DEPLOYMENT LOG for IceCube STRING # 59

Deployment Start: at ~~8:54~~ 9:38 AM on Wednesday January 26, 2006

Deployment End: at 8:39 PM on Wednesday 26 JAN

Target depth (DOM60): **2450** m   Final depth: 2449.33

Deployment Crew

Position	First Shift	Second Shift	Third Shift
Shift lead	Tom Ham	Gary Hill	
DOM install 1 (high)	Andreas		
DOM install 2 (low)	Karthik		
DOM supply 1 / DOM install 3	Mark		
DOM supply 2 / floater	Timo		
Winch operator (cable & tower)	Daren	Dan Wharton	
Notary (logbook & photos)	Tom Pi	John Jacobsen	
PTS (monitoring / sensors)	Andres	Ignacio Taboada	
Support (optional)	Michael Kloist	Stephan Hundertmark Patrik	
Time shift on:	6:30 am	6:00 pm	
Time shift off:	6:30 pm		

Summary/Comments:
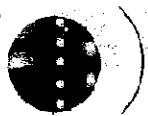
Hole Handover

☑ Drill data reviewed

    ☑ maximum drift in x: ~1m   ☐ plot

    ☑ maximum drift in y: ~1m   ☐ plot

    ☑ maximum depth: 2520

    ☑ minimum radius: ~60 cm   ☐ plot

    ☑ plot of predicted radius vs depth and time

☑ Hole dimensions verified   Time: 9:06 AM

Drill Lead: _____
                     name / signature / date

Deployment Lead: _____
                         name / signature / date

☑ Handover complete

Hole Logging
(skip if not applicable)

☐ Logger drop started   Time:_____   Speed:_____
☐ Logging started   Time:_____   Speed:_____
☐ Logging ended   Time:_____

☐ Estimated hole lifetime:_____

▶ Must reach target depth by _____ on _____

Deployment Startup

Time: _8:59AM_

☑ Cable winch anchored and ☑ operational
☑ Tower winch operational
☑ Tie off verified
☑ Yellow rope verified

☑ Deployment monitoring system (PTS) operational ☑ DDB# _1_
☑ Pressure sensors on hand: Paro(s) and Keller
☑ Laser ranger, tape measure (metric) on hand

☑ Loopback terminators connected (inside cable reel drum)

☑ Uphole pressure system on hand: Setra sensor and cable

☑ DOMs placed in racks
☑ Weight stack on hand: weights (5) and 2 m cable

Safety checks complete (☐ 1st shift ☐ 2nd shift)
☑ ☐ Crew safety briefing
☑ ☐ E-stop locations identified
☑ ☐ TOS evacuation procedures reviewed
☑ ☐ Mustering point identified
☑ ☐ Snow mobile driver(s): _Tom, Mark, Timo_
☑ ☐ CPR trained: _Tom, Mark, Kerthib, Mike_
☐ ☐ Food runners: _____

call galley at 65521
☑ End of Main Cable brought into TOS and secured

Cable end attachments

☑ Measure well depth: _51.3 m_
☑ Weights (5) attached
☑ Weight cable attached (weight stack complete)   Time:_____

Photos: DOM ids (☐ long ☑ short); connectors (☐ long ☐ short)

DOM position 60

(T, Long)   Cable mark: _____∅_____

DOM id: ☑ TP5P0783
☐ _____
Reason for substitution:

☑ Bottom shackle connected to weight stack
☐ Top clutch connected at link # _____
☐ Bow OK → ☐ clutch zip tied
☐ Cable end taped to weight stack cable
Photos: ☐ chain with clutch ☐ phi orientation ☑ whole view

Payout: _____

DOM position 59

(U, Short)   Cable mark: _15.8 M_

DOM id: ☑ UP5P0800
☐ _____
Reason for substitution:

☐ Bottom shackle connected
☐ Top clutch connected at link # _____
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ chain with clutch ☐ phi orientation ☐ whole view

Δ(59-60): _17M_
(use laser ranger)

Breakout 30

Time: ~~#~~

☑ Cable/LC continuity test complete (Q16)
   ☐ all pass
   ☑ fail: _____∅_____
- LongDOM
   ☐ connector discharged (ESD)
   ☐ connector O-ring in place and ☐ lubed
   ☐ breakout O-ring in place and ☐ lubed
   ☐ connected
- ShortDOM
   ☐ connector discharged (ESD)
   ☐ connector O-ring in place and ☐ lubed
   ☐ breakout O-ring in place and ☐ lubed
   ☐ connected
☐ Loose pigtails taped to cable

Depth:

Payout _____

Paro: (= Paro2)   ☐ Connected   ☐ Operational   ☐ Air pressure [PSI]:_____
Ser.#: _9810̸5_   ☐ Cable mark:_____   ☐ Distance to DOM59: _1.1M_
Nipple ☐ on ☐ off

☐ All clear to lower cable ☺

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Photos: DOM ids (☑ long ☐ short); connectors (☑ long ☐ short)

DOM position 58

(T, Long)   Cable mark: _32M_

DOM id: ☑ TP5P0803

☐ _____
Reason for substitution:

☑ Bottom shackle connected
☑ Top clutch connected at link # _18_   Δ(58-59): _16.9_
☑ Bow OK → ☑ clutch zip tied
Photos: ☑ chain with clutch ☐ phi orientation ☑ whole view

