

Application under the Agricultural Operation Practices Act for a confined feeding operation, manure collection area, and/or manure storage facility(les)

NRCB USE ONLY	Application number		nd description
Approval Registration Authorization	LA25064	SW 26-	11-23 W4M
Amendment			
APPLICATION DISCLOSURE			
This information is collected under the authority of the Agric provisions of the Freedom of Information and Protection of I written request that certain sections remain private.	cultural Operation Practices Act Privacy Act. This information is p	(AOPA), and is suppublic unless the	ubject to the NRCB grants a
Any construction prior to obtaining an NRCB permit is prosecution.			
I, the applicant, or applicant's agent, have read and underst provided in this application is true to the best of my knowled	tand the statements above, and dge.	I acknowledge f	hat the Information
08-072025.			
Surviview Farms Ltd.	Signature	n Vana	lculæng/
Corporate name (if applicable)	Print name		
GENERAL INFORMATION REQUIREMENTS	,		
Proposed facilities: list all proposed confined feeding op		nsions. Indicate	whether any of the
proposed facilities are additions to existing facilities. (attack) Proposed facilities	ch additional pages ir needed)	Di	mensions (m)
Proposed facilities		(length	, width, and depth)
AO note: This compermitted in App	atch basin was already proval LA25040	30m	×20 m × 3,3
4 shelters.		301×	130'
b corals		80'x	96'
4 corals.			x96'
O note: Approval LA25040 permitted nine feedlo onstruct an additional two shelters and an additional shelters	ot pens and two shelters. onal pen and to amend the	This application dimensions	n seeks to of all permitted pens
existing facilities: list ALL existing confined feeding open	ration facilities and their dimen	sions	
existing facilities	Dimension		NRCB USE ONLY
	(length, width,	and depth)	
DOD HOT THE			
RCB USE ONLY			

NF anirements NF	RCB Conservation of the standard of the standa
Part 2 — Technical Requirements Application under the Agricultural Operation Practices Act for a confined feeding operation, manure collection area, and/or manure collection area, and/o	Ity and when
Part 2 — Technical Operation Practices Act for a confined feeding operation under the Agricultural Operation Practices Act for a confined feeding operation what will happen to the old facility a new facility is replacing an old facility, please explain what will happen to the old facility and facility is replaced an old facility.	ity and when.
If a new facility is replacing an old facility, preserving	4
	The second section is a second second
	The second second
Construction completion date for proposed facilities	
2 years for number 1,2, and 3,0	und
	Manual Line of Street,
4 years for number \$24	
1 -13 vor homeser &	and age borrown

Livestock numbers: Complete only if livestock numbers are different from what was identified in the Part 1 application. Note: if livestock numbers increase in your Part 2 application, a new Part 1 application must be submitted which may result in a loss of priority for minimum distance separation (MDS).

Livestock category and type (Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	Proposed increase or decrease in number (if applicable)	Total
	1 1 1		To An Order Lanes
			and the second

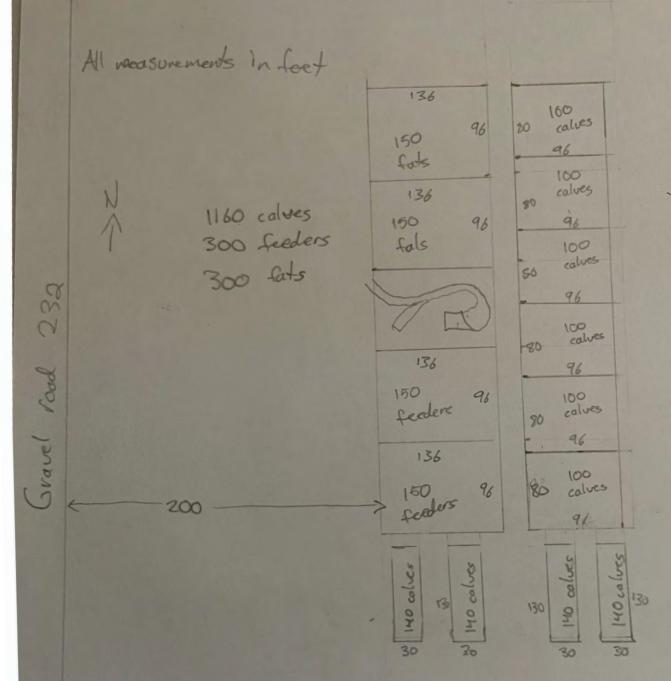


Application under the Agricultural Operation Practices Act for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

