

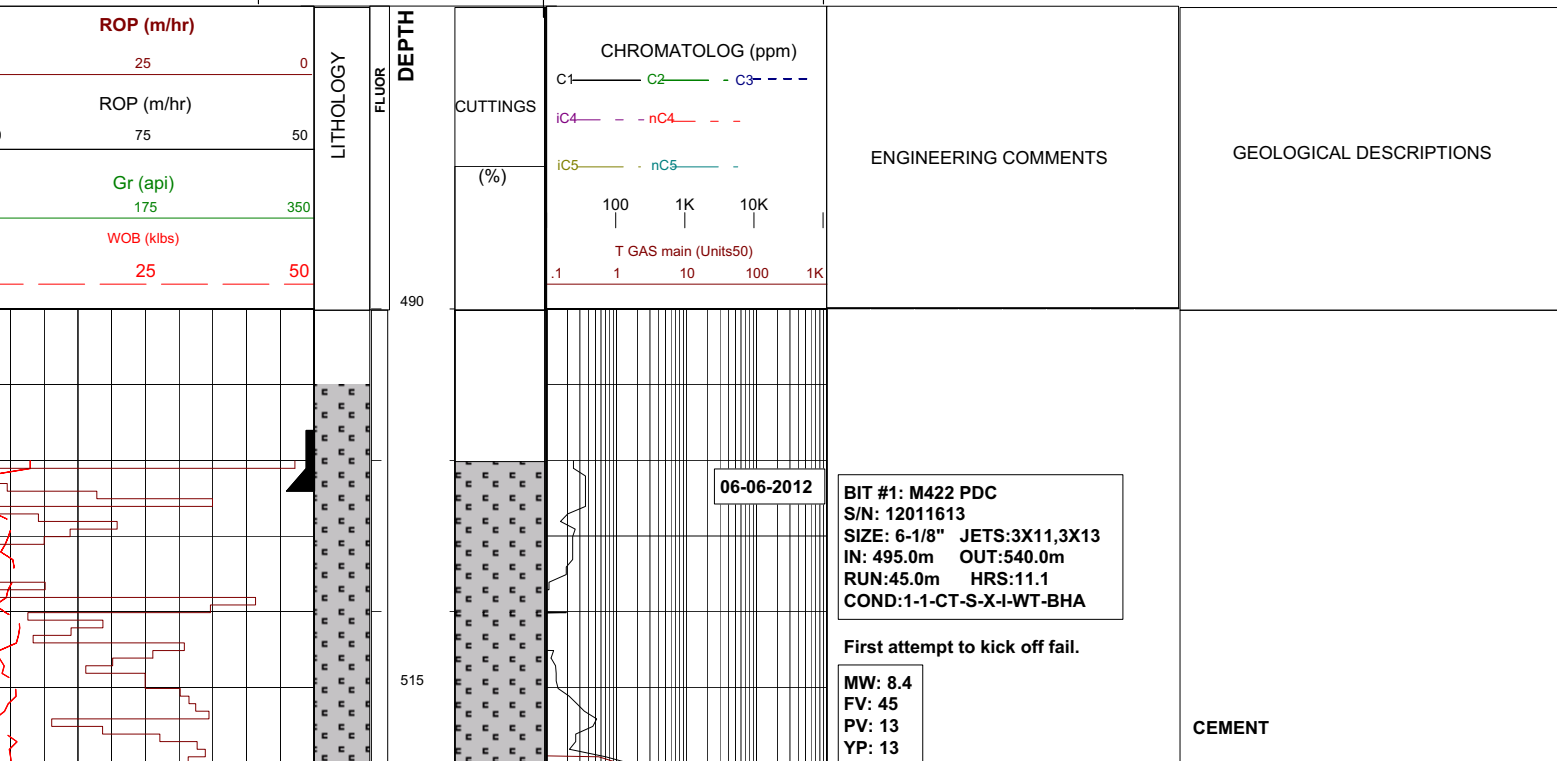
APPENDIX 2

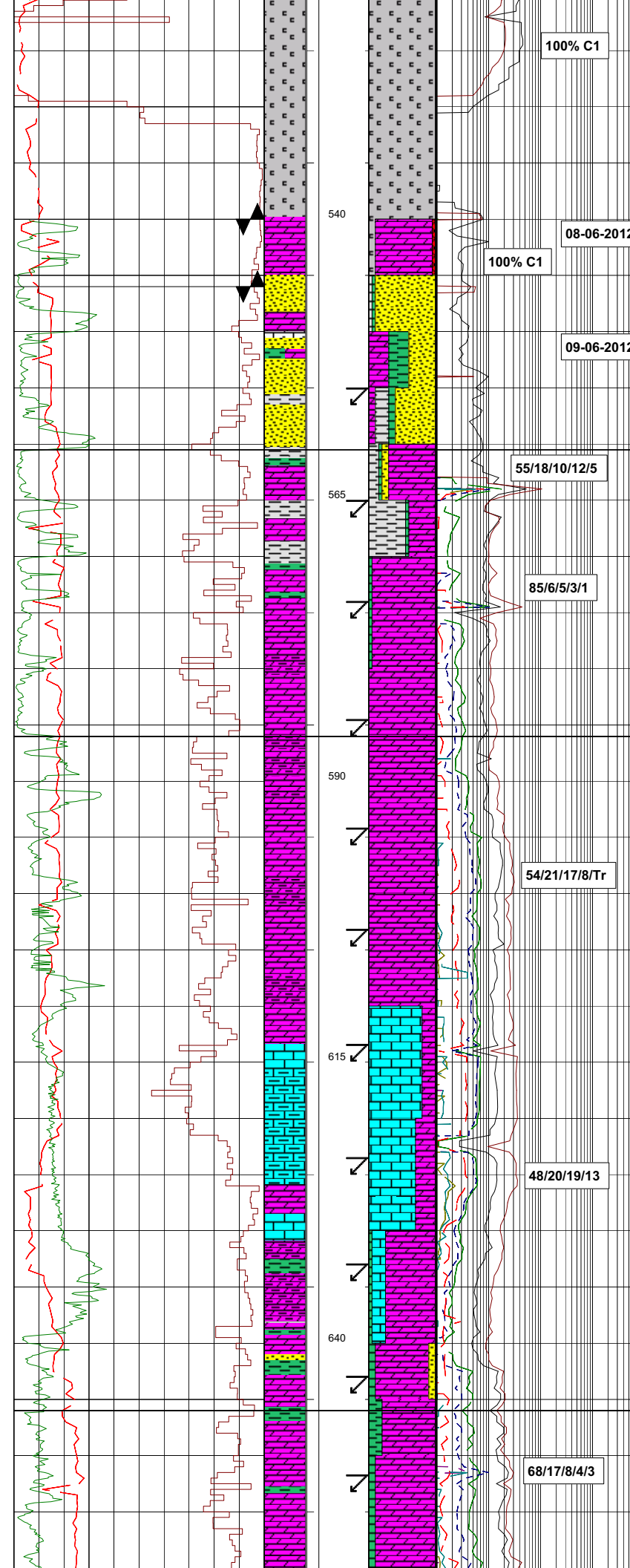
MACINTYRE-2H
MUD LOG 1:500

NOTE: mud log 1:200, support data and drill log are located in Enclosure 1

Field : MACINTYRE	Rotary Table: 385.8mAHD	Rig : ENSIGN 918	Open Holes	Cased Hole:	Loggers : MAT TOWNSEND
Permit : EP-127	Ground Level: 380.7mAHD	Spud Date : 06-06-2012	12-1/4": 74.5m	9-5/8": 72.3m	DUC NGUYEN
State : NT	Datum: GDA 94	TD Date : 23-06-2012	8-1/2": 504.0m	7": 502.4m	NEVILLE LUIS
Country : AUSTRALIA	Lat. : 22° 02' 23.33"S	Total Depth : 1916.0m	6-1/8": 1916.0m	4-1/2": 1909.5m	JASON MADIGAN
Scale: 1/ 500	Long. : 135° 32' 06.99"E	Final Status : CASED & SUSPENDED			

