

LEVEL BOOK

#101596

CME-75
Drill Log # 3

18767 / 18831



BEN MEADOWS COMPANY

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When

the
Outdoors

is Your

Office™

No
11
18767 / 228.5'

18768 / 68.5'

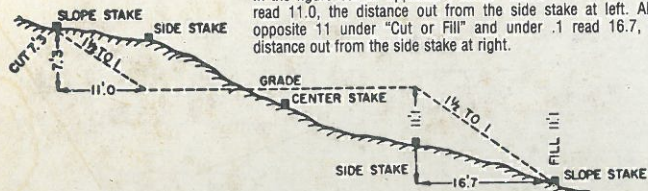
18770 / 128.5'

11 / 198'

DISTANCES FROM SIDE STAKES FOR CROSS-SECTIONING

Roadway of any Width. Side Slopes 1½ to 1.

In the figure below: opposite 7 under "Cut or Fill" and under .3 read 11.0, the distance out from the side stake at left. Also, opposite 11 under "Cut or Fill" and under .1 read 16.7, the distance out from the side stake at right.



Cut or Fill	Distance out from Side or Shoulder Stake										Cut or Fill
	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	0.0	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.4	0
1	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	1
2	3.0	3.2	3.3	3.5	3.6	3.8	3.9	4.1	4.2	4.4	2
3	4.5	4.7	4.8	5.0	5.1	5.3	5.4	5.6	5.7	5.9	3
4	6.0	6.2	6.3	6.5	6.6	6.8	6.9	7.1	7.2	7.4	4
5	7.5	7.7	7.8	8.0	8.1	8.3	8.4	8.6	8.7	8.9	5
6	9.0	9.2	9.3	9.5	9.6	9.8	9.9	10.1	10.2	10.4	6
7	10.5	10.7	10.8	11.0	11.1	11.3	11.4	11.6	11.7	11.9	7
8	12.0	12.2	12.3	12.5	12.6	12.8	12.9	13.1	13.2	13.4	8
9	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	9
10	15.0	15.2	15.3	15.5	15.6	15.8	15.9	16.1	16.2	16.4	10
11	16.5	16.7	16.8	17.0	17.1	17.3	17.4	17.6	17.7	17.9	11
12	18.0	18.2	18.3	18.5	18.6	18.8	18.9	19.1	19.2	19.4	12
13	19.5	19.7	19.8	20.0	20.1	20.3	20.4	20.6	20.7	20.9	13
14	21.0	21.2	21.3	21.5	21.6	21.8	21.9	22.1	22.2	22.4	14
15	22.5	22.7	22.8	23.0	23.1	23.3	23.4	23.6	23.7	23.9	15
16	24.0	24.2	24.3	24.5	24.6	24.8	24.9	25.1	25.2	25.4	16
17	25.5	25.7	25.8	26.0	26.1	26.3	26.4	26.6	26.7	26.9	17
18	27.0	27.2	27.3	27.5	27.6	27.8	27.9	28.1	28.2	28.4	18
19	28.5	28.7	28.8	29.0	29.1	29.3	29.4	29.6	29.7	29.9	19
20	30.0	30.2	30.3	30.5	30.6	30.8	30.9	31.1	31.2	31.4	20
21	31.5	31.7	31.8	32.0	32.1	32.3	32.4	32.6	32.7	32.9	21
22	33.0	33.2	33.3	33.5	33.6	33.8	33.9	34.1	34.2	34.4	22
23	34.5	34.7	34.8	35.0	35.1	35.3	35.4	35.6	35.7	35.9	23
24	36.0	36.2	36.3	36.5	36.6	36.8	36.9	37.1	37.2	37.4	24
25	37.5	37.7	37.8	38.0	38.1	38.3	38.4	38.6	38.7	38.9	25
26	39.0	39.2	39.3	39.5	39.6	39.8	39.9	40.1	40.2	40.4	26
27	40.5	40.7	40.8	41.0	41.1	41.3	41.4	41.6	41.7	41.9	27
28	42.0	42.2	42.3	42.5	42.6	42.8	42.9	43.1	43.2	43.4	28
29	43.5	43.7	43.8	44.0	44.1	44.3	44.4	44.6	44.7	44.9	29
30	45.0	45.2	45.3	45.5	45.6	45.8	45.9	46.1	46.2	46.4	30
31	46.5	46.7	46.8	47.0	47.1	47.3	47.4	47.6	47.7	47.9	31
32	48.0	48.2	48.3	48.5	48.6	48.8	48.9	49.1	49.2	49.4	32
33	49.5	49.7	49.8	50.0	50.1	50.3	50.4	50.6	50.7	50.9	33
34	51.0	51.2	51.3	51.5	51.6	51.8	51.9	52.1	52.2	52.4	34
35	52.5	52.7	52.8	53.0	53.1	53.3	53.4	53.6	53.7	53.9	35
36	54.0	54.2	54.3	54.5	54.6	54.8	54.9	55.1	55.2	55.4	36
37	55.5	55.7	55.8	56.0	56.1	56.3	56.4	56.6	56.7	56.9	37
38	57.0	57.2	57.3	57.5	57.6	57.8	57.9	58.1	58.2	58.4	38
39	58.5	58.7	58.8	59.0	59.1	59.3	59.4	59.6	59.7	59.9	39
40	60.0	60.2	60.3	60.5	60.6	60.8	60.9	61.1	61.2	61.4	40

CME 800-325-8827
Carlos Herd 386.362-1001
Twin Rivers 386.362-8314
386.208.1460

Ken Campbell home 668-4437
pers cell 545-8125

The paper in this book is
made of 50% high grade rag stock with
a WATER RESISTING surface sizing.

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Small wire brushes
 Level
 Safety Glasses
 5' NQ
 bring trowels

Formation picks
 0-31 WDSC
 31' SWNN
 193.5' OCAP

4-3-07 HOLTON CREEK 2

W# 18767/228.5'

CO. Hamilton

S 31 NW, SW T 1N R 13E

LAT 30° 26.460'

EST ACC 36'

CON 83° 03.650'

Elev 95' ± topo. (93) ^{AVG 320 mm}

0-2.5 push spl - sd

2.5-5.0 " " "

5.0-7.5' " " "

7.5-10.0 " " "

chg over to longear sp.

grease rig

- while greasing rig - notice
 Kelly stabilizer arm nut
 off -

order new nut + lock washer
 fr. CME NXT day

remove swivel and stabilizer
 arm to take back to TCH

4-4-07 BC, GR
 9⁰⁰ am start load
 needed supplies and
 parts. Head to site.
 Fix Kelly Stabilizer.
 Add Hydro fluid, etc.

end day @ 6:30pm

4-5-07 BC, GR
 1e am start
 Start coring!!

10-13.5' Sandy clay. Lost
 ~ First 1.5' of run.
 washed it out.

13.5'-18.5' Sandy (clayish)
 poor recovery

18.5'-23.5' plugged bit, struggled
 w/ keeping hole open.

23.5'-28.5' clayey sand, poor
 recovery. Plugged off
 again! Tripped NR out again

28.5'-30.5' ~ plugged off inner barrel.
 took off extended shoe. Dense

Rock!!



Lost circ. 

3" down to 33' 

4-5-07
(cont)

3

gray clay.

30.8-33.5 first 6" dense clay
last foot and 1/2 hit limestone.
(grainy limestone).

* lost circulation *

~ Tripped out NQ. Prepared
to run 3" down to 33'

Tripped NQ back in hole and
resumed coring.

33.5-38.5' rubby limestone

38.5-43.5' moldic limestone

w/ some clay infill.

Cleaned up and secured
site.

rig hours: 10

ended day at 7pm

4-6-07 BC, GR

Started day @ 6³⁰ am

~ H2O run @ boat ramp.

started Coring

43.5-48.5 rubby LS w/
intermittent clay layers.

48.5-53.5 GAA

53.5-58.5 poorly indurated LS,
rubby. clay in shoe.

THE LIST

- ① Fix 2" hose
- ② Core extruder
- ③ Quick Gel
- ④ 2" Ball valve

→ Cavity? ←

↳ Cavity

58.5-63.5 Sandy, limestone
mud & clay.

63.5-68.5 First 2' of run
possible cavity
Clay, LS mud, last 8"
limestone rock

68.5-73.5 rubbly ls w/
possible cavities
throughout run.
plugged off.

73.5-78.5 Cavity 1.5' @
top of run, graining
ls.

ended coring for day.

Rig hours 15.0

Cleaned up site and returned
to whse @ 6:30pm

4-10-07 BC, Stebrushak
Load up and leave whse
@ 9 am. Load up H₂O
and arrive at site.
Hole plugged w/ crap, had
to clean it out.

Gas Cans

4 cavity

4-11-07

3" to ~93.5'

78.5-83.5 limestone to
79.2' cavity From
79.2-83.5

Cavity fill to 87'.
Clay, mud, and some
rock to 88.5'. Last
1' Limestone mud.

88.5-93.5 clayey mud ~~set~~
that graded into ls mud.
Started next run, plugged
off and inner barrel
locked in.

Tripped out NQ, freed
inner barrel.

