

SCHRAMM

Forestry Suppliers, Inc.

1-800-647-5368

49354 Level Book

5/9/12 - 8/6/13

Driller Bob Cleveland

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5 1/4" Drill Neck 29"

From land Surface to Top Ring
Of Drill Neck 2' 5"

4' stick up

11" 7.5"

W-19336

5/9/12 N 28° 18.45C 2:28

W 082° 35.086

5/23/12 WED.

Start Coring Finally after
working out equipment problems

0-9' Brownish Tan Quartz sand
with organics maximum to fine is green

9-19' lighter Tan Quartz sand with
organics maximum to fine. Only able
to retrieve 1' of sample

19-29' No Sample - low mud pressure
low Rotation possible. ~~Low~~ Found thin
epine cut of Bivalve with blackish
Brown may be a indication of
possible mud Holo.

Run 4" HW Coring 30' - 28' to
land surface

Run 3" NW Coring to 30' + 1' = 31'
28' to land Surface

Dealing with Borehole
Problems
Allan from 1st Time

This morning Gephino
Situation with Core Barnett

Friday 5/25/12

Finally got casing apart after
2 Pm after fighting Core Borehole
Problems

29' - 31'

Evidence of mud Holes with organics
Turning to a grayish white Gumbo Earth
Sand. Also Grayish Tan Highly Plastic Clay
Unable to Retrieve All of run

31' - 33.8'

Grayish tan Highly Plastic Clay
not able to Retrieve All the run

33.8' - 39'

Evidence of whitish Tan milky
Chalk with signs of organics
After soft dark brown, Turnish Gray
at end of run also lost circulation
at 36' of the run.

Saturday 5/26/12 Arrive at 7:30

Start Casing 8:05am No Circulation

39' - 40' 9"

Turnish Gray Highly Plastic Clay w/
interbedded sand. Unable to continue
Casing per NRO Check but not advised

Landing Rig Assembly
to SC back to Tally
circ brushes over
& circulate



5/26/12 Saturday

3" NW casing to 40' = 2'-10" stickup

~~3'-2"~~ to land surface - 38'

~~41.2~~ + 1' = 42.2

No Circulation

40.9 - 42.5

Whitish Tan in color mud carbonate
and Quartz sand carbonates Sand Stone
with water conduits and Iron deposits

42.5 - 43.8

Whitish Tan in color Creamy Clayish
limestone with organics possibly suggesting
to a Cream color Phosphorus to Hard
mud stone.

No Circulation

5/27/12 Sunday

Cased 1" 43.8 to 43.9 Whitish Gray

Carbonate limestone Drill Hole Drilled

Lowered NRQ by Rotation Just mud flow

until I hit Bottom of Casing at 51.1

Approx. 7' Gravity

51.1 - 55.1

Bottom of Casing at last run

Soft Clayish Greenish Quartz Sand

light Tanish and Gray in color migrating

51.1 - 55 continued

→ 51.1 - 55.1

Dark Gray to Cedar Clayish mud or
Fine Silty Sand over Bottom Sand

55.1 - 56.8

Dark Chocolate and light gray in Cedar
Dry Clay.

56.8 - 59'

Dark Brownish Gray Dry Clay migrating
in to another Gassy fillow with whitish
Gray Sand Carbonate with lime stone pieces
Medium Quartz Sand sizes

59' - 61'

Whitish Gray Clayish mud limestone
cannot penetrate full NRO and
chock Bit Bit is Gunned up with
Clayish limestone

ADD 3" NW casing to 60' = 58'
full NRO, unable to penetrate
chock bit, but is OK just
Gunned up. Run 3" NW casing
to 60' = 58' to land surface

61'-69'

was very Swiss Cheesey
in Coring process

Tuesday 6/5/12 Arrive at site 7:35am
Disconnect 3" NW Drive Head Install
Core Barrel and make adjustment to
Inner Barrel. Flush Fluid Down Hole to
Close Hole. Install Inner Barrel Start
Coring

61'-63'

Lost Sample Coarse Clay in Rock shoe
Whitish Gray in Color + possible Cavity

63-65.4

Dark Gray Soft Clay with lime stone
pieces migrating to a soft limestone
light Gray in Color and becoming
crumbly

65.4-66.10

Muddy limestone with possible Dolomite
preparation starting to appear. Light Gray
in Color

66.10-67

Hard Fractured Dolomite limestone
with possible cavities During time run

67-68'

Fractured limestone Dolomite

No Problems
on These Coring
Runs



68'-69'

Dolostone limestone with possible some
of sediment

69' - 70.5'

limestone Dolostone with sediment
Some Tanish Gray in color migrating to
a possible Crin. Filler with Clay. Clay
is Dark Brownish Gray in color

70.5' - 71.5'

Fractured limestone Dolostone with some
of Dolostone

71.5' - 74.5'

Fractured limestone Dolostone with some
of Dolostone Vugs and Fossil molds

74.5' - 77'

Tanish Gray in color Dolostone
limestone very Fractured with possible
Crin. more so limestone at end of
run with Fossil molds and crabs.

77' - 79'

Tanish Gray in color Dolostone limestone
migrating to more of a limestone with

Run 30' / 60' = 90' - 1.5 stick up
88.50'

Total Depth 79'

Front Times 255 / 70 19.5

Back Times
225 / 70 219.5

Problems with Sand Gravel
fill running up casing Below
Run 3rd casing to Straighten
Hole Possibility TD 89 6' off
83 run in

Lots of Fossil molds and cracks and some
what Graining

6/6/12 WED

79' - 82'

Whitish Gray Crumbly limestone
with Fossil molds + cracks

82' - 89'

Continuation of Whitish Gray limesto-
ne with Fossil molds + cracks with porosity
indicating to a graining texture possible
porosity at bottom of run Brownish Gray Clay

89' - 99'

Sand loam, partly fill, Tannish Gray
in color Gravel sand medium Gravel
Traces of organics

6/7/12 Thurs.

Worked on Trying to sample Core, Fill
from 99' - 109'. Mike Please Will
Campbell to Ask if we are safe on
Top of this Hole. He said I do not
know and He would talk to Dave

Sout 240' 3" NW

Friday

→ Deal on situation how it is. Since NRG is already cut of Hole start →

$$160' NW + 5' = 165'$$

Quarry starts at
89'

1A9 3" NW"
Casing
136' out of
140
4' of fill in
3" casing

5/8/12 Friday

→ Advancing 3" casing to find bottom of Quarry. 3" casing from 90' to 110'
 $110 + 10 = 120$ 116" 5' below $120 + 10 = 130$
 $130 + 10 = 140$ 138' to land surface
Something gummy at 136' to 138'
Cotton Down 5' 3" casing Install
NRG and got Sample with
Dinner Barrel. Unable to get any sample
But Chassis sand 2" whitish Gray in Color
139'

Sat 6/2/12

3" casing plugging eff. pull up 40'
to unplug 3" Go back down to 140'
to cut $150' + 10' = 160$ Hit some hard
stuff at 155'-156' Head droppers again
cutting nothing. Hit hard material at
165' 5' 3" NW casing Tag Hole to
Verify closer Hole Tag on at 165'
- 32" = 163.4' 5' piece of 3" NW
at Top. Install 173' of NRG to
start casing 153. $163 + 173$ on Top

163 - 164'

Found transition of Bottom of Quarry Floor

NW 3" assay

165 = 163.4

5" on top of 3" assay

Dark Sandstone Gray in Cedar Clay with
limestone pieces, Whitish Gray in Cedar has
stone

164'-165'

Whitish Gray in Cedar limestone with
fossil holes + cracks. Fractured

165'-166'

Whitish Gray limestone very soft run

166'-166.5'

Tannish Gray Clay Crusty Fill

166.5'-169'

Tannish Gray Clay Crusty Fill migrating
to Whitish Gray limestone with some
of minerals.