LITHOLOGY	ACCESSORIES	DRILLING DATA	ABBREVIATIONS
<ul style="list-style-type: none"> Medium sand Cement Siltstone Carb Siltstone Shale Limestone Dolomite Silty Limestone Silty Dolomite Anhydrite 	<ul style="list-style-type: none"> Pyrite Glauconite Mica Chert Pyrite Fossils Iron Breccia Argillaceous Carbonaceous Foraminifera 	<ul style="list-style-type: none"> Casing shoe Deviation survey Dst Core Wiper Trip <p style="text-align: center;">MUD DATA</p> <ul style="list-style-type: none"> MW - Mud Weight (lb/gal) FV - Funnel Viscosity (s/qt) PV - Plastic Viscosity (cps) YP - Yield Point (lb/100ftsq) Gel - Gel Strength (10sec) WL - Water Loss (cc/30min) pH - Acidity / Alkalinity Ck - Cake (32nd/inch) Sol - Solids (% vol) Cl - Chlorides (mg/l) 	<ul style="list-style-type: none"> BOPD - Barrels of Oil Per Day BWPD - Barrels of Water Per Day CG - Connection Gas CO - Circulate Out COND - Condensate c/c - Crush Cut DST - Drill Stem Test FLOW - Flow Rate (gal/min) GCM - Gas Cut Mud GCW - Gas Cut Water GTS - Gas To Surface INJ - Injection of Mist (bbls/hr) LCM - Lost Circulation Material MMCFD - Million Cubic Feet / Day NGTS - No Gas To Surface NOTS - No Oil To Surface NR - No Returns OCM - Oil Cut Mud OG - Over Gauge OH - Open Hole OTS - Oil To Surface Q - Flow Rate REC - Recovery Rmf - Resistivity mud filtrate ROP - Rate Of Penetration RPM - Revolutions Per Minute RTSTM - Rate Too Small To Measure Rw - Resistivity water r/r - Ring Residue SCFM - Standard Cubic Ft/Min (air) SGCM - Slightly Gas Cut Mud SPM - Strokes Per Minute SPP - Stand Pipe Pressure SWC - Side-Wall Core TG - Trip Gas WOB - Weight On Bit





pH: 9.0
Sol: 0.9
KCl: 2.0
Cl: 15K

MACINTYRE-2H KICKED OFF @ 03:00 HRS ON 08 JUNE 2012

BIT #2: 647Y TRI-CONE
S/N: S115030
SIZE: 6-1/8" JETS:3X16
IN: 540.0m OUT:545.0m
RUN:5.0m HRS:6.25
COND:1-1-WT-A-E-I-NO-BHA

BIT #1RR1: M422 PDC
S/N: 12011613
SIZE: 6-1/8" JETS:3X11,3X13
IN: 545.0m OUT:989.0m
RUN:444.0m HRS:74.75
COND:3-2-CT-A-X-I-WT-BHA

SURVEY @ 555.7m 58.8°AZI 5.86°INC

HAGEN MEMBER:
560.5mMD -174.4mTVDAHD

SURVEY @ 565.2m 76.2°AZI 7.82°INC

SURVEY @ 574.8m 83.2°AZI 9.60°INC

SURVEY @584.5m 90.1°AZI 11.42°INC

ARTHUR CREEK FM:
586.0mMD -199.5mTVDAHD

SURVEY @594.1m 95.9°AZI 13.43°INC

54/21/17/8/Tr

SURVEY @603.7m 99.7°AZI 15.16°INC

SURVEY @613.8m 99.7°AZI 16.16°INC

SURVEY @623.4m 99.3°AZI 17.4°INC

SURVEY @633.1m 99.4°AZI 19.1°INC

SURVEY @642.7m 99.8°AZI 22.3°INC

OOLITIC REEF FM:
646.0mMD -256.7mTVDAHD

SURVEY @652.3m 100.6°AZI 26.0°INC

68/17/8/4/3

DOL:lt-med gysh brn,pred mdst, vfxln,no vis por.
anhy vns,wh-clr,tr blk bit stylo fill,tr ptchy dll yl mineral flour.

SST:lt brn,i/p v pl rdsh brn,mnr cvm, clr qtz w/scat lt-dk lith grs,lwr vf,sity,wl srt,rdd grs,mod cons w/dol, sity-mod arg,nil vis por,no flour.
CLST:crm bf-pl rdsh brn,arg-aren,dolc, v sft due to reaction w/wtr.

SLTST:med grysh grn,dissem grnsh cly, sly dolc,mod-v frm.

SST:lt brn,i/p v pl rdsh brn,mnr cvm, clr qtz w/scat lt-dk lith grs,lwr vf,sity,wl srt,rdd grs,mod cons w/dol, sity-mod arg,nil vis por,no flour.

CLST:crm bf-pl rdsh brn,arg-aren,dolc, tr chrt,clr-lt gry,trl,v sft due to reaction w/wtr.

DOL:v col,i/p off wh-frm-bf-tan,mdst tex,lt grysh brn-lt brn,mott wh w/ mx anhy,grdl mx-lwr vf xln,lp sity,tightly pkd xls,no vis por,no show.

DOL:lt-med gry,v lt brn,sity,tr ool shad,tr bit,tr anhy minr,dull yel min flour,no ct,no vis por.

SLTY DOL:lt-med gry,lt brn,org frag, tr pyr,mnr relic ool shad,v mnr anhy, no flour,no ct,no vis por.

DOL:lt gry,mnr lt brn,sity-arg,mnr ool shad,no flour,no ct,no vis por.

DOL:lt brn,lt med gry,vf xln,sity, tr CLST,no vis por.

LMST:lt-med gry,tr org mat,no flour,no ct,no vis por.

SLTY LMST:lt-dk gy,cream,mcrxln,no vis por.

SLTY DOL:lt-dk gry,i/p v dk gy,vf xln -mcrxln,no vis por,mnr anhyd-vein fill,mnr ool shad,tr SLTST.

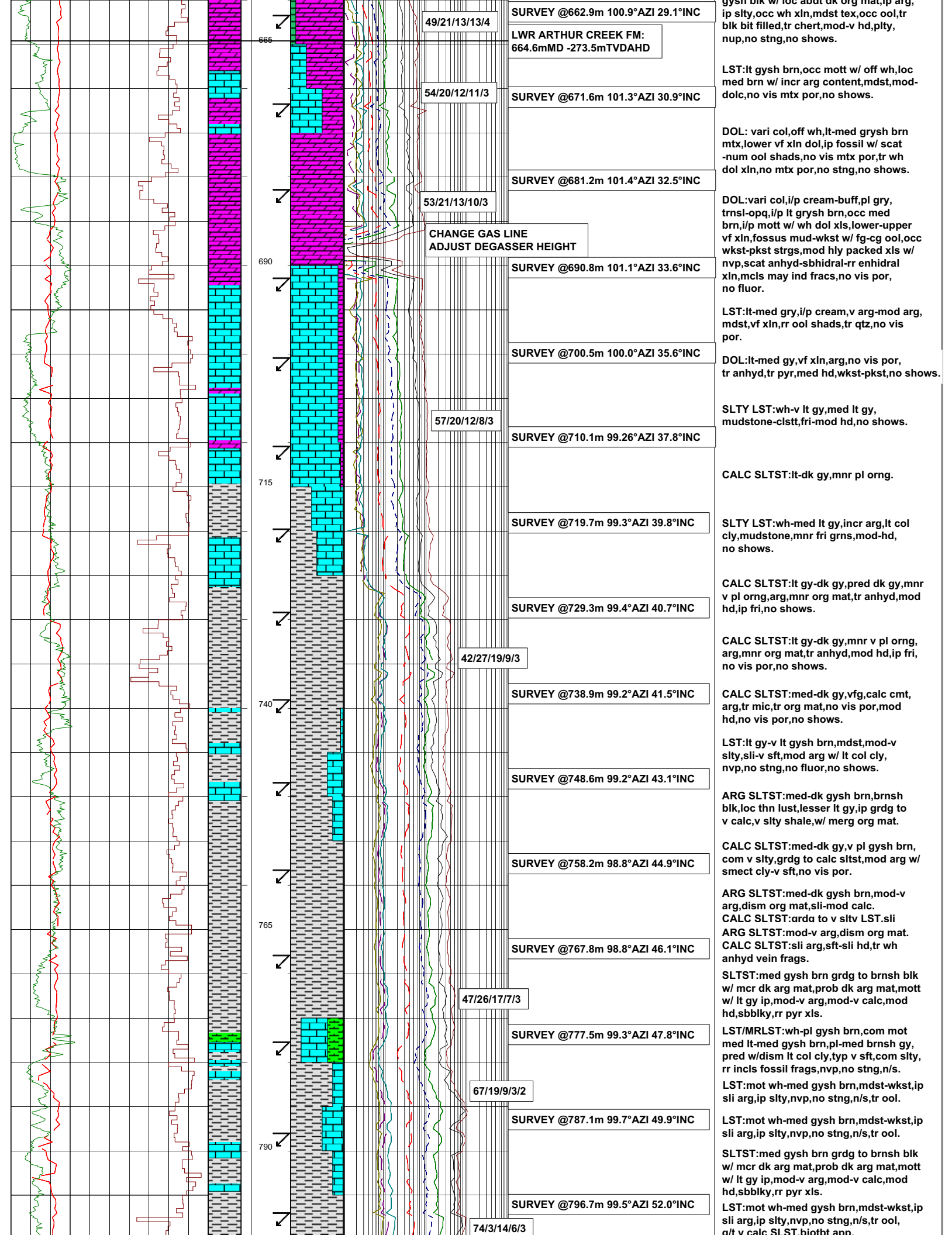
DOL:med-dk brn,grysh brn,mdst tex, comm mod-v arg,mcrxln-vf xln, no vis por.