DOM position 57

(U, Short)   Cable mark: _____

DOM id: ☑ UP5P0812

☐ _____
Reason for substitution:

☑ Bottom shackle connected
☑ Top clutch connected at link # _____   Δ(57-58): _16.9_
☐ Bow OK → ☑ clutch zip tied
Photos: ☑ chain with clutch ☐ phi orientation ☐ whole view

Breakout 29

Time:

☑ Cable/LC continuity test complete (Q16)   Now _10:31_
☐ all pass   Last b/o _____
☑ fail: _____   Δt [min] _____
- LongDOM   Depth:
    ☐ connector discharged (ESD)   Paro2 _____
    ☐ connector O-ring in place and ☐ lubed   Payout _____
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected
- ShortDOM
    ☐ connector discharged (ESD)
    ☐ connector O-ring in place and ☐ lubed
    ☐ breakout O-ring in place and ☐ lubed
    ☐ connected
☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 56   DOM id: ☑ TP5Y0131

(T, Long)   Cable mark: _6M_   ☐ _____

Reason for substitution:

☑ Bottom shackle connected
☑ Top clutch connected at link # _____   Δ(56-57): _16.8_
☐ Bow OK → ☐ clutch zip tied
Photos: ☑ chain with clutch ☑ phi orientation ☐ whole view

DOM position 55   DOM id: ☑ UP5Y0128

(U, Short)   Cable mark: _83M_   ☐ _____

Reason for substitution:

☑ Bottom shackle connected
☑ Top clutch connected at link # _____   Δ(55-56): _16.9_
☑ Bow OK → ☐ clutch zip tied
Photos: ☑ chain with clutch ☑ phi orientation ☑ whole view

Breakout 28   Time:

☑ Cable/LC continuity test complete (Q15)   Now _11:15_
   ☐ all pass   Last b/o _____
   ☑ fail: _____   Δt [min] _____
- LongDOM   Depth:
   ☐ connector discharged (ESD)   Paro2 _____
   ☐ connector O-ring in place and ☐ lubed   Payout _____
   ☐ breakout O-ring in place and ☐ lubed
   ☐ connected
- ShortDOM
   ☐ connector discharged (ESD)
   ☐ connector O-ring in place and ☐ lubed
   ☐ breakout O-ring in place and ☐ lubed
   ☐ connected
☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☑ long ☑ short); connectors (☑ long ☑ short)

DOM position 54

(T, Long)   Cable mark: _10(M_

DOM id: ☑ TP5P0867

☐ _____

Reason for substitution:

☑ Bottom shackle connected
☑ Top clutch connected at link # _____   Δ(54-55): _16·9M_
☐ Bow OK → ☐ clutch zip tied
Photos: ☑ chain with clutch ☑ phi orientation ☑ whole view

DOM position 53

(U, Short)   Cable mark: _117M_

DOM id: ☑ UP5P1008

☐ _____

Reason for substitution:

☑ Bottom shackle connected
☑ Top clutch connected at link # _18_   Δ(53-54): _16.9_
☑ Bow OK → ☑ clutch zip tied
Photos: ☑ chain with clutch ☑ phi orientation ☑ whole view

Breakout 27

                                                Time:

☐ Cable/LC continuity test complete (Q15)   Now _11:42_
     ☐ all pass   Last b/o _____
     ☐ fail: _____   Δt [min] _____
- LongDOM   Depth:
     ☐ connector discharged (ESD)   Paro2 _____
     ☐ connector O-ring in place and ☐ lubed   Payout _____
     ☐ breakout O-ring in place and ☐ lubed
     ☐ connected
- ShortDOM
     ☐ connector discharged (ESD)
     ☐ connector O-ring in place and ☐ lubed
     ☐ breakout O-ring in place and ☐ lubed
     ☐ connected
☐ Loose pigtails taped to cable

Break for lunch @ 11:58

☐ All clear to lower cable ☺

Photos: DOM ids (☑ long ☐ short); connectors (☑ long ☐ short)

DOM position 52

(T, Long)   Cable mark: _134.5m_   DOM id: ☑ TP5H0199

☐ _____

Reason for substitution:

☐ Bottom shackle connected
☐ Top clutch connected at link # _18_   Δ(52-53): _16.9_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ chain with clutch ☐ phi orientation ☐ whole view

DOM position 51

(U, Short)   Cable mark: _151m_   DOM id: ☑ UP5H0174

☐ _____

Reason for substitution:

☐ Bottom shackle connected
☐ Top clutch connected at link # _18_   Δ(51-52): _16.9_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ chain with clutch ☐ phi orientation ☐ whole view

Breakout 26

Time:

☑ Cable/LC continuity test complete (Q14)   Now _____
     ☐ all pass   Last b/o _____
     ☑ fail: _____   Δt [min] _____
- LongDOM   Depth:
     ☐ connector discharged (ESD)   Paro2 _____
     ☐ connector O-ring in place and ☐ lubed   Payout _____
     ☐ breakout O-ring in place and ☐ lubed
     ☐ connected
- ShortDOM
     ☐ connector discharged (ESD)
     ☐ connector O-ring in place and ☐ lubed
     ☐ breakout O-ring in place and ☐ lubed
     ☐ connected
☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 50

(T, Long)   Cable mark: _16PM_   DOM id: ☑ TP5P0947

☐ _____

Reason for substitution:

