

W
585

KEUFFEL & ESSER CO.

DRAWING MATERIALS

AND

SURVEYING INSTRUMENTS.

NEW YORK.

CHICAGO. ST. LOUIS. SAN FRANCISCO. MONTREAL.

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.

FOR SINGLE TRACK EXCAVATION.

"Copyright, 1895, by Keuffel & Esser Co."

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	0
1	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	1
2	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	2
3	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	3
4	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	4
5	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	5
6	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	6
7	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	7
8	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	8
9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	9
10	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	10
11	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	11
12	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	12
13	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	13
14	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	14
15	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	15
16	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	16
17	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	17
18	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	18
19	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	19
20	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	20
21	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	21
22	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	22
23	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	23
24	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	24
25	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	25
26	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	26
27	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	27
28	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	28
29	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	29
30	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	30
31	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	31
32	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	32
33	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	33
34	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	34
35	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	35
36	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

585

DRILLING GROUT HOLES BOOK No. 2

MICROFILMED

JAN 13 1965

282

GROUT HOLE DATA & INDEX

HOLE NUMBER	STATION	ELEVATION	LOG
1-25	3+46	642.5	Page- 1,2
2-25	3+96	604.9	1,2,3,10,
3-25	4+46	571.6	2,4,11,12
4-25	4+96	546.6	7
5-23	5+46	502.9 502.1	8,18
9-23		442.0	50
13-25	9+25	480°	
14-25	9+75	513.5	
15-25	10+25	546.0 549.0	
16-25	10+75	546.8	35
2-0			14
3-0			15
4-0			
5-47		492.8	19

MICROFILMED

JAN 12 1982

HOLE No. ELEV. TOP

1-25 642.5

DATE Feb. 21, 1942

TIME

DEPTH

From

To

Hr. - Min.

From

To

Core Recovered

0 2.0

Feb. 24, 1942

Adolph Bock, Insp.

8:00 A.M.

8:30 A.M.

0-30

8:30

9:00

0-30

2.0 4'3"

0

9:00 12:00 Grout pipe become

12:00

12:30

0-30

Lunch

12:30

1:18

48

4'3" 9'3"

4'11"

1:18

1:35

0-17

Pulling pipe and

1:35

2:27

32

9'3" 14'0"

2'11"

After starting to drill top for a few minutes noticed the water coming and on the line of the

2:27

3:00

0-33

Pulling drill and

3:00

3:30

0-30

drilling (Depth

3:30

3:45

0-15

stopped while

3:45

4:08

0-23

14'0" 19'0"

4'11"

4:08

4:17

0-09

Pulling drill

Hole 2-25 Elevation 604.9

10:30

11:30

1 hr 0 min

INSPECTOR

FOREMAN

page 1

Adolph Bock

Paul Betz

CREW No. 1

PERC.

CORE

RE-DR

W.O.

TIME (Hr. & Min)

DR. - ft.

DR. - ft.

ft.

ft.

M&S.U.

Lost

2

30

2'3"

Loose and had to be reset 3.0

.30

5' ✓

Lost water at 8'3"

removing core

4'9"

the water come out of the only. Then about 2 P.M I ing out of a seam 40' East axis.

removing core

included below)

blasting some boulders

.15

5' 0"

and removing core

2' hole for grout pipe

4.0

17.0

0.0

0.0

P.C. Drill

HOLE No. 1-25
2-25 ELEV. TOP
642.5

DATE Feb. 25, 1942

INSPECTOR

FOREMAN

page 2

Adolph Bock Paul Betzer CREW No. 1

TIME		DEPTH		Core Recovered
From	To	Hr.-Min.	From To	

PERC. DR. - ft.	CORE DR. - ft.	RE-DR. ft.	W.O. ft.	TIME (Hr. & Min.)	
				M. & S. U.	Lost.

8:00	8:22			
8:22	9:34	1 12"	19' 24'	3'9"
9:34	9:50	0:16	Pulling drill	

					Greasing and getting ready	22
					5'0"	
					and removing core.	

Hole 2-25 Elev. 604.9

Inspector Van Horn Foreman Betzer Feb. 25 1942.

9:50	12:00M	2'10"	moving & setting up	
12:00	12:30	0'30"	Lunch	
12:30	1:20	0'50	Foreman called away	
1:20	1:55	0-35	washing hole, greasing &	

					drill at 2-25 sta 3+96 Elev. 604.9	2 hr. 10 min.
					helper installed water line	30
					setting up	50
						2-45

Hole 2-25 Elev. 604.9 continued

1:55	3:00	1-05	2-0	7-0"	4'9 1/2"
3:00	3:20	20	recovering core		
3:20	4:30		Foreman gone for cement		

					5'0"	
						1 hr. 10"

0.0 10.0 0.0 0.0

at
out

HOLE No. 2-25 ELEV. TOP 604.9 Rain 10 a.m. DATE 2-27-42

INSPECTOR Van Horn FOREMAN P. Betzer

page 3

CREW No. 1

TIME			DEPTH		Core Recovered
From	To	Hr. - Min.	From	To	
8:00 A.M.	8:45 A.M.	0-45			
8:45 A.M.	9:30 A.M.	0-45	17'-6"	22'-6"	
9:30 A.M.	10:15 A.M.	removing core			1'-5 1/2"
10:15 A.M.	10:30 A.M.	resetting up			
10:30 A.M.	Noon		22'-6"	27'-6"	3'-4"
Noon	12:30 P.M.	Lunch.			
12:30 P.M.		see page 4			

PERC. DR. - ft.	CORE DR. - ft.	RE-DR ft.	W.O. ft.	TIME (Hr. & Min.)	
				M. & S. U.	Lost
					Replung Valve 0'-45"
	5'-0" ✓				
					rest of core shattered 1-5 1/2" good core at top of run. 0-15
	5'-0" ✓				2'-10" good core top run then 0-9" split core, then 3" good rest shattered
					0-30

Mar. 2, 1942 Book 602, pg. 3
0 27.5

27.5

0.0 10.0 0.0 27.5

pl out

HOLE No. 3-25 ELEV. TOP 5716-- Rain in A.M. DATE 2-27-42

TIME DEPTH
From To Hr. - Min. From To Core Recovered

10:30 A 11:30 A 1 - 0 0 '2'-0"
(2-25-42)
12-30 P.M. 2-50 P.M. 2'-20 Moving & setting up.
2-50 P.M. 3:20 P.M. 0'-30 2'-0" 4'-0
3-20 P.M. 3:30 P.M. 0'-10 removing core 2'4"
3-30 P.M. 4-00 P.M. 0'-30" Grout pipe loosened Remove

Inspector Curry Foreman Dan McKenzie
3-30 P.M. 4-30 P.M. 0-30" setting up machine
4-30 P.M. 5-45 P.M. 1'-15" 4'-0" 8'-0"
5-45 P.M. 6-05 P.M. 0'-25" pulled bit and installed
5-45 P.M. 6-05 P.M. 0'-20" 8'-0" 9'-6"
6-05 P.M. 6-20 P.M. 0'-15" removing core 4'-5"
6-20 P.M. 7-15 P.M. 0'-55" 9'-6" 14'-6"
7-15 P.M. 7-35 P.M. 0'-20" removing core 4'-1"
7-35 P.M. 8-00 P.M. 0'-25" 14'-6" 16'-6"
8-00 P.M. 8-30 P.M. 0'-30 Lunch
8-30 P.M. 8-50 P.M. 0'-20" 16'-6" 19'-6"
8-50 P.M. 9-30 P.M. 0-40" removing core 3'-2"
9-30 P.M. 10-45 P.M. 1'-15" 19'-6" 25'-0"
10-45 P.M. 11-45 P.M. 1'-0" removing core 0'-0"
11-45 P.M. 12-M.M. Putting tools away

Mar. 2, 1942 - Book 602, pg 2

INSPECTOR Van Horn FOREMAN Paul Betzer page 4 CREW No. 1

PERC. CORE RE-DR. W.O. TIME (Hr. & Min.)
DR.-ft. DR.-ft. ft. ft. M.F.S.U. Lost

2'-0" For grout pipe connection
2'-20
2'-0"
0'-30" add drill & cemented pipe
Feb 27-1942 Swing shift CREW No 2-
0'-30"
4'-0"
new one core remained in hole
1'-6"
first four and one half ft good nest fractured.
5'-0"
last four ft good first part fractured.
2'-0"
0' 30"
3'-0"
5'-6"
core recovered was all shattered some of the core still remains in core tube.
10'-10" good core, recovered by Van Horn water flowed from top of hole at all times.

