Water Supply Source Assessment

Step One Application

1) Name of proponent: **Villa Maria Inc., 19 Rue Du College, Saint Louis-de-Kent, NB, E4X 1C2, Represented by Mr. Alain Malenfant, architect, Architects 4, Moncton, Phone 506-857-8601.**

2) The proposed water supply is to be used for what purpose? **To provide water for a new 60 bed nursing home in Saint Louis-de-Kent.**

3) Required water quantity (in m^3/day): **The potential peak water flow is 409 m^3/d (4.7 L/s) or 62.5 Igpm, based on the total potential water flow to all fixtures in the facility if they were on at the same time. It is this value that was used to determine the pump size in the initial design. The average water consumption for the facility is projected to be 36 m^3/d (0.42 L/s) or 5.5 Igpm by the design Engineer.**

Given the facilities proposed use, as a nursing home, it should be appropriate to use the design water demand for residential homes. The resident population is 60 individuals with a projected number of staff at 16 for a total population of 76 individuals. The 16 staff would not use as much water as a resident, and the laundry service is proposed to be off site, so the design numbers should be conservative. The design water demand for private recreational or residential homes is prescribed in the NBDOE Water Supply Assessment Guideline as follows:

"The per-person requirement shall be 450 liters per day. Peak demand occurs for a period of 120 minutes each day. This is equivalent to a peak demand rate of 3.75 liters/minute (0.82 Igpm) for each person. The basic minimum pumping test rate is this rate multiplied by the "likely number of persons per well" which, for a single family residence shall be the number of bedrooms plus one."

Using the above, the peak 2 hour demand per day is 285 liters/minute (63 Igpm). This translates to a "Per Day" rate of 23.75 liters/minute (5.2 Igpm) or 34.2 m^3/d based on the residential design rate. The Villa Maria project is located on a land parcel totaling about 18.6 acres. If this land area were developed as single family homes on 1 acre lots, this would provide for about 16 residences, the remaining land being used for streets, etc. If we assume 16 residences with 4 bedrooms resulting in a per home population of 5 individuals, then this hypothetical development would result in a total population of 80 individuals. The point of this is that the proposed Villa Maria development's water requirement is not that much different than if the land was developed for residential lots.

4) List alternate water supply sources in area (including municipal systems): **There is no municipal system in Saint Louis-de-Kent. At this location the groundwater aquifer offers the safest, most economical supply.**

5) Outline proposed work schedule: **A new well was drilled on site prior to the proponents being aware that the proposed water taking was subject to EIA requirements. This well**

is 107 meters (350 feet) in depth with an estimated safe yield of 655 m^3/d or 100 Igpm. The well log for this well is attached to this Step 1 Application. It is proposed that the existing well on site be step tested at 40, 51 and 62.5 igpm. Following analysis of the step tests, the well would be pumped at the determined rate for 72 hours followed by recovery to 90% of the observed drawdown. It is proposed that two existing private wells adjacent to the project site be used as observation wells. Pressure transducers will be placed in the existing private wells to determine drawdown; however, it is likely that the wells will be in use at the time of the test. The pump test will be carried out as soon as possible following approval to proceed, dependent on work scheduling and weather conditions.

6) Discuss area hydrogeology as it relates to the project requirements. **The surficial overburden at the site is red clay of approximately 0.0 to 21.9 meters (0 to 72 feet) in thickness. Significant accumulations of sand or gravel are not known to be present and during the site visit no indications of such materials were observed. The overburden is not used for ground water supplies in the area.**

The bedrock in the area is mapped as Pennsylvanian age sedimentary rocks composed of red and grey conglomerate, sandstone, siltstone, and shale, which also forms the local bedrock aquifer. The bedrock is known to be relatively transmissive (readily conducts the flow of ground water). The bedrock units or layers tend to be lenticular (i.e. of variable lateral extent and thickness) and are thought to have formed as a result of sedimentary particles deposited from flowing water (alluvial deposition). The

individual beds average less than 1 meter in thickness; however, the total bedrock unit can be several hundred meters thick. This bedrock aquifer covers a large portion of New Brunswick, stretching from the Fredericton area northeast to Shippigan and southeast to the Shediac area.

Based on common knowledge of the area, the bedrock aquifer has been successfully developed for both municipal and private residential wells by a number of individuals over the general area. The general conditions found in the aquifer are suitable for water supply development. Local well drillers with knowledge of the area confirmed the potential for water supply development. In some of the local areas, zones of the aquifer can be quite soft and prone to caving, a condition that requires careful well logging and casing or lining of those soft zones.

A search of the NBDOE well log database for records located within a 500 meter radius around the proposed development was carried out and the search yielded 14 usable well logs. A summary of the information contained in the well logs is provided in Table 1, immediately below.

Table 1: Summary of hydrogeologic information derived from search of NBDOE well log database.

500 Meter Search Radius

Well Depth (feet)	Estimated Yield (Igpm)	Depth to Bedrock (feet)	Casing Length (feet)
Average: 109.4	Average: 19.9	Average: 18.0	Average: 78.1
Median: 120	Median: 18	Median: 7.5	Median: 80
Minimum: 55	Minimum: 8	Minimum: 0	Minimum: 31
Maximum: 127	Maximum: 50	Maximum: 72	Maximum: 97

As can be seen from the above information the average well in the area is approximately 109 feet deep with an estimated average yield of approximate 19.9 Igpm. As expected in any rock unit the yields are variable with a minimum yield of 8 Igpm being estimated in an 127 foot deep well. The highest estimated safe yield was 50 Igpm in a 127 foot deep well. In general, the area has relatively shallow wells with high yields for domestic wells.

A search of the NBDOE well chemistry database for locations in a 500 meter radius around the proposed development was carried out and the search yielded 12 records. The precise locations of the wells from which the ground water chemistry was obtained are not available due to right to privacy considerations for the property owners. These well chemistry analytical results are provided in Table 2, which follows. The average value of the measured result and the Canadian Drinking Water Quality Guideline

(CDWQG) are included in the table for the purpose of comparison. Any parameter which exceeds the Canadian Drinking Water Quality Guideline concentration is bolded and shaded for ease of recognition in the data table.

