## **Supplementary Material: Penguins Cluster Well Data**

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| **SHELL WELL NAME** | **SHELL WELLBORE NAME** | **LEGAL WELLBORE NAME** | **WELL CLASS** | **CORES (run, depths (ft), formation where available)** | **LOGS (types run in wellbore)** |
| 211/13-1 | 211/13-1 | 211/13- 1 | EXPLORATION | **CORE 1**, 8796.00-8849.00, Not logged interval, **CORE 2**, 8849.00-8909.00, Not logged interval, **CORE 3**, 9361.00-9418.00, Not logged interval, **CORE 4**, 9418.00-9474.00, Not logged interval, **CORE 5**, 12552.00-12582.00, Not logged interval. | ISF-BHC, FDC-CNL-MSFL, ISF-BHC, FDC-CNL, MLL-ML, DLL, BHC, RFT, SWS, CBL |
| 211/13-10 | 211/13-10 | 211/13A- 10 | APPRAISAL | **CORE 1**, 11068.00-11159.00, Kimmeridge Clay Fm, **CORE 2**, 11159.00-11250.00, Kimmeridge Clay Fm, **CORE 3**, 11250.00-11313.00, Kimmeridge Clay Fm, **CORE 4**, 11313.00-11405.00, Kimmeridge Clay Fm, **CORE 5**, 11405.00-11495.00, Kimmeridge Clay Fm. | DIL-BHC-GR, DITE-SDT-LDT-CNL-GR, LWD-RES-GR-12.25, OBDT, SDT-LDT-CNL-GR, RFT, SWS |
| 211/13-2 | 211/13-2 | 211/13- 2 | EXPLORATION | **CORE 1**, 11339.00-11355.00, Not logged interval, **CORE 2**, 11705.00- 11728.00, Not logged interval, **CORE 3**, 11728.00-11788.00, Not logged interval | ISF-BHC, BHC, FDC-CNL, ISF, FDC-CNL-MSFL, DLL, FDC-MSFL, FDC-GR, HDT, MLL-ML, HDT, RFT, SWS |
| 211/13-3 | 211/13-3 | 211/13- 3 | EXPLORATION | **CORE 1**, 11256.00-11274.00, Kimmeridge Clay Fm, **CORE 2**, 11277.00-11298.00, Kimmeridge Clay Fm, **CORE 3**, 11298.00-11358.00, Kimmeridge Clay Fm, **CORE 4**, 11358.00-11418.00, Kimmeridge Clay Fm, **CORE 5**, 11421.00-11471.00, Kimmeridge Clay Fm, **CORE 6**, 12329.00-12366.00, Cormorant Fm | ISF-BHC, FDC-GR, FDC-CNT, DLL-MSFL, MLL-ML, BHC, RFT, SWS, CBL |
| 211/13-4 | 211/13-4 | 211/13- 4 | EXPLORATION | **CORE 1**, 11300.00-11340.00, Not logged interval. | ISF-BHC-GR, FDC-CNL-GR, ISF-BHC-GR, HDT-F2, RFT, SWS, MUDLOG |
| 211/13-5 | 211/13-5 | 211/13- 5J | EXPLORATION | Not cored |  |
| 211/13-5A | 211/13-5A | 211/13- 5A | EXPLORATION | **CORE 1**, 11840-11872, **CORE 2**, 11872-11894 | DLL-MSFL, FDC-CNL, ISF-BHC, MLL-ML, HDT, RFT, SWS, CBL |
| 211/13-6 | 211/13-6 | 211/13- 6 | EXPLORATION | **CORE 1**, 11265.00-11295.00, Etive/Rannoch Fm, **CORE 2**, 11295.00-11356.00, Rannoch Fm, **CORE 3**, 11356.00-11394.50, Rannoch/Broom Fm, **CORE 4**, 11930.00-11990.00, Eiriksson Mb/Cormorant Fm | DLL, DLL-MSFL-GR, FDC-CNL-GR, ISF-BHC-GR, MLL-ML, RFT, SWS, CBL |
