#70

NE09-30-17-19-W2

SASKATCHEWAN WATER CORPORATION

72-I/7

ELECTRIC LOG
TEST DRILLING ASSISTANCE PROGRAM

ACQUISITION NO. 8741.0
GROUP NO. 0000

0.1 DRILLING CONTRACTOR : COMPANY NAME: Andrews & Sons Drilling Ltd
0.2 CONTRACTOR'S TELEPHONE NUMBER: 306 543-1276 OR
SIGNATURE : NAME AND DATE
CONTRACTOR'S ADDRESS: 2237 Smith ST
CONTRACTOR'S ADDRESS: Regina Sask
OWNER'S NAME
0.3 Sask Water
OWNER'S TELEPHONE NUMBER
0.4 306 694-1390 OR
SIGNATURE : NAME AND DATE
OWNER'S ADDRESS: 111 Fairford ST East
OWNER'S ADDRESS: Moose Jaw Sask
TESTHOLE : MUNICIPAL LAND LOCATION: N.E. 9 30 - 17 - 19 - W 2
RURAL MUNICIPALITY (RM) OR LOCAL IMPROVEMENT DISTRICT (LID) OR INDIAN RESERVATION (IR): 159
DRILLER'S NAME
0.6 Andrews & Sons
LOGGER OPERATOR'S NAME
0.7 Andrews & Sons
DATE TESTHOLE COMPLETED: 17/12/87
DATE TESTHOLE LOGGED: 17/12/87
CONDUCTIVITY : DRILLING FLUID
0.8 1200 umhos/cm at 25°C
CONDUCTIVITY : DRILLING WATER: 600 umhos/cm at 25°C
*TRADE NAME OF LOGGER: Widco
DEPTH DRILLED
0.9 200. feet
DEPTH LOGGED: 196. feet
TYPE OR MODEL OF LOGGER: 1501
BIT DIAMETER
1.0 4.75 inches
CONDUCTIVITY WELL WATER
SERIAL NO. OF LOGGER: 264
ACCREDITATION DATE: 1/11/87
SPONTANEOUS POTENTIAL: 10 millivolts/inch
SINGLE-POINT RESISTANCE: 10 ohms/inch
LOG SCALES

ACQ 13253

Saskatchewan Research Council
SEDIMENTARY RESOURCES

SASKATCHEWAN WATER CORPORATION
PERMANENT OBSERVATION WELLS

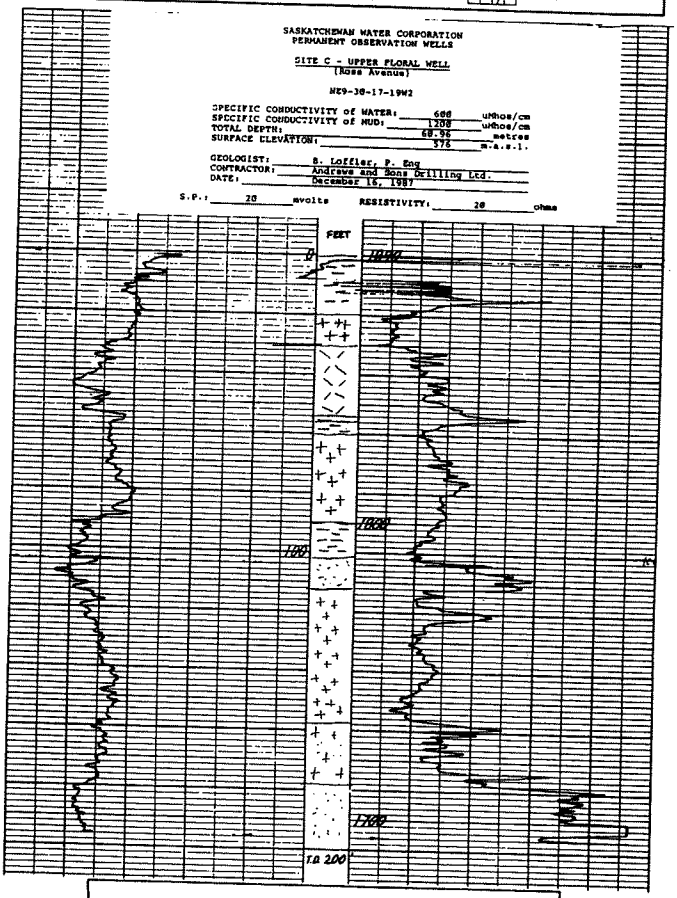
SITE C - UPPER FLORAL WELL
(Rose Avenue)

NE9-30-17-19W2

SPECIFIC CONDUCTIVITY OF WATER: 600 umhos/cm
SPECIFIC CONDUCTIVITY OF MUD: 1200 umhos/cm
TOTAL DEPTH: 60.96 metres
SURFACE ELEVATION: 576 m.a.s.l.

GEOLOGIST: B. Loeffler, P. Eng
CONTRACTOR: Andrews and Sons Drilling Ltd.
DATE: December 16, 1987

S.P.: 20 mvolts RESISTIVITY: 20 ohms



TESTHOLE : MUNICIPAL LAND LOCATION: N.E. 30 - 17 - 19 - W2
DATE TESTHOLE COMPLETED: 16/12/87

LINE No.	FROM (FEET)	TO (FEET)	DRILLER'S LOG AND PROCEDURE RECORD
	0	30	Clay - silty - silttier with depth olive brown to grey - firm - plastic
	30	56	Till - very silty - stoney - occ oxidized
	56	60	Clay - silty - silttier with depth dark grey - Calc
	60	90	Silt - clayey - softer - light grey
	90	103	Clay - silty - occ ox - firm - grey
	103	112	Sand - silty - fine - med - grey
	112	158	Silt - clayey - greenish grey consolidated with loose zones
	158	178	Silt with fine sand - grey - consolidated
	178	200	Sand - med to coarse - coarser with depth loose - occ oxidized
			Well description
		PVC	Casing: dia 4", bottom @ 105ft
			Screen: dia 5", length 5ft, slot 025
			Well bottom @ 111'
			Water level - 60'
			Drawdown - 19' after 2 hrs @ 10 IGPM
			Complete water analysis available

CONTRACTOR: Andrews & Sons Drilling Ltd SHEET

NW 05-8-18-19-W2

ACQ 13254

SASKATCHEWAN WATER CORPORATION

72-I/9

ELECTRIC LOG
TEST DRILLING ASSISTANCE PROGRAM

ACQUISITION NO. 8774.1
GROUP NO. 0000

0.1 DRILLING CONTRACTOR : COMPANY NAME: Andrews & Sons Drilling Ltd.
0.2 CONTRACTOR'S TELEPHONE NUMBER: AREA CODE 306, NO. 545-2076 OR
CONTRACTOR'S ADDRESS: 2237 Smith St.
SIGNATURE : NAME AND DATE
CONTRACTOR'S ADDRESS: Regina Sask.
OWNER'S NAME
0.3 Sask Water
OWNER'S TELEPHONE NUMBER
0.4 AREA CODE 306, NO. 694-3900 OR
OWNER'S ADDRESS: 111 Fairford ST. East
SIGNATURE : NAME AND DATE
OWNER'S ADDRESS: Moose Jaw Sask.
TESTHOLE : MUNICIPAL LAND LOCATION: SW 8 - 18 - 19 - W2
RURAL MUNICIPALITY (RM) OR LOCAL IMPROVEMENT DISTRICT (LID) OR INDIAN RESERVATION (IR): 1559
DRILLER'S NAME
0.6 Andrews & Sons.
DATE TESTHOLE COMPLETED: 4/12/87
LOGGER OPERATOR'S NAME
0.7 Andrews & Sons.
DATE TESTHOLE LOGGED: 4/12/87
CONDUCTIVITY : DRILLING FLUID: 0.8 1,200 umhos/cm at 25°C
CONDUCTIVITY : DRILLING WATER: 600 umhos/cm at 25°C
TRADE NAME OF LOGGER: Widco
DEPTH DRILLED: 0.9 210. feet
DEPTH LOGGED: 206. feet
TYPE OR MODEL OF LOGGER: 1501
BIT DIAMETER: 1.0 4.75 inches
CONDUCTIVITY WELL WATER
SERIAL NO. OF LOGGER: 264
ACCREDITATION DATE: 4/16/87
SPONTANEOUS POTENTIAL: 4 millivolts/inch
LOG SCALES
SINGLE-POINT RESISTANCE: 4 ohms/inch