☐ Bottom shackle connected
☐ Top clutch connected at link # _18_   Δ(50-51): _16.9_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ chain with clutch ☐ phi orientation ☐ whole view
☐ Curved distance around DOM: _____   ☐ Vertical distance: _____

DOM position 49

(U, Short)   Cable mark: _18)M_   DOM id: ☑ UP5P1028

☐ _____

Reason for substitution:

☐ Bottom shackle connected
☐ Top clutch connected at link # _18_   Δ(49-50): _16.9_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ chain with clutch ☐ phi orientation ☐ whole view
☐ Curved distance around DOM: _____   ☐ Vertical distance: _____

Breakout 25

Time:

☐ Cable/LC continuity test complete (Q14)   Now _12:31_
   ☐ all pass   Last b/o _____
   ☐ fail: _____   Δt [min] _____
- LongDOM   Depth:
   ☐ connector discharged (ESD)   Paro2 _149.1_
   ☐ connector O-ring in place and ☐ lubed   Payout _____
   ☐ breakout O-ring in place and ☐ lubed
   ☐ connected
- ShortDOM
   ☐ connector discharged (ESD)
   ☐ connector O-ring in place and ☐ lubed
   ☐ breakout O-ring in place and ☐ lubed
   ☐ connected
☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 48

(T, Long)   Cable mark: _*2οιΜ*_   DOM id: ☑ TP5P0945
                                                 ☐ _____
                                                 Reason for substitution:

☐ Bottom shackle connected
☐ Top clutch connected at link # _*18*_   Δ(48-49): _*16.9*_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ chain with clutch ☐ phi orientation ☐ whole view

DOM position 47

(U, Short)   Cable mark: _*219.4Μ*_   DOM id: ☑ UP5P1022
                                                 ☐ _____
                                                 Reason for substitution:

☐ Bottom shackle connected
☐ Top clutch connected at link # _*18*_   Δ(47-48): _*16.9*_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ chain with clutch ☐ phi orientation ☐ whole view

Breakout 24

                                                          Time:

☐ Cable/LC continuity test complete (Q13)   Now _*12:40*_
   ☐ all pass   Last b/o _____
   ☐ fail: _____   Δt [min]_____
- LongDOM
   ☐ connector discharged (ESD)   Depth:
   ☐ connector O-ring in place and ☐ lubed   Paro2 _*202.3*_
   ☐ breakout O-ring in place and ☐ lubed   Payout _____
   ☐ connected
- ShortDOM
   ☐ connector discharged (ESD)
   ☐ connector O-ring in place and ☐ lubed
   ☐ breakout O-ring in place and ☐ lubed
   ☐ connected
☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 46

(T, Long)   Cable mark: _236.3_   DOM id: ☑ TP5Y0103

☐ _____

Reason for substitution:

☐ Bottom shackle connected
☐ Top clutch connected at link # _18_   Δ(46-47): _16.9_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ chain with clutch ☐ phi orientation ☐ whole view

DOM position 45

(U, Short)   Cable mark: _253.5_   DOM id: ☑ UP5Y0084

☐ _____

Reason for substitution:

☐ Bottom shackle connected
☐ Top clutch connected at link # _18_   Δ(45-46): _16.9_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ chain with clutch ☐ phi orientation ☐ whole view

Breakout 23

Time:

☐ Cable/LC continuity test complete (Q13)   Now _12:54_
  ☐ all pass   Last b/o _____
  ☐ fail: _____   Δt [min] _____
- LongDOM   Depth:
  ☐ connector discharged (ESD)   Paro2 _237.6M_
  ☐ connector O-ring in place and ☐ lubed   Payout _____
  ☐ breakout O-ring in place and ☐ lubed
  ☐ connected
- ShortDOM
  ☐ connector discharged (ESD)
  ☐ connector O-ring in place and ☐ lubed
  ☐ breakout O-ring in place and ☐ lubed   read for
  ☐ connected   DoM 46
☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 44

(T, Long)   Cable mark: _270.4_   DOM id: ☑ TP5P0931
                                                ☐ _____
                                                Reason for substitution:

☐ Bottom shackle connected
☐ Top clutch connected at link # _~~18~~ 20_   Δ(44-45): _16-9_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ chain with clutch ☐ phi orientation ☐ whole view

DOM position 43

(U, Short)   Cable mark: _287.3_   DOM id: ☑ UP5P1010
                                                ☐ _____
                                                Reason for substitution:

☐ Bottom shackle connected
☐ Top clutch connected at link # _18_   Δ(43-44): _16.9_
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ chain with clutch ☐ phi orientation ☐ whole view

Breakout 22   Time:

☐ Cable/LC continuity test complete (Q12)   Now _1·07_
   ☐ all pass   Last b/o _____
   ☐ fail: _____   Δt [min] _____
- LongDOM   Depth:
   ☐ connector discharged (ESD)   Paro2 _288.17_
   ☐ connector O-ring in place and ☐ lubed   Payout _____
   ☐ breakout O-ring in place and ☐ lubed
   ☐ connected
- ShortDOM
   ☐ connector discharged (ESD)
   ☐ connector O-ring in place and ☐ lubed
   ☐ breakout O-ring in place and ☐ lubed
   ☐ connected
☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (☐ long ☐ short); connectors (☐ long ☐ short)

DOM position 42

(T, Long)   Cable mark:_____

DOM id: ☑ TP5Y0225

☐ _____

Reason for substitution:

☐ Bottom shackle connected
☐ Top clutch connected at link #___18___   Δ(42-43):___17.0___
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ chain with clutch ☐ phi orientation ☐ whole view

DOM position 41

(U, Short)   Cable mark:_321.5_

DOM id: ☑ UP5Y0204

☐ _____

Reason for substitution:

☐ Bottom shackle connected
☐ Top clutch connected at link #___18___   Δ(41-42):___16.9___
☐ Bow OK → ☐ clutch zip tied
Photos: ☐ chain with clutch ☐ phi orientation ☐ whole view

Breakout 21

Time:

☐ Cable/LC continuity test complete (Q12)   Now___1:19___
   ☐ all pass   Last b/o_____
   ☐ fail: _____   Δt [min]_____
- LongDOM
   ☐ connector discharged (ESD)   Depth:
   ☐ connector O-ring in place and ☐ lubed   Paro2 _323.33_
   ☐ breakout O-ring in place and ☐ lubed   Payout _____
   ☐ connected
- ShortDOM
   ☐ connector discharged (ESD)
   ☐ connector O-ring in place and ☐ lubed
   ☐ breakout O-ring in place and ☐ lubed
   ☐ connected
☐ Loose pigtails taped to cable

☐ All clear to lower cable ☺

Photos: DOM ids (long short); connectors (long short)

DOM position 40

(T, Long)   Cable mark: _3380∘3_   DOM id: TP5H0233

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link #___18___   Δ(40-41): _16.9_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

DOM position 39

(U, Short)   Cable mark: _355.2_   DOM id: UP5H0184

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link #___18___   Δ(39-40): _16.9_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

Breakout 20   Time:

Cable/LC continuity test complete   (Q11)   Now _1:30_
    all pass   Last b/o _____
    fail: _____   Δt [min] _____
- LongDOM   Depth:
    connector discharged (ESD)   Paro2 _357.06_
    connector O-ring in place and lubed   Payout _____
    breakout O-ring in place and lubed
    connected
- ShortDOM
    connector discharged (ESD)
    connector O-ring in place and lubed
    breakout O-ring in place and lubed
    connected
Loose pigtails taped to cable

Photos: DOM ids (long short); connectors (long short)

DOM position 38

(T, Long)   Cable mark: _372.2_   DOM id: TP5P0521

Reason for substitution:

Bottom shackle connected
Top clutch connected at link # _18_   Δ(38-39): _17.0_
Bow OK → clutch zip tied
Photos: chain with clutch   phi orientation   whole view

DOM position 37

(U, Short)   Cable mark: _389.2_   DOM id: UP5P0538

Reason for substitution:

Bottom shackle connected
Top clutch connected at link # _18_   Δ(37-38): _17.0_
Bow OK → clutch zip tied
Photos: chain with clutch   phi orientation   whole view

Breakout 19   Time:

Cable/LC continuity test complete   (Q11)   Now _1:43_
    all pass   Last b/o _____
    fail: _____   Δt [min] _____
- LongDOM   Depth:
    connector discharged (ESD)   Paro2 _391.6_
    connector O-ring in place and lubed   Payout _____
    breakout O-ring in place and lubed
    connected
- ShortDOM
    connector discharged (ESD)
    connector O-ring in place and lubed
    breakout O-ring in place and lubed
    connected
  Loose pigtails taped to cable

All clear to lower cable ☺

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Photos: DOM ids (long short); connectors (long short)

DOM position 36

(T, Long)   Cable mark: _406.2_   DOM id: TP5P0823

_____
Reason for substitution:

Bottom shackle connected
Top clutch connected at link # __18__   Δ(36-37): __16.9__
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

DOM position 35

(U, Short)   Cable mark: _423.2_   DOM id: UP5P0910

_____
Reason for substitution:

Bottom shackle connected
Top clutch connected at link # __18__   Δ(35-36): __16.9__
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

Breakout 18

                                                            Time:

Cable/LC continuity test complete   (Q10)   Now __1:54__
     all pass   Last b/o _____
     fail: _____   Δt [min]_____
- LongDOM   Depth:
     connector discharged (ESD)   Paro2 __425.63__
     connector O-ring in place and lubed   Payout _____
     breakout O-ring in place and lubed
     connected
- ShortDOM
     connector discharged (ESD)
     connector O-ring in place and lubed
     breakout O-ring in place and lubed
     connected
Loose pigtails taped to cable

Put two Kellers (one is for backup) in bucket of water/ice mix

All clear to lower cable ☺

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Photos: DOM ids (long short); connectors (long short) ✓ *TP 4P0241*

DOM position 34   DOM id: ~~TP5Y0077~~

(T, Long)   Cable mark: *440.3*

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # *18*   Δ(34-35): *16.9*
Bow OK → clutch zip tied
Photos: chain with clutch   phi orientation   whole view
took photo of crazed DOM TP5Y0077 ✓

DOM position 33   DOM id: UP5Y0072

(U, Short)   Cable mark: *457.1*

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # *18*   Δ(33-34): *16.9*
Bow OK → clutch zip tied
Photos: chain with clutch   phi orientation   whole view

Breakout 17   Time:

Cable/LC continuity test complete   (Q10)   Now *2:10*
    all pass   Last b/o _____
    fail: _____   Δt [min] _____
- LongDOM   Depth:
    connector discharged (ESD)
    connector O-ring in place and lubed   Paro2
    breakout O-ring in place and lubed   Payout ~~45~~ *460.43*
    connected
- ShortDOM
    connector discharged (ESD)
    connector O-ring in place and lubed
    breakout O-ring in place and lubed
    connected
Loose pigtails taped to cable