169'-170'

rubbly Fractured limestone with some
fossil holds

170'-174'

very soft run possible Barly's
Fracture rubbly limestone Tannish

Sunday 6/10/12

Added 30" more of
NW 3" $160' - 190' = 188.4$

Core D $\pm 213' = 209$ subsurface

Core in Color

174' - 179'

Still very soft run. Fractured richly
limy stone Tanish Gray in color

179' - 180'

Brownish Gray Crusty Fill Clay changing
to limy stone Soft limy stone whitish
Gray in color

180' - 181'

Soft limy stone Fractured whitish Gray
in color

181' - 184'

Crusty

184' - 189'

Still evidence of crusty in this run
soft limy stone with minimal seams
Fossil molds and casts

Sun 6/10/12

189' - 190.6



Gassy fill color

Dark Gray in color
Clayish mud

183' - 190.6'

Whitish Gray limestone Fractured
very soft run

190.6' - 194'

Crumbly limestone whitish Gray in color
with some Gassy fill

194' - 195'

Crumbly limestone whitish Gray in color
with some Gassy fill

195' - 196.5'

Crumbly small pieces of limestone
with some Gassy fill

196.5' - 199'

Whitish Gray in color limestone
Fractured

199' - 201'

Whitish Gray in color limestone soft
run possible Gassy

201' - 206.6'

Crumbly limestone whitish Gray in
color very soft run low pressure on
Penetrometer

3" NW Arroyo

$$188.4' = 190'$$

206' - 209'

Crumbly whitish Gray lim. shew
with common rusty fl. Brownish
Gray in color.

even 6/11/12

209' - 211.5'

Ro cut 29' Arroyo 211.5'

211.5' - 215.50'

Soft run was able to use expanded shew
for recovery on this run whitish tan or
Gray limestone, very crumbly in nature
to a common rusty fl. limestone
Dark sandstone Gray in color

215.50' - 215.8'

Gray + whitish Gray lim. shew
bedded with rusty fl. change to
Rock shew →

215.8' - 219'

→ Soft run Crumbly limestone, dark shew
common rusty fl. limestone Dark
Sandstone Gray in color

Problems: plugging off
with no indication

6/18/12 Monday 4:19 PM

Change oil in main gas pump
Flare system before installing Down
Bore

219' - 220.5'

Soft limestone deposit composition
Whitish Gray in Color very sandy

220.5 - 222'

Problems plugging off but no indication
of plugging off Check of limestone
in rock show

222 - 225'

Gray in Color Crusty fill with dark
Gray in Color Clay bottom of Crusty

6/19/12 Tuesday

225 - 227'

Tannish to Brownish Gray Crusty fill
Carbonate mud covered with feathers

227 - 229'

light gray in Color limestone fragments
resting on a Clayish Carbonate mud

Problems with 3" NW
Bore - Ints Casing

Trapped out of Hole
to get in sand losses

run more 3" Casing

190' - 230'

Approximately

200
190
10

3" NW 230 = 227 -
Stick up

Possible
Bore Joint
60' down

Smoked Casing in Casing.

229' - 230.5'

plugged off Borehole run in
and Trapped Casing in Casing
to a Smoked Casing in Casing
Borehole run in Casing.

Wednesday 6/20/12

run 40' of NW 3" Casing

Run 190 - 230 = 227' Trapped Hole
1' of Stuff inside 3" Casing
6' of Stuff in Bore Hole

Install NRP Rods to Shut Casing
Again 227'

230.5' - 232'

Whitish Gray limestone with some sample
limestone run

232' - 235'

lost sample

235' - 237'

Casing extended down to Try to

Thursday morning
Fresh Clean water Clean fluid
Instell Diner barrel w/ extended show

Catch what we are having problems catching
Grey in color Gravelly full suggesting to a
Greyish Tan in color Carbonate Clay

237 - 237.75

Tannish Grey to Dark Grey chunks of
limestone and Clay

237.75 - 239

Dark Sinks Grey in color Clay, pieces
of limestone and organics also fine to
medium sands.

6/21/12 Thursday

239 - 240.3

Dark Greenish Tan Clayish Carbonate

240.3 - 241.1

Dark Sinks Grey Clay

241.1 - 242.1

Greyish Tan Carbonate mud and Clay

242.1 - 244.4

Got not cutting right? Greyish Tan

Tuesday morning
Started run Foot 5' section
but Air void run Catondos
shale

Carbonate runs migrating to a hard Clay
Gony in Color becoming very dry and crumbly

244.4 - 246.5

Burnt up bit rotten Clay

246.5 - 249

Tannish Gray Carbonate limestone

~~249~~ 2/2/12

249' - 255.4

First 5' no Relation very little runs
to 254' then starts relation to 255.4
Got something hard could not penetrate
with catondos shoe. light Gray Clay with
limestone gravel and Brownish Gray in
color Clayish Sand fine. also organics

255.4 - 255.7

Fractured limestone Carbonate with
organics. Tannish Gray in Color. Plugged
off.

255.7 - 259'

light Gray in Color Fractured limestone
Carbonate with organics

7/3/12 Tuesday

255.7 - 259'

No relation Pressure
nor mud pressure to end
of run

Best run yet 261.3 - 264.

Log Cont.

259' - 259.3

Fractured limestone with shell pieces and
very fine sand Brownish gray in color

259.3' - 261.3'

whitish gray in color Clay becoming dry
at end of run.

261.3' - 264.3

light gray in color Carbonate limestone
with fossil molds + casts organics becoming
very crumbly towards end of run

264.3 - 266.3

light gray in color Crumbly Carbonate limestone
migrating to a whitish gray Clayish limestone

266.3 - 266.50

Very runny Clayish mud with fine crumbly
limestone.

266.50 - 269'

High porosity limestone Carbonate with
organics fossils molds and casts.

Wednesday
7/4/12

Tripart of Hole after 295'
288' in a cavity and Incon-
formal and well exposed Acting
right so we are going to advance
3' per cavity

Thin Coal

269' - 270.4

light gray in color Crumbly Fines Sand
and some Clayish limestone

270.4 - 273.10

Porosity Carbonate limestone/sand stone
with fossil mounds and coarse Gray in color

273.10 - 279'

Grainy texture limestone Carbonate
Very Crumbly and fractured becoming
scaly at end of run possible cavity
coming up. Gray in color

279' - 284'

Tanish Gray in color Crumbly
Carbonate limestone and Rock

284' - 288'

NOVEMBER

Cavity. Drop NRP to Bottom of
cavity which was only 3" deep
was able to take 12" of cavity fill

288' - 289'

Cavity Nothing

3" NW casing
 getting High Rotation pressure
 severe Rotation Drop
 Set 3" Casing at 270.00
 - 2.10"
 278.2
 To land surface

Problem Thursday morning
 4" HW Casing dropped

69
~~278.2~~
~~- 2.10~~
~~276.1~~
~~9.0~~
 Advancer 4" HW
 Casing to 20'
 Run 30'
 2' stick up
 68' to land surface

Tripout of Hole Advancer 3" NW
 casing Run 280' + 20' = 250' + 20' = 270' +
 10' = 280' = 278.2

~~Thursday~~ 7/5/12

Tag Hole to see how much inside 3"
 casing is full.

Install 40' HW 4" Casing from 30' - 70'
 2' stick up 68' to land surface

Install NRP to 293' Tagged hole
 282' TO 293' 11' of hole
 fill 3" casing is down to 270'

Flush out hole with Duro brand in Core
 Barrel Flush out from 273' - 293'

Friday 7/6/12

288 - 290.6

Pressure 1000 PSI Rotation pressure
 1000 psi Dark Gray and Light Gray
 Mud. limestone and limestone. Concretion

290.6 - 299'

Residual Casing No mud pressure and

Friday 7/6/12

Signs of Phosphate

no Rotation pressure until end of
run. Increased Control w/ organics and
pieces of Phosphate powder Gravel

299" - 300"

Tannish Gray in Clear Carbonate limestone
No more pressure Low Rotation pressure
Hard droppers another Gravel.

