

MOBILE DRILL

#24

Forestry Suppliers, Inc.

1-800-647-5368

#49354 Level Book

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W-19444 (Long leaf Pine Preserve)
4/08/13 DTP, ET, & LH, leaving WHSE
@ 11:48 A.M. to head for Matanzas S.P.
to mobilize Rig, Water Truck & trailers
to Long leaf Pine Preserve (Volusia Co.)

arrived @ Matanzas S.P. Late afternoon
mobilized 2 trailers, & made return trip
to pickup a 3rd. Arrived @ Comfort Inn
& suite's 9:00 p.m.

4/09/13 7 a.m. met w/ DTP's LH in hotel
break room for b-fast. Publix to pickup
Gatorade, water & sun block. onto site
to set up & start drilling.
or 2.5 Lt gry sand

2

2.5 - 50 Same

4.25' Ft. water table

5.0 - 7.0 Same, change @ 6.0' Ft.
brn gry sands (moist)

7.0 - 9' drk gry brn silty sand

9' - 10' Same

W-19444

10' - 11' Same

LONGLEAF PINE PRESERVE

VOLUSIA CO.

4/10/13 →

11-12.5 Same

12.5-15' same

Running 4" casing @ 15' B.L.S.

Securing site & head for lodging @ hotel 7:30p.

4-10-13 met w/ LH 7 a.m., on site @
8:30 a.m. Fueled @ conv. store, met w/
Atlantic Drilling Supply onsite to receive
drilling products

15-20 gry brn sand, silty

20-25 same

25-30 gry tan sand, silty

30'-35 gry drk gry sands, silty

Started losing samples, decided to make short runs

35'-36.5' same

36.5-40 Same

40-45 same

45-46.25 same

45.25 - 47.5 same

47.5 - 50 same

(4-11-13) met w/ Lt @ 7:00 a.m.,
50 - 55 gry brn fine sand

55 - 60 drk gry Fine sand

60 - 62.5 Same, silty

62.5 - 65 gry sand w/ shell

65 - 67.5 same

67.5 - 70 same

70 - 75 same

75 - 80 same

80 - 82.5 same

Thunder storm's approaching, $\frac{1}{2}$ sand locked
shut down for the day & headed for lodging

4-12-13 Running 3" casing, had to stop to
go through casing & repair green trailer

for Bob to pick up.

3" casing @ 35' BLS

Securing site & heading to Tallahassee,
Arrived @ WHSE 7:30 p.m. & off the
compound by 7:40 p.m.

4-22-13 ET, LH @ office 7:30/7:45 a.m.
load last mtr. materials leaving Talla. 8:30 a.m.
Fueled @ Fla./Ga. Pkwy. onto Deland
arrived @ 4 p.m. after picking up new eth.
gas, & 1/4 water for water truck. Free
up 3" casing, secure site & heading for
lodging. @ hotel 6:30 p.m.
Riz 3569

4-23-2013 L.H. & E.T. met @ B-fast 7 a.m.
7:30 a.m. headed to site. On site @ 8 a.m.
Continuing to advance 3" casing. / casing @
83.5' Ft. BLS. / ran NQ drill string to
80' to clear 3" casing of debris.
85' - 90' gr y sandy clay 89.5'
changed to lt grey tan coarse sand.

90 - 95' run up inside casing.
pulled top 10' x NQ out to free drill
string, we have some circulation
but continuing to plug off. Securing
site & heading to hotel. @ p.m. 6:30 p.m.

4/24/2013

7:00 p.m. / met w / L.H. @ b-fest 7 a.m.
onsite @ 8:15 a.m., called Dave for
advise. & his suggestion was to pump mud between
samples or chase w/ 3" casing. (little Talbot style)
Continuing to prescreen: ran NA back to
90'-95' gry sandy clay w/ shell

95'-100' same / 97' lime substance lt gry in
color, 99' change to lime stone (ocala???)
~~100'-105'~~

NO circulation →

99'-100' lime stone lt gry white

100'-105' same

100'-110' no reading on mud pressure gauge
pulled sample no sample but inner
barrel was full of fresh water.

106' void (w/ water pressure)

110'-115' lt gry white lime stone w/ some
shell

115'-^{116'}~~115'~~ same

115'-117.5 void 117.5'-120' lime stone
ocala • 3/4 Iron Part ???

120'-125' same lime stone

128'-130' same

25g 3583
still no circulation →

130-135 Same 132' change to a
softer mud stone, 134' change back
to lime stone

135'-140' same, 137' change to
tan brn gry lime stone 138.5' change
back to lt gry white lime stone

140'-145' lt gry white lime stone
very well consolidated w/ porous zones
& organics

145'-150' same / still no circulation

clean up & head for lodging. @
hotel 7:40 p.m.

4-25-2013 L.H. & E.T. met @ 7 a.m.
headed for site fueling water truck
on site @ 8:30 a.m.

Water Run, problems w/ mud pump
got it going, filled w.T. on site

150'-155' above park ??? (still no circulation)
but that's ok, still getting good samples
155'-160' above park

Quik TROL LV
NO SAG

Diesel for Rig

Core Box's

160-165' even pack

165-170 same

170-175 same

175'-180 same

180-185 same

185-190 harder to cut, no circulation
1 pit of mud per - 2 samples

190'-195' same

195'-200' same

secure site & load for lodging, ~~@ hotel~~
Rig 3587

@ hotel 7:30 p.m.

8-26-2013

E.T., L.H. met @ 7 a.m. B-fast
check out hotel @ 7:30 a.m.

arrived on site @ 8:15 a.m. met w/
Rick Green, Clint, & Seth to
confirm T.A.P., Confirmed by Rick
job done, cleaning & securing site

headed for Talla. arriving @ 3:54 p.m.

4/30/2013 met w/ D.T.P., L.H., S.
@ whse. to head into field for
well logging. left office @ 8:30 a.m.
heading to long leaf Pine Preserve to
log hole w/ ST. John's river w.d.m.D.
@ 1:15 p.m. arrived @ site met
w/ S.J.R.W.M. gamma log was run 1st
well is 200.17' Ft.
pulling HQ, we had to chase 3" casing
it had dropped 19' to rock.
S.J.R.W.M.D. Ran Gamma log, Caliper &
leaving site @ 5:30 p.m. & arrived back
at the office 10:45 p.m.

5/6/2013 ^{8:30 a.m.} met w/ Seth @ W.H.S.E.
loading last minute supplies, & leaving
office @ ^{3:30 p.m.} Drive to L.L.P.P., met w/
B.C. made water run, gate not acc
drove to back of property to access,
filled w/ water, returned to site mixed
2 batches of Quick-grout, well should
have bottom 120' grouted, will tag in
the a.m., heading to hotel, plus groceries
@ hotel 9 p.m.

