoses to bunker fresh water from Ship, as per discuss with Captain of Setia Qaseh, 2" Hoses is not suitable to be used due to low pressure rating and the connection for the spring hose sometimes open during bunker process.

5. Conclusion

The job was finally successful despite of challenges faced. Lessons learnt from the operation will be highlighted for future operation.

6. Appendices

6.1 Appendix A: Well Diagram

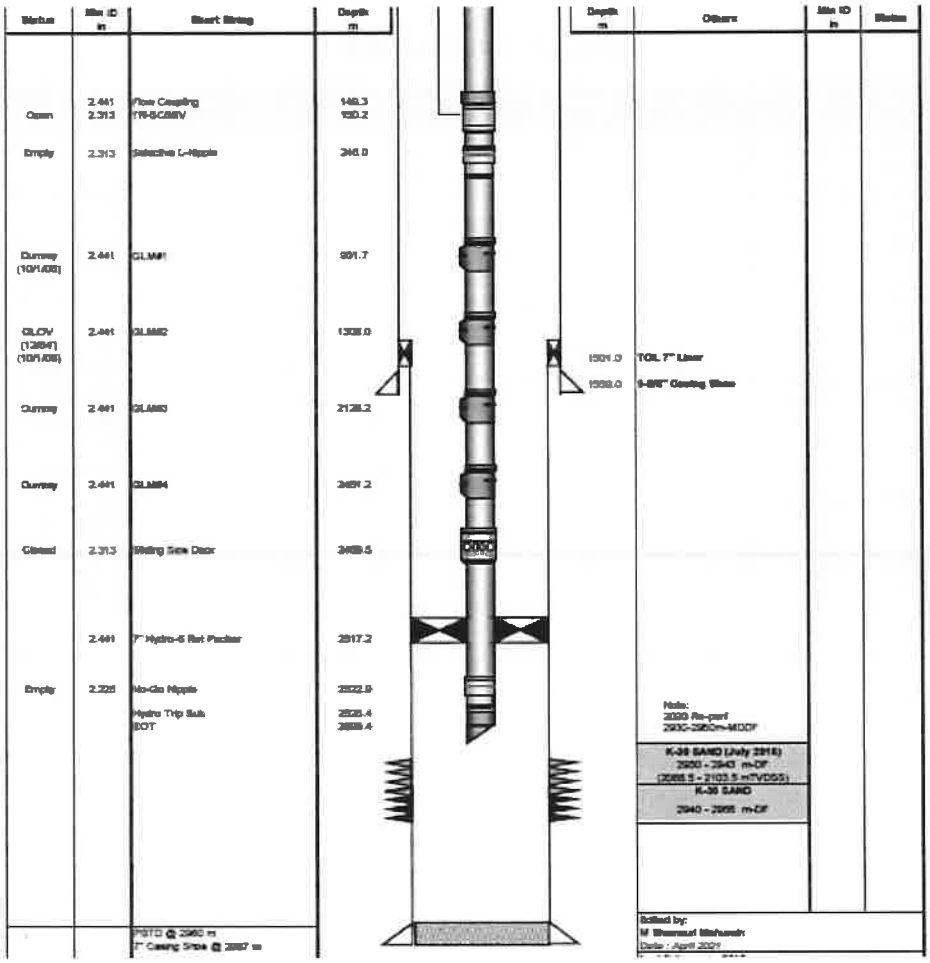


Figure 4 Well Diagram

6.2 Appendix : Flowback Monitoring Checklist

Monitoring Checklist

Field/Platform/Well : C17
Engineer : Muhammad Hafiz Saharuddin

No.	Date	Time	Choke Size	pH	% Water Cut	Bbl Counter	FLT	FTHP (KPA)	Remark
1	10/8/2021	22:15	38	4.2	100			5800	Start Collect sample , 100% water cut
2	10/8/2021	22:30	38	4.7				5800	
3	10/8/2021	22:45	38	4.6				5800	Inject soda Ash
4	10/8/2021	23:00	38	6.2	80			5800	Stop Inject soda Ash
5	10/8/2021	23:15	38	5.26	100			5800	Inject soda Ash
6	10/8/2021	23:30	38	5.3	20			5800	Inject soda Ash
7	10/8/2021	23:45	38	7.1	10			5800	Stop Inject soda Ash
9	11/8/2021	0:00	38	7.5	100			5800	-
10	11/8/2021	0:15	38	4.4	100			5800	Inject soda Ash
11	11/8/2021	0:30	38	5.6	100			5800	Inject soda Ash
12	11/8/2021	0:45	38	5.3	100			4700	Inject soda Ash
13	11/8/2021	1:00	38	5.2	100		N/A	5000	Inject soda Ash
14	11/8/2021	1:15	38	5	100		N/A	5000	Inject soda Ash
15	11/8/2021	1:30	38	4.8	100		N/A	6000	Inject soda Ash
16	11/8/2021	1:45	38	5.3	100		N/A	4800	Inject soda Ash
17	11/8/2021	2:00	38	6.3	88		N/A	4800	Inject soda Ash
18	11/8/2021	2:15	38	9	86		N/A	5000	Stop Inject soda Ash
19	11/8/2021	2:30	38	8	90		N/A	5000	Stop Inject soda Ash
20	11/8/2021	2:45	38	8.3	80		N/A	5000	Stop Inject soda Ash