300" - 304"

Gravel Shows evidence of limestone
with some organics Tannish Gray nodules

304" - 306"

Use Extension shoe used Slow Rotation
and kept constant pressure on Top Hard
Shows Tannish Gray in Clear limestone
Lacunar Clay and sandy

306" - 308"

Same as Above

308" - 309"

Same as Above except entered
another Gravel

Friday Aug.

308' - 314'

Coarse pieces of Tanish Gray Carbonate
limestone Fine Sands

314' - 316'

Scapy surfaces of Clayish mud some
limestone pieces and organic fine sands

316' - 318'

No Change in Sampling
Same as above

318' - 318.50

Still No Change in Formation

318.50 - 319'

Light Tanish Gray in Color Clayish
Carbonate limestone with organics

319' - 322.7'

Coarse fill light Tanish Gray in Color
Carbonate limestone Fine Sands

322.7' - 327'

No Change in Formation Possible Coarse
fill or just a scapy formation

Saturday 7/7/12

Saturday 7/7/12

329' - 334'

A mixture of Sand Clay Dark Gray Clay, shells consist of Dark Gray Clay being phosphatic or impbed with organic pieces of Crinoids limestone

334' - 336.3

Continuation of Clayish Crinoids limestone becoming Dense and Solid limestone with fossils shells and casts Crinoid at end of run.

336.3' - 339'

Lowered drill rods to find bottom
Came up Empty No fluids or rotation

339' - 347.50

Lowered drill rods until about 345'
And started fluids and rotation
light gray in color Clayish Crinoids limestone pieces of shells fossils fossil molds + casts becoming Clayish again

347.50' - 349'

Hard Crinoids limestone becoming

Saturday Cont ➤

347.5' - 349'

Very creamy mud fine sand
becoming Clayish and Tanish Gray
in color very sandy

349' - 356.2

runny Clay. Carbonate limestone becoming
finer sand and small pieces of shells, forams

356.2 - 359'

light Tanish Gray in color muddy limestone
Carbonate fine sand A lot of forams and
shells to appear also very Clayish

359' - 361'

light Tanish Gray Clayish mud fine sand
forams

361' - 362.5

Sand is Abundant

362.5 - 363.3

very runny light Gray in color Clayish
mud stone or limestone with forams

363.3 - 369'



60' Caves Saturday

363.3-369

Carbonate rock shows / limestone light gray
in color very grainy and crumbly

369-374'

Lowered drill Rods with no mud
on rotation Rods just fell all the
way to 374'

374'-379'

Used extended shoe fairly and then
picked up soft crumbly limestone light
tanish gray in color.

379-389'

Tanish Gray in color Carbonate limestone
long fractures Set Drill Rods on Bottom
of Hole and try to take sample Nothing
Clear Hole fairly?

Sunday 7/8/12

389-392'

Very little mud and no rotation
just sample stuck still tanish
gray grainy limestone fractured

Work with rock show
Come up empty use caland
show and push no reduction
very little fluid pressure to
keep for getting sand locked

392' - 395.2'

Gravelly, light Tannish Gray in Color
Clayish limestone carbonate very soft w/
Fossils Shallowly very seepy to harder Clay

395.2 - 396.7

Fossils only and worn rock show
No Reduction Very low fluid pressure
and only pushes carbonaceous material
Cavity only traces of shell and limestone

396.7 - 400.7

Gravelly, very soft silty Carbonate limestone
stone/mudstone light Tannish Gray in Color

400.7 - 402.7

Gravelly Fine silty sand light Tannish
Gray in Color Clayish magnesian to seepy
fine sand and silt some organic

402.7 - 406'

Tannish Gray in Color Fine grain size sand soft
Clayish limestone and magnesian to Fossils

406' - 407'

Tannish Gray in Color Coarse limestone

Helix is starting to
Act up

Woods is run near 3" NW casing
but do not have enough

3" casing is at 270
? 340
possible 250' more of 3" NW
casing

407' - 409'

Tannish Gray to Cedar Grassy limestone
with fine grain size sands carbonaceous

409' - 410.4

PO Relation very little fluid
pushed sampled started in Grassy
very Saipy Clayish fine grain size sand
silt with pieces of limestone and shells.

410.4 - 411.4

Woods casing stuck hard to use relation
and push but would not let us advance
pull and change to rock show

Monday 7/8/12

411.4 - 412.4

Very soft runny mossy sand fine grain
in size with pieces of shell + limestone

412.4 - 413

Continuation of above

413 - 414

Continuation of above reporting to
a harder material of Carboniferous limestone

Strange having return circulation in
Cavity.

Thursday 7/19/12

no luck in Recovery
poor recovery

Trying everything in the book
again

Still have return Circulation

Had to set 3" New casing at
380' - 377' to land surface
problems Hole Friction

3000 psi to 3500 psi

Relatives Pressure

was able to get in down to 2500 psi
and decided to set it in Freshman
soft limestone

437.30 - 439

Tannish Gray, in Color Graying limestone
stems Carbonate Passello Cavity

439 - 443.50'

Cavity again Small piece of Tannish
Gray Graying limestone Carbonate

443.50' - 449'

Empty Cavity

~~POOR
RECOVERY~~

Friday 7/20/12

Start out by setting drill Rods on
Bottom of hole and bail out what was
cut yesterday. Hole settling overnight

443.50 - 449' From yesterday overnight
very soft and runny light Tannish
gray in color muddy limestone with organic
and fine Silty Sand grains

449' - 451'

Very Soft light Tannish Gray in Color muddy
limestone with organic and also Clayish

Friday 7/20/12

The only way to core capture this
is by cutting with rock shear and then
go back in with extended shear
to get sample

451' - 453'

Continuation of Above but at end
of run was able to get solid piece of
limestone Tanish gray in color

453' - 453.2'

Continued shear push sample more gray
in color soft runny limestone with organic

453.2 - 455'

Same as Above but had to core with
rock shear and then go back in with
extended shear to capture

455' - 456'

Tanish Gray in color Solid Carbonate
limestone

456 - 458.50

Tanish Gray in color Soft Clayish lime
stone suggesting to a gray fine lime
stone

458.50 - 463'

Gray Carbonate limestone Soft in texture
and crumbly Tanish Gray in color with
organics and may be phosphate

Very Probably de criteh

Saturday 7/21/12

463' - 466'

Light Tanish Gray in Color Soft Clayish
Carbonate limestone becoming very soupy

466' - 469'

Light Tanish Gray in Color Very Soupy
Carbonate limestone with shell pieces

469' - 472'

Light Tanish Gray in Color Clayish Carbonate
limestone with organics and phosphates
becoming very crumbly and soft

Saturday 7/21/12

472' - 473.75'

Tanish Gray in Color Fractured limestone
Carbonate suggesting de Gray fracture but
crumbly with some fossil casts

473.75' - 476'

Tanish Gray in Color Carbonate limestone
becoming very soft & crumbly

476' - 479'

Same as above but becoming very soft

St. Lawrence

push Samples with fluid
only no Relation

and Chert.

479' - 481'

Push Samples very scummy fine sand
Chert limestone nodules

481' - 487.50

Hard, massive of light Tanish Grey
limestone Crinoids

487.50 - 489

Tanish Grey in color fine Crinoids
sand with organic some Chert sand

489' - 492'

Tanish Grey in color Very soft
limestone Crinoids Chert
Extensive show

492' - 499'

push Samples low fluid no Relation
very scummy muddy limestone

499' - 501'

push Samples Again
Show as above

Sunday 7/27/12

501-504'

pink shales with rock show
very sandy mud migrating to a dark
brown clay with organics

504-509

light brown fine sand mud

Sunday 7/22/12

504-509

soft drill rods on bottom of
hole and try to bail out what was
massed yesterday

509-511.50

Carbonates show

light tan grey muddy limestone
with dolomite at end of run.