2.0 23.0 0.0 25.0

nc
Dirt

HOLE No. 5-23 ELEV. TOP 502.9 DATE Mar 2 '42

TIME DEPTH Core Recov.

8:00 A.M. 10:15 A.M. Could not set up. New hole too shallow had special percussion drill made at shop.
 10:15 A.M. 10:40 A.M. 1'-3" 1'-6"
 10:40 A.M. 11:40 A.M. 1'-0" 1'-6" 6'-6"
 11:40 A.M. Noon. removing Core. 4'-10"
 Noon 12:30 P.M. Lunch
 12:30 P.M. 12:50 P.M. 0'-20" Drilling
 12:50 P.M. 1:00 P.M. Spacing ring broken
 1:00 P.M. 1:20 P.M. 0'-20" 6'-6" 11'-7"
 1:20 P.M. 1:30 P.M. removing Core 4'-10"
 1:30 P.M. 3:20 P.M. 1'-50" 11'-7" 21'-8"
 3:20 P.M. 3:30 P.M. removing Core 9'-10 1/2"
 3:30 P.M. Changed Inspectors.

Inspector Curry Foreman McKenzie

3:30 P.M. 4:40 P.M. 1:10 21'-8" 28' 2"
 4:40 P.M. 5:00 P.M. 0:20 removing core

see page 6

INSPECTOR Von Hora FOREMAN Paul Detzer page 5 CREW No. 1

PERC. CORE RE-DR. W.O. TIME (hr. & min.)
 DR.-ft. DR.-ft. ft. ft. M. & S. U. Last

7
 1'-6" lowered next percussion drill hole to 1'-6"
 5'-0"
 5'-1"
 4'-0" of core good 0-1 1/2" indicates seam, 0 8/10" good
 10'-1"
 2'-6" good, 0'-3" indicates seam, 7'-1 1/2" core good
 Hole can stretch at an 2 times!

6'-6"
 all 6'-6" was shattered and was removed in small fragments.

Crew No. 2.

1.5 26.7 0.0 0.0

PL APR 4

HOLE No. 2-25 ELEV. TOP 604.9 DATE Mar. 2-42

TIME DEPTH
From To Hr. - Min. From To Core Recov.

5:00 P.M. 7:45 P.M. 2:45
 7:45 P.M. 8:00 P.M. 0:15 27'-6"
 8:00 P.M. 8:30 P.M. 0-30 Lunch.
 8:30 P.M. 9:45 P.M. 1-15 37'-8"
 9:45 P.M. 10:20 P.M. 0-35 Removing core 8'-9"
 10:20 P.M. 11:15 P.M. 0-55 37'-8" 44'-9"
 11:15 P.M. 12: M, N. 0-45

See book #1 for completion
 of run from
 37'-8" 47'-8"

INSPECTOR

Curry

FOREMAN

McKenzie

page 6

CREW No. 2

PERC. CORE RE-DR. W.O. TIME (hr. & min)
 DR. ft. DR. ft. ft. ft. M. & S.U. Lost

Lost some water at 34' 6"
 lost water does not show at 12 M, N.
 10'-2"
 First 8' 9" good 1' 5" Fragments.
 Machine broke down. Gear Shift
 came out. 0-45
 Drill column and core both were
 left in the hole.

0.0 10.2 0.0 0.0

pl
 APR 2

HOLE No. 4-25 ELEV. TOP 546.6 DATE 3-4-42

TIME		DEPTH		Core Recov.
From	To	Hr. - Min.	From To	
8:00 A.M.	8:45 A.M.	0-45	Getting ready to drill	
8:45 A.M.	10:00 A.M.	1-15	47.16 53.0	
10:00 A.M.	10:30 A.M.	0-30	Removing Core	4.87
10:30 A.M.	Moved to hole 5-23 Elev. 502.9 see P. 8.			

3:30 P 4:00 P 0-30 0 53.0
 Mar. 4, 1942 - See Book 602 page 6

page 7

INSPECTOR Van Horn FOREMAN P. Betzer CREW No. 1

PERC. DR - ft.	CORE DR - ft.	RE-DR ft.	W.O. ft.	TIME (hr. & min)	
				M.G.S.U.	Lost
					0-45
	5.84 ✓				
Hole ran water at all times all good Core. This hole had been grouted					
			53.0		
0.0	5.8	0.0	53.0		

pe
not

HOLE No. 5-23 - ELEV. TOP 502.9 - - - DATE 3-4-42 - - -

TIME DEPTH
From To Hr. - Min. From To Core Recov.

10:30 A.M. 11:20 A.M. 0-50 Moving & setting up
 11:20 A.M. Noon 0-40 Drilling
 Noon 12:30 P.M. 0-30 Lunch
 12:30 P.M. 1:20 P.M. 0-50 28.17 38.75
 1:20 P.M. 1:45 P.M. 0-25 Removing Core 9.88
 1:45 P.M. 3:45 P.M. 2-0" 38.75 48.60
 3:45 P.M. 4:00 P.M. 0'-15" Removing Core. 9.85
 4:00 P.M. Moved to 1-25 Elev 642.5 sep. 9.

INSPECTOR Van Keen - - - FOREMAN P. Betzoc - - - page 8
 CREW No. 1 - - -

PERC. CORE RE-DR. W.O. TIME (hr. & min.)
 DR.-ft. DR.-ft. ft. ft. M. & S. U. Lost

This hole had been washed 0"-50 but not grouted as water pressure stood up.
 This hole ran water at all times. 0-30

10'-58 ✓
 0.6 of core good but stained, with indication of small seam. 1.6 more good but small seam indicated. 7.68 all good.
 9.85 ✓
 all good.

0.0 20.4 0.0 0.0
 ore dust

HOLE No. 1-25 ELEV TOP 642.5 DATE 3-4-48

INSPECTOR
D.R. Curry

FOREMAN

Page 9

Dan McKenzie CREW No. 2

TIME			DEPTH		Core Recov.
From	To	Hr. - Min.	From	To	

PERC. DR-ft.	CORE DR-ft.	RE-DR. ft.	W.O. ft.	TIME (hr. & min.)	
				M. & S. U.	Lost

4-00 P.M.	6-20 P.M.	2-20'	Moving & setting up.		
6-20 P.M.	7-05 P.M.	0-45	3.58	13.58	
7-05 P.M.	8-00 P.M.	0-55	shift lever broke		
8-00 P.M.	8-30 P.M.	0-30	lunch.		
8-30 P.M.	12-M.N.	3-30			

		10.00		2-20'	
					operator working on machine 0-55
					0-30
					operator has machine repaired 3-30

0.0

0.0

10.0

0.0



HOLE No. 2-25 ELEV TOP 604.9 DATE 3-6-47

TIME		DEPTH			Core Recov.
From	To	Hr.-Min.	From	To	
8:00 A.M.	Noon	4-0	Recovering Core 6'-60		
Noon	12:30 P.M.	0-30	Lunch		
12:30 P.M.	1:40 P.M.	1-10	76.25	80.13	
1:40 P.M.	2:00 P.M.	0-20	removing Core		1.25
2:00 P.M.	See Page 11. Moving to grout hole				
			3-25. Elev. 571.6		

