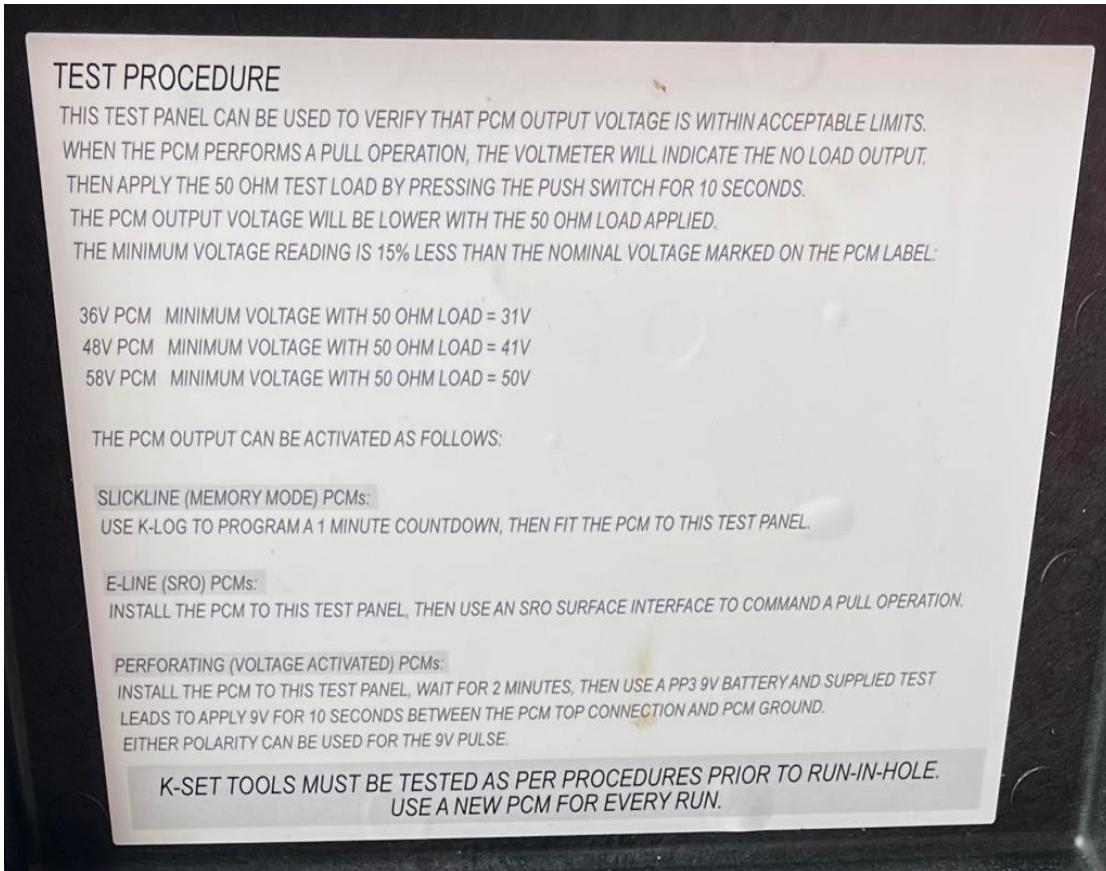


Kaseum K-Set

By Ikram Muslim

INFO SUMMARY

1. K-Set PCM Test Panel
2. Assembly of Force Gauge to the Slick Rod of the K-Set
3. Programming a Surface Test
4. Initialization period
5. Force Gauge reading
6. Programming a Set Command



1

- Verify either PCM output voltage within acceptable limits or not



Assembly of Force Gauge to the Slick Rod of the K-Set

2

- Fitting Force Gauge onto the Slick Rod



Programming a Surface Test in Slickline Mode using K-Log

3

- Launch K-Log software
- K-Log home screen will pop out



4

- Job icon must be selected first
- Create new job or load job to find previously created folder