Photos: DOM ids (long short); connectors (long short)

DOM position 32
(T, Long)   Cable mark: _474.2_   DOM id: TP5P0741

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # __18__   Δ(32-33): _16.9_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

photo taken of exposed copper on cable

DOM position 31
(U, Short)   Cable mark: _491.2_   DOM id: UP5P0878

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # __18__   Δ(31-32): _17.0_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

Breakout 16
                                             Time:

Cable/LC continuity test complete   (Q9)   Now _2:21_
     all pass   Last b/o _____
     fail: _____   Δt [min] _____
- LongDOM   Depth:
     connector discharged (ESD)   Paro2 _494.67_
     connector O-ring in place and lubed   Payout _____
     breakout O-ring in place and lubed
     connected
- ShortDOM
     connector discharged (ESD)
     connector O-ring in place and lubed
     breakout O-ring in place and lubed
     connected
Loose pigtails taped to cable

Note: ℓ surface to DOM cable poorly wound.

Photos: DOM ids (long short); connectors (long short)

DOM position 30

(T, Long)   Cable mark: _508.1_   DOM id: TP5P0511

_____

Reason for substitution:

Bottom shackle connected
Top clutch connected at link # ___18___   Δ(30-31): _16.9_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

DOM position 29

(U, Short)   Cable mark: _525.1_   DOM id: UP4Y0032

_____

Reason for substitution:

Bottom shackle connected
Top clutch connected at link # _18_   Δ(29-30): _17.0_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

Breakout 15   Time:

Cable/LC continuity test complete   (Q9)   Now _____
     all pass   Last b/o _____
     fail: _____   Δt [min] _____
- LongDOM   Depth:
     connector discharged (ESD)   Paro2 _529.09_
     connector O-ring in place and lubed   Payout _____
     breakout O-ring in place and lubed
     connected
- ShortDOM
     connector discharged (ESD)
     connector O-ring in place and lubed
     breakout O-ring in place and lubed
     connected
Loose pigtails taped to cable

Thermistor: Present   Distance to DOM29: _____
Keller: ~~_____~~   Connected   Operational   Air pressure [PSI]: _____
Ser.#: ~~_____~~   Cable mark: _____   Distance to DOM29: _1.56 M_
     _0504001_
All clear to lower cable ☺

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Photos: DOM ids (long short); connectors (long short)

DOM position 28

(T, Long)   Cable mark: _542_   DOM id: TP5P0699

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # _18_   Δ(28-29): _16.9_
Bow OK → clutch zip tied
Photos: chain with clutch   phi orientation   whole view

DOM position 27

(U, Short)   Cable mark: _559_   DOM id: UP5P0856

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # _18_   Δ(27-28): _16.9_
Bow OK → clutch zip tied
Photos: chain with clutch   phi orientation   whole view

Breakout 14   Time:

Cable/LC continuity test complete   (Q8)   Now _2:54_
    all pass   Last b/o _____
    fail: _____   Δt [min] _____
- LongDOM   Depth:
    connector discharged (ESD)   Paro2 _____
    connector O-ring in place and lubed   Keller _____
    breakout O-ring in place and lubed   Payout _563.38_
    connected
- ShortDOM
    connector discharged (ESD)
    connector O-ring in place and lubed
    breakout O-ring in place and lubed
    connected
Loose pigtails taped to cable

All clear to lower cable ☺

Photos: DOM ids (long short); connectors (long short)

DOM position 26

(T, Long)   Cable mark: _576_   DOM id: TP5P0809

Reason for substitution:

Bottom shackle connected
Top clutch connected at link # _19_   Δ(26-27): _17.0_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

note: DOM struck side of holeguide on descent

DOM position 25

(U, Short)   Cable mark: _593_   DOM id: UP5P0868

Reason for substitution:

Bottom shackle connected
Top clutch connected at link # _19_   Δ(25-26): _17.0_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

Breakout 13

                             Time:

Cable/LC continuity test complete   (Q8)   Now _3·06_
   all pass   Last b/o _____
   fail: _____   Δt [min]_____
- LongDOM   Depth:
   connector discharged (ESD)   Paro2 _597.58_
   connector O-ring in place and lubed   Keller_____
   breakout O-ring in place and lubed   Payout_____
   connected
- ShortDOM
   connector discharged (ESD)
   connector O-ring in place and lubed
   breakout O-ring in place and lubed
   connected
Loose pigtails taped to cable

Photos: DOM ids (long short); connectors (long short)

DOM position 24

(T, Long)   Cable mark: _6/0_   DOM id: TP5Y0197

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # _/9_   Δ(24-25): _17.0_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

DOM position 23

(U, Short)   Cable mark: _627_   DOM id: UP5Y0196

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # _19_   Δ(23-24): _16.9_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

Breakout 12   Time:

Cable/LC continuity test complete   (Q7)   Now _3:19_
   all pass   Last b/o _____
   fail: _____   Δt [min] _____
- LongDOM   Depth:
   connector discharged (ESD)   Paro2 _631.97_
   connector O-ring in place and lubed   Keller _605.02_
   breakout O-ring in place and lubed   Payout _____
   connected
- ShortDOM
   connector discharged (ESD)
   connector O-ring in place and lubed
   breakout O-ring in place and lubed
   connected
Loose pigtails taped to cable