Prepared to run 3" ~~to~~
~~100'~~

ran 3" to 55'.

ended day @ 7:30pm

4-11-07 BC, SP

Start day @ 7am
finished running casing
3" to ~93.5'.

Tripped NQ back in
to resume coring.

200
~~200~~ 70

130

*300' measuring
tape.

Chin Jaw

Sharpen ax

@ 2 cans

H₂O level @ 57'

93.5-95 Creamy
soft micrite mud
poor rec.

95-96 cavity

96-96.5 Ls rubble

96.5-97.5 - possible cavity

98-98.5 Ls mud + rubble

98.5-103.5 cavity

103.5-~~104.5~~ 109/110 sap

Micrite mud, sand,
clay, grades back into
Ls mud + hard
dolomitic Ls.

109-110 sandy black clay

Burned up bit. Back
to TLT ended day

@ 9:30 pm

Rig hours 26.5

4-16-07 BC, SP

loaded up and left tln @
9:30 am

Loaded up H₂O and headed
to site

110-113.5 LS rubble and
pieces of Blk clay.
Poor recovery.

113.5-114.5 cavity

114.5-118.5 Soft sed
possible sand

118.5 - 123.7 Soft sed
plugged off. Sand +
clay.

Ran back in and plugged
off again.

Trash pump repair
gave up for night.

big hours: 29

ended day @ 8:15 pm

Bc end day @ 9:45 pm

Pipe count:

80 = 10's
5 = 5's

200
- 45
155

4-17-07 BC, SP

BC start day @ 6:45 am

SP start @ 7 am

Head to site. Load H₂O.

BC cut hand open on fence
@ 8:30 am. Called KC to
report.

prepare to trip out NO
and run 3" to 123'.

ran to get soda ash and
H₂O.

~~123.5~~ 122.7' - 123.5

clay, attapulgitic. Hard to
drill through. Ls rock
moldic, gray.

123.5 - 128.5 Sandy, blue & gray
clay. Graded into Ls

@ 126'. 50% recovery

128.5 - 133.5 rubblely Ls
a clayey layer.

last 3" hard Ls.

133.5 - 138.5 rubblely Ls. Hard
to catch. Black, organic
cavity fill in between.

138.5 - 142.5 First foot
look like cuttings. Garbage

15

8

Remember to put
zip tie back on
trash pump.

ordered new suction hose.
bring old one back.

grades into a dark gray
clay inner bedded w/ Ls.
142.5 - 143.5 No recovery -

cleaned up. Took off 40' of
NQ and hung 20.
8 rig hours. 35

ended day at 8:15 pm

4-18-07 BC, SP

7am start, head to Roundmain
for H₂O, Gas, on to site.

trip back in 40' of NQ

Had to clean out hole to get
pipe down.

Started Coring:

143.5 - 148.5 poor recovery
rubbly, soft, gray Ls

148.5 - 152.5 grayish Ls w/
creamy colored layers.

152.5 - 153.5 cavity

153.5 - 158.5 Gray, rubbly Ls at
start. Grades into a clayey hash.

last 2' of run grades into a
fine gray packstone.

Next week

- ① ~~Quick get~~
- ② ~~2x bags soda ash~~
- ③ Jelfon tape
- ④ Sharpies
- ⑤ Oberg core traps

Rundman's pump repair
14381 48th St,
L.O., FI 32060

- ⑥ ~~NQ 2 pipe~~
- ⑦ ~~3" pipe~~
- ⑧ PVC T for
NQ
- ⑨ Suction hose for mayno

H₂O run. Tripped out NQ. 10
cleaned hole.

158.5-163.5 Gray, rubbly LS
very poor recovery.

163.5-168.5 Dark gray clay
w/ intermittent LS clasts
in matrix. Last 6" of
run gray, slightly
dolomitized packstone.
last 3" of run head dropped
when it broke through
the rock.

Cleaned up & tripped out
50' of NQ. Hung 20.
Headed out and ended
day @ 8:15 pm
BC end day @ 9:50 pm

4-19-07 BC, SP ③
7 am start.

check out of hotel
H₂O run, head to site.
Trip in NQ, Clean out hole.
inner barrel locked.
Broke wireline.
tripped out NQ and

3" to ~~143~~ 143

Rig hours 49

3" to 163' (165 of pipe
in hole)

worked inner barrel free

11

SWL 52'
found bottom of 3" @ 93.
ran 3" down to ~~143~~ 143'
No more 3". tripped back
in HQ. Sand locked
inner barrel.

tripped out bringing back
Barrel(s) to TLH.

ended day @ 8:00pm

Rig hours 49

4-24-07 BG GR

8:30 am

Left TLH @ 11am

(2.5) arrived @ site. Unloaded
pipe, worked on core barrel,
made suction hose, H2O
run. Ran 3" to 163'
ended day @ 7pm

Rig hours: 51

4-25-07 BC, GR

(11.5)

start day @ 6:30 am
~~start~~ ~~run~~ H₂O run @ Roundman's
 trip NA back in, make
 mud.

tried to free inner barrel
 from core bl. No luck.

Run to Roundmans to get
 scrap metal. Still no luck.

Gave up at 3:45 and made
 a run to lowe's. Going to
 try a couple more ideas
 in the A.M. Got fuel and
 ended a frustrating day at
 6 pm.

Rig hours: 153

4-26-07 BC, GR ②

Fam Start

worked on freeing inner
 barrel. Finally got it.

* Changed inner barrels.

~~It~~ tripped in NA and
 started coring!! ☺

- Cont 4-26-07
13
- (Run 168.5-173.5)
168.5-171.5 Soft, head dropped
possible crap that fell into
cavity.
- 171.5-173.5 Brown, highly
rxl. dolomite.
- (Run 173.5-178.5)
173.5-174.5 dolostone as
above. started to plug
off. Softer sed. stopped
Black organic clayey sed
in shoe.
- 174.5-178.5 gray nubby top
of run, green black clay.
graded into hard gray
dolomite for 3".
Graded into softer ls
gray + cream color ls
w/ echinoderm stems
and coral obvious.
- * possible ocala
178.5-183.5 Dark gray
dolomitized ls (Molluscs)
grades into dark gray
clay. @ ~ 181'.

183.5-188.5 Dark gray
clay entire run. May
have lost some of sample
while tripping out. Slippery
little sucker.

Cleaned up and headed in.
ended day @ 7pm

Rig hours: 59 hours

4-27-07 ~~BC~~ BC, GR (11)
7am start

H₂O run.

trip in NQ start coring.
(188.5-193.5 run)

188.5-190.5 - drilled like clay
and soft sed.

190.5-193.5 Head dropped and
H₂O pressure.

All sample fell out and was
lost.

(193.5-198.5 run)

Soft ls mud until
last 1.5' of run. packstone.

203.5
2.5
206.0

Rig hours 62
pass SRMP
90 → SE River Rd (R)

plugged next sub into NWCSG
drive head

so can drill 45" over 3"
+ be able to put 3"
washer down

15

(198.5 - 203.5 run)
198.5 - 201.5 cavity
201.5 - 203.5 rubbly grayish,
brown packstone. (local)
very poor recovery.

(203.5 - 208.5 run)
203.5 - 206.5 Hard gray dolomitized
Ls.
206.5 - 207.5 cavity
207.5 - 208.5 Hard gray dolomitized
Ls. rubble zone.
* Last 3" head dropped possible
cavity

Rig hours: 62
(~~208.5 - 213.5 run~~) THROTTLE
SWITCH DIED!!
packed up to meet K. Campbell
and Carlos Herd to pick
new site.
arrived back in TLT @ 6:07pm

Tuesday

- ① Grease head
- ② write down mileage on Rig
- ③

4-30-07 BC, SP 16
Loaded up, greater supplies
headed out @ 1:45 pm.
arrived @ site. SP found
problem w/ throttle switch!!
yeah!!

Headed to Lowe's to get
needed bolt for linkage.
(and other supplies)
to late to head back to
site. ended day @ 6:30 pm.

5-1-07 BC, SP
6:30 am start
Load H₂O and off to site.
Fix linkage, test, and
trip in NG.

* H₂O level ~~63.5'~~ 63.5'

(208.5 - 213.5 run)
208.5 - 209 rubbly material.
lost it. dropped into a
cavity.
209. - 209.8' Cavity

209.8 - 210.5 gray
rubbly hard Ls
210.5 - 211.5 possible cavity
211.5 - 213.5 possible 3" cavity
@ top back into
gray Ls.

(213.5 - 218.5 run)

213.5 - 217.5 cavity ^{hit a couple ledges}
217.5 - 218.5 gray rubbly Ls

H₂O level 65.3'

(218.5 - 223.5 run) *

218.5 - 219.3 Hard rubbly Ls

219.3 - 222' Cavity

222' - 223.5 Gray hard Ls

* Important note:

can not distinguish what
was caught at the top
of run from the bottom
of the run!!

~ previous cavity causing
some trouble. ~

223.5 - 228.5

Granger: (Steve)

Respirator

(3x) XL Rubber gloves

(2x) Leather Gloves

Rig Milers
43540

18

called DP & KC TD' hole
@ 228.5'. Cleaned up
site. SP to get H₂O. BC
prepped for grouting.
Tripped out NO.

Took break ran to new
site to check keys and
H₂O source. Had to get
keys from D.O.F.