INSPECTOR Van Horn FOREMAN P. Betz page 10
 CREW No. 1

PERC. DR. FT.	CORE DR. FT.	RE-DR. FT.	W.O. FT.	TIME (hr. & min.)	
				M. & J. U.	Lost
					0-30
	3.8				
all good. Some of core from previous run not recovered which ground up & also destroyed 3.75 feet of this core. Could not go the full depth of run as all of previous core was not recovered. Hole ran water at all times.					
0.0	3.8	0.0	0.0		✓

HOLE No.		TOP ELEV.		DATE		INSPECTOR	FOREMAN		page 11	
3-25		5146		3-6-42		Van Horn	P. Betzer		CREW No. 1	
TIME		DEPTH		PERC. DR. - ft.	CORE DR. - ft.	W.O. ft.	RE-DR. ft.	TIME (Hr. & Min.)		
From	To	Hr. - Min.	From	To	Core Recov.			M&S.U.	Last	
2:00 P.M.	3:15 P.M.	1-15	moving & setting up						1-15	
3:15 P.M.	3:45 P.M.	0-30	50.08	53.58					This hole had been grouted & washed out. There- Fore no recutting of grout. There-?	
3:45 P.M.	4:00 P.M.	0-15	Removing Core		2.67				all good	
			Date 3-6-42			D.R. Curry	M.S. Kenzie		No 2.	
4:00 P.M.	4:10 P.M.	0-10	Putting tools back in hole			after removing core.				
4:10 P.M.	5:45 P.M.	1-35	53.58	63.58		10.00				
5:45 P.M.	6:15 P.M.	0-30	removing core		10.00				This core was all good.	
6:15 P.M.	7:15 P.M.	1-00	63.58							
7:15 P.M.	8:00 P.M.	0-45	Machine broke.						0.45	
8:00 P.M.	8:30 P.M.	0-30	Lunch						0.30	
8:30 P.M.	9:00 P.M.	0-30	Machine still down						0.30	
9:00 P.M.	10:15 P.M.	1-15	73.50			9.92				
10:15 P.M.	10:45 P.M.	0-30	removing core		9.92				This core was all good	
10:45 P.M.	12-M.N.	1-15	Moving to hole No 4-25						1-15	
									This hole did not loose water.	
						0.0	23.4	0.0	0.0	✓

HOLE No. 3-25 TOP ELEV. 571.6 DATE 3-9-42

INSPECTOR Van Horn FOREMAN P. Betzer page 12 CREW No. 1

TIME DEPTH
From To Hr. - Min. From To Core Recov.

PERC. DR. - ft. CORE DR. - ft. RE-DR. ft. W.O. ft. TIME (Hr. & Min.) M&S.U. Lost.

8:00 A.M. 8:30 A.M. 0-30 Greasing & getting ready
 8:30 A.M. 10:15 A.M. 1-45 83.5 92.7
 10:15 A.M. 10:45 A.M. 0-30 Removing Core 8.10'
 10:45 A.M. Noon 1-15 92.7 99.8
 Noon 12:15 P.M. 0-15 removing Core 4.92'
 12:15 P.M. 12:45 P.M. 0-30 Lunch
 12:45 Moving to 5-25 Elev 502.9

ready
 9.2' Hole tested with water at depth 73.50
 7.10' of core good granite 0.25' indicates split, 0.75' good.
 7.1' Hole ran water at all times.
 2.1' good granite, 0.4' split & indicates small seam, 2.4' good
 0-30
 See next page.

0.0 16.3 0.0 0.0 ✓

HOLE No. 5-23 TOP ELEV. 502.9 DATE 3-9-42

TIME		DEPTH		Core Recov.
From	To	From	To	

12:45PM	1:45PM	1-0	Moving & setting up.	
1:45PM		48.6		

5-23	502.9	Date 3-9-42	
4:20PM	4:55PM	2-35	48.60 59.00
4:20PM	4:55PM	0-35	removing core 10.00
4:55PM	6:10PM	1-15	59.00 69.00
6:10PM	6:40PM	0-30	removing core 9.5
6:40PM	8:00PM	1-20	69.00
8:00PM	8:30PM	0-30	lunch
8:30PM	10:45PM	2-15	Broke Bear in Machine
10:45PM	11:50PM	1-05	79.50
11:50PM	12:20am	0-30	removing core 9.90

INSPECTOR Van Horn FOREMAN P. Betzer page 13 CREW No. L

PERC DR.-ft.	COBE DR.-ft.	RE-DR ft.	W.O. ft.	TIME (Hr. & Min.)	
				M.G.S.U.	Lost

Note: When this hole was uncapped at depth 48.6 it ran water indicating a spring.

10.40 ✓	0.4 of core ground up and washed out.
10.00 ✓	First 9.5 ft of core good last 0.5 fractured.
10.50 ✓	Broke low speed gear. 0-30
	all core recovered good 0.6 missing.

Note Water is still flowing from hole.

0.0 30.9 0.0 0.0 ✓

HOLE No.

TOP ELEV.

2-0

625.8

DATE 3-11-42

INSPECTOR

Van Horn

FOREMAN

P. Betzer

page 14

CREW No. 1

TIME		DEPTH		Core Recov.	PERC DR-ft.	CORE DR-ft.	RE-DR. ft.	W.O. ft.	TIME (Hr. & Min.)	
From	To	Hr. - Min.	From						To	M. & S. U.

8:00 A.M. 10:45 A.M. 2:45 Resetting Grout pipe

10:45 A.M. 11:00 A.M. 0:15 12.50 12.90

11:00 A.M. grout Pipe did not hold. Moved

to 3-0 Elev. 592.3. see p. 15

2:45

0.0

0.0

0.0

0.0

pe
ole

HOLE No. 3-0 TOP ELEV. 592.3 DATE 3-11-42

INSPECTOR Wm. Hays FOREMAN P. Betzler page 15 CREW No. 1

TIME		DEPTH		Core Recov.
From	To	Hr.-Min.	From To	
			0 2.0	
11:00 A.M.	11:30 A.M.	0-30	moving & setting up	
11:30 A.M.	11:45 A.M.	0-15	2'-0 3.30	
11:45 A.M.	Noon	0-15	removing core 1.20	
Noon	12:30 P.M.	0-30		
12:30 P.M.	1:00 P.M.	0-30	3.30 8.30	
1:00 P.M.	1:15 P.M.	0-15	removing core 4.92	
1:15 P.M.	1:40 P.M.	0-25	8:30 16.33	
1:40 P.M.	1:50 P.M.	0-10	removing core 8.00	
1:50 P.M.	2:15 P.M.	1-25	16.33 19.50	
2:15 P.M.	3:00 P.M.	0-45	19.50 25.92	
3:00 P.M.	3:15 P.M.	0-15	removing core 9.70	
3:15 P.M.	Moving to 4-0		See p. 16	

PERC. DR.-ft.	CORE DR.-ft.	RE-DR. ft.	W.O. ft.	TIME (Hr. & Min.)	
				M. & S. U.	Lost
2.0	(Mar. 7, 1942 - Van Horn)				
	Lost some water thru crack at 4+25			0-30	7 1/2 30. of axis
	1.30				
	all of core good granite				
	5.00				0-30
	2.1 of core good granite 0.35 split, 1.33 good 4.0 good 0.25 split				
	8.0				
	2.1 good granite 0.25 split, 4.17 good, 0.25 split, 0.10 split 0.63 good granite				
	3.97				
	Lost all the water, reappeared at seam 4+46 to 4+43 of the axis, also 4+38 of the axis & 7' 50 of the axis				
	6.42				
	1.0 good granite, 0.15 seam, 0.5 good, 0.15 split, 6.5 good, 0.20 indicates seam, 0.56 good, 0.17 split, 0.13 good granite				
2.0	23.9	0.0	0.0		del