6.3 Appendix G: Return Sample

Figure 5 Return Sample

6.4 Appendix G: Pumping Rig up

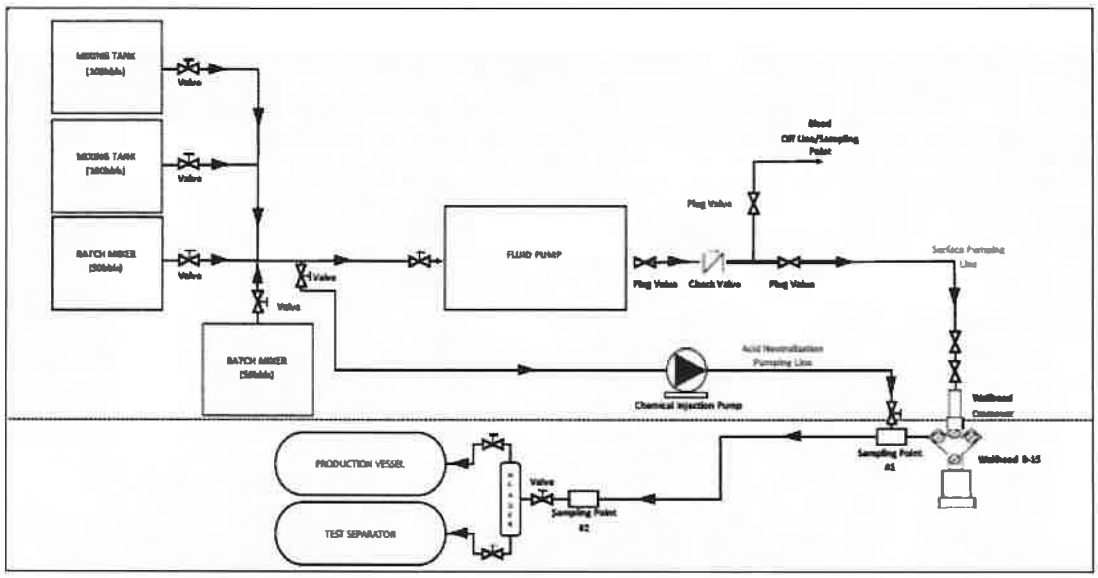


Figure 6 Rig Up schematic

6.5 Appendix G: Pumping Fluid

Figure 7 Treated Fresh Water

Figure 8 PFA 200

Figure 9 Pre-Flush Solvent

Figure 10 Fine Stabilizer

6.6 Appendix G: Pressure Gauge

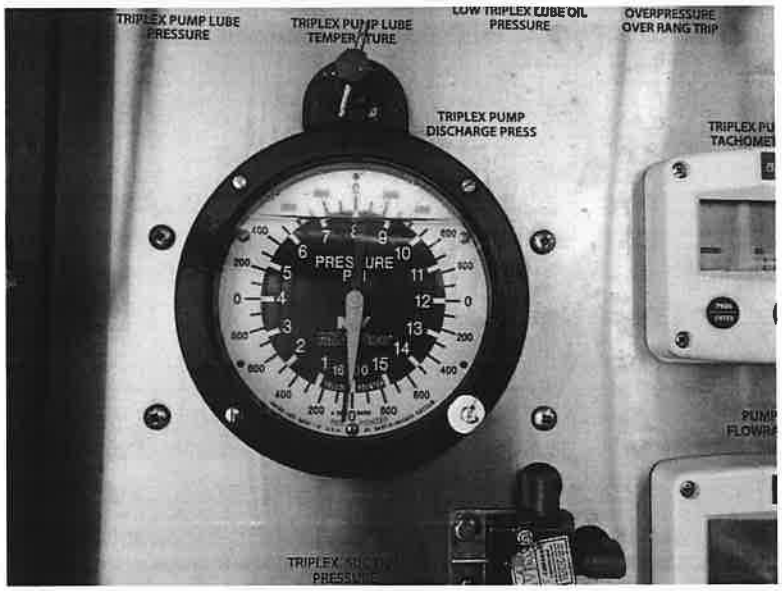


Figure 11 Pumping Pressure from Pump

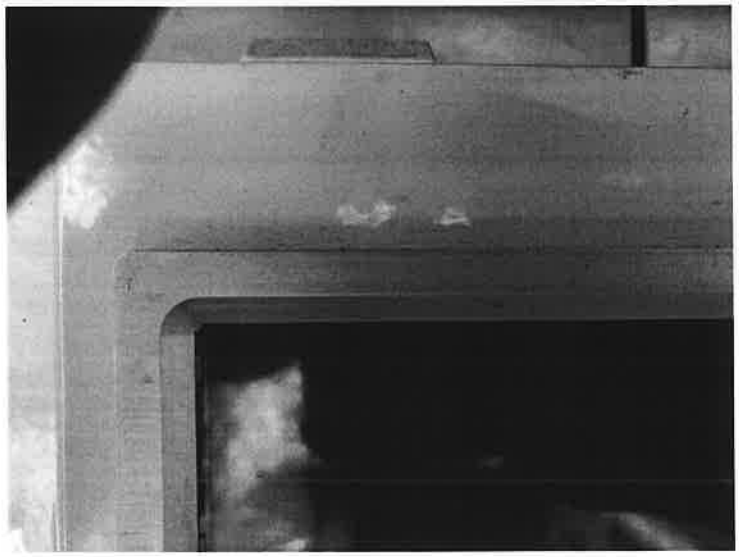


Figure 12 Pumping Pressure from rapid logger

Figure 13 THP Pressure Gauge

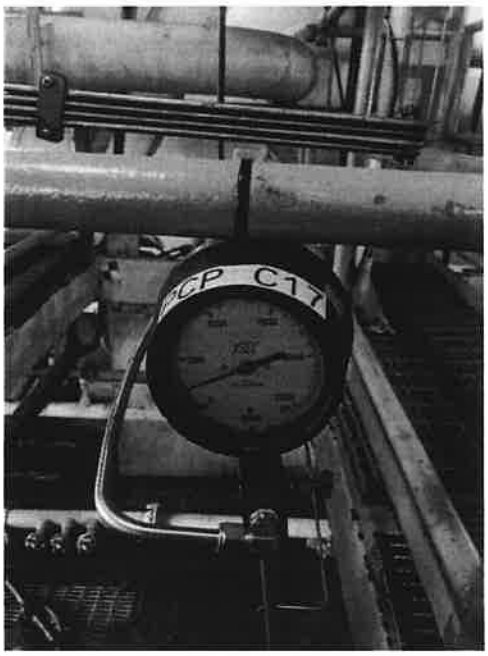


Figure 14 PCP Pressure Gauge

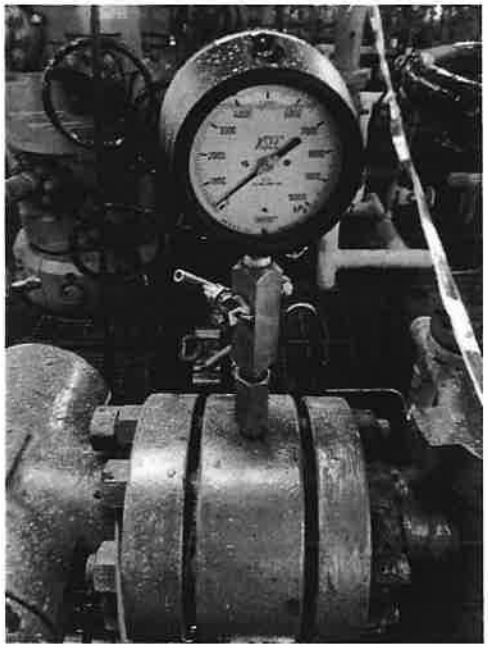


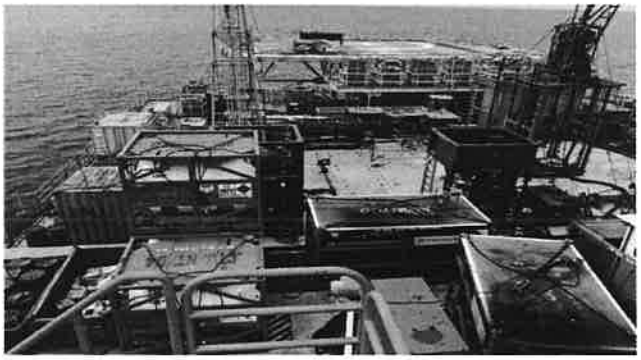
Figure 15 FLP Pressure Gague

Neu
Dimension

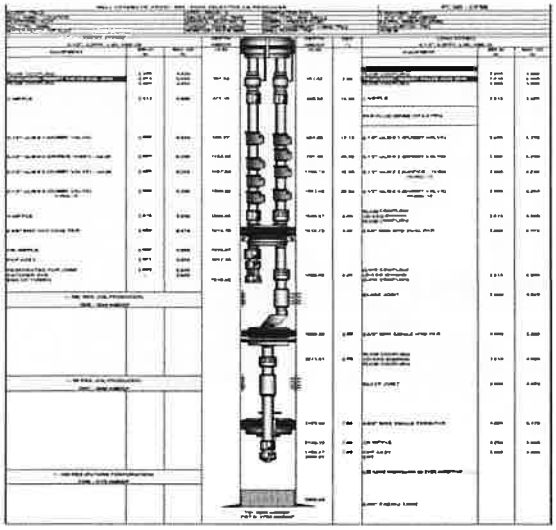
POST JOB PRESENTATION

ANGSI – B
Well B02L and B31

ANGSI-B: EQUIPMENT LAYOUT



ANGSI-B02L : OVERVIEW



WELL BACKGROUND

Current Reservoir I-36, I-68

Input Parameter	Parameter Value
Field	Angsi Bravo
Max. Deviation (degrees)	47.9 degree @ 1,005m MDDF / 896m TVDDF
Min. Restriction (inch)	2.69" (XN Nipple) @ 2,129.2m MDDF
Type of Fluid & Density	9.5 ppg Inhibited Brine (based on data in Well Diagram)
Top of Fluid	TBA
Current Well Status	idle
Reservoir Pressure	2,428 psia (I-68 Reservoir based on SGS 2018 Data)
Reservoir Temperature	245 deg.F
Fracture Gradient	0.70 psi/ft (assumed)
H2S Content	N/A
CO2 Content	N/A
Mercury, HG	N/A

ANGSI-B02L: EXECUTED JOB SUMMARY

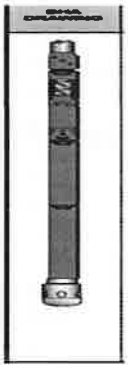
The work scope of Angsi-B02L is to perform sand cleanout from 135m MDDF till 151.5m MDDF (Top of IV) and continue until EOT, 2130m MDDF

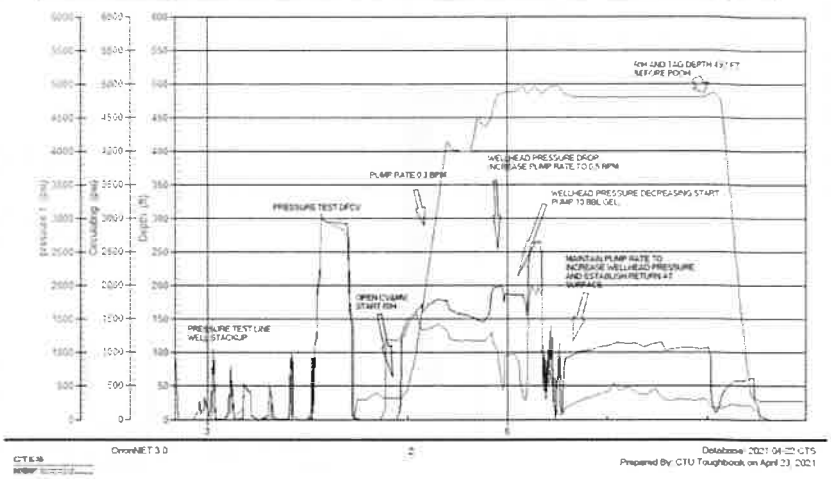
Itemx	Job Description	Details
A	Slickline Operation	1. RIH for TCC 2. RIH LIB to tag HUD 3. Slickline sand bailing operation 4. Slickline retrieve insert Valve
B	CTU Operation	1. Run#1 and Run#2, 2 1/8" Multi-Jet Nozzle to clean sand from 135m MDDF till TRSSV at depth 151.5m MDDF 2. Run#3, 2 1/8" Multi-Jet Nozzle to clean sand from 151.5m MDDF till EOT at 2,130m MDDF 3. Run#4, 2 1/8" Multi-Jet Nozzle c/w 2.75" OD fluted Centralizer for drift run till XN nipple at 2,129.2 MDDF 4. Run#5 (Additional), 2 1/8" 45 Deg downjet Nozzle, Acid Soaking

ANGSI-B02L : OPERATION ANALYSIS

CT# Run 1: Sand Clean out Inside tubing until top of insert valve

Configuration BHA from upper to below for Run#1:
2-1/8-inch Coiled Tubing Connector (External Dimple Type)
2-1/8-inch Motor Head Assembly
2-1/8-inch 5 + 3 Straight Bar
2-inch Hi-Jet Nozzle





Neu Dimension

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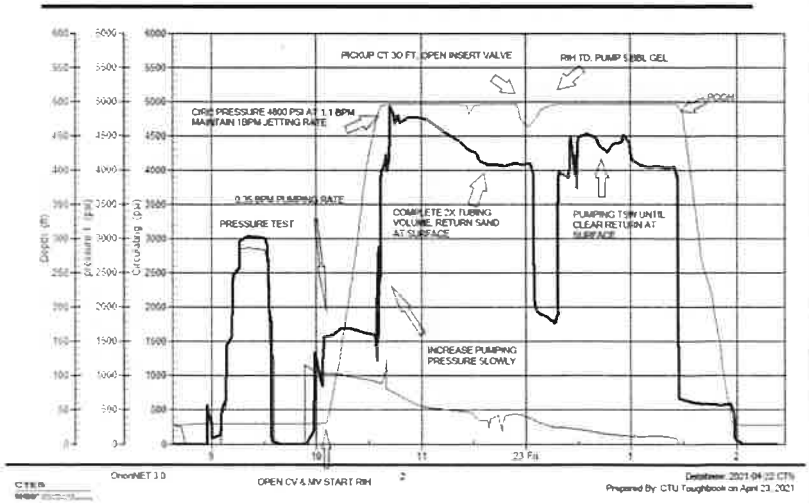
ANGSI-B02L : OPERATION ANALYSIS

CT# Run 2: Sand Clean out Inside tubing until top of insert valve

Configuration BHA from upper to below for Run#1:
2-1/8-inch Coiled Tubing Connector (External Dimple Type)
2-1/8-inch Motor Head Assembly
2-1/8-inch 5 + 3 Straight Bar
2-inch Hi-Jet Nozzle