| 211/13A-9 | 211/13A-9 | 211/13a- 9 | APPRAISAL | **CORE 1**, 11725.00-11786.00, Not logged interval, **CORE 2**, 11786.00-11828.00, Not logged interval, **CORE 3**, 11828.00-11888.00, Not logged interval, **CORE 4**, 11888.00-11929.60, Not logged interval, **CORE 5**, 11929.60-11931.00, Not logged interval, **CORE 6**, 11934.50-11995.00, Not logged interval, **CORE 7**, 11995.00-12055.00, Not logged interval, **CORE 8**, 12055.00-12087.00, Not logged interval | ISF-BHC-GR, BHC-GR-CALI, ISF-BHC-GR-CALI, MWD-8.5, ACBL-VDL |
| 211/13A-9 | 211/13A-9S1 | 211/13a- 9Z | EXPLORATION | **CORE 8**, 12055.00-12087.00, Kimmeridge Clay Fm | DLL-MSFL-LDL-CNL-GR, FMS-SHDT-QSST, DLL-MSFL-LDL-CNL-GR, RFT |
| 211/14-1 | 211/14-1 | 211/14- 1J | EXPLORATION | No core data | ISF-BHC-GR-CALI |
| 211/14-1 | 211/14-1S1 | 211/14- 1 | EXPLORATION | **CORE 1**, 11152.00-11211.00, Not logged interval, **CORE 2**, 11211.00-11242.00, Not logged interval, **CORE 3**, 11242.00-11262.00, Not logged interval, **CORE 4**, 11262.00-11344.50, Not logged interval, **CORE 5**, 11344.50-11390.00, Not logged interval | ISF-BHC-GR, GR IN CASING, LDL-CNL, DLL-MSFL-GR, LDL-CNL, MWD-8.5, RFT, SWS |
| 211/14-1 | 211/14-1S2 | 211/14- 1Z | EXPLORATION |  | BHC, DLL-MSFL-GR, LDL-CNL, SHDT, RFT, SWS, CBL-CCL |
| 211/14-2 | 211/14-2 | 211/14- 2 | APPRAISAL | **CORE 1,** 11185-11186, **CORE 2,** 11260-11322, **CORE 3,** 11322-11400, **CORE 4** 11400-11478, **CORE 5** 11734-11785 | ISF-BHC-GR-CALI, MWD-8.375 |
| 211/14-2 | 211/14-2S1 | 211/14- 2Z | APPRAISAL | **CORE 1**, 11185.00-11186.00, Kimmeridge Clay Fm, **CORE 2**, 11260.00-11322.00, Heather/Tarbert/Etive Fm, **CORE 3**, 11322.00-11400.00, Etive/Rannoch Fm, **CORE 4**, 11400.00-11478.00, Rannoch/Broom Fm, **CORE 5**, 11734.00-11785.00, Amundsen/Statfjord Fm | LSS-GR, DLL-MSFL-LDL-CNL-GR, RFT, CBL-VDL |
| 211/14-3 | 211/14-3 | 211/14- 3 | APPRAISAL | **CORE 1**, 11327.00-11386.40, Not logged interval, **CORE 2**, 11403.00-11446.00, Not logged interval, **CORE 3**, 11446.00-11467.00, Not logged interval, **CORE 4**, 11467.00-11558.00, Not logged interval, **CORE 5**, 11558.00-11636.00, Not logged interval, **CORE 6**, 11957.00-12049.00, Not logged interval, **CORE 7**, 12049.00-12140.00, Not logged interval, **CORE 8**, 12140.00-12231.70, Not logged interval | DITE-BHC-LDL-CNL, MWD-8.375, OBDT-GR, GR-CCL MAIN, GR-CCL REPEAT, PSP, RFT, SEIS-CAL |