5/7/2013 met w/ seth 7:30 a.m.
headed to site @ 8 a.m., met B.C.
on site @ 8:30 a.m. tagged hole @
126.75' formation is real porous there core
ther may be some seepage, pumped next
batch tagged @ 113.25'; next batch
tagged @ 4 bags of Quick-grout so far
(5-6/5-7) → (6-bags total Quick-GROUT)
grouted up to 12' ft. BLS, finished w/
hole plug.

Cleaning site & mobilizing to Heart Island,
arrived @ site 6:15 p.m. dropped mud light
& cargo trailer. Head to Hotel, @ hotel
7 p.m.

5/8/2013

Met w/ S.B. @ 7:30 a.m. seth was
ready @ 7 a.m., went to C.C.P.F.
Finished clean up. Mobilized to
Heart Island. Filled @ Lake Dias
off of Hwy 11. Arrived on site @
12:55 p.m. Set up ^{seth}
(Coord. ~~N 29° 42.805~~ N 29.22767
Bob ~~W 081° 10.065~~ W 81.36200)

B.C. arrived @ 1:30 p.m.

- Chesser Hammock Rd. Job name -

W-19448

CHESSER HAMMOCK RD

VOLUSIA CO.

W-19448

0' - 2.5' dk gry gry fine sand, @ 2'

Lt gry fine sand

2.5' - 5' same, @ 3.5' change to dk gry
brn silty sand, @ 4' dk brn sand, silty
water table @ 3' 2 1/2"

Running 4" casing to 5'

5' - 10' brn gry silty sand

10' - 15' dk gry silty sand (hard pan)
@ 11' change to tan brn silty sand

Wind is starting to run up the hole
and locked, pulled out, & now cleaning
site put away all equipment, so that it
won't be an issue here. Tomorrow we
will be running 3" casing. Heading to the
hotel. (@ the hotel 7 pm)

5/9/2013 met w/ S.B. @ 7:15 am.
Stopped @ Publix to p/u water, & gatorade
headed to site to meet B.C., - Set up
to run 3" casing / 3" casing @ 15' BLS /
Also had to extend 4" casing to 15'
16' ft x 4" string - 14.75' ft. BLS
17' ft x 3" string - 15' BLS

Beginning to core

15-18.25' drk gry brn sandy clay
 very hard to cut, maybe hard pan or clays
 18.25' - 20' - drk gry clay w/ some expansion
 going from 20' to 25' pushing too fast it wants
 to plug off, more clay ???

20' - 22.5' Lt gry tan sand

22.5' - 25' same

25' - 30' gry brn silty sand
 extending casing 4"

distractions on the job, caused
 slow down in production. Spoke w/ Dave
 his advice was to take an early day
 to cool off. Advice taken, securing
 site & heading to hotel @ hotel @ p.m.

5/10/13 met w/ S.B. @ 7:30 a.m.

checked out of hotel, arrived on site
 8:15 a.m., water run, extending 4" &
 2" casing, securing site heading
 for Tallahassee @ 2:30 p.m.

5/28/13 met w/ L.H. @ 10:30 a.m.

load & leave office by 11 a.m.
 Fuel @ Fla./GA Pkwy.

arrive on site 4 p.m. / Fill
water truck. @ lake Dias
open up site & start drilling
clean inside of 3" casing

3" @ 30' b.l.s.

4" @ 18.5' b.l.s.

30' - 35' Lt gray white fine sand

35' - ^{39.75'}~~40'~~ same, 39.75 - dk gray black
so very silty, ^{37.5'} gray silty sand Fine

39.75 - 40' same

40' - ^{41.5'}~~42'~~ dk gray fine sand
w/shell

45' - 50' same

3614 Rig

8 p.m. closing site & loading for lodging
@ hotel / 9:30 p.m.

5/22/13

met w/ L.H. @ 7 a.m.

on site @ 8 a.m. open up & start day

50' - 55' gray so w/shell @ 52.5'

change to Lt gray so w/shell

55' - 60' dk gray clay w/shell
Sample had to be pumped out w/
aux. hose. added penetrol

60' - 65' dk gray sc
Very slow cutting, must be more clay's

65' - 70' same, @ 67.5' changed to
lt gray sc w/shell / added ez-mud

70' - 75' lt gray clayey sand w/shell

75' - 77' same

changing over to rock shoe
77' - 80' Lost sample when pulling out
of hole, ran back in w/ extended
shoe, collected a little sample.
started to plug off, tripped 5' ft. of
NQ off top. continued to work
freed NQ & washed back down
to 80' ft. lunch 1:10 p.m. 1:30 p.m.
continuing to core.

80' - 85' lt gray clay w/shell
Sand locked, tripped off 2' 5' x NQ
Free from sand, continuing to core

85' - 90' gray ss w/ shell, minimal sample

90' - 95' same, shell - something
is there I dk if it's shell or?
had to change to rock shoe

90' - 95' - shell, lime stone @ 94.75'
94.75' top of rock (maybe carbonated mud
stone or sand stone ???)

95' - 100' sample cut very easy, very smooth
Lime stone Ocala ???

100' - 105' same

105' - 110' same

110' - 115' lime stone

115' - 120' lime stone

Setting up to run 3" casing in the a.m.
3622 Rig @ hotel 7:30 p.m.

5-30-13 met w/ C.H. @ 7:00 a.m.
picked up new ETH. Fuel, filling 6017
w/ diesel, heading to site.

Running 3" casing, 3" @ 80' by
12:30 p.m. / lunch 12:30 - 12:50 p.m.
14

3" casing set @ 95.70' BLS, 2:30 p.m.
continuing to core.

120' - 125' Lt gray white limestone,
cut very easy & much softer stone

125' - 125.5' change to a more porous harder L, S

125' - 130' ^{same} fine stone, change @
127' to a more brittle L, S w/ more fossils

130' - 135' Lt gray white L, S very
well integrated @ 133' same what soft

135' - 140' Same

140' - 145' Same / lost circulation @ 144'
1' ft void

145' - 150' down park ???

150' - 155' Same / 154.75' brn tan ss
still A.P.

155' - 160' Brn tan rock, down park
changed @ 156.75' to Lt gray white very
well integrated rock, down park

160' - 165' Same

165' - 170' Same @ 169.75' drk gray brn. 15
rock w/ organics

* only 11-bags of Quik Gel
* 4-bags of soda ash
(Plenty) Quik-Creat

* we need core box materials

Plenty of Quik-TROL LV

Penetro (plenty)

EZ-mud (plenty)

EZ mud Gold (powder)
(plenty)

10- Soda ash

1- pallet Quik-Gel
Gorman's

\$ 21 per - Soda ash

\$ 12.48 per - 48 per pallet

cleaning site & picking up tools
to leave for the day

3630 Rig

@ the hotel 7:30 p.m.