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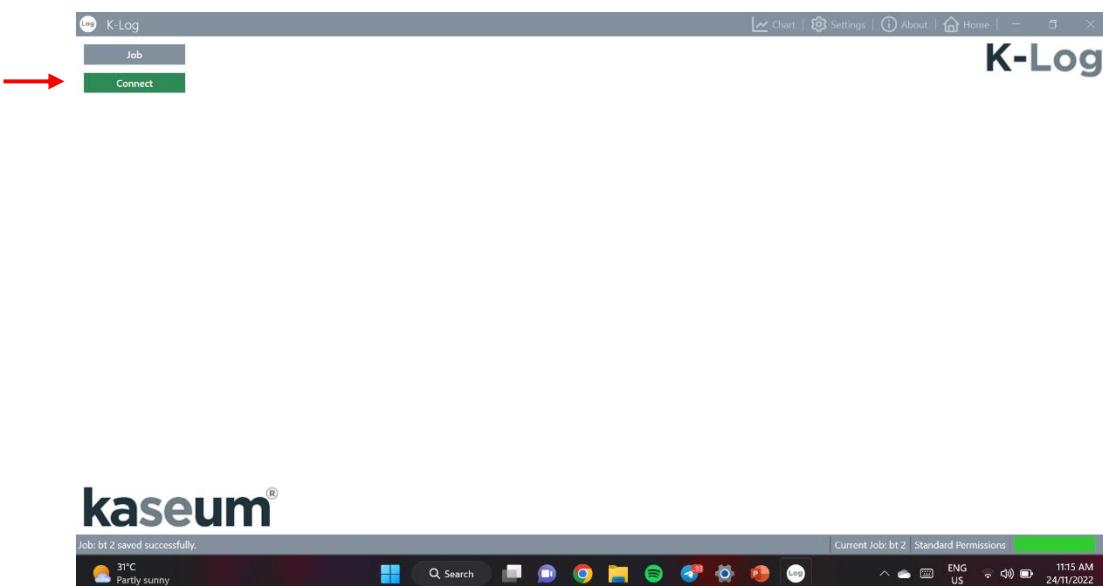
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Programming a Surface Test in Slickline Mode using K-Log

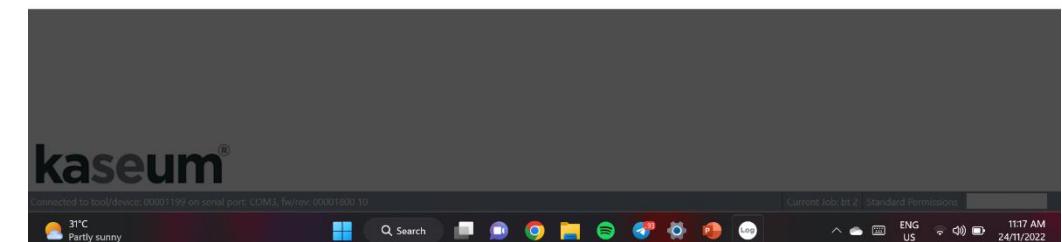
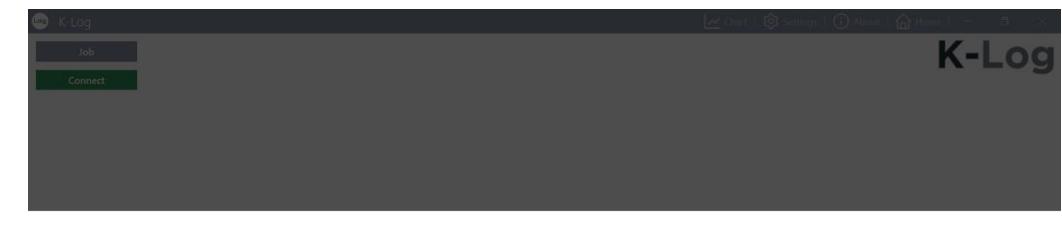
5

- 'Connect' icon will appear once a job has been create / selected
- Software will interrogate all connected com ports to establish communication with the PCM by this command