Back to site to grout.
Grout pull start switch
out broken. Ran to lowes
to fix.

Ended day @ 8pm.
Rig hours: 66

5-2-07 BC, SP
6 am start.

Head to site, prepared to
make grout and pull

5-2-07 (cont)

19

3". Had difficulty w/ first
2 bags of grout. problem
solved.
tripped 3" and 3 more
bags of grout.

- pumped a total of (5) bags
of grout
- tripped out ^{115 BC} 120' of 3".
(50' left in hole)
55

- cleaned up site
 - tag bottom in am.
- ended day @ 6:30 pm.
Righours:

5-3-07 BC, SP

6 am start

H₂O run, head to site.

Tagged bottom @ 80.9'

placed trimmings and pumped

(3) Bags of grout.

tagged bottom @ ~81'.
off to lowes to get gravel.

* SP injury report filed w/EH
@ 12:45 pm. Hyper extension
of knee @ 11:35 am.

The list

P-100 Respirator

- ① ORDER SODA ASH
- ② Grainger Monday (Steve)
- ③ ph strips
- ④ leflon tape
- ⑤ fittings 1" → 1 1/4"
- ⑥ xtra fittings
- ⑦ xtra landing ring for rock shoe
- ⑧ 3' Bit
- ⑨ H₂O (Bottles)
- ⑩ Crayons
- ⑪ Safety glasses

5-3-07 (Cont)
Washed 2 bags of gravel
down. Tagged bottom @ ~
73.6'.

running more grout.
ran 4 bags grout.
tagged @ 50' 5' up inside
casing.
pulled rest of 3" casing.
tagged hole @ 51'.
pumped 3 more bags
of grout. Didn't come up.
dumped 2 bags of gravel.
tagged bottom @ 34'.
made ① Batch of grout
pumped to surface!! Done
w/hole.

Cleaned up site, prepared
to move. Headed back to
TLH @ 6:15 pm

Next week:

- ① Large core blocks
- ② Antisize
- ③ Quick Gel

5-15-07 BC, GR

21

Loaded up supplies left
tlh @ 10:45 am. arrived
at site prepared rig to
move. Cleaned up old site.

* Rig battery dead Cellinoid
acting up. Finally repaired.
Removed baby birds from
rig.

Arrived @ new site started
setting up rig, clearing
brush.

* Call carlos about permit
and check w/ TR Forestry.
ended day @ 7:30 pm.

5-16-07 BC, GR

6:30 am start.

get last of stuff from old
site. Head to SRWMD
to get permit.

Head back to site. H₂O run
set pipe and site. Mix mud,
etc.

Pipe Count

NQ2

10's = 22

1 core bl = 13.5

5's =

3" =
10's
5's

4" =
10's = 50'

0-14' uDSC
14-
19.5' OCAAL

RH 75

3" = 15'



Twin Rivers

W# 18768

County: Madison

T 28

R 11E

S 20 acb

Lat N 30° 17' 57.1

Long W 83° 14' 26.9

elev. 62' TOPO

FALMOUTH Quad

push sample

0-2.5 yellowish sand, med.

2.5-5.0 SAA Fine sugar sand @ 4'

5.0-7.5 yellowish, to orangish
white fine sand.

7.5-10.0 orangish, white Sugar
Sand, until last 6".

Clayey orange sand.

refusal

set up to core

10-13.5 Sandy Clay
(13.5-18.5 run)

ran extended shoe

hit refusal and rock @
14.5'.

14.5-15.5 orange LS
ran casing to top of
rock.

15' of 3" Casing
No circulation

Twin Rivers

18770/128.5'
STANLEY CARR

1/198'

NO W# / 300'
Rosa Shingles #2

18768/68.5'

Casing to 15' into rock
Well b/w 60-75'

23

tried to core again. 3" not
set. Ugh!!
15.5' - 17.5' Orangish LS (dolomitized)
17.5 - 18.5' Cavity
(still no returns.)

Cleaned up site and ended for
day @ 7:15 pm.

Rig hours ~~75~~ 75

5-17-07 BC, GR

7 am start

H₂O, made mud, got gas
resumed coring.

(18.5 - 23.5 run)

18.5 - 23.5 First 1.5' Clay

moved into fossiliferous LS
white. (Moldic)

(23.5 - 28.5 run)

Rubbly LS grades into
white moldic LS.

Ocala?!

28.5 - 33.5 white LS leps!!

H₂O level 24'

26-
35-40-
b/w 35-40-
Hager
Packer
formation

Lowe's

33.5-38.5 - SAA
38.5-43.5 Orangish, moldic Ls
48.5-53.5 SAA
(53.5-58.5 run)
53.5-55' dolomitized Ls
55-57' cavity
57-58.5 graded into ^{Hard} dolomite.
(58.5-63.5 run)
Hard dolomite. Fossil molds
still visible. Many
cavities throughout run.
(61' started)
63.5-68.5 dolomite with
Many cavities.
Almost hung NQ.
TD!! Not pushing luck.
pull NQ. Run 3" to 35".
Cleaned up site. ended
day @ 6pm
Light hours: 81

5-18-07 BC, GR
6:30 am start
run to Lowe's for cement
H₂O run



Next week

Mask for Dave
 Quick Gel
 Cement
 N-Seal
 Pipe tape

Rt 84?

10³/₃₇

5-23-07
 gas for Rig
 Portland
 well cap

25

talked to KC about mw.

Set up 4" to run to 35'
 prep well casing.

load up pipe that isn't needed
 site clean up.

Set 4" @ 30'. Need a 5' to
 get down.

Cleaned up site and
 arrived to TLH @ 4:30 pm.

Rig hours: 84

5-22-07 BC, DP

leave TLH @ 8:30 am

arrive @ site. Trip out

3". Run 4" 5 more feet to 35.5'
 prepare well casing.

H₂O level 26'

Bottom of hole 52'.

Set well @ 37'.

used gravel to set on top
 of packer.

pumped ④ bags of
 cement

No W #/300'
 Rain Shingles # 2

18103 / 307.5'

18170 / 128.5'
 ST Marys Church

1/198'

Today

Drill tub
Mortar
5 bags of cement
gas for CME.

Completion Report

- ① well set @ 38'
- ② 2' of stick up
- ③ used 8 bags of cement
- ④ open hole completion
- ⑤ SWL @ 25.4
- ⑥ bottom of well 52'

26
top of cement @ ~22'.
pulled all but 10' of
4". Cleaned up site
and arrived back at TLH
@ 5:40 pm.

5-23-07 BC, DP

Left TLH @ 8:40 am
after Lowe's trip.
Cement to 17'. Inside
well depth 52'.

#20 level @ 25.4
pumped ③ bags of cement
to surface. Cleaned

up, loaded tub, + moved
rig. DP Made form. prepared
protective well casing.

used ① bag of cement for
pad. Added sand, and
① Bag of gravel.

Cleaned up, loaded up, and
worked on pad.

6- -07 BC, DP

head to site, develop well
move equipment

W 18770

17

WELL NAME: ST MARY'S CANAL

County: Taylor

TRS: T4S, R9E, S27 (47")

Lat: 30° 08.784'

Long: 83° 27.262' (15.12") AM 860 readings

ELEV: 87' EST ACC 12.4'

TD 128.5'

PIPE COUNT:

Core Barrel: 13.5'

10's of NQ2: 170'

5's of NQ2: 10'

10's of 3": 100'

5's of 3": 15'

FM picks

0-30 HDSC

30-50 WNN

98.5' DEAL

6-20-07 BC, SR

27

leave TLH @ ~1030 am

got lost. Finally found site.

darked trailers. Prepped

H2O well & hoses.

tried using Centri pump to get water.

Centri pump broke, pull start. H2O in carb.

Fixed. Had to make hoses. can't get on

Core bl. Need post

hole diggers. off to lawes.

Ended day @ 8pm.

6-21-07 BC, SR 7am

start. Made hoses in

room.

Head to site. Hook up to well and filled tank.

post hole dug past LS/cement pad.

* Did not keep pad material!!

Not representative of hole or area!!

prepared to push sample.

No W #/300' Rain Shingles #2

187183 / 307.5'

18770 / 128.5' ST Marys Canal

1/198'

push sample
3.0-3.75' 2B

push sampled to 3.75'

First 1' from post hole dig.

~~0-2' road fill~~
~~0-2-3~~ Dark Black Soil Organics

3.0-3.75 push sampled

gray sand. Fine to med.

3.75-8.5. Set up core bl. and
extended shoe.

Brown, organish sand

Medium to fine.

8.5-13.5 Bad recovery!!

white fine sand 2" of recovery

13.5-18.5 SAA!!

18.5-23.5 Brown, Med. Sand

23.5-28.5 Brown, coarse, sand.

28.5-30.5 SAA. @ 30.2' hit
refusal w/ extended shoe.

white clay.

Tripped out NQ and ran
3" casing to 30'
cleaned up site.

Rig hours: 93

ended day @ 7:45 pm

30' of 3"
in hole

NEXT WEEK!!

- ① All core box materials!!
- ② Core catcher screens

Lost last
1.5 of run

6-22-07 BC, SE

29

Start day @ 7:15 am.
Headed to site.