511.50-513' 25"

Rock show

muddy limestone migrating to dolomite

Keep losing sample
Got going in
Ball out in morning
Eulachina

513.25 - 515.25

Brown Dolostone migrating to sandy
limestone back to Brown Dolostone

515.25 - 517.25

Transverse Gray in Color Sandy limestone
migrating to Brown Dolostone

Monday 7/23/12

517.25 - 519'

Coarse thin seams of sand Brown Dol.
stone Fractures

~~519.515'~~ - 525.25

Brown Dolostone with some of sand

525.25 - 529'

Brown Dolostone with fossil molds and pits

529 - 533.50'

Brown Dolostone with some soft seams
Fossil molds and pits

$$\begin{array}{r} 10 \\ 12 \overline{) 124} \\ \underline{12} \\ 04 \end{array}$$

$$\begin{array}{r} 4 \\ 304 \\ \underline{380} \\ 124 \end{array}$$

$$\begin{array}{r} 12 \\ 10 \\ \underline{190} \\ 120 \end{array}$$

Mon 7/30/12

2:30 Gamma log 533.90 TD

Tuesday 7/31/12

Leave Hotel 6:05

Arrived DS 6:45

Condition Helo

Trip out of Helo Andy set up for logging

Resistivity log TD at 504' lost 20' of Helo

Wed 8/1/12

Trip back in to 380' better of 3' No Creek 504' - 499' 400' no Creek

Thurs 8/2/12

Truck Rock 499' - 495'

Friday 8/3/12

Truck 140' of Gravel and Admix Rock

SAT 8/4/12

Truck 140' of Gravel

$$\begin{array}{r} 210 \\ 100 \\ \hline 310 \\ 380 \\ \hline 390 \\ 60 \\ \hline 450 \end{array}$$

~~$$\begin{array}{r} 100 \\ 100 \\ \hline 200 \end{array}$$~~

210'

100'

$$\begin{array}{r} 3450 \\ 100 \\ \hline 90 \end{array}$$

80 ✓

80 ✓

$$\begin{array}{r} 3450 \\ 160 \\ \hline 290 \end{array}$$

$$\begin{array}{r} 3450 \\ 260 \\ \hline 190 \\ 450 \end{array}$$

190'

$$\begin{array}{r} 220 \\ 100 \\ \hline 320 \\ 80 \\ \hline 400 \end{array}$$

$$\begin{array}{r} 190 \\ 60 \\ \hline 130 \end{array}$$

$$\begin{array}{r} 100 \\ 90 \\ \hline 80 \end{array}$$

$$\begin{array}{r} 370 \\ 360 \\ \hline 10 \end{array}$$

$$\begin{array}{r} 190 \\ 100 \\ \hline 90 \end{array}$$

$$\begin{array}{r} 290 \\ 80 \\ \hline 210 \end{array}$$

$$\begin{array}{r} 370 \\ 360 \\ \hline 10 \end{array}$$

$$\begin{array}{r} 430 \end{array}$$

and Reel Taggors Holes At 400'
Connect 3" Drive Hinged to J¹⁰
New Grout and pull up to Tables

Sunday 8/5/12

Tag Holes with wire line Taggors
Holes at 37.5' Connect Down
Hood run & backflow of Clean
Fresh new Condition Holes

Andy arrived 900am pull 110'
of 3" New Steel casing

Andy started logging
SP + SP1R 700m yellow 220'-
to 170' still left in Holes
iron & logs

Monday 8/6/12 190' - Transit in Holes

Pumped 10 bags of Quick Grout
Taggors Bottom 170' Pull 3"
New Steel Casing up to 80'
SP + SP1R + Gallipore

60 100 100

3
260
190

12/12/12 Talbot Island State Park
Duval County

N 30 26.629

W 08, 25 082

Accu 49.2

2/20/13

Bring Schuman to Little Talbot Island
set up on Well casing

2/21/13

Attach 3" NW and Grog 3" Grog
in hole pull up Perimeter 5' - 3" = 170

Install 10' = 180 + 10 = 190 + 10 = 200 + 10 = 210
+ 10 = 220 + 10 = 230' + 10 = 240 + 10 = 250 + 10 =
260' + 10 = 270 + 10 = 280 + 10 = 290

3367

2/22/13 Friday

290' + 10' = 300 + 5 = 305 (Note: 5' - NW
under Top 2-10' from Top!

set 3" NW at 303'

Install Core Barrel + Install 10' - NRC +
10' - NRC = 33'. Install Iron Barrel after
pumping mud thru Rods to Churn and Stick
wells for Iron Barrel to check length
in Core Barrel Bit and rock shear in
Iron Barrel. make adjustment

2/22/13

33' includes Core Barrel

$$\begin{aligned} 33' + 10' &= 43' + 10' = 53' + 10' = 63' + 10' = 73' + 10' = \\ 83' + 10' &= 93' + 10' = 103' + 10' = 113' + 10' = 123' + 10' \\ &= 133' + 10' = 143' + 10' = 153' + 10' = 163' + 10' = 173' \\ &+ 10' = 183' + 10' = 193' + 10' = 203' + 10' = 213' + 10' = 223' \\ &+ 10' = 233' + 10' = 243' + 10' = 253' + 10' = 263' + 10' = 273' \\ &+ 10' = 283' + 10' = 293' + 10' = 303' + 10' = 313' \end{aligned}$$

WGS + 10' and condition 140 to 313'

313 + 10' = 323 Start coming from 309.75

3.25 stick up 313 - 3.25 = 309.75 +

703 + 10 = 333 cores only 5' = 314.75

Wire line Breaker while pulling sample

2/23/13

Spool off bad wire line Tape +
cut at good wire. Pull all NRC
to get last 1000 ft barrel

$$\begin{aligned} 33' + 20' &= 53' + 20' = 73' + 20' = 93' + 20' = 113' + \\ 20' &= 133' + 20' = 153' + 20' = 173' + 20' = 193' + \\ 20' &= 213' + 20' = 233' + 20' = 253' + 20' = 273' + 20' \\ 293' + 20' &= 313' + 20' = 333' \end{aligned}$$

3/5/13

Condition 140 Core from 319.75 -
329.75. Brownish Gray Curved Quartz
Sand

130' HWT + 80' of 105

4- 5' HWT

3' HWT

2' HWT

Mobile
Drill

305' NW in Holo

4" casing @ 28' - 2' ft. stick on

824.75 - 329.75

light gray coarse Quartz Sand

329.75 - 333

light gray coarse Quartz Sand
becoming very common and clayish
and very dark gray in color

333' - 339.75'

Pushers about 5' of
unexploded sample
in inner barrel that has
same material as what we saw in
???

3/6/13

329.75 - 333' Dark Greenish Gray Gummy
Clayish Quartz Sand with organics

333' - 339.75 last Sample slid out
of barrel when I pulled inner barrel
out of water Table. Instill extension
shoe and go back in to retrieve
sample. Captured 12.50 of sample in
core barrel. Clay Gray Dark in color
Very Clayish and Gummy Quartz and mud

343 - 353 343 - 339.75. With

I ran back in Holo to retrieve last
sample, ran full 10' run to plug off
Retriever, 100% of sample. Added 10'
No Rotation and only Fluids Circulating
Tried to core and Advance, was
only able to do 6" at a time but
have 5' of sample. It is not run
up either. Total core 2.50' and
have 5' of sample with no run up?
342.25? Problems with bit, Cutting
Lubricant in Platform bit either
ground up or burnt up. Will Try
cut of New Tomorrow

Thursday

Surprise

Bit is

Beard up

(20)

$332.75 - 344.75 = 348$

Dark Olive Gray in Cedar
Soft Gray Clay with some Quartz
sand becoming very hard Dense mud
day with extensive

Friday 3/8/13

3/7/13 Trip out of Holo. also
C/loch Red Cant 353' Correct
sand bit to be burned up. Re-
placed with sand bit that we
were using on Mobile Drill. Teeth
bit from Gries Inventory. Install
NRO Bore in Holo with replacement
bit to 313'. Condition Holo with
fresh mud and Pump Holo cut again
to 343'. Install known Bitrol and
continue to core 2.50 to 344.75
we will have to make short runs in
this dense dry clay

3/8/13 Friday

Start coring from 348 = 344.75
Coring Run 344.75 - 349.75
Dark Olive Gray in Cedar Dense Clay
~~Add 10' to drill string 353-363'~~
Coring remaining 5' to 349.75 + 10' = 363
349.75 - 354.75 359.75
Dark Olive Gray in Cedar / hard Dense Clay
354.75 - 355.5
Same as Above

355.5 - 358

Same as Above

Friday Cont.