HOLE No. 4-0 TOP ELEV. 559.0 DATE 3-11-42

INSPECTOR D.R. Curry FOREMAN Dan McKenzie page 16 CREW No. 2

TIME		DEPTH		Core Recov.
From	To	From	To	
		0	1.8	
3:15 P.M.	4:05 P.M.	0-50	moving & setting up	
4:05 P.M.	4:15 P.M.	0-10	1.83	3.83
4:15 P.M.	4:20 P.M.	0-05	removing core 0.91	
4:20 P.M.	4:45 P.M.	0-25	3.83	7.33
4:45 P.M.	5:00 P.M.	0-15	removing core 3.50	
5:00 P.M.	5:25 P.M.	0-25	7.33	12.33
5:25 P.M.	5:35 P.M.	0-10	removing core 4.25	
5:35 P.M.	6:00 P.M.	0-25	12.33	15.33
6:00 P.M.	(moving to 4-25)			

PERC. DR-ft.	CORE DR-ft.	RE-DR ft.	W.O. ft.	TIME (Hr. & Min.)	
				M. & S. U.	Lost.
1.8	(Mar. 7, 1942 - Van Horn)				
	2.00 ✓			0-50	
	Remaining 1.09' Fractured.				
	3.50 ✓				
	all this core good.				
	5.0				
	Top 4.25' good Bottom 0.75 Fractured				
	lost all the water at 13.00' if ran out of crack sta. 4.87 From axis to 25' So. of axis.				
	Core all remained in hole as the anchor				
	Pipe pulled out.				
	3.0				

1.8 13.5 0.0 0.0

Pl
D.R.

HOLE No. 4-25 TOP ELEV. 546.6 DATE 3-11-42

INSPECTOR J.P. Cunniff FOREMAN Dan McFenzie page-17 CREW No. 2

TIME		DEPTH		Core Recov.
From	To	From	To	

PERC. DR. - ft.	CORE DR. - ft.	RE-DR. ft.	W.D. ft.	TIME (Hr. & Min.)	
				M. & S. U.	Lost

6:00 P.M.	7:25 P.M.	1-25	moving & setting up		
7:25 P.M.	10:50 P.M.	3-25	93.25	102.00	
10:50 P.M.	11:35 P.M.	0-45	removing core 2.75		
11:35 P.M.	12:11 A.M.	0-25	moving & setting up (Hole 5-0 mabeq)		

up also put new gears in machine 1-25
8.75 ✓
3.0 Ft core lost in hole.
Water was Tied at 97.0 like clay.
at 97.5 Lost all the water. It came out of cracks around hole No 5-25.
Same as far as 25.0' from hole.

0.0 8.7 0.0 0.0
pl. Dist.

HOLE No. 5-23 TOP ELEV. 502.9 DATE: 3-13-42

INSPECTOR

FOREMAN

page 18

Van Horn

P. Betzer

CREW No. 1

TIME		DEPTH		Core Recov.
From	To	From	To	

PERL. DR.-ft.	CORE DR.-ft.	RE-DR. ft.	W.O. ft.	TIME (Hr. & Min.)	
				M. & S. U.	Lost

8:00 A.M. 8:45 A.M. 0:45 greasing & setting up

8:45 A.M. 10:45 A.M. 2:00 92.59 98.33

10:45 A.M. 11:00 A.M. 0:15 removing Core 487

11:00 A.M. moved to 5-47 elev 592.8. See p. 19.

5.74 ✓
This hole ran water
all good Granite. Grout from grouting at
grout hole 40 appeared at depth 95'
So moved to grout hole 5-47 elev 492.8

0.0 5.7 0.0 0.0

see
next

HOLE No. 4-25 TOP ELEV. 546.6 DATE 3-13-42

INSPECTOR D.R. Curry

FOREMAN Dan McKenzie

page 20

CREW No. 2

TIME		Hr. - Min.	DEPTH		Core Recov.
From	To		From	To	
8:00 AM	9:45 AM	1-45	0	76.0	
(See field book 603, pg. 11)					
4:30 P.M.	5:30 P.M.		moving & setting up		
5:30 P.M.	8:00 P.M.	2:30	76.0		
8:00 P.M.	8:30 P.M.	0:30	lunch		
8:30 P.M.	9:10 P.M.	0:40		102.00	
9:10 P.M.	11:40 P.M.	2:30	102.00	109.91	
11:40 P.M.	12:10 A.M.	0:30	removing core 5.75		

PERC DR-ft.	CORE DR-ft.	RE-DR ft.	W.O. ft.	TIME (Hr. & Min.)	
				M. & S. U.	Lost
			76.0		
				1-0	
		26.00			0-30
	7.91				
<p>core recovered was good. It was very hard. The core tube was full of grout and bit was dull so we had to pull 1.79 short of the 111.70' final depth. The last 7.91' drilled very hard.</p>					
0.0	7.9	26.0	76.0		pl

Hole No 5-23 Top Elev. 502.9 Date 3-16-42

Inspector D.R. Curry Foreman Dan McKenzie Crew No. 1 Page 21

Time		Depth		Core
From	To	Hr.-Min.	From To	Recov.
			0 9.1	
8:00 a.m.	8:55 a.m.	0-55	Moving from hole No 5-0	
8:55 a.m.	11:10 a.m.	2-15	98.33	98.33
11:10 a.m.	12:00 a.m.	0-50	98.33	101.91
12:00 N.	12:30 P.M.	0-30	Lunch	
12:30 P.M.	1:15 P.M.	0-45	removing core 2.75	
1:15 P.M.	2:10 P.M.	0-55	101.91	106.91
2:10 P.M.	2:35 P.M.	0-25	removing core 4.9	
2:35 P.M.	4:00 P.M.	1-25	106.91	

Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	
				M.&S.U.	Lost
			9.1	(D.W.L.)	
				0-55	
			89/6!		
	3.58 ✓				
				0-30	
				Top good last 0.83 Fractured	
	5.00 ✓				
				all good except 0.1' in bit was shattered	
				core & core tube still in hole	
				This hole is about 111.0 Ft depth	
0.0	8.6	89.2	9.1		

10/1

Hole No.	Top Elev.	Date	Depth		Core Recov.
From	To	Hi.-Min.	From	To	
5-A7	492.8	3-18-42			
			24.75	33.00	
			removing core		9.00
			33.00	43.40	
			lunch		
			removing core		10.00
			43.40	44.65	
			removing core		1.25
			44.65	54.75	
			removing core		10.00
			moving to hole 1-0		

Inspector		Foreman		Crew No.	
D.R. Curry		Paul Betzer		2	
Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	
				M.&S.U.	Lost
	8.25				
	From 32.0 to 33.0 shattered Rest good. 1.25 of this core was recovered from former drilling 10.90 ✓				
					0-30
	Core was good except for a few seams.				
	1.25				
	Core was split causing block off.				
	10.10				
	Core all good				
0.0	30.0	0.0	0.0		pl

Hole No. 5-0 Top Elev. 527.2 Date 3-18-42

Inspector D. R. Curry Foreman Paul Bretzer Crew No. J Page 24

Time		Depth		Core Recov.
From	To	From	To	

Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	
				M.&S.U.	Lost

8:00 a.m.	9:25 a.m.	1-25	51.20	61.20	
9:25 a.m.	9:40 a.m.	0-15	removing core		9.90
9:40 a.m.	10:20 a.m.	0-40	61.20	67.00	
10:20 a.m.	10:45 a.m.	0-25	removing core		5.00
10:45 a.m.	12:00 a.m.	1-15	67.00		
12:00 N	12:30 P.M.	0-30	lunch		
12:30 P.M.	1:20 P.M.	0-50		77.50	
1:20 P.M.	1:45 P.M.	0-25	removing core		7.10
1:45 P.M.	Moving to hole 3-0		see page 25.		

					10.00 ✓
					core excellent.
					5.80 ✓
					core recovered good hit soft spot & blocked off.
					0-30
					10.50 ✓
					core good there was a soft spot from 73.0 to 76.5 that did not stay in tube. Did not loose any water.