Tripped in NQ to resume
coring.

30.5-32 Clay for 1" gray.

Dolomitic cream colored Ls

32-33.5 SAA

33.5-38.5 Clay @ top of run
graded into creamy
colored moldic Ls.

38.5-43.5 tan/gray moldic Ls

43.5-48.5 (43.5-~44.5 SAA

44.5-45.5 cavity

45.5-46' Ls

46-46.5 cavity

46.5-48.5 Hard gray/tan
moldic Ls

48.5-53.5 run

48.5-50.5 tan/gray, moldic
Ls

50.5-53.5 cavity

Lost circulation

53.5-58.5

rubby Ls @ top
poorly indurated gray

Ls.

58.5-63.5 SAA

63.5-68.5 SAA

Cleaned up site. Tripped
20' of NQ out of hole

Rig hours: 98

Headed back to TCH. Arrived
@ warehouse @ 7pm

6-26-07 KC, 3C

rig up + pump water

68.5-73.5' dk gy granular ls.
some fossils, poor to mod ind.
~50% recovery

73.5-78.5' lighter gy granular
ls. cavity fr 75-77.3', variably
caliche ~3' recovery

78.5-83.5' soft granular ls. virtually
unconsolidated at top first
foot. then soft bn. ls. followed
by well ind bn. variably moldic
dolomite

83.5-88.5' bn. well ind variably
moldic dolomite

88.5' - 93.5' upper foot on 31
above, color gets lighter w depth
to lt. yl. / cream

93.5 - 98.5' upper 2' var mottled
lt. yl. ls. 95.5 - 98.5' cavity,
98.5' - ~100.5' cavity fill

Rig Hours: 102.5
and day 5:45 PM

6-27 KC, BC

cont. cavis

98.5 - ~100.5 caved yesterday
cavity fill

~100.5 - 103.5' sl. gn + gy ls, clay +
fossil frags - upper part UNCON
lower part poor

103.5 - 108.5' V poor to med ind ls,
+ cavity fill

108.5 - 113.5' uncon. to med ind ls,
poor recovery - soft stuff, washed

113.5 - 118.5' ult bn + gy fossilif. ls
forams, mollusk frags etc med ind

NEXT WEEK:

- ① plumbers tape (teflon)
- ② oil for Centri pumps
- ③ teflon paste
- 4) 3" screen core trap
- 5.) bearing protection
- 6.) hole plug
- 7.) Quick grout (6) bags

118.5 - 123.5' grey pectan rich packstone
some lops, lots of openers.
123.5 - 128.5' Hg gy br ls, mod incl
lots the pectan more calcareous
than above, openers, some lops
TD

Rig hours 104.6

6-28-07 BC, KC
Used 5 bags of grout
② bags of gravel to -21'
Loaded pipe

pour 1 bag hole plug to -10'
Rig hours 106

6-29-07 BC, SR
Used 1 bag of hole
plug. Hole grouted.
Cleaned up site, packed
up and started to move
equipment.
RH 108
ended day @ 6pm.

Formation picks
0-21.5' UDSC
21.5' ~~SAND~~ SWNN
139 OCAZ

Adam
Hickey

W# 18771 33
Foley #2 John Green Rd

S36 loc T 2S R 8E

LAT 30° 16.238' 238'

CON 83° 28.418'

Elev 101'

CO. Taylor

TD 198.5'

7-11-07 KC, AH. complete
mob. of equip. set up rig +
sit

push spl.

0-2.5' salt + pepper sand to 2'
grad to dk br.

2.5-5.0' dk br sd to ~3 then
white - last foot sl. clayey -
(lt tan + iron mottled)

5-7.5' gray + blk reg + orange mottled
clay

7.5-9.75' crm + lt gn clay, some
white blebs is? weathered clay?

mix mud, put kinkle
NW corner ~ - run 3" to ~9.5'

34

9.75 - 13' grey & orange mottled
clay - dark organic rich zone
at ~ 10.25 - 10.5' and another
at ~ 12'
13 - 18' - v soft, only 6" y/l. or
clay recovered.

End coring for day
Rig hours 109.3

End day 8:00 pm Adam

7-12-07 KC, A.H. 745 start
fuel run - mix mud
drill rods sand locked to csg.
work free
adv casing to ~ 18.5'

18 - 23' soft. - pushed/washed w
ext. shoe. refusal at ~ ~~22~~ 21.5'
y/l or clay w clay or carbonate
grains - lost circulation at
refusal point

21.5 - ~~22~~ 23 hard dense ls.

then soft last 6" - not rec.

23 - 28' poor recovery - mod-well
ind ls w soft clayey var

28-30.5 top 15' gy + blue clay ³⁵
w white bbs btm hard
br sl moldic dolomite.

30.5-33' only ~ 1' mixed - softer
dolomite. fractured -

33-38' 2 runs - mod. v poor ind
br ls + dolo(?) clayey zone in
middle (2')

38-43 lt. br moldic ls (dolo?)
mod ind.

43-48 SAME

48-53' lt br moldic ls as above
soft zone in middle of run. last

53-58' lt br ls, v poor to mod ind
~ 50% recored - soft zone washed

58-63' lt. br ls. moldic poor to
mod ind

63-68' lt. br - even granular ls.
moldic - several diagonal
fracture w dark clay (?) on
fracture surfaces

68-73' lt br/tan ls. mod ind
easily fractured, some granular
textured

73-78' br moldic ls (dolo?)
mostly moderate induration

18-83' bn, grey + tan dolomite ³⁶
some burrows poor to well
indicated
83-88' bn dolomite mostly well
ind. prominently diagonal
fractures, variably mottled,
burrowed

End coring for day

lay down 20' ND

pick up addl 15'

Rig home 116.3

End day 7:30

7-13-67 KC, A.H. 8AM START
Lud. rig

88-93' KC F.U. - drilled w/o
inner bbl - spl slid out -
went in w inner bbl - drilled
over ~ 1' of spl

93-95.5' - drilled to total prev.

spl in ~ 10" dolomite or
above + 4' white sandy ls. sec.

95.5 - 98' cream granular ls
poor to med ind.

98 - ~101.5' white granular ls.
poor to med ind. - hard

probably a redraft
not burst recovery
add depth from 102 -
133.5' too deep by 5'

dolomite last 1' in run 661 37
jammed -

101.5 - 103' hard br dol
103 - 108' hd br + gy dolomite
VAR. moldic - soft crumbly
zone at bot - some pass
lost

108 - 113' softer - busted run
No recovery (~~of or fell out of~~
in run bbl. evidently too much
rpm, water

113 - 118' br + gy dolomite -
mod-well ind one obvious
Rynchonella gouldi mold
118 - 123' br dolomite sc moldic
mostly well ind

123 - 128' med br moldic dolomite
top 1/2 of run dropped removing
from core bbl. may not be
in exact strat pos.

bot 1/2 of run alk br well
ind dolomite

128 - 132' hard gy dolomite -
vertical fracture thru most of
core - core jammed

132 - 133' - gy br dolomite well
ind sc moldic, diag fracture

3 hole plug
5 quik grout
3 soda ash
~10 quik gel

2 ea water
3 1/2 gal grease

teflon tape
car pher
Elec tape

load quik grout

133-135 1/2' dolomite as above
then breccia layer 15' +
more dolomite.

end coring for clay
+5

2 1/2' drilled on last rod
Laid down 20' NR
hang 20' NR

inner bbl in cargo trailer
Rig house 121.7

7-24 Ke, Nick John

NOTE KC depths too deep
by 5' - starting at 108

130.5 - 133.5' hard variably
mottled dolomite

133.5 - 135' same

135 - 138' blue gr clay at top
most lost then back to
br + gr dolomite

138 - 140.5' clayey + rubble at
top then hard gr + br dolomite
well ind

140.5 - 143' ~ 1' hard dolomite recovery 39
soft stuff at top lost.

orange chunk recovered in
core catcher - btm of run
prob ground up

143 - 148' hard br dolomite
btm 1 - 1 1/4 ft softer - NOT
recovered

148 - 153' ~ 1 1/4' mixed - top br
dolomite or above. btm gray party
ls/dolomite(?)

153 - 155.5' 2" gray ls as above
thin med br granular medium
dolomite

155.5 - 158' ~ 1' mixed - br
granular dolomite

158 - got ~ 4" then no penetrati-
- water press spikes -
damaged core bbl?

End coring for day

Rig home 127.0

ret'n when - end day 6:30 p.

7/25/07 KC, N. ^{JOHN} ~~Corner~~ 8 AM
start - fuel, gas etc - to site

40
mix mud, fuel rig + trash pump.

158-160.5' br dolomite, granular
mod ind, micritic - some
lepis top 1 1/2'

btm lost softer - lost

160.5-163' - poor recovery - recovered
~ 8" br dolomite as above

163-165.5' - soft br dolomite
(uncon.) then some wht ls
+ br dol. all soft - poor to
mod ind.

165.5'-168' soft stuff as above -
washed. btm 1 1/2' br dol.