358 - 359.25

Dark Olive Gray Denser Dry Clay

359.75 - 364.75

Same as Above

364.75 - 365

Same as Above

Saturday 3/9/13

365 - 365.75

Dark Olive Gray Softer Clay but still same what denser

365.75 - 367.25

Same as Above but tumbled and ok on
Perimeter Chlora

367.25 - 368.25

Light Gray Dolomitic material with

368.25 - 369.75

Dark Olive Gray Dolomitic Clay

~~3/10/13~~ Sun

381.25

What I am thinking is
Dolostone could be Combed
Clay

~~Sunday 3/10/13~~ Sunday 3/10/13
Add 10' 373 = 369.75 - 383 = 379.75
Saw Quartz

369.75 - 372.25

Dark Olive Gray Dense Dry Clay
with a seam of Soft Clay in between
that wash away only about 2"-3"

~~Sunday 3/10/13~~ 372.25 - 374.25

Dark Olive Gray Dense, Dry, Clay
Saw Quartz

374.25 - 376.50

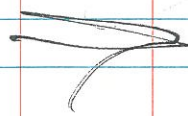
Dark Olive Gray Clay becoming very
concretoid like Dolostone saw Quartz

376.50 - 377.50

very Hard Dense Concretoid Clay or
Dolostone light Olive Gray in color
Strong Organic loss of sample washed
away

377.50' - 378'

light Tan in color Soft mud with
organic Quartz Clay at bottom



son continued

Sunday 3/10/13

378 - 379'

Harder matrix of light Tan mud
Sewer white Clayish Very fine Quartz

379.30 - 379.50

Concretion muds Tannish Gray in Color

379.50 - 381.25

Dark Olive Green Brown Clayish
mud Sewer Quartz and organics

Monday 3/11/13

381.25 - 384.75

same as above

384.75 - 385.50

light Tannish Gray in Color speckled
up Rotation to 600 rpm to cut faster
Change in formation Concretion Clay
or Concretion mud

385.50 - 389.75

light Olive Brown Concretion Clay on
mud stone migrating towards Soft

Monday
3/11/13

Last run at 399.75
Flow of well
picked up

Shut down for
the day

Cappon well

403' - 413'

next run

Well is flowing

1 gallon per hour

Mon 3/11/13

Dense Dry Clay

Add 10' $393 - 403 = 399.75$

389.75 - 391'

Olive Gray in color very Dark Dry
Dense Clay with fine Quartz
or mus

391' - 395.25

Dark Olive Clayish mud with Quartz

395.25 - 399.75

Very soft Greenish Clayish mud with
Quartz and organics with white or
cream colored clay

Add 10' $403 - 413 = 409.75$

Tuesday 3/12/13

399.75 - 400.75

Gray, ~~medium~~ Sand Stone with phosphates
Fine ^{in color} & medium Quartz

400.75 - 401.75

Gray in color Sand Stone with large lumps

Tuesday Cont.

401.75 - 404.75

Crumbling Concretion Sand Stone
Gray to Color, medium + fine Quartz Phosphates

3/12/13 404.75 - 408.00

Crumbling Gray Sand Stone with Allos
photos becoming Petrified or Concretion
some marbling and vugs

406 - 409.75

Olive Gray Clayish Concretion Sand Stone
with organic

Add 10' = 413 - 423 = 419.75

409.75 - 413.25

Dark Olive Gray Clayish Concretion Clay

413.25 - 415.25

Gray to Color Concretion Sand Stone
with concretions and vugs

415.25 - 419.75

Loose Sample really soft

Add 10' 423 - 433 = 422.25

419.75 - 422.75

Loose Sample Again Fine Gray Sand Stone

Thursday Cont

3/12/13

422.75 - 424.75

Corymbosus Gony in Cedar Sand Stone
with Vugs

3/15/13

424.75 - 429.75

Stuff + Gony Sand Stone kept
us from getting sample

Add 10' = 433 - 443 = 439.75

429.75 - 434.75

Loss of Sample on just wash
away silt with thin Sand Stone

well is starting to flow out of
central column make fissure
with distinct red column
over and still with dense
water to flow in distinct.

4/30/13

ANANZA'S State Forest

N 29.42 ³ 80.8 Elev ^{104.4} ~~20.8~~

W 081.18 ⁶⁵ 06.7 Acc ~~37.8~~

10:18 am 26.0

Content 304-797
2665

5/8/13

N 29° 42.805 Elev 104.8
W 081° 18.065 Acc 49.7

N. 29° 13.655' 47.9
W. 081° 21.728' 17.6

Crosser Hammock Rd

5/8 4' casing HWT 6' - 4' 50 BLS
5/9 3' casing NW 15' - 15 BLS
5/9 4' casing HWT 16' - 15 BLS

WEDNESDAY 6/12/13

6:51 AM Warm up DOP5583 Arrive at 7⁴⁵

N 29° 02.985

5054 mile

W 091° 40.536

3470 Hour

Elev 149.5 Acc 72.0

3477 Finish Hr.

0 - 2.5' Push Sample Split Spoon
Pinkish Whitish Tan Sugar Sand
Change Brownish Tan Sand Course

2.5 - 5.0

Orange Color Tan Sand
Course to medium

5.0 - 7.5

Orange Color Tan Sand
w/ Darker Brown Sand
medium

7.5 - 10'

light Tannish Color Sand
with Gray Sand, Darker Orange
Brown Sand
medium

10' - 12.5'

Tannish Brown Sand with
some dark Brown Sand, ~~light Gray~~
~~Sand~~ medium

12.5 - 15

Tanish Color Sand becoming
more Dense Quartz

15 - 15.5

Brown + Tan Sand Medium
Quartz

15.5 - 17.5

Tan Color Sand Medium
Quartz

17.5 - 20

Tan Color Sand Medium
Quartz

20 - 22.5

Tan Color Sand Medium
Quartz

Run 3' NW Coring 10 + 10 + 5 =

25' - 2.5 = 22.5

3.50 Stick up

Start Coring at .

22.50 - ~~25.00~~ 25.50

Unable to get 100% of this sand
Darken Tan Sand medium Quartz
Some Organics

25.50 - 29.50

Unable to get good recovery
Darker Tan Sand Medium + Fine Quartz

NEED to find formula to
get better recovery in sand

Faster Recovery + Faster down feed
Possibly

Thursday 6/13/13

730m 3477 hrs

29.50 - 32.00

Still unable to recover 100%
of Single Dark Orangeish Brown
Sand Quartz medium some organic

32.00 - 34.50

Still not good recovery
Dark Orangeish Brown Quartz Sand
Medium Grade Some Organics

34.50
2.50
37.00

44.50
2.50
47.00

Faster Rotation must
down food did not work

Slower Rotation + food
2.50 runs again

1,
49.50
2.50
52.00

34.50 - 39.50
No Recovery

39.50 - 44.50
No Recovery

44.50 - 47.00
Loss of Sample
Formation Changes in Sand
light Grayish Tan in Color
medium Grains some organic

47.00 - 49.50
light Grayish Tan Sand Changing
to a Grainer light Brown Sand
medium Grains Formation
Change coming up with Dark
Brown Sand with Organics