6

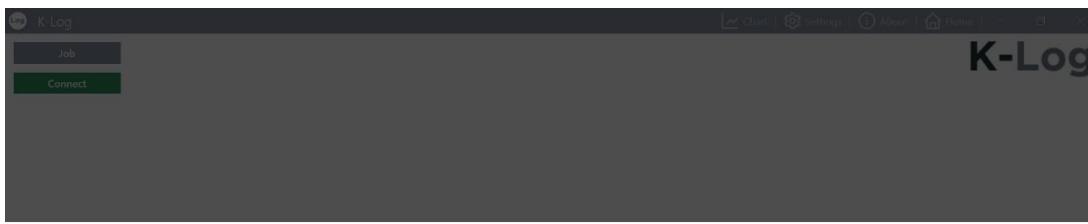
- Select the type of operation from the list, either 2.125" punch / 2.125" set
- Then select the 'Confirm' icon



Programming a Surface Test in Slickline Mode using K-Log

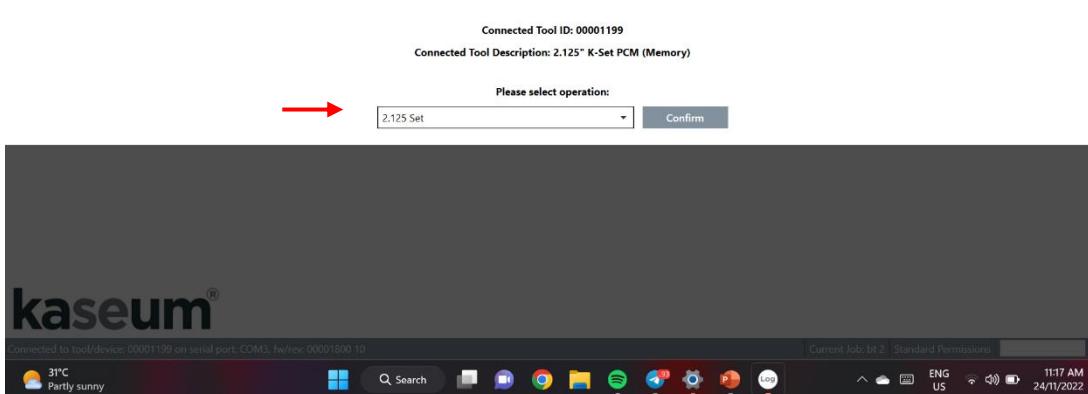
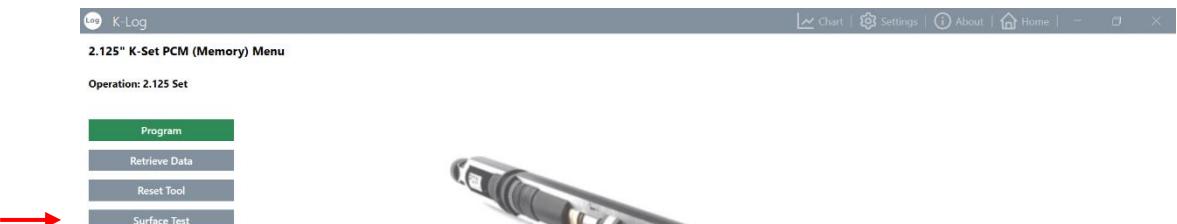
7

- Select the type of operation from the list, either 2.125" punch / 2.125" set
- Then select the 'Confirm' icon



8

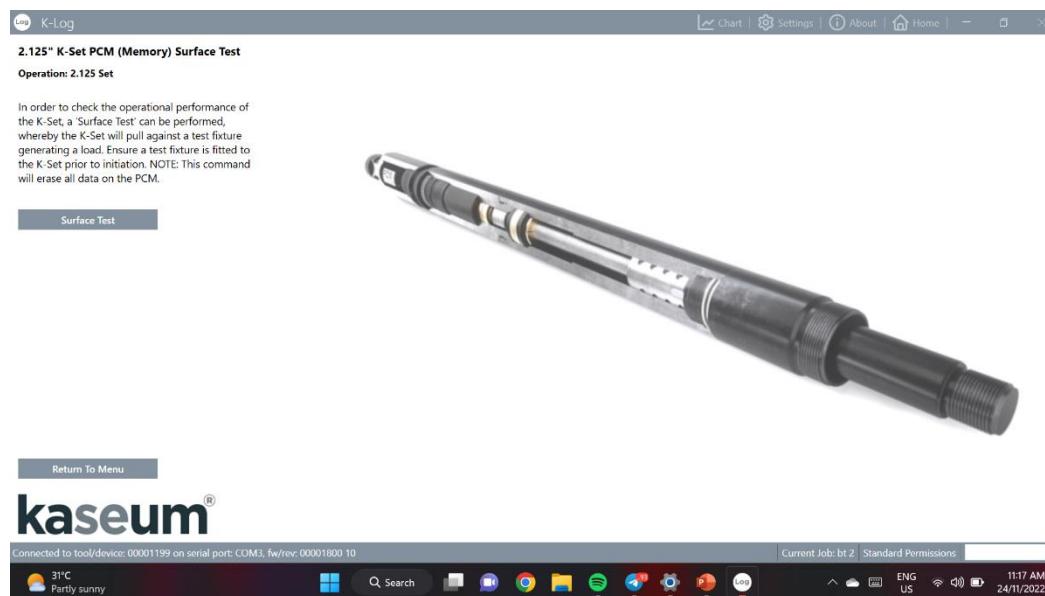
- Once operation type has been confirmed, the slickline menu (memory) will pop out
- The message status bar shown if the PCM has been connected or not, along with the PCM part number
- Select 'Surface Test' command icon