| 211/14-3 | 211/14-3S1 | 211/14- 3Z | APPRAISAL | **CORE 1**, 11981.00-12072.00, Kimmeridge Clay/Heather Fm, **CORE 2**, 12072.00-12164.00, Heather/Tarbert/Etive/Rannoch Fm, **CORE 3**, 12164.00-12197.00, Rannoch Fm, **CORE 4**, 12197.00-12244.00, Rannoch Fm, **CORE 5**, 12244.00-12329.30, Rannoch/Broom Fm, **CORE 6**, 12696.00-12786.00, Statfjord/Cormorant Fm | CDL-CN-GR, DLL-AC-GR, MLL-GR, MWD-8.5, MWD-17.5, RFT, SWS |
| 211/14-4 | 211/14-4 | 211/14- 4 | APPRAISAL | **CORE 1**, 11489-11495, **CORE 2**, 11495-11581, **CORE 3**, 11584-11643, **CORE 4**, 11644-11691, **CORE 5**, 12049-12094 | MWD-26, ACBL-VDL |
| 211/14-4 | 211/14-4RE | 211/14- 4 R01 | APPRAISAL | **CORE 1**, 11489.00-11581.00, Tarbert/Etive/Rannoch Fm, **CORE 2**, 11584.50-11643.30, Rannoch Fm, **CORE 3**, 11644.00-11691.20, Rannoch/Broom Fm, **CORE 4**, 12049.00-12093.80, Statfjord/Cormorant Fm | CDL-CN-GR, GR TO SURFACE, DLL-BHC-MLL-GR, DIPLOG, MWD-8.375, FMT GR CORRELATION, FMT, SWS |
| PENG A01 PILOT | PENG A01 PILOT | 211/13A- 12J | PILOT | No core data |  |
| PENG A01 | PGA01 | 211/13a- 12 | DEVELOPMENT | No core data | LWD-12.25, LWD-8.5, MUDLOG, PLT |
| PENG A02 | PGA02 | 211/13a- 14 | DEVELOPMENT | No core data | LWD-12.25, LWD-8.5, MWD-36-17.5, MUDLOG |
| PENG C01 | PGC01 | 211/13a- 13 | DEVELOPMENT | No core data | LWD-12.25, MUDLOG, MWD-17, MWD-26, MWD-36 |
| PENG C01 | PGC01S1 | 211/13a- 13Z | DEVELOPMENT | No core data | LWD-8.5 |
| PENG C01 | PGC01S2 | 211/13a- 13Y | DEVELOPMENT | No core data | LWD-ADN-CDR-8.5, LWD-DGR-EWR-8.5, MUDLOG, PLT |
| PENG C02 | PGC02 | 211/14- 6 | DEVELOPMENT | No core data | MUDLOG, MWD-36-17.5, LWD-CDR-12.25, LWD-CDR-ADN-8.5, PLT |
| PENG C03 | PGC03 | 211/13a- 15 | DEVELOPMENT | No core data | MWD-36-12.25, LWD-8.5, MUDLOG, CBL-VDL |
| PENG C03 | PGC03S1 | 211/13a- 15Z | DEVELOPMENT | No core data |  |
| PENG C03 | PGC03S2 | 211/13a- 15Y | DEVELOPMENT | No core data |  |
| PENG C03 | PGC03S3 | 211/13a- 15X | DEVELOPMENT | No core data | MWD-8.5, MUDLOG, FSI |
| PENG D01 | PGD01 | 211/14- 5 | DEVELOPMENT | No core data | LWD-12.25, MWD-36-17.5, MUDLOG, LWD-8.5, ADN DIPMETER, PMIT-B |
| PENG D02 | PGD02 | 211/14- 8 | DEVELOPMENT | No core data | LWD-12.25, LWD-8.5, LWD-17.5, MUDLOG |
| PENG D03 | PGD03 | 211/14- 9 | DEVELOPMENT | No core data | MWD-36-12.25, LWD-ARC-ADN-8.5, LWD-ARC-ADN-6, PWD , MUDLOG |
| PENG E01 | PGE01 | 211/14- 7 | DEVELOPMENT | No core data | MUDLOG, MWD-36, LWD-12.25, LWD-8.5, MWD-26, MWD-17.5, PSP, PFCS\_GHOST\_CPS\_PBMS\_ERS |