Out of the 12 chemistry records available, four wells had an exceedence of the CDWQG for iron of 0.3 mg/L and two wells exceeded the CDWQG concentration for manganese of 0.05 mg/L. The guidelines for iron and/or manganese are based on esthetic considerations, not health. Iron and/or manganese can cause staining of plumbing fixtures and laundry. Iron and/or manganese can usually be readily removed by commercial water softeners at the hardness observed in this water or by filters. The presence of Iron and/or manganese in the groundwater from this aquifer is not uncommon and is commonly the result of natural conditions. In the Miramichi area iron and manganese in groundwater is quite common.

As can be seen in Table 2, 10 out of the 12 available water quality sample results fall slightly above the range of pH recommended in the Canadian Drinking Water Quality Guidelines. The variations observed are minimal and for practical purposes it is doubtful that these variations in pH would impact the usability of the water in a private well or water source. The pH of water is important in determining water treatment methods; however, it is not a health related water quality standard. The pH of water may be adjusted to prevent or reduce corrosion in the distribution system and this is easily accomplished using commercially available water treatment equipment.

A total of nine out of the 12 chemistry records available had elevated turbidity present in the samples. The elevated levels of turbidity may be related to the relative newness

of the wells and they may not have had sufficient time, or use, to clear naturally. Most new wells clear naturally with time and use. At levels in excess of 5 NTUs turbidity may become noticeable to consumers and therefore, objectionable. The turbidity may be the result of elevated concentrations of iron and or manganese or the presence of particulate in the water. In either case, turbidity can be treated by water softeners and/or particulate filters.

The observed water chemistries are of acceptable drinking water quality and can be considered to be typical of this bedrock unit. The elevated turbidity observed in a number of the well in the sample sets may be related to the newness of the wells and the fact that they have not been pumped sufficiently to clear the water Elevated turbidity values may also impact analytical results leading to overestimates of iron and manganese concentrations. Overall, the review of the inorganic ground water chemistry provided in the NBDOE water quality database for the area did not reveal or indicate significant problems with other water quality parameters.

7) Identify any existing pollution or contamination hazards within a (minimum) 500 m radius of the proposed drill targets. If groundwater use problems (quantity or quality) have occurred in the past, then these should be identified. Historical land use that might pose a contamination hazard (i.e. tannery, industrial, disposal, etc.) should also be flagged. **The site is located adjacent to several private residences which have onsite septic treatment systems. There are no reports of systematic groundwater chemistry problems related**

to these septic systems. The proposed production well is located approximately 500 meters west of the Kouchibouguacis River, which is probably saline at that location.

8) Identify any watercourse(s) (stream, brook, river, wetland, etc.) within 30 m of the proposed drill targets. **There are no watercourses within 30 m of the proposed drill target.**

9) Identify site supervisory personnel involved in the source development (municipal officials, consultants and drillers: **Mr. Mike Cashin (DOT Project Manager, 506-444-4536) Mr. Doug Craig (Craig Hydrogeologic Inc., 506-659-3064) and Mr. Jacques LeBlanc, (Eastern Well Drillers, 506 532-9797).**

10) Figure 1 (site plan): **Please See Attached.**

11) Figure 2 (land use/zoning map): **Please See Attached**

NOTES:
1.–WORK INCLUDED IN THIS DRAWING INCLUDE:
–INSTALLATION OF SANITARY SEWER SERVICE LINE,
–DECOMMISSIONING OF EXISTING SANITARY SEWER SYSTEM,
–INSTALLATION OF STORM SEWER SYSTEM INCLUDING PIPE, MANHOLES ,PIPE END PROTECTION, INLET CONTROL DEVICE, DOWNSPOUT AND FONDATION DRAIN PIPE,
–INSTALLATION OF CULVERTS.

2.–COORDINATE WORK WITH MECHANICAL DIVISION FOR CONNECTION OF THE SANITARY SEWER SERVICE LINE AT THE BUILDING FOUNDATION WALL AND TO CROSS THE WELL WATER LINE WITH THE STORM PIPING.

3.–REFER TO LANDSCAPING DIVISION FOR FINISH GRADE ELEVATION DURING CONSTRUCTION.

4.–REFER TO ELECTRICAL DIVISION TO PREVENT ANY INTERFERENCE WITH UNDERGROUND SERVICES.

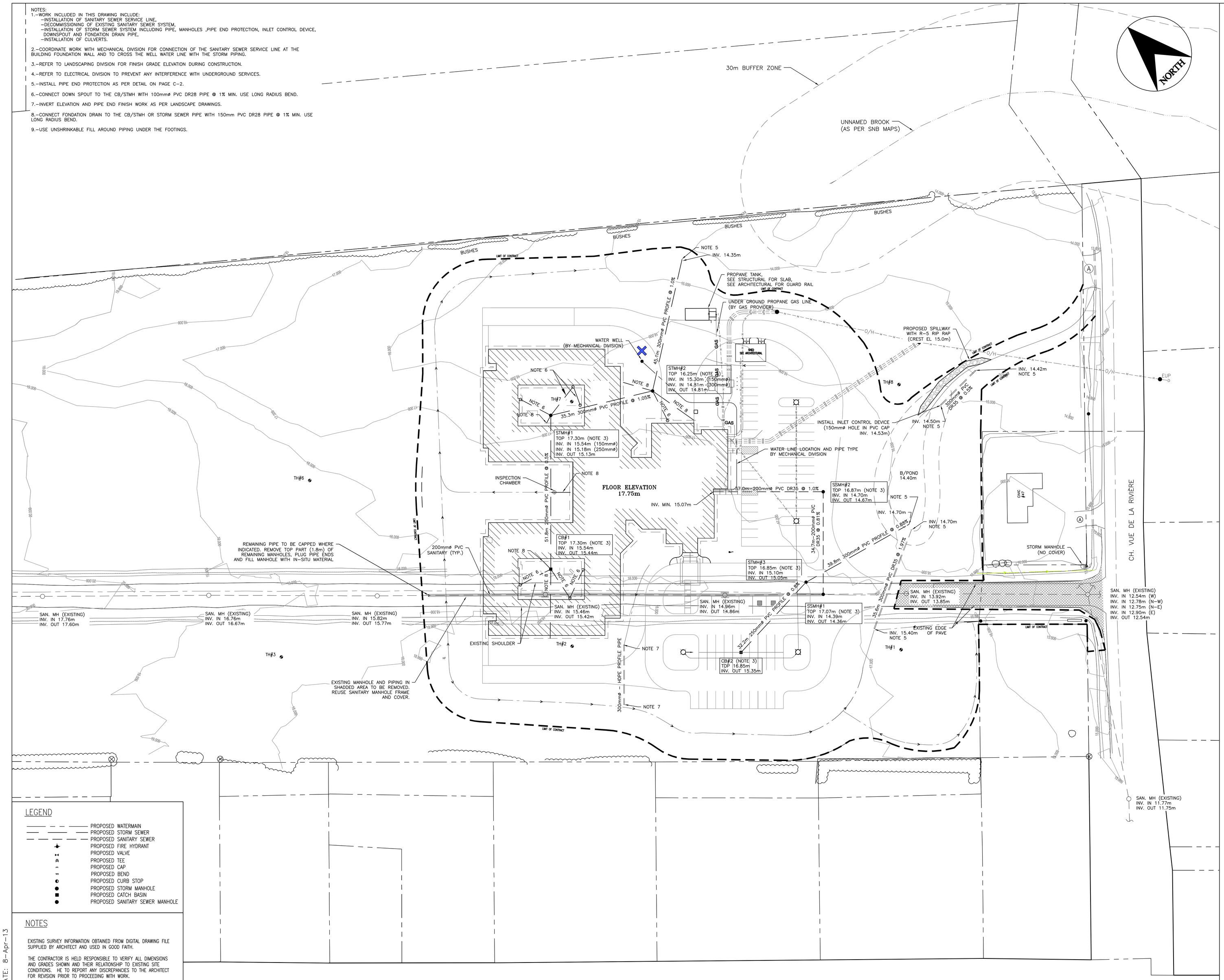
5.–INSTALL PIPE END PROTECTION AS PER DETAIL ON PAGE C–2.