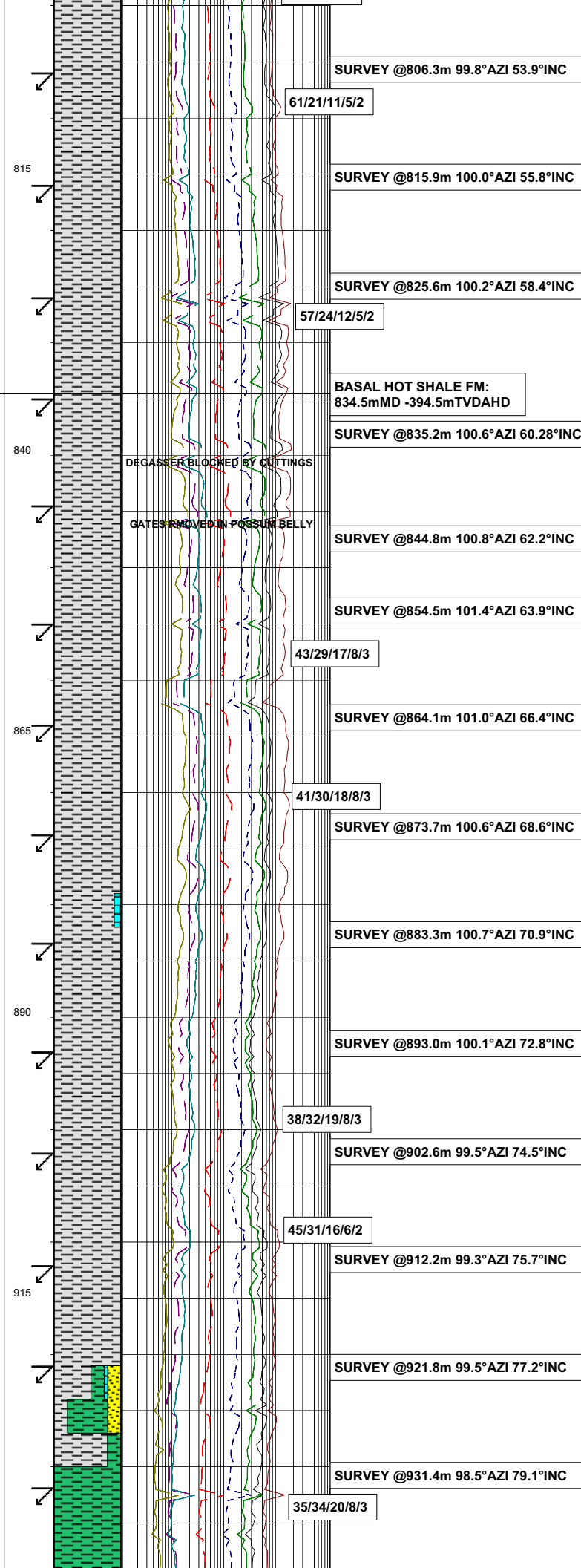
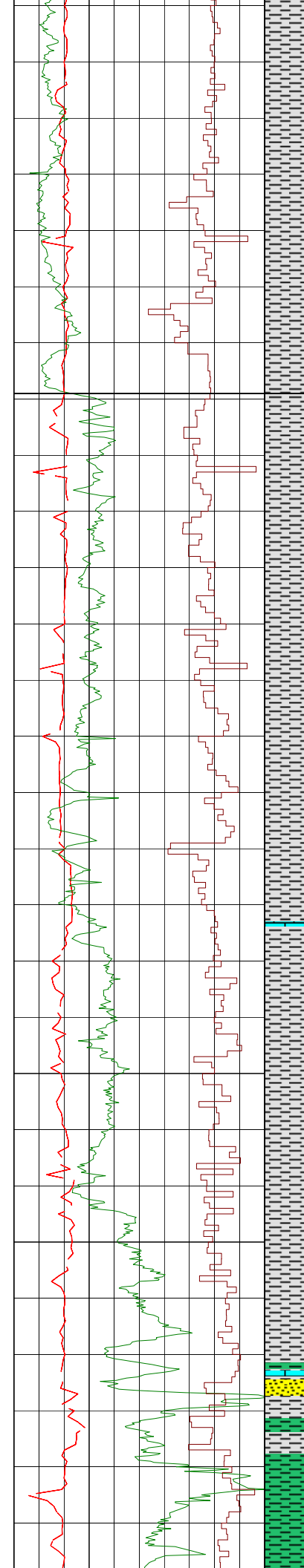
SST:a/a,grdl w/ sdy dol,vf nvp,vf,wl srt,rdd-w v rdd,mod cons w/ abdt dol.

CLST:off wh,ip lt grysh brn-dk grysh brn,dk brn w/ inorg mat,calc,prob wtr -cly reactive,v sft.

DOL:v col,bf-lt grysh brn,com mott w/ wh dol,fossil f w/ scat-com ool shad, typ mg-cg,sph,wkst-pkst-grnst,no vis por.

DOL:lt grysh brn,loc med dk gys brn-gysh blk,w/ loc abdt dk org mat in arg





SURVEY @806.3m 99.8°AZI 53.9°INC

61/21/11/5/2

SURVEY @815.9m 100.0°AZI 55.8°INC

SURVEY @825.6m 100.2°AZI 58.4°INC

57/24/12/5/2

BASAL HOT SHALE FM:
834.5mMD -394.5mTVDAHD

SURVEY @835.2m 100.6°AZI 60.28°INC

DEGASSER BLOCKED BY CUTTINGS

GATES REMOVED IN POSSUM BELLY

SURVEY @844.8m 100.8°AZI 62.2°INC

SURVEY @854.5m 101.4°AZI 63.9°INC

43/29/17/8/3

SURVEY @864.1m 101.0°AZI 66.4°INC

41/30/18/8/3

SURVEY @873.7m 100.6°AZI 68.6°INC

SURVEY @883.3m 100.7°AZI 70.9°INC

SURVEY @893.0m 100.1°AZI 72.8°INC

38/32/19/8/3

SURVEY @902.6m 99.5°AZI 74.5°INC

45/31/16/6/2

SURVEY @912.2m 99.3°AZI 75.7°INC

SURVEY @921.8m 99.5°AZI 77.2°INC

SURVEY @931.4m 98.5°AZI 79.1°INC

35/34/20/8/3

SLTST:med gysh brn grdg to brnsh blk w/ mcr dk arg mat,prob dk arg mat,mott w/ lt gy ip,mod-v arg,mod-v calc,mod sly mod cons,hd,sbbkly,rr pyr xls.

SLTST:grd w/slty vf SS,bcmg mnly, dk gry-grysh brn,micmic,tr mic pyr,clr qtz,w/ abt dk arg & poss org mat,mod-v calc, mod-v hd,sb-blky,plty,no fluor.

SLTST: dk gry,microxln,inc org mat,tr v calc,mod hd,no vis.

SLTST:dk gry,mnr med gry,org mat a/a, calc,vf grs.

SLTST:med-dk gry, v calc,org mat inc, mnr oil bubbles,mod hd.

SLTST:lt-med gry,vf xln,mod org as lyrs, tr pyr,tr anhy-vein fill?,tr oily bubbles on acid sample,mod hd,no vis.

SLTST:med-dk gry,vfxln,mod org,v calc, arg.

CALC SLTST:lt-med gry,vfxln,mnr dk slty long lams,rr pyr,mod hd,no shows.

SLTST:med gy-olv blk,vf xln,v calc, arg,mod org.

CALC SLTST:lt gy,mott vf xln,oily scum on acidized samples,tr v dense dk gy anhyd,lst,tr mod hd,no shows, petroliferous odor in sample.

SLTST:med gy-olv blk,vf xln,v calc, arg,tr wh lst,fri,plty,strg petroliferous odor,no shows.

SLTST:med gy-olv blk,vf xln-vf grs,v calc,low-mod org,mnr lst,wh arg-med grs,rr mod yel brn,tr anhyd,mod hd, no vis por,no shows,foetid odor.

SLTST:med gy-olv blk,vf xln-occ vf grs, v calc,low-mod org,mnr lst,wh arg-med grs,rr mod yel brn,tr anhyd,mod hd,no vis por,no shows,foetid odor.

SLTST:lt gy,med-olv gy,vf grs,arg, mod hd,no vis por.

CALC SLTST:wh-lt gy,mott,arg.