5-31-2013 met w/ L.H. @ 7 a.m.
loading luggage into w.t. & headed
to site

170' - 175' - same

(6-10-2013) → induction air hose set @ 179' air developing

175' - 180' - same

180' - 185' - same / Brn rock A.P.

180' - 195' - 1st 1' ft - 2' ft of the run
it felt as though I was not cutting
anything & then I felt a little some-
thing through out the last 3' ft. of
the run - Brn tan rock A.P., 183'
change to Brn tan soft sandy clay
silty clay @ 183.5' changed back to brn
tan rock A.P. but there seemed
to be a void between 190' - 192', @ 194.75'
change to a lt gry white limestone A.P. 193, 3,
195' - 200' sample was a little harder to
cut ~~lt gry~~ lt gry white ls. A.P.

Securing site
3633 Rig

6-10-2013 Rig 3633 starting
Met w/ G.R. & S.H. to travel to
Hearl Island. Took G.R. to Carter BRQ.
to p/u F-150 (4649) Arrived on site @
1 p.m. opened up site, checked WT

water @ 9' 2" ~~W~~

Talked w/ Tyler & K.C., Tyler will be
here @ 9 a.m. / When air hitting first
check for W.T., Ask logger what tool is he
wants to run. Air inductor hose has
to be submerged in water.

example: 200' well, trip out 20' ft. of
N2, N2 now @ 180' ft. BLS. Then lower
150' ft of inductor air hose, ramp up
RPM's & vigorously send air down. When
formation is pumping clean water,
pump clean 2 to 3 times & proceed up
the well, pumped from 2 pm - 5 pm, securing
site & heading for lodging 7:30 p.m.

Rig 3635 - 6-11-2013

Met w/ G.R. & S.H. @ 6 am, fill water
truck w/ water met w/ Tyler at 7:30 am
developed well a little more. Ran Gamma log
1st, 2nd, 3rd, 4th Probe 2nd, next the
Calliper log. Every log was run successfully.
now we are about to grout the well
up. Weather was threatening
Dave & Bob p/u my sampling head.

Rig 3639

we had to close up & head for lodging.

6-12-2013 @ hotel 5:45 p.m.

Met w/ S.B. & G.R. @ 6 a.m.

receipt problems & headed to site

Started to grout well, had problems

@ 147', void was @ 145'. Patched void

w/ hole plug. Finished grouting up

to 30', pulled 3" X 95', continuing to

grout well w/ hole plug, cleaning

site & heading for lodging. We are staying @ the

(3646 Rig) Hampton Inn Ormond Beach

Hwy 40 & I-95 south. @ hotel 8 p.m.

6-13-2013 met w/ S.B. & G.R. @ 8 a.m.

heading to site, but first we have to

pick-up sampling head from Dave &

Bob's hotel over in Astor @ the Palmyra

Bridge hotel. (3646 Rig 15 Gal. Diesel)

headed to Matanzas S.P. / combo 375

@ Matanzas mobilizing Equipment. G.R.

Headed back to Tallah., S.B. & E.T. headed

back to Heart Island to p/u mobile Rig.

p/u mobile Rig headed back to Matanzas

@ site ^{Matanzas} 8 p.m., Parked Rig on site, &

headed for lodging. At the Fairfield Inn

@ 7 p.m.

6/14/13

Met w/ S.B. @ 8 a.m. checking out
arrived @ site. Move equipment
above swells to prevent flooding of
equipment. Cut trail w/ S.B. to
holding pond to access water for drilling.
Loaded quick-gel from pallet into
cargo trailer, just doing everything
we can to set up a good week for
me and J.H. next week (6-17)

Just as we were finishing up, Thunder
storms came up. Securing site & heading
for Tallahassee. Arrived in Talla.

5pm. (Rig 3648) 3650

6/17/13

met w/ J.H. @ 6 a.m. 6:45

J. Heard was in @ 6 a.m.

leaving office @ 10:35 a.m. on site @ 3 p.m.
opened up, started push sampling, Thunderstorms
some stand by time. Site started to get
nasty very fast. 10 min. of rain on this
site is too much. Securing site & headed
for lodging. @ Fairfield Inn of Palm
Coast by 6 p.m. (Rig 3650) → 6-14-13
(3651)

W-19450

MATANZAS SF

ST. JOHNS CO.

Sec 17 T09S R30E

29° 42' 49.0536"

81° 18' 2.7864"

6/18/13 met w/ J.H. @ 6 a.m.
leaving hotel @ 6:30 a.m.

Matanzas
Water table 7" in.

0' - 2.5' drk gry b/k silty sand - Fine sand,
@ 1.5' change to a lt gry brn fine sand

2.5' - 5' lt gry brn fine silty sand

5' - 10' tan brn silty fine sand
run 4" HWT to 6' Ft. BLS / 2' ft stick up
run 3" x 6' to 4" BLS / to circulate mud

10' - 15' - drk gry brn silty sand's w/ some
clays

15' - 20' drk gry brn silty sand w/ some
clays

20' - 25' lt gry tan fine sand, @ 24'
change to a drk gry black silty sand

25' - 30' Pull recovery yes!!! (☺) drk gry
black very silty sand (hard pan)

30' - 35' drk gry black silty fine sand

35' - 40' brn fine sand

40-44.25' grgy coarse sand org. w/
shell, sand locked running 3" casing
when we started to run 3" the 4" started
to leak & drop so we extended the 4"
also. Then proceeded to clean outer barrel
which was sand locked w/ inner barrel &
5' ova. this took until 6:48 p.m. securing site
Rig (3658) @ hotel 7:30 p.m.

6/19/13 T.H. in lobby @ 6 a.m., ETR in lobby
@ 6:20 a.m. opening site & starting.

Conditioning well & deploying WA back to 44.25'
cleaning well from 28' - 44.25'

44.25' - 45' grgy drk grgy sand w/ clay &
shell

45' - 50' - same

50' - 55' Lt grgy tan fine sand w/ shell
E2 - mud Cold was added

55' - 58.5' drk grgy black clayey sand
w/ shell, sand locked, pulled up 10' Ft.
cleaning well back down to 58.5'

58.5' - 60' Lt grgy tan fine sand

60' - 65' Lt grgy fine sand @ 62' change
drk grgy tan sandy clay w/ shell

recycling mud adding 1 cup soda ash
1-cup of quick-Gel, & 1-cup ex-mud.
gels.

