

matsqui

MAYOR — D.L. KANDAL
CLERK/ADMINISTRATOR — HEDDA COCHRAN

1988 03 10

G-1-3

Ministry of Environment and Parks
Waste Management
Lower Mainland Region
15326 - 103A Avenue
Surrey, BC V3R 7A2

Attention: Mr. E.M. Lawson

RECEIVED
MAR 18 1988

Dear Sirs:


Re: McCallum Road Landfill Site
Permit #PR-3955

LOWER MAINLAND REGION
FILE No.

In response to your letter of February 3, 1988, I wish to inform you that leachate previously contaminating the ditch along McCallum Road is now being collected and directed into the sanitary sewer system.

I trust this solution will meet with your approval.

Yours truly,


David Coxall
Superintendent
Water and Sanitation

REF:mvd

cc: L. Hensel

THE CORPORATION OF THE DISTRICT OF MATSQUI

200 - 32315 SOUTH FRASER WAY, CLEARBROOK, B.C. V2T 1W7 TELEPHONE 853-2281



MINISTRY OF ENVIRONMENT
WASTE MANAGEMENT BRANCH

File No. PR 3955

CALL FORM

Date of Call March 9, 1988
Calling Party Roger Farrant Telephone No. 853-5485
Address of Caller Dist of Matsqui

Nature of Call Mr. Farrant called to inform us that the leachate discharge from closed PR 3955 (into the roadside ditch) has been intercepted and directed into the sanitary sewer.

Received by L. Densel Referred to _____
Follow-up _____

(Signed) _____



Province of
British Columbia

Ministry of
Environment
and Parks

Waste Management
Lower Mainland Region
15326 — 103A Avenue
Surrey
British Columbia
V3R 7A2
Telephone: (604) 584-8822
Facsimile: 660-8926

YOUR FILE
OUR FILE **PR-3955**

February 3, 1988

The Corporation of the
District of Matsqui
32383 South Fraser Way
Clearbrook, B.C.
V2T 1W7

Attention: E. H. Regts, P.Eng.

Gentlemen:

Re: McCallum Landfill Site
Permit No. PR-3955

A recent inspection by our technician revealed that leachate from the closed landfill site appeared to be contaminating the ditch along McCallum Road, which drains into Willband Creek.

We noted that a sanitary lift station is now in place adjacent to the site. We would therefore request that the District of Matsqui to collect and direct the leachate to the sanitary sewer.

Your reply by February 28, 1988 would be appreciated.

Yours truly,

E.M. Farrow
for

A. Y. Chan, P.Eng.
Waste Management Officer
Municipal Section

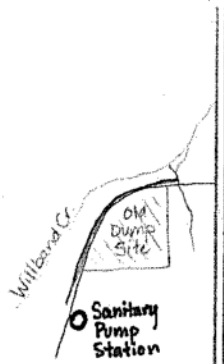
AYC/dr



MEMORANDUM

To: Tony Chan

Date: January 28, 88



I inspected the old Matsqui LF site PR 3955. There was obvious contamination in the ditch (noted in red) which discharges into Willbong Creek. The Environmental Section's sampling in 1984 showed elevated COD, iron, boron and barium levels. A sanitary lift station is now in place adjacent to the site, and I recommend that we request Matsqui to direct the leachate into the sanitary sewer. Perhaps you could write to Matsqui requesting the look in to it.

L. Hensell.



MINISTRY OF ENVIRONMENT
WASTE MANAGEMENT BRANCH

Permit No. PR 3955
Date of Inspection 88-01-27

PERMIT INSPECTION

Permittee Corp of the Dist of Matsqui
Location McCallum Rd

A. SAMPLES TAKEN

YES ☒ NO ☐

Sources Sampled leachate in ditch

B. OBSERVATIONS AND COMMENTS:

leachate in ditch discharging
to Willband Cr. drainage system

C. PERMIT COMPLIANCE

IN ☐ OUT ☒

Based on Site Observations.

COMMENTS: leachate generation

D. ACTION REQUIRED BY PERMITTEE:

possible consideration
given to leachate collection

R. Fel
Permittee or Representative's Signature

L. Hensel
For Waste Management

Regional Office Follow-up:

Original to File
Copy to Permittee

Harvey

Nov 9/87.

File PR 1504
PR 3955

Re: Two closed Refuse sites in Matsqui
PR 3955 - McCallum Rd and PR ~~3955~~ 1504 - Trethewey

Mr Ed Ropt in his letter (probably in the file)
requested the above Permits be cancelled as the
sites had been closed more than three years
without any apparent environmental problems.

al

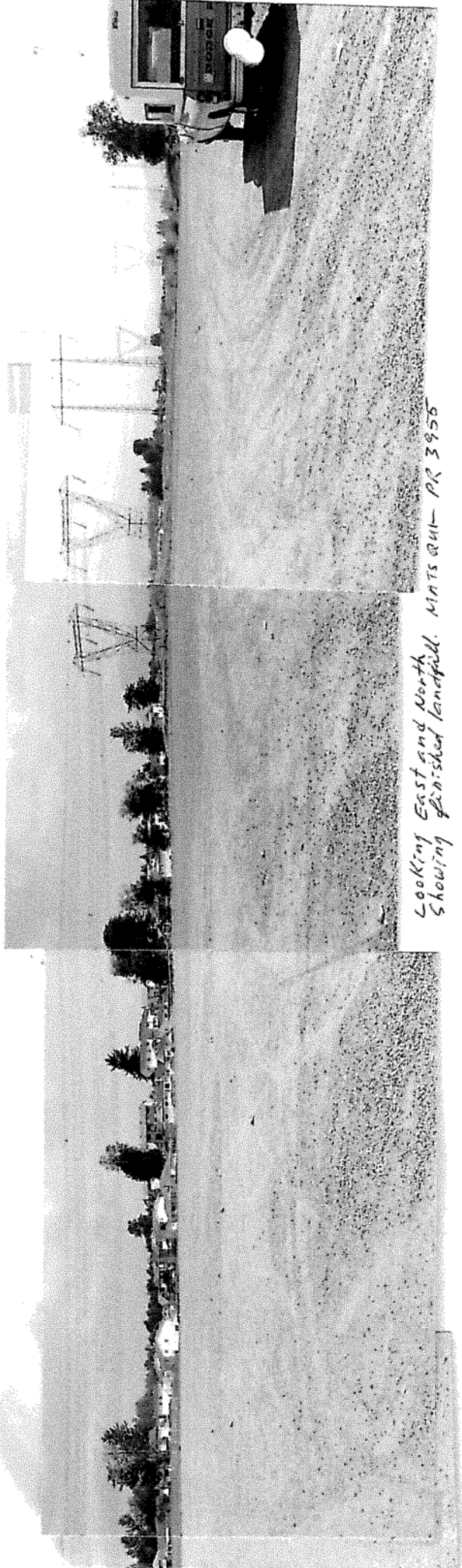
Comments:

a) PR 1504 - Trethewey site
The site was closed Dec 5, 1984
The Permittee carried out all necessary
requirements in site closing, particularly
applying adequate thickness of soil (covering
material)
Only concern is a potential migration of
gas to the residential area. The Permittee
is taking all necessary precaution as well
as gas monitoring. Recommend Permit cancellation.

b) PR 3955 - The site has been closed
since summer of 1980. Approx. 2 ft of
covering material was applied (mostly clay).
The landfill site has been sold to a
private company (Truckers Park & Service Centre).
Hog fuel placed on the landfill site caused
a minor leachate problem but the company indicated
they would blacktop the whole landfill area.
No environmental problems is anticipated.
I recommend the permit be cancelled

Walt King
Municipal Technician.

AUG. 1987.
PR 3955



Looking East and North
Showing finished landfill. MATS OUT- PR 3955

Picture shows a sump where
dual pumps are installed to
pump leachate to the Municipal
system.



PR 3955
Aug 1987



MINISTRY OF ENVIRONMENT
WASTE MANAGEMENT BRANCH

3955
Permit No. PR-1564

Date of Inspection May 22/86

PERMIT INSPECTION

Permittee District of Matsqui

Location McCallum Rd, Matsqui

A. SAMPLES TAKEN

YES ☐

NO ☒

Sources Sampled _____

B. OBSERVATIONS AND COMMENTS:

- The site has been closed
- The trucking company which leases the old landfill site placed significant volume of hog fuel. This resulted in discharge of dark effluent to the roadside ditch which empties into the tributary of Willoughby Creek.
- Some measure should be taken either remove the hog fuel or collect effluent.

C. PERMIT COMPLIANCE

IN ☐

OUT ☒

Based on Site Observations.

COMMENTS: leachate discharge

D. ACTION REQUIRED BY PERMITTEE: * See "B"

District advise Waste Management
what steps will be taken to correct the
problem after review the situation.

X [Signature]
Permittee or Representative's Signature

[Signature]
For Waste Management

Regional Office Follow-up:

Original to File
Copy to Permittee



Province of
British Columbia

Ministry of
Environment

Waste Management
Lower Mainland Region
15326—103A Avenue
Surrey
British Columbia
V3R 7A2
Telephone: (604) 584-8822

YOUR FILE



OUR FILE PR-3955

June 23, 1986

Mr. B. R. Orysiuk, General Manager
Truckers Park & Service Centre
3422 McCallum Road
Abbotsford, B.C.
V2S 4N3

Dear Mr. Orysiuk:

Re: Hog Fuel Discharge - McCallum Site - PR-3955

Thank you for your letter of June 13, 1986, informing us of your plan to surround the perimeter of hog fuel site with clay. You also proposed to compact the whole area with gravel for heavy equipment parking. The entire site will eventually be paved.

The clay berm around the site should be constructed as soon as it is practical to minimize the direct discharge of hog fuel leachate to the receiving water.

Please advise us of your schedule for construction by July 15, 1986. Your cooperation is appreciated.

Yours truly,

Gilbert Kang
Waste Management Technician

GSK/lj

cc Ed Regts
District of Matsqui
32383 South Fraser Hwy.
Abbotsford, B.C.
V2T 1W6



Province of
British Columbia

Ministry of
Environment

Waste Management
Lower Mainland Region
1326-103A Avenue
Surrey
British Columbia
V3R 7A2
Telephone: (604) 584-8822

YOUR FILE

OUR FILE **PR-3955**

May 29, 1986

The Corporation of the
District of Matsqui
32383 South Fraser Way
Abbotsford, B.C.
V2T 1W6

Attention: Mr. Ed Regts

Dear Sirs:

Re: Waste Management PR-3955
Hog Fuel Discharge - McCallum Site

A substantial amount of hog fuel was placed on the landfill site authorized under PR-3955. Leachate generation from hog fuel discharge resulted in contamination of a water course, the tributary of Wilband Creek.

Please take appropriate measures to stop the leachate from entering the receiving environment.

Your co-operation is appreciated.