168-170.5' well ind br dolomite
w diagonal fractures last
2" somewhat friable

170.5-173' ~ 1 1/4" br dolomite
recovered - intermittent soft zones
lost

173-176 dolomite (or ctg.) top
8" thin con-br foss. ls. - some
lepis

176-178 ~ 1.5' recovered mod-well ind
dolomite. - micritic

178-183 con + lt br ls, fossilifer
some lepis, open, micritic? full rec

poor to mod ind.

183-188 cm + 17 bn to grad to
med bn moldic dolomite,

188-190.5' bn dolomite mod-
well ind var moldic

190.5-193' same - soft zone
at top.

193-198' dk bn well ind dolomite
variably moldic

prob TD

198' TD

End coris for day

Rig home 131.2

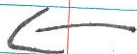
Retn ofc 6:00 pm

No w#

69
29/6
4
23

43123
43169

RT
138.7



42

BS-2
Well name: Rosa Shingles Rd #2
county: Wakulla
Lat: 30° 14' 55"
Long: 84° 17' 45"
TRS: 6d 2, T3S, R1W

8-14-07 4pm BC, 7pm NJ
BC + KC Load bit, reamer,
+ tub. BC to site to meet NJ.
UNLOAD TRUCK. SET UP CME.
Head back to whse to get
rest of equipment + cargo
trailer. Take out to site.
Drop off reamer for KC.
NJ ended nite @ 1:30 am
bc ended @ 2 am.

8-15-07 BC, NJ BC 6:30 pm
NJ 7:30 pm
BC to Lowes,
Wakulla Springs, to site.
prepare to run reamer

No w# / 300'
Rosa Shingles #2

18183 / 307.5'
ST MARKS TRAIL

Tomorrow:
Cement
trim my

Cumulative
cement
3.5

6.5

43

ream to 37'. prepared
casing and cement
pumped $3\frac{1}{2}$ bags of
cement @ and set
casing at ~36'. cleaned
up and called it a night.
(or morning!)

rig hours: 138.7

NT ended @ 4:45 am

BC returned to whse @ 5:15 am
in office misc. paperwork

8-16-07 BC, GR

Fpm start. Get cement
@ lowes, H₂O. Head to
site. run reamer. cement
not set. what a mess!!
pumped 3 bags of cement
pressurized hole. left
it alone. cleaned up
site. Worked on bit.
ended night @ 2:30 am.

18103 / 307.5'
ST MARKS TAIL

12^h

15.5

44

8-20-07 BC, GR 7⁰⁰-3³⁰

~~Blaise~~ Load H₂O, Casing
check email.

Head to site drop off casing
and get Marshaw rod.

Unload rod, grout and
prepared to pump grout.
used 6 bags of cement
and 2.5 bags of gravel.
losing cement to cavity.
leave hole to stabilize.

RH 142.7

8/21 BC, GR 7⁰⁰ start
load up 4" gravel + hole plug
head to site. ~~we~~ poured
12 bags of gravel, 2 bags
of hole plug and pumped
3 bags of cement.
reamed to 45'. Cleaned
up. ended night @ 4:30 am
RH 143.9.

18103 / 307.5'
ST. MARKS TRAIL

~~Tomorrow~~

- ① Gas
- ② Hole plug

148.8 Rst

45

8-22-07 BC, GR

7³⁰pm start. Load more 4" (30'). Head to site. run 4" to 50'.

Head to KC site. Load up M4, NWT, reamer.

* Swivel leaking. Fix. May need new seals.

- run reamer to 72'.
clean up. Load up and get to base @ 5³⁰am.
rig hours 148.8.

8-23-07 BC, GR GR here @ 6:15pm

7pm start. Drilling
Sucked. Continued to ream
lost circ. @ 88'. Switched
to air. Thunderstorm.
Sat in truck. Back out.
continued reaming. Lost
circ. w/ air. tried to find
prob. Pulled Mayhem.
tried to run 4" to
90'. Nothing working
night. ended night

18103 / 307.5'
ST MARKS TRAIL

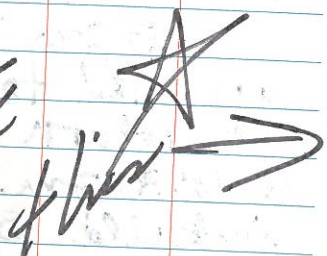
~~8-27-07~~ 5:30 am.
Rig hours: 151.4.

* Hydraulic Fluid all
over head, dripping.

8-27-07 BC, GR

5 pm Start. Loaded
up. Had to wait for EH
to return w/ 550. EH returned
@ 6:30 pm. Loaded H₂O @
Wakulla Springs. Head to
Site to work on swivel. Did
not have the right tools to
take apart. Tried to get to
lowes before they closed. Too
late!! Cleaned up site. pulled
off swivel and brought it
back to warehouse to
work on it. ended night @ 1 am

8-28-07 KE, EH to TEH
weld w spindle for M&L Dm,
then to Rosa Engler 2
incl. swivel. lower
conn. bent

BRIE
Read 

Attp. straighten hok. no 47

90 - 6" csg is crooked

(remove swivel

drilled hwt to 55'

hwt is sitting at btm

TO DO LIST

8-28-07 Night Shift

- 1) ~~load 5' HWT + add 10' to get to 90' ±~~
- 2) ~~check toolbox on rig for extra swivel~~
- 3) ~~if no xtra - reinstall swivel in INTL box (rt) along with safety cable + guide cable~~
- Swivel lower connection is BENT - low RPM ONLY
- 4) ~~re clamp hoist cable on ftyd. hoist.~~
(with the clips pulled down you only have 1 clip holding all the weight)
AND wear inches of cable

from dropping whatever 48
the bad war
5) need gas for small engine

NOTE: 6" csq is not plumb
therefore the 4" is not
plumb - I tried to straighten
it up some but no go
- Rig will have to be set
parallel to the axis of the 4"

6 take the bent swirl off
(if it is used) and bring in
back - I have parts coming
tomorrow to fix it

8-28-07 BC, GR NIGHTSHIFT
GR start at ~~6:30~~ 6:30 pm
BC start @ 7:30 pm. Checked email.
READ ALL OF KE'S NOTES
AND FOLLOWED INSTRUCTIONS.

- ① Loaded up 15' of 4"
- ② Loaded water
- ③ got gas from shell
station as well as food.

④ Got to site, set up lights.

⑤ Check for swivel in tool box. (ON THE RIG)

Looked like someone already searched side box. Cleaned out boxes. NO SWIVEL

checked cab of truck. No swivel. re-installed swivel in intl.

⑥ poured ② gas cans in cme, left out 2 cans.

⑦ re-installed swivel; got done with that and fixed hoist line. Thank you for pointing that out.

⑧ stood rig up and rotated to the right. Swivel definitely bent. (we did not bend it!!!)

⑨ unloaded 4" (HWT) from truck. Hooked up hoses. made mud.

p.s. we cut 1' of hoist line with the grinder that you left behind. It was mangled. took a break at 11:20 pm.

* Tub, little one
is leaking bad.
Bring out other
small tub.

* Swivel is in tool
box on int'l.

* Need to get more
gas today.

* Need more 4"

ended break @ 11:35pm
~ drilled down 4" (HWT)
at Low RPM!
GR made mud, while BC
drilled.

* little mud tub (mixing
tub) is leaking bad.
Bring out other tub.
Throw out the other one.

Drilled 4" (HWT) to ~94'.
Drilled slow, last 6' a chore
to get down. Used good *
Clean mud. * Lost circulation
@ 78'. (Couldn't believe I had
any to begin with.)
Swivel did not leak. Set
down 4" (HWT) on bottom.
Laid mast over and
removed ~~the~~ guide line, safety
line, lots of fittings, then
swivel. Loaded up in
truck. (side box of int'l.
* the little shackle is
on the guide line clamp.)

161.8

Ken Read!!



51

~ We took the remaining
2 gas cans and topped
off the generator, trash pump,
and CME. THERE IS NO
GAS OUT AT THE SITE.

RH: 156.5

ended day @ 4:30 am.

8-29-07 BC, GR Got gas!!
Loaded Mayhew + HWT
(30' of HWT) Need to bring
more out. H₂O @ wakulla
uninstalled swivel. Prepared
to run air and to Ream. Jugged
in pipe. Reamed. Reamed
to 201'.

Hung 20' of Mayhew and
took off 1-10' NWJ.
Takes a while to get H₂O to
lift. Also takes a while
to clean hole out.

RH 161.8

ended day/night @ 6:15 am.
* P.S. on the swivel, the
coupling that attaches the →

Front of the Swivel to that elbow assembly needs to be replaced. The threads are galled and only threads in 3 turns. Also, there is a leak somewhere in that assembly. (We can hear the air.)

You have 30' of HWT on the int'l. Forgot to take it out.

~ You have plenty of gas, and a full tank of water.

8-30-07 KGEH -

load matl. to fix leak at swivel
load 320' 2" pvc esg.

- arrange for rental 150 psi comp.
Plan to site

replaced bad coupling on swivel
brightened Kelly hose conn
run rods bk to btm
drill 200-210 - soft zone from
~ 203

210-220 soft

220-230 same

Kens R.H.
163.1



230 - could not break hard⁵³
pulled 20' off, picked up
addl 20 - will go to btm
in 10' to drill

8-30-07 BC, GR

Load up needed supplies.
plus everything else we
needed.