SASKATCHEWAN WATER CORPORATION
PERMANENT OBSERVATION WELLS

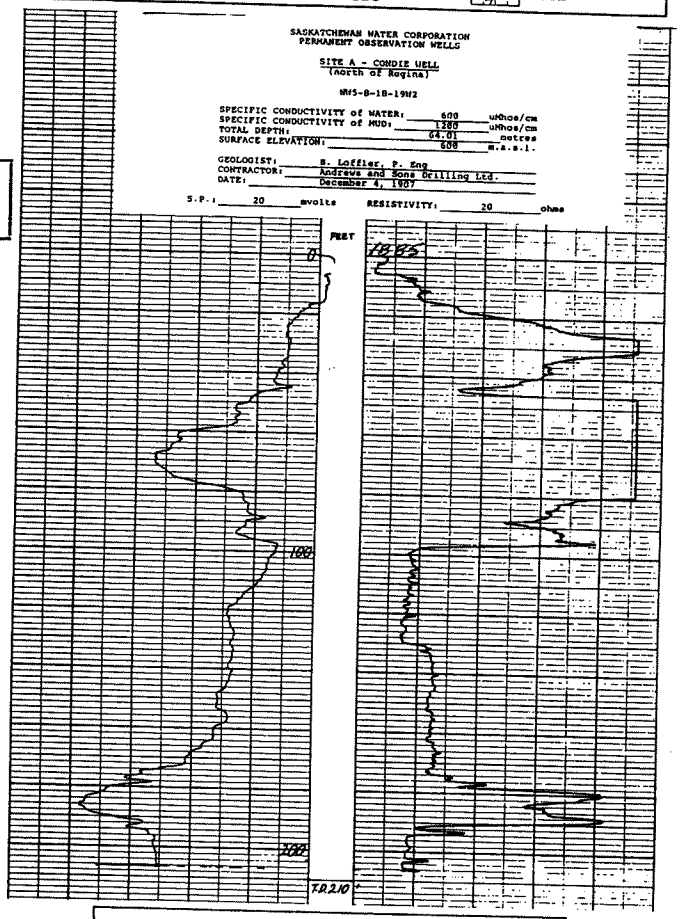
SITE A - CONDIE WELL
(North of Regina)

NW5-8-18-19W2

SPECIFIC CONDUCTIVITY of WATER: 600 uMhos/cm
SPECIFIC CONDUCTIVITY of MUD: 1200 uMhos/cm
TOTAL DEPTH: 64.01 metres
SURFACE ELEVATION: 608 m.a.s.l.

GEOLOGIST: B. Loffler, P. Eng
CONTRACTOR: Andrews and Sons Drilling Ltd.
DATE: December 4, 1987

S.P.: 20 mvolts RESISTIVITY: 20 ohms



TESTHOLE : MUNICIPAL LAND LOCATION: SW 8 - 18 - 19 - W2
DATE TESTHOLE COMPLETED: 4/12/87

LINE No.	FROM (m)	TO (m)	DRILLER'S LOG and PROCEDURE RECORD
	0	7	Till. silty- non oxidized dark greenish grey
	7	48	Silt. soft. clayey. iron stains olive brown
	48	70	Sand. fine to med loose - clean coarser with depth
	70	86	Sand. med to coarse
	86	96	Sand. fine silty
	96	98	Gravel. medium. boulder pavement
	98	177	Till. dense. sandy. non ox. stoney dark grey Calc. softer after 130
	177	192	Gravel. coarse. sub angular loose
	192	210	Till. light olive-brown. very sandy firm - oxidized. iron stains
			Well description
		PVC	Casing. dia 4", bottom @ 91'
			Screen. dia 5", length 5½', slot 025"
			Casing. dia 4", bottom @ 102'
			Well bottom - 102'
			Water level - 81'
			Drawdown - after 2 hrs @ 4 IGPM

CONTRACTOR: Andrews & Sons Drilling Ltd
DRILLER'S SIGNATURE:

DR # 043123

Client # 843071

DOE

513

72

Completion 01/09/1974
RM
05
23
NTSMAP 72I00

REGINA SASKATCHEWAN

Well Location

LSD	Qtr	Sec	Twp	Rge	M	Reserve	RL	Location of Well (in Quarter)	
	SW1/4	32	17	19	2			0 ft from N/S Boundary	N/S Boundary
Zone	Easting	Northing		Source	Accuracy			0 ft from E/W Boundary	E/W Boundary

Well Information

Driller # 002245 HAYTER DRILLING LTD
Water Use Research **Well Use** Water Test Hole
Hole # 513
Installation Method Drilled **Well Casings** Length (ft) Btm (ft) Dia (in) Description
Depth 780 ft
Water Level ft
Bit inches
Struck ft **Screens** Length (ft) Btm (ft) Dia (in) Slot (in) Description
Flowing Head ft
Completion Method

Pump Test

Draw Down ft
Duration hrs
Pumping Rate igpm
Temp deg. F
Elevation 1905 ft

Recommended

Rec Pumping Rate igpm
Intake ft
Aquifer
E-Log Yes
Phys E02

Lithology List

Depth to Base of (ft)		Material	Colour	Description
20		Clay	Grey	Silty
45		Silt	Grey	Unknown
57		Sand	Grey	Fine
71		Till	Grey	Unknown
77		Sand & Gravel	Unknown	Unknown
84		Silt	Unknown	Unknown
92		Sand	Grey	Unknown
103		Silt	Grey	Unknown
118	36.0	Sand	Unknown	Unknown
220	67.1	Silt	Grey	Sand Streaks
251	76.5	Sand & Gravel	Unknown	Unknown
270	82.3	Silt	Grey	Unknown
486	148.1	Sand & Gravel	Grey	Unknown
536	163.4	Till	Grey	Hard
558	170.1	Till	Unknown	Oxidized
570	173.7	Till	Grey	Unknown
626	190.8	Till	Unknown	Oxidized
728	221.9	Till	Grey	Unknown
732	223.1	Silt	Unknown	Unknown
745	227.1	Silt	Unknown	Unknown
752	229.2	Sand & Gravel	Unknown	Unknown
760	231.6	Sand	Unknown	Unknown
780	237.7	Silt	Grey	Noncalcareous

WDR # 087411

Completion 04/12/1987
RM
3 05
SD 23
NTSMAP 72I00

Client # 882290
SASK WATER
111 FAIRFORD ST EAST

MOOSE JAW SASKATCHEWAN S6H 7X9

Well Location

LSD	Qtr	Sec	Twp	Rge	M	Reserve	RL
	SW1/4	08	18	19	2		

Zone **Easting** **Northing** **Source** **Accuracy**

Location of Well (in Quarter)
0 **ft from N/S Boundary** **N/S Boundary**
0 **ft from E/W Boundary** **E/W Boundary**

Well Information

Driller # 002255 ANDREWS & SONS DRILLING LTD
Water Use Research **Well Use** Observation
File # 1

	Length (ft)	Btm (ft)	Dia (in)	Description
Installation Method Drilled				
Depth 210 ft				
Water Level 81 ft				
Bit 4.8 inches				
Struck ft				
Flowing Head ft				
Completion Method Well Screen And Gravel Pack				
Well Casings	91	915	4.0	P.V.C.
	5	102	4.0	P.V.C.

	Length (ft)	Btm (ft)	Dia (in)	Slot (in)	Description
Screens	5	96	3.0	25	Stainless Steel