Yours truly,

Gilbert S. Kang
Waste Management Technician
Lower Mainland Region

GSK/lc

s.22



MINISTRY OF ENVIRONMENT
WASTE MANAGEMENT BRANCH

*Pls have it
investigated
for*

File No. _____

COMPLAINT FORM

1. Complaint:

Date of Complaint May 22 1986
Name of Complainant G. Kany Telephone No. _____
Address of Complainant _____

Nature of Complaint A Trucking company in Abbotsford has dumped approximately 50 loads of log fuel on the property leased from Anglo American Cedar Products (Mission). Tel no. for discharger is s.22 The leachate was flowing to the road side ditch which empties into a tributary of Willhand Creek. (see the sketch for site)
Received by: G. Kany Referred to: Prad Khare

2. Investigation:

Date _____
Action Taken _____

(Signed) _____

3. Follow-up:

1. Complainant notified by: Letter _____ Telephone _____
Date _____
2. Others Notified _____

3. Comments _____

(Signed) _____

(Refer to Procedure Manual for definitions and more specific instructions)

Original to Complaint File



MINISTRY OF ENVIRONMENT
WASTE MANAGEMENT BRANCH

Permit No. PR 3955
Date of Inspection May 22/86

PERMIT INSPECTION

Permittee District of Matsqui
Location Thretheway, Abbotsford

A. SAMPLES TAKEN YES ☐ NO ☒

Sources Sampled _____

B. OBSERVATIONS AND COMMENTS:

- The leachate collection system
was operating satisfactorily.

C. PERMIT COMPLIANCE IN ☒ OUT ☐

Based on Site Observations.

COMMENTS: No problems were noted

D. ACTION REQUIRED BY PERMITTEE: _____

[Signature]
Permittee or Representative's Signature

[Signature]
For Waste Management

Regional Office Follow-up:

Original to File
Copy to Permittee



MINISTRY OF ENVIRONMENT
WASTE MANAGEMENT BRANCH

Permit No. PR 3955
Date of Inspection Oct 4, 1985

PERMIT INSPECTION

Permittee The District of Matsqui
Location Abbotsford

A. SAMPLES TAKEN

YES ☐

NO ☒

Sources Sampled _____

B. OBSERVATIONS AND COMMENTS:

The site operation has been closed for
many years. There was no leachate at
the time of inspection.

C. PERMIT COMPLIANCE

IN ☒

OUT ☐

Based on Site Observations.

COMMENTS: No apparent problem.
The permit file should be closed.

D. ACTION REQUIRED BY PERMITTEE: _____

* Sent by mail
Permittee or Representative's Signature

Yphat Kang
For Waste Management

Regional Office Follow-up: _____

Original to File
Copy to Permittee

Report for form 00034667

Lower Mainland - Waste Program

ATTN: KANG G S

Site: NOSITE MCCALLUM DITCH MATSQUI

Submitted by (27490) KANG G S

Phone No.
Address (00)584-8822
MINISTRY OF ENVIRONMENT
15326-103A AVE
SURREY B C
V3R7A2RECEIVED
FEB 05 1986Audit Sample ()
Client study reference code ()
Sampling agency code (02)LOWER MAINLAND REGION
FILE NO.

Site (NOSITE) MCCALLUM DITCH MATSQUI

Sample Adjective ()
Sample State (WW) Waste Water
Sample Descriptor (OT) Other or Not ApplicableThis form was processed to the computer on 9-JAN-1986 as REGULAR
The cost for analyzing samples for this form isRoutine analysis: \$ 144.00
Special analysis: \$ 0.00

Total \$ 144.00

Site: NOSITE MCCALLUM DITCH MATSQUI

 From : 86/01/08:0000
 Depth Range 0.0 0.0
 Sample State Waste Water

 To : 86/01/08:0000
 Tide

Sample 85014593

Parameter Description	Analytical Technique	Result	Units
pH	pH Meter	6.8	pH units
Conductance Specific	Cond. Meter Siebold	653	uS/cm
Hardness Total	Calculated Result	172	mg/L
Chemical Oxygen Dem.	K2Cr2O7 Dig: Titr.	39	mg/L
Sulfide Total	Titr. Iodine	< 0.5	mg/L
Aluminum	N/H Dig: ICP Anal.	0.04	mg/L
Arsenic	N/H Dig: ICP Anal.	< 0.25	mg/L
Calcium	N/H Dig: ICP Anal.	45.4	mg/L
Cadmium	N/H Dig: ICP Anal.	< 0.01	mg/L
Cobalt	N/H Dig: ICP Anal.	< 0.1	mg/L
Chromium	N/H Dig: ICP Anal.	< 0.01	mg/L
Copper	N/H Dig: ICP Anal.	< 0.01	mg/L
Iron	N/H Dig: ICP Anal.	10.7	mg/L
Magnesium	N/H Dig: ICP Anal.	14.2	mg/L
Manganese	N/H Dig: ICP Anal.	4.80	mg/L
Molybdenum	N/H Dig: ICP Anal.	< 0.01	mg/L
Nickel	N/H Dig: ICP Anal.	< 0.05	mg/L
Lead	N/H Dig: ICP Anal.	< 0.1	mg/L
Vanadium	N/H Dig: ICP Anal.	< 0.01	mg/L
Zinc	N/H Dig: ICP Anal.	0.11	mg/L
Nitrogen Organic-Tot	Calculated Result	0.10	mg/L
Nitrogen Kjel. Tot(N)	Block Dig. Auto. Color	24.3	mg/L
Nitrogen Total	Calculated Result	24.4	mg/L
Nitrogen Amm. Diss(N)	Automated Bertholot meth	24.2	mg/L

Site: NOSITE MCCALLUM DITCH MATSQUI

From : 86/01/08:0000

To : 86/01/08:0000

Depth Range 0.0 0.0

Tide

Sample State Waste Water

Sample 85014593

Parameter Description	Analytical Technique	Result	Units
Nitrogen NO3+NO2 Dis	Auto. Cadmium Reduction	0.09	mg/L
Nitrogen NO3 Diss(N)	Calculated Result	0.07	mg/L
Nitrogen NO2 Diss(N)	Auto. Diazotization	0.016	mg/L
Chloride Dissolved	Auto. mercuric thiocyan.	33.1	mg/L

Site: NOSITE MCCALLUM DITCH MATSQUI

Parameter Description	Sparcode	Media, Field Prep Rec'd by Lab
Zinc	Zn-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Vanadium	V--T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Lead	Pb-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Nickel	Ni-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Molybdenum	Mo-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Manganese	Mn-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Magnesium	Mg-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Iron	Fe-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Copper	Cu-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Chromium	Cr-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Cobalt	Co-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Cadmium	Cd-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Calcium	Ca-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Arsenic	As-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Aluminum	Al-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Nitrogen NO2 Diss(N)	11111354	01 Bottle-poly (4.5 L) 01 Unfiltered- no preserv'n
Nitrogen NO3+NO2 Dis	11091350	01 Bottle-poly (4.5 L) 01 Unfiltered- no preserv'n

Site: NOSITE MCCALLUM DITCH MATSQUI

Parameter Description	Sparcode	Media, Field Prep Rec'd by Lab
Nitrogen Amm. Diss(N)	11081351	01 Bottle-poly (4.5 L) 01 Unfiltered- no preserv'n
Chloride Dissolved	11041330	01 Bottle-poly (4.5 L) 01 Unfiltered- no preserv'n
Sulfide Total	01251410	03 Bottle - poly (0.5 L) 08 Unf-fld 2mL ZnAc/L
Chemical Oxygen Dem.	01160500	04 Bottle - poly (0.25 L) 05 Unf-fld 0.8mL H2SO4/L
Nitrogen Kjel. Tot(N)	01131360	01 Bottle-poly (4.5 L) 01 Unfiltered- no preserv'n
Conductance Specific	00111160	01 Bottle-poly (4.5 L) 01 Unfiltered- no preserv'n
pH	00041220	01 Bottle-poly (4.5 L) 01 Unfiltered- no preserv'n



MINISTRY OF ENVIRONMENT
WASTE MANAGEMENT BRANCH

Bill
H.
Have we sent letter suggesting cancellation?

Permit No. PR 3955
Date of Inspection Oct 4, 1985

PERMIT INSPECTION

Permittee The District of Matsqui
Location Abbotsford

A. SAMPLES TAKEN

YES ☐ NO ☒

Sources Sampled _____

B. OBSERVATIONS AND COMMENTS:

The site operation has been closed for
many years. There was no leachate at
the time of inspection.

C. PERMIT COMPLIANCE

IN ☒ OUT ☐

Based on Site Observations.

COMMENTS: No apparent problem
The Permit file should be closed.

D. ACTION REQUIRED BY PERMITTEE: _____

* Sent by mail
Permittee or Representative's Signature

Robert Kang
For Waste Management

Regional Office Follow-up: _____

Original to File
Copy to Permittee

PERMIT INSPECTION REPORT - REFUSE

exp. need 77.

Permit No. PR- 3955 ☐ issued Nov. 24 1978

☒ amended

and the related operation of landfill operation - MATSQUI

located at McCallum Rd. Matsqui

were inspected on Oct 25 1983

Type of discharge: ☒ municipal ☐ industrial

Permit Compliance:

A. Administrative:

- Housekeeping: ☒ Acceptable ☐ Unacceptable

- Comments: Closed Site

- Submission of Information: ☐ YES ☐ NO ☒ N/A

- Reporting period of last results received: _____

- Comments: _____

B. Technical:

- Rate of discharge: ☐ In ☐ Out of compliance

- Estimated frequency of covering: N/A

- Estimated height of lifts: _____

- Segregation of metallic wastes: ☐ YES ☐ NO ☐ N/A

- Leachate generation: ☒ YES ☐ NO

- Comments: _____

- Burning allowed: ☐ YES ☐ NO

- Permittee complying with authorized burning conditions: ☐ YES ☐ NO

- Comments: _____

C. Sample(s): - taken at time of visit: ☐ YES ☐ NO

D. Environmental Impact: ☐ High ☐ Medium ☐ Low

Comments: _____

E. General Comments:

Leachate collected in the ditch was noted
flowing into Millbank Creek. Fungus growth was
evident in the downstream creek.

F. Recommendations:

F. Overall Permit Compliance: ☐ IN ☐ OUT

Comments: _____

Received by:

for Doug Rieken

Permittee signature

[Signature]

signed by (R.O.)

PERMIT INSPECTION REPORT - REFUSE

Permit No. PR- 3955 ☐ issued November 24, 1978

☒ amended

and the related operation of level A landfill operation
located at McCallum Road

were inspected on Sept 1 19 83

Type of discharge: ☒ municipal ☐ industrial

Permit Compliance:

A. Administrative:

- Housekeeping: ☒ Acceptable ☐ Unacceptable

- Comments: no longer in use

- Submission of Information: ☐ YES ☐ NO ☒ N/A

- Reporting period of last results received: _____

- Comments: _____

B. Technical:

- Rate of discharge: ☐ In ☐ Out of compliance

- Estimated frequency of covering: N/A

- Estimated height of lifts: _____

- Segregation of metallic wastes: ☐ YES ☐ NO ☐ N/A

- Leachate generation: ☒ YES ☐ NO

- Comments: leachate evident in ditch
running along the site side of McCallum Rd.

- Burning allowed: ☐ YES ☐ NO

- Permittee complying with authorized burning conditions: ☐ YES ☐ NO

- Comments: _____

C. Sample(s): - taken at time of visit: ☐ YES ☐ NO

D. Environmental Impact: ☐ High ☐ Medium ☐ Low

Comments: _____

E. General Comments:

no apparent stream of leachate,
volumes not considerable.

