22

ARRIVE @ 7:10 Depth @
732' DRILLING IN PROGRESS.

RIG PAUSES
07:33 – 07:55 AM ADD 20' PIPE.
& PREPARE ROLL-OFF

735.92 @ 736

276-0377

52 Gal

RIG PAUSES
09:28 – 9:48 ADD 20' PIPE

04-20-2001 FRIDAY

731-736'	C. TO F SAND W. FINE GRAVEL TO 734' SAME W/ SOME C. GRAVEL. TO 736' TR. OF CLAY RIG CHATTER THROUGHOUT, HEAVY @ 734' & 736' S 735-735'	7:53 AM
736-741'	C. TO M. SAND W/ F. GRAVEL CHANGING TO F. TO C. GRAVEL W/ V.C. TO M. SAND. RIG CHATTER THROUGHOUT, HEAVY @ 736.5' & 741' TRACE OF GREY CLAY ETC.	08:15
741-746'	741-742' BR. CLAYEY SILT W/ SOME C. SAND OTHERWISE C. TO M. SAND W/ F. GRAVEL - SOME BR & GREY CLAY. RIG SHUTTERS SLIGHTLY THROUGHOUT S 735-745	08:41
746-751'	V.C TO M SAND W/ F. TO C. GRAVEL CHANGING TO C. TO M. SAND W/ F. GRAVEL. TR OF GREY & BR CLAY THROUGHOUT RIG SHUTTERS SLIGHTLY THROUGHOUT, HEAVY @ 748 & 750' & 705.5'-751'	
751-756'	V.C. TO M SAND W/ ABUNDANT F TO C. GRAVEL CHANGING TO C. TO M SAND W/ F. GRAVEL TR. OF GREY & BR CLAY THROUGHOUT S 745-755' SLIGHT SHUTTER THROUGHOUT, HEAVY 751-753'	09:28
756-761'	V.C. TO M. SAND & F. TO MED GRAVEL TRACE OF GREY CLAY. SLIGHT SHUTTER THROUGHOUT. HEAVY CHATTER @ 761'	10:02
761-766'	INITIALLY CLAYEY SILT & C. TO M SAND, CEMENTED CLAYEY SILT LAYER @ 761' CHANGES TO V.C TO M. SAND W/ F TO M. GRAVEL. S 755-765' RIG SHUTTERS SLIGHTLY THROUGHOUT, HEAVY @ 761'	10:21

24.

RIG PAUSES 10:56 to 11:04 ADD 20' PIPE

RESIDENT COMPLAINS ABOUT CHLORINE
IN WATER.

RIG PAUSES 12:11 - 12:19 pm ADD 20' PIPE

766-771' SILTY CLAY (BR) w/ C. TO M. SAND
CHANGES TO CLAYEY SILT w/ C. TO M. SAND. 10:34 AM
RIG SHUTTERS SLIGHTLY

771-776' V.C. TO M SAND & F. TO C. GRAVEL
CHANGES TO V.C. TO M. SAND, F. GRAVEL w/ SOME SILTY CLAY (BR). 10:56
S' 765-775'

RIG SHUTTERS EXCESSIVELY 771-773, SLIGHTLY OTHERWISE

776-781' V.C. TO MED SAND W/ FINE GRAVEL, SOME MED. GRAVEL. 11:20

RIG SHUTTERS SLIGHTLY, CHATTER @ 781'

781-786' V.C. TO MED SAND W/ F. TO M. GRAVEL 11:30
S' 775-785

RIG CHATTERS @ 782.5 & 783.5'

786-791' V.C. TO MED. SAND W/ F. TO M. GRAVEL, SOME C. GRAVEL.

RIG CHATTERS @ 788 & 789', SHUTTERS THROUGHOUT

791-796' SAME 12:11 PM
S' 785-795'

RIG SHUTTERS THROUGHOUT

796-801' SAME 12:39

RIG SHUTTERS THROUGHOUT, HEAVY @ 797, 797.5, 800'-801
SLOW BIT SPEED.

801-806' V.C TO M SAND & F. TO M. GRAVEL, SOME C. GRAVEL 13:11
SOME F. SILTY CLAY 805-806' (BR).
RIG CHATTERS EXCESSIVELY THROUGHOUT. S' 795-805
V. SLOW BIT SPEED.

806-811' V.C TO M. SAND & F. TO M. GRAVEL W/ SOME C. GRAVEL 13:57
MORE C. GRAVEL 808-809' SOME BR CLAY AFTER 809' WITH LESS C. & M. GRAVEL.

