

926-1-186

SCHEDULE "A"

PRIVATE WELL CERTIFICATION

PURSUANT TO SCHEDULE "A" of the Subdivision and Development Control Bylaw, which requires that each lot to be created and/or each existing lot forming part of the proposed development can be serviced with potable water in accordance with the requirements of the Bylaw for the development of:

LEGAL DESCRIPTION: Block "A" Except Part Subdivided by Plan 6636, D.L. 223, Gp. 2, N.W.D., Plan 6635

PROJECT NO.: _____

I certify that a quantity of not less than 2,500 litres per day has been proven for each existing or proposed lot in the development.

I certify that each well within the subdivision has been tested and is capable of continuously providing water at a rate of 9 litres/min. for a four hour period.

I certify that water quality tests have been conducted and that the "B.C. Drinking Water Standards, 1982" can be met for each existing or proposed lot in the development.

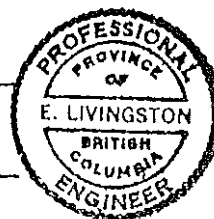
EDMUND LIVINGSTON, P. ENG.

Certified By (Name of Professional Engineer)

PACIFIC HYDROLOGY CONSULTANTS LTD.

Address

204 - 1929 West Broadway, VANCOUVER, B.C. V6J 1Z3



PROFESSIONAL
SEAL

E. Livingston
May 11 '92

See attachments as required pursuant to clause 2.2.18 of Schedule "A".

F-5

SCHEDULE "A"

WELL PUMP TEST - FIELD TEST

OWNER'S NAME: Mr. Ken Wright WELL NO. on New Lot
 APPLICATION NO.: _____ DATE: April 14, 1992
 LOCATION: 3135 Eldridge Road SHEET 2 OF 12
ABBOTSFORD, B.C. TEST NO. 1

☒ Drawdown ☐ Recovery

Rdg #	Time From Start	Depth To Water	Draw Down	Flow Measurement Data			Comments
				(MIN)	(L)	Lpm	
09:00		4.95					Static water level; start pump.
	$\frac{1}{2}$	5.08	0.13				Datum for water level measurements
	1	5.08	0.13				was top of casing at 1.2 m (4 ft)
	$1\frac{1}{2}$	5.08	0.13				above grade.
	2	5.11	0.16	1/3	18.9	56.7	
	$2\frac{1}{2}$	5.11	0.16				
	3	5.11	0.16				
	$3\frac{1}{2}$	5.16	0.21				
	4	5.18	0.23				
	$4\frac{1}{2}$	5.20	0.25				
	5	5.20	0.25	1/3	18.9	56.7	
	10	5.21	0.26				
	15	5.22	0.27				
09:30	30	5.23	0.28				
10:00	60	5.23	0.28	1/3	18.9	56.7	
11:00	120	5.23	0.28				
12:00	180	5.23	0.28				
16:00	420	5.23	0.28	1/3	18.9	56.7	
18:00	540	5.21	0.26				Stop pump.

SCHEDULE "A"