Programming a Surface Test in Slickline Mode using K-Log

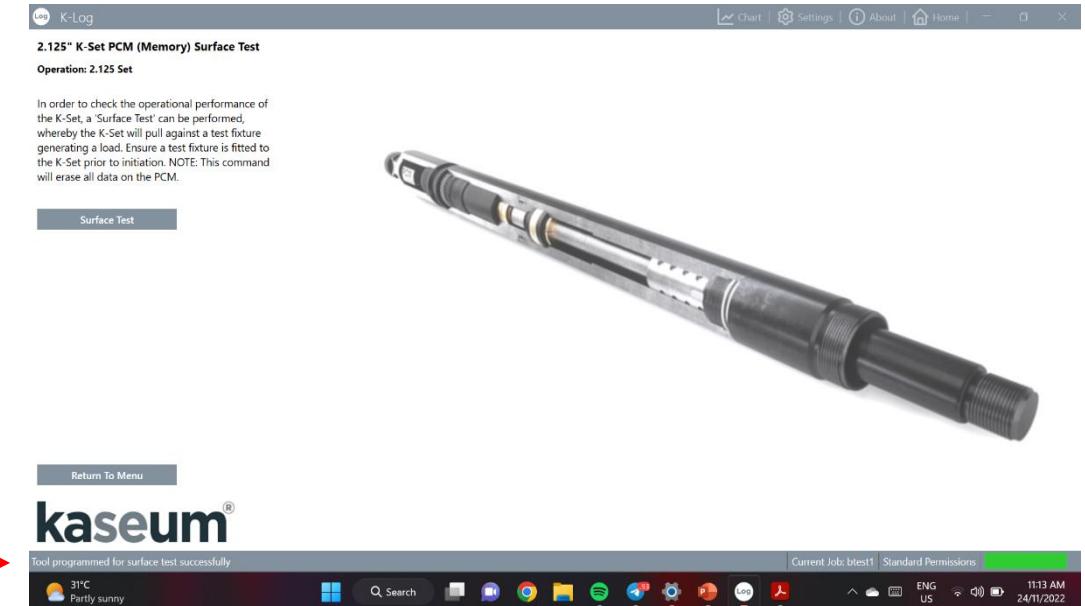
9

- The warning screen explained the function of 'Surface Test'
- After warning screen appeared, select 'Surface Test' command icon



10

- 'Surface Test' can be performed once the slickline mode PCM has been programmed with correct parameters
- The PCM ready to perform the 'Surface Test' once a 'Successful' status message appeared



Programming a Surface Test in Slickline Mode using K-Log

11

- The verification report for the 'Surface Test' will generate as below following steps

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Setting Tool Parameter Verification Report

Information

| | |
|-------------------|------------------------------|
| Tool ID | 00001199 |
| Tool Description | 2.125" K-Set PCM (Memory) |
| Firmware Revision | 00001800 10 |
| Firmware Checksum | 0030A046 |
| Date and Time | November 24, 2022 - 11:12:20 |

Run Configuration

| | |
|-------------------|--------------------------|
| Tool Operation | 2.125 Set - Surface Test |
| Countdown (HH:MM) | 00:01 |
| Armed Status | Armed |

Program Steps

| Step | Action | Duration | Current Limit |
|------|--------|-------------|---------------|
| 1 | PULL | 180 seconds | Step: 1250mA |
| 2 | BRAKE | 10 seconds | Absolute |
| 3 | PUSH | 240 seconds | Step: 1250mA |
| 4 | STOP | 2 seconds | Absolute |
| 5 | PULL | 3 seconds | Step: 1250mA |
| 6 | STOP | 2 seconds | Absolute |

On completion of above program steps, the motor will assume a brake state.