Tried to do timesheets,
people's worst down.

Checked email, headed
out. No working lights on
air compressor. Got to
site, set up, tripped in pipe.
tried to air lift, called Re.
day shift plugged bit. Had to
drive back to warehouse and
get water truck. Unplugged
bit.

236-246 1st 4' soft,
got into hard rock,

246-256 hard rock!!

~~only drilled 1/2~~
and Wrong run.

256-266 only drilled
1/2 the run.

It is either really hard
dolostone or chert.
took over 30 minutes or
more just to get 4'
drilled.

exhausted. Packed it up
for the night.

~~Henry~~ Laid down 20'
hung 20'. Need to
finish the top 10'.
Rig hours: 167.

* No water @ site.
you might want to
bring water truck.

Returned to whse @ 6:30 am
* BC did timesheet

8-31-07 KC, DP - ~11 AM stand
after Admin tasks
with + Sulair compressor -
stop wash bit to bit -
Keep getting ~ 2' settling out
in bottom of hole - can't make
down

mix + pump slug of bentonite⁵⁵
mud at btm - stab hole
to make cond.

drill to 290(?)

thunderstorm move in while
pulling up
lay down 20
pm 20 By hour 7:1

End day 6:15 pm

9-3-07 BC, GR Start @ 11:30 am

Happy Labor day!!

Head to site to labor.

reamed to ~304'. Hit hard
dolomite, lots of chatter,
pulled up still chattered,
Kelly sub saver blew up in
my face. pipe fell.
Tried to call KC 5 times,
left messages. Called LB.
Tried to lift pipe w/ chain
and tore head. Headed into
shop to get need supplies
and pick up LB.

RH 177.8

56

GR lost dually keys.
Sent him back to Shop
to get another set.
LB & I got pipe free &
started tripping out.
GR arrived LB left and
went home. Called KC
@ home.

* Ignition switch
acting up!!

* Broken hose in
back of dually.
fitting is on dash.
Needs to be fixed.

Tripped out all the pipe.
left the reamer in over
night. Couldn't work
any more. exhausted.

Cleaned up site. &
RH: 177.8 ended night/day @
12 am

ST MARKS TRAIL

W# 18783

Remember

- ① Anti Sierze
- ② New dust mask
- ③

5

9-3 - NOV. 4ME to ST. MARKS⁵⁷
TRAIL SITE

9-6 ~~KC~~ BE, GR
load into a gravel trailer
then to set up site

9-7 KC, BC, GR to site
put material for 6" valve cap
to site -

drill to 20' - hole is
set 20' 6" CSG
pump 5' bags Portland
fill CSG w water, cap +
cover valve -
cleanup site - return to
house

9-10-07

KC BC 7:30 AM start
to site load water at waterhole
- drill cement from inside 6"
drill in 33.5' 4" CSG
drill 3 3/8" to ~50'
end day return ofc 6:30 pm

18783 / 307.5'
ST. MARKS TRAIL

9-11-07 KC, JH. -
load trucks, to Connio Lites
Am side.

start drilling - last core
at $\pm 60'$ - pumped tub down
hole - Chg to Air.
Set up silt fence across ditch

drill to $\sim 82'$ - soft zone/pass
cavity then v hand-
red to run csq +
refurb water deflector

tripped out drive rod.
Ran 4" to 65'.
Cleaned up and
Returned to whse
7:50 pm

9-12-07 KC, EH 7am start
load trucks csq etc. to cover
pm matl for "ramp. Incl
inbl.

72' OPEN HOLE

drill csq to n 77' - on chart 59
cut n 9" - csq sieled - broke
kelly sub
- order new sub dr. CME O.N.

9-13-07 BC, SR - to site.
4" csq plugged, pull csq - n 9"
chart core jammed in csq shoe
retu f/c ~ 2:00 pm

9-14-07 KC, EH, Bam start
run casing back in
drill nq thru chart (addl 1')
then run 3 3/8 wrench
to 130'

HC, BC retu f/c 6 pm

9-14-07 KC, EH BCD
2 pm

¹⁹
RH →
207.5

9-15-07 BC, SR

10 am start

Cleaned out trailer.

Head to site. Drilled to 177'.

Rig hours: 211.5

ended day @ 6pm

9-16-07 BC, SR 10 am

Start. Headed to site.

Loaded quick gel + hole plug.

170-177 ~~clean~~ soft Ls

177-183 - dolomite

183 ish - 186 Cavity.

186-188 Ls soft.

Lost air, pipe stuck - freed up pipe.

Need to run 4" to 187'.

end day @ 6pm

Tomorrow:

- ① wire brushes
- ② more rods
- ③

61

9-17-07 BC, KC
BC start @ 10:30 am.

Head to site. Try to clean out hole w/air. air compressor not pumping more than 65 PSI.

Call EH, Have Ingersoll-Rand delivered. Started cleaning out hole

187-200 Soft Ls

200-203 Hard Rk. possible dolostone.

203-207 Softer rk. Ls.

207-210 Dolostone? w/small layers of softer rock.

210-217 soft rock + dolomite. Cleaned up and ended day @ 7pm

Rig hours 219.3

9-18-07 KC, JH -

if count at top of mayhaw string is correct (167') ∴

we finished at 207 yesterday not 217

hit cavity at ~205' - lost airlift - picked up + go on

Arrive back - pump in 62
water & sand

@ ~ 225' - blew Kelly sub
- in 4th gear, w chatter

welded sub back together
- pulled rods to first
joint w head then w
joint - pulled ~ 50'
hang 20

1st order of business
pull entire string -
ok bit

9-19-07 BC, GR
Head to site. Trip pipe.
Bit bad. KC ordered
another. Headed back
to whse @ 5:10 pm

9-20-07 BC, GR
replaced bit. Tripped
in pipe. Had to
re drill some.

9/22
RH: 235.2
←

9/23 RH
236.8

217-227 Hard re
227-232 ~~can't keep~~
soft & hard rock
couldn't keep hole
open.
ended day @ 6:30 pm
RH: 231.9

9-22-07 BC, SR (Sat)
10 am start. Food, ice
& hose, head out to site.
(called Sonotrol)
Can't get zone 230-232
to stay open. Rubble zone.
pumped 5 bags of
cement. ended day @ 8 pm
RH: 235.2

9-23-07 BC, SR 10:45 am
start.
tripped pipe back in
and drilled down. Barely
any cement drilled to
231 and pulled up.
Zone caved in. Frustrated,
ended day @ 4:15 pm.
tripped out 10' of pipe.
RH: 236.8

18783

9.24.07 KL, EH - help craning
+ guy load 4" pvc. complete
loading Mbedrol + intl.

to Summerville area - set
up MBE drill then back
to smelter. - pull + bend
drill stem.

left 10' hanging in reamer
clamped in pipe clamp

9-26-07 BC, NS

BC load up, meet NJ @ site.
Unload 3" and trip in 235'.
pulled out 4" for KC.

Drilled 2' of 3" casing.

ran out of H₂O.

Cleaned up. ended day @

RH: 240.9'

9-27-07 KC, BC drill in 3"
to 233'

run in NQ - drill/core spec.
to 248.5' out of water

Rig home 244

load Quik gel
NWT bx & NQ pin
soda Ash
core box matl

9-28-07 KC, JH BAM started⁶⁵
for KC, meet JH at site
KC (load) quick gel, bx matl etc
morning

248.5 - 253.5 bx + crm (armate)
dolomite in organic form.

well ind to v well ind

253.5 - 258.5 dolomite as above 6"

then I had suggy dolomite - to
blue clay then crm - lt bn
mod ind ls

258.5 - 263.5 crm + lt bn

coarse fossiliferous ls, mod ind

263.5 - 268.5 SAME as prev. run

268.5 - 273.5 SAME

273.5 - 278.5 SAME as above

w hd bn dolomite last 6 inches

278.5 - 283.5 hd bn dolomite w
huge lops top half - fossilif
ls btr

and coris in clay

hid down 10' (5' drilled)
pr. 20'

rig home 249.4

ret'n fr 5:48 pm

bot
5 TA PLES

RH 254

10-1-07 KC, BC to site "66"
after admin stuff, winter
+ get road at public

283.5 - 288.5' con + 14 bn
fossils 11.

288.5 - 293.5 - same as above
last 6" bn dolomite

293.5 - 298.5' 6" dolomite at top
then back to ls.

298.5 - 303.5' red bn dolomite at top
then ls.

303.5 - 307.5' TD red bn dolomite

Rig home 252.0

10-2-07 BC, JH

Tripped out NQ. Put in
307' of PVC casing.

loaded up site. KC + EH
helped. Returned to ~~the~~ whse
@ 6:15 pm.

RH-254

~~St Marks
Trail abandoned~~

2-11-08

St. Marks Trail

tag bit at 234 w tape
run 3" csq to 245
pump 3 bags patching

clean up, return spec

2-12-08 tag top of gravel at 231'
pull 3" csq

set packer at 217' -
2" pvc string unscrewed 150'
but, not at top of packer.

2-13-08 KC, D. Wagner. - make
wall hook, run on 2" pvc
attp get back on pipe - NO
go.

top of pipe is at point where
barbed is eroded largest.

run 3" p. csq to 150.
lock up - return spec 545pm

~~2" pvc w~~ 2" gc

STARKS TRAIL Abd.