DECLARATION AND ACKNOWLEDGMENT OF APPLICANT CONCERNING WATER ACT LICENCE Issued by Alberta Environment and Protected Areas (EPA) for a confined feeding operation (CFO)

Date and sign one of the following four options

	ermit application.
Signed this 16 day of May 2025.	
Signed this	icant or Agent
OPTION 2: Processing the AOPA permit and Water Act licens	e separately
 I (we) acknowledge that the CFO will need a new water licence development or activity proposed in this AOPA application. 	from EPA under the Water Act for the
 I (we) request that the NRCB process the AOPA application inc CFO's application for a water licence. 	lependently of EPA's processing of the
 In making this request, I (we) recognize that, if this AOPA app NRCB's decision will not be considered by EPA as improving or water licence under the Water Act. 	
 I (we) acknowledge that any construction or actions to populat AOPA permit in the absence of a Water Act licence will <u>not</u> be 	
whether to grant the Water Act licence application. I (we) acknowledge that any such construction or livestock population acknowledge that any such construction or livestock population with the Water Act licence application is denied or if the operation of violation of the Water Act. This risk includes being required to further construction, or to remove "works" or "undertakings" (of the CFO is otherwise deemed to be in depopulate the CFO and/or to cease
The state of the s	
as RELEVANT: I (we) acknowledge that the CFO is located in and that, pursuant to the Bow, Oldman and South Saskatchew [Alta. Reg. 171/2007], this basin is currently closed to new su	an River Basin Water Allocation Order
AS RELEVANT: I (we) acknowledge that the CFO is located in and that, pursuant to the Bow, Oldman and South Saskatchew [Alta. Reg. 171/2007], this basin is currently closed to new sure. Provide: Water licence application number(s)	an River Basin Water Allocation Order
 AS RELEVANT: I (we) acknowledge that the CFO is located in and that, pursuant to the Bow, Oldman and South Saskatchew 	an River Basin Water Allocation Order



AO note: Approval LA25040 permitted the new CFO 250' from Range Road 232. This application seeks to amend the location of the CFO 50' to the west to 200' from the road.





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Existing: Proposed 1: Coralls + Skelfers + Catchb								
Proposed 2: Proposed 3:								
Facility and environmental risk			Facilities			NRCB USE ONLY		
	information		Proposed 1	Proposed 2	Proposed 3	Meets requirements	Comments	
Flood plain Information	What is the elevation of the floor of the lowest manure storage or collection facility above the 1:25 year flood plain or the highest known flood level?	□ >1 m □ ≤1 m	N >1 m □ ≤1 m		□ > 1 m □ ≤ 1 m	☐ YES ☐ NO ☐ YES with exemption		
.	How many springs are within 100 m of the manure storage facility or manure collection area?		0			YES NO YES with exemption		
Surface water Information	How many water wells are within 100 m of the manure storage facility or manure collection area?		0			YES NO YES with exemption		
Sur	What is the shortest distance from the manure collection or storage facility to a surface water body? (e.g., lake, creek, slough, seasonal)		1464 m			YES NO YES with exemption		
vater	What is the depth to the water table?		Secattoche	<i>l</i> .		YES NO YES with exemption		
Groundwater	What is the depth to the groundwater resource/aquifer you draw water from?		M4			YES NO YES with exemption		

Additional information (attach supporting information, e.g. borehole logs, records, etc. you consider relevant to your application)



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DISTANCE OF ANY MANURE STORAGE FACILITY (EXISTING OR PROPOSED) TO NEIGHBOURING RESIDENCES