0.0 26.3 0.0 0.0 *pl*

Hole No. 3-0 Top Elev. 592.3 Date 3-18-42

Inspector Dr. P. Curry Foreman Paul Betzer Crew No. I Page 25

Time		Depth		Core
From	To	Hr.-Min	From To	Recor.
1:45 PM	3:00 PM	1-15		Moving & setting up
3:00 PM	3:40	0-40	25.92 30.3	4 ²
3:40 PM	3:50	0-10		Removing core
3:50 PM	4:45	0-55	30.3 40.3	9 ⁹
4:45 PM	5:05	0-20		Removing core
5:05 PM	6:00	0-55	40.3 50.5	9.9
6:00 PM	6:15	0-15		Removing core

Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	
				M.&S.U.	Lost
	4.38				1-15
	10.0				Some small seams.
	10.2				Very good core
					Adolph Bock Inspector 4:40 PM - 12 PM
					Very good core
0.0	24.6	0.0	0.0		pl

Hole No. 1-0
 Top Elev. -----
 Date 3-18-42

Inspector Adolph Back
 Foreman -----
 Crew No. ----- Page 28

Time		Hr.-Min.	Depth		Core Recov.
From	To		From	To	
8:00 P.M.	8:40	0-40	0	41	
Washing out hole					

Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min)	
				M.&S.U.	Lost
			41		
0.0	0.0	0.0	41.0		

pl

Hole No. 2-0
 Top Elev. 625.8
 Date Mar. 18, 1942

Inspector Allen
 Foreman
 Crew No. Page 29

Time		Depth		Core	
From	To	Hr.-Min.	From	To	Recov.

0 12.5

Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min)	
				M.&S.U.	Lost

12.5

Washing grout from hole
 (See book 603, pg. 17)

0.0 0.0 0.0 12.5

pl

Hole No	Top Elev	Date	Inspector	Foreman	Crew No		
14-25	513.5	3-20-42	D.R. Curry	Paul Betzer	2. (D.M.E) Page 30		
Time	Depth	Core	Perc	core	Re. Dr. W, O.	Time (Hr. Min)	
From To	Hrs. Min.	From To	Drift	Drift	ft. ft.	M&S, U Lost	
	0 1.5		1.5	(Mar. 14, 1942 - Van Horn)			
8:00 a.m. 9:00 a.m.	1-0	Moving & setting up				1-0	
9:00 a.m. 9:15 a.m.	0-15	1.50 2.50		1.00 ✓			
9:15 a.m. 9:25 a.m.	0-10	removing core 0.0		core was all ground up and washed out.			
9:25 a.m. 10:05 a.m.	0-40	2.50 7.50		5.00 ✓			
10:05 a.m. 10:20 a.m.	0-15	removing core 4.33		this core was broken in short pieces.			
10:20 a.m. 11:20 a.m.	1-00	7.50 11.50		4.00 ✓			
11:20 a.m. 11:35 a.m.	0-15	removing core 3.33		core has split in portion of it.			
11:35 a.m. 12:00 N	0-25	11.50					
12:00 N 12:30 P.M.	0-30	Lunch				0-30	
12:30 P.M. 1:20 P.M.	0-50	21.50		10.00 ✓			
1:20 P.M. 1:45 P.M.	0-25	removing core 19.25		Some of this core picked up from last run.			
1:45 P.M. 2:50 P.M.	1-05	21.50 26.50		5-0 ✓			
2:50 P.M. 3:10 P.M.	0-20	removing core 4.25		core broken short some may be			
3:10 P.M.	Moving to	Hole No 15-25		in hole.			
			1.5	25.0	0.0	0.0	pl

Hole NO 5-23 Top Elev 502.9 Date 3-26-42

Inspector D.R. Curry Foreman Paul Betzer Crew No I Page 31

Time		Depth		Core	Per	Core	Re	W.O	Time	HR-Min
From	To	From	To	Per	Drift	Drift	Drift	ft	M.R.S.U	Lost

8:00 a.m. 9:30 a.m. 1-30 moving & setting up.

9:30 a.m. 12:00 p.m. 2-30 122.60 132.60

12:00 N 12:30 P.M. Lunch

12:30 P.M. 1:15 P.M. 0-45 removing core 10.00

1:15 P.M. moving to hole 3-0

see page 32

Per	Core	Re	W.O	Time	HR-Min
Drift	Drift	Drift	ft	M.R.S.U	Lost

1-30

10.60

core was all good.

0-30

0.0

10.6

0.0

0.0

kl

Hole No	Top Elev	Date
15-25	540.0 546.0	3-20-1942
Time	Depth	Core
From	To	Rec.
4:30	5:30	1:00
5:30	5:50	0:20
5:50	6:00	0-10
6:00	6:50	0-50
6:50	7:05	0-15
7:05	8:00	0-55
8:00	8:30	
8:30	8:45	0-15
8:45	9:00	
9:00	9:40	
9:40	10:00	

Inspector	Foreman	Crew No
Adolph Bock	Richardson	2

Perc. Drill	Core drill ft.	Redrill ft.	W.O. ft.	Time M+SU.	Hr. mi Lost
20	(Mar. 14, 1942 - Van Horn)			1:00	
	1.5'				core in short sections
	5.5'				core in short sections
	11.0'				core in short sections
	57'				

2.0 23.7 0.0 0.0

all short

Hole #	Top Elev.	Date	Depth	Core
2-0		3-20-42		
Time				
From	To	H. min	From To	Rec.
6:30	7:00	0:30	0 50.5	✓
7:30	8:00	0-30	Moving	
8:00	8:30	0-30	Lunch	
8:30	8:50	0-20	50.5 52.5	1?
8:50	9:15	0-25	Remove Core	
9:15	10:45	1-30	52.5 60.7	7°
10:45	11:25	0-40	Remove Core	
11:25	12:00	0-35	Drilling	

Inspector: Adolph Bock
Foreman: CREW No 34
2

Core	Core	Redrill	W.O.	Time	Hr. Min
Drill	drill ft.	ft	ft	M+5.0	Lost
			50.5	✓	
					0-30
	2.0	✓			
	8.2	✓			

good core except the last foot which is split. did not complete to the core barrel length so left drill in hole.

0.0 10.2 0.0 50.5

pl.

Hole #	Top Elev	Date	Time	Depth	Core
From	To	Hr. Min	From	To	Rec
16-25	546.8	3-20-42			
10:00	10:30	0-30	0	2.0	Moving
10:30	10:50	0-20	2	5	1-
10:50	11:00	0-50	Remove core		
11:00	11:45	0-45	5	10.0	3.5
11:45	12:00	0-15	Remove core		

Inspector Adolph Bock Foreman Richardson #2 Crew #35

Core	Core	Redrill	W.O	Time	Hr. Min
Drill	Drill ft.	ft.	ft.	M+SU	Lost
2.0				0-30	
	3.0				Core in small pieces
	5.0				Core in small pieces

2.0 8.0 0.0 0.0

Hole No.	Top Elev.	Date
4-0	559.0	3-23-42

Inspector	Foreman	Crew No.	Page 36
J.R. Curry	Paul Betzer	I (Betzer)	

Time		Depth		Core
From	To	Hr.-Min.	From To	Recol.

Perc. Dr-ft.	Core Dr-ft.	Re-Dr. ft.	W-0 ft.	Time (hr. & min)	
				M. & S.U.	Lost

8:00 a.m.	9:45 a.m.	1-45	89.1	96.5	
9:45 a.m.	10:15 a.m.	0-30	removing core 5.66		
10:15 a.m.	10:50 a.m.	0-35	96.5	99.5	
10:50 a.m.	11:25 a.m.	0-35	removing core 2.5		
11:25 a.m.	12: N	0-35	99.5		
12: N	12:30 p.m.	0-30	lunch		0-30
12:30 p.m.	1:10 p.m.	0-40		110.5	
1:10 p.m.	1:30 p.m.	0-20	removing core 10.1		
1:30 p.m.	moving to hole 3-38				
	see page 38				

			7.4		
			hit seamy ground at 94.0' but did not loose any water		
			3.0'		
			This core fractured. Shows open seams		
			11.0		
			This core was better than that previously recovered.		