Acceleration

Acceleration commands have been disabled.

Logging Configuration

| Channel | Logging Rate (K-Set Off) | Logging Rate (K-Set On) |
|-----------------|--------------------------|-------------------------|
| CCL | 1 time per second | 20 times per second |
| Motor Current | 1 time per second | 20 times per second |
| Battery Voltage | 1 time per second | 20 times per second |
| OP MODE | 1 time per second | 20 times per second |
| Z-Axis | 1 time per second | 20 times per second |
| Pulse Number | 1 time per second | 20 times per second |
| CCL Deviation | 1 time per second | 20 times per second |
| X-Axis | 1 time per second | 20 times per second |
| Y-Axis | 1 time per second | 20 times per second |
| Temperature | 1 time per second | 20 times per second |

Other

Under Volt Lockout: 32V

When connected to Setting tool, if the detected battery voltage is less than the Under Volt Lockout value stated above, the Setting tool will shut down and the Countdown Timer WILL NOT be initiated.

Absolute Current Limit: 2500mA

At any point during the operation of Setting tool, if the detected current exceeds the Absolute Current Limit value stated above, the motor will stop. Any further steps in the Program Table will then be executed.

Readings of CCL to be Averaged: 4

Averages of CCL to be Checked for Max Deviation: 4

Report approved by:

PRINT NAME _____ DATE _____

SIGNATURE _____ DATE _____

Report witnessed by:

PRINT NAME _____ DATE _____

SIGNATURE _____ DATE _____

12

- LED in the PCM will flashing once 'Surface Test' has been programmed by using K-Log software
- The flash indicate the K-Set is in Countdown Timer mode



| K-Set OD Size | Force Gauge Assembly to be used | Piston Area of Force Gauge Assembly | Expected Pressure Gauge reading | Acceptable Pressure Gauge Range | Resultant force (Pressure x Piston Area) |
|---------------|---------------------------------|-------------------------------------|---------------------------------|---------------------------------|--|
| 2.125" | 001553 | 5in ² | 3,000psi | ≥ 2700 psi | ≥ 13,500lb |

13

- Force Gauge loaded up to 3200 psi, then power down
- The load held for about 10 seconds



14



Programming a Set Command in Slickline Mode using K-Log

1

- Launch K-Log software
- K-Log home screen will pop out



2

- Job icon must be selected first
- Create new job or load job to find previously created folder



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Programming a Set Command in Slickline Mode using K-Log

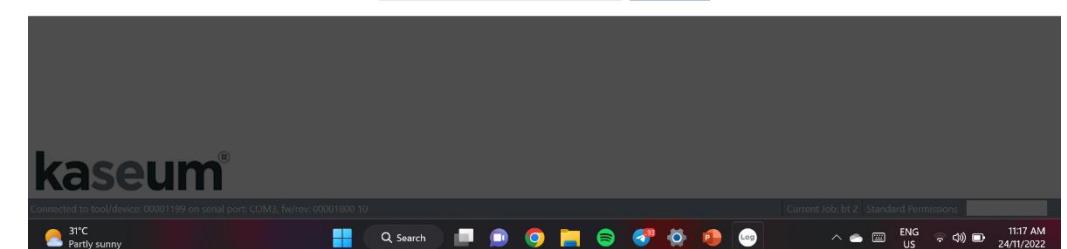
3

- 'Connect' icon will appear once a job has been create / selected
- Software will interrogate all connected com ports to establish communication with the PCM by this command