	•		THE RESIDENCE	THE STATE OF THE STATE OF	NRCB USE ON	LY	
Neighbour name(s)	Legal land description	Distance (m)	Zoning (LUB) category	MDS category (1-4)	Distance (m)	Waiver attached (if required)	Meets regulations
		1095					
②		1620					
						(2) 9 (4) 2 - 1	

LAND BASE FOR MANURE AND COMPOST APPLICATION (complete only if an increase in livestock or manure production will occur)

				NRCB US	SE ONLY
Name of land owner(s)*	Legal land description	Usable area** (ha)	Soll zone ***	Usable area (ha)	Agreement attached (if required)
Sonnyview Farms Itd.	SW 26-11-23 WY	155 acres	Idao k brown.		
		1	Total		

^{*} If you are not the registered landowner, you must attach copies of land use agreements signed by all landowners.

Additional information (attach any additional information as required)

^{**} Available manure spreading area (excluding setback areas from residences, common bodies of water, water wells, etc. as identified in Agdex 096-5 Manure Spreading Regulations)

^{***} Brown, dark brown, black, grey wooded, or Irrigated

Manure Spreading Agreement

This agreement is between So	manure receive	manure producer, and	
	ement is valid for a time period of		
Legal land location	Soil type ¹	Acres suitable for manure spreading ²	-
NW 26-11-23 W4	Brown	135	
¹ Soil type choices: Dark brown and brow ² Land within required setbacks from war Other comments:	wn, Grey wooded, Black, Irrigated. ter bodies, water wells, residences, etc. is n	ot to be included.	
Manure producer (Confined Feed	ling Operation) Legal Land Location	SW 26-11-23 W4	
05-22/2025 Date of signing	Josephan Van Print name	Corporate name(if appl)	
Manure Receiver – Landowner(s) May 22/25 Date of signing //Signature	EO NEELS	VARIETY FARMS Corporate name(if appl)	INC
Date of signing Signature 3 All registered owners of land, or author		Corporate name(if appl)	



Application under the Agricultural Operation Practices Act for a confined feeding operation, manure collection area and/or manure storage facility(les)

a rationary occurring	this section for	ative lever	MATERIALS: Barns, feedlot torage facility for solid manure, com	
Facility description	/ name (as	indicated on site plan)	1. coralls +shelter	~
			2	
Manure storage cap	acity			
Length (m)feet	Width (pr) feet	Depth below ground level (m)	NRCB USE ONLY Estimated storage capacity (m³)
1. 480 232		000		
2.				
			TOTAL CAPACITY	
catch bo	eposed	orea will	be well sloped.	towards the
			be well sloped.	towards the
aturally occurring	report.		be well sloped. Provide details (as required)	towards the
catch be aturally occurring protective in	report.			towards the
aturally occurring	report.	yer detalls		
aturally occurring See attached Inickness of naturally occurring protective li	protective la	yer details(m)	Provide details (as required)	
Soil texture Hydraulic conductivi - naturally occurring protective layer	ayer Depth	(m)	Provide details (as required)	% clay

Last updated February 28, 2021



15 May 2025

J Lobbezoo Engineering & Consulting Services Ltd.

PO Box 96, Monarch, AB T0L1M0

JLECS File: P25046

Sunnyview Farms Ltd PO Box 151 Nobleford, AB TOL 1S0

Attention: Mr. Jonathan Vandenberg

Re: Geotechnical Review and Evaluation

NRCB Permitting of Pens & Catch Basin SW-26-011-23-W4M, near Nobleford, Alberta

As requested, J Lobbezoo Engineering & Consulting Services Ltd. (JLECS) has carried out a geotechnical review and evaluation of the above-captioned site relative to the required protection of the groundwater resource, as required by the Agricultural Operation Practices Act, AB Reg. 267/2001 (hereinafter referred to as "AOPA"). This letter describes the site soil conditions to support a permit application related to a series of proposed pens and a proposed catch basin at the above captioned site (refer to Figure 1, attached).