65'-70' drk gry black clayey sand w/
shell, @ 68' we hit something hard &
could not cut w/ ex-shoe, change to
rock shoe to go back from 68'-70'
lost circulation & lost most of sample
bailed some shell. possible cavity, we
also refilled some fresh cold water,
(regained circulation)

70'-75' lt gry white clay w/ shell

75'-80' drk gry clay w/ shell
closing up site, @ hotel 6:40 p.m.
(3665 rig)

6-20-17

met w/ J. H. Gamm @ site 6:40 p.m.
opening up site, filling w/ w/ water
mixing mud, continuing to core

80'-85' lt gry sandy clay w/ shell
washing out between each sample

85'-90' drk gry clay w/ shell

check Hydraulic fluid in mobile

charge battery on camera

unload hole plug

batteries for strike indicator

take pic's of core

90'-95' dk. gry clay w/ less shell

95'-100' dk gry black rock w/ shell
& some clays / @ 99' change to a lt gry rock

100'-105' same @ 101.5' change to a lt
green, gry rock w/ some clays & shell

Thunder storms are approaching, down time

105'-110' gry green soft sed. rock, well entry
w/ ~~phosphate~~ phosphate

Rig 3669 - we need fuel for mobile rig

110'-115' same

115'-~~100~~^{117.5} gry green rock w/ ~~phosphate~~ phosphate
117.5' ~~117.5~~ started to hit something very hard
hard to eat @ 117.25' crystallized chert

117.5-118' chert !!!' ???

(Rig 3671) securing site & heading for
lodging @ hotel 7 p.m.

6-21-13 Met w/ J.H. @ 8 a.m.

heading to site, the goal for today is
to take pic's of core, check hydraulic
fluid in mobile rig, & extend 3" casing
down to rock or good material. S. G.R.

20 (4" x 20 x 10') 4" x 5 x 1

9 (3" x 9 x ~~10~~ 10')

13 (NQ x 13 x 10')

6 (NQ x 6 x 5')

and I can be prepared for the next trip out. So @ that time the only thing we would have to do is trip out all and replace core barrel w/ series 2 core barrel bit. we only ran the rig for a few minutes to secure drill string. @ 11 a.m. leaving site & head for Tallahassee. As thunder storm ^{rain} approach. Driving back to Talla. arriving @ office 4 p.m. unloading water truck. off by 4:40 p.m.

6-28-13

met w/ G.R. @ 7:30 a.m. Warehouse grabbing last-minute things.

arriving @ site 2:30 p.m., raining, site flooded, thunder storms. @ hotel ~~5:30~~ 5:30 p.m. (no hrs. on rig)

6-29-13 G.R. / E.T. leaving hotel 6 a.m.

arrive @ site 7 a.m. p/u wow - Eth. gas, opening up site, advancing 34
thunder storms in afternoon, stand by time. leaving the site 3 p.m. (Rig 3674)

Marine grease
1-866-667-6262

6-30-13 met w/ C.R. @ Bann.
on site continuing to advance 3".
Finished running casing @ 12:30 p.m.
Thunderstorms, stand by, 3" x 118' - set @ 117'
BLS. pulling NA, changing core barrel,
clean out & core. / changed over to a
series 2nd bit, she cut's slow, but smooth.
118'-120' drk gry rock w/ Phosphatic?
securing site & heading for lodging.
~~120~~ (Log 3679) @ hotel 6:30 p.m.

7-1-2013 C.R. & E.T. leaving hotel @
8:00 a.m., lower the site, setting up
and coring

120-125 - ~~gry~~ gry Phosphatic rock, 121'
change to gry clayey sand's w/ Phos. @ 124.95
125-130 - ~~gry~~ gry brn sc, @ 126' gry phos. rock,
@ 126.5' penny facies ??, @ 129' drk gry black p.F. ???
130-135 - ~~drk~~ drk gry blk p.F. @ 130.25 hard
drk gry clay w/ phos.

132.5-135' lt gry sc w/ phos. rock

135-140' hard brown

140-145 Hawthorne

145-150 Hawthorne, @146' gr. sandy
clay w/ Phosp.

150-155' same (@154' lt gr. rock
(found a shark's tooth) Thunderstorms

Rig 3685

Securing site, heading for hotel. @ hotel 6:30 p.

7-2-2013

@ 6 a.m. - loading luggage, checking out
of hotel. Tykes may not be logging well
today, due to having a wet site. p/u
Ice. continuing to core.

155-~~160~~¹⁵⁷ lt gr. rock @ 156' change
to lt gr. clay

157-160. Sample fell back down, having
to bail sample to keep advancing (coring)
we bailed about 6" on 3 tries, still plugged
off, I decided to pull back up & re-core
w/ extended shear, we have circulation
no longer plugged off, we are now →

re-coring the sample. (this shit may actually work)

157-160 drk grey black clay (Fuller's earth
??)

160-163 grey stone ??? (clay)
hard clay

163-165 hard clay

165-170 drk grey black hard clay @
165.25' changed to Ocala ???

Rig 2690

7/8/13

ET. @ work 8:40 a.m. / leaving Tallahassee
@ 11 a.m., travel to Matanzas
arrived @ 3:30 p.m. checking site, site was
a little wet. Headed for lodging
@ hotel 5:30 pm

7/9/13 C.H./ET. leaving hotel @ 6 a.m.
arriving on site 6:30 a.m., set up site
fill wt. w/ water flush fluids to
clear any seepage, condition well
Trip 30' x 5' x 10' out replace w/
30' x 10' x 10'

Lat. 29° 42' 49.0536"
Long. 81° 18' 2.7864"

Continuing to core

170' - 170.5' same / note changing to
Ocala, test ??

170.5' - 175' lost circulation, Ocala

175' - 180' ocala somewhat crumbly
it maybe like series #2 bit ???

180 - 185' Same

185 - 190 Same

190 - 195 Same

195 - 200' Same

Preparing well for Tyler, & the site.

First: Gamma log

Polys Probe

@ Calliper

Matting Tyler off site, but logging is done
(Rig 3696)

Quik-GROUT
3" x 5' casing
Pipe wrench
mud pump
hoses

MLS. 17841

R/S 3704 →

Securing site & heading for lodging
@ hotel 6:30 p.m.

7/10/13 leaving hotel w/ L.H. @ 7 a.m.
on site called Dave, now pulling
N&, running trimmie, started to
clog-up. Trimmie was obstructed
by something, dumped grout, cleared
trimmie. Called Dave, met w/ G.R. &
B.C. to pick up 5 bags of grout @
Astor Hotel. Drove back to site
pumped 2 batches of grout.
& pulled ~~4~~ 12' of 3", letting
grout cure overnight & get a fresh
start in the morning. securing
site @ 7:08 p.m.
(fig 3700) @ hotel 7:46
p.m.

