



Oil and Gas

Daily Operations Report

11520E(9412)

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|------------------|---|-------------------|------------|------------|-------------|
| Location | PCI et al Tweed Lake M-47 | Date | 2004-03-06 | Report No. | 8 |
| Job Description | Complete as a Lower Mount Clark Gaswell | AFE or Prop. Code | B783031 | Amount | \$4,883,005 |
| Tubing pressure: | 0 kPa | Casing pressure: | 0 kPa | H2S conc. | 0 |

Continued to run in the hole with 73 mm production tubing and 9.53 mm injection line:

- 103 joints of 73 mm 9.7 kg/m L-80 EUE tubing. Complete with Canon clamps and 9.53 mm injection tubing clamped every connection.

Latched the on/off tool. Spaced out for 4000 daN compression. Pulled and laid down:

- 3 joints of 73 mm 9.7 kg/m L-80 EUE tubing.

Ran:

- 3 - 73 mm 9.7 kg/m L-80 EUE pup joints (1.85, 2.44, 3.03 m).
- 1 joint of 73 mm 9.7 kg/m L-80 EUE tubing.

Installed Canon clamps on all connections. Total of 122 full joints in well. Installed clamp half way on joint. Made up Stream -Flo 179 mm x 73 mm EUE 'CTC' 1A EN tubing hanger with a 9.53 mm injection port. Installed swedge lock fitting into hanger and pressure tested fitting to 28 MPa; held for 10 minutes. Connected injection tubing to fitting. Landed hanger with tubing in 4000 daN compression. Pulled 6000 daN over string weight to ensure on/off latched. Landed hanger. Installed 63.5 mm back pressure valve into hanger. Rigged out floor and removed BOPs. Installed the Stream-Flo 179 mm 21 MPa x 65 mm 35 MPa wellhead top section. Held safety meeting with night crew. Pressure tested the wellhead to 21 MPa with methanol; held. Filled the tubing with 3 m³ of frac oil. Pressure tested the tubing to 10 MPa; held. Rigged up Schlumberger wireline with IPS slickline tools adapted to e-line. Ran in and pulled prong out of lock to 2400 hours.

Gas flared: 0.0 · 10³m³
 Cum Gas flared to date : 4.2 · 10³m³

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|--------------|----------|-----|----------------------|--|------------------------------------|------------------------|---------------------------------|------|----|--|------------------------------------|
| Daily Fluid: | Oil | 3.0 | m3 | Lost <input checked="" type="checkbox"/> | Recovered <input type="checkbox"/> | Cum. Fluid: | Oil | 2.75 | m3 | Lost <input checked="" type="checkbox"/> | Recovered <input type="checkbox"/> |
| | Water | | m3 | <input type="checkbox"/> | <input type="checkbox"/> | | Water | | m3 | <input type="checkbox"/> | <input type="checkbox"/> |
| Day cost | \$93,755 | | Cumulative cost | \$1,741,245 | | Supervisor | Jim Messervey / Fred Feduniak | | | | |
| Man hours | 386 | | Cumulative man hours | 3736 | | Mobile number and area | 1-600-700-8108 / 1-600-700-7884 | | | | |



Oil and Gas

Daily Operations Report

11520E(9412)

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|------------------|---|-------------------|------------|------------|-------------|
| Location | PCI et al Tweed Lake M-47 | Date | 2004-03-05 | Report No. | 7 |
| Job Description | Complete as a Lower Mount Clark Gaswell | AFE or Prep. Code | B783031 | Amount | \$4,883,005 |
| Tubing pressure: | 0 kPa | Casing pressure: | 0 kPa | H2S conc. | 0 |