F. Recommendations:

site may need to be investigated to
determine if leachate is causing
an environmental problem.

F. Overall Permit Compliance: ☐ IN ☐ OUT

Comments: _____

Received by:

Al Thieken

Permittee signature

L. Hensel

signed by (R.O.)

Inspection ☒Sampling Inspection ☐Permit No. PR 3755Inspected by G. KangName MATSQUIDate Oct 25/79Location MATSQUI-McCallum RdWeather OvercastContacted None

Position _____

Permit Conditions Level "A" - Daily cover - No attendant was
at the site

II. Refuse

1. Operation

(a) Minimal working face Covering not satisfactory - Relatively
widespread(b) Burning NO(c) Type of refuse Domestic(d) Covering and Compaction (material, extent, etc.) Covering material was
stockpiled but debris was extensive and covering was not
regularly applied

2. Zone of Influence

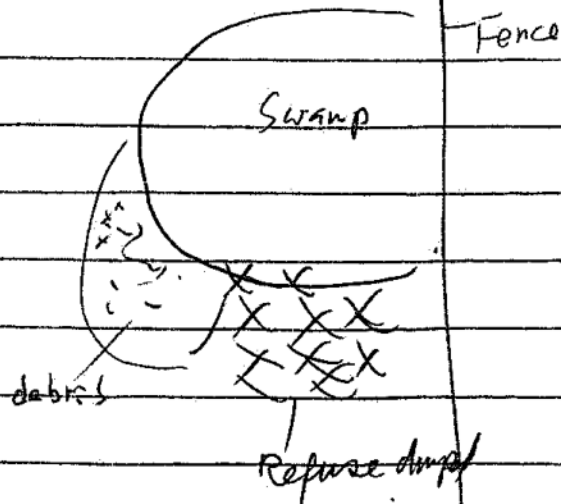
(a) Leachates None(b) Debris, etc. ExtensiveI. Status of Permit (compliance with Permit) It appearedcovering was not regularly doneAdditional Comments None

Instruction left with Permittee or Site Operator

None

Follow-up Contact with Permittee

Action Recommended





CORPORATION OF THE DISTRICT OF MATSQUI

32383 South Fraser Way, Clearbrook, B.C. V2T 1W7 Telephone 853-2281

Mayor Harry DeJong

Municipal Clerk Brian E. Strong, B.Sc.

May 24th, 1979

File: G-1-3

Pollution Control Branch,
Lower Mainland Region,
15326 - 103 A Avenue,
Surrey, B.C.
V3R 7A2



Attention: D. W. Miller, P. Eng.

Dear Sir:

RE: McCALLUM ROAD LANDFILL SITE

Your 0262100 - PR 3955 - May 14/79

Taking up paragraph (4) of your letter under the sub heading-
Further Discharge of Refuse; I believe we can say this is now well under
control.

As you will appreciate the winter months this year, particularly
January and February, brought extreme conditions that created some un-
controllable situations, much to our own regret, however, this is all be-
hind us now and we expect all to run smoothly as we fill the area defined
for garbage disposal.

With the foregoing in mind we respectfully suggest that you
withdraw your request calling on us to cease refuse dumping.

Obviously the sooner the site is completely filled in, which
should be in the next few months, the sooner we shall have total control
and start making some use out of the site.

Attached, please find a copy of the Certificate of Analysis in
respect to the site location numbers determined by your office. We will
be pleased to hear from you if any fears are aroused from these results
as we are anxious to avoid any further pollution direct, or by aggravation.

Yours truly,

[Signature]
D. G. Spencer,
Superintendent of Water
and Sanitation Operations

DGS/sg
cc: Director of Public Works
Attached

WGH		
DWM		
HYW		
SML		
TRF		
GRG		
JAM		
IVL		
GSK		
ITS		
SDH		
SEN		



CHEMEX LABS LTD.

BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: ~~604-525-9700~~ 984-0221
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: Corp. of the Dist. of Matsqui
Public Works Dept.
32383 S. Fraser Way
Clearbrook, B.C.
ATTN: V2T 1W7

CERTIFICATE NO. W 3961

INVOICE NO. 30207

RECEIVED April 26/79

ANALYSED

SAMPLE NO. :	0301441	0301442	0301443	0301444	0301445	0301446	0301447
pH	6.64	6.18	5.75	0.03	5.72	6.54	5.99
N-NH3 (mg/LN)	0.12	0.20	1.06	< 0.01	11	15	19
N-NO3 (mg/LN)	0.60	0.58			< 0.01	< 0.01	0.04
Tot. PO4 (mg/LP)	0.08	0.10			0.80	0.50	0.20
Cond. (umhos/cm)	150	160	230	200	1050	1150	1000
Diss. Fe (ppm)	< 0.02	< 0.02	0.38	0.02	0.60	0.22	56
T.O.C. (mg/L)	5	5			68	45	160
Tot. S (mg/L)					< 0.5	< 0.5	< 0.5
True Color					45	80	40
Diss. Zn (mg/L)							0.36

samples mixed up ??
GRC



MEMBER
CANADIAN TESTING
ASSOCIATION

CERTIFIED BY:

[Signature]



! BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: Corp. of the Dist. of Matsqui
Public Works Dept.
32383 S. Fraser Way
Clearbrook, B.C.

ATTN: D. Spencer

P.O. #22990 Feb. 14/75

CERTIFICATE NO. W3293

INVOICE NO. 23303

RECEIVED Feb. 17/78

ANALYSED Feb. 28/78

SAMPLE NO. :	Pump Station	Creek Monitor	Ground Water Monitor
pH	5.85	7.08	6.07
Susp. Solids (mg/L)	160	9.6	350
Tot. Diss. Solids (mg/L)	3600	94	320
Turbidity (NTU)	125	1.8	58
Color (True)	200	28	600
Conductivity (umhos/cm)	2750	150	400
B.O.D. (mg/L)	420	10	80
Tot. Cu (ppm)	< 0.02	< 0.02	0.02
" Pb "	< 0.02	< 0.02	< 0.02
" Zn "	0.90	0.04	0.66
" Fe "	420	0.96	88
" Mn "	39	0.22	12
Tot. PO ₄ (mg/L P)	2.0	0.04	0.80
NO ₂ +NO ₃ (mg/L N)	0.17	1.4	0.13
NH ₃ -N ₂ (mg/L N)	110	< 0.01	< 0.01
Alkalinity (mg/L CaCO ₃)	803	50.6	199
Hardness (mg/L CaCO ₃)	843	52.5	144
Diss. Cu (ppm)	< 0.02	< 0.02	< 0.02
" Pb "	< 0.02	< 0.02	< 0.02
" Zn "	0.25	0.02	0.13
" Fe "	200	0.15	29
" Mn "	1.3	< 0.02	6.0



MEMBER
CANADIAN TESTING
ASSOCIATION

CERTIFIED BY: _____

0262100-PR-3955

Attention:
Mr. E. H. Regts, P. Eng.
Director of Public Works.

May 14, 1979

Corporation of the District of Matsqui,
32383 South Fraser Way,
Clearbrook, British Columbia.
V2T 1W7.

Gentlemen:

re PR-3955 - McCALLUM ROAD LANDFILL SITE

Gas Venting

With reference to your plan M-254, please be advised that on-site gas venting works are better designed to protect specific structures as required when they are designed. Accordingly, with regard to pollution control considerations the on-site gas venting works shown on the drawing are not required at this time. Tests for methane that we conducted at the site in January did not show the presence of combustible gases.

Surcharge Removal

Removal of surcharge should be controlled to leave at least two feet of final cover suitable for vegetation. The finished slope proposed on Drawing M-254 is satisfactory.

Use of Completed Portion of Site

Use of the completed portion of the refuse site for storage of lumber and other similar materials meets with our approval.

Further Discharge of Refuse

During on-site inspections this winter with Mr. Spencer and later with Mr. Regts of the District of Matsqui it was determined that either the drainage works or the pumping facilities including the discharge line to the lagoons were inadequate to remove the leachate from the site.

.... /2

We therefore request that the discharge of refuse to the site cease until the difficulties with handling the leachate are overcome, and that the site is properly dressed off. It meets with our approval to complete filling the site with soil.

It is incumbent upon the District of Matsqui to prevent pollution of ground and surface waters by gathering and treating leachate generated at the site.

Should you have any questions relative to the above, please contact this office.

Yours truly,

D. W. Miller, P. Eng.
Assistant Regional Manager.

DWM/fa



4th Floor, Kapilano 100, Park Royal,
West Vancouver, B.C. V7T 1A2

March 5, 1979



Mr. W.G. Hamilton,
Regional Manager, Engineer,
Pollution Control Branch,
Ministry of the Environment,
313 - 6th Street,
New Westminster, B.C. V3L 3A7

Your file Votre référence
0262100-PR-3955

Our file Notre référence
4782-M341

WGH	
DWM	
HYW	
EML	
TRF	
GRG	
ZAM	
JYL	
GSK	
ITE	
BUM	
PKC	
RDH	
FEA	
DMM	
File	✓

Dear Mr. Hamilton:

Further to the telephone conversation of March 2 1979 between Mr. G. Thompson of my staff and Mr. D. Miller, I am enclosing our comments on the McCallum Road landfill site in Matsqui. We note that Mr. Miller has refused to include Environmental Protection Service personnel in a March 6 meeting with the municipality.

1. The system of leachate control presently in use is inadequate to drain the site under conditions of high rainfall.
2. We do not consider the installation of additional pumping facilities to be a suitable solution to the problem.
3. We object to the further use of the site for any fill material other than inert material (sand and gravel).
4. The wood chips that have been dumped on the site for a road bed should be removed as soon as possible.

In order for E.P.S. to ensure the protection of the fisheries resource, it is essential that our concerns be made known to the municipality and this can be best accomplished by an EPS representative attending the meeting with the municipality.

Yours truly,

M. Ito, P. Eng.,
Director, Environmental Protection Branch

Encl.

cc: Mr. H.P. Klassen, P.Eng.,
Assistant Director (Services), PCB, Victoria



To: ASSISTANT REGIONAL MANAGER
LOWER MAINLAND

Date: MARCH 20, 1979

FILE: 0262100-PE-70
PR-3955

re: Status Report
Willband Creek/MSR Lagoons/ Matsqui Refuse Site

The attached samples were collected on October 18, 1978 from Willband Creek to determine the effect of both permits on the creek. Samples were collected upstream from the lagoons, downstream from the lagoons (RR Bridge - which is upstream from the refuse) site and at the Valley Avenue Bridge downstream from the refuse site. As there was no precipitation at the time, influence from the refuse site was expected to be minimal.

Basically the results indicate that the lagoons may be leaching into Bertrand Creek. Although many of the parameters tested, showed an increase past the lagoons, the most significant increase was felt to be a 5 fold increase in ammonia, a 1.3 fold increase in NO_3 and a greater than 2 fold increase in phosphorous species. A visual appraisal of the creek bottom up and down stream suggests that these nutrients may be supporting an algal scum on the bottom downstream.

Past the refuse site, ammonia levels increased but most of the other parameters seemed to drop. Possibly, input from intervening tributaries effected this dilution and ammonia input from the dump is high enough to overcome it.

As there are plans to change both sites it seems sufficient for the present to only document their effect on the creek.