0.0	21.4	0.0	0.0
-----	------	-----	-----

Hole No.	Top Elev.	Date	Inspector			Foreman		Crew No. Page 37			
13-27	480.0	3-23-42	D.R. Curry			Paul Betzer		2- (McKenzie)			
Time		Depth		Core	Perc.	Core	Re-Dr.	W-O.	Time (hr. & min.)		
From	To	hr.-Min.	From	To	Recor.	Dr.-ft.	Dr.-ft.	ft.	ft.	M. & S.U.	Lost
			0	1.0		1.0					
8:00 a.m.	8:25 a.m.	0-25	Setting up								
8:25 a.m.	9:00 a.m.	0-35	1.0	3.0				2.0 ✓			
9:00 a.m.	9:25 a.m.	0-25	removing core		1.25						
9:25 a.m.	10:15 a.m.	0-50	3.0	7.5				4.5 ✓			
10:15 a.m.	10:30 a.m.	0-15	removing core		4.17						
10:30 a.m.	11:10 a.m.	0-40	7.5	11.0				3.5 ✓			
11:10 a.m.	11:25 a.m.	0-15	removing core		2.25						
11:25 a.m.	12:00 N	0-35			11.0						
12:00 N	12:30 P.M.	0-30									0-30
12:30 P.M.	1:10 P.M.	0-50			18.0			7.0 ✓			
1:10 P.M.	1:25 P.M.	0-15	removing core		4.0						
1:25 P.M.	2:10 P.M.	0-45	18.0	28.5				10.5 ✓			
2:10 P.M.	2:20 P.M.	0-10	removing core		10.1						
2:20 P.M.	moving to hole		0-25								
			see page 39								
						1.0	27.5	0.0	0.0		

(Mar. 22, 1942 - Curry)

1.0 27.5 0.0 0.0

Hole No.	Top Elev.	Date		Inspector	Foreman	Crew No. Page 38				
3-38	5564	3-28-42		D. B. Curry	Paul Betzer	J. (Betzer)				
Time		Depth		Core	Perc.	Core	Re-Dr.	W-O	Time (hr. & Min.)	
From	To	hr.-Min.	From	To	Dr.-ft.	Dr.-ft.	ft.	ft.	M.F.S.U.	Last
1:30 P.M.	1:55 P.M.	0-25	moving & setting up							0-25
1:55 P.M.	3:10 P.M.	1-15	23.0	33.0		10.0 ✓		good core		
3:10 P.M.	3:25 P.M.	0-15	removing core		10.0					
3:25 P.M.	4:10 P.M.	0-45	33.0	40.6	7.6			core somewhat broken.		
Moving to hole # 5-47										
					0.0	17.6	0.0	0.0		

Hole #	Top Elev	Date	Depth	Core
19-25	613.2	3-23-42		
Time				
From	To	Hr. Min	From	To
8:30	10:00	1-30	0	1.5
10:00	10:25	0-25	15	30
10:25	10:35	0-10		
10:35	11:25	0-50	30	80
11:25	11:35	0-10		
11:35	12:00	0-25		

Inspector	Foreman	Crew No
Adolph Bock	Richardson	2
Perc. Dr. ft.	Core Dr. ft.	Redrill ft.
1.5	1.5	0.0
(3-23-42) Curry		Time Hr. + Min
Setup		M+S.O Lost
		1-30
15		core in short pieces
50		good core

0-25

1.5 6.5 0.0 0.0

Hole No 11-23²⁵ Top Elev. 458.0 Date 3-25-42

Inspector J.R. Curry Foreman Paul Betzer Crew No. 2 (McKenzie) Page 43

Time		Depth		Core Recov.
From	To	Hr.-Min.	From To	
			0 1.5	
8:00 a.m.	8:45 a.m.	0-45	1.5 4.5	
8:45 a.m.	9:00 a.m.	0-15	removing core	2.1
9:00 a.m.	10:15 a.m.	1-15	4.5 9.5	
10:15 a.m.	10:25 a.m.	0-10	removing core	5.0
10:25 a.m.	11:10 a.m.	0-45	9.5 15.0	
11:10 a.m.	11:20 a.m.	0-10	removing core	5.0
11:20 a.m.	12:00 N	0-40	15.0 20.5	
12:00 N	12:30 P.M.	0-30	lunch	
12:30 P.M.	12:45 P.M.	0-15	removing core	5.1
12:45 P.M.	1:40 P.M.	0-55	20.5 25.5	
1:40 P.M.	2:00 P.M.	0-20	removing core.	
2:00				

Perc Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	
				M.&S.U.	Lost
1.5 ✓					
	3.0 ✓				
Core good lost water at 3' to 4' reappeared in open cracks 10' to 15' west of hole.					
	5.0 ✓				
core good					
	5.5 ✓				
core good					
	5.5 ✓				
0-30					
core good.					
	5.0				

1.5 24.0 0.0 0.0 PR

Hole No. 2:39 --- Top Elev. 596.3 --- Date 3-25-42 ---

Inspector A.R. Curry --- Foreman Paul Betzer --- Crew No. I. (Betzer) Page 44

Time		Depth		Core Recov.	Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	
From	To	Hr.-Min.	From						To	M.&SU.
8:00 AM	9:35 AM	1-35	3.0 4.0	8.0		5.0 4.0				
9:35 AM	9:55 AM	0-20	removing core	5.0		core good				
9:55 AM	11:00 AM	1-05	8.0	15.5		7.5 ✓				
11:00 AM	11:20 AM	0-20	removing core	4.75		core very soft & Broken				
11:20 AM	12:00 N	0-40	15.5	18.5		3.0 ✓				
12:00 N	12:30 PM	0-30	Lunch							0-30
12:30 PM	12:45 PM	0-15	removing core	1.75		core very poor.				
12:45 PM	1:35 PM	0-50	18.5	23.0		4.5 ✓				
1:35 PM	1:50 PM	0-15	removing core	3.60		core still Broken				
1:50 PM	3:10 PM	1-20	23.0	33.0		10.0 ✓				
3:10 PM	3:20 PM	0-10	removing core	10.0		all good core.				
3:20 PM	Moving machine to East side.									
					0.0	29.0	0.0	0.0		PL

Hole No. 13-257 Top Elev. 480.0 Date 3-27-42

Inspector D.R. Curry Foreman Paal Betzer Crew No. 11 Betzer Page 45

Time		Depth		Core Recov.	Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	
From	To	From	To						M.&S.U.	Lost
8:00am	10:30am	2-30	0.0	28.0 ⁵		4.75	28.0 ⁵			
10:30am	11:20am	0.50	28.0 ⁵	33.25		5.25				
11:20am	11:35am	0.15	removing core		5.0					
11:35am	12:00N	0.25	33.25							
12:00N	12:30PM	0.30	lunch							0-30
12:30PM	1:15PM	0.45	37.83			4.58				
1:15 P.M.	1:30PM	0.15	removing core		4.25					
1:30 P.M.	2:15PM	0.45	37.83	45.0		7.17				
2:15 P.M.	2:30pm	0-15	removing core		7.0					
2:30 P.M.	3:30pm	1-0	45.0	50.25		5.25				
3:30 P.M.	3:45 P.M.	0-15	removing core		5.0					
		moved to 11-23 ²⁵								
					0.0	21.8	28.5	0.0		✓