7/10/13 met w/ L.H. @ 7:30 a.m.
leaving hotel, arrived on site, tagged
grout. finished grouting w/ all 5 bags
of grout. pulled 3" x 30' casing, pulled
4" x 30' casing. Taped last 6' w x hole plug
& cleaned & abandoned site. leaving
site @ 3 p.m., called Matt to schedule 29

site restoration when site is dry.
Matt said it looked good to him a
few days earlier, and that we may not
have to do anything. As it looked good to
him,

Driving back to Talla. Arriving @
office 7:30 p.m.

DTP & CPW depart where 9:12am 7/16/13
to Matanzas SF site, pick up rig and
mob to ONF#1 site. return for trailers.
deliver granter to ONF#3 site.

skid mi/hrs 17841.5 / 3705

@ ONF#1 17936.5 / 3707

end day 9pm 5.6

7/17/13 DTP/CPW leave hotel 7:30am

to Matanzas SF to pick up white trailer w/granter,
deliver to ONF#3 site; to ONF#1 site and
set up. NOTE we moved rig & equip to correct
site; was 2 roads north on aerials.

push spl 0-5'

end day 6:40pm

rig hrs 3709

miles 17936.5

O-rings

wire brushes

SS round spatula?

(2) shbam / robin recoil starters

recoil starter rope for granter

repair trailer

build shelving / organizer in trailer

keep brake handle lubed

where is BOAT'S vise (on stake) ASK BOB

order log books

auger core catchers

last I saw it was
L.T.I. S.P.

ONF #1

W-19452

County - Marion

S 33 OCCA

T 12S

R 25E

Elevation 123'

LAT 29° 24.410' 24.6"

LONG 81° 48.395' 23.1"

Push SS

0-2.5 gray to orange sand

2.5-5 orange sand

7/18/13 DTP + CPW start day 7:10pm

Push SS

5-7.5 orange sand

AS HSA drill augers into TD, discard duplicate waste sample.

7.5-8.5 drill to bottom of stroke. orange sand.

8.5-10.8 mottled orange / tan sand.

10.8-13.4 orange clayey sand

13.4-15.9 orange clayey sand to pale orange sand w/
orange laminae

15.9-18.4 white / orange mottled sand / clayey sand

18.4-20.9 AS ABOVE

20.9-23.4 AS ABOVE

23.4-25.9 AS ABOVE

25.9 - 28.4 AS ABOVE to white sand w/
white sandstone @ end of run.

28.4 - 30.9 white + orange clayey sand, v. coarse
poorly sorted, into orange clayey sand.

30.9 - 33.4 orange + white clayey sand

33.4 - 35.9 orange coarse clayey sand

35.9 - 38.4 orange sandy clayey sand to pink.

38.4 - 40.9 pink clayey sand

40.9 - 43.4 pink to orange clayey sand

43.4 - 45.9 orange clayey sand

45.9 - 48.4 AS ABOVE

48.4 - 50.9 AS ABOVE

50.9 - 53.4 AS ABOVE

rights 3715

end day 7:15 pm

7/19/13 DTP/CPW start 7:20 am

confirm depth w/ measuring tape - 53.4', dry hole.

53.4 - 55.9 pink clayey sand, mottled towards
end of run.

55.9 - 58.4 pink into orange clayey sand, crs after 57.4'

58.4 - 60.9 crse orange clayey sand

60.9 - 63.4 AS ABOVE

63.4 - 65.9 AS ABOVE, fining down core.

ERK,
Plants take 10¢
of the core bodies &
covers. You are fine
on liners & trays.

65.9 - 68.4 pale orange clayey sand
68.4 - 70.9 fine pale orange clayey/silty sand
70.9 - 73.4 pinkish orange clayey sand
73.4 - 75.9 Pinkish orange to orange clayey sand
75.9 - 78.4 H. olive/tan clayey sand.
78.4 - 80.9 SS sampler stuck in hole, bulged.
cable damps slipped while attempting
retrieval. break for lunch.

RG/WE visit. make cable end fast to
NQ overshot. Will trip HSAs to retrieve
sample & hang HWT to 8' NEXT TRIP.

right hrs 3719

end day



7-29-13 MET W/ L.H. @ W.H. 8 a.m.
load saw horses, core box covers & bodies.
load luggage & depart 9:40 a.m. / drop
van to Gunter Bldg. on way out.

arrived on site @ 3:00 p.m., found
water source. Set up for tomorrow,
headed for lodging & groceries. @ hotel
6:30 p.m.

7-30-13 MET W/ L.H. @ 7 a.m.
IN water truck 7:15 a.m.

Filled wt./ with water @ Lake Kerr
arrived on site @ 2:30 a.m.

Now we are pulling hollow stems, 85' Ft.
of hollow stems. The entire sampling
system was stuck in the last 15' Ft
of the auger. Finally pulled system out,
harvested sample & now pulling 80' Ft. x 4" in
casing & installing.

Now installing 3" in. x 80' Ft. casing.
3" x 80' casing in. / Thunder storms are
approaching, securing site & headed to lodging

~ 78.4-80.7 TAN BRN clayey sand

Rig 3123 arriving @ hotel 6:00 p.m.

7-31-13 met w/ L.H. @ 7:00 a.m.
leaving hotel for site.

onsite set up to set 3" casing, wash casing
to 80' B/s.

It is difficult running hoses & desanding
equipment because of site set-up.
mud life is deck side back wards, deck
should be facing site. But we got it
done. now extending 3" to 80'

now installing NG to 75', adding 5' to
wash out to 80' ft. BLS.

Then start to sample w/ EX-shoe.

80' - ~84.25 tan lt gray orange mottled clay
change @ 83' to a lt gray tan ss w/ cemented
sands

84.25 - 85 hard sedim. rock, cemented sands?

Thunder storm approaching - down time

85' - 90' same / change @ 86' lt gray tan carb.
mud stone w/ phosphates ?? or penny farms

90' - 93.75 penny farms ?? lt gray hard
solidified carb. mud stone w/ phosph.

93.75 - 95' same

95' - 100'

Securing site & heading for lodging
Rig 3730 @ hotel 6 p.m.