In order to demonstrate the suitability of the naturally existing soils for consideration as a naturally occurring protective layer to the groundwater resource, six boreholes were advanced at the site on April 15, 2025. The boreholes were advanced at the approximate locations denoted as JV1-25 to JV6-25 on Figure 1, attached.

The boreholes were advanced by a truck-mounted drill rig owned and operated by Chilako Drilling Services and extended to depths of 3.4 m to 6.8 m below the existing grade. The boreholes were logged by Larry Delong of Chilako Drilling Services.

In general, the natural mineral soils encountered in the boreholes consisted of minor lacustrine clay and silty clay loam soils overlying stiff, medium plastic clay till, overlying mudstone/claystone below depths of 1.5 m to 4.6 m. In addition to the clay soils and mudstone, it is noted that localized occurrences of sandy clay loam were encountered in several of the boreholes. In just one borehole (JV5-25), groundwater seepage was encountered in the claystone layer at approximately 5.8 m depth. No groundwater resource (as defined by the AOPA) was encountered within the upper 5.8 m at this site.

Samples of soil collected from the screened zones of boreholes JV1-25 and JV4-25, as well as samples from similar depths at the other boreholes were all subjected to grain size analyses, which was carried out by Down to Earth Laboratories in Lethbridge, Alberta. The lab report is attached, for reference. The results indicate a soil texture breakdown of:



Sunnyview Farms Ltd.
Geotechnical Review & Evaluation, SW-26-011-23-W4M, near Nobleford, AB 15 May 2025
Page 2

Table 1: Soil Texture Analyses

Borehole/Depth	% Sand	% Silt	% Clay
JV1-25 / 4.0 – 4.5 m	26	45	29
JV2-25 / 1.0 – 1.5 m	28	16	56
JV3-25 / 2.7 – 3.4m	18	41	41
JV4-25 / 5.6 – 6.5m	16	42	42
JV5-25 / 6.0 – 6.8m	22	40	38
JV6-25 / 5.5 – 6.0m	40	35	25
Average:	25	37	39

To measure the *in situ* permeability of the subsurface soils, 50 mm diameter PVC monitoring wells were constructed in boreholes JV1-25 (pen area) and JV4-25 (catch basin). Test well JV1-25 was screened from 2.7 m to 4.5 m depth while test well JV4-25 was screened from 3.3 m to 6.6 m depth. Well saturation of the 50 mm diameter monitoring wells was carried out by filling the monitoring wells to the top for several consecutive days. After several days of testing, a 24-hour water drop of 0.94 m was determined at JV1-25, and a 24-hour water drop of 0.50 m was determined at JV4-25.

To calculate the permeability of the screened portion of the clay strata at the test well location, a modified falling head test (as outlined in the USBR Engineering Geology Field Manual Volume 2 [2001]) was used. The input variables and output data are outlined on the attached In Situ Permeability Test reports. The results of the permeability testing indicated an *in situ* hydraulic conductivity (k_s) of 1.0×10^{-7} cm/s at JV1-25, and an *in situ* hydraulic conductivity (k_s) of 2.2×10^{-8} cm/s at JV4-25.

Using the measured permeability of the clay at this site, the 1.8 m of clay and claystone screened at test hole JV1-25 is estimated to represent the equivalent of about 18 m of naturally occurring materials having a hydraulic conductivity of 1 x 10^{-6} cm/s (the reference standard in AOPA). At test hole JV-25, the 3.3 m of screened claystone is estimated to represent the equivalent of over 100 m of naturally occurring materials having a hydraulic conductivity of 1 x 10^{-6} cm/s. This represents natural material protection in excess of the minimum requirements outlined by the AOPA for catch basins (minimum 5 m, Section 9.5-b) and solid manure storage (minimum 2 m, Section 9.5-c).

Sunnyview Farms Ltd.
Geotechnical Review & Evaluation, SW-26-011-23-W4M, near Nobleford, AB 15 May 2025
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Conclusion

Based on the results of the current investigation, permeability testing, and our understanding of the site and development at the site, it is JLECS's opinion that the naturally occurring materials at the site satisfy the AOPA requirements for permitting the proposed pens and catch basin at this location.

