Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: Michael Fabijan

Attn:

Sample ID: 2

Taiga Sample ID: 223511

Data Qualifier Descriptions:

11 Holding time exceeded before sample analysis

Report Date: Friday, November 15, 2002

Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: Michael Fabijan

Attn:

Sample ID: Sump Pumpout (Mid) - 1

Taiga Sample ID: 223514

Client Project:

Sample Type: sewage

Received Date: 27-Sep-02

Location: Camp Farewell

Sampling Date: 25-Sep-02

Report Status: Final

Approved by:

Test Parameter	Result	Units	Detection Limit	Analysis Date	Data Qualifier
Physicals					
Chlorine, Residual	0.09	mg/L	0.01	28-Sep-02	
Chlorine, Total	0.09	mg/L	0.01	28-Sep-02	
pH	7.44	pH units	0.05	07-Oct-02	
Solids, Total Suspended	49	mg/L	3	01-Oct-02	
Nutrients					
Ammonia as N	10.5	mg/L	0.005	25-Oct-02	
Biological Oxygen Demand	33	mg/L	2	28-Sep-02	
Phosphorous, Total	5.13	mg/L	0.004	02-Oct-02	
Microbiology					
Coliforms, Fecal	400	CFU/100mL	1	28-Sep-02	11
Organic					
Oil and Grease	1.1	mg/L	0.2	30-Sep-02	

Report Date: Thursday, November 21, 2002

Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: Michael Fabijan

Attn:

Sample ID: Sump Pumpout (Mid) - 1

Taiga Sample ID: 223514

Data Qualifier Descriptions:

11 Holding time exceeded before sample analysis

Report Date: Thursday, November 21, 2002

Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: Michael Fabijan

Attn:

Sample ID: Sump Pumpout (Mid) - 2

Taiga Sample ID: 223515

Client Project: .

Sample Type: sewage

Received Date: 27-Sep-02

Location: Camp Farewell

Sampling Date: 25-Sep-02

Report Status: Final

Approved by:

Test Parameter	Result	Units	Detection Limit	Analysis Date	Data Qualifier
Physicals					
Chlorine, Residual	0.05	mg/L	0.01	28-Sep-02	
Chlorine, Total	0.20	mg/L	0.01	28-Sep-02	
pH	7.44	pH units	0.05	07-Oct-02	
Solids, Total Suspended	44	mg/L	3	01-Oct-02	
Nutrients					
Ammonia as N	11.4	mg/L	0.005	25-Oct-02	
Biological Oxygen Demand	33	mg/L	2	28-Sep-02	
Phosphorous, Total	5.03	mg/L	0.004	02-Oct-02	
Microbiology					
Coliforms, Fecal	100	CFU/100mL	1	28-Sep-02	11
Organic					
Oil and Grease	0.9	mg/L	0.2	30-Sep-02	

Report Date: Thursday, November 21, 2002

Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: Michael Fabijan *Attn:*

Sample ID: Sump Pumpout (Mid) - 2 **Taiga Sample ID: 223515**

Data Qualifier Descriptions:

11 Holding time exceeded before sample analysis

Report Date: Thursday, November 21, 2002

Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: Michael Fabijan

Attn:

Sample ID: Sump Pumpout End -1

Taiga Sample ID: 223508

Client Project:

Sample Type: sewage

Received Date: 27-Sep-02

Location: Camp Farewell

Sampling Date: 25-Sep-02

Report Status: Final

Approved by:

Test Parameter	Result	Units	Detection Limit	Analysis Date	Data Qualifier
Physicals					
Chlorine, Residual	0.05	mg/L	0.01	28-Sep-02	
Chlorine, Total	0.17	mg/L	0.01	28-Sep-02	
pH	7.25	pH units	0.05	07-Oct-02	
Solids, Total Suspended	65	mg/L	3	01-Oct-02	
Nutrients					
Ammonia as N	12.5	mg/L	0.005	25-Oct-02	
Biological Oxygen Demand	44	mg/L	2	28-Sep-02	
Chemical Oxygen Demand	200	mg/L	1	08-Oct-02	
Phosphorous, Total	5.52	mg/L	0.004	02-Oct-02	
Microbiology					
Coliforms, Fecal	< 100	CFU/100mL	100	28-Sep-02	11
Organic					
Oil and Grease	4.2	mg/L	0.2	30-Sep-02	

Report Date: Friday, November 15, 2002

Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: Michael Fabijan

Attn:

Sample ID: Sump Pumpout End -1

Taiga Sample ID: 223508

Data Qualifier Descriptions:

11 Holding time exceeded before sample analysis

Report Date: Friday, November 15, 2002

Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT. X1A 2R3
Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: Michael Fabijan *Attn:*