0000hrs Pumped 4.2 m³ of frac oil down casing with 2.8 m³ going past stuck packer at 0.5 m³/min. Packer did not move. Opened well to test equipment and flowed back fluid from casing at 48.7 - 34.05 · 10³m³/d. Recovered 4.2 m³. Shut in well. Monitored pressure until morning. Held pre-job operational safety meeting. Attempted to work packer free. Opened well through to testers flare and flowed well at rates from 50.4 - 69.8 10³m³/d with pressures from 8450 kPa - 5400 KPa. Flowed for 60 minutes recovering 3.3 m³ of frac oil. Shut in well and monitored build up pressures. Continued to work packer. Packer began moving down hole. Ran the Halliburton 178 mm Versaset packer and tail pipe with as listed on March 4 report. **Set packer at 1196 mKB** with a Baker slow setting charge. Tail pipe bottom at 1201.53 mKB and 'XN' nipple landed at 1200.9 mKB. Opened casing through testers and bled off pressure above packer (10183 kPa) in 45 minutes for a negative pressure test. Left well shut in to check packer integrity. Open well to rig tank - no pressure, packer is holding. Rigged in kill line and suction to 63 m³ tank. Picked up and assembled on/off overshot onto pup joint. Tallied, drifted, threadwashed the 73 mm tubing while installing 9.53 mm stainless injection line for methanol injection. Ran:

- 178 mm x 73 mm EUE on/off overshot.
- 3 m 73mm 9.7 kg/m L-80 EUE pup joint.
- 73 mm L-80 EUE Halliburton injection sub with 2 - 9.53 mm stainless check valves.
- 21 joints 73mm 9.67 kg/m L-80 EUE tubing to 2400 hours.

All connections have 73 mm Cannon control line protectors installed over a 9.53 mm stainless tubing injection line.

Gas Flared in last 24 hours: 3.57 · 10³m³
 Cum Gas flared to date: 4.2 · 10³m³
 Frac oil recovered today: 7.65 m³

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|--------------|----------|------|----|-------------------------------|---|-------------|-------|------|---------------------------------|-------------------------------|---|
| Daily Fluid: | Oil | 7.65 | m3 | Lost <input type="checkbox"/> | Recovered <input checked="" type="checkbox"/> | Cum. Fluid: | Oil | 0.25 | m3 | Lost <input type="checkbox"/> | Recovered <input checked="" type="checkbox"/> |
| | Water | | m3 | <input type="checkbox"/> | <input type="checkbox"/> | | Water | | m3 | <input type="checkbox"/> | <input type="checkbox"/> |
| Day cost | \$87,685 | | | Cumulative cost | | \$1,647,490 | | | Supervisor | | |
| Man hours | 364 | | | Cumulative man hours | | 3350 | | | Mobile number and area | | |
| | | | | | | | | | Jim Messervey / Fred Feduniak | | |
| | | | | | | | | | 1-600-700-8108 / 1-600-700-7884 | | |



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|------------------|---|-------------------|------------|------------|-------------|
| Location | PCI et al Tweed Lake M-47 | Date | 2004-03-04 | Report No. | 6 |
| Job Description | Complete as a Lower Mount Clark Gaswell | AFE or Prop. Code | B783031 | Amount | \$4,883,005 |
| Tubing pressure: | 0 kPa | Casing pressure: | 0 kPa | H2S conc. | 0 |

Continued to work on Schlumberger grease injection. Attempted lubricator pressure testing but leaked down past blind rams. BOP's not holding pressure from top side of rams but no external leaks on lubricator. Schlumberger released to get rest at 0600 hours. Woke up Schlumberger at 1200 hours. Made up a 6 m 114 mm ERHSC gun loaded with 38.6 gr Powerjet 4505 charges set at 17 spm and 60° phasing. Held pre-arming safety meeting with all personnel discussing road block and communications shut down. Picked up gun into lubricator and made up to well. Ran in the hole and correlated on depth to the Schlumberger bond log dated March 2, 2004. **Perforated the Mount Clark from 1227.5 - 1233.5 mKB.** All shots 101 shots fired. Pressure increased to 5200 kPa in 65 minutes. Ran in the hole with a 5 m 114 mm ERHSC gun loaded with 38.6 gr Powerjet charges set at 17 spm and 60° phasing. Correlated gun into position and **perforated the Mount Clark from 1222.5 - 1227.5 mKB.** All 85 shots fired. Pressure at 5310 kPa. Checked, tallied, picked up, and ran the following BHA on wireline (pressure at 5475 kPa):

- 73 mm EUE wireline re-entry guide.
- 73 mm EUE Otis 'XN' nipple with a 58.75 mm profile and 56.0 mm no-go.
- 3 m 73 mm 9.7 kg/m L-80 EUE pup joint.
- 178 mm Halliburton Versaset double grip wireline set retrievable packer.
- 73 mm EUE on/off slick joint with a 58.75 mm 'X' profile.
- Baker model 20 setting tool with a slow setting charge.