6.–CONNECT DOWN SPOUT TO THE CB/STMH WITH 100mmø PVC DR28 PIPE @ 1% MIN. USE LONG RADIUS BEND.

7.–INVERT ELEVATION AND PIPE END FINISH WORK AS PER LANDSCAPE DRAWINGS.

8.–CONNECT FONDATION DRAIN TO THE CB/STMH OR STORM SEWER PIPE WITH 150mm PVC DR28 PIPE @ 1% MIN. USE LONG RADIUS BEND.

9.–USE UNSHRINKABLE FILL AROUND PIPING UNDER THE FOOTINGS.



LEGEND

- PROPOSED WATERMAIN
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED FIRE HYDRANT
- PROPOSED VALVE
- PROPOSED TEE
- PROPOSED CAP
- PROPOSED BEND
- PROPOSED CURB STOP
- PROPOSED STORM MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED SANITARY SEWER MANHOLE

NOTES

EXISTING SURVEY INFORMATION OBTAINED FROM DIGITAL DRAWING FILE SUPPLIED BY ARCHITECT AND USED IN GOOD FAITH.

THE CONTRACTOR IS HELD RESPONSIBLE TO VERIFY ALL DIMENSIONS AND GRADES SHOWN AND THEIR RELATIONSHIP TO EXISTING SITE CONDITIONS. HE TO REPORT ANY DISCREPANCIES TO THE ARCHITECT FOR REVISION PRIOR TO PROCEEDING WITH WORK.

REFER TO LANDSCAPE ARCHITECT DRAWING FOR SITE GRADES AND LAYOUT.

PLOT DATE: 8–Apr–13

New Nouveau Brunswick

Department of Transportation and Infrastructure
Ministère des Transports et de l'Infrastructure

Buildings Division
Division des Bâtiments

Consultant Expert-conseil

architects 4
18 Botsford St.
Moncton, NB
E1C 4W7
tel.: 506 857 8601
fax.: 506 856 9729

ROY CONSULTANTS
548, av. King Ave.
Bathurst (NB) E2A 1P7
T: 506.546.4484
www.royconsultants.ca

General notes Notes générales

RE-ISSUED FOR TENDER	2	APR 8, 13
ISSUED FOR TENDER	1	MAR 01,13
Revisions / Révisions	No/Nº	Date

Project Title Titre du projet

60 BED NURSING HOME

VILLA MARIA
ST. LOUIS-DE-KENT, NB

Sheet title Titre de la feuille

SITE SERVICES

Date / Date	OCT. 29, 2012
Scale / Échelle	1:500
Drawn by / Dessiné par	M. RICHARD
Approved by / Approuvé par	B. COMEAU
Consultant reference number / Numéro de référence de l'expert-conseil	A1221

Stamp Sceau

LICENSED PROFESSIONAL ENGINEER
Province of New Brunswick
#M4804
Bruce Comeau
April 8, 2013
Province du Nouveau-Brunswick
INGÉNIEUR IMMATRICULÉ

Project No. / Nº du projet	Sheet No. / Nº de la feuille
H32-NH7 Y0S94A	C-1

ROY No: 337-12-1-C1

Saint-Louis-de-Kent

Berceau du drapeau acadien

ZONAGE / ZONING

Village of / de

Saint-Louis

RÉSIDENTIEL / RESIDENTIAL

- (R-A) Unifamilial /Single family
- (R-B) Uni et bifamilial / One & two family
- (R-C) Multifamilial / Multiple family
- (R-D) Maison mobile / Mobile homes
- (R-E) Mixte / Mixed

INDUSTRIEL / INDUSTRIAL

- (I-A) Prestige
- (I-B) Léger / Light
- (I-C) Lourd / Heavy

COMMERCIAL

- (C-A) Voisinage / Neighbourhood
- (C-B) Quartier / District
- (C-C) Régional / Regional
- (C-D) Spécial / Special

COMMUNAUTAIRE / COMMUNITY

- (CU-A) Espace public / Public space
- (CU-B) Régional / Regional
- (CU-C) Spécial / Special

- (A) Agriculture

★ Rezonage / Rezoning

Mètres 100 0 500 Metres

Sources: Corporation dìnformation géographique du Nouveau-Brunswick.
New-Brunswick Geographic Information Corp.