Sample ID: Sump Pumpout End - 2 **Taiga Sample ID:** 223509

Client Project: **Sample Type:** sewage **Received Date:** 27-Sep-02

Location: Camp Farewell **Sampling Date:** 25-Sep-02

Report Status: Final *Approved by:*

Test Parameter	Result	Units	Detection Limit	Analysis Date	Data Qualifier
Physicals					
Chlorine, Residual	0.05	mg/L	0.01	28-Sep-02	
Chlorine, Total	0.13	mg/L	0.01	28-Sep-02	
pH	7.25	pH units	0.05	07-Oct-02	
Solids, Total Suspended	70	mg/L	3	01-Oct-02	
Nutrients					
Ammonia as N	12.4	mg/L	0.005	25-Oct-02	
Biological Oxygen Demand	45	mg/L	2	28-Sep-02	
Chemical Oxygen Demand	180	mg/L	1	08-Oct-02	
Phosphorous, Total	5.09	mg/L	0.004	02-Oct-02	
Microbiology					
Coliforms, Fecal	<100	CFU/100mL	100	28-Sep-02	11
Organic					
Oil and Grease	1.3	mg/L	0.2	30-Sep-02	

Report Date: Friday, November 15, 2002

Taiga Environmental Laboratory
4601-52nd Ave., Box 1500, Yellowknife, NT, X1A 2R3
Tel: (867)-669-2788
Fax: (867)-669-2718

- CERTIFICATE OF ANALYSIS -

Prepared For: Michael Fabijan

Attn:

Sample ID: Sump Pumpout End - 2

Taiga Sample ID: 223509

Data Qualifier Descriptions:

11 Holding time exceeded before sample analysis

Report Date: Friday, November 15, 2002

NORTHWEST TERRITORIES WATER BOARD

WATER REGISTER: N7L1-1762

June 11, 2002

Mr. Randy Hetman
DAR/Construction Manager
Shell Canada Limited
400 - 4 Avenue S.W.
CALGARY, AB T2P 2H5

Dear Mr. Hetman:

NOTIFICATION OF MODIFICATION

Thank you for your letter of May 24, 2002, and additional information provided on May 30, 2002 notifying the Northwest Territories Water Board of the proposed modifications to the sewage treatment facility. The Board has reviewed the notification and is satisfied that the modification is consistent with the current terms and conditions of your Water Licence.

Please note that as per Part E, Item 3 of your Water Licence, as-built plans and drawings of the new sewage treatment system must be submitted to the Board within ninety (90) days of completion. Please submit a revised Camp Farewell Operations and Maintenance Plan for the new sewage treatment system by September 1, 2002.

If you require further assistance, please contact this office. For enquiries of a technical nature, contact Ms Sarah Aho at (867) 669-2402 or Mr. David Milburn at (867) 669-2650 of the Water Resources Division.

Sincerely,

Gordon Wray
Chairman
N.W.T. Water Board

P.O. Box 1500, Yellowknife, NT, X1A 2R3, 2nd Floor Goga Cho Building
Phone: (867) 669-2772 Fax: (867) 669-2719

SHELL CANADA LIMITED
FAX COVERSHEET

SEND TO		FROM
ATTENTION: **Executive Assistant**		**R. (Randy) H. Hetman** D.A.R./ Construction Manager
COMPANY: **Northwest Territories Water Board**		**Shell Canada Limited** 400 - 4th Avenue S.W. P.O. Box 100, Station M Calgary, Alberta T2P 2H5 Business: (403) 691-2521 Cell: (403) 813-0408 Fax: (403) 269-7895 (403) 269-7948 Email: randy.hetman@shell.ca
DATE: May 30, 2002	LOCATION: Yellowknife	
FAX NO: (867) 669-2719	TELEPHONE NO: (867) 669-2772	
SUBJECT: ***Water License N7L1-1762 – Notification of Modification***		

DESCRIPTION / REMARKS:

Please find attached the revised, as requested, notification of modification at Camp Farewell's wastewater treatment plant. It has been revised to enhance the process description, include volumetric rates, and benefits over the previous RBC system.

Should additional information be required, please feel free to contact the undersigned.

Yours truly,

R.(Randy) H. Hetman

Cc S. F. Gallupe – Inspector – Inuvik District Office (867) 777-2090

Shell Farewell – License N7L1-1762

Proposed
Wastewater Treatment Plant Modifications

Mod. 2002-1

Background

A RBC system was installed at Camp Farewell in January, 2001 and operated until the end of April before being shutdown for the summer. It was again started up in December and operated until March 1, 2002. Difficulties were experienced in achieving License discharge criteria during both operating periods. The plant was also modified in an effort to improve its performance however insufficient time until camp shutdown did not allow for conclusive results.