49.50 - 52.00
Dark Brown Grained Sand
with Organics
52.00

52.00 - 54.50
Dark Brown Grained Sand medium
with Organics

$$\begin{array}{r} 55.00 \\ 2.50 \\ \hline 52.50 \end{array}$$

$$\begin{array}{r} 52.50 \\ 2.50 \\ \hline 50.00 \end{array}$$

Spent runs with
Slow Rotation and Push

54.50 - 57.00

light Brown & Gray in Color
QUARTZ Sand medium with
organics

57.00 - ~~58.50~~ 59.50

Grayish Brown in Color medium
to large Quartz Sand with
organics

59.50 - 62.00

light Gray medium Quartz
Sand with organics

62.00 - 64.50

Unable to retrieve Core
Sample

64.50 - 69.50

Unable to retrieve Core
Sample

Trip out of Hole to run 30'
of 3" NW CASING Total 55'

74.50
 2.88

 77.00
 2.50

 79.50
 2.50

 82.00

Fluid loss from 74.50 - 77.00 →

→

No Relation pressure
 100' - 125' mud pressure →

72.50 - 72.25
 White Sugar Sand Fine
 Quarts Sand

72.25 - 74.50
 light to very light Tan Quartz
 Fine to medium Sand

6/14/13 Arrival Time 7:20 am
 3481 hrs

74.50 - 77.00
 Formation Change from Sugar Sand
 Changing to Very Dark Brown Quartz
 Sand with Heavy minerals and
 organics.

77.00 - 82.80
 Dark Brown Quartz Sand with
 Heavy ~~org~~ Minerals and Organics
 Lost some sample due to
 Formation Change in the middle
 of run.

82.80 - 89.50
 Unable to retrieve Core Sample

89.50
2.50
92.00

89.50 - 92.00

Dark Brown Fine Quartz sand
with Heavy minerals and organics
changing to Medium Tan in color
Fine to medium Quartz sand with
some Organics

92' - 94.50

Orangeish Tan Fine to medium
Quartz Sand with some organics

94.50 - 97'

Orange Tan Fine to medium
Quartz sand with some
organics and a little pebbles

97 - 99.50

Unable to get more core
sample STUFF

99.50 - 102'

Orange Tan Fine to medium
Quartz Sand Very little minerals

109.50
 1.50
 108.00
 5.00
 113.00

At Bottom of Chy Run look →
 as though we are back in sand

105' of NW 3" casing

102-107.75

Orange-Tan Sand medium to
 Fine Quartz Sand migrating
 to a dark Smoky Gray Clay

107.75 - 109.50

Unable to retrieve Core sample

6/17/13 Monday 12¹⁴pm

No mud in Dwell rock rub
 a good sign. Pull 113' of MRQ

55' 3 NW going Attack 5'

Pull All 3" NW going to change out
 Devils Nightmare bit.

10' + 20' + 10' + 10' + 10' + 10' + 10' + 10' +
 15' = 105' = 102' to land surface

6/18/13

~~8.50~~ 8.50 + 20' + 20' + 20' + 20'
 20' + 20' + 20'

left off at 109.50
 started at 108.50

105 110
~~108~~ - 113'

Grayish Brown Sand
did not get all sample

110 - ~~112~~ 50

Fine Silty Quartz Sand Gray In
color Poor Recovery

112.50 - ~~113~~

Sandy Gray Clay and Fine to medium
Quartz Sand

115.50 118'

~~116~~ - ~~118.50~~

Sandy Gray Clay is color with Fine
to medium Quartz Sand Changing
to a softer Sandy Gray Clay

118

~~120.50~~ - 120.50'

Sandy Gray Coarser Sand changing
to light Tanish Gray is color
Fine to medium Quartz Sand with
organics

120.50 - 123

~~121~~ - ~~123.50~~

Common Dark Brown medium to
Fine Quartz Sand

123 - 125.50

~~125.50 - 128~~

Brown and white colorary Silt
medium Gravel with some organics

125.50 - 128'

Dark Siltier Gray in Color Soft medium
to Fine Quartz Sand with some Clayish
matrix.

128' - 130.50

Loss of sample soft Siltier Gray
Medium to Fine Quartz Sand

130.50 - 133'

Very soft Siltier Gray medium to Fine Quartz
Sand. MUDDY

133' - 135.50

SAME AS ABOVE

135.50 - 138'

Siltier Gray medium to Fine Quartz Sand
becoming very Clayish

138' - 140.50

Siltier Gray Clayish medium to Fine
Quartz Sand

141.50 - 141.75

Olive Gray Clayish medium to fine
Quartz Sand very to Hawthorn

141.75 - 143'

Same as Above

143' - 145.00'

Olive Gray medium to fine Quartz Sand
with Clay matrix loading with organic
or minerals

WEDNESDAY 6/19/13

6:40 350 hrs

We are at 145.50 Correlation Hole
add 20' = 165.00

145 - 147.50

Dark Smoke Gray Fine Quartz
sand very Clayish with some
phosphates

147.50 - 150'

Dark Smoke Gray Fine Quartz
Sand very Clayish and more
phosphates

152.50
2 58

155 00

158.50
2 00

160.50

150' - 152'50

Dark Sand & Clay Gory Fine Grained
Sand Clay matrix with large and
small phosphates ending with
Dense sand stone with phosphates

152.50 - 155

OLIVE Tan + Gory Dense Clay
with Fine to medium Quartz Sand
with phosphates

155' - 158'50

Dark Gory phosphatic Sand
Stone very Graining Dolostone

158.50 - 160.50

Whitish Tan Dolostone matrix with
phosphate

160.50 - 165.00

Whitish Tan Dolostone Fractured
with phosphate with a seam of
Dark Gory Fine Grained Sand Clayish
matrix impurely here to Dolostone
narrowly and phosphates

169.50
288
112 50

6/20/13 Thur 602 AM 3508 hr
Condition Meter to Start Core
165' - 167'

Tanish with Dolomite with
Fossil molds and Fossils

167. - 169.50

Gray + Tan Dolomite with Vugs,
Minerals and Organics and some
limestone

169.50' - 172'

Tanish Gray Crumbly Dolomite
limestone with some of soft
minerals, organics, mud stone

172' - 175

Tan in Color Mud Stone with some
Fine Quartz Sand and phosphates
and some Organics. Limestone with
Vugs and Fossils + Fossil molds

175 - 179.50

Tan & Gray Mud Stone with
some limestone matrix, Fossil molds
and Fossils and Vugs, Minerals

phosphates.

179.50 - 182

Darken Blackish Gray mud stone
with some fine Quartz minerals
phosphates, organics

182' - 185.00

Grayish Tan mud stone with
some fine Quartz a lot of phosphates
organic, marbling

185' - 190'

Grayish Tan mud stone with some
Quartz and with phosphates and
minerals some organics migrating
to a dark mud stone

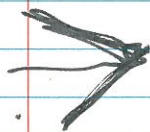
190' - 195'

Dark Gray mud stone with
marbling lime stone pieces and
some organics

195' - 200

Light Gray mud stone changing
to a darker Gray mud stone or

Last Core Unit



Dark to very Dark Clayey sandstone
mudstone becoming mudstone with
fossils some corals with some
fine quartz sand

200' - 205'

Grainy mud stone gray to
light gray in color some phosphorus
fine quartz sand
minerals and some organics

205' - 210'

Same as above maybe a little
bit softer in cutting and penetration

Sunday 6/21/13 6:30 AM 35/16 hrs
Condition better after making fresh
batch of drilling fluids

210' - 212'

Dark Gray to black fine quartz
sand stone with minerals and organics
with phosphorus changing to a lighter
gray in color sand stone with shells

NPO keeps getting rock up
in Retention. Gravel/Fall in
hole Jamming Retention

Burned up but trying
to get back out of hole
with no rooming shell

ran Dep 6205 for 4 hrs
and motor only showed
1 hour? Told Dave

218.50
3.50
222.00

215' - 215.50 - 216

Soft ~~Crumbly~~ Crumbly Sand
Stems Gray in Color. Fine Quartz
Sand with organics and phosphates