G. R. GOUGH,
Regional Biologist

GRG/dm

Attachments

NOVEMBER 8, 1978

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 825561W

TO: PCB LOWER MAINLAND
313-6TH ST.
NEW WESTMINSTER V3L 3A7
ATTENTION OF: GRG

FOR SITE: WILLBAND CR ABOVE

SAMPLING DATE(S): OCT 18/78 1340 HRS
SAMPLE TYPE: FRESH WATER
SAMPLING DEPTH: 0
SAMPLED BY: PCB - LOWER MAINLAND RGN
DATE RECEIVED BY LABORATORY: OCT 19/78

0040101	PH	7.7	0050101	RESIDUE:TL 105C	116.
		REL UNIT			MG/L
0080101	RES: N-FILT.105	L 1.	0110101	SPECIFIC CONDUCT	171.
		MG/L			UMHO/CM
1041702	CHLORIDE:DISSOL	7.5	1081703	NITROGN:AMMONIA	0.011
		MG/L			MG/L
1091703	NITROGN:NO2 NO3	0.76	1100001	NITROGEN:NO3	0.76
		MG/L			MG/L
1111701	NITROGEN:NO2	L 0.005	1120003	NITROGN:ORGANIC	0.26
		MG/L			MG/L
1130101	NITROGN:KJELDAH	0.27	1181703	PHOSPHORUS:ORT	0.014
		MG/L			MG/L
1191703	PHOSPHORUS :TOT DISSOLVED	0.019 MG/L	1190103	PHOSPHORUS :TOT	0.024 MG/L
2651703	SODIUM DISSOLVED	8.8 MG/L			

THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 45.00

REMARKS:

FOR ENVIRONMENTAL LABORATORY

OCTOBER 24, 1978

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 825562W

TO: PCB LOWER MAINLAND

313-6TH ST.

NEW WESTMINSTER V3L 3A7

ATTENTION OF: GRG

FOR SITE: SOUTH DITCH

SAMPLING DATE(S): OCT 18/78 1045 HRS

SAMPLE TYPE: FRESH WATER

SAMPLING DEPTH: 0

SAMPLED BY: PCB - LOWER MAINLAND RGN

DATE RECEIVED BY LABORATORY: OCT 19/78

0040101	PH	7.4	0110101	SPECIFIC CONDUCT	177.
		REL UNIT			UMHO/CM
1081703	NITROGN:AMMONIA	0.016	1091703	NITROGN:NO2 NO3	1.56
		MG/L			MG/L
1100001	NITROGEN:NO3	1.55	1111701	NITROGEN:NO2	0.005
		MG/L			MG/L
1120003	NITROGN:ORGANIC	0.28	1130101	NITROGN:KJELDAH	0.30
		MG/L			MG/L
1181703	PHOSPHORUS:ORT	0.019	1191703	PHOSPHORUS :TOT	0.024
		MG/L		DISSOLVED	MG/L
1190103	PHOSPHORUS :TOT	0.033			
		MG/L			

THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 29.20

REMARKS:


FOR ENVIRONMENTAL LABORATORY

NOVEMBER 8, 1978

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 825560W

TO: PCB LOWER MAINLAND

313-6TH ST.

NEW WESTMINSTER V3L 3A7

ATTENTION OF: GRG

FOR SITE: RR BRIDGE BELOW

SAMPLING DATE(S): OCT 18/78 1400 HRS

SAMPLE TYPE: FRESH WATER

SAMPLING DEPTH: 0

SAMPLED BY: PCB - LOWER MAINLAND RGN

DATE RECEIVED BY LABORATORY: OCT 19/78

0040101	PH	7.2	0050101	RESIDUE:TL 10SC	126.
		REL UNIT			MG/L
0080101	RES: N-FILT.105	5.	0110101	SPECIFIC CONDUCT	176.
		MG/L			UMHD/CM
1041702	CHLORIDE:DISSOL	8.4	1081703	NITROGN:AMMONIA	0.064
		MG/L			MG/L
1091703	NITROGN:NO2 NO3	1.02	1100001	NITROGEN:NO3	1.01
		MG/L			MG/L
1111701	NITROGEN:NO2	0.005	1120003	NITROGN:ORGANIC	0.29
		MG/L			MG/L
1130101	NITROGN:KJELDAH	0.35	1181703	PHOSPHORUS:DRT	0.034
		MG/L			MG/L
1191703	PHOSPHORUS :TOT DISSOLVED	0.042	1190103	PHOSPHORUS :TOT	0.055
		MG/L			MG/L
2651703	SODIUM DISSOLVED	8.3			
		MG/L			

THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 45.00

REMARKS:

FOR ENVIRONMENTAL LABORATORY

SAMPLERS'S COMMENTS: WILLBAND CR

NOVEMBER 8, 1978

ENVIRONMENTAL LABORATORY
MINISTRY OF THE ENVIRONMENT

PAGE 1

WATER QUALITY REPORT FOR SAMPLE 825559W

TO: PCB LOWER MAINLAND

313-6TH ST.

NEW WESTMINSTER V3L 3A7

ATTENTION OF: GRG

FOR SITE: ROAD BRIDGE BELOW

SAMPLING DATE(S): OCT 18/78 1430 HRS

SAMPLE TYPE: FRESH WATER

SAMPLING DEPTH: 0

SAMPLED BY: PCB - LOWER MAINLAND RGN

DATE RECEIVED BY LABORATORY: OCT 19/78

0040101	PH	7.5	0050101	RESIDUE:TL 105C	114.
		REL UNIT			MG/L
0080101	RES: N-FILT.105	4.	0110101	SPECIFIC CONDOC	177.
		MG/L			UMHO/CM
1041702	CHLORIDE:DISSOL	8.4	1081703	NITROGN:AMMONIA	0.094
		MG/L			MG/L
1091703	NITROGN:NO2 NO3	0.97	1100001	NITROGEN:NO3	0.96
		MG/L			MG/L
1111701	NITROGEN:NO2	0.006	1120003	NITROGN:ORGANIC	0.28
		MG/L			MG/L
1130101	NITROGN:KJELDAH	0.37	1181703	PHOSPHORUS:ORT	0.026
		MG/L			MG/L
1191703	PHOSPHORUS :TOT DISSOLVED	0.033	1190103	PHOSPHORUS :TOT	0.046
		MG/L			MG/L
2651703	SODIUM DISSOLVED	8.4			
		MG/L			

THE APPROXIMATE COST OF THE ABOVE TESTS IS \$ 45.00

REMARKS:

FOR ENVIRONMENTAL LABORATORY

SAMPLERS'S COMMENTS: WILLBAND CR

Permit Inspection ☒

Sampling Inspection ☐

I. Permit No. PR 395

Inspected by G. King

Name Matsqui Corporation

Date Feb. 16, 1979

Location Matsqui

Weather overcast

Contacted None

Position _____

Permit Conditions Level "A"

II. Refuse

1. Operation

(a) Minimal working face Relatively spread.

(b) Burning NO

(c) Type of refuse Domestic

(d) Covering and Compaction (material, extent, etc.) _____

2. Zone of Influence

(a) Leachates Leachate is collected from the toe of the landfill to the dyke.

(b) Debris, etc. No problem.

II. Status of Permit (compliance with Permit)

Leachate collection and treatment did not appear being progressed as planned.

V. Additional Comments

Further investigation is deemed necessary Re: works construction for leachate collection

V. Instruction left with Permittee or Site Operator

None

I. Follow-up Contact with Permittee

None

I. Action Recommended

None

0262100-PR-3955

December 18, 1978

Municipal Engineer,
Corporation of the District of Matsqui,
32383 South Fraser Way,
Clearbrook, British Columbia. V2T 1W7.

Attention: Mr. Ed Regts,
Municipal Engineer

Dear Sirs:

In our discussions with Mr. Spencer of your office, it has become apparent that the monitoring program for the above site is in need of review.

Accordingly, we have reviewed the available data and request that you undertake the following revised program:

1. LOCATION OF MONITORING STATIONS

As indicated on the attached diagram:

a. Surface Water Stations:

- #0301441 Willband Creek upstream; Railway bridge
- #0301442 Willband Creek downstream; Valley Avenue bridge
- #0301443 Willband tributary upstream; S. of R.R.
- #0301444 Willband tributary downstream; N. of McCallum

b. Groundwater wells:

- #0301445 Existing well; across McCallum Road
- #0301446 Outside of the N. Dyke center

c. Sump Well:

- #0301447 Existing sump

2. FREQUENCY OF MONITORING

Once every two months for the first year; reduced to once every three months in the following years.

...../2

3. PARAMETERS TO BE ANALYZED

- a. At the surface water stations 0301441 and 0301442 analyze for:

pH, N-NH₃, N-NO₃, P-Tot. diss., Conductivity, Fe diss.,
C-tot. org., Field Oxygen dissolved.

- a₁. At surface stations 0301443 and 0301444 analyze for Fe diss.,
Conductivity, NH₃, field T, pH.

- b. At the groundwater well stations 0301445 and 0301446 analyze for:

pH, N-NH₃, N-NO₃, P-Tot. diss., Sulfide, Conductivity, Fe diss.,
C-total org., Colour true.


- c. At the sump station 0301447 analyze for:

pH, N-NH₃, N-NO₃, P-Tot. Diss., Sulfide, Conductivity, Fe diss.,
C-Tot org., colour true, Zn diss.

4. SUBMISSION OF DATA

Copies of the data are to be submitted to this office as they are received.

Yours truly,


D. W. Miller, P.Eng.
Assistant Regional Manager.

GRG/fa

attachment

cc: Derek G. Spencer,

Superintendent of Water and Sanitation Operations



Province of
British Columbia

Ministry of the
Environment
POLLUTION
CONTROL BRANCH

MEMORANDUM

To: Chief, Municipal Division
Director

Date: November 3, 1978

File: 0262100-PR-3955

Re: Resume Meeting November 2, 1978
78M-105 Corporation of the District of Matsqui-
McCallum Road Site (DAD, RCS)



Recommend an amendment to the Permit to authorize an increase in discharge and removal of expiry date in accord with the resume for continued operation of the site.

Director to Note:

The site is located in rather marginal ground conditions but operation and leachate collection works have been reasonably satisfactory to date. The perimeter drain to lower the water table in the vicinity of the north east dyke has now been installed.

R .C. Schurr

P.N. Bardal

RCS:pjj

RM
MINOR

File: 0262100-PR-3955

Date: October 19, 1978

From: Interior Section (RCS, DD)
Municipal Division

RESUME FOR PERMIT AMENDMENT APPLICATION

Application for Permit Amendment Pursuant to Pollution Control Act on behalf of The Corporation of the District of Matsqui, dated January 13, 1978.



1. PERMIT

Permit No. PR-3955 issued August 9, 1976 authorizes the discharge of 25 cubic yards (19 m³) per day of municipal refuse to a site about 1 mile (1.6 km) north of Abbotsford. Daily covering of the exposed wastes is required, provision is to be made for venting gases, and leachate must be collected and treated to prevent contamination of surface and ground waters. Under the 'PLANS' clause of the Letter of Transmittal, each proposed phase of the operation must receive approval from the Branch before the works can commence. A permit expiry date of December 31, 1977 was imposed to control the initial development until acceptable operational practice was established.