Pump Test

Draw Down ft
Duration 2 hrs
Pumping Rate 4.0 igpm
Temp deg. F
Elevation 1968 ft

Recommended

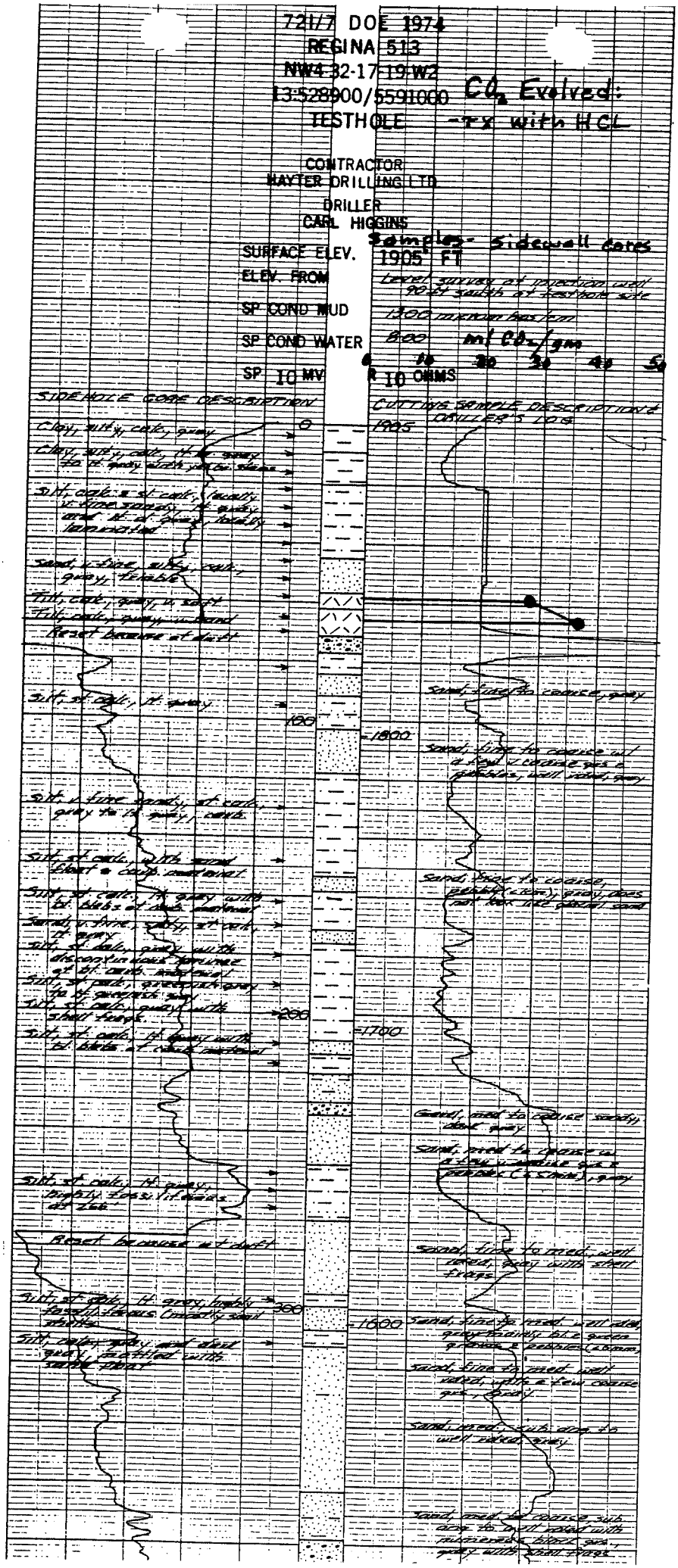
Rec Pumping Rate igpm
Intake ft
Aquifer
E-Log SCANNED
Phys E02

Lithology List

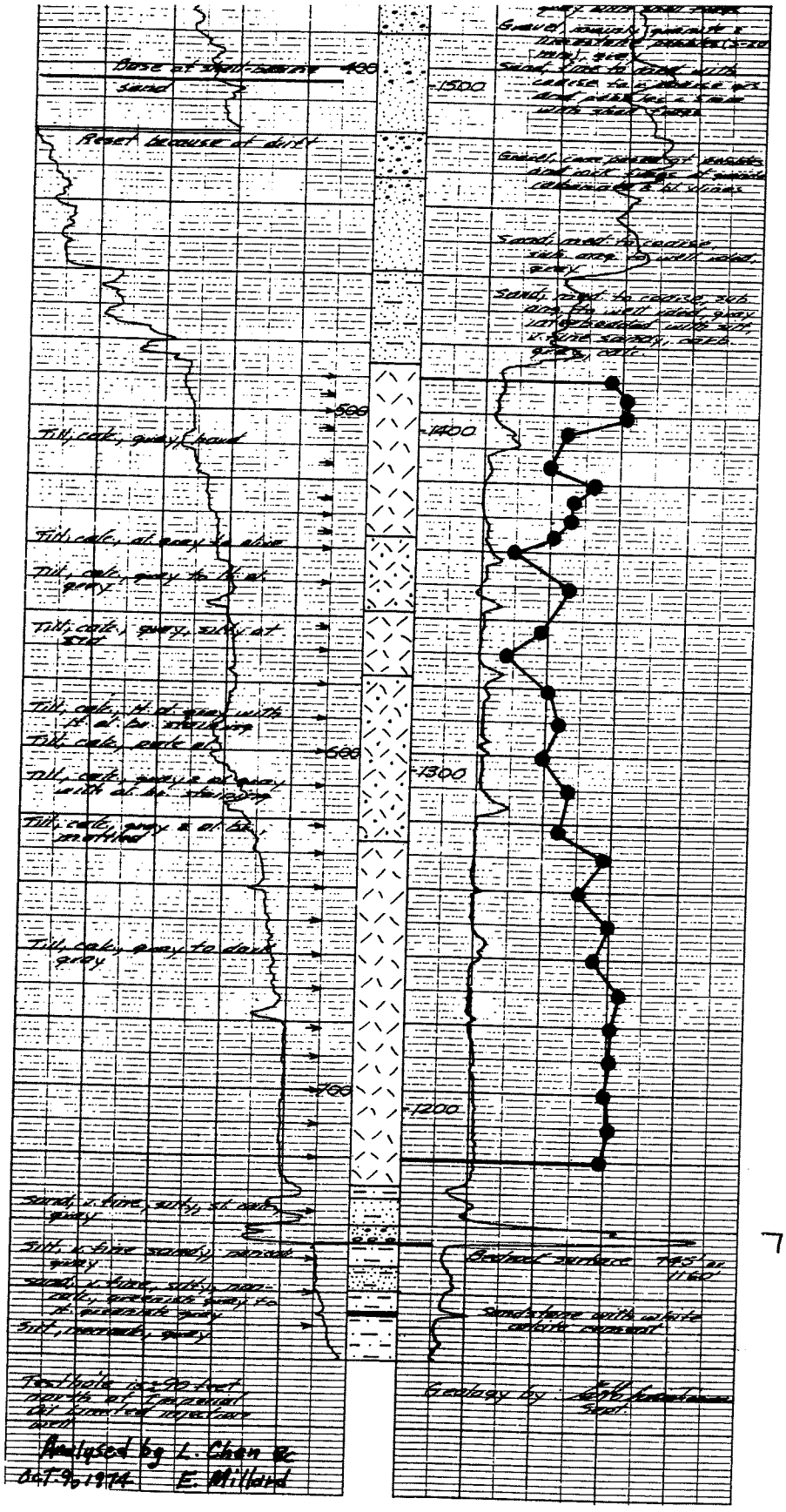
Depth to Base of (ft)	Material	Colour	Description
7	Till	Grey	Silty
48	Silt	Brown	Clayey
70	Sand	Unknown	Fine-medium
86	Sand	Unknown	Medium-coarse
96	Sand	Unknown	Silty
98	Gravel	Unknown	Medium
177	Till	Grey	Sandy
192	Gravel	Unknown	Coarse
210	Till	Brown	Sandy

7211/7 DOE 1974
REGINA 513
NW4 32-17-19 W2
13:528900/5591000 CO_2 Evolved:
TESTHOLE -ex with HCL

CONTRACTOR
HAYTER DRILLING LTD.
DRILLER
CARL HIGGINS
Samples - Sidewall cores
SURFACE ELEV. 1905 FT
ELEV. FROM
Level survey at injection well 90 yds south of testhole site
SP COND MUD 1200 meters from
SP COND WATER 800 ml CO_2/gm
0 10 20 30 40 50
SP 10 MV R 10 OHMS