SILC SLTST:blk,vit,vf grs,silc,no vis por,no shows.

LST:lt gy,vf xln,arg,org mat.

ARG SLTST:dk brn-gysh brn,lesser brnsh lk,bcmg pred v lstr,loc sbvit,abdt dism blk org mat,v arg,ip grdl w/ v slty shl,mod calc,clr qtz com coated w/ med-dk brn arg org mat,mod hd,sbbkly-pred plty,sli oily scum,bubbles on acid.

SLTST:bcmg pred med-dk brnsh gy, gysh brn,ea,dism dk org or bitns mat, mod-v arg,mod calc chips,v calc upon crushing,crushing liberates lt brn oily film on acid surf & occ oily bbls in acid,mod hd,com plty.

SLTST:dk gysh brn,loc brnsh blk,med gysh brn,a/a.

SLTST:med gysh brn,dk gysh brn,a/a.

SLTST:med gysh brn,dk gysh brn,rr breccia.

Tr LST:off wh-lt gy.

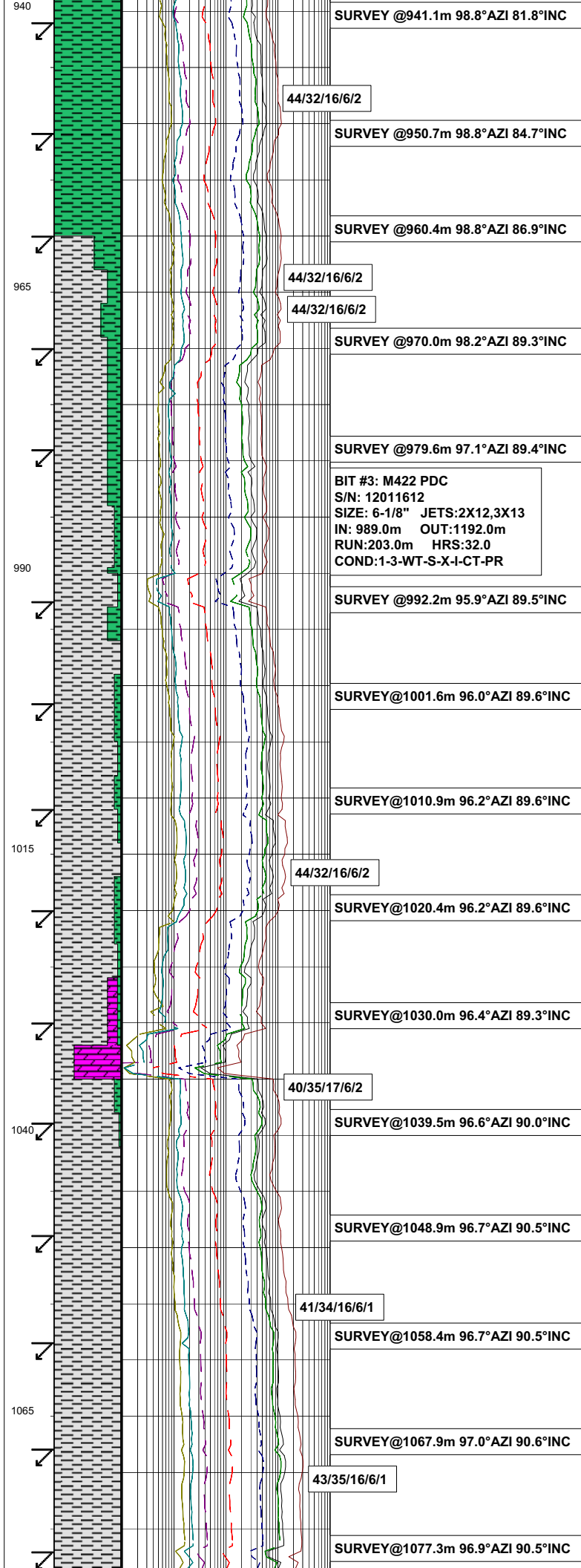
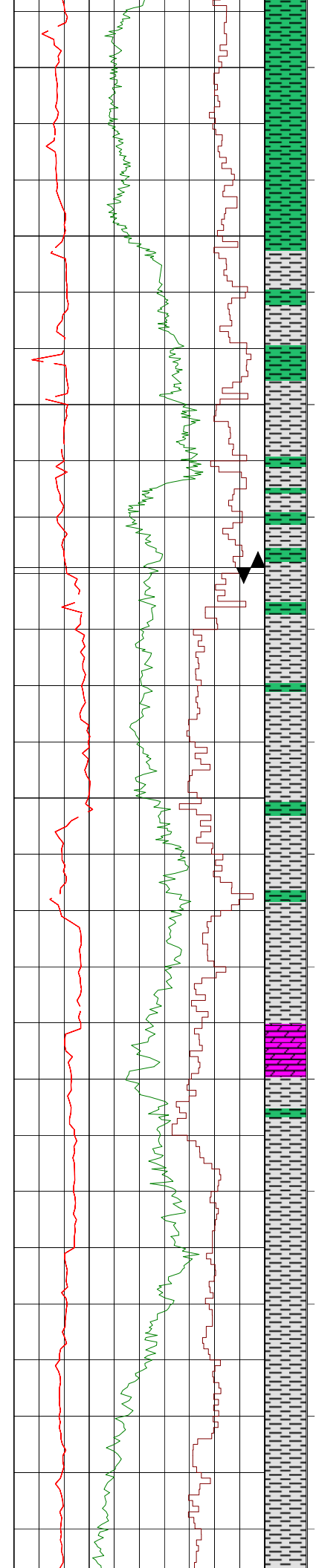
SLTST:med gysh brn,dk gysh brn,tr calc vns.

SLTST:med brnsh gy,ip rr thy lstr & bcmg sfter-sli frm,grd to slty clst.

SHL:brnsh-grysh blk,sbvit lstr due to abdt dissem btns mat,micmic,i/p slty, mnr pyr,rr f frac-tr calc fill,v sft-mod hd,sbfiiss-blky,no shows.

SLTST:med grysh brn g/t dk brnsh gry-brnsh blk,w/incr dissem bitms mat.

SHL:brnsh-grysh blk,sbvit lstr due to abdt dissem btns mat,micmic,i/p slty, mnr pyr,rr f frac-tr calc fill,v sft-mod hd,sbfiiss-blky,no shows.



SURVEY @941.1m 98.8°AZI 81.8°INC

grt v arg SLTST, mnr pyr, rr frac-tr calc fill, mod hd, sbfiss-blky, no shows.
SHL:dk gry-grysh blk, micmic flks, abdt dissem org mat, sli slty, loc mod slty, chips mod calc, v calc crsh, oily film in acid, rr slickensides, mod hd, plty, sbfiss, mod hd, no fluor.

44/32/16/6/2

SURVEY @950.7m 98.8°AZI 84.7°INC

SHL:dk gry-grysh blk, micmic flks, abdt dissem org mat, sli slty, loc mod slty, chips mod calc, v calc crsh, oily film in acid, rr slickensides, mod hd, plty, sbfiss, mod hd, no fluor.

SURVEY @960.4m 98.8°AZI 86.9°INC

SLTST:dk brnsh gy-gysh blk due to abdt btns org mat, clr qtz grs w/ lt brn strg/relic hydrocarbons, loc sdy w/ vf qtz grs, pred v arg & com grd w/ v slty btns shi, sli-mod calc, sli-mod hd.

44/32/16/6/2

44/32/16/6/2

SURVEY @970.0m 98.2°AZI 89.3°INC

SHL:dk gy-blk, sbfiss-blky, micmic, mnr pyr, rr frac-tr calc fill, v sft, mod hd, no shows.

SURVEY @979.6m 97.1°AZI 89.4°INC

SLTST:dk brnsh gy-gysh blk due to abdt btns org mat, clr qtz grs w/ lt brn strg/relic hydrocarbons, loc sdy w/ vf qtz grs, pred v arg & com grd w/ v slty btns shi, sli-mod calc, mnr pyr, tr calc vns, v frm, sli-mod hd, loc mott w/ sft calc cly, str petr odor.

BIT #3: M422 PDC
S/N: 12011612
SIZE: 6-1/8" JETS:2X12,3X13
IN: 989.0m OUT:1192.0m
RUN:203.0m HRS:32.0
COND:1-3-WT-S-X-I-CT-PR

SLTST:dk gy-brnsh blk-gysh blk-blk due to dissem btns mat & btns org mat, rr lt gy-wh cly mott, com clr qtz grs com stnd w/ bit mat, rr pyr xls, sli calc, sli-mod hd, sbbkly-plty.

SURVEY @992.2m 95.9°AZI 89.5°INC

SHL:dk gysh brn, rsns lstr due to dissem org mat, mod hd, sli calc, sli-v slty, ip grdg to v arg SLTST.