Hole No. 11-23²⁵ Top Elev. Date 3-27-42

Inspector R. R. Curry Foreman Paul Betzer Crew No. 2. M. O. K. Page 46

Time		Hr.-Min.	Depth		Core Recov.
From	To		From	To	
8:00am	8:45am	0-45	moving & set up		
8:45am	12:00N	3-15	0.0	25.5	
12:00N	12:30PM	6-30	Lunch		
12:30PM	1:30PM	1-0	25.5	35.5	
1:30PM	1:45PM	0-15	removing core 6.5		
1:45PM	3:10PM	1-25	35.5	45.5	
3:10PM	3:25PM	0-15	removing core 8.5		
3:25PM			moving to hole 10-23 ²⁵		
3:25PM	4:00PM	6-35	water test O.K.		
4:00PM	4:50	0-50			
4:50PM	5:45	0-55	45.5	50° 4°	
5:45PM	6:00PM	0-15	Remove core		
6:00PM	6:25PM	0-25	50°	53° 13	
6:25PM	6:50PM	0-50	Remove core		
6:50PM	7:25	0-35	53.5	59° 25	
7:25PM	7:45	0-20	Remove Core		
7:45PM	8:30	0-45	59°	63° 12	
8:30PM	8:50	0-20	Remove Core		
8:50PM	9:35	0-45	63°	67.8 2.9	
9:35PM	9:55	0-20	Remove Core		
9:55PM	10:30	0-35	67.8	72.8 10	

Cont Page 49

Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	M.&S.U. Lost.
				0-45	
		25.5			
	10.0				0-30
				Some core gone. Rest good	
	10.0				
				Some gone Rest good.	
				by Allen	
				Adolph Beck Inspector from 4 PM to 6 PM	
				0-50	
	4.5				core recovered in short sections
					core recovered is broken up.
	5.5				core in short pieces
					core broken up
	4.0				core broken up
					core recovered in small pieces
0.0	47.3	25.5	0.0		

Hole No. 16-25 Top Elev. _____ Date 3-27-42

Inspector Edw. J. Beck Foreman Richard Crew No. _____ Page 48

Time		Depth		Core	
From	To	Hr.-Min.	From	To	Recov.

4:00	4:30	0-30	0	27.5	
------	------	------	---	------	--

Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	
				M.&S.U.	Lost

			27.5		
--	--	--	------	--	--

0.0 0.0 0.0 27.5 ✓

Hole No. 11-23²⁵ Top Elev. _____ Date 3-27-42

Inspector Edolph Beck Foreman Richardson Crew No. 2 Page 49

Time		Hr.-Min.	Depth		Core Recor.
From	To		From	To	
^{P.M.} 10:30	^{P.M.} 11:00	0-30			Remove Core
^{P.M.} 11:00	^{P.M.} 11:30	0-30	72.8	78 ²	50
11:30	11:40	0-10			Remove Core
11:40	12:00	0-20			getting ready to move.

Perc. Dr.ft.	Core Dr.ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	
				M.&SU.	Lost
	54 [✓]				Core still in small pieces but more recovered.
0.0	5.4	0.0	0.0		

Hole No. 9-23²⁵ Top Elev. 442.0 Date 3-27-42 Inspector Adolph Beck Foreman Richardson Crew No. 2 Page 50

Time		Depth		Core	Perc.	Core	Re-Dr.	W.O.	Time (Hr.-Min)	
From	To	Hr.-Min.	From	To	Dr.ft.	Dr.ft.	ft.	ft.	M.&S.U.	Last

11-20 11-40 0-20

0 2.0

2.0

1.5 ✓

Core in short pieces

11-40 11-55 0-15

20 35 13

11-55 12:00

Remove core

2.0

1.5

0.0

0.0

Hole No. 11-2325 Top Elev. 458.0 Date 3-30-42

Inspector J.R. Curry Foreman Paul Betzer Crew No. L. Betzer Page 52

Time		Depth		Core
From	To	From	To	Recor.
8:00 A.M.	10:15 A.M.	2-15	78.2 89.0	
10:15	10:45	0-30	removing core	10.0
10:45	12:00 N	1-15	89.0	
12:00 N	12:30 P.M.	0-30	lunch	
12:30 P.M.	2:30 P.M.	2-00	101.0	
2:30	3:15	0-45	removing core	10.0
3:15			moving to hole	11-0

Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	
				M.&S.U.	Lost
	10.8				
	Core good but with some seams				
					0-30
	12.0				
0.0	22.8	0.0	0.0		

Hole No. 11-0
 Top Elev. 448.6
 Date 3-30-42

Inspector D.R. Curry
 Foreman Paul Betzer
 Crew No. I (Betzer) Page 54

Time		Depth		Core Recol.
From	To	From	To	
		0	2.0	
3:15 PM	4:00	0-45	2.0 7.2	
4:00 PM	4:10	0-10	removing core	3.0
4:10 PM	5:20	1-10	7.2 12.2	5.0
5:20 PM	5:30	0-10	Remove core	
5:30 PM	6:40	1-10	12.2 20.0	7.5
6:40 P	6:55	0-15	Remove core	
6:55 P	7:35	0-45	20.0 25.6	3.5
7:35 P	7:50	0-15	Remove core	

Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	
				M. & S. U.	Lost
2.0					
	5.2 ✓				
	Core Broke short & fractured				
	5.0 ✓				
	7.8 ✓				
	Richardson, Foreman. core in short pieces. Adolph Bock, Insp. 4:00 P.M. to 12:00 P.M.				
	5.6 ✓				
	core recovered in short pieces.				
Did no drilling after completing this hole to 25.6'. Out of sharp bits.					

2.0 23.6 0.0 0.0

Hole No. 8-23²⁵ Top Elev. _____ Date 4-1-42

Inspector D.R. Curry Foreman McKenzie Crew No. 3 Page 55

Time		Depth		Core
From	To	From	To	Recov.

Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.D. ft.	Time (Hr.-Min.)	
				M.&S.U.	Lost

1:00 97M

33.0 44.0 10.1

11.0

44.0 55.0 10.1

11.0

Moved to 7-23²⁵

0.0 22.0 0.0 0.0

Hole No. 9-23²⁵ Top Elev. _____ Date 4-1-42

Inspector D.B. Curry Foreman Richardson Crew No. 4 Page 57

Time		Depth		Core Recov
From	To	From	To	

Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min)	
				M.&S.U.	Lost

1:00pm

		35.5	43.5	3.75
		43.5	50.0	5.1
moved to hole 10-0				

8.0				core very poor.
6.5				First 4.5' good rest poor

0.0 14.5 0.0 0.0

Hole No
8-23

Date
4-2-42

Inspector
Adolph Bock

63

Time		Dept		
From	To	Hr.	Min	
0-30AM	1-05AM	0-35	0	55

W.O
Ft.
55

0.0 0.0 0.0 55.0

Hole No	Top Elevation		Date		Core Recor.
8-0	442.9 ✓		4-4-42		
Time		Depth		Core Recor.	
From	To	Fr.-Min.	To		
			0	2.0	
8:00 A.M.	8:30 A.M.	0-30	Set up.		
8:30	9:15	0-45	2.0	5.0	
9:15	9:25	0-10	removing core 2.4		
9:25	10:20	0-55	5.0	10.0	
10:20	10:35	0-15	removing core 4.9		
10:35	11:30	0-55	10.0	16.0	
11:30	11:50	0-20	removing core 6.0		
11:50	12. N	0-10	16.0		
12. N	12:30 P.M.	0-30	Lunch		
12:30 P.M.	2:00 P.M.	1-30	24.0		
2:00 P.M.	2:15 P.M.	0-15	removing core 7.0		
2:15	3:20	1-05	24.0	29.0	
3:20	3:35	0-15	removing core 5.0		
3:35	moving to hole 10-0				

Inspector		Foreman		Crew No.	
D.R. Carry		Paul Betzer		2 (Simmons)	
Pers. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (hr. & min)	
				M. & S.U.	Lost
2.0					
				0-30	
	3.0 ✓				
	good core				
	5.0 ✓				
	good core				
	6.0 ✓				
	good core				
					0-30
	8.0 ✓				
	good core				
	5.0 ✓				
2.0	27.0	0.0	0.0		