Packer hung up at 41 mKB. Could not pull up but could go down. Ran to 70 mKB and packer hung up again. Could not move up or down. Worked packer up to 775 daN staying at 75% of rope socket pull strength. Rigged in testers and flowed well recovering gas and 5.3 m³ fluid to p-tank. Pressure dropped to 3800 kPa. Packer did not move. Prepare to pump down casing at 2400 hours.

Cum gas flared = 0.63 · 10³m³Recovered load oil = 5.3 m³

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|--------------|-----------|----------------------|-------------|---------------------------------|-------------------------------------|-------------|-------|-----|----|-------------------------------------|--------------------------|
| Daily Fluid: | Oil | 5.3 | m3 | Lost | Recovered | Cum. Fluid: | Oil | 7.4 | m3 | Lost | Recovered |
| | | | | <input type="checkbox"/> | <input checked="" type="checkbox"/> | | | | | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | Water | | m3 | <input type="checkbox"/> | <input type="checkbox"/> | | Water | | m3 | <input type="checkbox"/> | <input type="checkbox"/> |
| Day cost | \$149,475 | Cumulative cost | \$1,559,805 | Supervisor | | | | | | | |
| Man hours | 376 | Cumulative man hours | 2986 | Jim Messervey / Fred Feduniak | | | | | | | |
| | | | | Mobile number and area | | | | | | | |
| | | | | 1-600-700-8108 / 1-600-700-7884 | | | | | | | |



Oil and Gas

Daily Operations Report

11520E(9412)

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|------------------|---|-------------------|------------|------------|-------------|
| Location | PCI et al Tweed Lake M-47 | Date | 2004-03-03 | Report No. | 5 |
| Job Description | Complete as a Lower Mount Clark Gaswell | AFE or Prop. Code | B783031 | Amount | \$4,883,005 |
| Tubing pressure: | 0 kPa | Casing pressure: | 0 kPa | H2S conc. | 0 |

Ran 2 x 73 mm pup joints and tagged PBD at 1322 mKB. Pulled up 1.25 m and poured 60 litres of methanol down tubing. Installed and closed stabbing valve. Poured 120 litres of methanol down annulus and closed pipe rams. Filled wellbore and pressure tested casing to 10 MPa; bumped up pressure 3 times and held 10 MPa for 10 minutes solid. Moved on tank truck containing 25 m³ Rimbey Platinum from nearby Apache well. Transferred fluid to Millard Trucking tank truck. Tied Millard tank truck into pump suction. Reverse circulated well over to Rimbey Platinum frac fluid. Recovered 24 m³ dirty water from casing. Held pre-job operational safety meeting discussing program changes and safety during tripping pipe. Loaded Millard Trucking with 53 m³ dirty water and sent south to CCS Rainbow Lake for disposal. Pulled and stood 16 joints 73 mm tubing. Poured new rope socket on sand line for swabbing. Pulled 8 swabs and recovered 11.3 m³ frac fluid; effective fluid level will be at 583 mKB or 4.7 MPa hydrostatic pressure. Pulled and stood 120 joints 73 mm tubing, laid down crossover, scraper and bit. Started rigging up Schlumberger wireline unit at 1600 hours. Held pre-job operational safety meeting with night shift discussing safety while perforating. Prepared to run gauge ring in hole; Schlumberger not ready until 2100 hours. Ran a 151.5 mm gauge ring / junk basket to 1319 mKB; casing clean. Noticed slight weight change at 520 mKB when pulling out of hole (probable fluid level) and at 366 mKB. Noted junk basket was free of debris and injector head was froze up; operator suspected that pack off rubber may have been dragging as there was no grease getting to the line, electric line was dry. Worked on correcting grease injector head problem to 2400 hours.