SURVEY @1001.6m 96.0°AZI 89.6°INC

SLTST:med-dk gysh brn, com clr qtz grs com stnd w/ bit mat, rr pyr xls, sli calc, sli-mod hd, sbbkly-plty.

SHL:dk gysh brn, rsns lstr due to dissem org mat, mod hd, sli calc, sli-v slty, ip grdg to v arg SLTST.

SURVEY @1010.9m 96.2°AZI 89.6°INC

SLTST:med gysh brn, pred ea lstr, com mott w/ wh calc cly & calcite xls, tr micmic, tr pyr, abdt dissem btns mat & btns org mat, sli calc chips, mod calc upon crushing, v slw film on acid after effer, no fluor.

44/32/16/6/2

SURVEY @1020.4m 96.2°AZI 89.6°INC

SHL:dk gysh brn, rsns lstr due to dissem org mat, mod hd, sli calc, sli-v slty, ip grdg to v arg SLTST.

SURVEY @1030.0m 96.4°AZI 89.3°INC

DOL:wh mott lt brn-med brn, poss WKST-PKST, org tex w/ med crs poss ool shdws, vf -f xlm mtz, btns fill frac zns, tr mx pyr, pyr grs, pyr mtz, prob org btns, tr parll gry lams, no vis por, no fluor.

40/35/17/6/2

SURVEY @1039.5m 96.6°AZI 90.0°INC

SHL:dk gysh brn, rsns lstr due to dissem org mat, mod hd, sli calc, sli-v slty, ip grdg to v arg SLTST.

SLTST:med-dk gysh brn, com clr qtz grs com stnd w/ bit mat, rr pyr xls, sli calc, sli-mod hd, sbbkly-plty.

SURVEY @1048.9m 96.7°AZI 90.5°INC

SLTST:dk gry-olv blk, v arg, grd i/p-shale, mnr pyr, micmic frm-mod hd, sbfiss, no fluor.

SLTST:grysh blk-olv blk, v arg, grd i/p-shale, mnr pyr, micmic tr DOL, frm-mod hd, sbfiss, no fluor.

41/34/16/6/1

SURVEY @1058.4m 96.7°AZI 90.5°INC

SLTST:grysh blk-olv blk, mott lt gry i/p w/sly calc cly, mod-v slty, tr pyr, micmic, frm-mod hd, sbfiss, no fluor.

SURVEY @1067.9m 97.0°AZI 90.6°INC

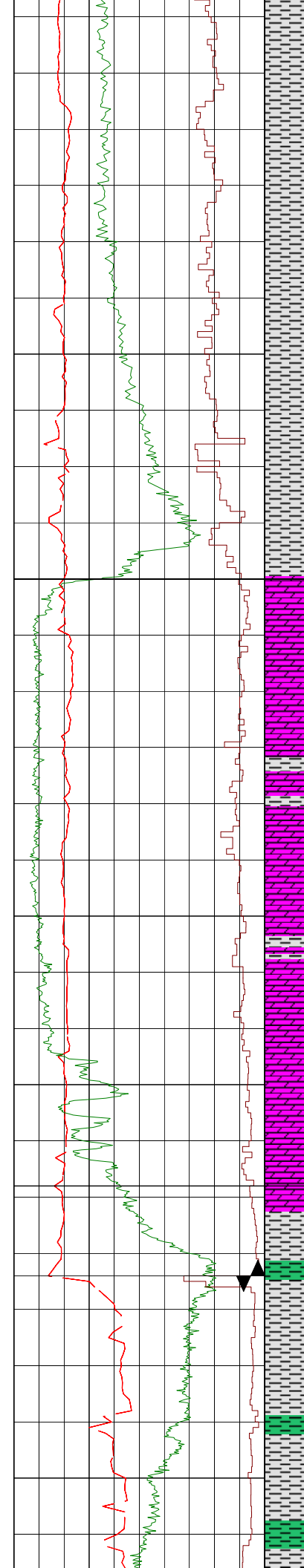
SLTST:vit lstr, dk brnsh gry-grysh brn, abnt dissem arg & prob btns mat, clr qtz, tr micmic, tr pyr, sly calc, hd-v hd, sbfiss.

43/35/16/6/1

SURVEY @1077.3m 96.9°AZI 90.5°INC

SLTST:vit lstr, dk brnsh gry-grysh brn, abnt dissem arg & prob btns mat, clr qtz, tr micmic, tr pyr, sly calc, hd-v hd, sbfiss.

SLTST:dk gy-gysh blk, tr pyr, tr qtz, tr lstr mod hd, sbfiss, no shows.



1090

SURVEY@1086.8m 96.8°AZI 89.9°INC

SURVEY@1096.3m 96.8°AZI 89.3°INC

42/35/16/6/1

SURVEY@1105.7m 96.8°AZI 89.1°INC

1115

SURVEY@1115.3m 97.0°AZI 89.1°INC

41/36/16/6/1

SURVEY@1124.8m 97.1°AZI 88.9°INC

THORNTONIA FM:
1130.0mMD -431.7mTVDAHD

SURVEY@1134.2m 97.2°AZI 88.9°INC

1140

SURVEY@1143.6m 97.1°AZI 88.4°INC

SURVEY@1153.1m 97.2°AZI 89.6°INC

1165

SURVEY@1162.5m 96.9°AZI 90.2°INC

SURVEY@1172.2m 96.9°AZI 90.5°INC

SURVEY@1181.5m 96.5°AZI 90.4°INC

BASAL HOT SHALE FM (Re-Entry):
1184.0mMD -431.8mTVDAHD

1190

56/29/9/3/3

SURVEY@1195.5m 96.2°AZI 90.5°INC

BIT #4: M422 PDC
S/N: 7026559
SIZE: 6-1/8" JETS:5X14
IN: 1192.0m OUT:1675.0m
RUN:483.0m HRS:104.25
COND:-

SURVEY@1204.2m 96.4°AZI 90.8°INC

1215

SURVEY@1214.0m 96.6°AZI 91.4°INC

41/36/17/5/1

SLTST:gysh blk,micmic,incr btns,v arg,tr pyr,tr lst fract fill,tr dol,tr qtz, sbfiss,sli petr odor,no shows.

SLTST:gysh blk,micmic,incr btns,v arg,tr pyr,tr lst fract fill,tr dol,tr qtz, sbfiss,v calc,mnr wk calc slt,sli petr odor,no shows.

SLTST:gysh blk,micmic,incr btns,v arg,tr pyr,tr lst fract fill,tr dol,tr qtz, sbfiss,v calc,mnr wk calc slt,sli petr odor,oily bbls in acid,no shows.

SLTST:gysh blk,micmic,incr btns,v arg,tr pyr,tr lst fract fill,tr dol,tr qtz, sbfiss,v calc,tr calc,sli petr odor, oily bbls in acid,no shows.

SLTST:gysh blk,micmic,incr btns,v arg,tr pyr,tr dol,tr qtz,sbfiss,mod-v calc,tr calc,tr shl,v sli petr odor, no shows.

SLTST:gysh blk,micmic,incr btns,v arg,tr pyr,tr dol,tr qtz,sbfiss,v calc grd to less calc,mnr non calc sltst, v arg,tr lst rhombs,v sli petr odor, no shows.

SLTST:dk gy-dk gysh brn-brnsh blk,ea -sli sbvit lstr due to scat num micmic flks & mod-hvy dissem btns mat,sli calc,sli dolc,sli-mod hd,mnr plty. SHL:blk,brnsh blk,sty,btns,grdl w/ arg btns sltst abv.

DOL:buff-pl brn,loc sils w/ ptchy wh silicified mtx,vf-f xln mtx w/ f-cg allochems,wkst-pkst-grnst,no vis por,no shows.

DOL:buff-pl brn,loc sils w/ ptchy wh silicified mtx,vf-f xln mtx w/ f-cg allochems,wkst-pkst-grnst,tv mx clr-trnsl anhyd mcls & mx repl,no vis por,no shows.

SLTST:dk gy-dk gysh brn-brnsh blk, ea-sli sbvit lstr due to scat num micmic flks & mod-hvy dissem btns mat,sli calc,sli dolc,sli-mod hd,mnr plty. SHL:blk,brnsh blk,sty,btns,grdl w/ arg btns sltst abv.

DOL:buff-pl brn,loc sils w/ ptchy wh silicified mtx,vf-f xln mtx w/ f-cg allochems,wkst-pkst-grnst,tv mx clr-trnsl anhyd mcls & mx repl,comm pyr xln,no vis por,no shows.

DOL:wh-olv gry,tr oil in frac, tr pyr-frac fill/foss repl,mnr olv blk -grysh blk slt,micmic,mod calc,arg,hd, tr frac por.