WELL PUMP TEST - FIELD TEST

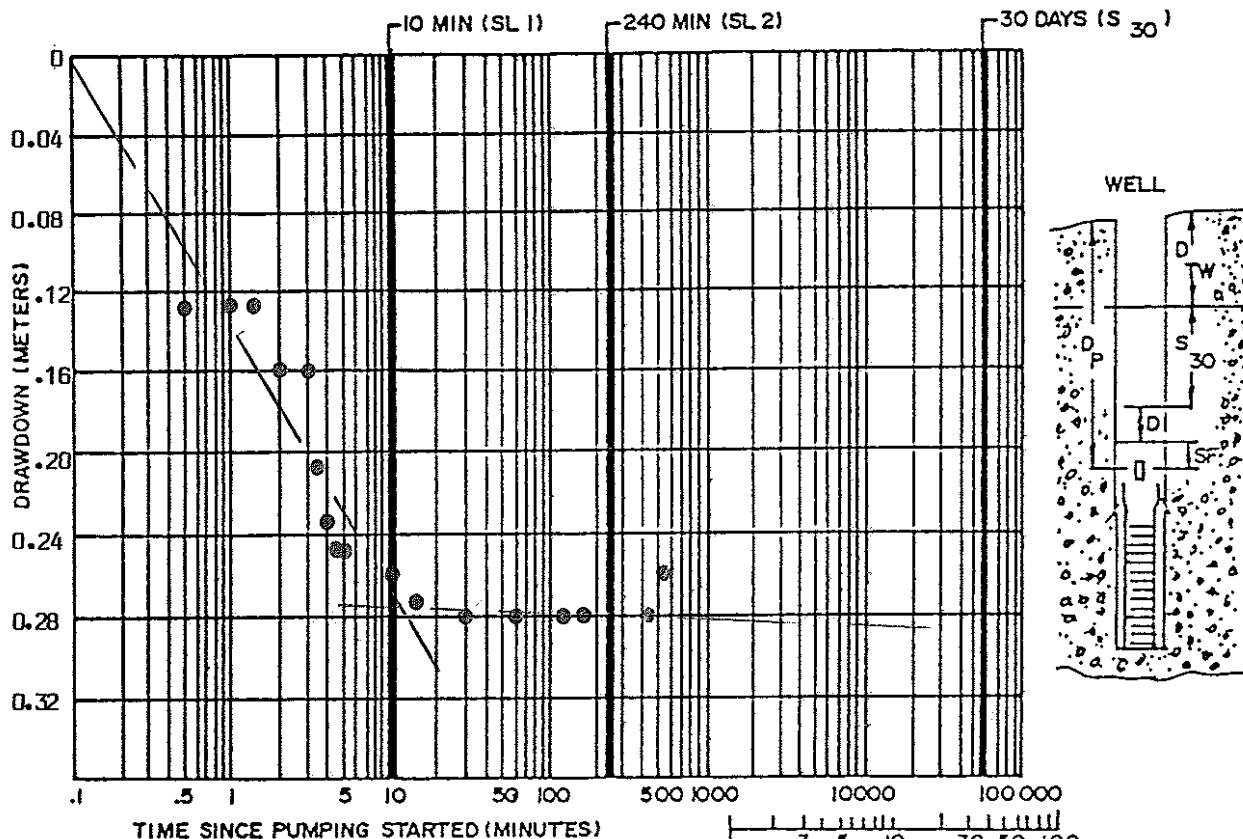
OWNER'S NAME: Mr. Ken Wright WELL NO. on New Lot
APPLICATION NO.: _____ DATE: April 14, 1992
LOCATION: 3135 Eldridge Road SHEET 3 OF 12
ABBOTSFORD, B.C. TEST NO. 1

☐ Drawdown ☒ Recovery

[illegible]

TIME-DRAWDOWN GRAPH FOR PUMP TEST

OWNER'S NAME: Mr. Ken Wright WELL No. on New Lot
 APPLICATION No. _____ DATE: April 14, 1992
 LOCATION: 3135 Eldridge Road, ABBOTSFORD, B.C. SHEET 4 OF 12
 DEPTH TO STATIC WATER LEVEL: 4.95 m (m) TEST No. 1



TIME SINCE PUMPING STARTED (MINUTES) TIME (DAYS)

$Q_h = \text{PUMPING RATE} = 56.7 \text{ (Lpm)}$
 $Sh1 = \text{DRAWDOWN AT 10 MIN.} = 0.26 \text{ m}$
 $Sh2 = \text{DRAWDOWN AT 240 MIN.} = 0.28 \text{ m}$
 CALCULATED DRAWDOWN VALUES: $SL1 = \frac{Q_i}{Q_h} \times Sh1 = 0.008 \text{ m}$
 $SL2 = \frac{Q_i}{Q_h} \times Sh2 = 0.0086 \text{ m}$
 DRAWDOWN AT 30 DAYS (S_{30}) = 0.05 m

ESTIMATED MINIMUM ADJUSTMENT FOR SEASONAL DECLINE (D): USE FOLLOWING FIGURES IF OTHER LOCAL DATA OR HYDROGEOLOGIST'S OPINION IS NOT AVAILABLE.

