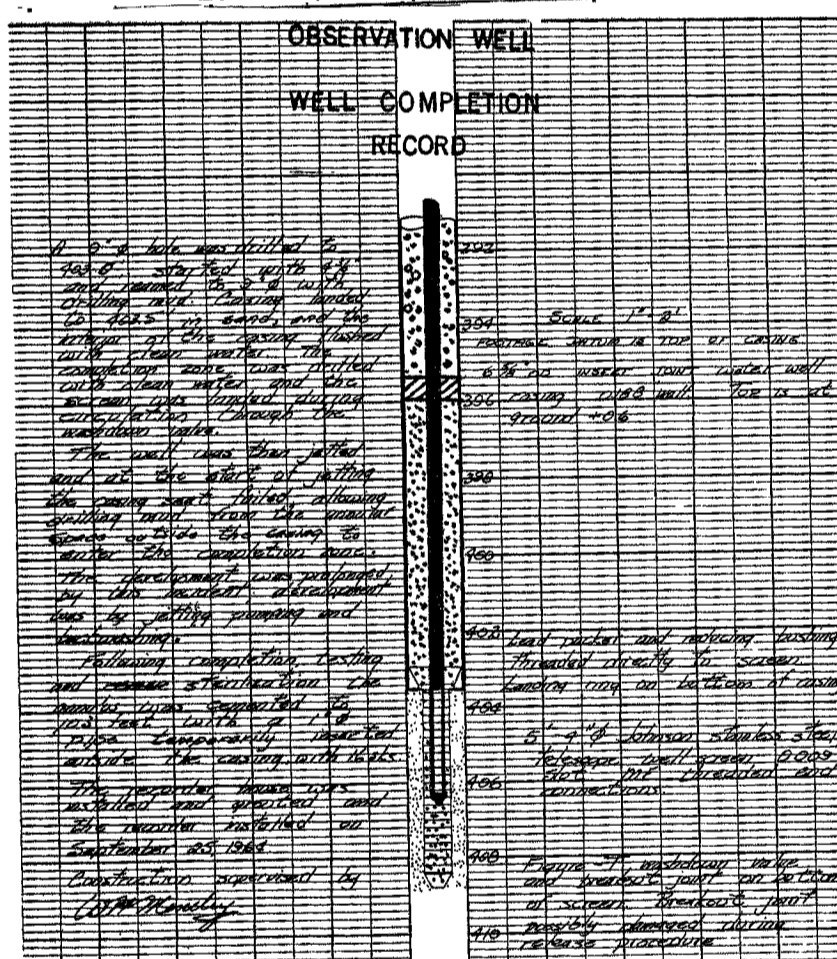
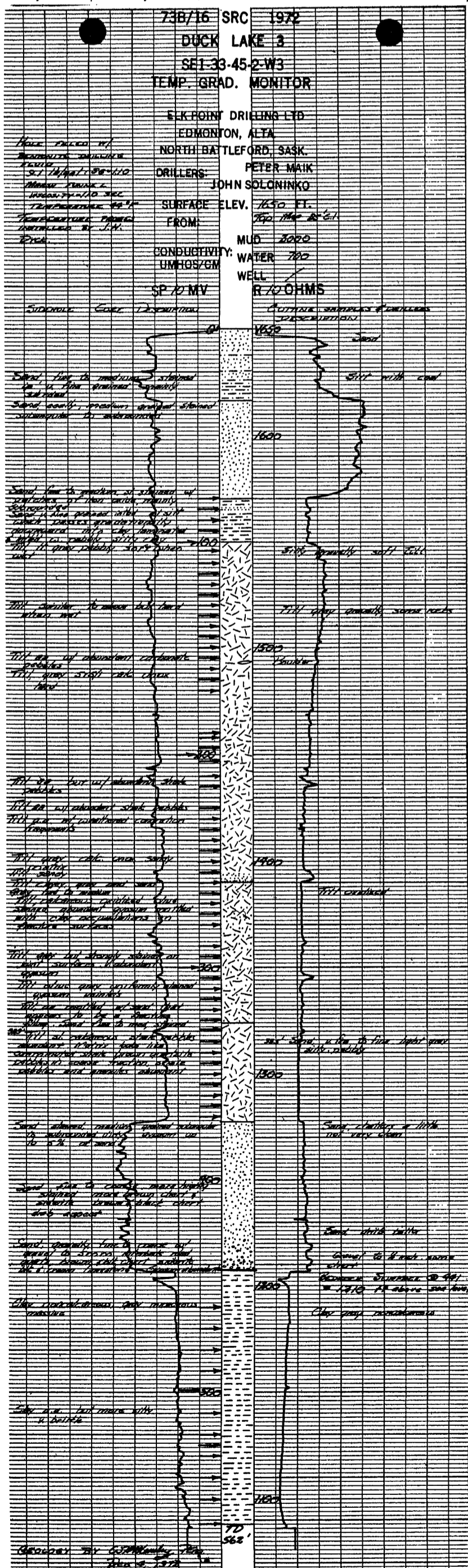