Notwithstanding, it is noted that the localized occurrences of sandy clay loam soils were noted in the area of the proposed catch basin. Any exposed sandy loam soils in the catch basin excavation would require removal from the side slopes and/or base area at the time of construction, and reconstruction of these pockets using low permeable clay soils would be required. The existing clay, clay till, and mudstone/claystone soils encountered are all considered suitable for the side slope or base reconstruction.

We trust that this report satisfies your present requirements. Should you have any questions, please contact the undersigned at your convenience.

Yours truly,

J Lobbezoo Engineering & Consulting Services Ltd.

John Lobbezoo, P.Eng.
Principal Geotechnical Engineer

Attachments

Figure 1 Borehole Locations
In Situ Permeability Test Calculations
Down to Earth Soil Texture Results
Soil Profile and Parent Material Description, Chilako Drilling Services



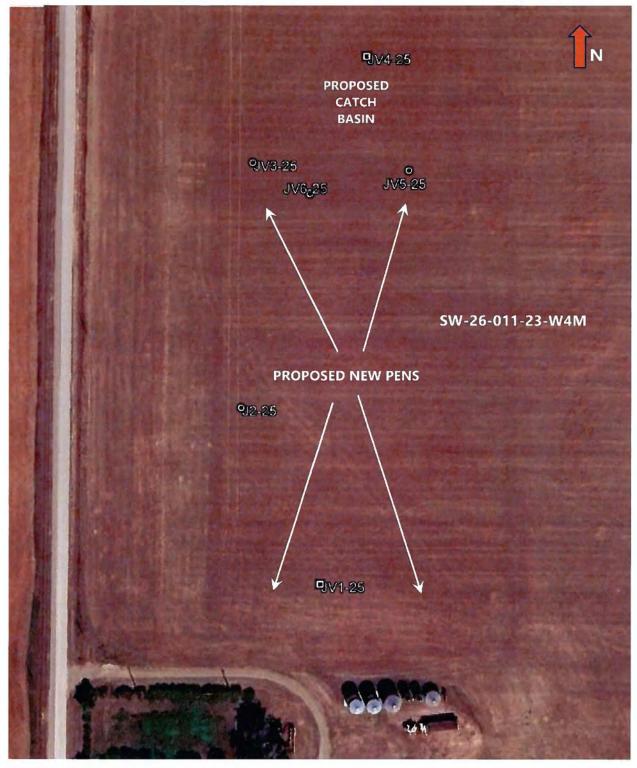


Figure 1: Site Layout & Borehole Locations

Image Credit: Google



In Situ Permeability Test

Modified Falling Head Permeability Equation

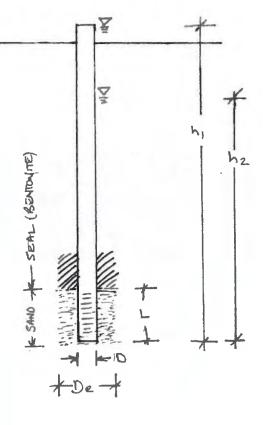
$$K_{s} = \frac{r^{2}}{2\ell\Delta t} \left[\frac{\sinh^{-1}\frac{\ell}{r_{e}}}{2} \ln \left[\frac{2H_{1} - \ell}{2H_{2} - \ell} \right] - \ln \left[\frac{2H_{1}H_{2} - \ell H_{2}}{2H_{1}H_{2} - \ell H_{1}} \right] \right]$$

taken from USBR Engineering Geology Field Manual Volume 2 (2001)

JV1-25 - Sunnyview Farms Ltd.