TESTS RUN IN AUG., SEPT. & OCT.:	2 m	Seasonal fluctuation is unlikely to exceed even 1.0 m
TESTS RUN IN NOV., DEC., JAN., MAY, JUNE & JULY:	4 m	
TESTS RUN IN FEB., MAR. & APRIL:	6 m	

SAFETY FACTOR = SF = 1m

DEPTH TO PROPOSED PUMP SUCTION (D_p) 24.4 m

CALCULATE MINIMUM AVAILABLE DRAWDOWN: $D_p - (D_{TW} + S_{30} + D + SF) =$

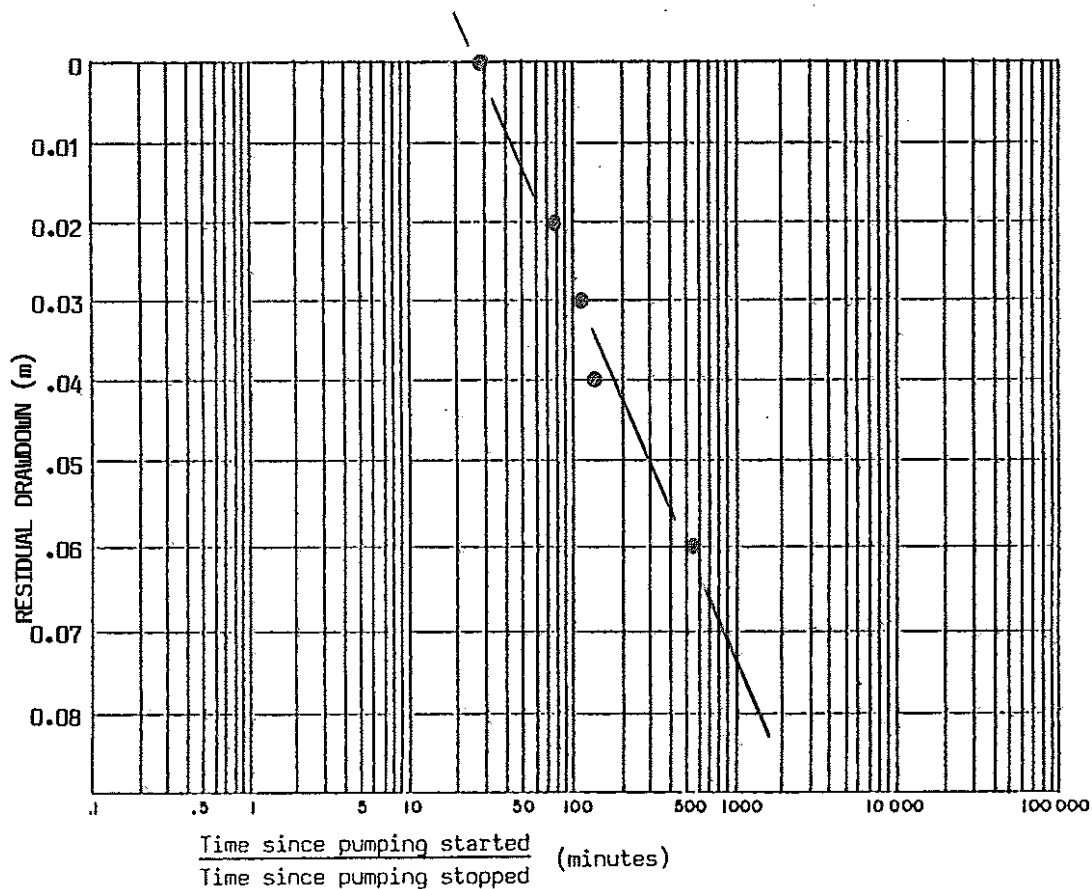
24.4 - 4.95 + 0.05 + 1.0 + 1.0 = 17.4 m

IF ANSWER TO ABOVE CALCULATION IS NEGATIVE, THEN EITHER THE PUMP HAS TO BE SET LOWER OR THE WELL IS NOT CAPABLE OF SUPPLYING WATER FOR A HOUSE.