Modification

The wastewater treating plant will be replaced with an "extended aeration system" which is a modified activated sludge system. The activated sludge process has been in existence for close to 100 years and presently represents the most widespread technology for wastewater purification. In general, the activated sludge process is a continuous or semi-continuous aerobic method for biological wastewater treatment.
The activated sludge process is based on:

- Waste water is aerated in a tank
- Bacteria are encouraged to grow by providing oxygen, Food(BOD), correct temperature and time
- As bacteria consume BOD, they grow and multiply
- Treated wastewater flows into a secondary clarifier
- Bacteria cells settle, and removed from clarifier as sludge
- Part of the sludge is recycled back to the activated sludge tank to maintain bacteria population
- Remainder of sludge is wasted

The attached P&ID shows the system design. The proposed process is:

- Raw sewage enters the equalization tank - purpose to smooth out the flows through the unit
- Wastewater is then pumped to the first aeration tank where complete mixing occurs and then flows to the second aeration tank.
- Water then flows to the aerated sludge digester(SHT). It can be recycled from this point for constant flow maintenance.
- Water then enters the final clarifier (FC) which has a sloped bottom for effective sludge removal and recycling.
- Water flows to the chlorine contact tank however this feature will not be utilized at this time.
- The effluent will be disinfected using a dual, oversized ultraviolet light system in series.

The plant has been designed for 120+ people as well as taking into consideration peak loading. It has a nominal treatment capacity of 9000 usgpd and/or a maximum of 37 lbs. BOD5/day. Total volume of the system is approximately 18000 USG.

Benefits of the System over Previous System

The system is conventional in nature, and all design parameters meet typical textbook requirements. Provided these requirements are met, there is extensive operation data available proving that the system can achieve the desired effluent results.

It is being designed and manufactured by Sanitherm Engineering who have 50 years experience in treatment design and a proven track record for camp style units.

The air blowers and the wastewater equalization pumps are duplexed for 100% standby.

This system is not as rate sensitive as the RBC system and has provision for recycling.

The design has taken peak flows into consideration, which the RBC did not.

The RBC had basic design flaws such as flat clarification tank bottom rather than sloped for effective sludge removal.

This system has dual, large ultraviolet lights for disinfection, which are designed for ease of cleaning. The RBC system had one unit, more suitable for potable water disinfection, and very difficult to clean.

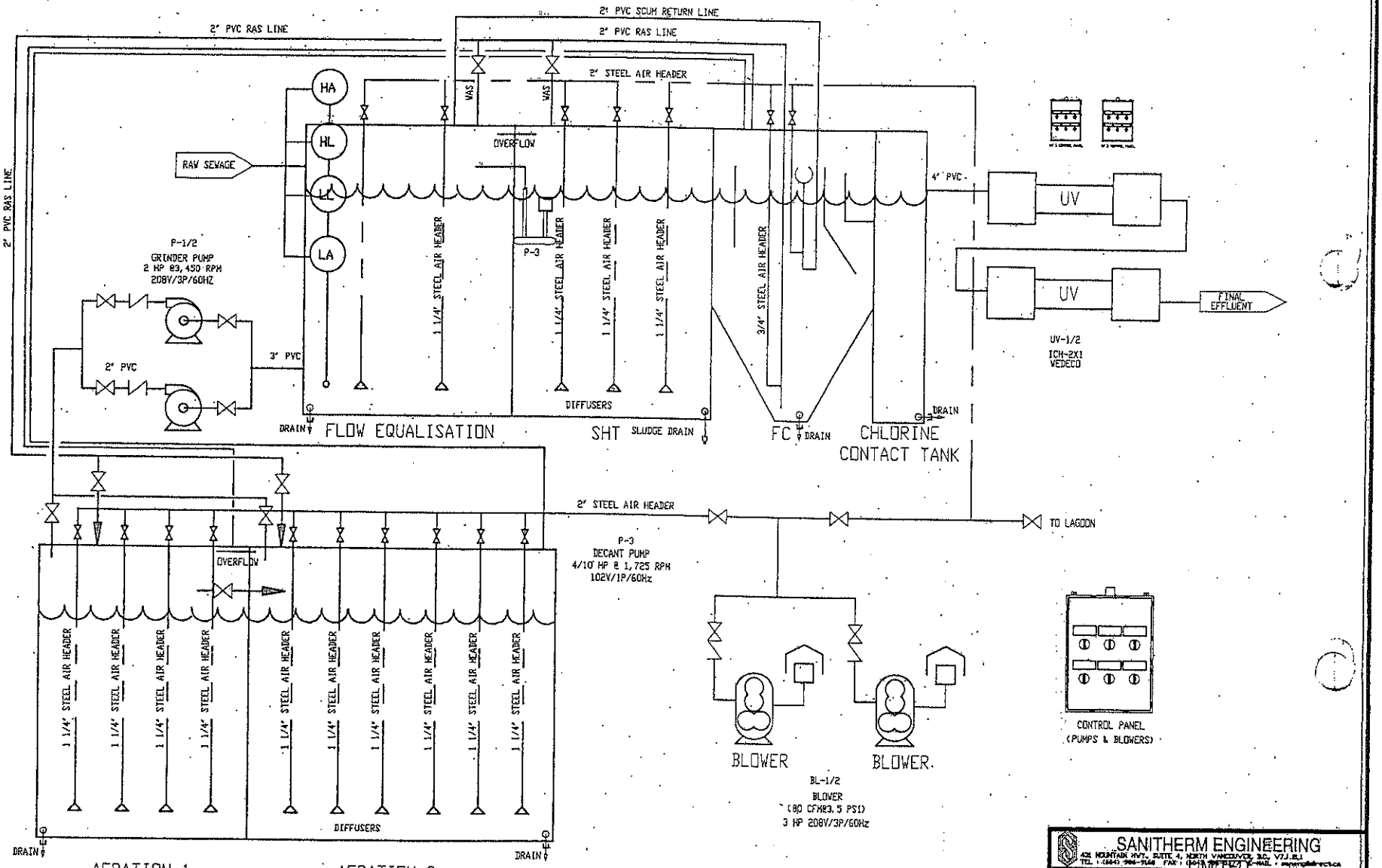
Sanitherm will be supplying an extensive operation manual with procedures and tips for the Operator.