DOE 513



745 BS

NW4-32-17-19 W2

#32

2798

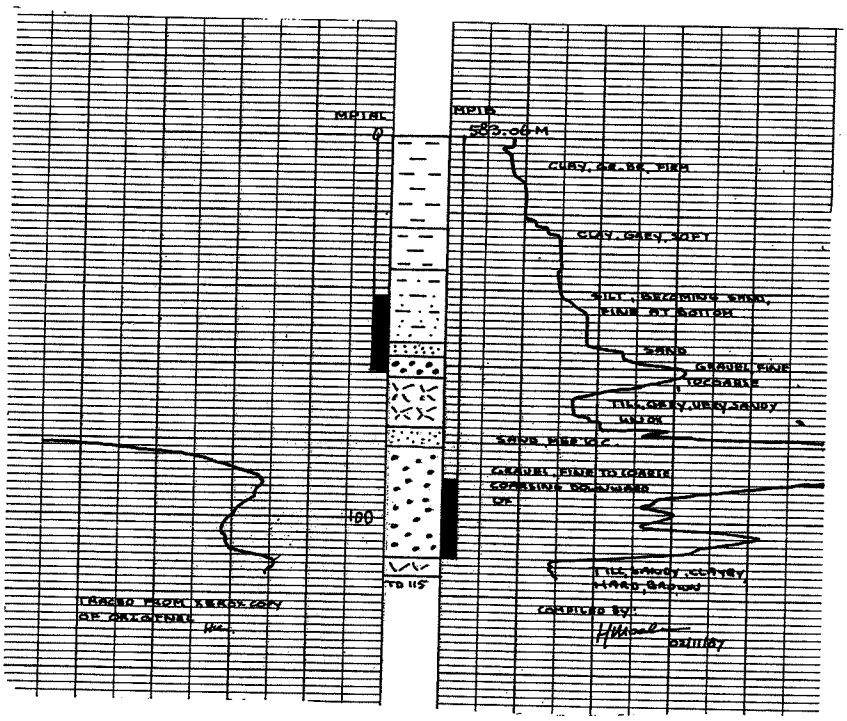
NE 01-06-18-19-W2

BOREHOLE NO. M.P 1 NTS 72I/7
LAND LOCATION NE-01-06-18-19-W2
UTM COORD.
GRD. ELEV. 583.06 DEPTH 115 FT
DATE DRILLED JULY TO 4 19 85
COND. WATER MICROSIEMENS/CM AT 25° C
COND. MUD MICROSIEMENS/CM AT 25° C
SPECIFIC GRAVITY MUD
SUPERVISOR
ASS'T SUPERVISOR
LOGGED BY
INSTRUMENT
PROBE ELECTRIC
PROBE GAMMA
PROBE CALIPER
DATE LOGGED 19
TIME OF LOGGING TO
DRILL OPERATOR
CONTRACTOR SOLIE DRILLING LTD
REMARKS
BECKIE HYDROGEOLOGISTS 1986

PROJECT BECKIE MOUNT PLEASANT
CUTTING SAMPLE INTERVAL
CORE SAMPLE INTERVAL
FROM
CASING DEPTH
CASING WALL THICKNESS
WATER OR MUD LEVEL
ABANDONMENT
BIT SIZE INTERVAL
BIT SIZE INTERVAL
BIT SIZE INTERVAL
TYPE OF DRILL RIG

	DEPTH	SCALE	SPEED
SP.		20	
RES.		20	
GAMMA			
CAL.			

GAMMA TIME CONSTANT (T.C.) SECONDS
GEOLOGY BY B. LOFFLER



50295

(21)

Project: Condie Aquifer Date: October 12 / 93

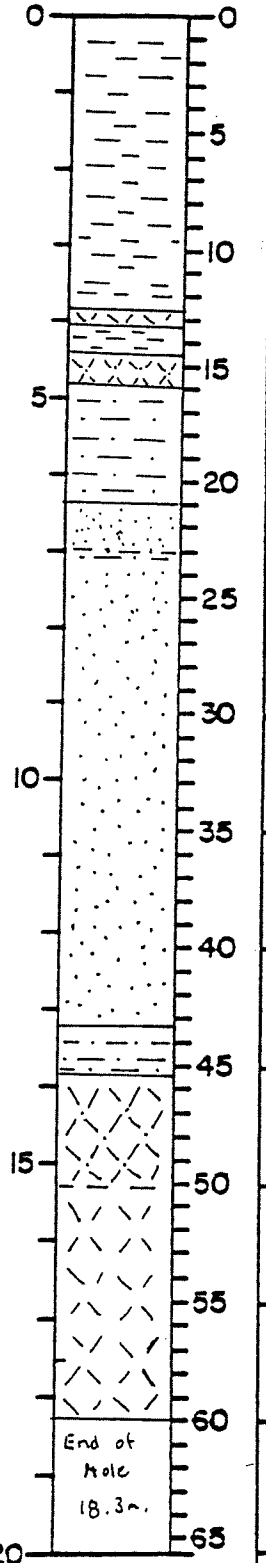
Name Testhole/Piezometer: C93-01

NTS: 72 I / 10 Land Location: NW 13-8-18-19 W2 / 528780E UTM 5595430N

Contractor: Probe Drilling Co. Ltd.

Ground Elevation: 590 m asl (10 m contour interval) Geology By: Janet Campbell

Measuring Point: _____ Elevation Measuring Point: _____



	SAMPLE	DEPTH (m)	
		0.7	
		1.5	
Clay - crsning thoun to silty clay, brown, oxid massive, occ sm P, cal.		2.3	
		3.0	
Till - clayey-silt, brown, fractured - Mn Fe stain, cal		4.0	
Clay - silty, lam., ~~occ~~ sm P		4.6	
Till - as above		5.4	
Silt - sandy, brown, ovid., lam. fines down, cal.		6.1	
Sand - v. fine, silty, broun, ovid, cal, no P.B. well sorted.; dry		6.9	
		7.6	
- clayey silt bed at 7 m.		8.4	
- coarsens down into		9.1	
Sand - fine to med, clean, massive, cal, no PP brown, well sorted; dry		9.9	
		10.7	
		11.4	
		12.2	
Sand - fine, silty, well sorted.; dry		13.0	
Silt - sandy, brown, ovid, cal.		13.7	
Till - sandy, grey/broun, mottled, lightly oxid, gypsum, cal.		14.5	
		15.2	
		16.0	
Till - sandy-silt, grey, unoxid, compact. cal.		16.8	
freq. clasts		17.5	
		18.2	
Open hole 17.5 m Top of backfill 9.1 m Top of bentonite 4.0 m Top of cement 0.6 m			

NE 8-6-18-19-W2

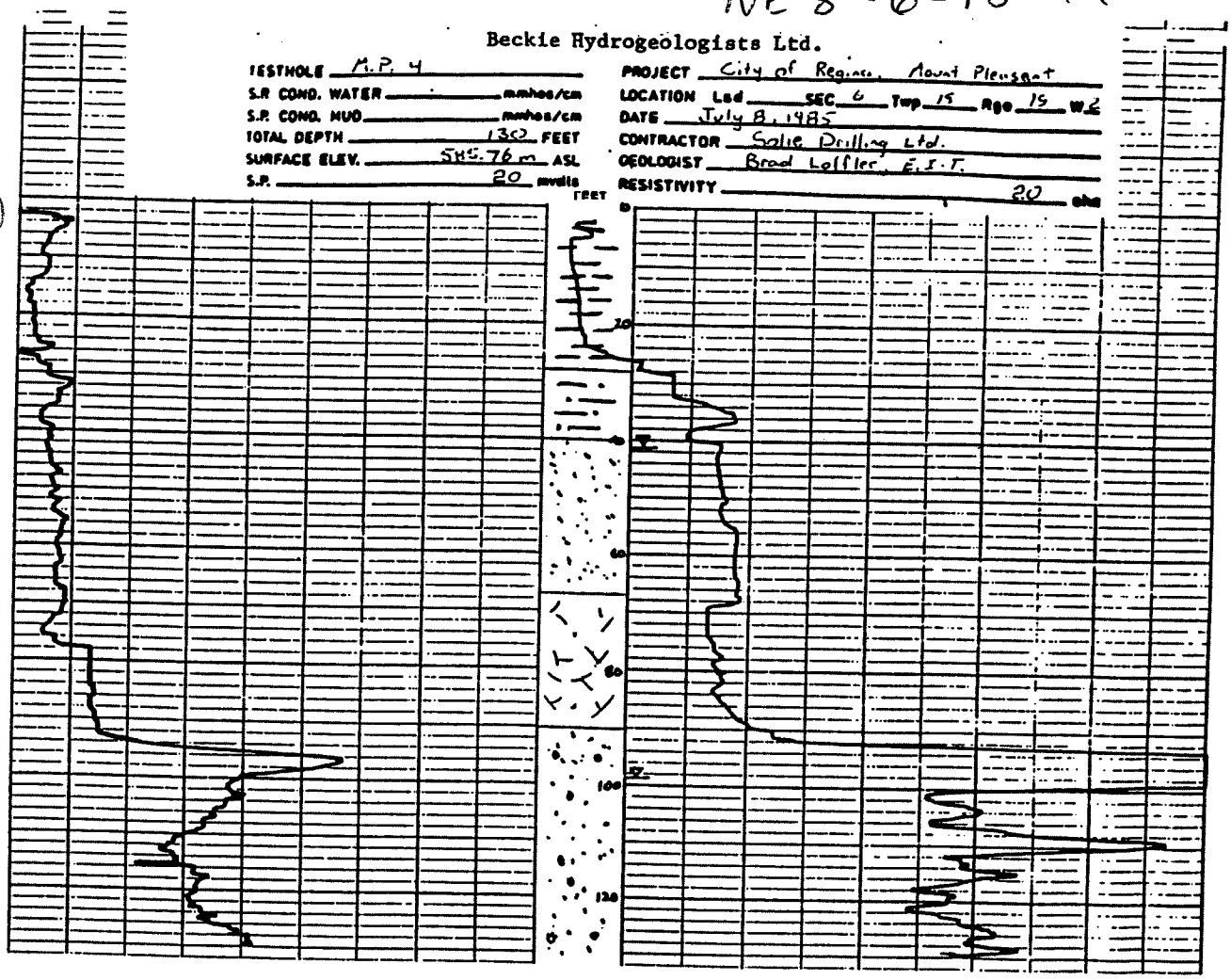
77

77

Beckie Hydrogeologists Ltd.