PK

Hole No.	Top Elev.		Date		
8-23			4-7-1942		
Time		Depth		Core	
From	To	Hr.-Min.	From	To	Recov.
8:00 A.M.	10:00	2-00	75-0	80-0	3-
10:00 A.M.	10-15	0-15			Remove core
10:15 A.M.	12:00	1-45	80-0	87-0	5-
12:00	12:30 P.M.	0-30			bench
12:30 P.M.	12:45 P.M.	0-15			Remove core
12:45 P.M.	3:30 P.M.	2-45	87-0	100-0	25

Inspector		Foreman		Crew No.	
Adolph Bock		Betzer		1	
Perc. Dr. Ft.	Core Dr. Ft.	Re-Dr. Ft.	W.O. Ft.	Time (hr. & Min.)	
				M. & S.U.	Last
	52				Core recovered is good.
	72				Core recovered is good.
	130				0-30
					Balance of core broken up and not recovered.
0.0	25.0	0.0	0.0		Pl

Hole No. 9-23
 Top Elev. -----
 Date 4-7-42

Inspector Adolph Beck
 Foreman Betsey
 Crew No. 2
 Page 67

Time		Hr.-Min.	Depth		Core Recor.
From	To		From	To	
8:00	11:00	3-00	151	162 ³	106
11:00	11:15	0-15	Remove core moving to Hole # 9-0		

No record of drilling from 139.8 to 151

Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	
				M&SU	Lost
	11.2 ³			core recovered is good.	
	11.2				

0.0 22.5 0.0 0.0 KL

Hole No. 9-0 Top Elev. _____ Date 7-7-42

Time		Depth		Core Recov.
From	To	Hr-Min.	From To	

11:15 11:45 0-30

This hole had to be abandoned as the core drill was going to one side will have to fill with cement and re-drill moving to 7-23

4-8-42 Gy McCown

3-00 PM	5-30 PM	2-30	4.5	24.5	
5-30 PM	6-30 PM	1-00	24.5	31.5	50
6-30 PM	8 ⁰⁰ AM	1-30	31.5	33.0	

Inspector Adolph Beck Foreman Betz Crew No. _____ Page 68

Perc. Dr.ft.	Core Dr.ft.	Re-Dr. ft.	W.O. ft.	Time (Hr-Min.)	
				M&SU	Lost

0-30

20' Drill Grout.
7° Core broken 1" to 6"
~~1.5~~ Machine left in hole.

0.0 7.0 20.0 0.0

PL

Hole No. 7-0 Top Elev. Date 4-7-42

Inspector D.R. Curry Foreman Ian McKenzie Crew No. I (McKenzie) Page 71

Time		Depth		Core Recor.
From	To	From	To	
		0	2.0	
9:20 P.M.	10:00 P.M.	0-40	Moving & Set up.	
10:00 P.M.	10:20 P.M.	0-20	2.0 4.0	
10:20 P.M.	10:30 P.M.	0-10	removing Core 1.0	
10:30 P.M.	11:10 P.M.	0-40	4.0 9.0	
11:10 P.M.	11:20 P.M.	0-10	removing Core 4.75	
11:20 P.M.	11:50 P.M.	0-30	9.0 13.5	
11:50 P.M.	12:00 P.M.	0-10	removing Core 0.75	

Perc. Dr.ft.	Core Dr.ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	
				M.&SU.	Last
2.0	(April 1, 1942 - Curry)				
	2.0 ✓				
	Core broken in short pieces				
	5.0 ✓				
	Core very good.				
	4.5 ✓				
	Very poor core.				

4-8-42 Gy McCown
12-00 2-00 AM 2-0 13.5 23.6 3.0

10.1 ✓ core badly Broken

2.0 21.6 0.0 0.0

Hole No	Top Elev.	Date	Time		Depth.	Core
From	To	Hr.-Min	From	To	Recol	

10+00
 4-8-42
 2-45 PM 3-08 PM 0+00 50+00

Inspector		Foreman		Crew No	
Perc. Dr. ft.	Core Dr. ft.	Re. Dr. ft.	W.O. ft.	Time (Hr.-Min)	M&Sd. Lost

McCown

 Page 72

50'
 Drilling Grout.

0.0 0.0 50.0 0.0

Hole No. 7-0 Top Elev. --- Date 7-13-1942

Inspector Eddah Back Foreman Betzey Crew No. 2 Page 74

Time		Hr.-Min.	Depth		Core Recor.
From	To		From	To	
8:00 AM	9:00	1-00	59.5	66	64
9:00 AM	9:30	0-30	Remove core		
9:30 AM	10:30	1-00	66	76	9.1
10:30 AM	11:00	0-30	Remove core		
11:00 AM	11:45	0-45	76	82	54
11:45 AM	1:25 PM	1-40	82	88.5	6-
1-25 PM	2-05	0-40	Remove core		
2-05 PM	3-30	1-25	88.5	99.3	10.5
3:30 PM	4:00		Remove core		

Perc. Dr. Ft.	Core Dr. Ft.	Re-Dr. Ft.	W.O. Ft.	Time (Hr.-Min.)	
				M.&S.U.	Lost
	6.5 ✓	9.00	core	all in granite	
	10.0 ✓	9.00	core	all in granite	
	6 ✓	9.00	core	all in granite	
	6.5 ✓	9.00	core	all granite	
	10.8 ✓	Very good.	All in one piece		
0.0	39.8	0.0	0.0		

Hole No.

Top Elev.

Date

Inspector.

Foreman

Crew No.

7+00

4-14-42 GY

McGown

Page 75

Time		Depth		Core
From	To	From	To	Recok.

Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr-Min)	
				M&SU.	Last

Note Drilling on this hole on swing shift 4-13-42 as obtained from Drillers as follows

99.3	111.3	11.0
111.3	122.3	11.0

GY Shift 4-14-42

12-0	3-30 AM	3 30	122.3	132.9	10.6
------	---------	------	-------	-------	------

12.0	12.0	Core broken 8'0" shorter to 8'0"
11.0	11.0	Broken 1" to 6'0"

10.6	10.6	Broken 2" - 31"
------	-----------------	-----------------

0.0	33.6	0.0	0.0
-----	------	-----	-----

Hole No. 6+25 Top Elev. _____ Date 4-14-42 GY

Inspector McCoun

Foreman _____

Crew No. _____

Page 76

Time		Depth		Core
From	To	Hr.-Min	From To	Recov.

Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	
				M.&S.U.	Lost

Note Drilling on this hole on swing 4-13-42 as follows.

124.2	132.5	5.4
132.5	137.5	5.0

8.3
5.0

Broken 1" to 5.0
one piece

Graveyard 4-14-42

12-00	2-00AM	2-0	137.5	142.6	5.1
2-AM	6-30AM	4-30	142.6	153.4	10.8
6-30AM					

5.1
10.8

one piece
shattered.
Machine Broken.

0.0

29.2

0.0

0.0

Hole No. 13125
 Top Elev. -----
 Date 4-14-42 Gy-

Inspector McCoun
 Foreman -----
 Crew No. -----
 Page 77

Time		Depth		Core	
From	To	Hr.-Min.	From	To	Recov.

Perc. Drift	Core Drift	Re-Dr. ft.	W.O. ft.	Time (Hr.-Min.)	
				M&SU.	Last.

6-30 AM	8-00 AM	1-30 AM.	0	3.0	
---------	---------	----------	---	-----	--

		3.0	Drilling	Grout.	
--	--	-----	----------	--------	--

0.0 0.0 3.0 0.0

Hole No.	Top Elev.	Date	
-----	-----	-----	
Time		Depth	Core
From	To	From To	Recov.
	Hr-Min.		

1400126

Inspector	Foreman	Crew No.			
-----	-----	-----			
		Page 78			
Perc. Dr. ft.	Core Dr. ft.	Re-Dr. ft.	W.O. ft.	Time (Hr-Min)	
				M.&SU.	Lost

Table with multiple columns and rows, containing numerical data, likely trigonometric function values. The text is mirrored and difficult to read.

555

655
17

638

6.77
60

7.37
8.06

7.37
68

755

77

678

770
458

312
156