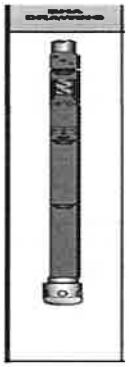


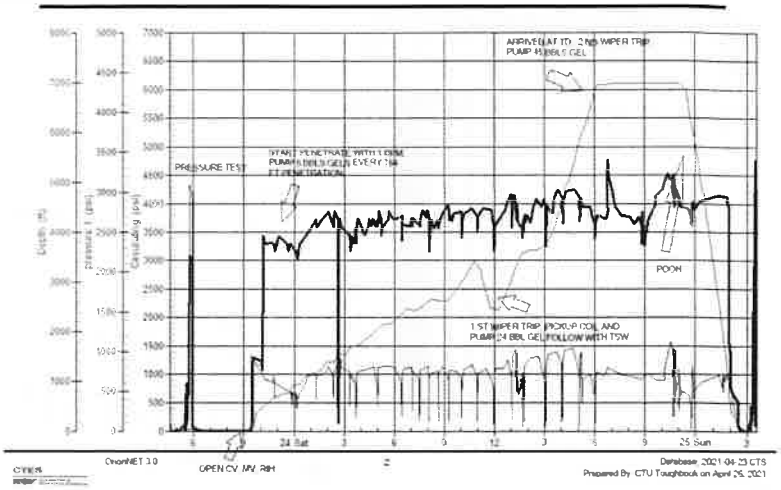
Neu Dimension

ANGSI-B02L : OPERATION ANALYSIS

CT# Run 3: Sand Clean out Inside tubing until EOT

Configuration BHA from upper to below for Run#1:
2-1/8-inch Coiled Tubing Connector (External Dimple Type)
2-1/8-inch Motor Head Assembly
2-1/8-inch 5 + 3 Straight Bar
2-inch Multi-Jet Nozzle





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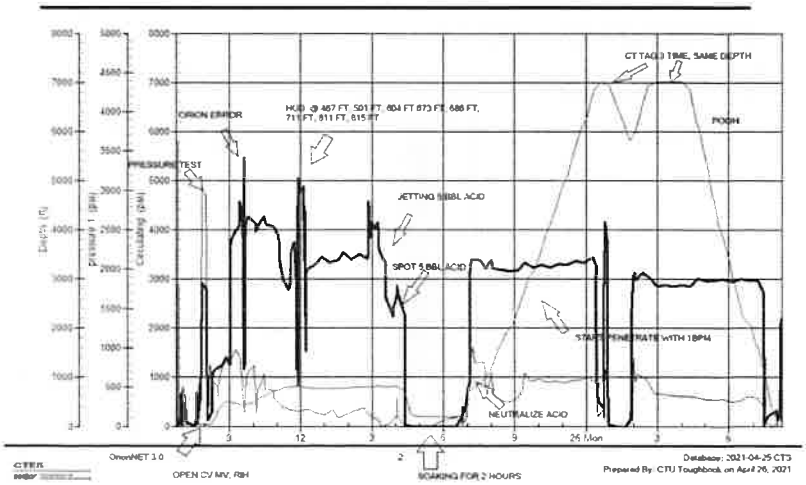
ANGSI-B02L : OPERATION ANALYSIS

CT# Run 4: Drift run until EOT using 2.75 Flute Centralizer

Configuration BHA from upper to below for Run#1:
2-1/8-inch Coiled Tubing Connector (External Dimple Type)
2-1/8-inch Motor Head Assembly
2-1/8-inch 5 + 3 Straight Bar
2-3/4-inch Flute Centralizer
2-inch Multi-Jet Nozzle



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ANGSI-B02L : OPERATION ANALYSIS

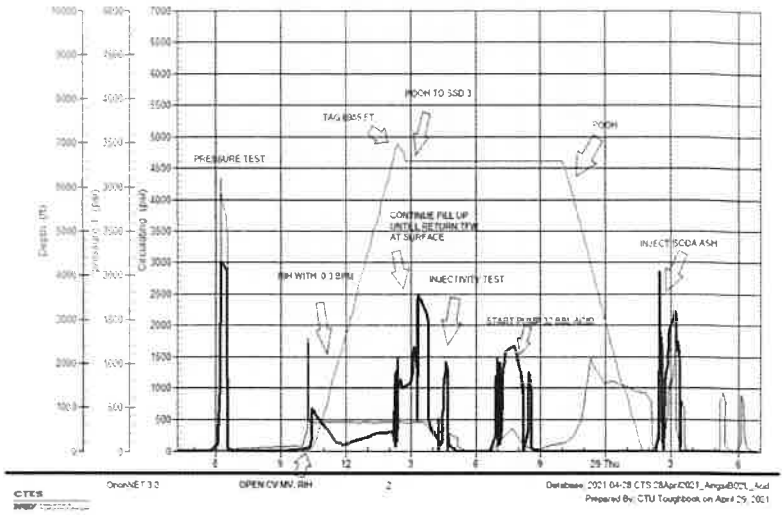
CT# Run 5 (Additional): Acid Soaking

Configuration BHA from upper to below for Run#1:
2-1/8-inch Coiled Tubing Connector (External Dimple Type)
2-1/8-inch Motor Head Assembly
2-1/8-inch 5 + 3 Straight Bar
2-1/8-inch 45 deg downjet Nozzle

INJECTIVITY TEST

Rate, BPM	THP, psi	PCP, psi	Circulating psi
0.3	148	900	120
0.5	150	900	160
0.7	215	900	1100
0.8	275	900	1500

Calcite issue that potentially plug off annulus between perf tunnel i-68 and production tubing



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ANGSI-B02L: OPERATION ANALYSIS

Flowback

Monitoring Checklist

Field/Platform/Well : B02L
Engineer : Muhammad Hafiz Bin Saharuddin

No.	Date	Time	Choke Size	pH	% Water Cut	Bbl Counter	FLT (DegC)	FTHP (PSI)	Remark
1	28/4/2021	23:45	100%	-			31.8	400	Gas
2	29/4/2021	0:00	100%	-			34.1	400	Gas
3	29/4/2021	0:15	100%	-			37.4	400	Gas
4	29/4/2021	0:30	100%	-			37.3	400	Gas
5	29/4/2021	0:45	100%	-			40	400	Gas
6	29/4/2021	1:00	100%	-			42.1	400	Gas
7	29/4/2021	1:15	100%	-			43.8	400	Gas
9	29/4/2021	1:30	100%	-			44.4	400	Gas
10	29/4/2021	1:45	100%	-			44.5	400	Gas
11	29/4/2021	2:00	100%	5			44.2	400	Gas + Fluid
12	29/4/2021	2:15	100%	-				400	Gas
13	29/4/2021	2:30	100%	4			44.5	400	Gas + Fluid
14	29/4/2021	2:45	100%	-				400	Gas
15	29/4/2021	3:00	100%	4			44.2	400	Gas + Fluid
16	29/4/2021	3:15	100%	-				400	Gas
17	29/4/2021	3:30	100%	7			42	400	Gas + Fluid
18	29/4/2021	3:45	100%	5			37.2	400	Gas + Fluid
19	29/4/2021	4:00	100%	5			39.2	400	Gas + Fluid
20	29/4/2021	4:30	100%	-			40.1	400	Gas + Fluid
21	29/4/2021	5:00	100%	4			40.1	400	Gas + Fluid
22	29/4/2021	5:30	100%	10			35.8	400	Gas + Fluid
23	29/4/2021	6:00	100%	6			40	400	Gas + Fluid
24	29/4/2021	6:30	100%	9			39.4	400	Gas + Fluid
25	29/4/2021	7:30	100%	3			45	400	Gas + Fluid
26	29/4/2021	7:45	100%	6			45	400	Gas + Fluid
27	29/4/2021	8:00	100%	7			52	400	Gas + Fluid
28	29/4/2021	8:30	100%	7			48	390	Gas + Fluid
29	29/4/2021	9:00	100%	7			51	390	Gas + Fluid
30	29/4/2021	9:30	100%	8			55	390	Gas + Fluid
31	29/4/2021	10:00	100%	5			60	390	Gas + Fluid
32	29/4/2021	10:30	100%	5			62	390	Gas + Fluid

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ANGSI-B02L: OPERATION ANALYSIS

Flowback

38	33	29/4/2021	11:00	100%	5			61	390	Gas + Fluid
39	34	29/4/2021	11:30	100%	6			62	390	Gas + Fluid
40	35	29/4/2021	12:00	100%	6			58	390	Gas + Fluid
41	36	29/4/2021	12:30	100%	8			57	390	Gas + Fluid
42	37	29/4/2021	13:00	100%	8			56	390	Gas + Fluid
43	38	29/4/2021	13:30	100%	6			62	390	Gas + Fluid
44	39	29/4/2021	14:00	100%	6			64	390	Gas + Fluid
45	40	29/4/2021	14:30	100%	6			62	390	Gas + Fluid
46	41	29/4/2021	15:00	100%	6			62	390	Gas + Fluid
47	42	29/4/2021	15:30	100%	6			62	390	Gas + Fluid
48	43	29/4/2021	16:00	100%	6			60	400	Gas + Fluid
49	44	29/4/2021	16:30	100%						
50	45	29/4/2021	17:00	100%	7			62	400	Gas + Fluid
51	46	29/4/2021	17:30	100%						
52	47	29/4/2021	18:00	100%	7			63	400	Gas + Fluid
53	48	29/4/2021	20:00	100%	8			64.1	400	Gas + Fluid
54	49	29/4/2021	21:00	100%	7			63.2	400	Gas + Fluid
55	50	29/4/2021	22:00	100%	8			64.5	400	Gas + Fluid
56	51	29/4/2021	23:00	100%	9			64.4	400	Gas + Fluid
57	52	30/4/2021	0:00	100%	9			64.2	400	Gas + Fluid
58	53	30/4/2021	1:00	100%	9			64.4	400	Gas + Fluid
59	54	30/4/2021	2:00	100%	8			64.2	400	Gas + Fluid
60	55	30/4/2021	3:00	100%	9			64.3	400	Gas + Fluid
61	56	30/4/2021	4:00	100%	8			64.4	400	Gas + Fluid
62	57	30/4/2021	5:00	100%	9			64.4	400	Gas + Fluid
63	58	30/4/2021	6:00	100%	8			64.4	400	Gas + Fluid
64	59									
65	60									
66										