F-7

RECOVERY GRAPH FOR PUMP TEST

OWNER'S NAME: Mr. Ken Wright WELL NO. on New Lot
 APPLICATION NO.: _____ DATE: April 14, 1992
 LOCATION: 3135 Eldridge Road, ABBOTSFORD, B.C. SHEET 5 OF 12
 DEPTH TO STATIC WATER LEVEL: 4.95 m (m) TEST NO. 1



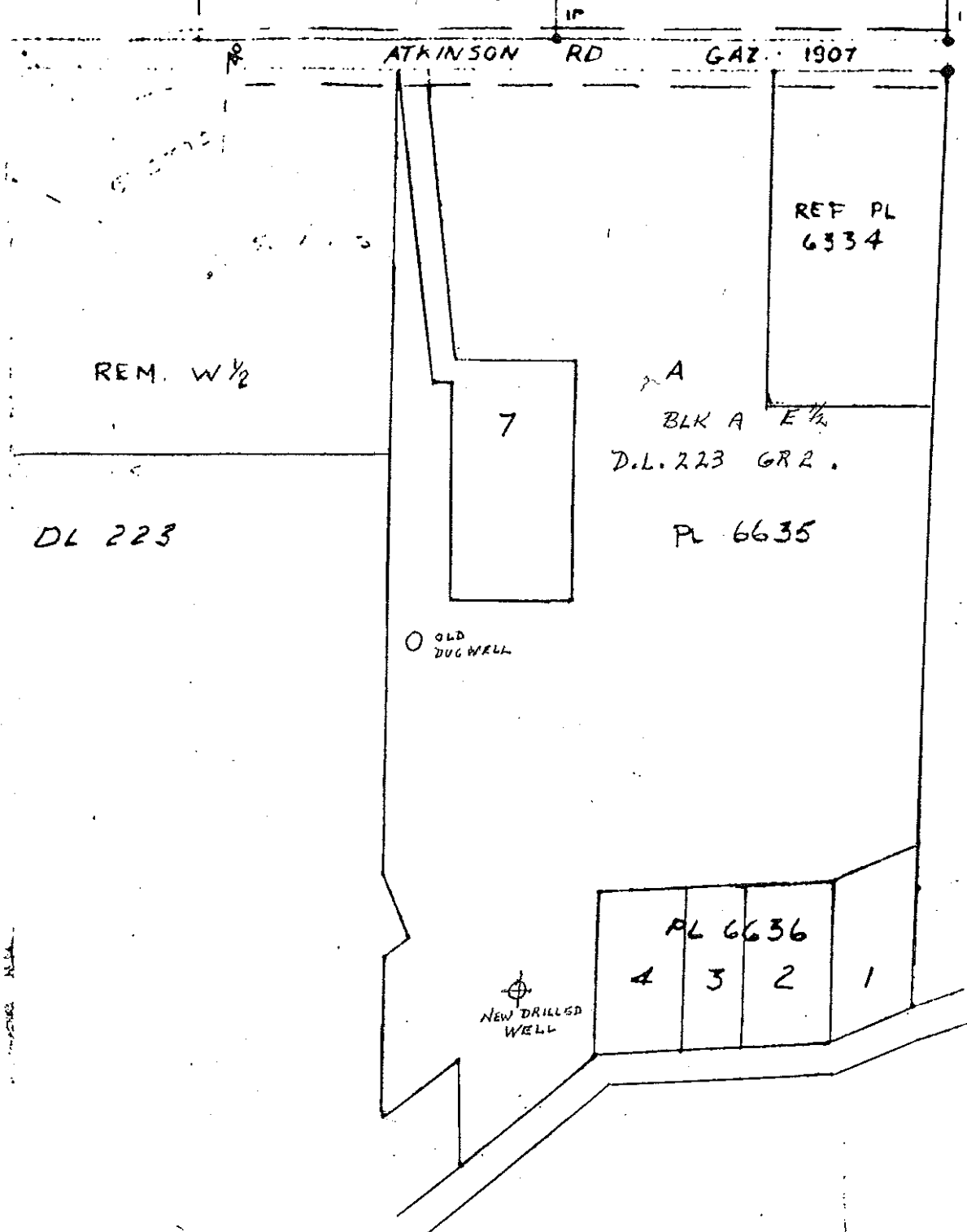
SCHEDULE "A"