TESTHOLE M.P. 4
S.R COND. WATER ____ mmhos/cm
S.P. COND. MUD ____ mmhos/cm
TOTAL DEPTH 130 FEET
SURFACE ELEV. SHG. 76 m ASL
S.P. 20 mvolts

PROJECT City of Regina, Mount Pleasant
LOCATION Lsd ____ SEC 6 Twp 19 Rge 19 W2
DATE July 8, 1985
CONTRACTOR Solie Drilling Ltd.
GEOLOGIST Brad Loffler, E.I.T.
RESISTIVITY 20 ohm



Beckie, 1986.

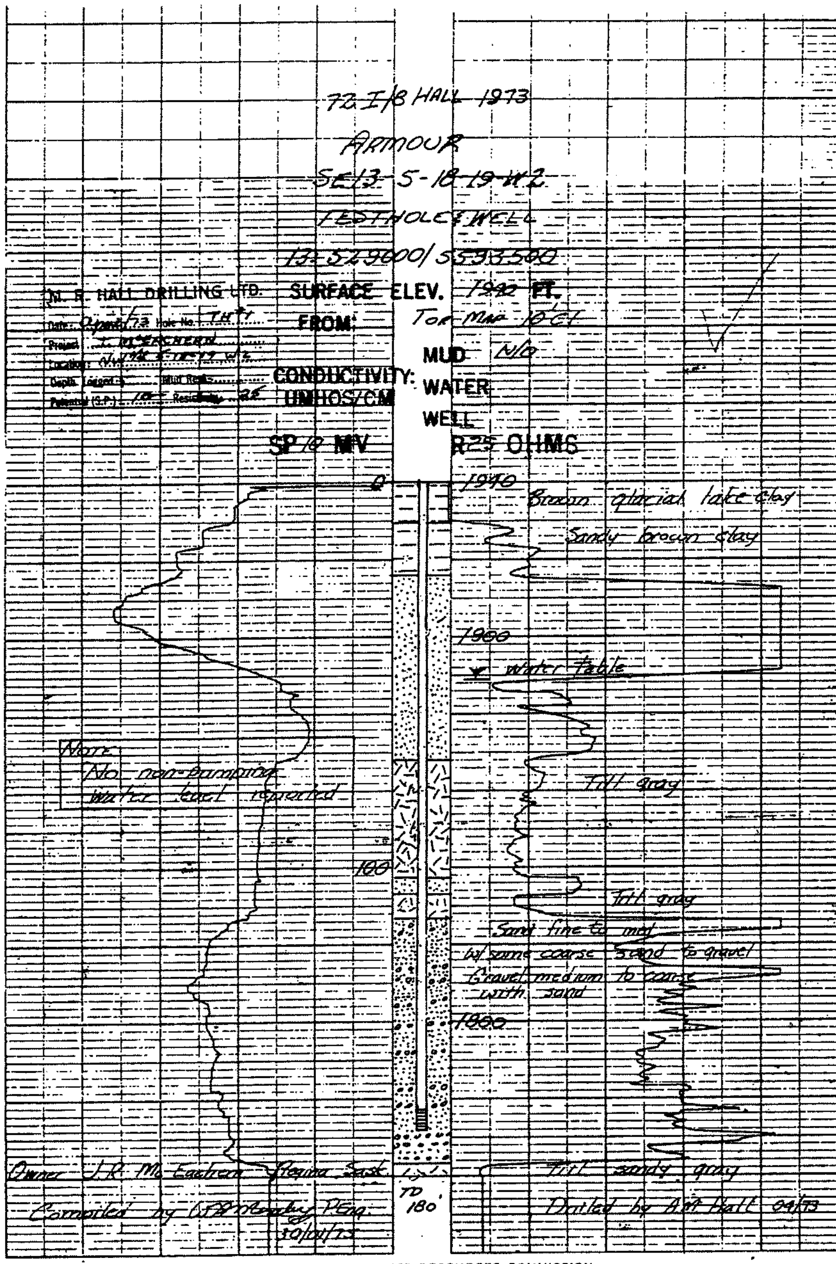
Interim Report on Installation of Mount Pleasant = Imperial Oil Ground water monitoring Systems

acq # 42232

78

601
P

72 I/7



72 I/8 HALL 1973
ARMOUR
SE 13-5-18-19 W2
TESTHOLE & WELL
13-529000/5593500
M. R. HALL DRILLING LTD.
SURFACE ELEV. 1990 FT.
FROM: TOP MAP 10'CI
MUD N/O
CONDUCTIVITY: UMHOS/CM
WATER
WELL
SP 10 MV
R25 OHMS
1990
Brown glacial lake clay
Sandy brown clay
1900
water table
Note: No non-pumping water level reported
Till gray
100
Till gray
Sand fine to med w/ some coarse sand to gravel
Gravel medium to coarse with sand
1880
Owner J.R. McEachern Regina Sask
Compiled by
30/01/75
TD 180'
Till sandy gray
Drilled by A.M. Hall 04/73

SASKATCHEWAN WATER RESOURCES COMMISSION
WATER WELL DRILLER'S REPORT

Owner's Name	Address	Driller
J.R. McEachern	Regina, Sask.	Hall Drilling Ltd.

Well No.	Date Completed	Location	Quarter	Section	Twp	Rge	W Mer
TH? P.W.#1/73	April, 1973		NW	5	18	19	2

Situation	Water Use	Quality	Well Depth	Diameter
	Farm	Very good	168 ft	4 ins

Depth Water Struck	Depth to Water Surface	If Flowing Artesian, Head Above Ground	Water Temp	Type of Casing
ft	ft	ft		New [X] Used [ ] .206 wall PVC 4½ inch from +1.0 ft to 163.0 ft

Type of Screen	Slot	Diameter	Length	Bottom Set At	Pump Test
S.S. Telescoping	.020 ins	4 ins	5 ft	168.0 ft	1.57 ft after 2 hrs pumping 20 gpm

DRILLER'S LOG

From (Feet)	To	Description of Materials Encountered
0	12	Clay brown glacial lake
12	20	Clay silty sandy brown
20	75	Sand fine silty brown
75	115	Till grey
115	126	Sand fine & med. w/s coarse sand
126	140	Gravel med. & coarse & sand
140	170	Sand coarse & gravel
170	175	Gravel and stones
175	180	Till sandy grey
		E-logged from 180 ft.

N.
Returned to static immediately.
W. E.
S.
(SHOW LOCATION ON ¼ SECTION PLAT)

RECOMMENDED PUMPING RATE ______ GPM WITH PUMP INTAKE SET AT 137' FT

TOTAL COST OF WELL $ ______ (EXCLUDING PUMP)

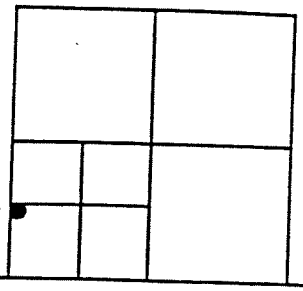
A.M. Hall
DRILLER'S SIGNATURE

SASK. WATER RESOURCES COMMISSION COPY

79

Name: Condie 7 Driller: Probe Drilling Regina, Sask. NTS: 72 I
Legal Land Location (L.S.D): NW 04-08-18-19-W2 Date: Aug. 01, 1989
Surface Land Elevation: 594.99 m (1952.06 ft.)