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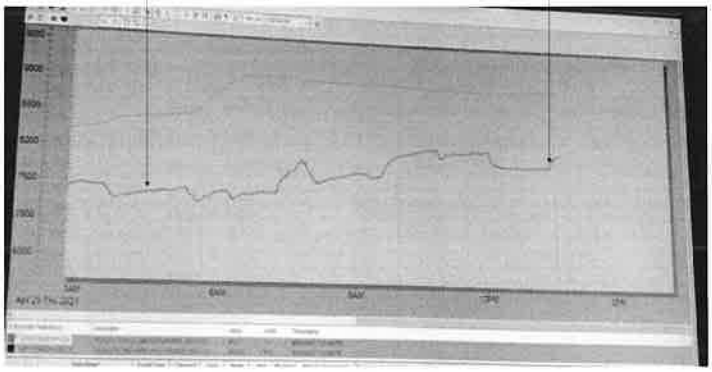
ANGSI-B02L: OPERATION ANALYSIS

Flowback

RETURN SAMPLE TEMPERATURE, 40 DEG C

RETURN SAMPLE TEMPERATURE, 60 DEG C



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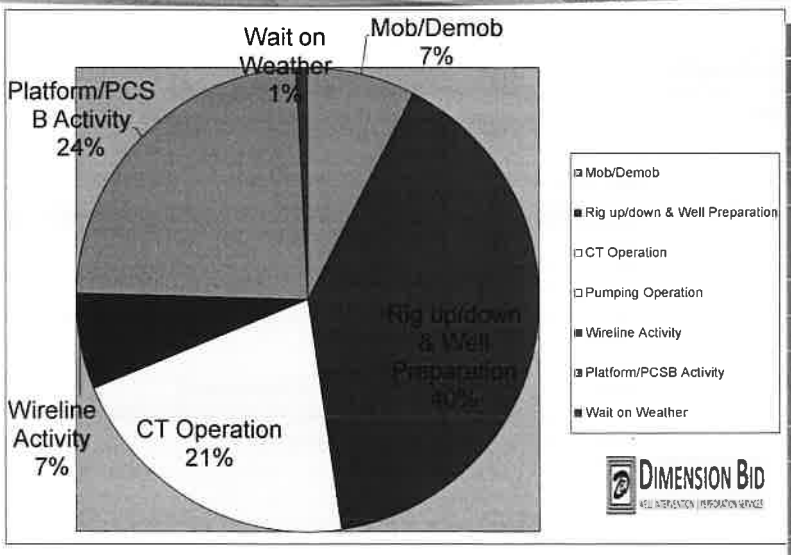
ANGSI-B02L: OPERATION ANALYSIS

Sand recovered from SCO

ANGSI-B02L: UTILLIZATION RATE

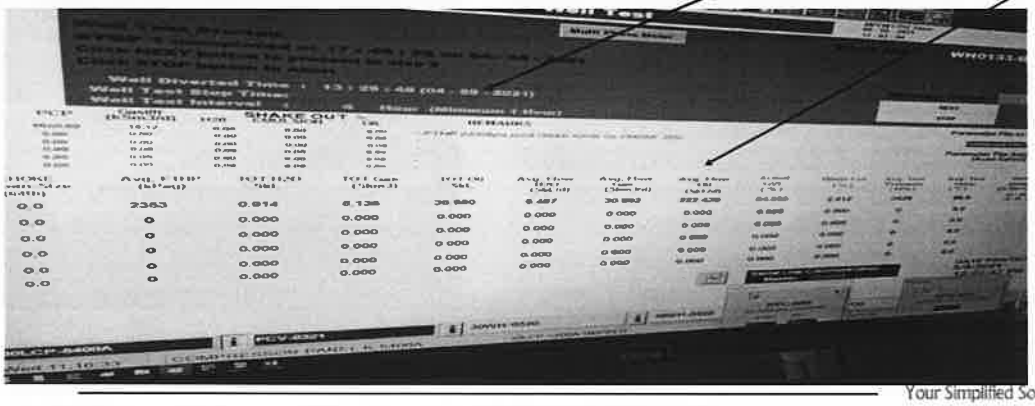


Activity	Hours	Day
Mob/Demob	29	1:12
Rig up/down & Well Preparation	154:20	6:25
CT Operation	81:00	3:22
Pumping Operation	0	0
Wireline Activity	25:40	1:04
Wait on Weather	3:00	0:07
Platform/PCSB Activity	91:30	3:48
Downtime-DB	0	0
Downtime-Non DB	0	0
Total	384:30	16:01

ANGSI-B02L: CONCLUSION

The job was finally successful despite of challenges faced. Lessons learnt from the operation will be highlighted for future operation. Result from well test obtained for B02L show slightly increase in volume of oil.

DATE	AVG FLOW WATER (skl/day)	AVG FLOW OIL (skl/day)
4/4/2021 (Last well test result before DB CT enter)	1.22	188
4/5/2021	5.497	222.438



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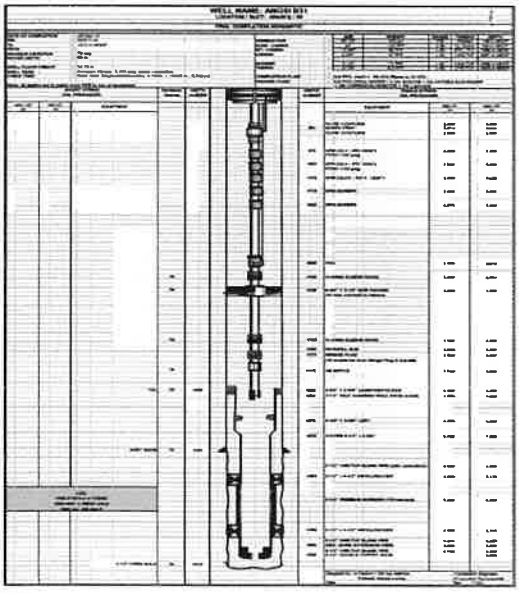
ANGSI-B31 : OVERVIEW



WELL BACKGROUND

Current Reservoir I-35 L

WELL DATA

Input Parameter	Parameter Value
Field	Angsi Bravo
Max. Deviation (degrees)	79.6 degree @ 1,492.2m MDDF / 1,145.6m TVDDF
Min. Restriction (Inch)	2.69" (XN Nipple) @ 4,193.1m MDDF
Type of Fluid & Density	9.8 ppg Inhibited Brine (based on data in Well Diagram)
Top of Fluid	TBA
Current Well Status	Flowing
Reservoir Pressure	2,345 psia (I-35 Reservoir from SE)
Reservoir Temperature	245 deg.F (assumed), FTHT @ 178 deg.F (info from SE)
Fracture Gradient	0.70 psi/ft (assumed)
H2S Content	N/A
CO2 Content	N/A
Mercury, HG	N/A

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ANGSI-B31: EXECUTED JOB SUMMARY

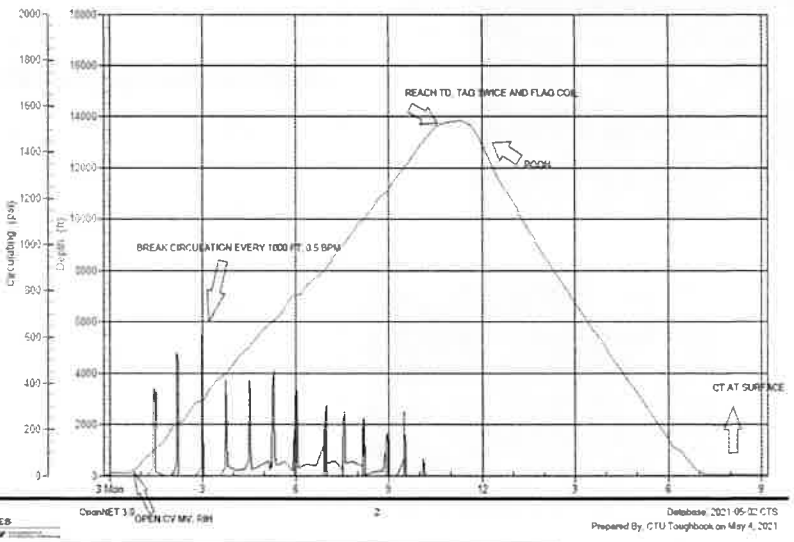
The work scope of Angsi-B031 is to perform CT Drift run prior to perform CT Screen Wash with 15% HCL Acid to tackle mainly calcite issue

Itemx	Job Description	Details
A	Slickline Operation	1. RIH for TCC 2. RIH LIB to tag HUD
B	CTU Operation	1. APD – Bleed off casing pressure and continue monitoring for 9 hours 2. Run#1 2 1/8" Multi-Jet Nozzle c/w 2.75" OD fluted Centralizer for drift run till XN nipple at 13,757 ft 3. Run#2, 2 1/8" Multi-Jet Nozzle Drift Run till poppet shoe and screen wash operation

ANGSI-B31: OPERATION ANALYSIS

CT# Run 1: Drift Run until XN-Niple

Configuration BHA from upper to below for Run#1:
2-1/8-inch Coiled Tubing Connector (External Dimple Type)
2-1/8-inch Motor Head Assembly
2-1/8-inch 5 + 3 Straight Bar
2-3/4-inch Flute Centralizer
2-1/8-inch Multi-Jet Nozzle

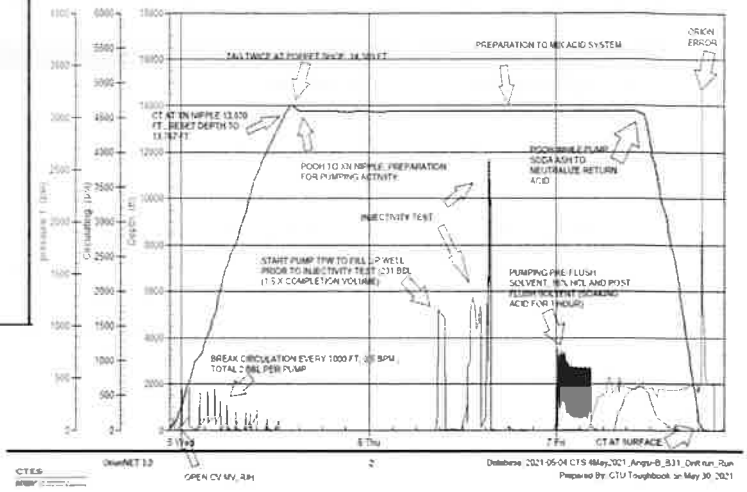


ANGSI-B31: OPERATION ANALYSIS

CT# Run 2: Drift Run until Poppet Shoe and screen wash operation

Configuration BHA from upper to below for Run#1:
2-1/8-inch Coiled Tubing Connector (External Dimple Type)
2-1/8-inch Motor Head Assembly
2-1/8-inch 5 + 3 Straight Bar
2-1/8-inch Multi-Jet Nozzle