PUMP TEST SUMMARY

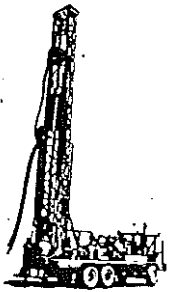
OWNER'S NAME: Mr. Ken Wright WELL NO. on New Lot
 APPLICATION NO.: _____ DATE: April 14, 1992
 LOCATION: 3135 Eldridge Road SHEET 6 OF 12
ABBOTSFORD, B.C. TEST NO. 1

WELL COMPLETION DATA		SCREEN DESIGN (mark one)		DESCRIPTION OF AQUIFER
Depth <u>26.2</u> (m)	<input checked="" type="checkbox"/> Open Hole	<input type="checkbox"/> Slotted Casing	<u>broken and</u>	
Diameter <u>150</u> (mm)	<input type="checkbox"/> Screen	<input type="checkbox"/> Gravel Pack	<u>fractured bedrock</u>	
Static Water Level <u>4.95</u> (m) below casing stickup of 1.2 m	<input type="checkbox"/> Other _____	Screen interval _____ m to _____ m		
PUMP TEST				
Start: Date <u>14/04/92</u> d/m/yr	Time <u>09:00</u> hr/min			
Pump Type: <input checked="" type="checkbox"/> Electric submersible	<input type="checkbox"/> Jet	<input type="checkbox"/> Air Lift		
Other? Describe _____				
Test Pump Set at <u>24.4</u> m below ground				
Water level sounded by: <input checked="" type="checkbox"/> Electric tape	<input type="checkbox"/> Air bubbler	<input type="checkbox"/> Steel tape		
Other? Describe _____				
Flow measured by: <input type="checkbox"/> Container & watch	<input type="checkbox"/> Flow meter			
<input type="checkbox"/> Orifice & tube	<input type="checkbox"/> Other? Describe _____			
TEST				
Constant rate of yield <u>56.7</u> Lpm	Test duration <u>9</u> hours			
Initial non-pumping level <u>4.95</u> m				
Drawdown in well at end of test <u>0.26</u> m				
Recommended pumping rate <u>56.7-75.7</u> Lpm				
WATER SAMPLES TAKEN DURING TEST				
Chemical Analysis <input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Bacterial Analysis <input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No			
Water Temperature <u>5.5°C</u> °C				
Any particular gas smells noted <u>None</u>				
Comments on clarity of water <u>Discharge water clear</u>				
Other <u>Good taste.</u>				

C 10 ADDRESS
3135 ELDRIDGE
ROAD



PLAN - ATKINSON RD
PROPOSED WIDENING



A & H Construction Ltd.

"Specializing in Water Wells, Soil Sampling, Exploration"

1681 SALTON RD.,
P.O. BOX 38,
ABBOTSFORD, B.C.
V2S 4N7

INVOICE No; 1505

LOG OF WELL

Gravel	
Till	
ft	17 ft
B	
E	
D	
R	
O	
C	
K	
ft	86 ft

TO Mr. K. Wright, 5977 Vermillion Place, Nanaimo, V9V 1K2

ADDRESS Parallel Rd., R.R., Abbotsford, B.C.