8-1-13 Met w/ L.H. @ 7 a.m.
driving to site fueled water truck, couldn't
find eth Free gas will try in P.M.

continuing to core

100' - cutting is very slow, it's try to feed too fast and pressure spikes to 200,000 PSI, so leaving pump pressure @ or between 100,000 - 0 PSI allows me to cut slow. Whatever it is, is somewhat hard & pasty. cut's like hard clay

100' - 105' drk gry blk clay @ 102' change to tan brk lt gry cemented sands @ 104' change to gry cemented sands / Hawthorn Hawthorn (TH)

105' - cutting smoother but PSI is still up,

110' - drk gry blk sand stone or cemented sands (TH)

110' - 115' @ 112' lost circulation, now @ 113' starting to regain circulation (sample) same @ 111' it got harder w/ a small conduit

115' - 120' TH

120' - 125'

water run!!!

Thunderstorms 1:30 p.m. - 2:30 p.m. leaving site, heading for lodging

Pentrol
NON-ETH. GAS

@ hole 4:30 p.m.

RIG 3782

8-02-13 Met w/ L.H. @ 7 a.m.
check out headed for site.

continuing to bail sample

120' - 125'

10 a.m. Still trying to move obstruction
inside core barrel

10:27 a.m. about to pull MAX 120'

core barrel has gummy clay lodged @ tip
we tried every alt. to free it, this is
a last resort.

Now pulling MAX, our hole was
tightening up on drill string no time
to extend 3" casing, cleaning & securing
site. repairing pump pull strings.

RIG 3736

@ office 4:45

unloading samples off work @ 5:20 p.m.

* 4" csg 3' stick →

8/6/13 DTP: Lee Hartman
depart whse @ 8:30am

SWL 77.7'

hole depth 161.7'

MDV both strings of casing into rock. ~86' for HWT,
90' less stickup for NW csg.

measure bottom hole + 1' below bottom of 3" csg. Need to
trip in NQ to flush to bottom (125').

out of H₂O. load pump + hoses, secure site
and depart

rig hrs 3739

end day 7pm

NQ inventory

60' in 10's = (2x5)

110' in 5's

20' in 6017.

8/7/13 DTP: Lee H

start day 7am

fetch H₂O, then to site.

flush to bottom, begin casing.

125-130 olive gray clayey sand

130-131.2 refusal. hard rxd w/ interchpts

- Need to replace Mobile Drill's 2 short fluid hose cgm lcs.
- repl. 4" mud machine hoses. consider PVC?

131.2-132' HARD RxD PD₄ LS
out of H₂O, make H₂O/lunch run.

132-132.5' AS ABOVE. out of H₂O
fetch H₂O, head to hotel.

end day 6:20pm

rig hrs 3743

8/9/13 DTP → Leeth start 7:00am

relevel rig, measure table height. Found to be 30"
not 36", renumbered blocks in box 6" deeper.

133-134' Havel rxd PD₄ LS, used full tank
H₂O. fetch water.

134' - ~134.5 AS ABOVE

out of H₂O fetch water. 12:24pm

~134.5-135 AS ABOVE

135-135.5 AS ABOVE out of H₂O, fetch.

135.5-137.8 * REXD, HARD, organic laminae
and angled fracture pattern.

out of H₂O. secure site, make water run,
then to hotel

rig hrs 3750

end day 7:28pm

8/2/13 DTP & Leeth 7:01am

Fuel run.

trip out NQ, Δ core bbl. Geoset is smoothed.
137.8-140 smooth no chatter coring + advance.

RXD v/ rip up interclasts, PO₄ + organics.
140-143.5 AS ABOVE

143.5-150 ↓

AAVE on SITE

quickgel (2)

soda ash (5)

hole plug (4)

grout - rig box

penetrol - 1/4

quicktol - (3)

Secure site and travel home.

end day 6:37pm

rig hrs 3754

8-19-13 Met w/ S.H. @ office 8:00am.
load last minute things. & heading
into the field. Box materials, water,
etc. leaving w/H @ 10:19 a.m.

arrived @ ONF #3 @ 3:30 p.m.
picked up quickgel, stopped to fill wt
lake kern. Arrived @ ONF #1, unloaded
quickgel hoses 1- hose on mud machine
too short. secured site, headed
back to ONF #3 to see if Bob
had 2" or 3" PVC to extend
pressure hose. No luck, headed
for lodging @ hotel 7:30 p.m.

8-20-13 met w/ S.H. @ 6:30
stopped by Lowe's to pick up PVC or
something that would work.
Lowe's, K Granger, Hager's Supply,
H-D. Supply, & KWT. Finally someone
who could help, we wound up
buying 5' section of suction hose.
Onsite @ 1 p.m. Gary & Bob were here
to pick up the Granger. we assisted
them w/ Granger. They ass. us w/
the mud machine.
Now mixing mud & preparing to drill.

1- clamping tool, Bob & Gary
hat 2 inside of Bob's
carga trailer, now we have
1 for the mobile

~~145.5 - 150'~~

150 - 155' grey tan brown hard L/S
filled R.ig w/ 15 gal. diesel @ 3756 hrs.
155 - 157.25 sample went from hard to
softer, maybe changing formations
4 grey white L/S maybe ocala???

157.25 - 160 regained circulation,
as above (same)

160 - 165 same

Running out of water

165 - ~~170~~ 168.75 hard to stop,

same / white chalkie L/S

Securing site & heading for lodging

N 168.75 R.ig hrs. 3759

leaving the site @ 7:15 p.m.

@ hotel 8:30 p.m.

8/21/13 Met w/ JH @ 6:30 a.m.

stop @ lake Keok to fill w/ water,

168.75 - 170 onsite, waiting through thunderstorms
still on standby @ 10:30 a.m. - still raining

@ 2:30 p.m. Securing site & heading for
lodging, @ hotel 3:45 p.m.

8/22/13

met w/ J.H. @ 6:30 a.m. I had to
send pic's of samples to DTP
leaving hotel @ 7:30 a.m.

Stopped @ lake Kerr to fill w/ water
onsite & continuing to sample.

168.75 - 170' as above (same) low circn.

170' - ^{175'} 175' same low circn.

175' - 180' same low circn.

Thunderstorms 1st. -

3:30 p.m. rained out, securing site
& heading for lodging.

Righrs. 3761

@ hotel 4:30 p.m.

8/23/13

met w/ J.H. @ 7 a.m., J.H. was
ready @ 6 a.m. I still had stomach
issues so it took me till 7 a.m. to
be ready to go, onsite & continuing
to core

180 - 185' same, @ 183.5' it starts/no circulation
to get chatty again

Check oil in small engines

185-190 same w/ no cr.

190'-195' same still no cr.

Water run & storm's / 1000' FT. plus !!!

195'-200' same

200-205 same

securing site, loading samples

Rig hrs. 3765

leaving site @ 2:06 p.m.

entering gate @ 7:06 p.m.

exiting gate @ 7:40 p.m.