4

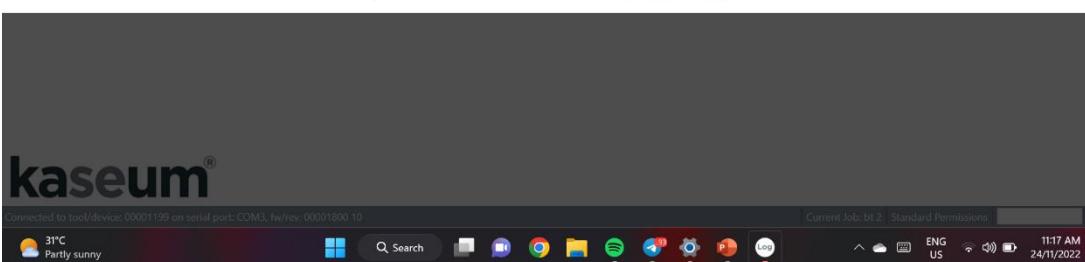
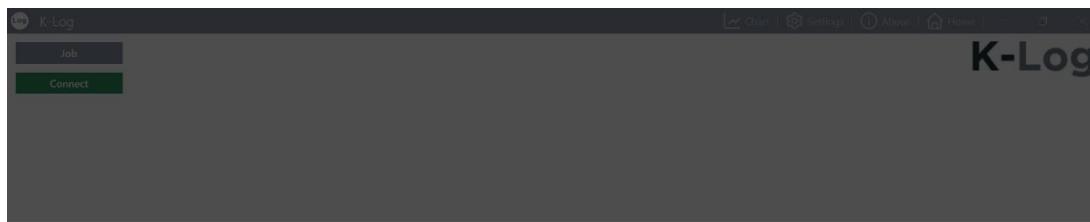
- Select the type of operation from the list, either 2.125" punch / 2.125" set
- Then select the 'Confirm' icon



Programming a Set Command in Slickline Mode using K-Log

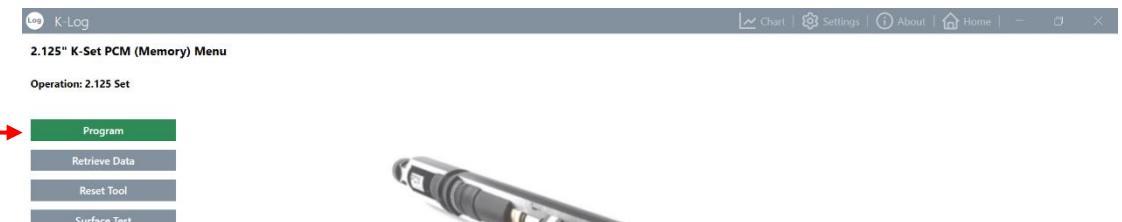
5

- Select the type of operation from the list, either 2.125" punch / 2.125" set
- Then select the 'Confirm' icon



6

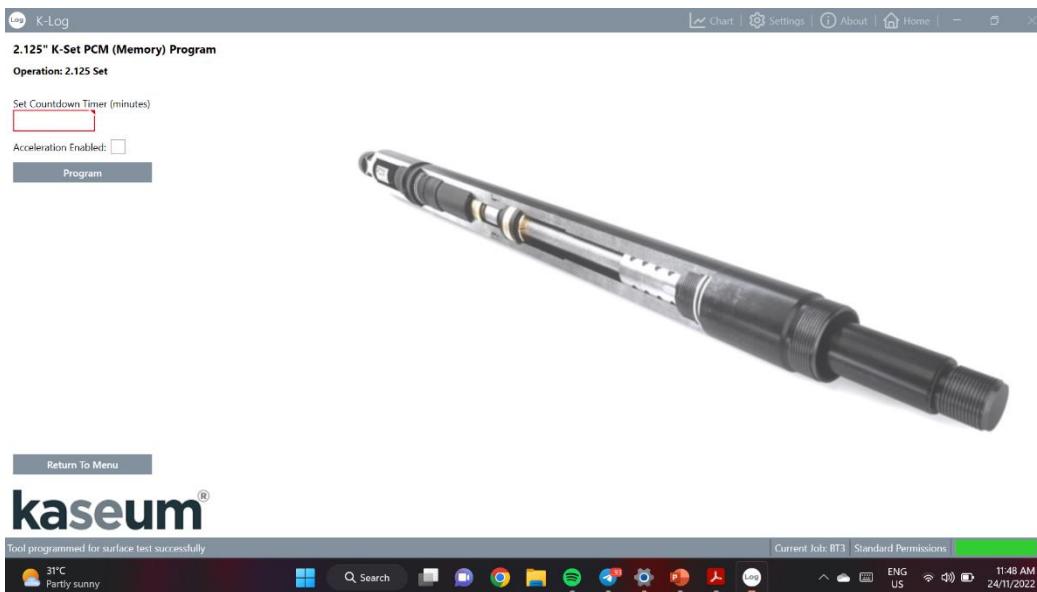
- Once operation type has been confirmed, the slickline menu (memory) will pop out
- The message status bar shown if the PCM has been connected or not, along with the PCM part number
- Select 'Program' command icon