48

2-14-08 KC, N. John. to 8 AM -
meet Dick at site @ 10:00

trip in 3" csq to 190 -
drill thru pvc csq to 206'
- chunks of rock start jamming
pipe -
fremmie bentonite chips thru
3" csq to 193' (~1.25 bags)

Mobile Drill rig home 2528

3-17-08 KC + ?

top of bentonite chips @
192.25' bls

Meet John Morrill at site re
bentonite grouting

- pull 20' NW csq
prep 1 bag quick grout 192.25-156'
BLS

pulled all 3".

Set packer @ 78' poured in
50 lb bucket of hole block.

Measured top @ 72.8 bls.

Granules poured through 2"
very well w/ running water

~~1/4 inch hole block~~ Bucket did
not indicate size.

top top of portland cont
@ 69' bLS

ST MKS TRAIL Add.

Bentonite hydrated for 1 hr 20 min
pumped ③ bags of portland.

dig hours 2530
net N ofc 6:15 pm

3-18-08 KC, BC -
Met Tom Shepard + John Morill
(NORFOLK) for grout

put 5 bags quick grout
69-31' bLS

trimming 1 bag bentonite chips to 29'
put 6 94 lb bags portland to
surface



Rosa Shingke #2
Abandonment

20

3-21-08
KC, VH

hole quit 297'

pump 3 1/2 bags portland 297-

3-26-08 KC, BC

tag top of neat cement @ 268.5' b/s
pump 3 bags portland 2685 -

3-28 KC, BC tag top of neat cement
@ 235.5' b/s

set pillow packer at 93.5-94.5'
wash in bentonite chips to ~~86.5'~~
86.5' b/s

3-31-08 KC, VH -

tag top of bentonite chips @
86.2' b/s

Fremmie 1 bag neat cement
86.2 -

4-1-08 BC, GR

tag top of cement @ 78.7' b/s

4-3-08 Kc, Gr

pump 1.5 bags Quick Grout
to ~~43'~~ 43' 625

pump 6 bags portland + 5
% bentonite to surface
cut 70 csg below grd. level

=====

FOLEY #3

4/10/08

72

W# 18830 Cow Creek

COUNTY: JEFFERSON

S 17 T 35

R 4 E

LAT:

~~30° 13' 18.9"~~

30° 13' 18.9"

LONG:

~~83° 56' 53.8"~~

83° 56' 53.8"

ELEVATION: ~~1830'~~ (topo)

Set up site and push sampled.

0-2.5' Blk organic sand w/ sandy orange clay.

2.5-5.0' Clay orange + grey sandy.

Set up core bl.

5-8.5' no sample

8.5-13.5' white clay

13.5- no recovery at top of run.

Clay. Hit dolostone @ ~ 15'. Grey dolostone.

Small cavities last 1'.

RV HRS: 256.7

Cleaned up site and returned to whse @ 8:30 pm
cavity ~16-18' dolomite last 6"

To Bring:

Wooden Block

buckets

spare tire for trailer

4-16-DB KC, BC

73

18.5 - 23.5' dolomite upper ft. then
v soft dk gy clay + ch ls.

~~dk gy ls~~ but soft
23.5 - ~26 dk gray ls ~~dolomite~~
26 - ~27 soft clayey material

lost into cavity at
27 - 28.5 cavity
ran out of H₂O. Need to run
3"

trip to get H₂O. Got truck &
trailer stuck! $\cap$ oops.

tripped out NQ, and ran
in 3" to ~29'

Rig hour 2594

4-18-DB KC, BC to Forey #3

28.5 - 31.5' cavity

31.5 - 33.5' ~~dk~~ soft. NO sample removed

33.5 - 38.5' cavity top 1.25' lost core

3" csg following NQ down hole

1' rock then cavity

38.5 - 39' cavity

Load short sections NW csg
~~small but for mud~~

263.4

39-40.25 Soft Black organic
mush.

6" of run gray dolostone
(2 bottom.

40.25-43.2 Cavity

43.2-43.3 sample soft that
wasn't recovered.

43.3-43.5 Cavity

43.5-44.0 Cavity

44-45.6 gray dolostone 3" cavity
in run

~~45.6-46.1 Cavity~~

46-47 Cavity, sm

47-48.5 gray ls? caught some
cavity fill.

48.5-53.25 top of run organic clay
Mush, graded into ds, back
to clayey mush.

53.25-53.5 Cavity

53.5-54.1 Cavity

54.1-58.5 ls, with clayey mud

58.5-63.5 ls clayey mush

top of run, graded into ls, and
then possible ds.

Cleaned up site and
headed back to TCH.

RH: 263.4

To DO:

- ① Check for 4" hoisting plug
- ② Count box materials
- ③ Check gas on CMS

4-21-08 BC, DP

25

Load up H₂O & supplies and head out to site.

68.5 - 68.5 cavity fill @ top of run. Gray/tan dolostone + limestone. Good recovery. most of run moldic ls.

68.5 - 73.5 tan Ls mud grades into dolostone w/ ~~brass~~ clasts + clay, then back to Ls.

73.5 - 78.5 Gray grain/packstone

78.5 - 83.5 SAA

83.5 - 88.5 gray packstone
poor recovery lost last 1.5' of run. Too soft.

88.5 - 93.5 packstn tanish gray
visible leps ~~at end~~ through out run.

lost last 1.5' of sample
crumbly grainstone.

93.5 - 95.5 No recovery

95.5 - 98.5 Packstone w/ leps
definitely ocala

98.5 - 103.5 poor recovery
ls (packstone)

103.5 - 108.5 gray ls packstone

Need:

Trimming
Hole Blok
Quick Grout

76

108.5 - 113.5 TD. SAA.

Ended coming for this hole
Tripped out to - of NW.
Rt: 267.4

4-22-02 KC, DP -

pump 5 bags quick grout
wash in 2 bags hole blok
to bridge cavity at 27-31'
top of hole blok @ 19'

pump 1/3 bag quick grout on
top of hole blok
rig hours 268.4

4/23/02 BC & DP 1/2 bag hole plug & grout
from neck into hole; abandon site
& move to next site FOLEY #4

0-19.5' G4
19.5- Ts

FOLEY #4 ROSE CREEK 4/23/07
W# 18831
COUNTY Jefferson
S 21 cdc T3S R PE
LAT 30° 12' 05"
LONG 83° 50' 0.8"
ELEVATION 32'
TD 128'
Setup site, push sample 0-8.5'

TRANSFERRED
CME book

0-2.5' dark gray soil on brown clayey sand
2.5-5' tan clayey sand
5'-7.5' tan to dark brown clayey sand to
black organic sandy clay / clay
7.5'-8.5' black organic clay / sandy clay
* switch to NRQ
secure site & return to TLT

Ria miles 43913

hrs 270.5

4/24/08
8.5-13.5 black organic clayey sand to
sandy clay, poor recovery.
13.5-18.5 Rock shoe, no recovery. SOFT.
18.5-23.5 ~ 1' brown sandy clay to tan
dolomite

ADVANCE 25' CSG 3" to ~ 23'

2-3 cavity

3.5-4.5 cavity

4.5-5 cavity

CURVE TABLES

HOW TO USE CURVE TABLES

Table I. contains Tangents and Externals 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° 20' to the R. at Station 542 + 72.

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

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

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

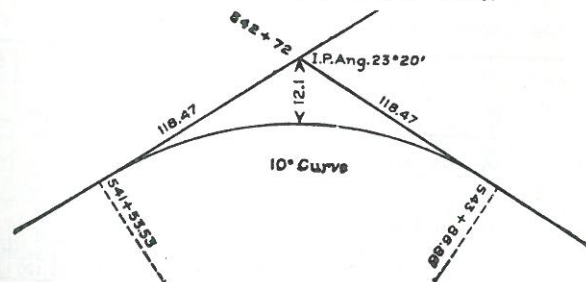
(If corrected Ext. is required find in same way)
 Ang. 23° 20' = 23.33° $\div 10 = 2.3333 = \text{L. C.}$

2° 19½' = def. for sta.	542	I. P. = sta.	542 + 72
4° 49½' = " " "	+ 50	Tan. =	1 18.47
7° 19½' = " " "	543	B. C. = sta.	541 + 53.53
9° 49½' = " " "	+ 50	L. C. =	2 33.33
11° 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° 19½' = def. for sta. 542.

Def. for 50 ft. = 2° 30' for a 10° Curve.

Def. for 36.86 ft. = 1° 50½' for a 10° Curve.