Rate (bpm)	Circulation Pres (Psi)	THP (Psi)	Volume (bbl)	PCP (PSI)
0.15	50	0	0.7	350
0.3	100	0	2.2	350
0.5	150	0	4.7	350
0.7	750	0	8.2	350
0.9	1450	0	12	350
1.0	1800	0	17	350
1.1	2250	0	23	350
1.2	2550	0	29	350
1.3	3350	0	35	350
1.4	3700	0	42	350



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ANGSI-B31: OPERATION ANALYSIS

Before pump soda Ash

After pump soda Ash

Monitoring Checklist										
Field/Platform/Well		:			**B-31**					
Engineer		:			**Muhammad Hafiz Saharuddin**					
No.	**Date**	**Time**	**Choke Size**	**pH.**	**% Water Cut**	**Bbl Counter**	**FLT**	**FTHP**	**Remark**	
1	7/5/2021	10:30	Full	6	100		N/A	380	Gas + Liquid	
2	7/5/2021	10:45	Full	6	100		N/A	380	Gas + Liquid	
3	7/5/2021	11:00	Full	5	80		N/A	430	Gas + Liquid	
4	7/5/2021	11:15	Full	5	80		N/A	430	Gas + Liquid	
5	7/5/2021	11:30	Full	4	100		N/A	390	Gas + Liquid	
6	7/5/2021	12:00	Full	10	20		N/A	420	Gas + Liquid	
7	7/5/2021	12:30	Full	9	10		N/A	330	Gas + Liquid	
9	7/5/2021	13:00	Full	8	100		N/A	398	Gas + Liquid	
10	7/5/2021	13:30	Full	7	100		N/A	422	Gas + Liquid	
11	7/5/2021	14:00	Full	5	100		N/A	400	Gas + Liquid	
12	7/5/2021	14:30	Full	6	100		N/A	400	Gas + Liquid	
13	7/5/2021	15:00	Full	6	100		N/A	385	Gas + Liquid	
14	7/5/2021	15:30	Full	6	100		N/A	400	Gas + Liquid	
15	7/5/2021	16:00	Full	6	100		N/A	385	Gas + Liquid	
16	7/5/2021	16:30	Full	5	100		N/A	400	Gas + Liquid	
17	7/5/2021	17:00	Full	5	88		N/A	410	Gas + Liquid	
18	7/5/2021	17:30	Full	6	86		N/A	410	Gas + Liquid	
19	7/5/2021	18:00	Full	6	90		N/A	410	Gas + Liquid	
20	7/5/2021	18:30	Full	6	80		N/A	410	Gas + Liquid	
21	7/5/2021	19:00	Full	5	90		N/A	410	Gas + Liquid	
22	7/5/2021	19:30	Full	6	95		N/A	410	Gas + Liquid	
23	7/5/2021	20:00	Full	6	85		N/A	410	Gas + Liquid	
24										
25										
26										

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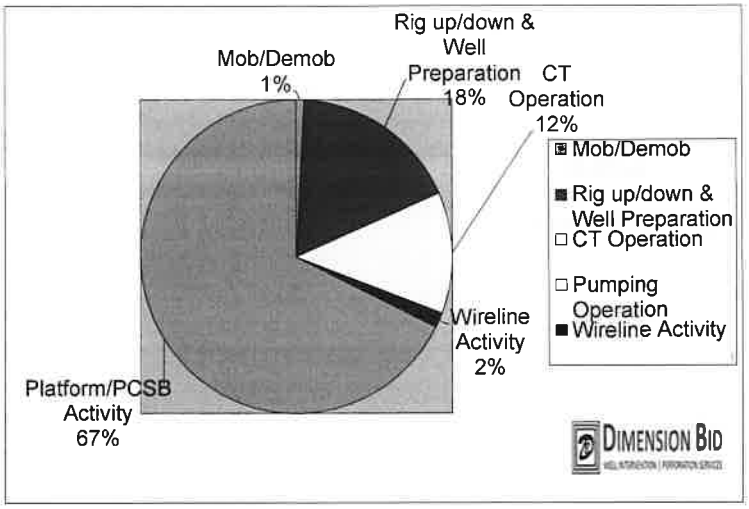
ANGSI-B31: UTILLIZATION RATE



Activity	Hours	Day
Mob/Demob	6	0:15
Rig up/down & Well Preparation	127:30	5:18
CT Operation	90	3:45
Pumping Operation	0	0
Wireline Activity	11:30	0:28
Wait on Weather	0	0
Platform/PCSB Activity	490:0	20:25
Downtime-DB	0	0
Downtime-Non DB	0	0
Total	725	30:12

ANGSI-B: LESSON LEARNED

1. During bad weather, it is advisable to refer to weather forecast and get confirmation from crane operator and boat captain before proceed with lifting activity whether they are confidence to proceed.
2. Reserve fresh water in a tank must be provided in case of emergency or failed operation. Otherwise, it will take long time to re-bunker from vessel.
3. Prepare 3" HP Hoses to bunker fresh water from Ship, as per discuss with Captain of Setia Qaseh, 2" Spring Hoses is not suitable to be used due to low pressure rating and the clamp for the spring hose sometimes open during bunker process.
4. Fast action & response required to be taken especially during this pandemic.

Q&A

THANK YOU.

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Dimension

POST JOB PRESENTATION
MASA CAMPAIGN (SOTONG-A)
WELL KILLING

Muhammad Hafiz Saharuddin
Junior Field Engineer
Dimension Bid Sdn Bhd

Presentation Outline

- Overview
- Well Diagram
- Equipment Rig up Schematic
- Operation Summary
- Operation Analysis
- Challenges
- Conclusion

Overview

The main objective of this job is to perform well killing operation. Based on well history, there are few formation that still produce oil thus contribute to build up pressure inside the well.

As per approved NOWIP;

- Well A03, A07, A08 and A09

Well Diagram

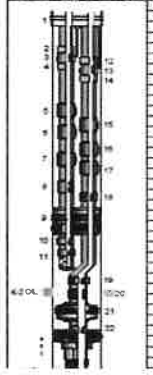
Well A03

FIELD : Sotong A		SIZE	WEIGHT	GRADE	THREAD	DEPTH (mTHF)	COMPLETION TYPE:
WELL : Sotong A33Y4 (WO)	CASING	9 5/8"	47.0	L80	VAMTOP	3605.19	Dual Oil Producer
DATE: 28 SEPT 2010	LINER	7"	29.0	L80	VAMTOP	3662.48	
CANDALI REPS :	TUBING	SIZE	WEIGHT	GRADE	THREAD	DEPTH (mTHF)	COMPLETION FLUID:
BOB ROEWER	1,6	3 1/2"	9.2	13cr L80	JFE FOX	3611.83	8.5ppg FCL
JANTOM	33	3 1/2"	9.2	13cr L80	JFE FOX	3295.56	JOB TICKET NO:

HALLIBURTON REPS :
KHAI LUN THAM,SYED M. AZRUL
MUHAMMAD ZAIMTO ROSLIMA REZA

PACKER RELEASE : BWS Packer Mill Out To Release, BHR Packer 60k Overpull to Release & BHD Packer 60k Long String Overpull to Release