Sanitherm has experienced operational personnel on staff and available for process optimization and operator training.

Startup

Installation is anticipated for early July, 2002. Sanitherm personnel with operational expertise will be on site for start up and training of our camp operations personnel.

The Camp Farewell Operations and Maintenance Plan will be updated once the required information on the new treating plant becomes available.



SANITHERM ENGINEERING LIMITED

TITLE: PACKAGED SEWAGE TREATMENT PLANT P & ID

CLIENT: SHELL CANADA LIMITED

PROJECT: CAMP FAREWELL 120 MAN STP

DRAWN BY	JOB REF NO.	SCALE	PAPER SIZE	REVISED
SC	A2545	N.T.S.	17" X 11"	
CHECKED BY	DATE	SHEET	DWG. NO.	
DMB	22-MAY-2002	1 OF 1	SA-36-001	

REVISION ISSUE	DATE	DESCRIPTION

Shell Canada Limited

400 - 4th Avenue S.W.
P.O. Box 100, Station M
Calgary, Alberta T2P 2H5
TEL (403) 691-3111

Camp Farewell Contingency Plan

December 2000

AMENDED OCTOBER, 2002

Copy # _____

WELL CONSTRUCTION & GEOPHYSICAL OPERATIONS

GENERAL EMERGENCY RESPONSE PLAN, August 2002

This is a controlled document.

This general emergency response plan includes spill contingency plans for liquid, sewage and solid materials. It is effective from September 1, 2002 to November 30, 2005. It applies to Camp Farewell which is located in the Northwest Territories along the east shore of the MacKenzie River – Middle Channel, 50 km downstream from Tununik Point at Longitude 69°-12'-30" and Latitude 135°-06'-04". License number from Northwest Territories Water Board is N7L1-1762 License type B

Controlled Document Distribution

Copy 1	Randy Hetman	
Copy 2	Site Supervisor	
Copy 3	Camp Supervisor	
Copy 4	NWT Water Board	
Copy 5	NWT Water Board Inspector	
Copy 6	Safety Co-ordinator	
Copy 7	Oil Pollution Emergency Plan	Canada Coast Guard

For additional copies of this Controlled Document Contact

Randy Hetman

Shell Canada Limited

P.O. Box 100, Station M

400 4th Ave. S.W.