SRC 73B/16 1964
 DUCK LAKE NO.2
 SE1-33-45-2-W3
 OBSERVATION WELL
 WELL COMPLETION
 RECORD

Ac 1905

A 9" hole was drilled to 403.5' started with 4 3/4" and reamed to 9" with drilling mud. Casing landed to 403.5' in sand, and the interior of the casing flushed with clean water. The completion zone was drilled with clean water and the screen was landed during circulation through the washdown valve. The well was then jetted and at the start of jetting the casing seat failed, allowing drilling mud from the annular space outside the casing to enter the completion zone. The development was prolonged by this incident; development was by jetting pumping and backwashing. Following completion, testing and ~~re-~~sterilization the annulus was cemented to 103 feet with a 1" pipe temporarily inserted outside the casing, with 16 sks. The recorder house was installed and grouted and the recorder installed on September 25, 1964. Construction supervised by WPA Menzies

392
 394 SCALE 1" = 2'
 FOOTAGE DATUM IS TOP OF CASING.
 6 3/8" OD INSERT JOINT water well casing 0.88" wall. Top is at ground +0.6
 398
 400
 402 Lead packer and reducing bushing threaded directly to screen. Landing ring on bottom of casing
 404
 406 5'-4" Johnson stainless steel telescope well screen 0.009" slot. MF threaded end connections.
 408 Figure-T washdown valve and breakout joint on bottom of screen. Breakout joint possibly damaged during release procedure.
 410



DUCK LAKE 2 Retrofit September 12, 2000
 Casing Log
 Well casing type: bottom 2 inch SCH 80 PVC and 3 inch SCH 80 PVC with ASTM 480 thread and o-ring sealed with liquid teflon at top 3" casing

casing #1	5.857 m
#2	5.844 m
#3	5.864 m
#4	5.833 m
#5	5.852 m
#6	5.862 m

- #7 casing
- From bushing to bottom
 - Bottom of coupling - 0.014 m
 - Top of coupling - 0.136 m
 - Top of pipe - 5.938 m
 - 2" pipe glued on bottom - 4.34 m

Casing #1	5.940 m
#2	5.904 m
#3	5.935 m
#4	5.905 m
#5	5.914 m
#6	5.924 m
#7	5.924 m
#8	5.928 m
#9	5.913 m
#10	5.929 m
#11	5.921 m
#12	5.942 m
#13	5.940 m

- Screen assembly
 1 1/4 inch dia Stainless Steel drive point
 screen slot 10
 From sand point to:
- bottom screen slots - 0.111
 - top screen slots - 1.016
 - bottom of 2" pipe - 1.055
 - top of 2" pipe - 1.780

- September 14, 2000
 Start at 7:30 p.m. to wash out casing
 Original TD 408.8 ft - 124.6 m
- Well was washed out with clean water
 - Return was black fluid with ant clasticons and metal casing fragments and fine sand.
 - HTH 70% chlorine added and circulated until return at top achieved
 - 2 inch and 3 inch casing installed
 - Measured 122.84 after stem pulled packer
 - EJ tried and got to bottom
 - TD chained 124.6 m TOC
 - Two inch casing installed with
 - 1 1/4 slot 10 screen with Sand Point
 - Tremie line attached - 360 ft (109.9 m) from bottom
 - 2 inch to 3 inch casing installed
 - glue joint 2 to 3 inch and let set one hour
 - Free Sand - Gravel 20-40 pour three 50 lb bags into annulus
 - 122.52 m TOC steel casing - 401.96
 - @ 11:08 120.91 - 396.6 ft
 - @ 11:10 120.76
 - @ 11:12 120.70 - 395.99 ft
 - Add - 4 # slow activating bentonite pellets PDS PelPlug
 - measured 120.54 top of pellets - 20 bags of grout mixed and

- Duck Lake 2 Pumping and Centralizer Install
 September 21, 2000
- TD 124.08 m from TOC 3 inch PVC
 - start pumping @ 08:10
 - 20 # 70 sec @ 08:24
 - 20 # 70 sec @ 10:33
 - shut pump off @ 10:40
 - stick-up - 0.17 m TOC 3 inch PVC above Steel casing
 - set float line centralizer at 4 depths below casing

#1 centralizer	21.75 m
#2 centralizer	17.565 m
#3 centralizer	11.701 m
#4 centralizer	5.857 m

wf - 23.935
 -0.170
 23.765 @ 13:01

Supervised by: E.J. Jaworski, M.A. Simpson, D.A. Zlipko
 Drilling Contractor: Elk Point Drilling
 Greg Sander, Greg Metrunco