Programming a Set Command in Slickline Mode using K-Log

7

- Insert the Countdown Timer Delay needed in 'Set Countdown Timer'. Countdown Timer value prior to duration of the running job to reach the Target Depth
- Select on 'Program' to commence the programming
- Acceleration will force the tool into a **fail-safe** status by performing a unique acceleration sequence. Only can be enable on Slickline Mode **NOT** Surface Interface Box
- Tick on 'Acceleration Enable' if it is required prior to job



8

- A successful completion status will appeared once the programming has been completed



Programming a Set Command in Slickline Mode using K-Log



9

- The verification report for the 'Surface Test' will generate as below following steps



Setting Tool Parameter Verification Report

Information

| | |
|-------------------|------------------------------|
| Tool ID | 00001199 |
| Tool Description | 2.125" K-Set PCM (Memory) |
| Firmware Revision | 00001800 10 |
| Firmware Checksum | 0030A046 |
| Date and Time | November 24, 2022 - 15:20:28 |

Run Configuration

| | |
|-------------------|-----------|
| Tool Operation | 2.125 Set |
| Countdown (HH:MM) | 00:01 |
| Armed Status | Armed |

Program Steps

| Step | Action | Duration | Current Limit |
|------|--------|--------------|---------------|
| 1 | PULL | 2400 seconds | Step: 2500mA |
| 2 | STOP | 2 seconds | Absolute |
| 3 | PUSH | 3 seconds | Step: 1250mA |
| 4 | STOP | 2 seconds | Absolute |

On completion of above program steps, the motor will assume a brake state.

Acceleration

Acceleration commands have been disabled.

Logging Configuration

| Channel | Logging Rate (K-Set Off) | Logging Rate (K-Set On) |
|-----------------|--------------------------|-------------------------|
| CCL | 10 times per second | 20 times per second |
| Motor Current | 10 times per second | 20 times per second |
| Battery Voltage | 10 times per second | 20 times per second |
| OP MODE | 10 times per second | 20 times per second |
| Z-Axis | 10 times per second | 20 times per second |
| Pulse Number | 10 times per second | 20 times per second |
| CCL Deviation | 10 times per second | 20 times per second |
| X-Axis | 10 times per second | 20 times per second |
| Y-Axis | 10 times per second | 20 times per second |
| Temperature | 10 times per second | 20 times per second |

Other

Under Volt Lockout: 32V

When connected to Setting tool, if the detected battery voltage is less than the Under Volt Lockout value stated above, the Setting tool will shut down and the Countdown Timer WILL NOT be initiated.

Absolute Current Limit: 3800mA

At any point during the operation of Setting tool, if the detected current exceeds the Absolute Current Limit value stated above, the motor will stop. Any further steps in the Program Table will then be executed.

Readings of CCL to be Averaged: 4

Averages of CCL to be Checked for Max Deviation: 4

Report approved by:

PRINT NAME _____ DATE _____

SIGNATURE _____ DATE _____

Report witnessed by:

PRINT NAME _____ DATE _____

SIGNATURE _____ DATE _____

Thank you !

Questions and Answering Session

Prepared by,



Name : Muhammad Ikram Muslim

Designation : Junior Field Engineer

Date : 24 November 2022

Verified by,

Verified by,

Name : Faris M. Firdaus

Designation : Field Service Manager

Date :

Name : Azahari Suhari

Designation : Operation Manager

Date :