Calgary, Alberta

T2P 0J4

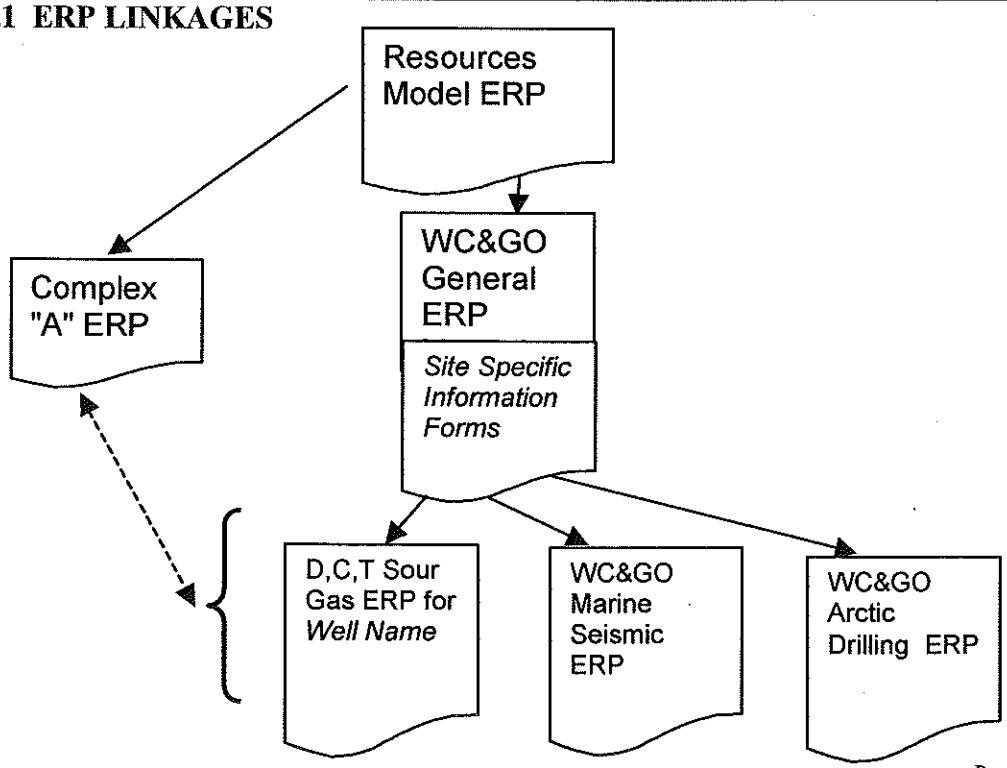
TABLE OF CONTENTS

1.2 Different ERP's : Linkages

Different ERP's : Linkages

- Virtually all of WC&GO activities relate to projects.
- ALL PROJECTS general emergencies will be managed as per this WC&GO General Emergency ERP.
- ALL PROJECTS will have site specific information forms completed (refer to 2.4 WC&GO General ERP Site Specific Information Forms)
- In addition, many projects are more complex and have specific ERP's to cover specific emergencies :
  - **Drilling, Completing, Testing Sour Gas ERP** : drilling and completions projects involving sour gas H_2S. Focuses on response with the public off site (notification, evacuation, roadblocks, etc). These are often linked to Shell Operating Complex ERP's.
  - **Marine Seismic** : focuses on the specific vessel and location of the survey
  - **Arctic Drilling** : focuses on the cold weather issues, remoteness issues, and spill response issues.
- A project could have 2 ERP's, for example, for a sour gas drilling project, the WC&GO General ERP plus a site specific DC&T Sour Gas ERP.