Date: Janvier / January 2013

CDWQG = Canadian Drinking Water Quality Guideline

NBDOE Groundwater Chemistry Database

Parameter	ALK_T (mg/L)	Al (mg/L)	As (µg/L)	B (mg/L)	Ba (mg/L)	Br (mg/L)	COND (µSIE/cm)	Ca (mg/L)	Cd (µg/L)
	166	0.048	1.5	0.16	0.044	0.1	378	2.16	0.5
	152	0.086	1.5	0.145	0.044	0.1	410	2.18	0.5
	159	0.025	1.5	0.159	0.047	0.1	352	2.51	0.5
	138	0.025	1	0.101	0.094		314	12.7	0.1
	123	0.025	1.5	0.2	0.288	0.1	265	45.8	0.5
	169	0.099	1.5	0.088	0.036	0.289	620	2.91	0.5
	152	0.025	1	0.2	0.058		344	5.58	0.1
	166	0.025	1	0.2	0.05	0.1	379	2.13	0.1
	144	0.025	1.5	0.2	0.046	0.1	401	2.14	0.5
	162	0.178	1.5	0.166	0.054	0.135	372	2.4	0.5
	143	0.044	1.5	0.179	0.053	0.172	354	2.69	0.5
	147	0.049	1.5	0.163	0.025	0.1	363	2.43	0.5
Mean	**151.8**	**0.055**	**1.4**	**0.163**	**0.070**	**0.1**	**379**	**7.1**	**0.4**
CDWQG			**<10**	**<5.0**	**<1.0**				**<5.0**

Parameter	Cl (mg/L)	Cr (µg/L)	Cu (µg/L)	E_coli P/A (P/A)	F (mg/L)	Fe (mg/L)	HARD (mg/L)	K (mg/L)	Mg (mg/L)
	3.46	11	10	Ab	1.01	0.134	6.56	0.85	0.28
	29.7	15	10	Ab	0.909	**1.76**	6.39	0.8	0.23
	4.47	10	10	Ab	0.877	0.01	7.13	0.8	0.21
	6.69	7	9	Ab	0.501	0.182	38.3	1.35	1.61
	5.14	12	10	Ab	0.1	**0.527**	125.9	0.716	2.8
	57.4	12	10	Ab	0.838	0.15	7.87	0.72	0.15
	6.9	20	10	Ab	0.723	0.061	16.8	1.11	0.693
	4.4	20	10	Ab	0.955	**0.302**	6	0.75	0.177
	9.14	13	10	Ab	0.914	0.05	6.12	0.528	0.2
	6.35	10	10	Ab	0.954	**0.708**	7.84	1.04	0.447
	4.13	10	10	Ab	0.843	0.105	7.85	1.08	0.273
	4.93	10	10	Ab	0.949	0.214	7	0.796	0.234
Mean	**11.9**	**13**	**10**		**0.80**	**0.350**	**20.3**	**0.88**	**0.61**
CDWQG	**<250**	**<50**	**<1000**		**<1.5**	**<0.3**			

CDWQG = Canadian Drinking Water Quality Guideline

NBDOE Groundwater Chemistry Database

Parameter	Mn (mg/L)	NO2 (mg/L)	NO3 (mg/L)	NOX (mg/L)	Na (mg/L)	PH (pH)	Pb (µg/L)	SO4 (mg/L)	Sb (µg/L)
	0.017	0.05	0.05	0.05	82.2	8.74	1	23.2	1
	0.12	0.05	0.05	0.05	94.9	8.87	1	21.3	1
	0.009	0.05	0.05	0.05	80.4	8.88	1	20	1
	0	0.05	0	0.05	54.8	8.53	1	13.3	1
	0.866	0.05	0	0.05	7.23	8	1.9	4.21	1
	0.012	0.05	0.05	0.05	131	8.92	1	25.4	1
	0.01	0.05	0	0.05	77.7	8.74	1	17.8	1
	0.013	0.05	0	0.05	81.2	7.62	1	27.3	1
	0.0082	0.05	0.05	0.05	80.2	8.78	1.15	24.4	1
	0.012	0.05	0.05	0.05	86.9	8.84	1	24.6	1
	0.0094	0.05	0.05	0.05	81	8.84	1	21.3	1
	0.014	0.05	0.05	0.05	85.9	8.89	1	22.9	1
Mean	**0.091**	**0.05**	**0.03**	**0.05**	**78.62**	**8.64**	**1.1**	**20.48**	**1.0**
CDWQG	**<0.05**	**<10**	**<10**	**<10**	**<200**	**6.5-8.5**	**<10**	**<500**	

Parameter	Se (µg/L)	TC-P/A (P/A)	TURB (NTU)	Tl (µg/L)	U (µg/L)	Zn (µg/L)	TDS (mg/L)
	1.5	Ab	3.31	1	0.5	5	213
	1.5	Ab	9.66	1	0.5	5	243
	1.5	Ab	0.14	1	0.5	5	205
		Pr	1.7	1		6	
	1.5	Ab	2.5	1		15	
	1.5	Ab	4.73	1	0.6	5	320
	1	Ab	1.6	1		10	
	1	**Pr**	2.1	1		10	
	1.5	**Pr**	0.3	1		6	204
	1.5	Ab	16.6	1	0.5	31	221
	1.5	Ab	0.9	1	0.5	5	198
	1.5	Ab	1.9	1	0.5	5	207
Mean	**1.4**		**3.8**	**1**	**0.5**	**9**	**226**
CDWQG			**<1.0**		**<20**	**<5000**	**<500**

New Brunswick / Nouveau-Brunswick

DEPARTMENT OF ENVIRONMENT

WATER WELL DRILLER'S REPORT

00032172

OFFICE USE ONLY	HEALTH CODE	LAB NO.	SAMPLE RECEIVED DATE
FIELD NO.	HEALTH OFFICE	EVENT NO.	YR MO DAY

SAMPLE RECEIVED BY:

TESTING VOUCHER INFORMATION — **MANDATORY FOR WATER TEST**

SEE BACK FOR DETAILS **PLEASE PRINT**

INFORMATION INCLUDED HEREIN SHOULD BE THE WELL OWNER AT TIME OF SAMPLING

FIRST NAME | LAST NAME

ADDRESS (MAIL RESULTS TO:)

CITY/TOWN/VILLAGE | PROV. | POSTAL CODE

DAYTIME PHONE | FAX NO.