RIG CHATTER EXCESSIVE THROUGHOUT, SLOW BIT SPEED, ESP. 808-809'

R16 PAUSES 14:44 - 14:53 ADD 20' PIPE

15:00 @ 818' R16 PAUSES - PROBLEM, NOISE
to 15:14

WILL TRIP OUT @ 5 PM TO CHANGE BIT, PER
BRUCE @ 16:00

DULL BIT ?
BROKEN BIT ?

STOP DRILLING 16:43 @ 836'

7:00 - 7:50 ADDING PIPE TO DRILL HOLE
7:50 - 8:15 AM CLEARING SETTLED MUD FROM DRILL HOLE

5 - 40' LENGTHS OF PIPE ON TRAILER @ 8 AM
200'

PART OF SOUND CURTAIN ON NORTH FENCE LINE
HAS COME DOWN

811 – 816' V.C TO M. SAND & F. TO M. GRAVEL, SM. C. GRAVEL, TR. BR SILTY CLAY. 14:44
S 805-815
CHATTERS THROUGHOUT, AT TIMES HEAVY, SLOW BIT SPEED

816 – 821' SAME 15:40

821 – 826' SAME S 815-825 16:11

826 – 831' SAME EXCEPT @ 828.5 to 830 16:25
IT WAS M TO VC. SAND W/ SOME BR SILTY CLAY.
RIG SHUTTERS CONTINUOUSLY, CHATTERS 826 TO 828.5 & 830 – 831'

831 – 836' BR ~~CLAYEY~~ SILT W/ GREY SILTY CLAY, SOME M. TO C. SAND, M TO C SAND 835 TO 836' 16:45
S 825-835
RIG CHATTERS CONTINUOUSLY

04-21-2001 SATURDAY

836 – 841' BR & GR. CLAY W/ GR & BR CLAYEY SILT ≈ 9:08 AM
RIG CHATTER & SLOW BIT SPEED. PROBLEMS ADJUSTING DRILL RATE, SOME STOPPING & RE-STARTING.

841 – 846' BR. & GRAY SILTY CLAY W/ SOME C. TO M. SAND. 9:33
INTERLAYER OF V.F. GRAVEL. S 835-845'
RIG SHUTTERS SLIGHTLY OR OCC. CHATTER.

846' – 851' VC TO M. SAND & F. TO M. GRAVEL, TRACES OF SILTY CLAY (BR & GREY). 09:55
CHATTERING THROUGHOUT. SLOW BIT SPEED
RIG CHATTERS @ 846', 848.5', & 850' & 850.5' EXCESSIVELY

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RIG PAUSES 10:16 – 11:18 ADD 20' PIPE
& MEND SOUND CURTAIN.
& RIG MAINTENANCE
2nd ROLL-OFF UNIT ARRIVES

RIG PAUSES 12:27PM to 12:45 ADD 20' PIPE

RIG PAUSES 13:44 – 13:54 ADD 20' PIPE

PAGER 535 - 2244
553 - 8697

NO DRILLING SUNDAY, LOGGING ONLY.

DRILLING STOPS →

851-856'	V.C. TO M. SAND w/ F. TO M. GRAVEL (SOMETIMES VERY ABUNDANT) SLOW BIT SPEED RIG CHATTER THROUGHOUT	10:16 AM
[illegible]	V.C. TO M. SAND & F. TO C. GRAVEL LOW BIT SPEED, CHATTERS THROUGHOUT	[illegible]
861-866'	SAME w/ SOME [illegible]	[illegible]
866-871'	[illegible]	[illegible]
871-[illegible]	SAME [illegible]	[illegible]
876-881'	SAME	12:59
881-886'	SAME	13:10
886-891'	SAME V. EXCESSIVE CHATTER @ 891'	13:26
891-896'	SAME (W/ TR. OF GRAY CLAY @ 893.5 to 894'). V. EXCESSIVE CHATTER @ 891', 895'	13:44
896-901'	V.C. TO M. SAND & F. TO C. GRAVEL SLOW BRIL SPEED, CHATTER THROUGHOUT, OCC. HEAVY (SAME AS ABOVE).	14:11
901-906	SAME V. EXCESSIVE CHATTER @ 905', CHATTER CONTINUOUS THROUGHOUT	14:30
906-911	SAME	14:52
911-916	SAME	3:10

THE GOAL IS TO DRILL TO 1020' OR SO
UNLESS 4-5' OF CLAY IS ENCOUNTERED.
CLAY IS NOT EXPECTED UNTIL ≈ 1100'.