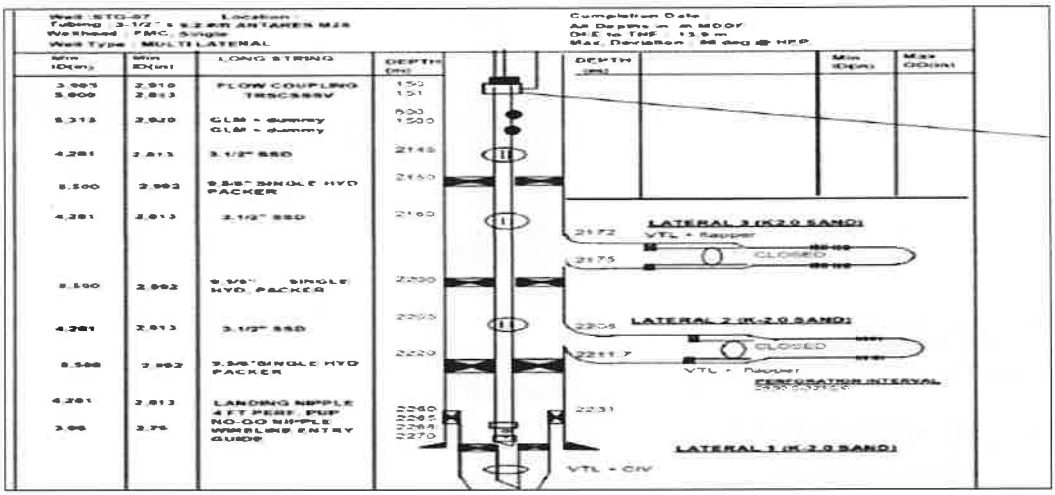
P/UP WT	S/OFF	BLOCK
120k	70k	N/A



ITEM	METER DEPTH	METER LENGTH	DESCRIPTION SHORT STRING	Part #	Control #	INCHES ID	INCHES OD
			ALL DEPTHS BASE ON m MDTHF				
		19.310	Elevation GAIT II (RKB to THF)				
	0.00	0.280	THF To Tie Down Bolts				
1	0.28	0.359	**Hanger - Dual ,Type 'DCD', 3" Nom. x 3.5"-9.2# Fox-K Btm**	Cameron	HGR - 223	2.950	10.850
	0.63	3.590	Pup Joint- 3 1/2"-9.2 Fox 13Cr 12ft			2.992	3.500
	4.21	8.741	Tubing- 3 1/2"-9.2 Fox 13Cr-80		1 Jts	2.992	3.500
	12.95	4.621	Pup Joint- 3 1/2"-9.2 Fox 13Cr 15 ft		15PS	2.992	3.500
	17.57	1.333	Pup Joint- 3 1/2"-9.2 Fox 13Cr 4 ft		4P1	2.992	3.500
	18.91	102.393	Tubing- 3 1/2"-9.2 Fox 13Cr-80		11 Jts	2.992	3.500
	124.28	3.185	Pup Joint- 3 1/2"-9.2 Fox 13Cr 10 ft			2.992	3.500
2	127.43	0.833	**Flow Cplg- 3" 3 1/2"-9.2# Fox BxP 13Cr**	511FN28120		2.880	3.920
3	128.29	1.333	**TRSV WellStar- 3 1/2"-9.2 Fox BxP 100' 13Cr Eq**	78001195	TRSV - 1608	2.813	5.030
4	129.84	0.833	**Flow Cplg- 3" 3 1/2"-9.2# Fox BxP 13Cr**	511FN28120		2.880	3.920
	130.68	3.190	Pup Joint- 3 1/2"-9.2 Fox 13Cr 10 ft			2.992	3.500
	133.87	1043.237	Tubing- 3 1/2"-9.2 Fox 13Cr-80		109 Jts	2.992	3.500
	1177.11	3.788	Pup Joint- 3 1/2"-9.2 Fox 13Cr 12 ft			2.992	3.500
5	1180.90	2.050	**SPM- 3 1/2"-9.2 Fox-K B-P SIFO-1 13Cr** (PTRO: 978psi)	375640	SPM - 3648	2.900	5.230
	1182.92	3.750	Pup Joint- 3 1/2"-9.2 Fox 13Cr 12 ft			2.992	3.500
	1186.67	1042.569	Tubing- 3 1/2"-9.2 Fox 13Cr-80		109 Jts	2.992	3.500
	2229.23	3.151	Pup Joint- 3 1/2"-9.2 Fox 13Cr 10ft		10P2	2.992	3.500
	2232.39	73.443	Tubing- 3 1/2"-9.2 Fox 13Cr-80		8 Jts	2.992	3.500
	2305.83	3.750	Pup Joint- 3 1/2"-9.2 Fox 13Cr 12 ft			2.992	3.500
6	2309.58	3.179	**SPM- 3 1/2"-9.2 Fox-K B-P SIFO-1 13Cr** (PTRO: 985psi)	375640	SPM - 3648	2.900	5.230
	2311.75	3.750	Pup Joint- 3 1/2"-9.2 Fox 13Cr 12 ft			2.992	3.500
	2315.50	4.671	Pup Joint- 3 1/2"-9.2 Fox 13Cr 15 ft		15P2	2.992	3.500
	2320.17	27.828	Tubing- 3 1/2"-9.2 Fox 13Cr-80		27 Jts	2.992	3.500
	3348.00	3.755	Pup Joint- 3 1/2"-9.2 Fox 13Cr 12 ft			2.992	3.500
7	3351.75	3.179	**SPM- 3 1/2"-9.2 Fox-K B-P SIFO-1 13Cr** (Orifice)	375640	SPM - 3644	2.900	5.230
	3353.92	3.755	Pup Joint- 3 1/2"-9.2 Fox 13Cr 12 ft			2.992	3.500
	3357.68	9.577	Tubing- 3 1/2"-9.2 Fox 13Cr-80		1 Jts	2.992	3.500
	3367.26	4.680	Pup Joint- 3 1/2"-9.2 Fox 13Cr 15 ft			2.992	3.500
8	3371.93	0.379	**X' Nipple- 2.813" 3 1/2"-9.2 Fox-K BxP 13Cr**	511X28115	X - 2185	2.813	3.893
	3372.30	4.680	Pup Joint- 3 1/2"-9.2 Fox 13Cr 15 ft			2.992	3.500

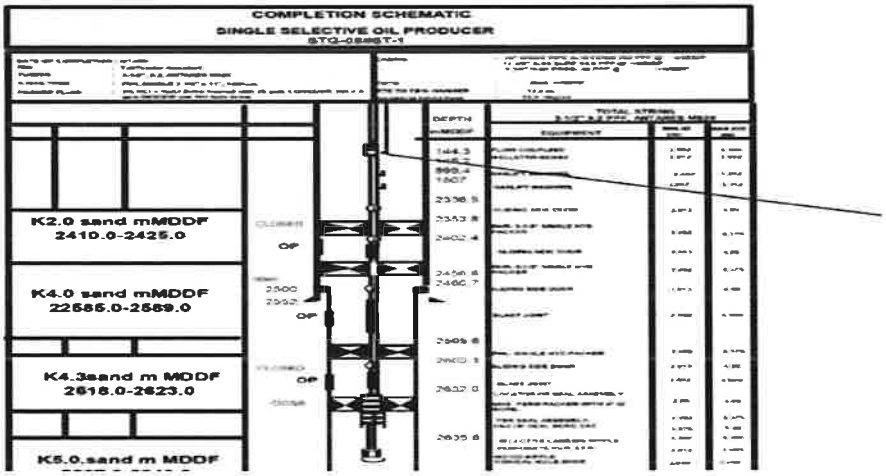
Well Diagram

Well A07



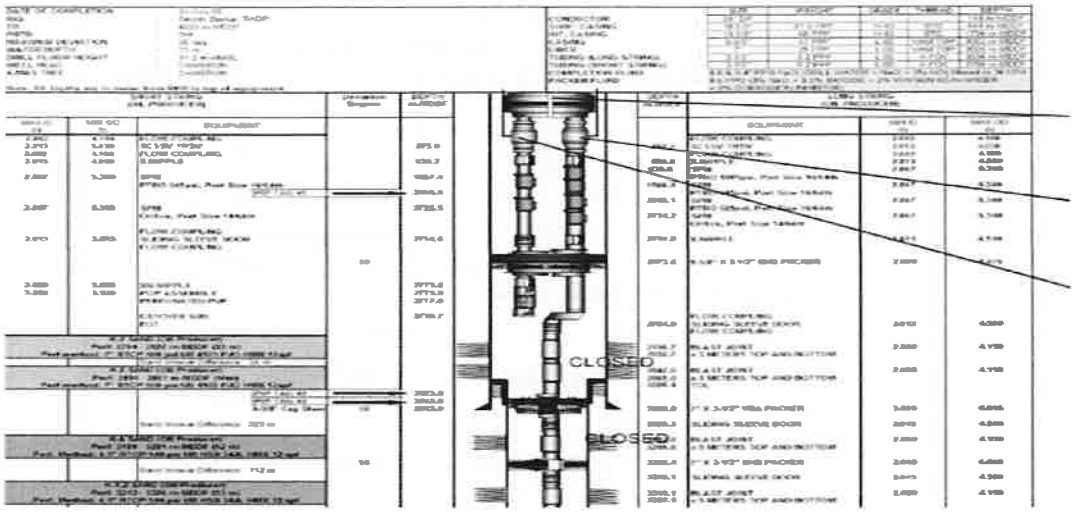
Well Diagram

Well A08



Well Diagram

Well A09



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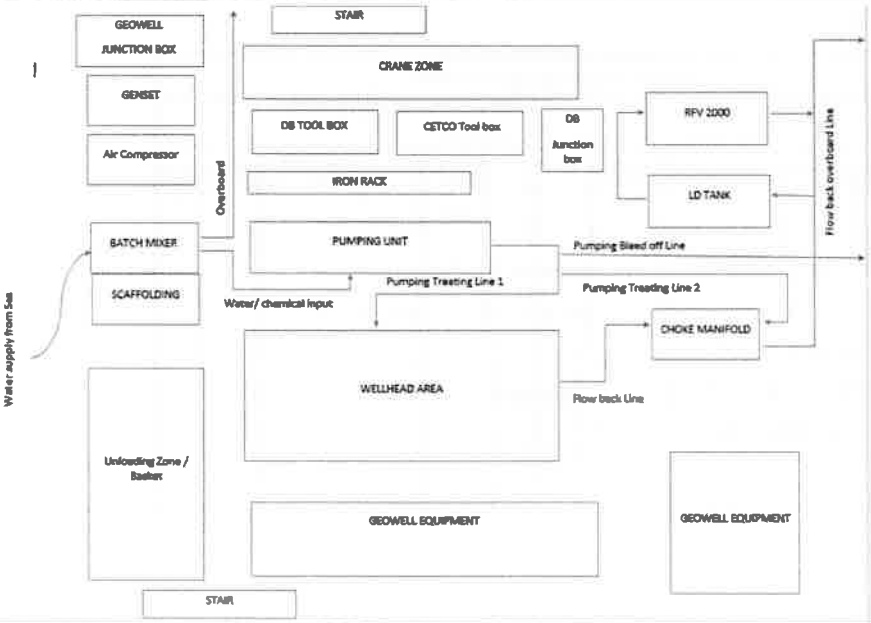
Equipment Rig Up Schematic