RA23 SD386

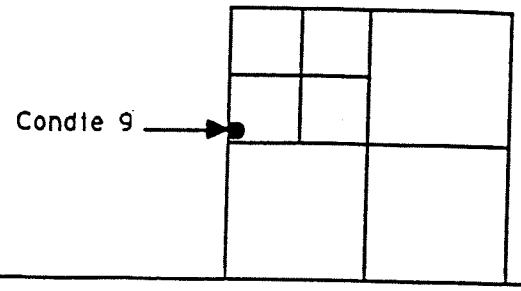


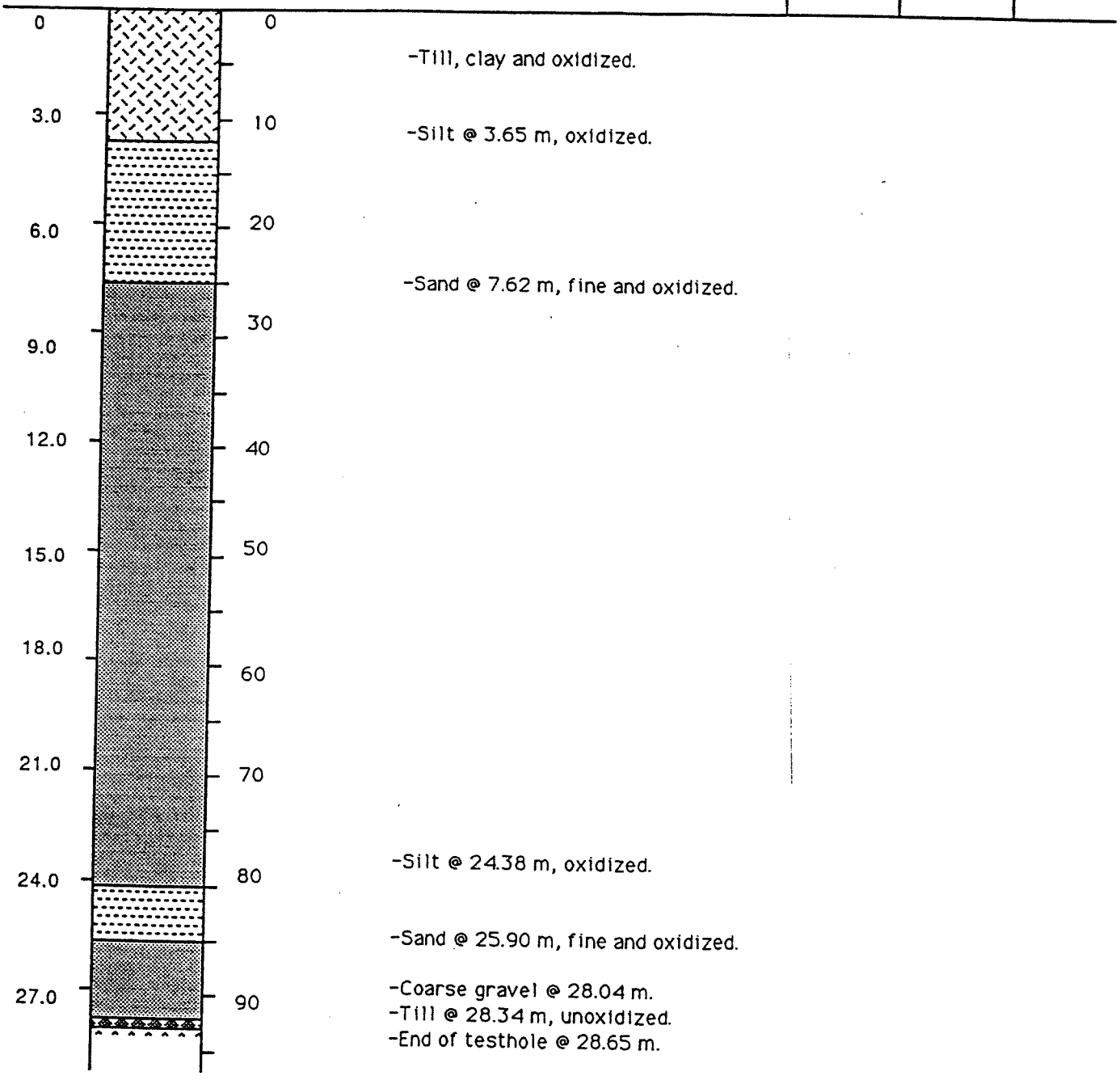
Meters	Feet	
0	0	-Oxidized dry, silty clay with no stones.
3.0	10	-Silty fine sand @ 2.13 m, dry and oxidized with no stones.
		-Fine sand @ 3.96 m, dry, oxidized and well sorted.
6.0	20	
	30	
9.0		-Medium sand (sugar sand) @ 10.0 m, oxidized, dry and well sorted.
12.0	40	
15.0	50	
		-Iron streaking from 16.76 to 18.28 m.
18.0	60	
21.0	70	-Medium to coarse sand @ 20.72 m, unoxidized, saturated and very well sorted.
24.0	80	
		-Till @ 25.29 m, unoxidized and saturated.
		-End of hole at 25.90 m.
		-Geology by Larry D. Luba

research conducted on the Condie Aquifer
Larry Luba

Name: Condie 9 Driller: Probe Drilling Regina, Sask. NTS: 72 I
Legal Land Location (L.S.D): SW 12-08-18-19-W2 Date: Aug. 09, 1989
Surface Land Elevation: 599.74 m (1967.65 ft.)

RA 29 55312





-Till, clay and oxidized.

-Silt @ 3.65 m, oxidized.

-Sand @ 7.62 m, fine and oxidized.

-Silt @ 24.38 m, oxidized.

-Sand @ 25.90 m, fine and oxidized.

-Coarse gravel @ 28.04 m.
-Till @ 28.34 m, unoxidized.
-End of testhole @ 28.65 m.

-Geology by Larry D. Luba.

-NOTE : Chloride concentration of water at bottom of hole is 17.66 ppm.

Research Conducted on the Condie Aquifer.

Larry Luba.

2801

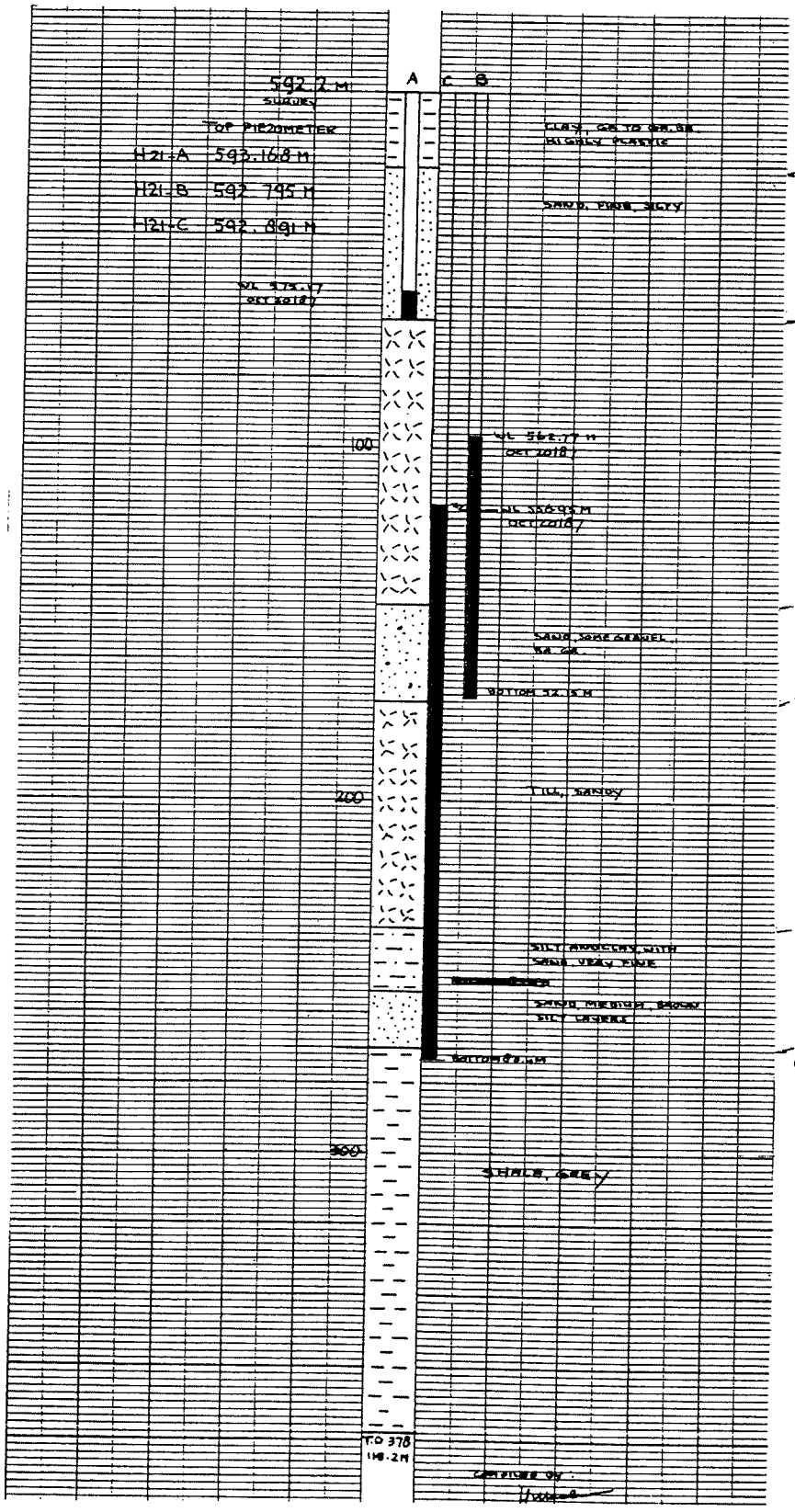
BOREHOLE NO. H-21 NTS 72I/10
LAND LOCATION NW-12-08-18-19-W2
UTM COORD.
GRD. ELEV. 592.2M DEPTH 115.2M
DATE DRILLED MARCH 10 25 19 83
COND. WATER MICROSIEMENS/CM AT 25° C
COND. MUD MICROSIEMENS/CM AT 25° C
SPECIFIC GRAVITY MUD
SUPERVISOR
ASS'T SUPERVISOR
LOGGED BY
INSTRUMENT
PROBE ELECTRIC
PROBE GAMMA
PROBE CALIPER
DATE LOGGED 19
TIME OF LOGGING TO
DRILL OPERATOR
CONTRACTOR
REMARKS
ROTARY HOLE BUT NO E.LOG