TEL. NO. | SAMPLE COLLECTED YR MO DAY HR MIN AM PM

DO YOU NEED A SAMPLE FOR YOUR MORTGAGE?

IF YOU WISH THE RESULTS TO BE RELEASED TO A MORTGAGE INSTITUTION PLEASE INCLUDE THE FOLLOWING CONTACT INFORMATION:

SEE BACK FOR DETAILS

ATTENTION OF:

TEL NO. | FAX NO.

SIGNATURE OF WELL OWNER

WAS THE COST OF THIS WELL FINANCED BY NB HOUSING?

YES ☐ NO ☑

WELL / WATER USE:

INDUSTRIAL	☐	ABANDONED	☐	DOMESTIC	☑
EXPLORATORY	☐	MUNICIPAL	☐	MONITORING	☐
HEAT PUMP	☐	OBSERVATION	☐	OTHER	☐

TYPE OF WORK COMPLETED: NEW WELL ☑ DEEPENED ☐

OTHER: _____

METHOD:

CABLE TOOL ☐ ROTARY ☑ OTHER _____

CASING INSTALLED:

LENGTH OF CASING ABOVE GROUND: 2 FT. 0 IN.

STEEL: 8 5/8 IN DIAM. FROM 0 FT. TO 82 FT.

PVC: _____ IN DIAM. FROM _____ FT. TO _____ FT.

SLOTTED 6 5/8 IN DIAM. FROM 21 FT. TO 250 FT.

SCREENS: TYPE: ____ SLOT SIZE _____

_____ IN DIAM. FROM _____ FT. TO _____ FT.

DRIVE SHOE: YES ☑ NO ☐

SETBACKS: SEE BACK FOR DETAILS

SEPTIC TANK (1) * FT.

SEPTIC TANK (2) _____ FT. FIELD (2) _____ FT. FIELD (1) * FT.

*RIGHT OF WAY OF ANY PUBLIC ROAD ☐ (1) _____ ROAD (2) _____

CENTER OF ROAD ☐ (1) _____ (2) _____

SETBACKS MEASURED * (NEW CONSTRUCTION)

APPROXIMATE SETBACKS AS INDICATED BY HOMEOWNER _____ (EXISTING CONST.)

FLOWING WELL? YES ☐ NO ☑ IF YES - RATE: _____ igpm (approx.)

AQUIFER TEST: METHOD: AIR ☑ BAILER ☐ PUMP ☐

INITIAL WATER LEVEL: 48 FT BELOW TOP OF CASING

PUMPING RATE 100 igpm DURATION: 1 hrs. 0 min.

FINAL WATER LEVEL: 48 FT. BELOW TOP OF CASING

ESTIMATED SAFE YIELD: 100 igpm

WELL GROUTED? YES ☐ NO ☑

FROM _____ FT. TO _____ FT. GROUT TYPE: _____

DRILLING FLUIDS USED: YES ☐ NO ☑

TYPE: _____

P.I.D. NO. 25012402 | **WELL I.D. NO.** 0050340

WELL OWNER INFORMATION

INFORMATION INCLUDED HEREIN SHOULD BE THE WELL OWNER AT TIME OF DRILLING

FIRST NAME Architect's Four Limited | LAST NAME

ADDRESS 18 Botsford Street, Suite 100

CITY/TOWN/VILLAGE Moncton NB | PROVINCE | POSTAL CODE E1C 4W7

WELL LOCATION: SAME AS ABOVE ..... OR

CIVIC NUMBER STREET NAME

Villa Maria Inc.

CITY/TOWN/VILLAGE Saint-Louis de Kent | WELL PAID FOR BY PROVINCIAL DEPT. OF _____

WELL ON RESERVE? YES ☐ NO ☑ | WELL ALREADY TAGGED? YES ☐ NO ☑ | OLD WELL I.D.

DRILLER'S LOG *

FROM (FT.)	TO (FT.)	COLOUR	ROCK TYPE
Ground Level	10	Brown	Overburden
10	32	Brown	Sand stone (soft)
32	46	Brown	Shale Clay
46	52	Grey	Sand stone
52	77	Brown	Shale Clay
77	97	Grey	Sand Stone
97	99	Grey	Shale
99	119	Grey	Sand stone
119	161	Brown	Shale Clay
161	242	Grey	Sand Stone
242	295	Brown	Shale Clay
295	350	Grey	Sand Stone

IF INSUFFICIENT SPACE PLEASE USE ADDITIONAL SHEETS

TOTAL WELL DEPTH: 350 FT. DEPTH TO BEDROCK: 77 FT.

WATER BEARING 1 5 igpm AT 46-52 FT. 2 85 igpm AT 90 FT.

FRACTURE ZONES: 3 30 igpm AT 228 FT. 4 20 igpm AT 305 FT.

PUMP INSTALLATION: INSTALLED ☐ NOT INSTALLED ☑

PUMP INTAKE SETTING: _____ FT. BELOW TOP OF CASING (Recommended)

PUMP TYPE: SUBMERSIBLE ☐ JET ☐ TURBINE ☐

OTHER _____

WELL DISINFECTED? YES ☑ NO ☐

TYPE Chlorine Tablets

DRILLER'S COMMENTS City Sewer

DRILLING COMPANY: Eastern Well Drillers Ltd.

COMPLETION DATE: 13 09 10 (YR. MO. DAY) LICENSE NO. 67

G.P.S. (OPTIONAL)

I CERTIFY THAT THE WELL HEREIN DESCRIBED HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE WATER WELL REGULATION UNDER THE NEW BRUNSWICK CLEAN WATER ACT.