DOL:wh-olv gry,tr oil in frac, tr pyr-frac fill/foss repl,mnr olv blk -grysh blk slt,micmic,tr clr xls,mod calc,arg,hd,tr frac por.

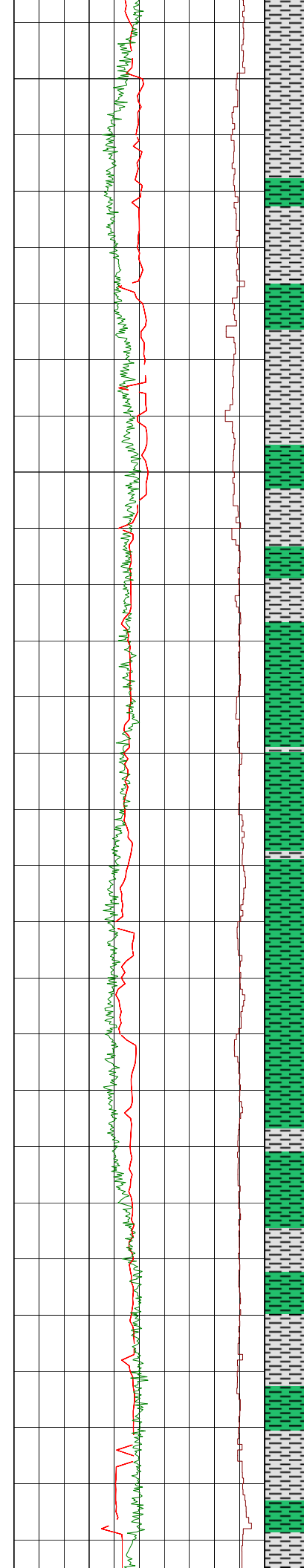
SLTST:dk gry-dk grysh brn-brnsh blk, ea-sli sbvit lstr due to scat num micmic flks & mod-hvy dissem btns mat,sli calc,sli dolc,sli-mod hd,mnr plty.

SHL:dk gysh brn-brnsh blk,sty,ip grdl w/ v arg sltst,mod-v frm.

SLTST:dk grysh brn-loc brnsh blk,ea -loc res lstr (loc abndt blk org mat), clr qtz,rr dk arg grs,v arg g/t v slty shl,mod-v calc,sli-v frm,sbbkly-pty.

SHL:dk gry-blk,res,org.btns,sli,dolc, v frm-sli hd.

SLTST:dk grysh brn-loc brnsh blk,ea -loc res lstr (loc abndt blk org mat), clr qtz,rr dk arg grs,v arg g/t v slty shl,mod-v calc,mod-v frm-sli hd,sbbkly-pty.



SURVEY@1223.5m 96.4°AZI 91.5°INC

SHL:dk gry-blk,sli-mod hd.
 SLTST:dk grysh brn-loc brnsh blk,ea
 -loc res lstr (loc abndt blk org mat),
 clr qtz,rr dk arg grs,v arg g/t v
 slty shl,sli calc,prob sli-mod dolc,v
 frm-pred sli-mod hd,sbbiky-pty.

SURVEY@1233.0m 96.4°AZI 91.5°INC

SLTST:dk grysh brn-loc brnsh blk,ea
 -loc res lstr (loc abndt blk org mat),
 clr qtz,rr dk arg grs,v arg g/t v
 slty shl,sli calc,prob sli-mod dolc,
 stnd qtz grs,v frm-pred sli-mod hd,
 sbbiky-pty.

41/36/17/5/1

SURVEY@1242.5m 96.8°AZI 91.3°INC

SHL:v dk brnsh gry,dissem btns mat,
 slty, up grdg-SLTST,sly hd.

42/35/17/5/1

SURVEY@1251.9m 96.8°AZI 90.6°INC

SHL:v dk brnsh gry,dissem btns mat,
 slty, up grdg-SLTST,sly hd.

40/36/17/6/1

SURVEY@1261.4m 97.0°AZI 91.0°INC

SLTST:dk grysh brn-loc brnsh blk,ea
 -loc res lstr (loc abndt blk org mat),
 clr qtz,rr dk arg grs,v arg g/t v
 slty shl,sli calc,prob sli-mod dolc,
 stnd qtz grs,occ pyr,v frm-pred sli
 -mod hd,sbbiky-pty.

SURVEY@1270.8m 96.8°AZI 89.9°INC

SHL:v dk grysh brn-v dk gry,brnsh blk,
 rsn lstr due to dissem btns mat,sly-
 loc v slty,u/g-v arg btns SLTST,scat
 micmic flks,mod calc,sly-mod hd,pty
 loc sbfiss,tr calcite vein w/pyr.

SURVEY@1280.3m 97.0°AZI 91.0°INC

SURVEY@1289.9m 97.0°AZI 91.0°INC

42/35/16/6/1

SURVEY@1299.6m 97.8°AZI 90.0°INC

SLTST:med gy-gysh blk,micr frac,
 tr dol,tr qtz,tr pyr,frm-mod hd,sbfiss
 -sbbiky,tr petr odor,no shows.

SURVEY@1309.4m 98.1°AZI 90.0°INC

SHL:v dk grysh brn-v dk gry,brnsh blk,
 rsn lstr due to dissem btns mat,sly-
 loc v slty,u/g-v arg btns SLTST,scat
 micmic flks,mod calc,sly-mod hd,pty
 loc sbfiss,tr calcite vein w/pyr.

SURVEY@1319.0m 98.4°AZI 90.0°INC

SLTST:med gry-gysh blk,micr frac,
 tr dol,tr qtz,tr pyr,frm-mod hd,sbfiss
 -sbbiky,tr petr odor,no shows.

SURVEY@1328.5m 98.1°AZI 90.0°INC

SHL:dk gry-blk,dk brn.

42/37/15/5/1

SURVEY@1338.1m 98.4°AZI 89.9°INC

SLTST:med gry-gysh blk,micr frac,
 tr dol,tr qtz,tr pyr,mod hd,sbfiss
 -sbbiky,tr petr odor,no shows.

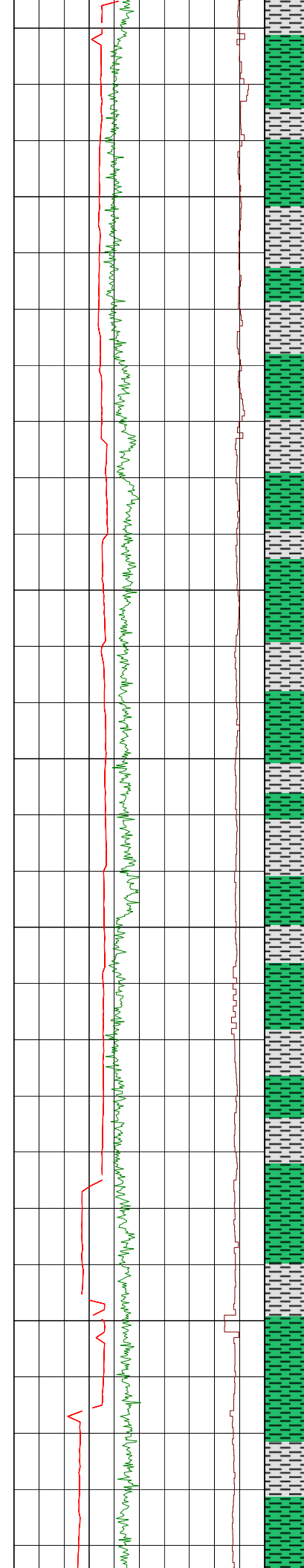
41/37/16/5/1

SURVEY@1347.6m 98.1°AZI 90.0°INC

SHL:v dk grysh brn-v dk gry,brnsh blk,
 rsn lstr due to dissem btns mat,sly-
 loc v slty,u/g-v arg btns SLTST,scat
 micmic flks,mod calc,sly-mod hd,pty
 loc sbfiss,tr calcite vein w/pyr.

SURVEY@1357.4m 98.5°AZI 89.2°INC

SLST:dk grysh brn-brnsh blk,v arg
 grdl w/v slty CLST or SHL,frm-mod
 hd,sbfiss-sbbiky,tr petr odor
 no shows.