2. APPLICATION

The application requests an increase in discharge quantity to 100 cubic yards (76 m³) per day and an extension in the term of the permit to December 31, 1978.

3. HISTORY

Approval of the works design was issued March 7, 1978 encompassing the leachate collection system and pump station. Procedures for venting gases from completed sections of the landfill are to be further considered and pursued.

4. ADMINISTRATIVE ASPECTS

The amendment was posted, published and circulated in accordance with the Act and its Regulations.

5. POLICY

Relative to the quantity of discharge, the daily covering requirement in the permit exceeds the minimum frequency acceptable under the Municipal Objectives of 3 times per week for this category of landfill. Putrescible wastes are deposited less than 4 feet above groundwater but in that the concept of the operation involves the collection and treatment of all leachates generated to preclude migration of contaminants beyond the containing dykes, it is considered that the intent of policy is met.

6. AGENCY COMMENTS

Neither Health nor Fish and Wildlife have objections to the proposal.

Environment Canada expressed concern about the presence of a black, oily scum outside the dyked area which may have originated from the landfill and may be contaminating the adjacent stream to the north. They indicate their continued objection until all leachates are guided away from watercourses and satisfactorily treated.

7. OBJECTORS

None.

8. REGIONAL OFFICE REPORT

The landfill operation has been progressing for about 1 1/2 years from the intersection of McCallum and Industrial Roads northwards, without negative aspects being apparent in site maintenance. Four monitoring reports have been completed since February 1977 showing no significant affect in the groundwater well and acceptable levels of copper and lead in the leachate. However, ammonia concentrations in Willband Creek have been very high but the location of the sampling station may not be such that the changes in creek water quality are indicative of the landfill activities. It is possible that seepage from the treatment lagoons upstream of the landfill is contributing to the interference measured in the creek.

The Regional Office recommends that the amendment be granted for the proposed quantity increase and has no objection to the requested expiry date being deleted.

9. SECURITY REQUIREMENTS

Security is not considered applicable.

10. DISCUSSION OF TECHNICAL ASPECTS

Following Environment Canada's expressed concern that leachate may be escaping beyond the 20 acre (8 ha) landfill area contained by dykes, a conductivity study was performed by our Regional staff without conclusive identification of the source of the contamination. It is possible that organic matter contained in the local peaty soils was decomposing and causing discoloration and odour in any standing water. Consequently, a short literature review by Services Section recommended parameters to more positively associate the characteristics of the water outside the dyke with typical landfill leachates and these have been incorporated into the monitoring schedule for the receiving environment.

spoke to D.D. on phone & reached agreement that the study is quite conclusive but could show more specifics as to the reason for the concern.

In any event, a run of perforated pipe has been added to the collection system to drain the area adjacent to the northeast dyke and this should be the most effective remedy to preclude any leachate migration. Through a telephone discussion, later confirmed by letter, with an EPS staff member, this procedure was considered to allay the agency's concern.

With regard to the increased quantity proposed, there are no additional problems foreseen provided the supply of cover material can be sustained for daily covering. In addition, the expiry date of December 31, 1978 requested by the application is no longer considered to serve a useful purpose since the Municipality intend to complete the landfill within the authorized area, the anticipated service life is about another 2-3 years and sufficient control exists in the present L.O.T. where each phase of the project must be approved before such works can proceed. The permittee concurs with the deletion of the expiry date and confirms that treatment of the leachate collected from the landfill can be maintained beyond the time when the lagoon system is abandoned by pumping into the collector trunk feeding the new treatment facility at the Fraser River.

11. RECOMMENDATIONS

It is recommended that

- (1) an amendment to the permit be issued to increase the authorized daily discharge from 25 cu. yd. (19 m³) to 100 cu. yds. (76 m³)
- (2) the expiry date of December 31, 1977 be deleted
- (3) conditions specified in the L.O.T. remain unchanged
- (4) receiving environment monitoring be supplemented with observation of groundwater differentials across the northeast dyke and surface water outside this dyke be characterized by COD, Fe, pH and chloride measurements.

D. A. Douglas
D. A. Douglas

APPROVED		
PROCESS	INITIAL	DATE
ENGINEER	<i>SD</i>	24/10/78
REG. HEAD		24/10/78 RS.
DIV. CHIEF		



To: ASSISTANT REGIONAL MANAGER
LOWER MAINLAND REGION

Date: SEPTEMBER 19, 1978

File: 0262100-PR-3955

Re MATSQUI: McCALLUM ROAD REFUSE SITE

At your request, I met with Derek Spencer, Superintendent of Water and Sanitation Operations on September 12th and answered his queries on the nature of the leachate problem at the above site.

Mr. Spencer was shown the results of the June 6th conductivity survey and seemed convinced, following the discussion, that there was a leachate problem at the site. He indicated that he did not know the nature of the material used in the eastern dyke and that it might well be pervious to the movement of leachate. Earlier memos in the permit file make reference to the use of Hog fuel for this dyke.

To correct the situation he agreed to complete the installation of drain pipe from the dyke face to the sump as soon as conditions will allow. He was reminded that swamp pads can be used in situations such as this to allow equipment access.

At the time of the meeting, the undersigned received copies of four monitoring reports completed since February 1977. A brief review of their content reveals that:

1. Samples taken from the ground water monitoring well do not show significant evidence of contamination by the dump leachate.
2. Both dissolved and total levels of Cu and Pb in the pump station leachate have been consistently at or below the detectable limit.
3. Ammonia levels in the creek jumped to an alarming level of 6.6 ppm in October, 1977.
4. Suspended solids and turbidity are being monitored in the ground well?

A review of the sampling locations indicates that:

1. Relative to the EVS recommended monitoring program (dated November 26, 1976), that they are following, they have chosen their Willbrand Creek station - upstream from the dump. This location will not serve to indicate changes in the quality of Willbrand Creek that might occur as a result of dump activities. ✓

2. The ground water station is positioned in a location which would seem (topographically speaking) to be almost a control and certainly not an effective location for the only groundwater station. ✓

In addition, it was noted at the time of the meeting that Mr. Spencer was referring to the EVS monitoring program (dated November 26, 1976; permit file) as he discussed monitoring requirements. These requirements are contrary to those proposed by the Regional Manager in a memo, dated January 27, 1977, especially with regard to monitoring frequency.

To correct the above situations, it is recommended:

1. That they be required to add another groundwater monitoring well outside the east dyke near the middle of the dyke. ✓
2. That they be required to add a creek station where Willbrand Creek crosses the Abbotsford - Mission highway. ✓
3. That their requirement to monitor dissolved and total Cu and Pb levels be suspended until future Pollution Control Branch random checks show the presence of these metals in the sump. ✓
4. That their requirement to monitor suspended solids and turbidity in the ground water well(s) be lifted. *— leave in to monitor seepage & pH on side of well GRG.*
5. That the Regional Biologist investigate the reason for the high creek NH_3 level. This may be related to seepage from the M.S.A. lagoons upstream.
6. That the district be reminded of their need to sample the monitoring stations on a bimonthly basis, as recommended by the Regional Manager (note item 3 above re Cu). ✓

In addition, it is recommended that correspondence being sent to the Permittee be sent to the attention of the Superintendent of Water and Sanitation Operations who is directly responsible for managing the works and any related monitoring program.

G. R. Gough

G. R. GOUGH,
REGIONAL BIOLOGIST.

GRG/fa

cc: D. DOUGLAS (VICTORIA)



CORPORATION OF THE DISTRICT OF MATSQUI

32383 South Fraser Way, Clearbrook, B.C. V2T 1W7 Telephone 853-2281

Mayor Harry De Jong

Municipal Clerk Brian E. Strong, B.Sc.

August 31, 1978

FILE: G-1-3 PR 3955

Ministry of The Environment
Pollution Control Branch
313 - 6th Street
New Westminster, B.C.
V3L 3A7

Attention: Mr. D. W. Miller
P. Eng.

Dear Sir:

RE: McCALLUM ROAD SITE LEACHATE PROBLEM

I am sorry you found it necessary to write as you did, referring to your letter #0262100-PR-3955 dated August 23, 1978, we are certainly not intensionally being uncooperative.

Im sure that had you looked closer during your recent visit you would have seen that "Big-O" had in fact been laid along the dyke bottom and covered with drain rock. That work was done the week following your request, however, we have not completed this work running parallel with the road because of being unable to get equipment in owing to unstable swampy conditions.

We are hoping as time permits to build a hog fuel road to get a back hoe in there or, failing that, to use hand labour as that becomes available.

Your request will be met with although, I feel that I must disagree with you on interpretation. The problem, if it is one, I believe, is not caused by leachate. My feeling is that the water which lies there is little different to that which would lie there if this site was not used as a land-fill site.

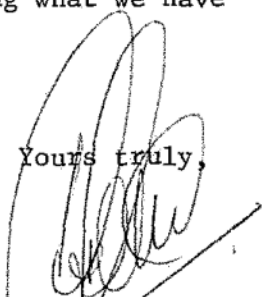
cont'd....2

cont'd....2

If you remember, during your visit on July 12, 1978, we talked on analytical parameters. You indicated that you would be able to obtain some guideline information in this regard, perhaps I can expect something from you shortly.

I trust we shall not be too long in completing what we have set out to do.

Yours truly,


Derek G. Spencer
Superintendent of Water
and Sanitation Operations

DGS/mf

cc: D. DOUGLAS (VICTORIA)



CORPORATION OF THE DISTRICT OF MATSQUI



CHEMEX LABS LTD.

12 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 985-0648
AREA CODE: 604
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: Corp. of the Dist. of Matsqui
Public Works Dept.
32383 S. Fraser Way
Clearbrook, B.C.

ATTN: D. Spencer

P.O. #22990 Feb. 14/75

CERTIFICATE NO. W3293

INVOICE NO. 23303

RECEIVED Feb. 17/78

ANALYSED Feb. 28/78

SAMPLE NO. :	Pump Station	Creek Monitor	Ground Water Monitor
✓ pH	5.85	7.08	6.07
× Susp. Solids (mg/L)	160	9.6	350
✓ Tot. Diss. Solids (mg/L)	3600	94	320
× Turbidity (NTU)	125	1.8	58
✓ Color (True)	200	28	600
✓ Conductivity (umhos/cm)	2750	150	400
✓ B.O.D. (mg/L)	420	10	80
× Tot. Cu (ppm)	< 0.02	< 0.02	0.02
× " Pb "	< 0.02	< 0.02	< 0.02
✓ " Zn "	0.90	0.04	0.66
✓ " Fe "	420	0.96	88
× " Mn "	39	0.22	12
✓ Tot. PO ₄ (mg/L P)	2.0	0.04	0.80
NO ₂ +NO ₃ (mg/L N)	0.17	1.4	0.13
✓ NH ₃ -N ₂ (mg/L N)	110	< 0.01	< 0.01
× Alkalinity (mg/L CaCO ₃)	803	50.6	199
× Hardness (mg/L CaCO ₃)	843	52.5	144
× Diss. Cu (ppm)	< 0.02	< 0.02	< 0.02
× " Pb "	< 0.02	< 0.02	< 0.02
" Zn "	0.25	0.02	0.13
" Fe "	200	0.15	29
" Mn "	1.3	< 0.02	6.0



MEMBER
CANADIAN TESTING
ASSOCIATION

CERTIFIED BY: *[Signature]*

Don Miller

1/E
This should not happen p/s
if collection properly drains
to pump station unless

P.S. is not operated regularly

P/s phone Ed Rytte & find out
otherwise dyke lining should
be repaired

(2)



(3) File

Called E. R. July 4 -
will inspect site
with Works Super.
next opportunity re.