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|--------------|-----------|----------------------|-------------|-------------------------------------|--------------------------|-------------|-------|------|----|-------------------------------------|--------------------------|
| Daily Fluid: | Oil | 12.7 | m3 | Lost | Recovered | Cum. Fluid: | Oil | 12.7 | m3 | Lost | Recovered |
| | | | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | | | | | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| | Water | | m3 | <input type="checkbox"/> | <input type="checkbox"/> | | Water | | m3 | <input type="checkbox"/> | <input type="checkbox"/> |
| Day cost | \$190,365 | Cumulative cost | \$1,410,330 | Supervisor | | | | | | | |
| | | | | Jim Messervey / Fred Feduniak | | | | | | | |
| Man hours | 382 | Cumulative man hours | 2610 | Mobile number and area | | | | | | | |
| | | | | 1-600-700-8108 / 1-600-700-7884 | | | | | | | |



Oil and Gas

Daily Operations Report

11520E(9&12)

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|------------------|---|-------------------|------------|------------|-------------|
| Location | PCI et al Tweed Lake M-47 | Date | 2004-03-02 | Report No. | 4 |
| Job Description | Complete as a Lower Mount Clark Gaswell | AFE or Prop. Code | B783031 | Amount | \$4,883,005 |
| Tubing pressure: | 0 kPa | Casing pressure: | 0 kPa | H2S conc. | 0 |

Reverse circulated wellbore to clean out drilling mud with bit at 1073 mKB. Continued to run 26 joints 73 mm 9.7 kg/m L-80 EUE tubing and tagged PBD at 1322 mKB with 131 full joints in hole. Reverse circulated wellbore with fresh water until drilling mud was removed; noted water was still dirty. Held pre-job operational meeting with day shift. Pulled and stood 130 joints 73 mm tubing. Laid down 6 - 89 mm drill collars, crossovers and bit. Rigged up Schlumberger wireline unit complete with stub lubricator. Ran GR-CCL-CBT-VDL high speed overview from 720 mKB to 1320 mKB which indicated cement top was higher than 150 mKB but loggers did not show this on log print. Correlated log on depth to Schlumberger Sonic GR dated January 29, 1985 and logged repeat pass from 1320 mKB to 1312 mKB and main pass from 1320 mKB to 722 mKB which indicated isolation above and below zone of interest and some patchy cement through out log; noted 50% or better bond over most of log. Rigged out wireline unit. Drifted in derrick and ran:

- 152.4 mm Varel tri-cone rock bit
- 178 mm casing scraper
- 89 mm REG x 73 mm EUE crossover
- 31 joints 73 mm 9.7 kg/m L-80 EUE tubing

Held pre-job operational safety meeting with night shift discussing drifting from derrick while running tubing. Continued to run:

- 91 joints 73 mm 9.7 kg/m L-80 EUE tubing.

Rotated and reciprocated casing scraper from 1180 mKB to 1250 mKB. Continued to run:

- 14 joints 73 mm 9.7 kg/m L-80 EUE tubing to 2400 hours.

Conducted 10 minute bubble test on surface casing vent and noted no bubbles.

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|--------------|--|----------|----------|-------------------------------|------------------------------------|-------------|---------------------------------|-------|----------|-------------------------------|------------------------------------|
| Daily Fluid: | | Oil | _____ m3 | Lost <input type="checkbox"/> | Recovered <input type="checkbox"/> | Cum. Fluid: | | Oil | _____ m3 | Lost <input type="checkbox"/> | Recovered <input type="checkbox"/> |
| | | Water | _____ m3 | <input type="checkbox"/> | <input type="checkbox"/> | | | Water | _____ m3 | <input type="checkbox"/> | <input type="checkbox"/> |
| Day cost | | \$54,930 | | | Cumulative cost | | \$1,219,965 | | | | |
| Man hours | | 321 | | | Supervisor | | Jim Messervey / Fred Feduniak | | | | |
| | | | | | Cumulative man hours | | 2228 | | | | |
| | | | | | Mobile number and area | | 1-600-700-8108 / 1-600-700-7884 | | | | |