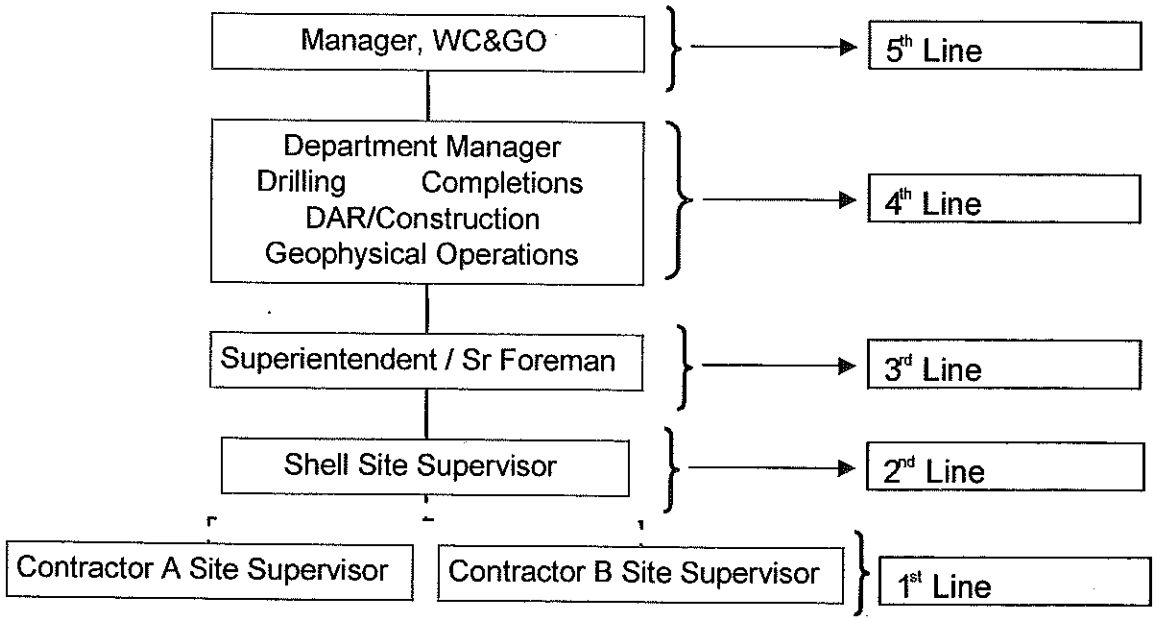
FIGURE 1.1 ERP LINKAGES



Geophysical Operations	• Seismic Acquisition : Land
	  • Foothills low impact seismic
	  • Arctic
	• Seismic Acquisition : Marine
	  • Seismic vessels
	  • Support vessels
	• Geomatics (surveying and positioning) : land and marine

WC&GO Project Worksites : Management & Control	• All the actual hands on work on WC&GO projects is conducted by contractors and service companies. • All WC&GO worksites are managed by a Site Supervisor (Shell Staff or consultant). • Many of the contractors on site have there own HSSD Management Systems, which include Emergency Response. The WC&GO Site Supervisor may use and coordinate the contractor's site ERP, but the resultant ERP must follow the guidelines outlined in this document.

FIGURE 1.2 WC&GO PROJECT WORKSITE MANAGEMEN T



Marine Seismic HSE Case

- All marine seismic projects will have a HSE Case (or equivalent) conducted similar to :

  "HSE Case : Shell Thrumcap 3D

  Vessel : Western Monarch, March 2000"

- A site specific ERP will be developed for each project.
- If a project is a continuation of a previous project, with no major changes in contractor/vessel, HSE Management Systems, or personnel, a review and confirmation of applicability of the pervious HSE Case is acceptable with 5th Line Management approval (Manager, WC&GO).
  - Note : this was done for the 2001 Trumcap #D project based on the 2000 project.
  - The project site specific ERP will be updated as appropriate and re-issued.

Arctic Drilling HSE Case

- All arctic drilling projects will have a HSE Case (or equivalent) conducted.
- A site specific ERP will be developed for each project.
- If a project is a continuation of a previous project, with no major changes in contractor/vessel, HSE Management Systems, or personnel, a review and confirmation of applicability of the pervious HSE Case is acceptable with 5th Line Management approval (Manager, WC&GO).
  - The project site specific ERP will be updated as appropriate and re-issued.

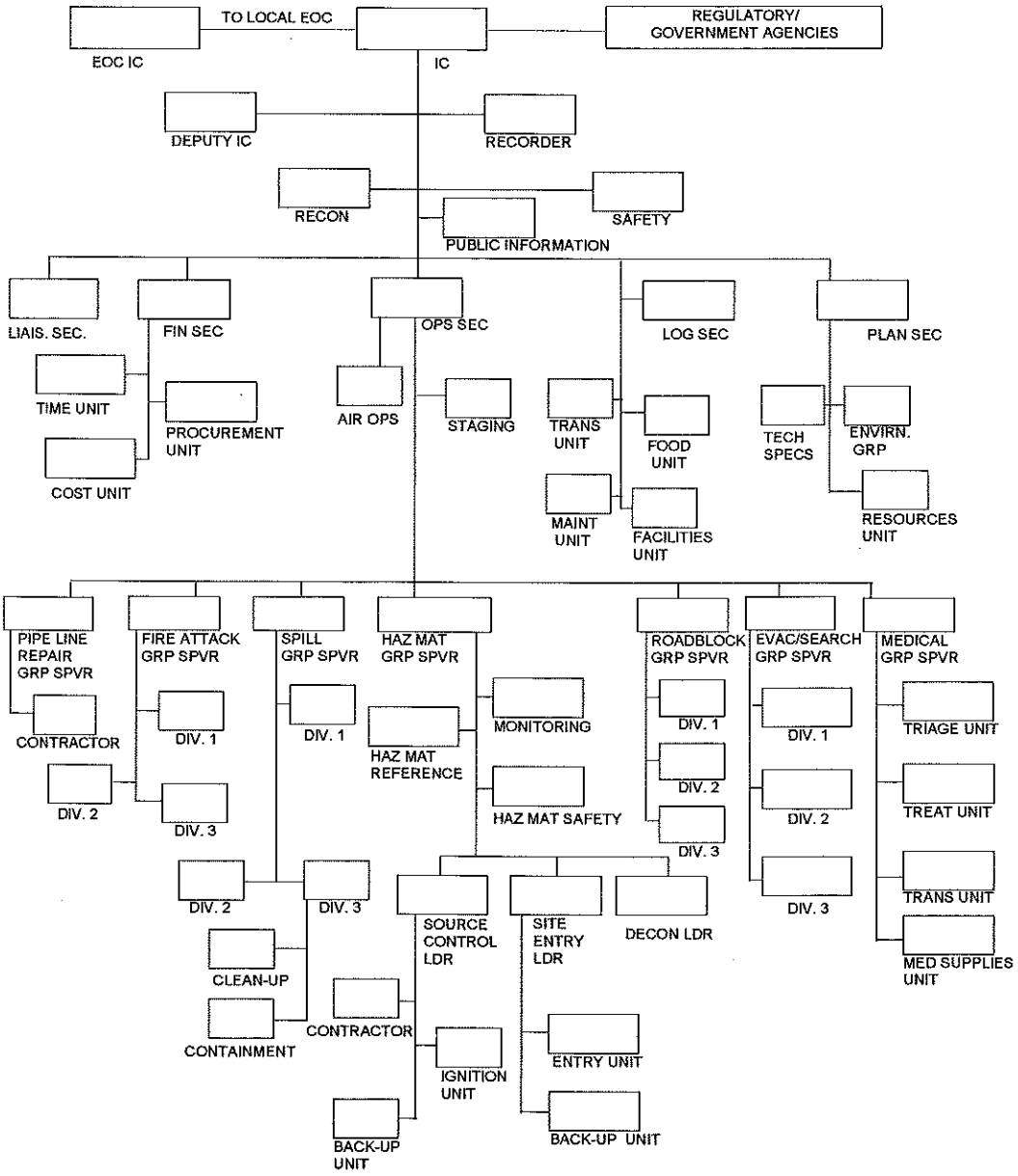
Generic Overview of Shell's Emergency Response Plan (ERP)	• A more detailed discussion regarding how Shell deals with sour gas emergencies on drilling and completions projects • Includes discussions on prevention, how ERP's are developed, public consultation, and sour gas emergency response • Target Audience : public who want more details on sour gas emergencies
Site Specific Drilling, Completing, Testing Sour Gas Emergency Response Plan for *Well Name*	• The details for the specific well covering : 1. Prevention 2. H_2S Release Rate and Emergency Planning Zone 3. Public Notification & Information 4. Incident Command System 5. Emergency Response Strategy 6. Ignition and SO_2 • Target Audience : Shell, contractor, governmental and any other personnel who would actually respond o the emergency