JLECS File: P25046

(0)			
M (S)	Terms	Value	Definition
표	D	0.0520	diameter of standpipe (m)
\ \	De	0.1500	diameter of borehole (m)
AA A	L	1.80	length of sand section (m)
>	h1	4.80	initial height of water above base of hole (m)
5	h2	3.86	final height of water above base of hole (m)
호	t	24.0	time of test (h)



k_s = 1.0E-07 cm/sec



In Situ Permeability Test

Modified Falling Head Permeability Equation

$$K_{s} = \frac{r^{2}}{2\ell\Delta t} \left[\frac{\sinh^{-1}\frac{\ell}{r_{e}}}{2} \ln \left[\frac{2H_{1} - \ell}{2H_{2} - \ell} \right] - \ln \left[\frac{2H_{1}H_{2} - \ell H_{2}}{2H_{1}H_{2} - \ell H_{1}} \right] \right]$$

taken from USBR Engineering Geology Field Manual Volume 2 (2001)

JV4-25 - Sunnyview Farms Ltd.

JLECS File: P25046

Щ	Terms	Value	Definition
B	D	0.0520	diameter of standpipe (m)
M	De	0.1500	diameter of borehole (m)
AR	L	3.30	length of sand section (m)
>	h1	7.20	initial height of water above base of hole (m
INPUT VARIABLES	h2	6.70	final height of water above base of hole (m)
₹	t	24.0	time of test (h)

* SAND # SEML (SENTONTE)

* THININI

* THINI

k_s = 2.2E-08 cm/sec



J. Lobbezoo Engineering + Consulting Services Box 96 Monarch, Alberta TOL 1M0 Report #: 205758
Report Date: 2025-05-08

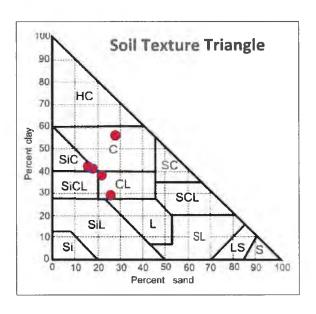
Received: 2025-05-06 Completed: 2025-05-08 Sunnyview Farms

Project :

3510 6th Ave North Lethbridge, AB T1H 5C3 403-328-1133 www.downtoearthlabs.com info@downtoearthlabs.com

Test Done: ST

Sa	mple ID:	250506L001	250506L002	250506L003	250506L004	250506L005	
Cust. Sa	mple ID:	JV1-25	JV2-25	JV3-27	JV4-25	JV5-25	
 Analyte	Units	4.0-4.5	1.0-1.5	2.7-3.4	5.6-6.5	6.0-6.8	
Sand	%	26.2	28.2	18.2	16.2	22.2	
Silt	%	44.8	15.8	40.8	41.8	39.8	
Clay	%	29.0	56.0	41.0	42.0	38.0	
Soil Texture	-	Clay Loam	Clav	Silty Clay	Silty Clay	Clay Loam	





Down To Earth Labs Inc.

The Science of Higher Yields

J. Lobbezoo Engineering + Consulting Services Box 96 Monarch, Alberta TOL 1M0 Report #: 205758
Report Date: 2025-05-08
Received: 2025-05-06
Completed: 2025-05-08

Test Done: ST

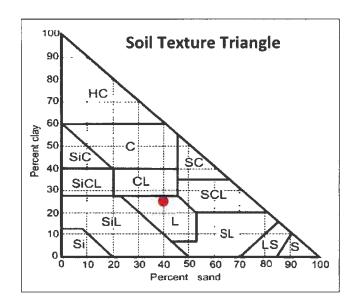
Project :

PO:

Sunnyview Farms

3510 6th Ave North Lethbridge, AB T1H 5C3 403-328-1133 www.downtoearthlabs.com info@downtoearthlabs.com

Sample ID: 250506L006 Cust. Sample ID: JV6-25 Analyte Units 5.5-6.0 40.2 Sand Silt 34.8 % Clay % 25.0 Soil Texture Loam