8/26/2013 Rig hrs 3765 mileage 17936

Arrive at Site. Do all fluid checks
on mobile Drill. Found Front Axle low
2 quartz gear oil now on Site. Make
up Core boxes

8/27/13 Rig hrs 3765 mileage 17936

Job tag H/L Wash cut before installing
Junior Bit

205-210

Write Colerons how steno. →

205-210 cont.

Grainy Texture Fractured and
Crumbly

210-215

Crumbly Cream Colored line stone
Grainy texture Fractured

215'-220'

Crumbly Cream Colored, line stone,
becoming clayish or soft matrix

220'-225'

Cream Colored Crumbly line stone
Very soft and crumbly with fossil/
mold and casts. Organics/phosphates

225'-230'

Cream Colored Crumbly line stone
Crumbly and fractured with fossil/
molds and casts

230'-235'

Saw as Above

235'-240'

Cream Colored Carbonate lime stone
Very Crumbly and Crumbly Very soft

240'-245'

Same as Above Per recovery
run was very soft, Hard, soft, Hard soft

8/28/13

3771 hrs

Leave Hotel at 6¹² AM

Arrive at Site at 7⁴⁸ AM

245'-250'

Cream Colored Carbonate limestone
Soft Crumbly and Crumbly Texture
with Fossil molds and casts

250'-255'

Same as Above

255'-260'

Slight change in Carbonate lime
stone, still Cream Colored
Possible Aven Part

260'-265'

Tan Cream Colored Carbonate lime

260-265 cont.

stone with fossil molds and Gasts
very Graining and Crumbly

265'-270'

Cream Colored Carbonate limestone
Hard matrix / cavity /

270'-275'

Cream Colored Carbonate limestone Hard
to medium Grained / cavity / Hard
Grained limestone with Gasts becoming
Crumbly

275'-280'

Crumbly Carbonate limestone with
fossil molds and Gasts

8/29/13 Thurs. 3776 hrs

Arrive at Site at 7:45. Install
Grease fitting on 3. LB.

280'-285'

Cream Colored Carbonate limestone
with Vugs, Fossil molds and Gasts

285' - 287'

Avon Port

Brownish Gray Fractured limestone
Cavities, Brownish Tan mud stone
with lamination, Vugs

287' - 288'

Carbonate Sand or mud stone
light Tan in color with Vugs
and lamination Brownish Orange Clay

288' - 290'

Carbonate mud or sand stone with
fossil molds and Cracks light Tan
in color

290' - 295'

Brownish Tan in color mud or sand
stone with Vugs changing to a
lamination of mud stone with Vugs
Cracks and fossil molds 10:52
Am

295' - 300'

Carbonate mud stone Tanish Brown in
color Vugs and some organic

300' - 300.75'

Carbonate mud stone with fossils
lamination, weathering zone changing
quickly to whitish cream colored
carbonate limestone

300.75 - 305

Whitish Cream Colored Carbonate
limestone with organics, limestone
Acidic fill. migrating to a Carbonate
mud stone with lamination and waffling.
light tan in color, changing to a
clayish mud stone.

305 - 310'

Mud to medium light tanish brown
in color with fossils, lamination, Vugs
migrating to a severe weather zone
beds with organic, changing back
to light brownish tan Carbonate mud
stone with Vugs, fossils, with lamination

310' - 315'

Brownish Brown Carbonate Mud Stone
Changing texture, with Vugs, fossils
molds and casts with some lamination

315'-318'

light Tan in Color Cylindrical mud
flow, Vugs some lamination
TD 318'- Record

9-03-2013 met w/ J.H. @ office
7 a.m., Returning Bob's call. 7:34 a.m.
Spoke w/ Dave, Bob & Guy T.D.'ed
well, Jesse and I need to, get in touch
w/ Tyler, log the well & abandon
site. Move to Pelletser Creek.
leaving office 9:49 a.m.

4:30 a.m. @ Fuel station (Live Oak Exit)
problems w/ DEP06017 Fuel card.
Would not swipe. Fuel card has
teeth marks on sliding strip, disabling
card. After 1 hrs. passed. we used
MFC card. 12:30 p.m. back on road.

Arrived on site @ 3:30 p.m.

Drive side door to DEP 4719, left unlocked,
the light to rig left on. All weekend
got a jump start from Tyler.

Well logging well @ 318' Ft.

1st gamma log 228'

Pulled 228' Ft. of NQ / NQ @ 90'

2nd Induction

3rd Poly Probe

4th calliper / Rig no 3786

Securing site, leaving @ 9:04 p.m.

Heading for lodging checked into
Holiday Inn Express @ 9:30 p.m.

9-04-2013 met w/ J.H. @ 9 a.m.

we agreed to get a late start after a
long day yesterday. Heading to site,
Filled w/ water @ Kern Lake.

On site & pulling 2", now pulling 3"
pulled 50' X 3", Thunderstorm delay (lightning)
1-hr.

Pulling 5". 3" is out, cleaning & lowering trimmie
Thunder & lightning delay.

Securing site Rig 3786

@ hotel 6:53 p.m.

Need 1 - 24" in. pipe wrench
grout has dry grout
inside pump chamber
1 - main suction hose needs replacing, & fittings.

1 - chain wrench

9-7 N 29° 39.064
W 781° 19.311 →

Acc 17.8
Elev 48.9

9-05-2013 met w/ J.H. @ 6:30 a.m.
headed to site, onsite & continuing to
grout. grout up to 240 ft., need
hole plug. 6 bags of grout @ 70 ft. BCS
pulling 4" casing. 4" is out. securing
side & allowing grout to set & top off
in the a.m. / securing side, &
heading for lodging

Rig 3793

@ hotel 7 p.m.

9-6-2013 met w/ J.H. @ 7:30 a.m.
Checking out & headed to site
picking up 15 gals. diesel
onsite finish grouting & clean site,
load equipment, demob & move to
Pelletier creek. Rig hrs. 3794
@ Pelletier Creek 5:44 p.m. combo (6250)
@ office 10:30 p.m.