Angle	Sin.	Tan.	Sec.	Cosec.	Cotg.	Cosin.	Angle	Sin.	Tan.	Sec.	Cosec.	Cotg.	Cosin.
32	.5299	.6249	1.1792	1.887	1.600	.84805	58	.6293	.8098	1.2868	1.589	1.235	.77715
10	.5324	.6289	1.1813	1.878	1.590	.84650	50	.6316	.8146	1.2898	1.583	1.228	.77531
20	.5348	.6330	1.1835	1.870	1.580	.84495	40	.6338	.8195	1.2929	1.578	1.220	.77347
30	.5373	.6371	1.1857	1.861	1.570	.84339	30	.6361	.8243	1.2959	1.572	1.213	.77162
40	.5398	.6412	1.1879	1.853	1.560	.84182	20	.6383	.8292	1.2991	1.567	1.206	.76977
50	.5422	.6453	1.1901	1.844	1.550	.84025	10	.6406	.8342	1.3022	1.561	1.199	.76791
33	.5446	.6494	1.1924	1.836	1.540	.83867	57	.6428	.8391	1.3054	1.556	1.192	.76604
10	.5471	.6536	1.1946	1.828	1.530	.83708	50	.6450	.8441	1.3086	1.550	1.185	.76417
20	.5495	.6577	1.1969	1.820	1.520	.83549	40	.6472	.8491	1.3118	1.545	1.178	.76229
30	.5519	.6619	1.1992	1.812	1.511	.83389	30	.6494	.8541	1.3151	1.540	1.171	.76041
40	.5544	.6661	1.2015	1.804	1.501	.83228	20	.6517	.8591	1.3184	1.535	1.164	.75851
50	.5568	.6703	1.2039	1.796	1.492	.83066	10	.6539	.8642	1.3217	1.529	1.157	.75661
34	.5592	.6745	1.2062	1.788	1.483	.82904	56	.6561	.8693	1.3251	1.524	1.150	.75471
10	.5616	.6787	1.2086	1.781	1.473	.82741	50	.6583	.8744	1.3284	1.519	1.144	.75280
20	.5640	.6830	1.2110	1.773	1.464	.82577	40	.6604	.8796	1.3318	1.514	1.137	.75088
30	.5664	.6873	1.2134	1.766	1.455	.82413	30	.6626	.8847	1.3352	1.509	1.130	.74896
40	.5688	.6916	1.2158	1.758	1.446	.82248	20	.6648	.8899	1.3386	1.504	1.124	.74703
50	.5712	.6959	1.2183	1.751	1.437	.82082	10	.6670	.8952	1.3421	1.499	1.117	.74509
35	.5736	.7002	1.2208	1.743	1.428	.81915	55	.6691	.9004	1.3456	1.494	1.111	.74314
10	.5760	.7046	1.2233	1.736	1.419	.81748	50	.6713	.9057	1.3492	1.490	1.104	.74120
20	.5783	.7089	1.2258	1.729	1.411	.81580	40	.6734	.9110	1.3527	1.485	1.098	.73924
30	.5807	.7133	1.2283	1.722	1.402	.81412	30	.6756	.9163	1.3563	1.480	1.091	.73728
40	.5831	.7177	1.2309	1.715	1.393	.81242	20	.6777	.9217	1.3600	1.476	1.085	.73531
50	.5854	.7221	1.2335	1.708	1.385	.81072	10	.6799	.9271	1.3636	1.471	1.079	.73333
36	.5878	.7265	1.2361	1.701	1.376	.80902	54	.6820	.9325	1.3673	1.466	1.072	.73135
10	.5901	.7310	1.2387	1.695	1.368	.80730	50	.6841	.9380	1.3711	1.462	1.066	.72937
20	.5925	.7355	1.2413	1.688	1.360	.80558	40	.6862	.9435	1.3748	1.457	1.060	.72737
30	.5948	.7400	1.2440	1.681	1.351	.80386	30	.6884	.9490	1.3786	1.453	1.054	.72537
40	.5972	.7445	1.2466	1.675	1.343	.80212	20	.6905	.9545	1.3824	1.448	1.048	.72337
50	.5995	.7490	1.2494	1.668	1.335	.80038	10	.6926	.9601	1.3863	1.444	1.042	.72136
37	.6018	.7536	1.2521	1.662	1.327	.79864	53	.6947	.9657	1.3902	1.440	1.036	.71934
10	.6041	.7581	1.2549	1.655	1.319	.79688	50	.6967	.9713	1.3941	1.435	1.030	.71732
20	.6065	.7627	1.2577	1.649	1.311	.79512	40	.6988	.9770	1.3980	1.431	1.024	.71529
30	.6088	.7673	1.2605	1.643	1.303	.79335	30	.7009	.9827	1.4020	1.427	1.018	.71325
40	.6111	.7720	1.2633	1.636	1.295	.79158	20	.7030	.9884	1.4061	1.422	1.012	.71121
50	.6134	.7766	1.2661	1.630	1.288	.78980	10	.7050	.9942	1.4101	1.418	1.006	.70916
38	.6157	.7813	1.2690	1.624	1.280	.78801	52	.7071	1.	1.414	1.414	1.	.70711
10	.6180	.7860	1.2719	1.618	1.272	.78622	50						
20	.6202	.7907	1.2748	1.612	1.265	.78442	40						
30	.6225	.7954	1.2778	1.606	1.257	.78261	30						
40	.6248	.8002	1.2808	1.601	1.250	.78079	20						
50	.6271	.8050	1.2838	1.595	1.242	.77897	10						
Cosin. Cotg. Cosec. Sec. Tan. Sin. Angle							Cosin. Cotg. Cosec. Sec. Tan. Sin. Angle						

$$\begin{array}{r} 48.5 \\ - 1.5 \\ \hline 47.0 \end{array}$$

$$46 - 47.0$$

$$\begin{array}{r} 282.90 \\ 12.66 \\ \hline 295.56 \end{array}$$

*Repetitive
clauses
later
taken
from*

$$\begin{array}{r} 159.00 \\ 24.97 \\ \hline 183.97 \\ 39.00 \\ \hline 242.97 \\ 99.97 \\ \hline 282.94 \\ 29.96 \\ \hline 282.90 \end{array}$$

$$\begin{array}{r} 142.2 \\ 159.00 \\ 24.97 \\ 59.00 \\ 9.97 \\ 29.96 \\ \hline 282.90 \\ 29.96 \\ \hline 322.86 \end{array}$$

$$\begin{array}{r} 312 \\ 282 \\ \hline 30 \end{array}$$

$$\begin{array}{r} 312 \\ 282.90 \\ 29.96 \\ \hline 312.86 \end{array}$$

Borehole volumes and yield of portland cement and bentonite grouts

Hole Volume

Diameter	Volume (cubic ft)/10'	Volume (gallons)/10'
3"	.5	3.7
4"	.9	6.7
5"	1.4	10.5
6"	1.9	14.7
7"	2.67	20
8"	3.5	26.1
9"	4.4	33.1
10"	5.5	40.8
11"	6.6	49.4
12"	7.85	58.75

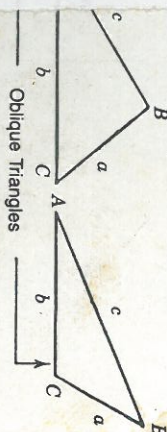
6 gallons of H₂O per bag of bentonite grout

Grout yield (per bag)

Diameter	Portland cement	20% solids bentonite grout
3"	22'/bag	70'/bag
4"	12.2'/bag	38.8'/bag
5"	7.8'/bag	24.7'/bag
6"	5.7	17.7
7"	4.1	13
8"	3.1	10
9"	2.5	7.8
10"	2.0	6.4
11"	1.6	5.3
12"	1.4	4.4

8.5 gal of H₂O + 4 lbs of bentonite and 94 lbs of cement

METRIC FORMULAE



of Right Triangles

$$\frac{a}{b}, \cot = \frac{b}{a}, \sec = \frac{c}{b}, \operatorname{cosec} = \frac{c}{a}$$

$$\cos B, b = \sqrt{a^2 + b^2} = a \sqrt{1 + \frac{b^2}{a^2}}$$

$$\cos B, b = \sqrt{(c+a)(c-a)} = c \sqrt{1 - \frac{a^2}{c^2}}$$

$$b = a \cot A, c = \frac{a}{\sin A}$$

$$a = b \tan A, c = \frac{b}{\cos A}$$

$$a = c \sin A, b = c \cos A$$

of Oblique Triangles

$$C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$$

$$\sin A, C = 180^\circ - (A + B), c = \frac{a \sin C}{\sin A}$$

$$-C, \tan \frac{1}{2}(A - B) = \frac{(a - b) \tan \frac{1}{2}(A + B)}{a + b}$$

$$c = \frac{a \sin C}{\sin A}$$

$$\sin \frac{1}{2}A = \sqrt{\frac{(s-b)(s-c)}{bc}}$$

$$\sin \frac{1}{2}B = \sqrt{\frac{(s-a)(s-c)}{ac}}, C = 180^\circ - (A + B)$$

$$\text{area} = \sqrt{s(s-a)(s-b)(s-c)}$$

$$\sin A \sin C$$

TO HORIZONTAL

distance = Slope distance multiplied by the cosine of the angle. Thus: slope distance = 319.4 ft. Vert. angle = 5° 10'. Page IX, $\cos 5^\circ 10' = .9959$. Horizontal distance = 318.09 ft.

distance also = Slope distance minus slope distance cosine of vertical angle. With the same figures as in the example, the following result is obtained. Cosine 5° 10' = .9959 = .0041. 319.4 × .0041 = 1.31. 319.4 - 1.31 = 318.09 ft.

Thus: rise = 14 ft., slope distance = 302.6 ft. Horizontal distance = 302.28 ft.