PROJECT REGINA RAILWAY RELOC
CUTTING SAMPLE INTERVAL
CORE SAMPLE INTERVAL
FROM
CASING DEPTH
CASING WALL THICKNESS
WATER OR MUD LEVEL
ABANDONMENT
BIT SIZE INTERVAL
BIT SIZE INTERVAL
BIT SIZE INTERVAL
TYPE OF DRILL RIG

	DEPTH	SCALE	SPEED
SP			
RES.			
GAMMA			
CAL.			

GAMMA TIME CONSTANT (T.C.) SECONDS
GEOLOGY BY HARDY ASSOCIATES

12-08-18-19-W2



BS 1673

campbell
macaulay

82

KA5

50287

Project: Condie Aquifer Date: October 12/93 R-1220-4-E-

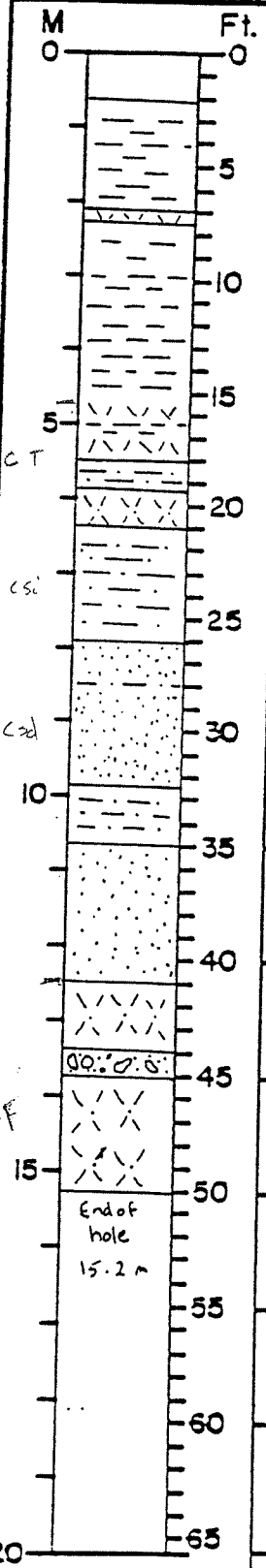
Name Testhole/Piezometer: C93-02

NTS: 72I / 10 Land Location: NW 4-17-18-19 W2 / UTM 528775 E 5595825 N

Contractor: Probe Drilling Co. Ltd

Ground Elevation: 589 m (10 m contour interval) Geology By: Janet Campbell

Measuring Point: _____ Elevation Measuring Point: _____



	SAMPLE	DEPTH (m)	
Topsoil		0.7	
Clay - brown, occ sm P lam., cal., oxid		1.5	
Till - 1.1 → 2.3 m clayey-silt, brown, oxid	Qssd AT 0	2.3	
		3.0	
Clay - as above	Qavm AQ 21	3.8	
		4.6	
Clay - as above interbedded with Till - clayey brown, freq. clasts, soft, cal.	Quf AT 41	5.4	
Silt - clayey, brown, lam., occ sm P, cal.		6.1	
Till - sandy-silt, brown, oxid freq. clasts, cal.		6.9	
Silt - sandy, brown, lam, rare sm P, cal		7.6	
Sand - fine to v. fine, silty, dry, brown, well sorted silt interbed at 8.5 m.		8.4	
		9.1	
Silt - sandy, lam. oxid, brown, cal, no P.B.		10.1	
		10.7	
Sand - fine to v. fine, clean, dry, lightly oxid, cal. well sorted		11.4	
		12.2	
Till - sandy-silt, compact, stoney, cal, lightly oxid		13.0	
Gravel - fair sorting; matrix - f-crse sand		13.7	
Till - sandy-silt, brown lt oxid, stoney, cal, gypsum, hard		14.5	
		15.2	
End of hole 15.2 m			
Open hole 15.0 m			
Top of backfill 8.8			
Top of bentonite 3.0			
Top of cement 0.7			

Project: Condie Aquifer Date: October 12/93 Stratigraphy Campbell MacAulis R-1220-4-E-94

Name Testhole/Piezometer: C-93-03/03A

NTS: 72I/10 Land Location: NW 5-17-18-19 W2/ UTM 528775E 5596225N

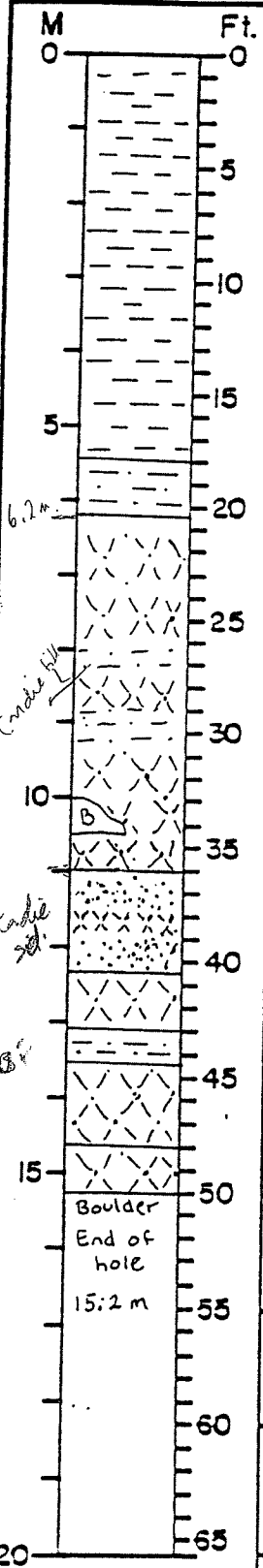
Contractor: Probe Drilling Co Ltd

Ground Elevation: 590.5 m (10m C.I. map) Geology By: Janet Campbell

Measuring Point: Elevation Measuring Point:

RA 52

5029



	SAMPLE	DEPTH (m)	
		0.7	
		1.5	
Clay - silty, brown, oxid, occ → freq P cal; diamicton inclusions - 1-3 cm thick.	$Q_{ssd_{AT}}$ 0 Q_{bg} 21	2.3 3.0	
becomes lam. with depth.; occ. gypsum	Q_{arm} 36 Q_{FeT} 44	3.8 4.6	
		5.4	
Silt - clayey, lam, brown, ox., becomes interbedded with sandy silt.		6.1	
		6.9	
Till - sandy - silt to silty - sand, brown, ox., soft		7.2	
dry freq. P, massive, cal - interbedded with Silt Diamicton - sandy, lam, brown freq P., cal.		8.4 9.1	
		9.9	
		10.7	
Sand - v. fine, silty, well sorted, oxid, cal., dry till interbed: at 11.6 - 11.8 m.		11.4 12.2	
Till - sandy - silt, brown, ox., compact, hard,		13.0	
Silt - sandy, brown, oxid, lam, cal		13.7	
Till - as above		14.5	
Till - sandy, brown, ox., loose, dry, cal.		15.2	
03 - Open hole 10.4 m Backfill top 10.4 m Bentonite top 3.4 m Cement top 0.6 m			
03A Open hole 14.2 Backfill top 10.7 Bentonite top 3.7 Cement top 0.6 m			

8.