Raygan Boyce - Chemist

CHILAKO DRILLING SERVICES LTD

Box 942 Coaldale, Alberta, T1M 1M8 (403) 345-3710

SOIL PROFILE AND PARENT MATERIAL DESCRIPTION

Site Location: SW26-11-23W4, Sunnyview Farms Date: 15-Apr-25

					I I Y VIC W I		Date. 15-Apr-25
	Location					Sample	Remarks
JV1-25	0352768	0-0.15	CL	M	Lac		
1 1	5533561	0.15-0.4	CL-SiCL	D	Lac		
1 1		0.4-1.2	CL	D	Till	0.6-1.0	Stiff, med plastic, brown
1 1		1.2-1.6	SL-FSC	SM	Till		Low plastic, olive brown
1 1		1.6-3.0	CL	SM	Till	2.0-3.0	Stiff, med plastic, brown, sand lensing,
1 1							mudstone inclusions
		3.0-3.7	Mudstone	SM	Bedrock		Soft, bedrock, olive brown
		3.7-4.5	Claystone		Bedrock	4 0-4 5	Soft, bedrock, yellow brown
			,				50mm H.C. Well installed to 4.5m BGS
							Screen: 4.5-3.0m
							Sand: 4.5-2.7m
1							Bentonite: 2.7-0.0m
1]					Stickup: 0.3m
							Hole Diameter: 0.15m
1 1							Hole Diameter, 0, 15111
JV2-25	0352739	0-0.15	CL	M	Lac		
1 1	5533627	0.15-0.7	SiCL	M	Lac		
1 1		0.7-1.5	CL	M	Till	0.7-1.5	Stiff, med plastic, brown
		1.5-2.8	FSL	VM	Till		
1 1		2.8-4.0	CL	М	Till		Stiff, med plastic, brown
		4.0-4.5	Claystone	SM	Bedrock		Soft bedrock
JV3-25	0352746	0-0.15	SiCL	M	Lac		
1	5533718	0.15-0.3	SiCL	SM	Lac		
1 1		0.3-2.7	CL	SM	Till		Stiff, med plastic, brown, sand streaks
1 1		2.7-3.4	Claystone	SM	Bedrock	2.7-3.4	Soft bedrock, yellow brown
1			'			,	
JV4-25	0352788	0-0.15	CL	M	Topsoil		
	5533756	0.15-0.4	SiCL	M-VM	Lac		
	low area	0.4-1.2	CL	M-VM	Till		[
1 1		1.2-1.5	FSL	M-VM	Till		
		1.5-5.6	Claystone	D	Bedrock		Soft bedrock, yellow brown
1 1		5.6-6.6	Mudstone	D	Bedrock	5.6-6.5	Soft bedrock, grey
1 1							Auger refusal @ 6.6m
1 1							50mm H.C. Well installed to 6.6m
1							Screen: 6.6-3.6m
1							Sand: 6.6-3.3m
							Bentonite: 3.3-0.0m
	· ·						Stickup: 0.6m
							Hole Diameter: 0.15m
IVE OF	0252002	0.045		l na	Toresi		
JV5-25	0352803	0-0.15	CL	M	Topsoil		
	5533713	0.15-0.6		M	Lac		OVE and alone to be
		0.6-1.8	CL	M	Till	0005	Stiff, med plastic, brown
1 1			FSL-FSCL		Till	2.0-3.0	Firm, low plastic, brown
		3.0-4.6	FSCL	M	Till		V. Firm, low plastic, brown
		4.6-5.8	Claystone		Bedrock		Soft bedrock, yellow brown
		5.8-6.8	Claystone	D	Bedrock	6.0-6.6	Some sand, mixed with shale, sat @ 5.8m
							Free water
					_		
JV6-25	0352767	0-0.15	CL	M	Topsoil		
	5533706	0.15-1.0	,	M	Lac		
		1.0-1.3	CL	M	Till		Stiff, med plastic, brown
			FSL-FSCL		Till	2.0-3.0	
		3.3-6.0	Claystone	M	Bedrock	5.5-6.0	Soft bedrock, yellow brown
							Auger refusal @ 6.0m

Legend: L Loam

Clay

c s Sand Gr. Gravel

Si Silt Fine (sand)

VF Very Fine (sand)