Signature of Driller _____ Signature of Helper _____

WHITE - NB DENV
BLUE - Homeowner / Voucher
YELLOW - Homeowner
PINK - Drilling Company

KEEP THIS REPORT WITH YOUR IMPORTANT DOCUMENTS

Villa Maria

500 meter radius

Well Depth (Feet)	**Estimated Yield** (igpm)	**Depth to Bedrock** (Feet)	**Casing Length** (Feet)
105	16	3	80
113	12	70	80
127	24	15	96
123	24	10	95
74	24	5	31
127	50	20	80
90	20	30	
100	24	3	67
120	12	0	94
127	8	18	88
55	24	3	35
125	10	72	75
120	15	2	97
128	16	0	97
Well Depth (Feet)	**Estimated Yield** (igpm)	**Depth to Bedrock** (Feet)	**Casing Length** (Feet)

Median	120	18	7.5	80	Median
average	109.6	19.9	17.9	78.1	AVERAGE
max	128	50	72	97	max
min	55	8	0	31	min
count	14				

New Nouveau Brunswick

Environment

Report Number **695**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well	Cable Tool	07/16/2002

Casing Information

Casing above ground 1ft 6in — Drive Shoe Used? Yes

Well Log	Casing Type	Diameter	From	End	Slotted?
695	Steel	6 inch	0ft	80ft	

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Bailer	40ft *(BTC - Below top of casing)*	16 igpm	1hr	44ft	16 igpm	No	0 igpm

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Bleach (Javex)
Qty 12.0 ig

Pump Installed
N/A
Intake Setting (BTC)
0ft

Driller's Log

Well Log	From	End	Colour	Rock Type
695	0ft	3ft	Brown	Topsoil
695	3ft	35ft	Brown	Fine Sandstone
695	35ft	76ft	Red	Clay
695	76ft	105ft	Grey	Medium Sandstone

Overall Well Depth
105ft

Bedrock Level
0ft

Water Bearing Fracture Zone

There is no water bearing fracture zone information.

Setbacks

Well Log	Distance	Setback From
695	65ft	Septic Tank
695	75ft	Leach Field
695	100ft	Right of any Public Way Road

New Nouveau Brunswick

Environment

Report Number **2086**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well	Rotary (6)	06/10/2002

Casing Information

Casing above ground 0ft — Drive Shoe Used? Yes

Well Log	Casing Type	Diameter	From	End	Slotted?
2086	**Steel**	**5 inch**	**0ft**	**80ft**	

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Air	37ft	12 igpm	1hr	37ft	12 igpm	No	0 igpm
	(BTC - Below top of casing)						

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
N/A

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
0ft

Driller's Log

Well Log	From	End	Colour	Rock Type
2086	**0ft**	**70ft**	**Red**	**Clay**
2086	**70ft**	**113ft**	**Grey**	**Stone**

Overall Well Depth
113ft

Bedrock Level
70ft

Water Bearing Fracture Zone

Well Log	Depth	Rate
2086	**113ft**	**12 igpm**

Setbacks

There is no Setback information.

New Nouveau Brunswick

Environment

Report Number **11811**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well	Rotary	08/10/2005

Casing Information

Casing above ground 1ft 6in — Drive Shoe Used? Yes

Well Log	Casing Type	Diameter	From	End	Slotted?
11811	**Steel**	**6 inch**	**0ft**	**96ft**	

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Air	70ft	24 igpm	1hr	15ft	24 igpm	No	0 igpm
	(BTC - Below top of casing)						

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Bleach (Javex)
Qty 1.0 ig

Pump Installed
N/A
Intake Setting (BTC)
0ft

Driller's Log

Well Log	From	End	Colour	Rock Type
11811	**0ft**	**3ft**	**Brown**	**Topsoil**
11811	**3ft**	**15ft**	**Brown**	**Fill**
11811	**15ft**	**52ft**	**Brown**	**Medium Sandstone**
11811	**52ft**	**62ft**	**Red**	**Clay**
11811	**62ft**	**82ft**	**Red**	**Sandstone**
11811	**82ft**	**94ft**	**Red**	**Clay**
11811	**94ft**	**100ft**	**Red**	**Sandstone**
11811	**100ft**	**127ft**	**Grey**	**Sandstone**

Overall Well Depth
127ft

Bedrock Level
0ft

Water Bearing Fracture Zone

Well Log	Depth	Rate
11811	**100ft**	**5 igpm**
11811	**127ft**	**24 igpm**

Setbacks

Well Log	Distance	Setback From
11811	**70ft**	**Septic Tank**
11811	**75ft**	**Leach Field**
11811	**70ft**	**Right of any Public Way Road**

New Nouveau Brunswick

Environment

Report Number **11833**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well	Cable Tool	11/01/2005

Casing Information

Casing above ground 2ft — Drive Shoe Used? Yes

Well Log	Casing Type	Diameter	From	End	Slotted?
11833	**Steel**	**6 inch**	**0ft**	**95ft**	

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Bailer	70ft	24 igpm	1hr	72ft	24 igpm	No	0 igpm
	(BTC - Below top of casing)						

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Bleach (Javex)

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
0ft

Driller's Log

Well Log	From	End	Colour	Rock Type
11833	**0ft**	**2ft**	**Brown**	**Topsoil**
11833	**2ft**	**10ft**	**Brown**	**Fill**
11833	**10ft**	**48ft**	**Brown**	**Medium Sandstone**
11833	**48ft**	**93ft**	**Red**	**Clay**
11833	**93ft**	**123ft**	**Grey**	**Sandstone**

Overall Well Depth
123ft

Bedrock Level
0ft

Water Bearing Fracture Zone

Well Log	Depth	Rate
11833	**40ft**	**5 igpm**
11833	**123ft**	**24 igpm**

Setbacks

Well Log	Distance	Setback From
11833	**100ft**	**Right of any Public Way Road**

New Nouveau Brunswick

Environment

Report Number **12626**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well	Cable Tool	06/20/2006

Casing Information

Casing above ground 1ft 4in — Drive Shoe Used? Yes

Well Log	Casing Type	Diameter	From	End	Slotted?
12626	**Steel**	**6 inch**	**0ft**	**31ft**	

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Bailer	12ft	24 igpm	1hr	12ft	24 igpm	No	0 igpm

(BTC - Below top of casing)

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Bleach (Javex)

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
0ft

Driller's Log

Well Log	From	End	Colour	Rock Type
12626	**0ft**	**5ft**	**Grey**	**Clay**
12626	**5ft**	**28ft**	**Grey**	**Sandstone**
12626	**28ft**	**74ft**	**Grey**	**Sandstone**

Overall Well Depth
74ft

Bedrock Level
5ft

Water Bearing Fracture Zone

Well Log	Depth	Rate
12626	**60ft**	**5 igpm**
12626	**74ft**	**24 igpm**

Setbacks

There is no Setback information.