Oil and Gas

Daily Operations Report

11520E(9412)

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|------------------|---|-------------------|------------|------------|-------------|
| Location | PCI et al Tweed Lake M-47 | Date | 2004-03-01 | Report No. | 3 |
| Job Description | Complete as a Lower Mount Clark Gaswell | AFE or Prop. Code | B783031 | Amount | \$4,883,005 |
| Tubing pressure: | 0 kPa | Casing pressure: | 0 kPa | H2S conc. | 0 |

Continued warming up BOP's and started PCOG rig inspection. Tallied top row of tubing and function tested BOP's; noted annular would not close. Closed blind rams and applied steam to BOP's to warm annular. Made up line to pressure test and noted work spool valve was frozen. Thawed out valve and landed 179 mm x 60 mm EUE Type CTC tubing hanger complete with 60 mm x 73 mm swedge and 73 mm pup joint. Attempted to pressure test without success; leaking past tubing hanger. Attempted to pull tubing hanger without success. Held pre-job operational safety meeting with day shift discussing program of operations, safety while pressure testing and safety around steam. Thawed and pulled tubing hanger from tubing spool; checked seal, okay. Landed tubing hanger and tightened lock down screws. Poured 20 litres methanol down into BOP's and closed pipe rams. Pressure tested pipe rams and flange connection to 2000 kPa and 18 MPa and annular to 2000 kPa and 16 MPa for 10 minutes each, okay. Rigged up floor and thread washers. Completed PCOG rig inspection. Ran:

- 152.4 mm Varel centre bored tri-cone bit
- 89 mm REG x 60 mm IF bit sub
- 6 - 89 mm drill collars
- 60 mm IF x 73 mm EUE crossover
- 62 joints 73 mm 9.7 kg/m L-80 EUE tubing

Caught sample from displacement fluid while running in hole; water salinity = 200,000 ppm. Held pre-job operational safety meeting discussing pump operational safety. Made up lines to reverse circulate well at 656 mKB. Reverse circulated well clean; recovered some heavy mud and mixture of mud and water; mud salinity = 240,000 ppm and pH = 8. Stopped pumping and blew out lines. Ran 43 joints 73 mm 9.7 kg/m L-80 EUE tubing. Prepared to reverse circulate well at 1073 mKB to 2400 hours.

Note: Held camp fire drill; good response.

Note: cost includes Apache road use of \$500,000

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|--------------|-----------|----------------------|-------------------------------|------------------------------------|---------------------------------|-------|----|-------------------------------|------------------------------------|
| Daily Fluid: | Oil | m3 | Lost <input type="checkbox"/> | Recovered <input type="checkbox"/> | Cum. Fluid: | Oil | m3 | Lost <input type="checkbox"/> | Recovered <input type="checkbox"/> |
| | Water | m3 | <input type="checkbox"/> | <input type="checkbox"/> | | Water | m3 | <input type="checkbox"/> | <input type="checkbox"/> |
| Day cost | \$548,395 | Cumulative cost | \$1,165,035 | Supervisor | Jim Messervey / Fred Feduniak | | | | |
| Man hours | 351 | Cumulative man hours | 1907 | Mobile number and area | 1-600-700-8108 / 1-600-700-7884 | | | | |



Oil and Gas

Daily Operations Report

11520E(9412)

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|--|--|------------------------------|-----------------------|
| Location PCI et al Tweed Lake M-47 | | Date 2004-02-29 | Report No. 2 |
| Job Description Complete as a Lower Mount Clark Gaswell | | AFE or Prep. Code B783031 | Amount \$4,883,005 |
| Tubing pressure: 0 kPa | | Casing pressure: 0 kPa | H2S conc. 0 |