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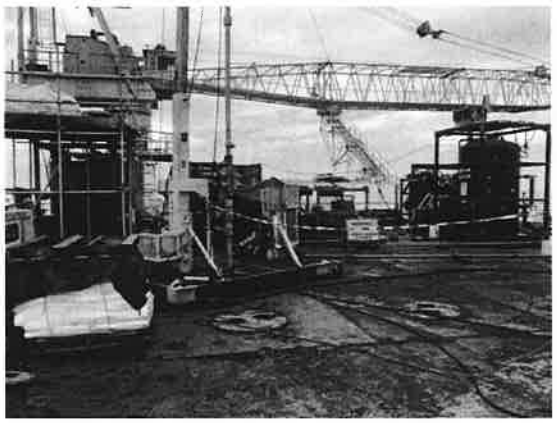
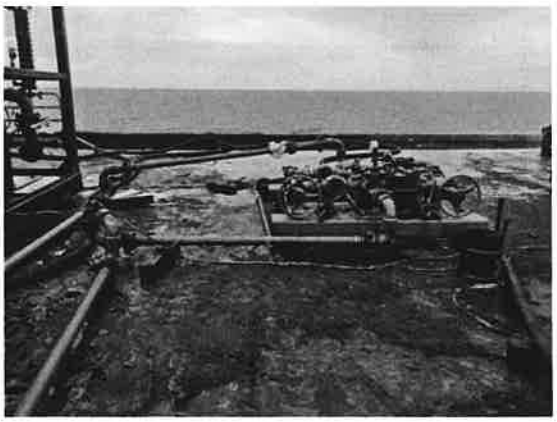
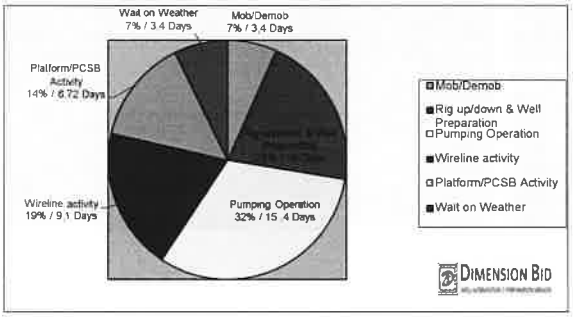




Operation Summary

Highlight:

- Mob/Demob includes: Sailing to location, Sailing back to KSB
- Rig up/Rig Down includes: Offload and spot equipment & chemical
- Platform/PCSB Activity includes: SDFN, Gangway problem, Hari Raya
- Start date 13/5/2020 (Sail from Anding platform), End date: 29/6/2020 (Sail to KSB)



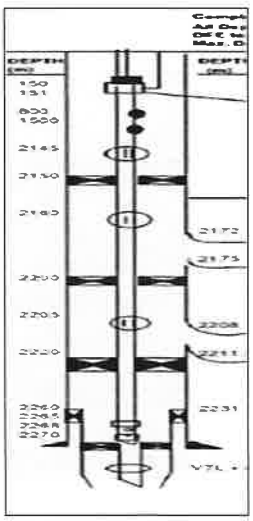
Operation	Hours	Days
Mob/Demob	77:00	03:12
Rig up/down & Well Preparation	242:00	10:05
CT Operation	00:00	00:00
Pumping Operation	367:00	15:17
Wireline Activity	223:00	09:17
Platform/PCSB Activity	164:00	06:50
Wait on Weather	84:00	03:30
Downtime - DB	00:00	00:00
Downtime - Non DB	00:00	00:00
	1157:00	**48:12**

Operation Analysis

WELL A07

- Single String, Wellhead FMC
- MSTP 9 ppg = 1781 psi, 11 ppg = 983 psi
- Production Tubing Size 3 ½" OD, 2.992" ID
- As per job program : 158 bbl brine need to be pump for well killing
- Date/Duration enter the well = 20 – 23 May 2020
- SITHP before operation, String = 200 psi, PCP 120 PSI
- After pump 60 bbl brine, well suck in (vacuum at needle valve)
- Swap brine with 20 bbl Gel and 20 bbl LCM
- Continue to pump 158 bbl brine
- SITHP before handover to geowell, String = 0 psi, PCP = 0 psi
- Total Fluid pump 218 bbl brine, 20 bbl gel and 20 bbl LCM
- Issue : stop work due to incorrect design of scaffolding, manual lifting chemical (Sack) to batch mixer

PRESSURE BEFORE ENTER THE WELL	
THP STRING (PSI)	PCP (PSI)
• 200	• 120
PRESSURE BEFORE HANDOVER TO GEOWELL TO SET PLUG	
• 0	• 0

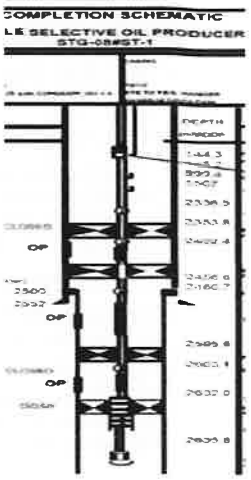


Operation Analysis

WELL A08

- Single String, Wellhead FMC
- MSTP 9 ppg = 1607 psi, 11 ppg = 886 psi
- Production Tubing Size 3 ½" OD, 2.992" ID
- As per job program : 104 bbl brine need to be pump for well killing
- Date/Duration enter the well = 24 – 26 May 2020
- SITHP before operation, String = 1300 psi, Bleed to 200 psi before handover to Geowell to set plug at SSD 2
- Total Fluid pump 44.5 bbl brine, to fill up tubing volume
- Assist Geowell set plug at SCSSV, TIT (Pressure holding).
- Issue : Unable to rig up at PCP line, due to trap pressure from PCP gate valve and header, there was valve passing in the PCP line.

PRESSURE BEFORE ENTER THE WELL	
THP STRING (PSI)	PCP (PSI)
• 1300	• -
PRESSURE BEFORE HANDOVER TO GEOWELL TO SET PLUG	
• 200	• -



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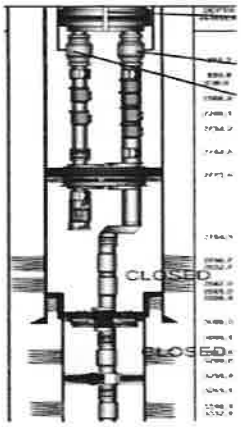
Operation Analysis

WELL A09

- Dual String, Wellhead Cameron
- MSTP 9 ppg = 2,086 psi, 11 ppg = 1,151psi
- Production Tubing Size 3 ½" OD, 2.992" ID
- Date/Duration enter the well = 29 May – 8 June 2020
- SITHP after Solar alert crew retrieve BPV and Geowell retrieve plug as follows:

THP LONG STRING (PSI)	THP SHORT STRING (PSI)	PCP (PSI)
• 1700	• 1200	• 1700



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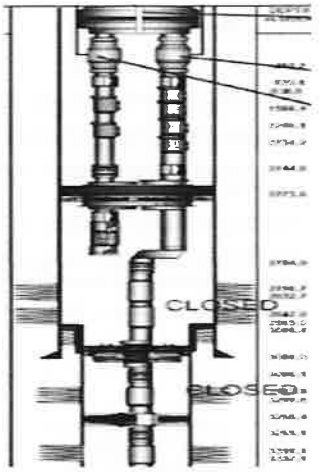
Operation Analysis

WELL A09 - Summary

- After Solar and Geowell Retrieve BPV and Plug, DB enter to perform well killing operation
- Initial plan to pump 157 bbl brine to LS, 105 bbl brine to SS
- After pump 90 bbl brine, SS pressure increase to 1700 psi and PCP pressure increase from zero to 350 psi (oil return when bleed at surface, after discussion with town and EIC, suspect 1st packer leak, last SS pressure 300 psi before slickline set plug at SCSSV
- Change pumping direction to PCP to create overbalance condition
- After complete fill up PCP, start to pump to LS, complete pump on LS, handover to Geowell to set plug
- Skid to SS to continue kill the well, after pump 5 bbl, pressure inside the tubing increase to 2000 psi (pressure maintain for 15 minutes) , indicate the volume inside the tubing already full, handover back to slickline to set plug after bleed the pressure.



Operation Analysis

WELL A09

- Total fluid pump :-

String / Casing	Fluid volume (Brine + Gel + LCM), bbl
LS	337
SS	135
PCP	471

- Last Pressure before Slickline Set plug :-

THP LONG STRING (PSI)	THP SHORT STRING (PSI)	PCP (PSI)
• 0	• 300	• 150

- Plug Set depth/Location

LS	SS
• SCSSV • SSD 1	• SCSSV

WELL A09 Event Chronology Operation Analysis

Date	Event
29 May	- Solar Alert retrieve BPV Short string and Long String - Geowell retrieve PXX plug at SCSSV for SS and LS - Quaterback/Archer Monitor PCP well A09
30 May	- Pumping to Short String - Start pumping operation, after first 30 bbl pump brine, well show sign taking condition - Start pump Gel and LCM before proceed with pump brine - After pump another 60 bbl Brine, SS increase to 1700 psi, PCP increase to 350 PSI (oil at surface when bleed PCP) , suspect 1st packer leak - Proceed to change pumping direction to PCP to fill up the casing, prevent fluid from tubing/formation enter the casing through the 1st packer
31 May	- Pumping to PCP - Day shift complete pump 10 bbl LCM and 60 bbl Brine, pressure pattern :- PCP increase during the pumping (maximum 300 psi), SS maintain 100 psi - Night shift complete pump 120 bbl brine, pressure pattern :- PCP increase during pumping (maximum 500 psi), SS maintain 100 psi
1 June	- Pumping to PCP - Day shift complete pump 90 bbl Brine, pressure pattern same, PCP increase during pumping(550 psi), SS pressure increase to 300 psi and maintain at 300 psi - Night Shift Complete pump 90 bbl Brine, pressure pattern same, PCP increase during pumping(400 psi), SS increase from 100 psi to 350 psi
2 June	- Pumping to PCP - Day shift complete pump 60 bbl brine, pressure pattern :- PCP (321 - 550 psi) and SS (100 - 500 psi) increase during pumping - Night shift , last pressure for SS 300 psi before geowell set plug at scssv
3 June	- Day shift, monitor SS pressure and PCP, rig up to LS - Night shift complete pump 90 bbl brine , THP for LS drop during pumping (1500 to 600 psi) while PCP increase (174 – 464 psi)
4 June	- Pumping to LS - Day shift complete pump 67 bbl brine, LS drop to 0 psi after complete pump, PCP increase (235 psi to 400 psi) - Night shift , After pump 30 bbl brine, LS show well suck in condition, LS build up pressure, start pump 30 bbl gel and 30 bbl LCM (LS drop (200 psi to 0 psi) , PCP increase during pump (60 psi to 300 psi)
5 June	- Pumping to LS - Day shift, after pump 40 bbl brine maximum circulating pressure increase to 1800 psi(bleed PCP to 0 psi, no pressure build up after pump at pcp), start bleed and lubricate for another 50 bbl brine - Night shift – Wait on weather
6 June	- Wait on weather
7 June	- Geowell retrieve plug , Pump 5 bbl then circulation pressure build up to 2000 psi maintain for 15 minutes, bleed and handover back to geowell to set plug back at SS - Assist geowell to set plug at LS
8 June	- Assist geowell to set plug at LS, after Geowell set plug at SSD1 and SCSSV, perform TIT – Pressure holding