Trip out of Hole

Advances 3" NW Gravel to 140'
From 100'

Monday 6/24/13 11:35 3523 hrs
Rephaser Hydraulic Hoses on Turn
Rephaser Belts on Top / Round Slide
Fill with Truck. Run 3" NW
Gravel to 140' - 170'

Tuesday 6/25/13 6:30 AM 3524 hrs
 $170' + 10 + 10 = 190 + 10 + 5 = 205$
202

$20' + 8.50 + 20' + 20' + 20' + 20' + 20'$
1' 1' 1' 1' 1'
 $20 + 20 + 20 + 20 + 20 = 228.50$

216" - 218.50

Recut Sand Stems and Dark
Gray in Color medium Quartz Sand

225
108
—
117

Wednesday 4/26/13 →

215?
~~218~~ 50 - 220'

Dark Brown Dolomite with warts
and phosphatic migrating to
Steno-limestone matrix. Color
Changing to Soft Chalky
limestone whitish tan in color

220^{so} 225' add 20 - 24850

Grayish white in color from
Steno matrix. Coarse lots of
porosity and fractures

C/26/13

225 - 230' 645 3533

lost sample due to forgetting to
Trawl Inner Barrel (2) After letting
1/2 hr sit overnight try to recover
lost sample by running 2.5e'

230 - ~~232~~ 50 235'

Whitish Tan Limestone with vugs
and fossil mottles. Crumbly seems

235 - 240'

Same as Above
No Change

Had to wash out Holes
Squeezing in on Dull Rods →

240 - 245' Add 20' = 268.50
Softer grayish white lime
stone becoming very clayish

248'
245' - 248'

Starting out as Crystallized
lime stone almost like Dolostone
Changes to a very soft crumbly
limestone grayish tan in color.

248' - 250'

Grayish white in color Crystall
limestone fine grained with
Fossil + Fossil molds

250' - 255'

Clayish limestone Soft
and somewhat Crystalline
Grainy lightish gray in color
and fine grained

255' - 260'

Grayish white in color Hard
limestone very dense Grainy with
veins and fractures becoming soft

Lower Relatum Pressure
Lower mud Pressure



260' - 265' Add 20 = 28000
Soft limestone matrix 28500
Some Clay very Breakable

265 - 270
Whitish Tannish Gray limestone
Soft matrix some vugs

270 - 275'
Whitish Gray limestone Graining
Fossil molds and some vugs more dense

275' - 277'
Standing out Hard, Fracturing
limestone with Cracks & Fossils
And Fossil molds Grayish Tan
in color

Thursday 6/27 6:35 35411

277' - 280
Crystallized Clayish mud stone
with imbedded limestone
Grayish Tan in color

Water Bearing Zone

Possible Avon Park
Formation



Avon Park Contact

29
300

225
78

280-285'

Crystallized mudstone Gray
in color with imbedded limestone
A lot of permeability vugs

285-290'

Same as above but more
fractured

290-295'

Formation Change: Quicker penetration
Tannish Gray in color ~~mud~~ stone
lime stone. Graining with vugs
possible weathering zone with chert
light Gray in color mud stone
Avon Park?

295-300'

Tannish Gray in color lime stone
Changing to Avon park contact
weathering zone. Brownish Gray in
color mud stone/lime stone matrix

300'-303'

Tan and Brownish in color mud stone/
lime stone with chert nodules

in dry 6/28/13 6:45 3547 hrs
Wash Table 115.28

Gamma 2BPA

7/8/13 Monday 3551

10 + 20 = 30 4" HW Army

7/9/13

3553
+ 20 = 50 still able to spin
4" Army by hand

50 + 20 = 70 + 20 = 90 + 20

205 - 5 = 200 + 10 = 210 + 10 = 220
+ 10 = 230 + 10 = 240 + 10 = 250
230 to 250 Skew Cutting

Wednesday 7/10/13 3561

Spent All Day Trying
to get 3" + NRP to meet
Thru problem with
Schwinn

Thursday 7/11/13 3569

7:00 am Work on getting 4" NW
Free. Pull up to 90' + 20 = 110 +
20 = 130 + 20 = 150 + 10 = 160'

Friday 7/12/13 7:00 3571

Set 4" NW Army at 158'
wash and clean Holo dis-
connect 4" Drive Hand, Attach
NRI to NRP sub and try to
move NRP. Unsuccessful
Disconnect NRP Drive sub and
Push 3" NW Drive Hand NRP
Flare down Holo Move on Try
to move 3" Army was able to
get minimal circulation between
4" + 3" Armys.

Notes I plan to pump down
wash down Holo with some
solvents to stick up Holo. If
this does not work I will
have to drill 4" Army down
to free up 3" Army.

7/15/13 Monday

Arrive at site at 3:30 pm
Drop off blue Trailer behind.
Scream wait on Jasso to get
how broken I go get water
Jasso calls and he is lost
Give him directions how. Jasso
calls back he is still lost
pick up and secure drill site
and HALLS turn road no of
fish camp

Tuesday 7/16/13

got water 1st thing, pump
fresh water down hole try to
raise 3" NW. did not raise
try to raise NRS did not
raise. water was going
there 3" NW next bot
water bearing 20w at 265'
Fushell 40' HW show 1 Guy
to 100' from - 120'.

Wed 7/17/13

Fill up water Truck with
1100 gals of water

ONF#2

N. 29° 15, 245

W 081° 46 191

Acc. 17.8

7/26/13

Stick up 3.50' from L Surface

0" - 30" - 2.50

Grayish white, 15 Color Sugar
Sand migrating to a brownish
Orange Color Sugar Sand large Quartz

2.50' - 5'

Continuation of Brownish orange
15 Color Sugar Sand large Quartz

5" - 7.50'

Brownish orange Quartz
Sand large Quartz

7.50' - 10'

Brownish Orange Quartz Sand
becoming medium size Quartz

10' - 12.50'

Continuation of Brownish Orange
Quartz Sand medium Quartz

12.50' - 15'

Brownish Orange Quartz Sand

12.50 - 15'

Medium Quartz Size Sand

15' - 17.5'

Brownish Orange Quartz Sand
and lot of refuse

Switch over to NRO

17' - 22.50

Dark Brownish Orange Quartz
Sand changing to a fine Quartz
Sand

22.50 - 25.00

Changing to a light Tan Quartz
Sand fine Quartz with organic

25' - 27.50

light Tan Fine Quartz Sand
with some organics

27.50 - 30'

Tanish white Fine Sand
with organics

7/29/13

~~7/30/13~~

7/30/13 →

30' - 32.50'

Whitish Tan Sand Fine Grained
with some organics

32.50 - 35'

Same as above Not Able to
Rotarose 100% Recovery

35 - 37.50 (Changed) to only mud
Flow No Rotation and push
Tan in Color Fine to medium
Grained Sand with some organics

37.50 - 40'

Same as above

40' - 42.50

Whitish Tan in Color Fine to medium
Grained Sand with some organics

42.50 - 45'

Same as above

45' & 45.50

Test or wash part of sample
away, Rotarose Whitish in Color

7/3/13

Continued 45' - 45.40'

Sugar Sand

45.50 - 48'

Tan in color Fine to medium Quartz
sand becoming a little Clayish

48' - 50'

Orange Tan in color Clayish Fine to
medium Quartz Sand with organic
and some phosphates

50' - 50.50'

SAME AS ABOVE

50.50' - 53'

Orange Tan Clayish Quartz Sand
fine to medium in size migrating to
a Tanish white in color sand

53' - 55.50'

Grayish Tan Fine to medium Quartz
Sand becoming not as Clayish

55.50' - 58'

Whitish Tan Fine to medium Quartz

55.50
2 50

58 00

Continued

~~55.50~~ 55.50-58

Sand with some organics and phosphates

58'-60.50'