New Nouveau Brunswick

Environment

Report Number **17374**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well	Rotary	10/07/2008

Casing Information

Casing above ground 1ft 6in — Drive Shoe Used? Yes

Well Log	Casing Type	Diameter	From	End	Slotted?
17374	**Steel**	**5 1/2 Inch**	**0ft**	**80ft**	

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Air	50ft	50 igpm	1hr	50ft	50 igpm	No	0 igpm

(BTC - Below top of casing)

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Bleach (Javex)

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
85ft

Driller's Log

Well Log	From	End	Colour	Rock Type
17374	**0ft**	**20ft**	**Red**	**Clay**
17374	**20ft**	**40ft**	**Brown**	**Sandstone**
17374	**40ft**	**79ft**	**Red**	**Clay**
17374	**79ft**	**127ft**	**Grey**	**Sandstone**

Overall Well Depth
127ft

Bedrock Level
20ft

Water Bearing Fracture Zone

Well Log	Depth	Rate
17374	**125ft**	**50 igpm**

Setbacks

There is no Setback information.

New Nouveau Brunswick

Environment

Report Number **32169**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well	Rotary	07/23/2013

Casing Information

Casing above ground 2ft | Drive Shoe Used? Yes

There is no casing information.

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Air	30ft	20 igpm	1hr	30ft	20 igpm	No	0 igpm
	(BTC - Below top of casing)						

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Chlorine pellets

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
0ft

Driller's Log

Well Log	From	End	Colour	Rock Type
32169	**0ft**	**5ft**	**Brown**	**Overburden**
32169	**5ft**	**30ft**	**Grey**	**Clay**
32169	**30ft**	**61ft**	**Grey**	**Sandstone**
32169	**61ft**	**90ft**	**Grey**	**Sandstone**

Overall Well Depth
90ft

Bedrock Level
0ft

Water Bearing Fracture Zone

Well Log	Depth	Rate
32169	**77ft**	**20 igpm**

Setbacks

Well Log	Distance	Setback From
32169	**63ft**	**Right of any Public Way Road**
32169	**86ft**	**Center of road**

New Nouveau Brunswick

Environment

Report Number **90002302**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well		01/01/1995

Casing Information — Casing above ground 0ft — Drive Shoe Used? Yes

There is no casing information.

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
	0ft	0 igpm	0hr	0ft	0 igpm	No	0 igpm
	(BTC - Below top of casing)						

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
N/A

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
0ft

Driller's Log

There is no rock layer information.

Overall Well Depth
0ft

Bedrock Level
0ft

Water Bearing Fracture Zone

There is no water bearing fracture zone information.

Setbacks

There is no Setback information.

New Nouveau Brunswick

Environment

Report Number **90013610**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well	Rotary	01/01/1999

Casing Information — Casing above ground 0ft — Drive Shoe Used? Yes

There is no casing information.

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Air	0ft	0 igpm	1hr	0ft	0 igpm	No	0 igpm
	(BTC - Below top of casing)						

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Bleach (Javex)

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
0ft

Driller's Log

There is no rock layer information.

Overall Well Depth
0ft

Bedrock Level
0ft

Water Bearing Fracture Zone

There is no water bearing fracture zone information.

Setbacks

There is no Setback information.

New Nouveau Brunswick

Environment

Report Number **90016006**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well	Rotary	01/01/2002

Casing Information — Casing above ground 0ft — Drive Shoe Used? Yes

There is no casing information.

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Air	0ft	0 igpm	1hr	0ft	0 igpm	No	0 igpm
	(BTC - Below top of casing)						

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Bleach (Javex)

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
0ft

Driller's Log

There is no rock layer information.

Overall Well Depth
0ft

Bedrock Level
0ft

Water Bearing Fracture Zone

There is no water bearing fracture zone information.

Setbacks

There is no Setback information.

New Nouveau Brunswick

Environment

Report Number **90232100**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well (NEW WELL)	Cable Tool (CABLE TOOL)	07/28/1995

Casing Information

Casing above ground 2ft — Drive Shoe Used? Yes

Well Log	Casing Type	Diameter	From	End	Slotted?
90232100	**Steel**	**5 1/2 Inch**	**1ft**	**67ft**	

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Bailer	30ft	18 igpm	1hr	50ft	24 igpm	No	0 igpm

(BTC - Below top of casing)

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Bleach (Javex)

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
0ft

Driller's Log

Well Log	From	End	Colour	Rock Type
90232100	**0ft**	**3ft**	**Brown**	**Topsoil**
90232100	**3ft**	**38ft**	**Brown**	**Fine Sandstone**
90232100	**28ft**	**55ft**	**Brown**	**Clay**
90232100	**55ft**	**75ft**	**Brown**	**Fine Sandstone**
90232100	**75ft**	**100ft**	**Brown**	**Medium Sandstone**

Overall Well Depth
100ft

Bedrock Level
0ft

Water Bearing Fracture Zone

Well Log	Depth	Rate
90232100	**75ft**	**10 igpm**

Setbacks

There is no Setback information.

New Nouveau Brunswick

Environment

Report Number **90588000**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well (NEW WELL)	Rotary (ROTARY)	06/12/1996

Casing Information

Casing above ground 1ft 6in Drive Shoe Used? Yes

Well Log	Casing Type	Diameter	From	End	Slotted?
90588000	**Steel**	**5 inch**	**0ft**	**94ft**	

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Air	68ft	15 igpm	1hr	69ft	12 igpm	No	0 igpm

(BTC - Below top of casing)

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
N/A

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
0ft

Driller's Log

Well Log	From	End	Colour	Rock Type
90588000	**0ft**	**46ft**	**Brown**	**Sandstone**
90588000	**46ft**	**90ft**	**Red**	**Clay**
90588000	**90ft**	**108ft**	**Brown**	**Sandstone**
90588000	**108ft**	**120ft**	**Grey**	**Sandstone**

Overall Well Depth
120ft

Bedrock Level
0ft

Water Bearing Fracture Zone

Well Log	Depth	Rate
90588000	**26ft**	**5 igpm**
90588000	**45ft**	**20 igpm**

Setbacks

There is no Setback information.