BRER RABBIT COPYPRINT
406 6th St., New Westminster, B.C.
525-0307

ASSISTANT REGIONAL MANAGER
LOWER MAINLAND REGION

SEPTEMBER 19, 1978

File: 0262100-PR-3955

Re MATSQUI: McCALLUM ROAD REFUSE SITE

At your request, I met with Derek Spencer, Superintendent of Water and Sanitation Operations on September 12th and answered his queries on the nature of the leachate problem at the above site.

Mr. Spencer was shown the results of the June 6th conductivity survey and seemed convinced, following the discussion, that there was a leachate problem at the site. He indicated that he did not know the nature of the material used in the eastern dyke and that it might well be pervious to the movement of leachate. Earlier memos in the permit file make reference to the use of Hog fuel for this dyke.

To correct the situation he agreed to complete the installation of drain pipe from the dyke face to the sump as soon as conditions will allow. He was reminded that swamp pads can be used in situations such as this to allow equipment access.

At the time of the meeting, the undersigned received copies of four monitoring reports completed since February 1977. A brief review of their content reveals that:

1. Samples taken from the ground water monitoring well do not show significant evidence of contamination by the dump leachate.
2. Both dissolved and total levels of Cu and Pb in the pump station leachate have been consistently at or below the detectable limit.
3. Ammonia levels in the creek jumped to an alarming level of 6.6 ppm in October, 1977.
4. Suspended solids and turbidity are being monitored in the ground well?

A review of the sampling locations indicates that:

1. Relative to the EVS recommended monitoring program (dated November 26, 1976), that they are following, they have chosen their Willbrand Creek station - upstream from the dump. This location will not serve to indicate changes in the quality of Willbrand Creek that might occur as a result of dump activities.

2. The ground water station is positioned in a location which would seem (topographically speaking) to be almost a control and certainly not an effective location for the only groundwater station.

In addition, it was noted at the time of the meeting that Mr. Spencer was referring to the EVS monitoring program (dated November 26, 1976; permit file) as he discussed monitoring requirements. These requirements are contrary to those proposed by the Regional Manager in a memo, dated January 27, 1977, especially with regard to monitoring frequency.

To correct the above situations, it is recommended:

1. That they be required to add another groundwater monitoring well outside the east dyke near the middle of the dyke.
2. That they be required to add a creek station where Willbrand Creek crosses the Abbotsford - Mission highway.
3. That their requirement to monitor dissolved and total Cu and Pb levels be suspended until future Pollution Control Branch random checks show the presence of these metals in the sump.
4. That their requirement to monitor suspended solids and turbidity in the ground water well(s) be lifted.
5. That the Regional Biologist investigate the reason for the high creek NH_3 level. This may be related to seepage from the M.S.A. lagoons upstream.
6. That the district be reminded of their need to sample the monitoring stations on a bimonthly basis, as recommended by the Regional Manager (note item 3 above re Cu).

In addition, it is recommended that correspondence being sent to the Permittee be sent to the attention of the Superintendent of Water and Sanitation Operations who is directly responsible for managing the works and any related monitoring program.

G.R.G.

G. R. GOUGH,
REGIONAL BIOLOGIST.

GRG/fa

August 23, 1978

Corporation of the District of Matsqui
32383 South Fraser Way
Clearbrook, B.C.
V2T 1W7

Attention: Mr. Ed Regts, P. Eng.

Gentlemen:

re: McCallum Road Site
Leachate Problem

On July 12, 1978, I met with Mr. D. Spencer, Matsqui Works Superintendent at the McCallum Road Refuse Site to inspect and resolve the problem of leachate buildup along the dyke as shown on the attached sketch. At my request Mr. Spencer agreed to install "Big-O" drainage pipe inside and to the full extent of the dyke, at about 2 feet deep. The pipe which would be overlain with drain rock would be connected to the pump station. The time required for construction was estimated six weeks from the day of our meeting.

During an inspection this week it was noted that the leachate continues to collect at the dyke. There was no evidence of the said improvements having been constructed. We therefore request that the District give this matter their immediate attention so that the works are installed by mid September.

Your cooperation in this regard would be appreciated.

Yours truly,



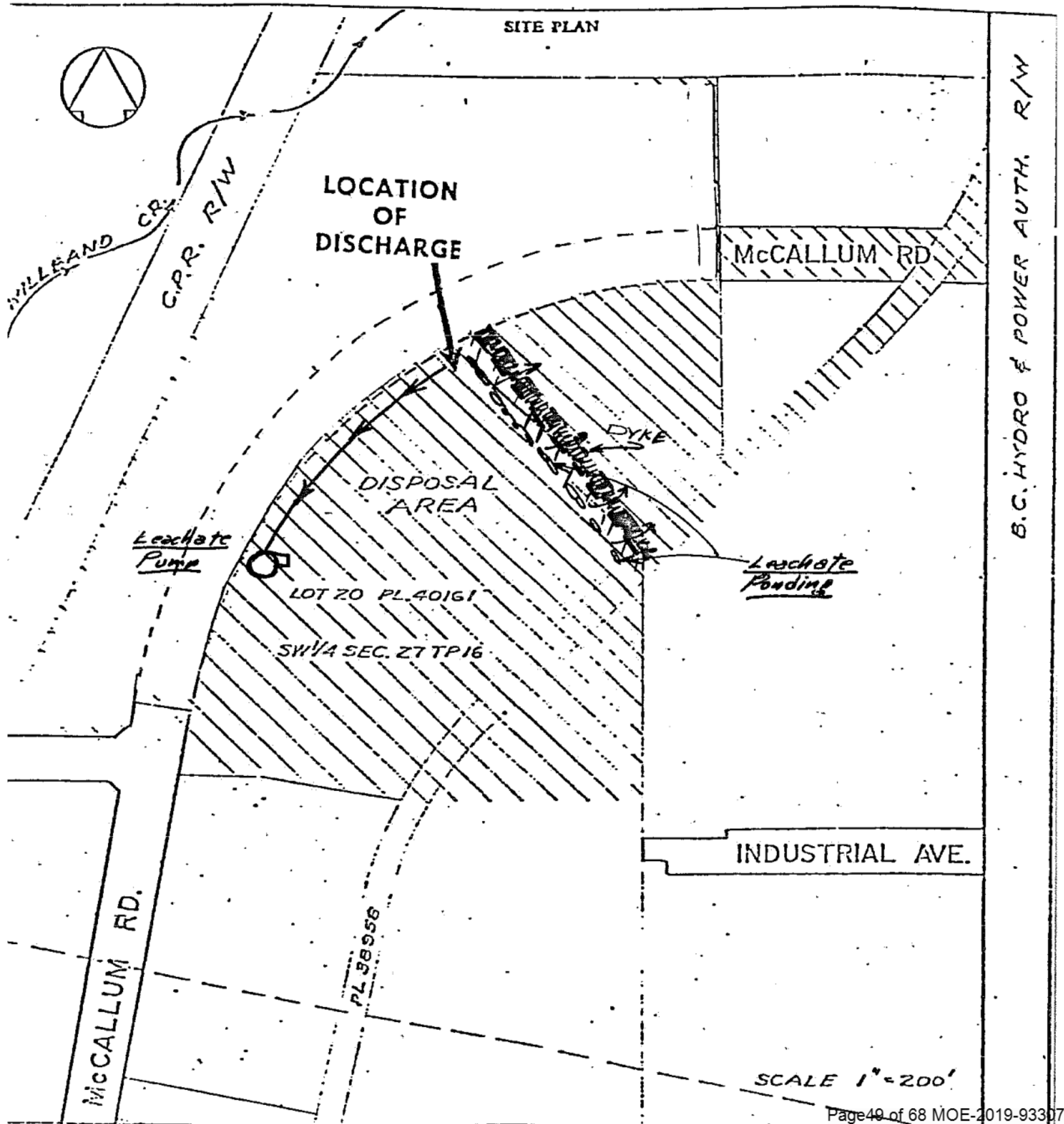
D. W. Miller, P. Eng.,
Assistant Regional Manager

DWM/dm
Attachment

CC: D. DOUGLAS (VICTORIA)



DEPARTMENT OF LANDS, FORESTS, AND WATER RESOURCES
WATER RESOURCES SERVICE
POLLUTION CONTROL BRANCH



B.C. HYDRO & POWER AUTH. R/W

MEMORANDUM

TO FILE

FROM

D. W. MILLER, ASSISTANT REGIONAL MANAGER

July 20th 1978

SUBJECT PR-3955, MATSOUI - McCALLUM ROAD SITE

OUR FILE 0262100-PR-3955

YOUR FILE

On July 13, 1978, I met Matsqui Works Superintendent, Derrick Spencer at the site to discuss the collection and disposal of leachate presently standing at the northeast side of the site along the dyke. Derrick Spencer was surprised at seeing the leachate at that location and agreed to take immediate action to place drain pipe the full length of the inside of the dyke, about two feet below the surface. The drain pipe would flow by gravity to the existing leachate pump. This improvement will result in a general lowering of the local water table along the dyke and prevent any leachate from escaping at least from that end of the site.

D. Spencer believed the work should be completed in about six weeks.

In regard to the leachate pumping facility he said a standby pump was being installed.

D. W. MILLER

DWM/fa

WGH		
DWM		<i>[initials]</i>
HYW		
EML		
TRF		
GRG	<i>[initials]</i>	G.R.G.
ZAM		
JYL		
GSK		
JTB		
BJM		
PKC		
RDH		
FEA		
DMM		
File	<i>[initials]</i>	

MEMORANDUM

TO REGIONAL MANAGER - LOWER MAINLAND

FROM

G. R. GOUGH, REGIONAL BIOLOGIST

JUNE 22 1978

SUBJECT FUGITIVE LEACHATE FROM PR-3955 MATSQUI

OUR FILE

YOUR FILE

In accordance with Victoria's request for field information on the Matsqui refuse site PR-3955 the undersigned visited the site on June 16, 1978, and noted the following:

Conductivity measurements taken with a Beckman RB3 Solu Bridge indicate that leachate emanating from the refuse has mixed with rain or ground water and covered the field inside the dyke up to about .3 m deep next to the dyke (see attached diagram; numbers are conductivity readings). Readings on the outside of the dyke further indicate that the leachate is seeping through, under or around the dyke and contaminating ponded water on the outside of the dyke. This water is gaining access to a tributary of Willband Creek as is evidenced by the increase in conductivity from 160 upstream to 280 downstream from this contaminated field. Grass in the contaminated field presumably hides the movement of leachate eastward. Conductivity measurements taken by C. S. Ribble of this office on May 18 also show an increase in conductivity in Willband Creek past its confluence with this contaminated tributary.