Same as Above

60.50-61'

Same as Above

61'-63'

Tannish white Fine to medium
Quartz Sand with organics and
phosphates

63'-65'

Grayish white or Tan in Color
Fine to medium Quartz sand with
some organics and phosphates

65'-66'

Whitish Gray Fine to medium Quartz
Sand

66'-67.50'

Whitish Gray Fine to medium Quartz

7/31/13

67.50 - 70'

Grayish white fine to medium Quartz sand with some organics, phosphates

70' - 72.50'

Same as Above

72.50' - 75'

Grayish whitish Tan fine to medium Quartz sand with organics, phosphates

75' - 77'

Grayish Tannish white fine to medium quartz sand

77' - 77.50'

Same as Above but seems to be coming Clayish

77.50' - 80'

Tannish Gray to Color fine to medium Quartz sand with phosphates and becoming Clayish

80' - 82.50'

Clayish Grayish Tan sand fine to

8
825
868
26

Formation Change



medium Quartz Sand with
phosphates

82.50 - 85'

Same as Above

85 - 87.50

Clayish Grayish Tan Fine to medium
Quartz Sand with phosphates

87.50' - 90'

Grayish white Fine to medium Sand
with organics and phosphates

90 - 90.50

Dense Clayish Quartz Sand medium
in Size Tan in Color

90.50 - 91.50

Calcified Quartz Sand Clayish
matrix. Tannish Gray in color
with organics or minerals

91.50 - 92.50

Same as above but becoming Gravelly
and grainy low Reservoir

Change lines and Depths



Continued

92.50 - 95'

Changing to a Whitish Gray / Tannish Gray in color medium to fine Grained sand with organics and minerals Clayish matrix.

95-97.50'

Change in formation large Quartz and Grayish Tan in color Poor recovery

97.50' - 100'

Coarse Grain large Quartz sand Whitish Tan and light Gray in color minimal recovery only Briled

100.50 105.00

Change. Brownish orange Clayish Quartz Sand with organics and phosphates or minerals Favors Growth

100.00 - 102.50

Coarse Whitish Gray large Quartz sand

8/1/13 105'-108'

Whitish Gray in Color with some
Large to medium Quartz and
Folios Earth

108'-110'

Whitish Gray in Color Fine to medium
Quartz and with a Clayish
matrix Folios Earth

110'-111'

Same as Above

111'-115'

Same as Above

115'-118'

Same as Above but starting to
see a change in formation

118'-121'

Folios Earth Formation showing
to show color change to a light
Pinkish Soften matrix of Clay

Continued
121'-123'

Shantan runs to get better recovery. Pinkish in color fine Quartz with phosphate or minerals

123'-125'

Changing in the Cypress Head Formation fine Clayish matrix of Colors Earth becoming Cypress Head Formation. Large Quartz and some minerals

Trip out of Hole and run 4" HW to

Drill 100' + 5' = 105 4" HW
Shut Ring

Drill 100' + 5' = 105 3" NW

8/13 Friday

Drill 125' of NRQ
wash out Shant Cement fine

125' - 127.50

light Pinkish Orange to Dark Cement

Switching over to Reetz
Shots



Switching back over to Grand shot
push sample again

Clayish Sand matrix medium to
fine Quartz and fine minerals

127.50 - 130

Poor Recovery
Pinkish orange in color Fine Quartz
sand with minerals. Changing to a
finer Quartz sand with minerals
and light orange in color

130' - 132.50

Still poor recovery
Same as above light orange in
color fine Quartz sand, Clayish
matrix with minerals

132.50 - 135'

light pinkish orange in color finer
Quartz sand, Clayish matrix with
crystals and minerals

135' - 140'

light orange Clayish matrix
of fine to medium sand

140 - 142.50

light pink to orange fine Quartz
sand with some minerals

142.50 - 145'

very light pink in color clay matrix
whitish fine to medium Quartz sand
loaded with organics and minerals

Monday 8/5/13

Condition + Clean Helo add 20'
more of WIRP 168

145' - 147.50

Pinkish Gray white in color larger
to medium Quartz sand with clayish
matrix with organics or minerals

147.50 - 150'

SAME AS ABOVE

150' - 152.50

Shining out large to medium Quartz
sand grayish white in color changing
to colors Earth

155' - 160'

Lighter Earth Changing to a mixture of Clayish Orange Colored, or Brownish orange Clayish matrix with some large and medium Quartz and also organic

8/6/13

160' - 162.50'

Dark Orange Clayish Fine Quartz and with minerals change at end

162.50' - 165'

Grayish Tannish white large Quartz and with minerals

165' - 167.50'

Grayish Tannish white Coarse large and medium Quartz and has coming a Clayish matrix

167.50' - 170'

Coarse whitish Gray Quartz and with a slight pinkish color changing to a Calcium Clayish sand larger to medium Quartz size changing to a Clayish matrix Orangeish

~~Color Clayish Quartz and~~
~~becoming Highly Plastic Clays~~

170' - 172.50'

Oxymish brownish Gray Clay
matrix large Quartz sand becoming
Highly plastic Clay

172.50 - 175'

Cream colored Clayish matrix of
medium and fine Quartz Sand
with organics and minerals

175' - 175.50'

Lost Circulation Light Brownish Cream
color Clayish matrix of medium to
fine Quartz Sand with organics and
minerals

175.50 - 176.50'

Brownish Cream colored Clayish matrix
of fine and medium, some large
Quartz Sand some minerals

176.50 - 180'

Same as Above but changing to

CURVE TABLES

HOW TO USE CURVE TABLES

Table I. contains Tangents and External to a 1° curve. Tan. and Ext. to any other radius may be found nearly enough, by dividing the Tan. or Ext. opposite the given Central Angle by the given degree of curve.

To find Deg. of Curve, having the Central Angle and Tangent: Divide Tan. opposite the given Central Angle by the given Tangent.

To find Deg. of Curve, having the Central Angle and External: Divide Ext. opposite the given Central Angle by the given External.

To find Nat. Tan. and Nat. Ex. Sec. for any angle by Table I.: Tan. or Ext. of twice the given angle divided by the radius of a 1° curve will be the Nat. Tan. or Nat. Ex. Sec.

EXAMPLE

Wanted a Curve with an Ext. of about 12 ft. Angle of Intersection or I. P. = $23^\circ 20'$ to the R. at Station 542 + 72.

Ext. in Tab. I opposite $23^\circ 20' = 120.87$
 $120.87 \div 12 = 10.07$. Say a 10° Curve.

Tan. in Tab. I opp. $23^\circ 20' = 1183.1$
 $1183.1 \div 10 = 118.31$.

Correction for A. $23^\circ 20'$ for a 10° Cur. = 0.16
 $118.31 + 0.16 = 118.47 =$ corrected Tangent.

(If corrected Ext. is required find in same way)
Ang. $23^\circ 20' = 23.33^\circ \div 10 = 2.3333 =$ L. C.

$2^\circ 19\frac{1}{2}' =$ def. for sta.	542	I. P. = sta.	542 + 72
$4^\circ 49\frac{1}{2}' =$ " " "	+ 50	Tan. =	1 .18.47
$7^\circ 19\frac{1}{2}' =$ " " "	543	B. C. = sta.	541 + 53.53
$9^\circ 49\frac{1}{2}' =$ " " "	+ 50	L. C. =	2 .33.33
$11^\circ 40' =$ " " "	543 +	E. C. = Sta.	543 + 86.86
	86.86		

$100 - 53.53 = 46.47 \times 3' (\text{def. for 1 ft. of } 10^\circ \text{ Cur.}) = 139.41' =$

$2^\circ 19\frac{1}{2}' =$ def. for sta. 542.

Def. for 50 ft. = $2^\circ 30'$ for a 10° Curve.

Def. for 36.86 ft. = $1^\circ 50\frac{1}{2}'$ for a 10° Curve.