Photos: DOM ids (long short); connectors (long short)   ✓

DOM position 22   DOM id: TP5H0239

(T, Long)   Cable mark: _6 44_
                                                    _____
                                          Reason for substitution:

Bottom shackle connected
Top clutch connected at link # _19_   Δ(22-23): _16.9_
Bow OK → clutch zip tied
Photos: chain with clutch   phi orientation   whole view

DOM position 21   DOM id: ✓UP5H0198

(U, Short)   Cable mark: _66.1_
                                                    _____
                                          Reason for substitution:

Bottom shackle connected
Top clutch connected at link # _19_   Δ(21-22): _16.9_
Bow OK → clutch zip tied
Photos: chain with clutch   phi orientation   whole view

Breakout 11   Time:

Cable/LC continuity test complete   (Q7)   Now _3:32_
    all pass   Last b/o _____
    fail: _____   Δt [min] _____
- LongDOM   Depth:
    connector discharged (ESD)   Paro2 _666.37_
    connector O-ring in place and lubed   Keller _681.67_
    breakout O-ring in place and lubed   Payout _____
    connected
- ShortDOM
    connector discharged (ESD)
    connector O-ring in place and lubed
    breakout O-ring in place and lubed
    connected
Loose pigtails taped to cable

Photos: DOM ids (long short); connectors (long short)

DOM position 20

(T, Long)   Cable mark: _678_   DOM id: TP5P0781

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link #__19__   Δ(20-21): _17.0_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view
Curved distance around DOM:_____ Vertical distance:_____

DOM position 19

(U, Short)   Cable mark: _695_   DOM id: UP5P0522

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link #__19__   Δ(19-20):_16.9_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view
Curved distance around DOM:_____ Vertical distance:_____

Breakout 10

Time:

Cable/LC continuity test complete   (Q6)   Now__3:45__
   all pass   Last b/o_____
   fail:_____   Δt [min]_____
- LongDOM   Depth:
   connector discharged (ESD)   Paro2 _700.68_
   connector O-ring in place and lubed   Keller _704.39_
   breakout O-ring in place and lubed   Payout_____
   connected
- ShortDOM
   connector discharged (ESD)
   connector O-ring in place and lubed
   breakout O-ring in place and lubed
   connected
Loose pigtails taped to cable

All clear to lower cable ☺

Photos: DOM ids (long short); connectors (long short)

DOM position 18

(T, Long)   Cable mark: _7/2_

DOM id: TP5Y0175

Reason for substitution:

Bottom shackle connected
Top clutch connected at link # _19_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

Δ(18-19): _16.9_

DOM position 17

(U, Short)   Cable mark: _729_

DOM id: UP5Y0188

Reason for substitution:

Bottom shackle connected
Top clutch connected at link # _19_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

Δ(17-18): _17_

Breakout 9

Time:

Cable/LC continuity test complete   (Q6)
    all pass
    fail: _____

Now _3:55_
Last b/o _____
Δt [min] _____

- LongDOM
    connector discharged (ESD)
    connector O-ring in place and lubed
    breakout O-ring in place and lubed
    connected

Depth:
Paro2 _734.83_
Keller _730.63_
Payout _____

- ShortDOM
    connector discharged (ESD)
    connector O-ring in place and lubed
    breakout O-ring in place and lubed
    connected

Loose pigtails taped to cable

Photos: DOM ids (long short); connectors (long short)

DOM position 16

(T, Long)   Cable mark: __745.9__

DOM id: TP5P0793   763

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link #__19__   Δ(16-17):__17__
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

DOM position 15

(U, Short)   Cable mark: __762.9__

DOM id: UP5P0736

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link #__19__   Δ(15-16):__17.__
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

Breakout 8

Time:

Cable/LC continuity test complete   (Q5)   Now __4:05__
     all pass   Last b/o _____
     fail: _____   Δt [min]_____

- LongDOM   Depth:
     connector discharged (ESD)   Paro2 __769.15__
     connector O-ring in place and lubed   Keller __752.98__
     breakout O-ring in place and lubed   Payout_____
     connected
- ShortDOM
     connector discharged (ESD)
     connector O-ring in place and lubed
     breakout O-ring in place and lubed
     connected
Loose pigtails taped to cable

Photos: DOM ids (long short); connectors (long short)

DOM position 14

(T, Long)   Cable mark: _779.9_   DOM id: TP5Y0145

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # _19_   Δ(14-15): _16.9_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

DOM position 13

(U, Short)   Cable mark: _796.9_   DOM id: UP5Y0152

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # _19_   Δ(13-14): _17.0_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

Breakout 7   Time:

Cable/LC continuity test complete   (Q5)   Now _4:16_
    all pass   Last b/o _____
    fail: _____   Δt [min] _____
- LongDOM   Depth:
    connector discharged (ESD)   Paro2 _803.31_
    connector O-ring in place and lubed   Keller _778.22_
    breakout O-ring in place and lubed   Payout _____
    connected
- ShortDOM
    connector discharged (ESD)
    connector O-ring in place and lubed
    breakout O-ring in place and lubed
    connected
Loose pigtails taped to cable

All clear to lower cable ☺

Photos: DOM ids (long short); connectors (long short) ✓

DOM position 12
(T, Long)   Cable mark: _813.8_   DOM id: TP5P0851

_____
Reason for substitution:

Bottom shackle connected
Top clutch connected at link # _19_   Δ(12-13): _17.0_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