07:00 – ALL DAY INSTALLING DRILL PIPE

~~STARTING DEPTH: TIME:~~

440' left on trailer – redrilling dry intervals

924' WENT

04-25-2001
120' PIPE ON TRAILER

ARRIVE @ 07:[illegible], DRILLING
IN PROGRESS

RIG PAUSES 7:58 TO 08:26 ADD 20' PIPE.
& CLEAR OUT RECOVERY SYSTEM.

BRUCE: 322-2358

RIG PAUSES 9:58 – 10:07 ADD 20' PIPE

~~TUESDAY 04-24-2001 - no new drilling~~

WEDNESDAY 04-25-2001

920-925' SAND & F. TO C. GRAVEL 07:23 AM
RIG CHATTERS CONTINUOUSLY. S 914-924'
SLOW BIT SPEED

925-930' V.C TO M. SAND & F. TO M. GRAVEL, SOME C. GRAVEL
TR. OF BR. SILTY CLAY. 07:40
RIG CHATTERS CONTINUOUSLY ESP @ 927, 928
SLOW BIT SPEED

930-935' SAME UNTIL 934' (WITH ABUNDANT 07:58
BR SILTY CLAY RIG FAIRLY SMOOTH), THEN SAME
RIG CHATTERS CONTINUOUSLY THROUGHOUT EXCEPT
934 TO 934.5'. S 924-934'

935-940' SAME 08:43
RIG CHATTERS CONTINUOUSLY THROUGHOUT, SLOW BIT SPEED
EXCESSIVELY @ 937, 938.5, 939'

940-945' V.C TO M. SAND & F. TO C. GRAVEL 09:01
TR BR SILTY CLAY
RIG CHATTERS THROUGHOUT, ESP @ 941, 942'
SLOW BIT SPEED. S 934-944'

945-950' V.C. TO M. SAND & F. TO M. GRAVEL, SOME C. 09:30
GRAVEL, TR of BR SILTY CLAY
RIG CHATTERS THROUGHOUT, ESP @ 947-948'
SLOW BIT SPEED.

950-955' SAME S 945 955' 09:58

955-960' SAME 10:32
RIG CHATTERS THROUGHOUT, ESP @ 958'

960-965' SAME S 954-964' 10:53
RIG CHATTERS THROUGHOUT, ESP @ 961-961.5'

965-970' SAME RIG CHATTERS THROUGHOUT, ESP. 11:19
@ 969.5' - 970'

RIG PAUSES @ 11:53 - 12:02 ADD 20' PIPE.

36" & 30" REAMER BITS ARRIVE
(1 EACH)
RIG PAUSES 13:04 - 13:14 DEPTH = 986'
COMPRESSOR PROBLEMS

RIG PAUSES 14:27 - 14:36 ADD 20' PIPE.

04-26-2001

- LAYNE CHRISTENSEN COMPANY DRILLER (BRUCE) INDICATED A DRILLING DEPTH (TOTAL) OF 1021 FEET. THE MATERIAL TYPE WAS APPROXIMATELY SIMILAR TO THE MATERIAL ABOVE IT (MORE SANDS AND GRAVELS).
- ONE 20' SECTION OF DRILL PIPE REMAINS ON THE TRAILER.
- SOUND CURTAIN BEING REINSTALLED / MENDED (ON NORTH WALL).
- REAMING TO START TODAY. NO NIGHT DRILLING THIS PM, BUT WILL START FRIDAY NIGHT.

970-975' SAME S 964-974'
RIG ~~SHUTTER~~ CHATTERS EXCESSIVELY 11:53
THROUGHOUT, VERY BADLY @ 970-971'

975-980' SAME 12:28
RIG CHATTERS THROUGHOUT

980-985' SAME RIG CHATTERS THROUGHOUT 12:54
ESP 983.5' S 974-984'

985-990' SAME EXCEPT TR OF GREY CLAY, 13:40
NOT BROWN
RIG CHATTERS CONTINUOUSLY, ESP 987-988'

990-995' C. TO M SAND & F TO M GRAVEL
TR OF GREY CLAY S 984-994'
RIG CHATTERS CONTINUOUSLY, ESP 994-995'

994-995' SAME EXC. LESS GRAVEL, MORE SILTY 14:27
GR. CLAY.

995-1000' VC. TO M. SAND & F TO M. GRAV. 15:15
TR. OF GRAY CLAY, SOME C. GRAVEL LATE
RIG ~~SHUTTL~~ CHATTERS CONTINUOUSLY.

END OF LOGGING BY SBMWD.

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- WALKED RIGHT OF WAY AREAS LOOKING FOR HAZARDS (PENDING LAWSUIT) WALKED 13TH STREET ONLY.