1365
1390
1415
1440
1465
1490

SURVEY@1367.0m 98.6°AZI 89.0°INC
SURVEY@1376.5m 98.6°AZI 89.0°INC
SURVEY@1386.4m 98.7°AZI 89.9°INC
45/35/15/4/1
SURVEY@1395.9m 99.0°AZI 89.5°INC
SURVEY@1405.4m 99.0°AZI 89.8°INC
49/33/13/4/1
SURVEY@1415.2m 99.0°AZI 89.9°INC
SURVEY@1424.7m 98.7°AZI 89.9°INC
SURVEY@1434.2m 98.5°AZI 89.9°INC
58/27/11/3/1
SURVEY@1444.0m 98.5°AZI 89.9°INC
SURVEY@1454.0m 98.5°AZI 89.9°INC
64/23/9/3/1
SURVEY@1463.3m 98.4°AZI 90.0°INC
SURVEY@1472.9m 98.5°AZI 90.0°INC
SURVEY@1482.6m 98.5°AZI 90.0°INC
70/19/8/2/1
SURVEY@1492.1m 98.5°AZI 90.0°INC

SHL:v dk grysh brn-v dk gry,brnsh blk,rsns lstr due to dissem btns mat,sly-loc v slty,u/g-v arg btns SLTST,scat micmic flks,mod calc,sly-mod hd,pty loc sbfiss,tr calcite vein w/pyr.

SLTST:dk grysh brn-brnsh blk,ea lstr,v arg grdl w/v slty CLST or SHL,frm-mod hd,sbfiss-sbbiky,tr petr odor,no shows.

SHL:v dk grysh brn-v dk gry-brnsh blk,rsns lstr due to dissem btns mat,sli-loc v slty,i/p g/t v arg btns sltst,scat mic flks,mod calc,mod hd,pty,loc sli fiss,tr calcite vn w/ pyr.

SLTST:dk grysh brn-brnsh blk,v arg grdl w/ v slty clst or shl.

SHL:v dk grysh brn-v dk gry-brnsh blk, resinous lstr due to dissem btns mat, sli-loc v slty,up grdg to v arg btns sltst,scat mic flks,mod calc,sli-mod hd,pty,loc sli fiss,tr calcite vn w/ pyr.

SLTST:dk grysh brn-brnsh gry,ea lstr, v arg grdl w/arg slty clst,i/p w/dissem org mat,slyt g/t v calc,sly-mod hd.

SHL:v dk grysh brn-v dk gry-brnsh blk, resinous lstr due to dissem btns mat, sli-loc v slty,up grdg to v arg btns sltst,scat mic flks,mod calc,sli-mod hd,pty,loc sli fiss,tr calcite vn w/ pyr.

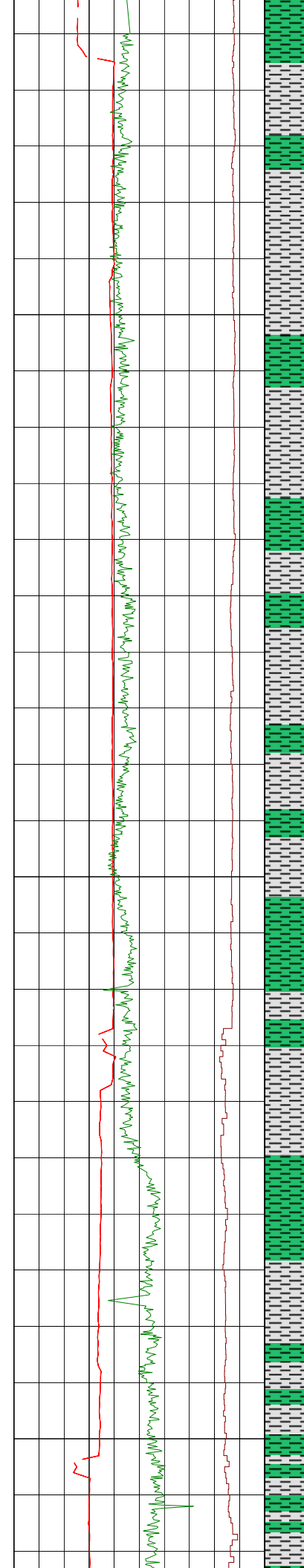
SLTST:dk grysh brn-brnsh gry, v arg grdl w/arg slty clst,i/p w/dissem org mat,slyt g/t v calc,sli-mod hd.

SHL:v dk grysh brn-v dk gry-brnsh blk, resinous lstr due to dissem btns mat, sli-loc v slty,up grdg to v arg btns sltst,scat mic flks,mod calc,sli-mod hd,pty,loc sli fiss,tr calcite vn w/ pyr.

SLTST:dk grysh brn-brnsh gry, v arg grdl w/arg slty clst,i/p w/dissem org mat,slyt g/t v calc,sli-mod hd, loc wtr reactive & sft.

SLTST:dk grysh brn-brnsh gry, v arg grdl w/arg slty clst,i/p w/dissem org mat,slyt g/t v calc,sli-mod hd.

SHL:v dk grysh brn-v dk gry-brnsh blk,olv brn, resinous lstr due to dissem btns mat,sli-loc v slty,up grdg to v arg btns sltst,scat mic flks,mod hd, calc,sli-mod pty,loc sli fiss,tr



		SURVEY@1501.8m 98.3°AZI 89.9°INC	
		72/17/8/2/1	
		SURVEY@1511.4m 98.3°AZI 89.9°INC	
1515		75/16/7/2/Tr	
		SURVEY@1521.1m 98.3°AZI 90.0°INC	
		SURVEY@1530.7m 98.2°AZI 90.0°INC	
1540		SURVEY@1540.2m 98.1°AZI 89.9°INC	
		SURVEY@1549.8m 98.3°AZI 89.9°INC	
		56/29/11/3/1	
		SURVEY@1559.5m 97.9°AZI 89.9°INC	
1565		51/31/13/4/1	
		SURVEY@1569.1m 98.0°AZI 89.8°INC	
		SURVEY@1578.9m 97.9°AZI 89.9°INC	
		SURVEY@1588.5m 97.7°AZI 89.9°INC	
1590		SURVEY@1598.1m 97.5°AZI 90.0°INC	
		52/34/11/3/Tr	
		SURVEY@1607.7m 97.6°AZI 90.0°INC	
		SURVEY@1617.3m 97.7°AZI 90.2°INC	
1615		SURVEY@1626.8m 97.8°AZI 90.5°INC	
		49/34/12/3/1	
		SURVEY@1636.4m 98.0°AZI 90.5°INC	

calcite vn w/ pyr.

SLTST:dk grysh brn-brnsh gry,ea lstr, v arg grdl w/arg slty clst,i/p w/dissem org mat,sli g/t mod calc,sli-mod hd.

SHL:v dk grysh brn-v dk gry-brnsh blk,olv brn,resinous lstr due to dissem btms mat,sli-loc v slty,up grdg to v arg btms sltst,scat mic flks,mod hd, calc,sli-mod pty,loc sli fiss,tr calcite vn w/ pyr.

SLTST:dk grysh brn-brnsh gry,ea lstr, comm w/lt gry calc cly & calcite mtt, v arg grdl w/arg slty clst,i/p w/dissem org mat,sli g/t mod calc,sli-mod hd.

SHL:dk grysh brn,loc dk grysh blk w/ btms mat,v slty,sli-mod calc,scat mic flks,sli-mod pty,tr calcite vn w/ pyr,sli-mod pty,loc sli fiss, mod hd.

SLTST:med-dk brn-grysh brn,ea,slt szd qtz grs,occ micmic,dk lithic & arg grs, v arg,comm g/t v arg SLTST,sli-mod calc,sli hd,sli petr odor,sbbkly.

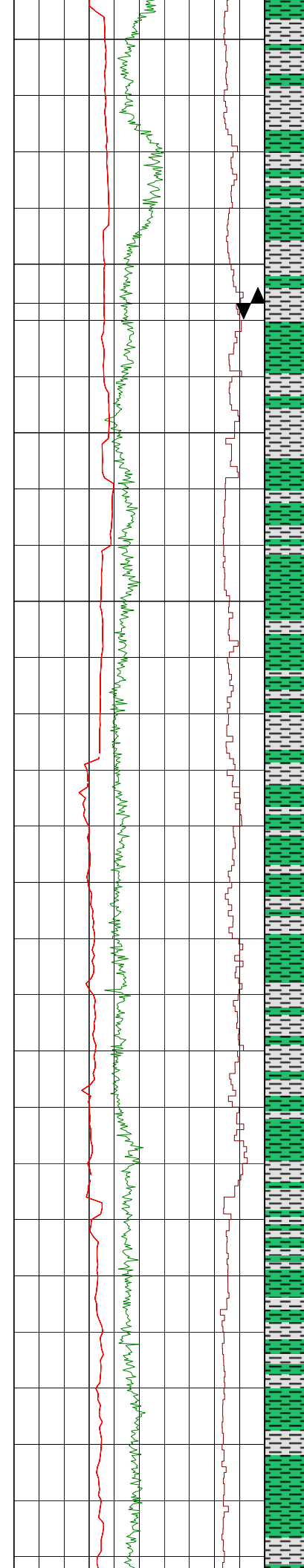
SHL:dk gry-dk grysh brn-brnsh blk,rnsn -sbvit lstr due to dissem blk org mat, micmic,sli grdg to v slty,loc grdg to v arg btms sltst,sli-mod calc,sli-mod hd,mnr pty,petr odor,no shows.