2.2. Incident Command System

Incident Command System **(exert from the Resources Model Emergency Response Plan)**	• All WC&GO emergencies are handled using the Incident Command System • The Incident Command System (ICS) is an all-risk system that is Flexible and Adaptable to all EMERGENCIES. • The system consists of actions that command and control personnel, facilities, equipment and communications. • It is designed to be activated for ALL EMERGENCIES regardless of the size, from the time an incident occurs until the requirement for Management and Operations no longer exists. • The structure of the Incident Command System (ICS) can be expanded or contracted depending upon the changing conditions of the emergency incident.
Incident Command System : KEY OPERATIONAL FACTORS	• See Figure 2.2 TYPICAL WC&GO FIELD BASED COMMAND POST ORGANIZATION • Assigns overall authority to one individual, the **Incident Commander.** For WC&GO Worksite emergencies, the initial Incident Commander is the **Shell Site Supervisor** • Provides structured authority, roles and responsibilities during emergencies. • Provides for manageable span of control. • Co-ordinates all incident scene operations. • Prevents freelancing during scene operations. • System is simple and familiar and is used routinely at all incidents. • Communications are structured. • There is a structured system for response and assignment of resources. • Provides for expansion, escalation and transfer/transition of roles and responsibilities. • Emphasizes safety and health as operational priorities.

Incident Command System : KEY ICS POSITIONS	**INCIDENT COMMANDER** Person in Charge. NOTE : the Incident commander assumes the responsibilities of all the other Key Positions until they are assigned to someone else.. **SAFETY** Overall Safety. **LIAISON** Works with Governmental Agencies. **PUBLIC INFORMATION OFFICER** Media. and Crisis Communication **LOGISTICS** Orders Resources. **OPERATIONS** Actual Working Operations of Incident. **STAGING** Pre-Deployment Area. **PLANNING (PLANS)** Incident Action Plan. 12 Hour Plan. Safety and Health Plans. **FINANCE** Financial Arrangements. Claims.

ORGANIZATION CHART - CP



KEY

- Dotted lines represent communications/support information
- Solid lines represent organizational authority

SEC = Section
GRP SPVR = Group Supervisor
LDR = Leader

Note:
- It is not mandatory to assign all positions.
- Assign positions only as necessary.
- Some positions may not require activation depending on the actual emergency.