The undersigned believes that the under drain collectors may, in essence, be draining the leachate away from the refuse and to the exposed area inside the dyke because the ground slope is downward - away from the working face. This movement seems facilitated by the observation that covered tile is continuous with an extensive section of uncovered tile in the field near the face. Leachate may simply be draining into the covered section of the drain pipe and escaping into the field out of the exposed section of pipe.

The escape of leachate through the dyke seems impossible in that the dyke outwardly appears to be made of clay. This leads one to suspect that the leachate is seeping under the dyke or possibly around the ends, especially the northern end where a new gravel road has been constructed.

Restoration of the integrity of this site appears to lie in resurfacing the lower face of the dyke, the railway tracks to the south and the road side to the north with clay. This resurfacing should be conducted below the present ground level to reduce the possibility of subsurface leachate movement as well.

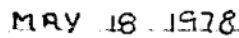
G. R. Gough
G. R. GOUGH,
REGIONAL BIOLOGIST.

GRG/fa

cc: D. A. Douglas,
Interior Section: Municipal Division

MAP

16 / 6 / 78



Wells ☐
Surface ☐
samples
creek



YOUR FILE

OUR FILE 0262100-PR-3955

June 15, 1978



Environmental Protection Branch
4th Floor, Kapilano 100
West Vancouver, BC
V7T 1A2

Attention: Mr. M. Ito, P. Eng.
Director

Gentlemen:

Re: Permit Amendment Application Pursuant to Pollution Control Act
on behalf of the Corporation of the District of Matsqui, dated
January 13, 1978.

This will confirm my telephone conversation today with Mr. Norm Jung,
of your Branch, concerning the matters raised in your letter dated
April 11, 1978.

Because the surface liquid was identified as being located outside
the dykes containing the land fill operation, our Regional Manager
has been requested to sample the area to assist in establishing the
source of the ponded water. As recommended, these are to include
the leachate inside the dyke, surface water on the opposite side of
the creek and the tributary creek water itself. We are considering
a conductivity study for this purpose.

You can expect our advice on the result of these analyses and in the
meantime we enclose a copy of Permit PR-3955 as requested.

Yours very truly,

D. A. Douglas
D. A. Douglas, P. Eng.
Interior Section
Municipal Division

DAD/cad

Encl.

cc: Mr. G. Gough - Lower Mainland

WGH	<input checked="" type="checkbox"/>
DWM	<input checked="" type="checkbox"/>
HYW	<input checked="" type="checkbox"/>
EML	<input type="checkbox"/>
TRF	<input type="checkbox"/>
GRC	<input checked="" type="checkbox"/>
ZAM	<input type="checkbox"/>
JYL	<input type="checkbox"/>
GSK	<input type="checkbox"/>
JTB	<input type="checkbox"/>
BJM	<input type="checkbox"/>
PKC	<input type="checkbox"/>
RDH	<input type="checkbox"/>
FEA	<input type="checkbox"/>
DMM	<input type="checkbox"/>
File	<input type="checkbox"/>

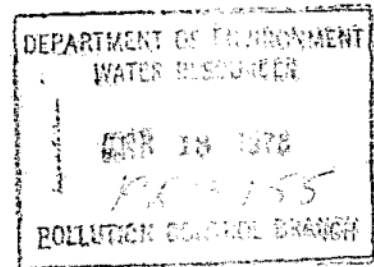
Environment Canada Env. Inement
Canada Canada

Environmental Protection Protection de
Protection l'Environnement

4th Floor, Kapilano 100 - Park Royal,
West Vancouver, B. C. V7T 1A2

April 11, 1978.

Mr. W.N. Venables, P. Eng.,
Director, Pollution Control Branch,
Water Resources Administration,
Ministry of the Environment,
Parliament Buildings,
Victoria, B. C. V8V 4S5



Your file Votre référence

Our file Notre référence
4782-M341

Dear Mr. Venables:

Re: Application for Amendment to PCB Permit PR-3955 -
The Corporation of the District of Matsqui

The Environmental Protection Service has reviewed the subject permit amendment application and the following comments are presented for your consideration.

Fisheries and Marine Service expressed concern at the time of the original permit application that leachate could contaminate Willband Creek, an important salmon stream. The permit application stated that the disposal site would be located not less than 500 feet from the nearest watercourse, although an accompanying map indicated it would be less than 200 feet from Willband Creek.

An on-site inspection of the site by Fisheries personnel indicated the disposal area can be inundated at times. Since the top layer of soil in the area is peat and there is a high water table, we object strongly to the above amendment application.

Enclosed are copies of Fisheries and Marine Service correspondence regarding this permit and the amendment application. We would appreciate being kept informed of the status of this permit.

Yours truly,

B.A. Heskin, P. Eng.,
Regional Director General, Pacific Region,
Environmental Protection Service,
Department of Fisheries and the Environment.

Encl.

c.c. Dr. I.K. Birtwell,
A/Chief, Water Quality Division,
Habitat Protection Directorate,
Fisheries & Marine Service
C. R. M. L. M.

DISTRIBUTION	DATE	INITIALS
DAD	26.4.78	D
R/c		

MEMORANDUM

NOTE DE SERVICE

TO: M. Ito, Director
Environmental Protection Branch

FROM: I. K. Birtwell, Chief
Water Quality Division
Habitat Protection Unit

E. Ballanger

RD. _____	Water _____
SECURITY - CLASSIFICATION - DE SECURITE _____	
P.P.A. _____	FED. ACT. _____
M.T.S. _____	EC. PROT. _____
OUR FILE - N/REFERENCE	MAR 06 1978
5795-1	2ec. _____ OP. PROT. _____
YOUR FILE - V/REFERENCE	LETTER # _____
FILE #	1782-11391
DATE March 2, 1978	

SUBJECT: PCB PERMIT AMENDMENT APPLICATION #PR-3955 - THE CORPORATION OF
OBJET: THE DISTRICT OF MATSQUI

The subject application concerns a proposal to increase the daily volume of domestic refuse discharged to a small existing landfill from 25 to 100 cubic yards, and to extend the life of the landfill until December 31, 1978.

The Fisheries Service originally objected to the landfilling of this area (see attached November 25, 1974 memorandum, Boyd to Webster). Concern was expressed regarding the landfill's proximity (200 ft.) to Willband Creek, a coho producing stream which flows into Clayburn Creek, a tributary of Matsqui Slough. Willband Creek annually supports up to 25 spawning coho salmon, and Clayburn Creek has a run of approximately 300 coho salmon. In addition, both creeks have a small steelhead run.

An on-site inspection of the landfill was conducted by Habitat Protection staff on February 22, 1978. At that time it was learned that domestic refuse had been deposited to a depth of about ten feet over the southern corner of the landfill site. Four-inch perforated plastic drain pipe has been laid over adjacent unfilled areas presumably to collect and drain standing water during the extension of the landfill. The ground water table was observed at or near the ground surface throughout the site (See Photograph #1). According to PCB Municipal Waste Objectives, landfilling of swampy land may only be undertaken using inert fill material.

In view of its high water table, and because the site is situated within 200 feet of Willband Creek and somewhat closer to its tributary, (Photograph #2) Fisheries Service objects strongly to this amendment application.

I. K. Birtwell
I.K. Birtwell, Chief
Water Quality Division

SS:gg
Encl.

cc. G. Jones, Acting Manager
L.S. Freeman, District Supervisor
B. Cox, F & W/L

*noted
KAC 9/13/78*



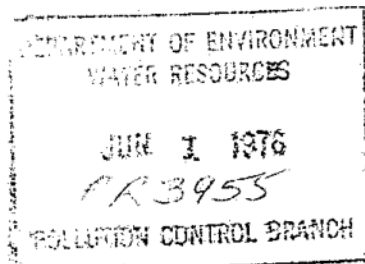
Province of
British Columbia
#2, 17744 - 57th Ave.,
Surrey, B. C.
V3S 1H2

Ministry of
Recreation and
Conservation
FISH AND WILDLIFE BRANCH

YOUR FILE
OUR FILE 0466)CL)

May 26, 1978

Pollution Control Branch,
Parliament Buildings,
Victoria, B. C.



Attention: W. N. Venables, Director

Re: Application for amendment on
behalf of the Corporation of the
District of Matsqui.

Dear Sir:

This office understands from a telephone conversation with Paul Christianson of your New Westminster office that the proposed amendments to the application will not increase the presently permitted size of the dump area. Therefore, we have no objections to the application. However, if future operations at the dump site are to encroach closer to Willband Creek than is presently the case, we recommend a dyke be constructed between the dump and the Creek to contain any leachate produced. The dyke should be constructed from inert mineral fill and constructed before further dumping takes place.

Thank you for your consideration.

Yours sincerely,

Lorna M. Giles

L. M. Giles,
Habitat Protection Technician

LMG/cld

cc: B. Cox, Habitat Protection Biologist, Burnaby Fish & Wildlife
S. Samis, Fisheries & marine Service

DAP 7.678 D	
File	

May 2, 1978

Environmental Protection Service
Department of Fisheries and the Environment
4th Floor, Kapilano 100, Park Royal
West Vancouver, British Columbia
V7T 1A2

Attention: Mr. B.A. Heskin, P. Eng.
Regional Director General,
Pacific Region

Gentlemen:

Application for Permit Amendment Pursuant to
Pollution Control Act on behalf of The Corporation
of the District of Matsqui, dated January 13, 1978.

This will acknowledge receipt of your comments dated April 11, 1978 concerning the subject amendment application.

In issuing the original permit August 9, 1976, due regard was given to your agency's advice by letter of February 10, 1975 that "to prevent contamination of Willband Creek it is essential that run-off or leachates be prevented". In this regard, a system of under-drain collectors has been installed and the leachate pumped away from the site for treatment in the municipal plant. The design of this system has received approval from this Branch as required by item D. 'Plans' of the Letter of Transmittal to the present permit. Item D. also requires the works for each phase of the project to be approved before construction commences.


It is intended that the adequacy of the operation be assessed through an ongoing program of inspection and monitoring. For this reason, the original permit was granted for a period of approximately one year only and the subject amendment was undoubtedly influenced for the same reason in requesting an extension to December 31, 1978.

... 2

Accordingly, we would appreciate early clarification on whether your concerns would be allayed by granting the amendment request on the same basis of continued leachate control and substantiation of the works to adequately control pollution.

Yours very truly,

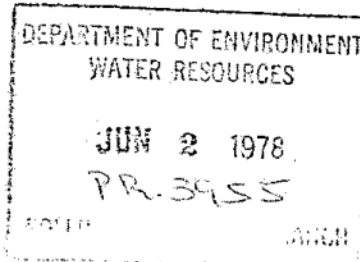
R.S.


D.A. Douglas, P. Eng.
Interior Section
Municipal Division

DAD:db



Fisheries and Environment Canada Pêches et Environnement Canada
Environmental Protection Protection de l'Environnement
4th Floor, Kapilano 100, Park Royal
West Vancouver, B.C., V7T 1A2



May 29, 1978

Mr. D.A. Douglas, P.Eng.
Interior Section, Municipal Division
Pollution Control Branch
1106 Cook Street
Victoria, B.C.
V8V 1X4

Your file Votre référence
0262100-PR-3955

Our file Notre référence
4782-M341

Dear Mr. Douglas:

Re: Application for Amendment Pursuant to Pollution Control Act, on behalf of District of Matsqui, dated January 13, 1978

In your letter of May 2, 1978, you asked for clarification of our position regarding the subject amendment application. We did not receive a copy of the original permit or Letter of Transmittal so we were not aware of your requirements for leachate control at the site.