05-01-2001

STILL REAMING WELL.
ANTICIPATE WELL CONSTRUCTION TO START @ 12:01 AM ON THURSDAY 05-03-2001.

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FRIDAY 05-04-2001 12 MIDNIGHT

PERIPHERAL PIPING:

BETTIS FLEXLOK PROTECTOR COW 4½-7¼
MADE IN USA
BETTIS RUBBER PRODUCTS.
-to be installed every 60'.

6
15
30
×60
00
130
1800

740 + 370 + 30 + 510 = 1930
- 1800
130

30 PROTECTORS ON SITE

TEMPORARY TREMIE PIPE ALREADY IN THE WELL HOLE.

Pete Crosnel WRS

DEEP SAMPLE PIPE FIRST

760' FIRST SECTION: 20' OF 2" SCREEN w/ 2" TO 4" REDUCER

740' SECOND SECTION: 40' OF 4" STEEL BLANK 12:30 AM

BETTIS FLEX LOCK PROTECTORS DID NOT WORK, LAYNE DOES NOT HAVE AN INSTALLATION TOOL.
LAYNE WILL WELD 3 GUIDES (1" SPACERS) SIMILAR TO THOSE USED ON CASEMENT.
JAMES DYE SUGGESTED AN INSTALLATION INTERVAL OF 100'

60' from bot — ~~FIRST SET~~ OF GUIDES (3 GUIDES) INSTALLED @ JOINT BETWEEN 2nd & 3rd SECTIONS
PREINSTALLED TAB REMOVED (1")

700' THIRD SECTION: 40' OF 4" PIPE 1:57 AM
(1 TAB REMOVED FROM TOP) ≈ 2' FROM TOP

660' FOURTH SECTION: 40' OF 4" PIPE 2:04 AM
(1 TAB REMOVED FROM TOP)

620' FIFTH SECTION: 40' OF 4" PIPE 2:14 AM

100' SECOND SET OF 3 GUIDES @ MIDPOINT OF 5TH SECTION
(1 TAB REMOVED FROM TOP)

580'b SIXTH SECTION: 40' OF 4" PIPE 2:20 AM
(1 TAB REMOVED FROM TOP)

540'b SEVENTH SECTION: 40' OF 4" PIPE 2:30 AM
(1 TAB REMOVED FROM TOP)

6. THIRD SET OF 3 GUIDES AT JOINT BETWEEN 6TH & 7TH SECTION

500'b EIGTH SECTION: 40' OF 4" PIPE 2:41 AM
(1 TAB REMOVED FROM TOP)

460'b NINTH SECTION: 40' OF 4" PIPE 2:49 AM
(1 TAB REMOVED FROM TOP)

420'b TENTH SECTION: 40' OF 4" PIPE 3:00 AM
(1 TAB REM. FROM TOP).

140' ~~120'~~ FOURTH SET OF GUIDES AT MID POINT ~~BET~~ OF 10TH JOIN

20' 380'b ELEVENTH SECTION: 40' OF 4" PIPE 3:06 AM
40' (1 TAB REM. FROM TOP).
60'

340'b TWELTH SECTION: 40' OF 4" PIPE 3:16 AM.

FIFTH SET OF GUIDES AT JOINT BETWEEN 11TH & 12TH SECTIONS
(1 TAB REM FROM TOP).

40' 300'b THIRTEENTH SECTION: 40' OF 4" PIPE 3:23 AM
40' (1 TAB REM. FROM TOP).
80'
100'

260'b FOURTEENTH SECTION: 40' OF 4" PIPE 3:34 AM
(1 TAB REM. FROM TOP).

SIXTH SET OF GUIDES @ MID SECTION OF 14TH SECTION

20' 220'b FIFTATEENTH SECTION: 40' OF 4" PIPE 3:40 AM
40' (1 TAB REM. FROM TOP).

180'b SIXTHTEENTH SECTION: 40' OF 4" PIPE 3:48 AM
(1 TAB REM. FROM TOP)

140'b SEVENTEENTH SECTION: 40' OF 4" PIPE 3:56 AM.
(1 TAB REM. FROM TOP).

100'b EIGHTEENTH SECTION: 40' OF 4" PIPE 4:04 AM
(1 TAB REM FROM TOP)

60'b NINETEENTH SECTION: 40' OF 4" PIPE 4:15 AM.
(1 TAB REM FROM TOP)

TWENTYTH SECTION: 15.03' OF 4" PIPE

SAMPLER S NO LONGER REQUIRED

** END OF DEEP SAMPLE PIPE LOG **

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112 WELL TUBES NOT MARKED
INFORM STEVE. W