Continued to work on boiler; steam returns to water tank at 0300 hours. Light plant for rig went down. Restarted light plant; could not continue running due to engine failure. Worked on changing out generator. Drained boiler to prevent freezing. Moved over standby support unit generator from camp. Held pre-job operational safety meeting with day shift. Worked on light plant and powered up rig. Filled and fired boiler. Boiler pressured up and a valve on the float column began leaking bad. Shut down boiler, waited on tank truck and drained fluid level down with tank truck below valve level. Changed out valve. Filled and fired boiler. Steam returns back to boiler at 1600 hours. Nabors light plant on location. Switched light plants and returned support unit. Steamed through pump lines to warm up. Heated double gate BOP's. Stump tested blind rams to 2000 kPa and 18 MPa for 10 minutes each. Held pre-job operational safety meeting with night shift. Removed wellhead top section and installed 179 mm 21 MPa Class III BOP's. Rigged up floor and installed tarps around BOP's and floor. Installed heater under tarp and warmed up BOP's to 2400 hours.

Temperature = -39°C and wind = ± 12 km/hr.

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|--------------|-----------|---------------------------------|-----------|-------------------------------|------------------------------------|-------------|--|-------|----------|-------------------------------|------------------------------------|
| Daily Fluid: | | Oil | _____ m3 | Lost <input type="checkbox"/> | Recovered <input type="checkbox"/> | Cum. Fluid: | | Oil | _____ m3 | Lost <input type="checkbox"/> | Recovered <input type="checkbox"/> |
| | | Water | _____ m3 | <input type="checkbox"/> | <input type="checkbox"/> | | | Water | _____ m3 | <input type="checkbox"/> | <input type="checkbox"/> |
| Day cost | \$128,910 | Cumulative cost | \$616,640 | Supervisor | | | | | | | |
| | | Jim Messervey / Fred Feduniak | | | | | | | | | |
| Man hours | 664 | Cumulative man hours | 1556 | Mobile number and area | | | | | | | |
| | | 1-600-700-8108 / 1-600-700-7884 | | | | | | | | | |



Oil and Gas

Daily Operations Report

11520E(9412)

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|------------------------|---|------------------------|------------|-------------|-------------|
| Location | PCI et al Tweed Lake M-47 | Date | 2004-02-28 | Report No. | 1.2 |
| Job Description | Complete as a Lower Mount Clark Gaswell | AFE or Prop. Code | B783031 | Amount | \$4,883,005 |
| Tubing pressure: 0 kPa | | Casing pressure: 0 kPa | | H2S conc. 0 | |

Noted temperature changed from -0.5°C to 2.2°C over length of log. Rigged out wireline unit. Unloaded 145 joints 73 mm 9.7 kg/m L-80 EUE tubing, 2 sets of pup joints and Stream-Flo wellhead and accessories. **Removed existing wellhead top section and tubing head.** Cleaned out around casing slips and re-dressed casing stub. Installed 279 mm x 179 mm 21 MPa Crown Type 'CTCM' tubing head with a 279 mm x 179 mm Crown 'CP' reducer bushing for short cut off casing and 179 mm x 65 mm 35 MPa top section. Pressure tested secondary seals to 17 MPa for 10 minutes, okay. Unloaded methanol and Halliburton equipment from truck to 2400 hours. Worked on boiler.

| | | | | | | | | | |
|--------------|-----------|----------|-------------------------------|------------------------------------|-------------|-------|------------------------|---------------------------------|------------------------------------|
| Daily Fluid: | Oil | _____ m3 | Lost <input type="checkbox"/> | Recovered <input type="checkbox"/> | Cum. Fluid: | Oil | _____ m3 | Lost <input type="checkbox"/> | Recovered <input type="checkbox"/> |
| | Water | _____ m3 | <input type="checkbox"/> | <input type="checkbox"/> | | Water | _____ m3 | <input type="checkbox"/> | <input type="checkbox"/> |
| Day cost | \$487,730 | | Cumulative cost | | \$487,730 | | Supervisor | | |
| Man hours | 892 | | Cumulative man hours | | 892 | | Mobile number and area | | |
| | | | | | | | | 1-600-700-8108 / 1-600-700-7884 | |