Immediately north of the area presently being filled, there is considerable standing water. Further north, and adjacent to a small tributary of Willband Creek, the ground is also covered with a black oily scum which has a septic odour, and appears to be contaminating the small stream. We are concerned that this may arise from the landfill, which would create doubt as to the adequacy of the leachate control system. Information derived from your ongoing program of inspection and monitoring should resolve this doubt.

In the interim, however, we must continue to object to the amendment application until we are satisfied that all leachates are guided away from any watercourses and treated. We would appreciate any further information regarding this permit's status. Also, please forward to us a copy of Permit PR-3955 and the accompanying Letter of Transmittal for our records.

Yours truly,

M. Ito, P.Eng.
Director
Environmental Protection Branch

DISTRIBUTION	DATE	INITIALS
DAD		

INSPECTION REPORT - REFUSE

Permit Inspection ☒Sampling Inspection ☐I. Permit No. PR 3955Inspected by P. ChristensenName Matigui, District ofDate July 5/78Location AbbotsfordWeather SunnyContacted Position Permit Conditions Level A

II. Refuse

1. Operation

(a) Minimal working face yes(b) Burning no(c) Type of refuse Municipal(d) Covering and Compaction (material, extent, etc.) good covering & compaction
cover material stockpiled.

2. Zone of Influence

(a) Leachates none observed(b) Debris, etc. noneIII. Status of Permit (compliance with Permit) operation within permit requirements
of P.C.B. - pending permit amendment.IV. Additional Comments some standing water noted in undeveloped area
near dyke and ahead of active face.V. Instruction left with Permittee or Site Operator VI. Follow-up Contact with Permittee VII. Action Recommended none

CHIEF - MUNICIPAL DIVISION

P. K. CHRISTENSEN, LOWER MAINLAND REGION

APRIL 13th 78

AR-3955, MATSQUI, CORPORATION OF THE DISTRICT OF
SITE INSPECTION REPORT

0262100-AR-3955

On March 15, 1978, P. Christensen inspected the District of Matsqui refuse site on McCallum Road in Abbotsford. This report is intended to up-date E. M. Lawson's inspection report of October 17, 1974.

BACKGROUND

The site has been in operation now for approximately a year with no negative aspects with regard to day to day maintenance. The site has been progressing from the intersection of McCallum Road and Industrial Avenue in a northerly direction with the active face moving across the face as required.

Sampling data has not been received from the District of Matsqui, nor is there evidence that sampling wells have been installed.

SOURCE OF WASTE

The type of waste remains the same as municipal type wastes although the amount is to be increased from 25 cu. yds./day to 100 cu. yds./day from the Abbotsford and Matsqui areas. A population base is not essential since the Trethewy Road site will accept any waste over the quantity to be discharged to this site.

There will be no burning at this site.

SITE CHARACTERISTICS

The site is a peat bog with the typical accompanying vegetation. The substrata is peat over clayey-silty soil with a water table recorded to surface.

The site is presently bordered by a dyke to the northeast, McCallum Road to the west, Industrial Avenue to the south and a B.C.H. railway spur to the east. Beyond the dyke to the northeast a drainage ditch flows to Willband Cr. in a northerly direction.

SITE OPERATION

The operation will remain as a Level "A" landfill with refuse diverted from the Matsqui refuse site on Trethewy Road near Clearbrook to increase disposal of this site to 100 cu. yds./day. The leachate collection system, pump station and drainage pipe, has been installed at the site as per existing permit requirements.

COMMENTS

Based on the performance at both sites operated by Matsqui, this site will be well run in the handling of the additional load.

Sampling wells should be installed at an early date as rapid filling of the site will leave less time to evaluate any effects of the refuse disposal on groundwater quality in the area.


RECOMMENDATIONS

This office does not object to the amendment of the permit PR-3955 in the name of the Corporation of the District of Matsqui to increase the quantity of discharge to 100 cu. yds./day and to extend the expiry date to December 31, 1978.

The operation should be maintained as a Level A landfill in accordance with the Pollution Control Objectives for Municipal Type Landfills and also with any specific conditions not contained therein but covered by the Letter of Transmittal dated August 9, 1976.



P. K. CHRISTENSEN



D. W. MILLER

PKG/fa



05-Jun-85

(MINISTRY OF ENVIRONMENT
ENVIRONMENTAL LABORATORY
Report for form 00014606

Page- 1

Lower Mainland - Waste Program

ATTN: KANG G S

Submitted by (27490) KANG G S

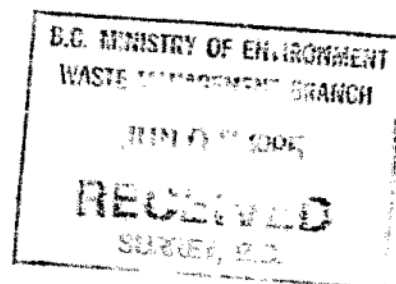
Phone No. 584-8822
Address (06) Waste Management Branch
Lower Mainland Region
15326 - 103A Avenue
Surrey, BC V3R 7A2

Audit Sample ()
Client study reference code ()
Sampling agency code (03)

Site (NOSITE) MATSQUI LEACHATE - PR3955

Sample Adjective ()
Sample State (WW) Waste Water
Sample Descriptor (LE) Leachate

This form was processed to the computer on 16-MAY-1985 as REGULAR
The cost for analyzing samples for this form is \$ 130.80



Lower Mainland - Waste Program

ATTN: KANG G S

From : 85/05/15:1110 To : 85/05/15:1110 Depth Range 0.0 0.0 Tide
 Sample State Waste Water Sample 85002463

Parameter Description	Analytical Technique	Result	Units
pH	pH Meter	6.7	pH units
Conductance Specific	Cond. Meter Siebold	1000	uS/cm
Biochem. Oxygen Dem.	Seeded Dil. Nit. Inh. 5 Day	< 10	mg/L
Aluminum	N/H Dig: ICP Anal.	0.11	mg/L
Arsenic	N/H Dig: ICP Anal.	< 0.25	mg/L
Calcium	N/H Dig: ICP Anal.	73.0	mg/L
Cadmium	N/H Dig: ICP Anal.	< 0.01	mg/L
Cobalt	N/H Dig: ICP Anal.	< 0.1	mg/L
Chromium	N/H Dig: ICP Anal.	0.03	mg/L
Copper	N/H Dig: ICP Anal.	< 0.01	mg/L
Iron	N/H Dig: ICP Anal.	67.0	mg/L
Magnesium	N/H Dig: ICP Anal.	21.2	mg/L
Manganese	N/H Dig: ICP Anal.	8.98	mg/L
Molybdenum	N/H Dig: ICP Anal.	0.01	mg/L
Nickel	N/H Dig: ICP Anal.	< 0.05	mg/L
Lead	N/H Dig: ICP Anal.	< 0.1	mg/L
Vanadium	N/H Dig: ICP Anal.	< 0.01	mg/L
Zinc	N/H Dig: ICP Anal.	0.14	mg/L
Nitrogen Organic-Tot	Calculated Result	4.20	mg/L
Nitrogen Kjeld. Tot(N)	Block Dig. Auto. Color	40.9	mg/L
Nitrogen Total	Calculated Result	41.0	mg/L
Nitrogen Amm. Diss(N)	Automated Bertholot meth	36.7	mg/L
Nitrogen NO3+NO2 Dis	Auto. Cadmium Reduction	0.06	mg/L
Nitrogen NO3 Diss(N)	Calculated Result	0.05	mg/L

05-Jun-85

MINISTRY OF ENVIRONMENT
ENVIRONMENTAL LABORATORY
Report for form 00014606

Page- 3

Lower Mainland - Waste Program

ATTN: KANG G S

From : 85/05/15:1110 To : 85/05/15:1110 Depth Range 0.0 0.0 Tide
Sample State Waste Water Sample 85002463

Parameter Description	Analytical Technique	Result	Units
Nitrogen NO2 Diss(N)	Auto. Diazotization	0.013	mg/L
Chloride Dissolved	Auto. mercuric thiocyan.	43.1	mg/L

Lower Mainland - Waste Program

ATTN: KANG G S

Parameter Description	Sparcode	Media, Field Prep Rec'd by Lab
Aluminum	Al-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Arsenic	As-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Cadmium	Cd-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Calcium	Ca-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Chromium	Cr-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Copper	Cu-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Cobalt	Co-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Iron	Fe-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Lead	Pb-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Magnesium	Mg-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Manganese	Mn-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Molybdenum	Mo-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Nickel	Ni-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Vanadium	V--T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Zinc	Zn-T0040	05 Bottle-poly(0.5L); Metals 02 Unfil-fld 4mL HNO3/L
Nitrogen NO3+NO2 Dis	11091350	01 Bottle-poly (4.5 L) 01 Unfiltered- no preserv'n
Nitrogen NO2 Diss(N)	11111354	01 Bottle-poly (4.5 L) 01 Unfiltered- no preserv'n
Nitrogen Kjel. Tot(N)	01131360	01 Bottle-poly (4.5 L) 01 Unfiltered- no preserv'n

05-Jun-85

MINISTRY OF ENVIRONMENT
ENVIRONMENTAL LABORATORY
Report for form 00014606

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Lower Mainland - Waste Program

ATTN: KANG G S

Parameter Description	Sparcode	Media, Field Prep Rec'd by Lab
pH	00041220	01 Bottle-poly (4.5 L) 01 Unfiltered- no preserv'n
Conductance Specific	00111160	01 Bottle-poly (4.5 L) 01 Unfiltered- no preserv'n
Chloride Dissolved	11041330	01 Bottle-poly (4.5 L) 01 Unfiltered- no preserv'n
Nitrogen Amm. Diss(N)	11081351	01 Bottle-poly (4.5 L) 01 Unfiltered- no preserv'n
Biochem. Oxygen Dem.	01151110	02 Bottle - poly (1 L) 01 Unfiltered- no preserv'n

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Mainland - Waste Program

ATTN: L HENSEL

Sample 87018553

Site: NOSITE PR 3955 DITCH

LOWER MAINLAND REGION

FILE NO.

A : 88/01/27: 1200

To : 88/01/27: 1200

th Range : 0.0 0.0

Tide :

ple State: Waste Water

ple Comment:

Parameter Description	Result	Units	Analytical Technique (Sparcode/Medium/Pres'n)
pH	6.4	pH units	Automated pH Meter (00041220/35/01)
Specific Conductance	1000 *	uS/cm	Cond. Meter Siebold (00111160/35/01)
Nitrogen Amm. Diss(N)	41.8 *	mg/L	Automated Bertholot meth (11081351/35/01)
Nitrogen NO3+NO2 Dis	0.13	mg/L	Auto. Cadmium Reduction (11091350/35/01)
Nitrogen NO3 Diss(N)	0.09	mg/L	Calculated Result (1110CALC/---/---)
Nitrogen NO2 Diss(N)	0.041	mg/L	Auto. Diazotization (11111354/35/01)
Phosphorus Total	0.047	mg/L	Dig. Auto. Ascorbic Acid (P--T1390/35/01)