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Operation Analysis

WELL A03

- Dual String, Wellhead Cameron
- MSTP 9 ppg = 2,149 psi, 11 ppg = 1,186 psi
- Production Tubing Size 3 ½" OD, 2.992" ID
- Date/Duration enter the well = 9 – 29 June 2020
- SITHP after Solar alert crew retrieve BPV and Geowell retrieve plug as follows:

THP LONG STRING (PSI)	THP SHORT STRING (PSI)	PCP (PSI)
• 1800	• 1200	• 540

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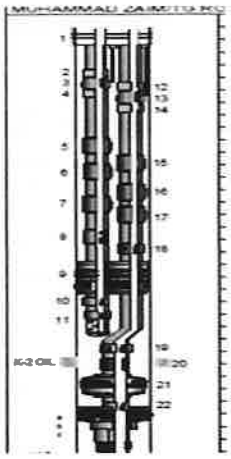
Operation Analysis

WELL A03 - Summary

- After Solar and Geowell Retrieve BPV and Plug, DB enter to perform well killing operation
- Initial plan to pump 218 bbl brine to LS, 146 bbl brine to SS
- Start pumping operation with LS, after complete pump 218 bbl brine, still got pressure inside LS and PCP, suspect LS leak above 1st packer (PCP pressure increase during pumping operation)
- Geowell run pony tail from 1st packer, no leak detected.
- Slickline set plug at depth SSD 2 (3304 m), perform TIT (pressure drop)
- DB change pumping direction to PCP, same pressure pattern; SS, LS and PCP pressure increase during pumping operation.
- After complete fill up PCP, DB start pumping operation to SS.
- Complete pump 90 bbl brine to SS, pressure drop to 0 psi, pressure build up back few days after.
- Geowell set nipples plug at depth 3262 m (SS), perform TIT (Pressure drop)
- Geowell set pxx plug at SCSSV (SS), perform TIT (SS pressure drop, PCP increase).
- Geowell set pxx plug at SCSSV (LS), perform TIT (Pressure holding)
- Geowell retrieve pxx plug at LS (SCSSV and SSD 2), DB enter to perform bleed and lubricate pumping
- Due to restriction of time, only able to pump 37 bbl brine, handover back to Geowell to set plug at SCSSV.



Operation Analysis

WELL A03

- Total fluid pump :-

String / Casing	Fluid volume (Brine + Gel + LCM), bbl
LS	270
SS	190
PCP	533

- Last Pressure before Slickline Set plug :-

THP LONG STRING (PSI)	THP SHORT STRING (PSI)	PCP (PSI)
• 100	• 50	• 200

- Plug Set depth/Location

LS	SS
• SCSSV	• SCSSV • SSD 1

Operation Analysis

WELL A03 Event Chronology

Date	Event
09 June	Start Pumping operation on well A03 - Day shift :- Solar Alert Retrieve BPV on both LS and SS - Geowell retrieve PXX plug on both LS and SS - Night shift :- Geowell run to check SSD, - LS :- Start pumping operation, complete pump 90 bbl brine on LS, LS decrease (1800 psi to 850 psi) and PCP increase during the pumping (400 psi to 1300 psi) - No Gauge were install at SS during the pumping at LS
10 June	Continue pumping operation on A03 LS - Day shift :- Complete pump 128 bbl brine on LS - Pressure pattern, LS decrease (1150 psi to 800 psi) and PCP increase during the pumping (400 psi to 1300 psi) - Night Shift :- Assist geowell to run ponytail from above the first packer - No leak were detect during the pumping - LS pressure drop(1200 psi to 1100 psi) during the pumping TSW and PCP increase (400 psi to 850 psi)
11 June	Monitor Pressure - Day shift:- Install pressure Gauge at LS after geowell skid to SS - Geowell skid to SS and perform TCC and LIB - Monitor , LS (1450 psi to 1350 psi) and PCP pressure drop (500 psi to 350 psi) - Night Shift:- Start pumping operation to fill up PCP - Complete 90 bbl brine to PCP, Pressure pattern, PCP (420 psi to 900 psi), LS (1350 psi to 1700 psi) and SS (1150 psi to 1600 psi) increase during the pumping
12 June	Continue fill up PCP A03 - Day shift :- wait for Geowell to set plug at LS - Complete pump 30 bbl brine to PCP - PCP (400 to 900 psi) , LS (1550 psi to 1700 psi) and SS (1550 to 1650 psi) pressure increase during the pumping - Night Shift :- Open well check PCP, weather pickup, wait on weather

Operation Analysis

WELL A03 Event Chronology

Date	Event
13 June	Continue to fill up PCP - Day shift :- Complete pump 180 bbl brine to PCP - Pressure pattern ; LS (300 psi to 1900 psi), SS (1300 psi to 2500 psi) and PCP (300 to 1950 psi) increase during the pumping - Night shift :- Complete pump 150 bbl brine to PCP - PCP (350 psi to 950 psi) and SS (1350 psi to 1900 psi) increase during the pumping and LS decrease (1750 to 1450 psi)
14 June	Continue to pump on well A03 - Day Shift :- Db complete pump 83 bbl brine, pressure pattern LS (400 psi to 1900 psi), SS(1150 psi to 2300 psi) and PCP(200 psi to 1800 psi) increase during the pumping (PCP) - Night Shift :- DB complete pump 20 bbl gel, 20 bbl LCM and 30 bbl brine to SS - Pressure pattern :- PCP(40 psi to 2000 psi), LS (250 psi to 2000 psi) and SS (300 psi to 1600 psi) increase during the pump
15 June	Continue to pump to SS - Day shift :- DB complete pump 90 bbl brine, pressure pattern SS decrease to zero after pump operation, PCP (350 to 2400 psi) and LS (500 to 2200 psi) increase after pump - Bleed pressure and oil from A03 PCP to well A06 - Night shift :- Monitor Pressure , Pressure for SS Increase to 250 psi (max), LS drop(600 psi to 450 psi) and PCP drop when bleed at SS (500 to 400 psi)
16 June	Monitor Pressure for Well A03 - Day Shift :- SS pressure build up to 300 psi (maximum), while LS and PCP pressure maintain 300 and 400 psi Each. - Night Shift :- SS pressure build up to 400 psi (maximum), while LS and PCP pressure maintain 300 and 400 psi Each.
17 June	Monitor Pressure for Well A03 - Day shift:- SS pressure maintain 200 psi, LS maintain 300 psi and PCP maintain 400 psi - Night shift:- SS pressure maintain 200 psi, LS maintain 300 psi and PCP maintain 400 psi
18 June	Monitor Pressure for Well A03 - Day shift:- SS increase to 300 psi, LS maintain 200 psi and PCP maintain 400 psi, assist geowell to set PXX plug , Fail - Night shift:- Wait on weather

Operation Analysis

WELL A03 Event Chronology

Date	Event
19 June	Geowell set nipples plug at TD 3262 m - Day Shift:- Assist geowell to set plug to TD 3262m, SS increase to 200 psi during the pump and LS increase to 400 psi, bleed PCP from 400 to 100 psi (oil return). - Night Shift:- TIT on SS, Pressure up SS to 1000 psi, LS increase to 1350 psi and PCP to 1200 psi, pressure maintain for 30 minutes, then bleed off PCP to 400 psi, pressure for SS drop to 250 psi and LS drop to 800 psi, pressure up to 1000 psi and monitor back pressure- SS pressure continue to drop
20 June	Geowell activity - Day Shift:- DB Bleed PCP from 1100 psi to 0 psi, SS bleed got oil return at surface, after geowell set PXX plug at SCSSV, Perform TIT, SS pressure up to 1500 psi. SS pressure drop to 1200 psi during TIT and PCP build up to 850 psi. - Night Shift – Gangway Problem, no night activity
21 June	Geowell activity - Day Shift:- Rig up to LS, bleed PCP from 850 psi to 280 psi before perform TIT to check plug at SSD 2, pressure drop from 1000 psi to 600 psi for LS, and PCP increase from 280 psi to 400 psi, bleed PCP to 350 psi before set plug at SCSSV, TIT on SCSSV , pressure holding. - Skid to SS, pump to tubing to increase the pressure PCP to transfer oil from PCP a03 to A04S, pressure up SS to 1000 psi, SS drop from 1000 psi to 600 psi while PCP maintain 350 psi. - Night shift :- Monitor pressure - SS drop from 600 psi to 250 psi, LS and PCP maintain
22 June	Crew Change
23 June	Crew Change
24 June	Crew Change, Wait on weather

Operation Analysis

WELL A03 Event Chronology

Date	Event
25 June	Pumping operation on LS - Day Shift:- DB Complete pump 12 bbl brine , circulation pressure build up to 1000 psi, stop pump monitor the pressure, pressure decreasing - LS: 100 psi, SS: 0 PSI, PCP: 200 psi - Night shift:- Complete pump 35 bbl brine, DB bleed and lubricate, maximum circulation pressure build up to 1000 psi. - SS: 0 psi, LS: 100 psi, PCP: 200 psi
26 June	Geowell set plug at SCSSV (LS) - Geowell install PXX plug at SCSSV, pump brine 5 bbl for TIT- Pressure holding - DB bleed Pressure to 0 psi after TIT, start to rig down
27 June	Continue to rig Down
28 June	MV- Anis De-anchoring
29 June	Start Sail back to KSB

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Challenges & Innovation

CHALLENGES	SOLUTION
Manual Handling due to incorrect design of scaffolding	Ensure scaffolding design able to hold the request weight
Limited oil storage, unable to bleed off all pressure after pumping operation due to limited oil storage (6 IBC tank)	Provide more storage such as FST and planned to transfer the oil from FST to nearby platform
No well history indicate leaking between production tubing and production casing	
Insufficient lighting , during campaign 6 FL and 2 JB	To provide extra Floodlight and Junction Box

Conclusion

- Overall the operation for Well killing for well A03, A07, A08 and A09 at Sotong A were safely executed. Lessons learned from this operation will be highlighted and improved for the better execution in future.

Q&A

THANK YOU.