SLTST:dk grysh brn,slt sz qtz w/ abdt btms org mat,grdl w/ slty btms shl abv, sli hd,sbbkly-blky-pty.

SHL:dk grysh brn,mnr brnsh blk,rnsn -sbvit lstr due to dissem blk org mat, micmic,sli grdg to v slty,loc grdg to v arg btms sltst,sli-mod calc,sli-mod hd,mnr pty,petr odor,no shows.

SLTST:dk grysh brn,slt sz qtz& tr dk lithic & argillite ptcls w/ abdt btms arg mat,grdl w/ slty btms shl,sft-v frm-sli hd,sbbkly-blky-pty.

SHL:dk grysh brn,mnr brnsh blk,rnsn -sbvit lstr due to dissem blk org mat, micmic,sli grdg to v slty,loc grdg to v arg btms sltst,sli-mod calc,sli-mod calc tr calcite



49/35/12/3/1

SURVEY@1646.2m 97.8°AZI 90.5°INC

48/35/13/3/1

SURVEY@1655.8m 97.8°AZI 90.9°INC

SURVEY@1665.0m 97.9°AZI 91.1°INC

SURVEY@1675.1m 98.0°AZI 91.1°INC

SURVEY@1684.8m 98.1°AZI 91.1°INC

SURVEY@1694.3m 98.3°AZI 91.1°INC

49/35/12/3/1

SURVEY@1703.8m 98.2°AZI 91.2°INC

SURVEY@1713.6m 98.2°AZI 90.8°INC

SURVEY@1723.0m 98.2°AZI 90.5°INC

SURVEY@1732.6m 98.2°AZI 90.0°INC

46/36/13/4/1

SURVEY@1742.1m 98.1°AZI 90.0°INC

SURVEY@1752.0m 98.1°AZI 90.0°INC

SURVEY@1761.6m 98.1°AZI 90.0°INC

SURVEY@1771.2m 98.1°AZI 90.0°INC

v arg btns sltst,slt-mod calc, tr calcite
vn,wavy discont w/ pyr,slt-mod hd,
mnr plty,petr odor,no shows.

SLTST:dk grysh brn,slt sz qtz & tr
dk lithic & argillite ptcls w/ abdt
btns arg mat,grdl w/ slty btns shl,
hd,sbbiky-blky-plty.

BIT #4RR1: M422 PDC
S/N: 7026559
SIZE: 6-1/8" JETS:5X14
IN: 1675.0m OUT:1916.0m
RUN:241.0m HRS:43.75
COND:1-1-WT-A-X-I-NO-TD

SHL:dk grysh brn,i/p ea lstr,i/p dll rns
due to dissem btns mat,mod-v slty,
micmic,slt calc, tr calcite vns,rr pyr
surfs,poss sly dolc,rr micr breccd,
sli hd.

SLTST:dk grysh brn,slt sz qtz & tr
dk lithic & argillite ptcls w/ abdt btns
arg mat,grdl w/ slty btns shl,sft-v
frm-sli hd,loc water reactive,sbbiky
-blky-plty.

SHL:v dk grysh brn-brnsh blk,rns-
sbvit lstr due to dissem btns mat,
mod-v slty, tr micmic,slt calc, tr
calcite vns,rr pyr surfs,poss sli
dolc,v frm.

SLTST:dk grysh brn,a/a,v arg,grdl
w/ slty btns shl,sft-v frm-sli hd,
sbbiky-blky-plty.

SHL:bcmg dk grysh brn,mod-v slty,
tr micmic,slt calc, tr calcite vns,
rr pyr surfs,poss sli dolc,
mod frm-v frm,i/p sli hd.

SLTST:med-dk brn-grysh brn,clr slt
sz crs grs (com stn lt-med brn w/
arg or btns mat),slt-lwr f dk arg &
lith flks & frags,rr vf grs clr qtz,v arg,
com grdl w/ v slty clyst,pred sli-mod
calc,mod-v frm,sbbiky-plty,no fluor.

SHL:dk grysh brn,dll rns lstr,i/p non
sly-sli slty,i/p v slty,g/t SLTST,
sli calc,micmic, tr calcite vns,rr pyr
surfs,poss sli dolc,mod hd,v plty
-sbfiss.

SLTST:med-dk brn-grysh brn,clr slt
sz crs grs (com stn lt-med brn clr slt
or btns mat),slt-lwr f dk arg & lith
flks & frags,rr vf grs clr qtz,v arg,
com grdl w/ v slty clyst,pred sli-mod
calc,mod-v frm,sbbiky-plty,no fluor.

SHL:dk gry-blk,rns-sbvit lstr w/
even dissem or mat,v slty,sbbiky,sli
sbfiss.

SLTST:med-dk brn-grysh brn,clr slt
sz crs grs (com stn lt-med brn w/
arg or btns mat),slt-lwr f dk arg & lith
flks & frags,rr vf grs clr qtz,v arg,
com grdl w/ v slty clyst,pred sli-mod
calc,mod-v frm,sbbiky-plty,no fluor.

nks & frags,rr vt grs clr qtz,v arg, com grdl w/ v slty clyst,pred sli-mod calc,sbblky-plty,no fluor.

SURVEY@1780.9m 98.1°AZI 90.0°INC

SURVEY@1790.5m 98.3°AZI 90.0°INC

SHL:dk gry-blk,rSNS-sbvit lstr w/ even dissem org mat,tr heated calcite vn frags,tr calc xln incls,mod-v slty, sbblky,sli sbfiss.

SURVEY@1800.3m 98.4°AZI 90.1°INC

SLTST:med-dk,loc mott dk gry-blk w/ ptchy btns mat,opv brn-ea brn,ip med-dk choc brn,v arg,slt sz qtz w/ scat dk arg &/or lith grs,tr micmic,tr carb frags,loc wh calcs ang grs,mod-v calc, mod-v frm,ip sli-mod hd,sbblky-plty.

SURVEY@1809.7m 98.6°AZI 89.9°INC

SURVEY@1819.3m 98.7°AZI 89.9°INC

SHL:dk gry-blk,rSNS-sbvit lstr w/ even dissem org & btns mat,tr heated calcite vn frags,tr calc xln incls,mod -v slty,sbblky,sli sbfiss.

SURVEY@1829.0m 98.7°AZI 89.9°INC

SLTST:med-dk brn-grysh brn,v arg, mod calc,slt sz qtz w/ scat dk arg &/or lith grs,tr micmic,tr carb frags, loc wh calcs ang grs,mod-v calc, i/p sli-mod hd,sbblky-plty.

SURVEY@1838.7m 99.0°AZI 90.1°INC

SURVEY@1848.2m 99.7°AZI 89.9°INC

SHL:dk gry-blk,rSNS-sbvit lstr w/ even dissem org & btns mat,tr heated calcite vn frags,tr calc xln incls, mod-v slty,sbblky,sli sbfiss.

SURVEY@1857.8m 99.8°AZI 90.0°INC

SLTST:med-pred dk grysh brn-olv brn,v arg,mod calc,slt sz qtz,tr dk lith grs,tr micmic,tr carb frags,loc wh calcs ang grs,mod-v calc,mod hd, sbblky-plty.

SURVEY@1867.3m 99.9°AZI 89.9°INC

SHL:med-dk grysh brn-dk gry, loc w/ ptchy sbvit lstr blk btns ptch, micmic.v slty,grdl w/ arg sitst,mod calc,sli hd,sbblky-sbfiss.

SURVEY@1877.0m 100.2°AZI 89.9°INC

SLTST:med dk grysh brn-olv,clr qtz w/ scat dk lith or ang grs,mod-v arg, i/p grdl w/ v slty clyst or shl, mod-v calc,ip dissem btns mat,sli-mod hd,sbblky-sbplty,v fnt petr odor, no shows.

SURVEY@1886.7m 100.1°AZI 89.9°INC

SURVEY@1896.3m 100.0°AZI 90.0°INC

SURVEY@1905.7m 100.2°AZI 90.0°INC

SHL:dk grysh brn-olv brn,mainly ea lstr,loc rSNS dk gry-brnsh blk ptchs w loc abdt btns mat,typically modly-v slty i/p grdl to v arg sitst, sli-mod calc,v frm-sli-mod hd,i/p sbfiss,mainly plty,faint petro odour, no fluor,no fluorg cut in solvent.

4-1/2" CASING SHOE SET @ 1909.5m.

MACINTYRE-2H REACHED TD AT 08:15 HRS ON 23-JUNE-2012