WELL DRILLED AT Same

WELL COMPLETED April 8/92 INVOICE DATE April 9, 1992.

Machine Hours at	per Hour	
69	\$22.00	1,518.00
Feet of Drilling at	per Foot	
17	\$30.00	510.00
Feet of Drilling & Casing at	per Foot	
Feet of Casing at	per Foot	
Feet of Casing at	per Foot	
Feet of Casing at	per Foot	
Drive Shoes at	each	86.00
Feet of Screen		
Installation of Screen		
Pump Testing	Hours at	per Hour
Surging and Baling	Hours at	per Hour
Other Charges:		
Moving on Site and Setting Up		
Blasting		
Other 2hrs. Developing well @ \$100.00 P.H.		200.00
Sub total		2,314.00
7% G.S. Tax		161.98
Room and Board		
Travelling and Tolls		
TOTAL INVOICE PRICE		\$2,475.98

Notations Pumped well at approx. 6 gals.
per. minute.
Static water level 12ft.

INVOICE

E. LIVINGSTON, P. Eng.
A. BADRY

PACIFIC HYDROLOGY CONSULTANTS LTD.
CONSULTING GROUNDWATER GEOLOGISTS

204 - 1929 WEST BROADWAY
VANCOUVER, B.C. V6J 1Z3
TELEPHONE: (604) 738-9232

May 11, 1992

Mr. Ken Wright
5977 Vermillion Place
NANAIMO, B.C. V9V 1K2

Subject: Certification of New Drilled Well on Property at 3135 Eldridge
Road, Abbotsford, B.C.

Dear Sir:

In completing the certification forms for the new drilled well on the subject Property (Block "A" Except Part Subdivided by Plan 6636, D.L. 223, Gp. 2, N.W.D., Plan 6635), we have understood the following:

1. The subject Wright Property (as shown on Page 7 of 12) is proposed to be subdivided into two parcels.
2. A shallow dug well on the Property has supplied water for at least 40 years but it has to be supplemented by water from a spring during the summer drought period.
3. To supply the two parcels of land to be created by the proposed Subdivision, a new well was drilled at a site about 46 m (150 ft) south of the existing shallow well; however, the site was abandoned and the casing recovered when the hole encountered 7.3 m (24 ft) of sediments of low permeability over the bedrock.
4. A second well located in the southwest part of the Property was continued into bedrock when it also encountered only "till-like" sediments - which were not an aquifer - above the bedrock. As shown on the driller's record, the overburden/bedrock contact was at a depth of 5.2 m (17 ft) and drilling was continued in the bedrock to a final depth of 26.2 m (86 ft).

.../2

Mr. Ken Wright

Certification of New Drilled Well on Property at 3135 Eldridge Road,
Abbotsford, B.C.

May 11, 1992 - Page 2

5. During a nine-hour pumping test of the new Well, no interference was observed in the closest drilled well, which is a screened well in an overburden aquifer; the neighbouring Jensen Well is located at a distance about 37 m (120 ft) to the west.

From the very small amount of drawdown which occurred in the subject Well during the pumping test, it is clear that the Well is capable of supplying considerably in excess of the water supply requirements for two domestic connections. Further, considering the hydrogeology of the site, the Well is unlikely to be significantly affected by a seasonal fluctuation in capacity. The groundwater, as represented by an analysis by Norwest Labs, is low in dissolved mineralization and very soft; the quality of the groundwater for domestic consumption is very good and satisfies requirements of B.C. Ministry of Health for all parameters checked.

Please call if you wish to further discuss the certification forms and/or the contents of this letter, or if we can be of further assistance with this matter.

Yours truly,

PACIFIC HYDROLOGY CONSULTANTS LTD.

Ed Livingston

Ed Livingston, P. Eng.