DOM position 11
(U, Short)   Cable mark: _830-8_   DOM id: ✓UP5P0886

_____
Reason for substitution:

Bottom shackle connected
Top clutch connected at link # _19_   Δ(11-12): _16.9_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

Breakout 6   Time:

Cable/LC continuity test complete   (Q4)   Now _4:27_
   all pass   Last b/o _____
   fail: _____   Δt [min] _____
- LongDOM   Depth:
   connector discharged (ESD)   Paro2 _837-53_
   connector O-ring in place and lubed   Keller _830-36_
   breakout O-ring in place and lubed   Payout _____
   connected
- ShortDOM
   connector discharged (ESD)
   connector O-ring in place and lubed
   breakout O-ring in place and lubed
   connected
Loose pigtails taped to cable

Photos: DOM ids (long short); connectors (long short)

DOM position 10   DOM id: TP5Y0173
(T, Long)   Cable mark: _847.8_
                                                   _____
                                                   Reason for substitution:
Bottom shackle connected
Top clutch connected at link # _19_   Δ(10-11): _16.9_
Bow OK → clutch zip tied
 Photos: chain with clutch phi orientation whole view

DOM position 9   DOM id: UP5Y0126
(U, Short)   Cable mark: _864.7_
                                                   _____
                                                   Reason for substitution:
Bottom shackle connected
Top clutch connected at link # _19_   Δ(9-10): _16.9_
Bow OK → clutch zip tied
 Photos: chain with clutch phi orientation whole view

Breakout 5   Time:

Cable/LC continuity test complete   (Q4)   Now_ _4:38_
    all pass   Last b/o _____
    fail: _____   Δt [min] _____
- LongDOM   Depth:
    connector discharged (ESD)   Paro2 _871.90_
    connector O-ring in place and lubed   Keller _865.01_
    breakout O-ring in place and lubed   Payout _____
    connected
- ShortDOM
    connector discharged (ESD)
    connector O-ring in place and lubed
    breakout O-ring in place and lubed
    connected
Loose pigtails taped to cable

Photos: DOM ids (long short); connectors (long short)

DOM position 8

(T, Long)　　　　Cable mark: _881.7_　　　　DOM id: TP5P0881

Reason for substitution:

Bottom shackle connected
Top clutch connected at link # _19_　　　Δ(8-9): _16.9_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

DOM position 7

(U, Short)　　　　Cable mark: _898.6_　　　　DOM id: UP5P0890

Reason for substitution:

Bottom shackle connected
Top clutch connected at link # _19_　　　Δ(7-8): _17_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

Breakout 4

Time:

Cable/LC continuity test complete　(Q3)　　　Now _4:49_
　　all pass　　　　　　　　　　　　　Last b/o _____
　　fail: _____　　　　　　Δt [min] _____
- LongDOM　　　　　　　　　　　　　　　　Depth:
　　connector discharged (ESD)　　　Paro2 _905.86_
　　connector O-ring in place and lubed　Keller _899.64_
　　breakout O-ring in place and lubed　Payout _____
　　connected
- ShortDOM
　　connector discharged (ESD)
　　connector O-ring in place and lubed
　　breakout O-ring in place and lubed
　　connected
Loose pigtails taped to cable

All clear to lower cable ☺

Photos: DOM ids (long short); connectors (long short)

DOM position 6

(T, Long)   Cable mark: _915.6_   DOM id: TP5P0533

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # _19_   Δ(6-7): _16.9_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

DOM position 5

(U, Short)   Cable mark: _932.6_   DOM id: UP4Y0042

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # _19_   Δ(5-6): _17.0_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view
photo of bare wire on cable

Breakout 3

Time:

Cable/LC continuity test complete   (Q3)   Now _5.00_
     all pass   Last b/o _____
     fail: _____   Δt [min] _____

- LongDOM   Depth:
     connector discharged (ESD)   Paro2 _939.04_
     connector O-ring in place and lubed   Keller _934.27_
     breakout O-ring in place and lubed   Payout _____
     connected
- ShortDOM
     connector discharged (ESD)
     connector O-ring in place and lubed
     breakout O-ring in place and lubed
     connected
Loose pigtails taped to cable

Photos: DOM ids (long short); connectors (long short)

DOM position 4

(T, Long)   Cable mark: _949.6_

DOM id: TP5H0247

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # _19_   Δ(4-5): _17_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

DOM position 3

(U, Short)   Cable mark: _966.6_

DOM id: UP5H0204

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # _19_   Δ(3-4): _16.9_
Bow OK → clutch zip tied
Photos: chain with clutch phi orientation whole view

Breakout 2

Time:

Cable/LC continuity test complete   (Q2)   Now _5:14_
     all pass   Last b/o _____
     fail: _____   Δt [min] _____
- LongDOM   Depth:
     connector discharged (ESD)   Paro2 _973_
     connector O-ring in place and lubed   Keller _967_
     breakout O-ring in place and lubed   Payout _____
     connected
- ShortDOM
     connector discharged (ESD)
     connector O-ring in place and lubed
     breakout O-ring in place and lubed
     connected
Loose pigtails taped to cable

All clear to lower cable ☺

Photos: DOM ids (long short); connectors (long short)   ✓

DOM position 2

(T, Long)   Cable mark: _983.6_   DOM id: TP5P0761

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # __19__   Δ(2-3): __16.9__
Bow OK → clutch zip tied
Photos: chain with clutch   phi orientation   whole view