Stempvoort, Campbell, Meathrel K-1220-4-E-94

Project: Condie Aquifer Date: October 12/93

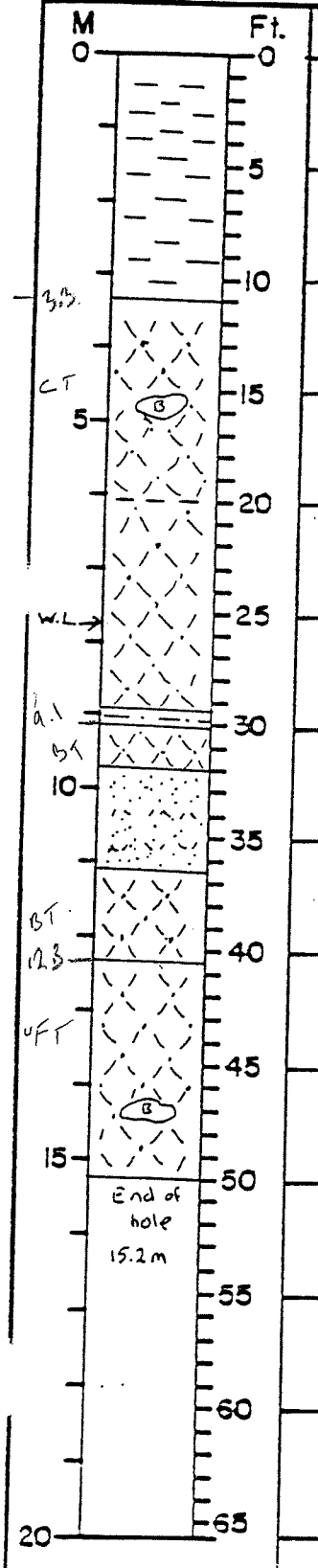
Name Testhole/Piezometer: C93-04

NTS: 72I/10 Land Location: NW 12-17-18-19 W2 / UTM 529775 E 5596600 N

Contractor: Probe Drilling Co. Ltd.

KA53 Ground Elevation: 590.5 m (10 m CI map) Geology By: Janet Campbell

Measuring Point: 50292 Elevation Measuring Point:



	SAMPLE	DEPTH	
		0.7	
Clay - becoming silty - clay with depth, cal., lam., rare sm P, Fe stain spotty, occ gypsum between 1.5 and 3.0 m, ox., brown	Osed MT 0	1.5	
	Obst 11	2.3	
		3.0	
	Rem 32	3.8	
Till - clayey - silt, low grit, brown, oxid	Ref 36	4.6	
cal		5.2	
grades into		6.1	
		6.9	
Till - sandy - silt, brown, oxid. cal, stoney, compact moist		7.6	
		8.4	
Silt - lam. with v.f. sand occ sm. P brown ox. cal		9.1	
Till - silty - sand, moist, loose, brown, oxid, cal.		9.9	
Sand - med to fine, clean, sorting occ. sm P, cal. oxid, wet till intersed at 10.4 and 10.9 m		10.7	
		11.4	
Till - silty - sand, brown, oxid, moist, stoney, mod. compact, str. cal,		12.2	
		13.0	
Till - sandy - silt to silt, mottled brownish/gray		13.7	
fractured with Fe staining, compact, hard, cal, dry. gypsum.		14.5	
		15.2	
Open hole 15.2 m Top of Backfill 10.4 m Top of Bentonite 9.0 m Top of Cement 0.7 m			
Water level in hole 7.9 m			

TESTHOLE 1.0. 4 (13)

S.P. COND. WATER _____ mmhos/cm

S.P. COND. MUD _____ mmhos/cm

TOTAL DEPTH 115 FEET

SURFACE ELEV. 580.60 m ASL

S.P. 10 mvolts

ECT City of Regina, Imperial Oil Site

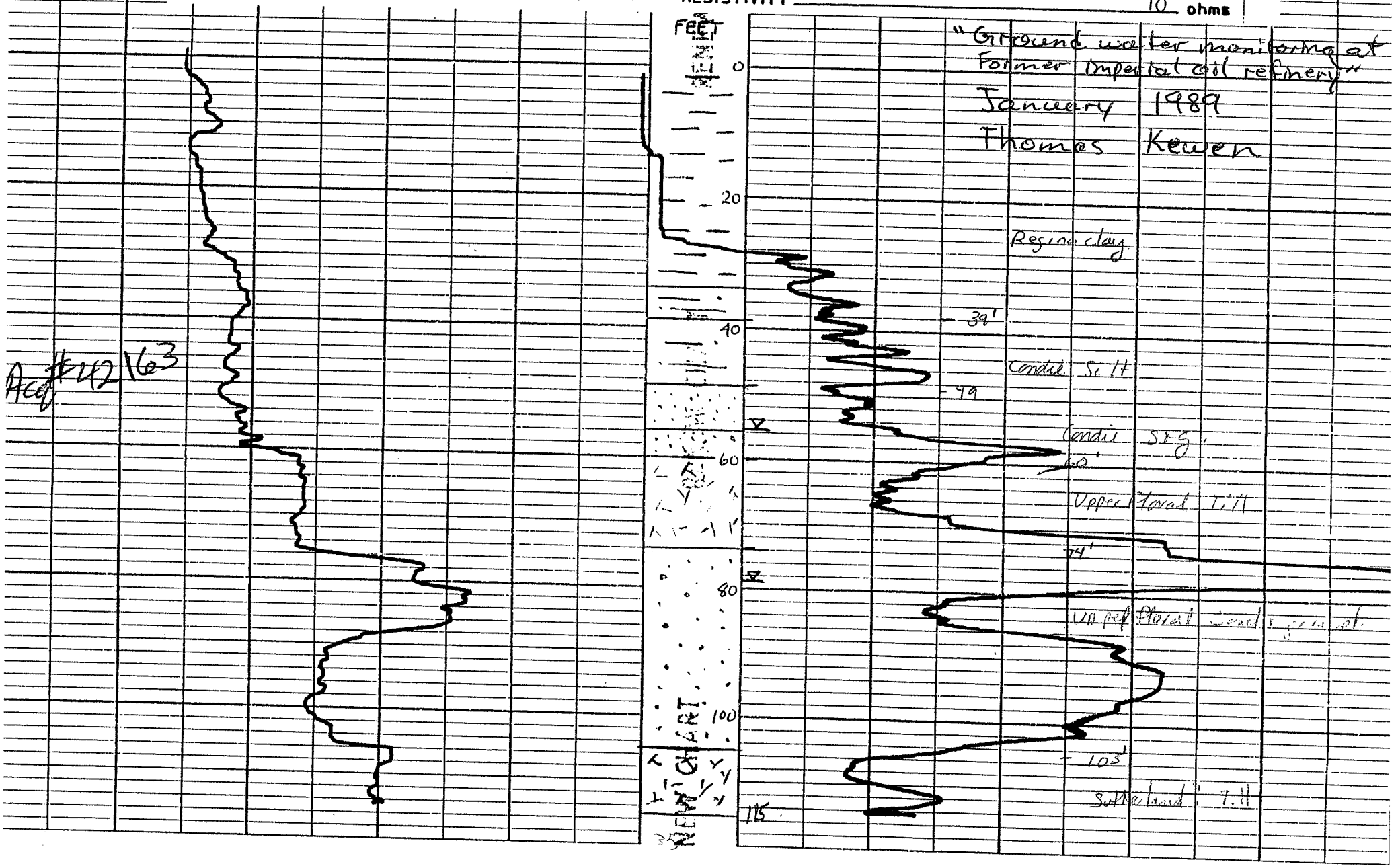
LOCATION Lsd _____ SEC 32 Twp 17 Rge 19 W2M

DATE July 11, 1985

CONTRACTOR Solie Drilling Ltd.

GEOLOGIST Brad Loffler, E.I.T.

RESISTIVITY _____ 10 ohms



"Groundwater monitoring at Former Imperial Oil refinery"
January 1989
Thomas Keuen

Acq #42163