New Nouveau Brunswick

Environment

Report Number **91002600**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well (NEW WELL)	Rotary (ROTARY)	10/01/1997

Casing Information

Casing above ground 0ft — Drive Shoe Used? Yes

Well Log	Casing Type	Diameter	From	End	Slotted?
91002600	**Steel**	**5 inch**	**0ft**	**88ft**	

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Air	0ft	8 igpm	0hr	0ft	0 igpm	No	0 igpm

(BTC - Below top of casing)

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
N/A

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
88ft

Driller's Log

Well Log	From	End	Colour	Rock Type
91002600	**0ft**	**18ft**	**Red**	**Clay**
91002600	**18ft**	**42ft**	**Grey**	**Sandstone**
91002600	**42ft**	**47ft**	**Grey**	**Mud**
91002600	**47ft**	**86ft**	**Red**	**Clay**
91002600	**86ft**	**127ft**	**Grey**	**Sandstone**

Overall Well Depth
127ft

Bedrock Level
18ft

Water Bearing Fracture Zone

Well Log	Depth	Rate
91002600	**127ft**	**8 igpm**

Setbacks

There is no Setback information.

New Nouveau Brunswick

Environment

Report Number **91171400**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well (NEW WELL)	Cable Tool (CABLE TOOL)	07/14/1998

Casing Information

Casing above ground 1ft 6in — Drive Shoe Used? Yes

Well Log	Casing Type	Diameter	From	End	Slotted?
91171400	**Steel**	**5 1/2 Inch**	**1ft**	**35ft**	

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Bailer	18ft	24 igpm	1hr	24ft	24 igpm	No	0 igpm

(BTC - Below top of casing)

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Bleach (Javex)
Qty 1.0 ig

Pump Installed
N/A
Intake Setting (BTC)
0ft

Driller's Log

Well Log	From	End	Colour	Rock Type
91171400	**0ft**	**3ft**	**Brown**	**Topsoil**
91171400	**3ft**	**20ft**	**Brown**	**Fine Sandstone**
91171400	**20ft**	**30ft**	**Brown**	**Sand**
91171400	**30ft**	**55ft**	**Brown**	**Medium Sandstone**

Overall Well Depth
55ft

Bedrock Level
0ft

Water Bearing Fracture Zone

Well Log	Depth	Rate
91171400	**44ft**	**8 igpm**

Setbacks

There is no Setback information.

New Nouveau Brunswick

Environment

Report Number **91692200**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well (NEW WELL)	Rotary (ROTARY)	06/16/2000

Casing Information

Casing above ground 0ft — Drive Shoe Used? Yes

Well Log	Casing Type	Diameter	From	End	Slotted?
91692200	**Steel**	**5 inch**	**0ft**	**75ft**	

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Air	60ft	10 igpm	1hr	60ft	10 igpm	No	0 igpm

(BTC - Below top of casing)

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Bleach (Javex)
Qty 1.0 ig

Pump Installed
N/A
Intake Setting (BTC)
0ft

Driller's Log

Well Log	From	End	Colour	Rock Type
91692200	**0ft**	**72ft**	**Red**	**Clay and Gravel**
91692200	**72ft**	**125ft**	**Grey**	**Sandstone**

Overall Well Depth
125ft

Bedrock Level
72ft

Water Bearing Fracture Zone

Well Log	Depth	Rate
91692200	**125ft**	**10 igpm**

Setbacks

There is no Setback information.

New Nouveau Brunswick

Environment

Report Number **91962500**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well	Rotary	09/18/2000

Casing Information

Casing above ground 2ft — Drive Shoe Used? Yes

Well Log	Casing Type	Diameter	From	End	Slotted?
91962500	**Steel**	**6 inch**	**0ft**	**97ft**	

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Air	0ft	15 igpm	1hr	76ft	15 igpm	No	0 igpm

(BTC - Below top of casing)

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
N/A

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
0ft

Driller's Log

Well Log	From	End	Colour	Rock Type
91962500	**0ft**	**2ft**	**Brown**	**Overburden**
91962500	**2ft**	**8ft**	**Brown**	**Soft Sandstone**
91962500	**8ft**	**54ft**	**Grey**	**Sandstone**
91962500	**54ft**	**95ft**	**Brown**	**Clay and Shale**
91962500	**95ft**	**120ft**	**Grey**	**Sandstone**

Overall Well Depth
120ft

Bedrock Level
0ft

Water Bearing Fracture Zone

Well Log	Depth	Rate
91962500	**96ft**	**5 igpm**
91962500	**114ft**	**10 igpm**

Setbacks

There is no Setback information.

New Nouveau Brunswick

Environment

Report Number **92423000**

Well Driller's Report

Date printed 2013/10/24

Drilled by

Well Use	Work Type	Drill Method	Work Completed
Drinking Water, Domestic	New Well	Cable Tool	06/27/2001

Casing Information

Casing above ground 1ft 6in — Drive Shoe Used? Yes

Well Log	Casing Type	Diameter	From	End	Slotted?
92423000	**Steel**	**5 1/2 Inch**	**0ft**	**97ft**	

Aquifer Test/Yield

Method	Initial Water Level (BTC)	Pumping Rate	Duration	Final Water Level (BTC)	Estimated Safe Yield	Flowing Well?	Rate
Bailer	82ft	16 igpm	1hr	87ft	16 igpm	No	0 igpm
	(BTC - Below top of casing)						

Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Bleach (Javex)
Qty 1.0 ig

Pump Installed
N/A
Intake Setting (BTC)
110ft

Driller's Log

Well Log	From	End	Colour	Rock Type
92423000	**95ft**	**128ft**	**None**	**None**
92423000	**0ft**	**1.2in**	**Brown**	**Topsoil**
92423000	**1.2in**	**3ft**	**Brown**	**Fine Sandstone**
92423000	**3ft**	**15ft**	**Brown**	**Medium Sandstone**
92423000	**15ft**	**58ft**	**Red**	**Clay**
92423000	**58ft**	**95ft**	**Grey**	**Sandstone**

Overall Well Depth
128ft

Bedrock Level
0ft

Water Bearing Fracture Zone

Well Log	Depth	Rate
92423000	**105ft**	**6 igpm**

Setbacks

There is no Setback information.