DOM position 1

(U, Short)   Cable mark: _1000.5_   DOM id: UP5P0594 ✓

Reason for substitution: _____

Bottom shackle connected
Top clutch connected at link # __19__   Δ(1-2): __16.9__
Bow OK → clutch zip tied
Photos: chain with clutch   phi orientation   whole view

Breakout 1

                                                          Time:

Cable/LC continuity test complete   (Q2)   Now __5:28__
    all pass   Last b/o _____
    fail: _____   Δt [min] _____
- LongDOM   Depth:
    connector discharged (ESD)   Paro2 _____
    connector O-ring in place and lubed   Keller _1008.44_
    breakout O-ring in place and lubed   Payout _1003.51_
    connected
- ShortDOM
    connector discharged (ESD)
    connector O-ring in place and lubed
    breakout O-ring in place and lubed   note:
    connected
Loose pigtails taped to cable   finshed 5:38pm

No second Paro...

                                                          Group photo

Uphole Pressure Sensor (Setra)

After DOM1 is safely under the surface (> 50 m)

Time: _5:50 PM_

Stop the cable winch   ✓

Lower Setra pressure sensor into hole   ✓

Distance to Setra from floor: _60.00_

Setra readout verified with monitoring system

Well depth from Setra: _10.55_

Well depth from laser: _46.01 m_

If the two well depth measurements agree: _NO_

Switch to Setra well depth in monitoring system

Time: _5:57_

Payout enabled ✓
Payout zeroed ✓

Now the String Drop begins

String Drop

The target depth is **2450** m

Switch cable winch to computer control

Speed: ≈14m/min　Time: 6:40 PM　Depth: ≈1280　m
Speed: _____　Time: _____　Depth: _____
Speed: _____　Time: _____　Depth: _____
Speed: _____　Time: _____　Depth: _____　　　1496
Speed: _____　Time: _____　Depth: _____
Speed: _____　Time: _____　Depth: _____

Depth Monitoring (log on the fly – do not stop for this)

Depth Paro2[1]	Time	Well depth[1]	Depth c/marks[2]	Depth payout[1]	Δdepth P2-P1[1]	Δdepth P2-K[1]	Δdepth K-P1[1]
1000 m					n/a		n/a
1500 m	6:28	45.7	1496	−1500	n/a	−1 m	n/a
2000 m	6:47	45.63	1992	−2000	n/a	−5 m	n/a
2100 m	6:53		2091	−2100	n/a	−3 m	n/a
2200 m			~~2190~~		n/a		n/a
2300 m	7:34	45.34	2289	−2300	n/a	−7 m	n/a
2400 m	7:46	45.2	2389	−2400	n/a	−7 m	n/a

[1]Read off monitoring screen
[2]Cable mark offset (at DOM60) is (p. 4): −1.2m　(DOM 59　15.8 m)

Switch to manual control @ 2400 m

Well depth
　@ 2420: _____
　@ 2440: _____

Well depth: 45.00 m
final

Position string at target depth of **2450** m　　Time: _____

String secured with Yale grip and anchor chain　Time: 8:35 PM

Absolute depth with bottom Paro
(depth in *meters* and pressure in *PSI*)

Distance from Paro2 to DOM60:

$d_{Paro2\text{-}DOM59}$ = ___1.1___ (from p. 4)

$d_{Paro2\text{-}DOM60}$ = ($d_{Paro2\text{-}DOM59}$ + 17) m = ___18.1___ ← insert below

Convert Paro2 pressure to string depth:

$K = 3.78151 \cdot 10^{-6}$ /PSI (compressibility of aerated water)

(use 6 decimals for exp's)

Ambient pressure (from p. 4): P_0 = __9.31__ PSI → exp(-KP_0) = _____

Pressure reading (from screen): P = __3424.68__ PSI → exp(-KP) = _____

Subtract exponentials → = _____

× $1.85947 \cdot 10^5$

Paro2 depth in water → = _____ m

Add distance to DOM60 (above) → + _____ m

Add well depth → + __45.00__ m

Depth of bottom DOM → = _____ m

Final depth estimates

◄---------- read off deployment screen ----------►

Time:	Paro2	Keller	Paro1	Payout	Cable marks
Reading	3424.6 PSI	2703.66 PSI	n/a	−2449.3 m	m
Offset	9.31 PSI	10.0 PSI	n/a	_____ m	m
Well depth		m			
Dist. to DOM60	m	m	n/a	This space is intentionally left blank	
DEPTH (DOM60)	2449.33	2457.25	n/a		

Time: __9:38__

Final depth (DOM60): __2449.33__

Deployment Closeout

✓ Log entries complete

✓ String safely secured

✓ Hole covered and secured

✓ Equipment safely shutdown and secured

✓ Deployment data OK (in database)

✓ Site cleanup

Deployment crew dismissed

✓ String deployment complete

Time: _8:39 PM_ Date: _Jan_ / _25_ / _2006_

Shift Lead: _____ / _____
                        name / signature

Logger: _John Jacobsen (et, al.)_ / _____
                        name / signature

PTS Lead: _Ignacio Taboada_ / _____
                        name / signature

Deployment Manager: _____
                        name / signature

Safety Officer: _TH_ / _____
                        name / signature

IceCube On-ice Lead: _____
                        name / signature