9/10/13

PM Oil Filter, and Fuel Filter
Fill Front Differential with Syn Gear Oil
3794 hrs 18017 miles

3801. hrs 18017 miles

0-2.50
Light Grayish Brown Quartz Sand medium
Grain

2.50-5'
Light Grayish Brown Chipping to a whitish
Tan in Color Quartz Sand medium Grain
(Super Sand)

5'-7.50'
Whitish Tan in Color Super Sand
medium Grain

7.50-10'
Grayish White Super Sand medium Grain
migrating to a Brownish Orangeish Gray Clayish
medium Grain Quartz Hit Refusal

Install 4" NW Casing to 10' = 8'
Install 3" NW Casing to 10' = 7.50

Wednesday 9/11/13 Arrive at site at 6:40
Start casing from 10' from push sample

10'-12.50'
Gummit on Clayish light Grayish Whitish

Very little mud flow
still part snglar

10-12.50' cont

in Color medium Grain size Quartz Sand
with some organics

12.50'-15'

light Grayish Clayish Sand medium Grain
size Quartz with Imbedded orange medium
Quartz size Grain

15'-17.50'

Dark Gray in Color medium Grain size
Quartz Sand with organics becoming very
sloopy

17.50'-20'

Same as Above

20'-22.50'

More of a Orangeish Brown medium Grain
size Quartz Sand with some organics

22.50'-25'

Same as Above

25'-27.50'

light Grayish Brown with Hint of Orange

4" NW 8'

3" NW 32.50'

25'-27.50'

Medium Quartz Sand suggesting to Honey crinoids

27.50-30'

Bluish Gray medium Grain Size Quartz sand with crinoids

30'-32.50

Same as above but becoming Coarser

Tip out of hole and run 3" NW to 32.50

Install NW to 32.50 continuous Core

32.50-35'

Forgot to put Down Barrel In
Wooooops!

25'-37.50

Medium Grain Size Super Sand Quartz
Smaller Gray in Color with crinoids and
very silty

37.50'-40'

Same as above but more expg

2" NW Core from 32.50 = 35'
pull 5' = 30'
Add 20' = 50'
TWS 48.50'

40' - 42.50'

Medium Grain Size Quartz Sand
Smaller Grains in Color very scummy and
salty with organics.

42.50 - 45'

Same as Above

45' - 47.50'

Same as Above

47.50 - 50'

Medium to Fine Grain Size Quartz sand
light Gray in Color becoming more Clayish

Trip out and run 5" NW Core from 32.50
= 35' pull 5' = 30' add 20' = 50' TWS 48.50

9/12/13

MS 3810

Arrive at site at 6:50 after Fueling
up Gas for Det 4719
Trip NG Back in Hole TWS hole

50' - 52.50'

Poor Recovery scummy Smaller Grains in
Color medium to Fine Grain Size Quartz

50-52.50' cont

sand with shell pieces and organics

52.50-55'

Poor Recovery Smoker Gray color medium
to fine grain size Quartz sand with
shells and organics. Some Dark Gray in
clay clay

55'-57.50'

same as Above but a bit more fine shells

57.50' 60'

Smoker Gray in Clay Medium to fine
grain size Quartz sand with fine shell and
organics becoming clayish at end of run

60' problems sand lecture need to
run more 3" NW Gray to LS 57.50

REIN wall NO to 60'

wash out add 5'

60'-62.50'

Dark Smoker Gray in Clay medium
to fine grain size Quartz sand with organics
and fine shell

3" NW Gray 60' = LS 57.50
+ 10 = 70 67.50

Still push sampling

Add 5' of 3" NW to 70'
 $68^{50} + 5 = 72-50$

80' = 78^{50} 75'

62⁵⁰ - 65'

Smaller Gray in Color medium to fine Grain
size Quartz sand with organic becoming
very scupy

65' - 67⁵⁰

No Recovery Assured last run at
the end it was very scupy it could
have wash away but was able to
catch cuttings

62⁵⁰ 70'

Smaller Gray in Color medium to fine
grain size Quartz sand with organics
and fine shell

9/13/13 Friday the 13th worst
Averus at site at 8⁰⁰
condition and flesh color

Core from 70' - 72⁵⁰

light Smaller Gray in Color medium
to fine Grain size Quartz sand
w/shells and fine shells and
some clay

711
 82.00
 3.50

 78.50

70'

22.50'

82' of 3 NW

2' placed on
Top

As we install Inaugural
 we had run up in Casey
 Section out what we could
 for the 20' - 22.50' recovery
 that was so poor.

Trip out of Hole and add
 5' of 3" NW Casey which
 brings casing to 22.50

Monday 9/16/13 3819 - 3820
 Arrive at site at 12:45, pm
 Fill up with truck, pick up fresh
 batch of mud Install 48' NW

Tuesday 9/17/13 3820
22.50 - 75'

Poor Recovery Quick Sand with floating
 shell. First the medium Grainsize with
 organic. Grate Sand
 Trip out of hole fill 5' NW and
 Install 10' NW 3'

75' - 78.50'
 no Recovery

Add 3" NW 10' = ~~89~~ 100
 - 2.50
 87.50
 5.00
 92.50

add 5' = 3" NW 95'

95' = 3" NW casing
 97 Total 3" casing
 2' piece on top

711
 82.100
 3.50
 85.60
 + 5.
 83.50

~~88.50~~
78.50' - 85'
 Light gray to Clay Fine to medium
 Grain Size Quartz Sand with organics and
 shell pieces
 82.50 - 85'
85' - 90'

Smaller Grains in Clay Fine to medium
 Quartz sand with shells and becoming
 clayish

85 - 90

90' - 95'

Same as Above

9/18/13 Wednesday 3820 3826

Top out of hole to casing core
 barrel and got crest depth of drill
 rods was able to get sample for 95'

Ran 3" NW casing to 97' - 2' stick up
 = 95'

9/19/13 Thursday 3828 hr

3" NW casing at 95' had
 surface 5' + 2' on top of 90' of 3"

2

Trip out of Hole

Chase 3" NW pull 5' 2'
of 3" brings back 2 90'

add 20' of 3" NW

110' 108' TKS

4 110' 117'

Cuttings were caught with
mining Tray at discharge pipe
while advancing 3"

Thursday, 9/19/13 continued

95' - 100'

Grayish Brown to a darker Gray Fine
to medium Grain size Quartz Sand with
shell pieces and organics a little Chert

100' - 103'

same as Above

103' - 108.50

light Gray to Color Fine to medium Grain
size Quartz sand minerals and organics

108.50' - 110'

poor rockiness same as Above
3" casing dropped 8' in hole to 118'

110' - 115'

cuttings captured while advancing
Grain Color medium to large Quartz
sand with organics and minerals

115' - 117'

phosphatic shell cuttings
while advancing 3" NW

to 117' Continues

9/20/13

3835 hrs

Finish Addressing 3" Core to 117'

Trip back in hole to Start
Core again.

117' - 120.50

Nothing No Fossils

120.50 - 122.50

Phosphatic rock with ~~Haarhuona~~ Clastic
Clastic Crystallized Clay with wgs
Almost like Dolostone.