2.3.1 General Emergency Level II : Significant Impact or Potential

Typical General Level II Emergencies

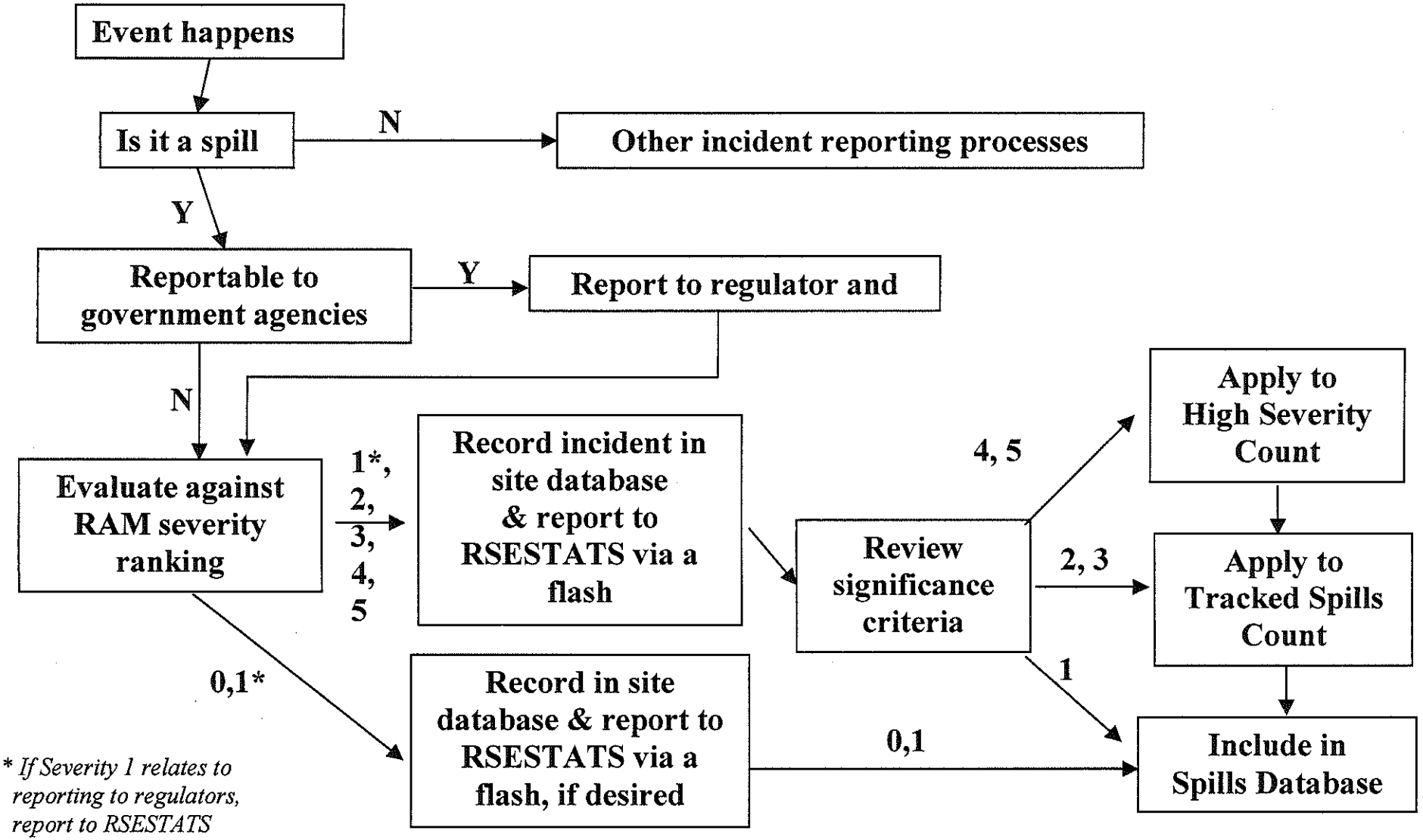
- Any Level I Emergency that escalates beyond the immediate worksite and impacts people outside Shell.
- Fire or explosion which has spread or cannot be brought under control
- Fire or explosion as a result of a hazardous material spill onsite
- Spill offsite or into a waterbody (see Figure 2.3 Environmental Release Reporting Process)
- Camp fire requiring evacuation
- Serious injury that could be life threatening (e.g., head injury)
- Vehicle accident with serious injury or spill
- Journey Management : failure to arrive to a remote location, escalating to major search and rescue operations
- H_2S (Minor sour release that can not be immediately contained or equipment malfunction that could potentially result in a major release)
    - As with Level I, implement the site specific sour gas ERP or Shell complex ERP

2.3.1 General Emergency Level III : Major Impact or Hazard to Public

Typical General Level III Emergencies

- Any Level II Emergency that escalates beyond the immediate worksite and impacts the public.
- Major fire or explosion
- Serious injury / multiple injured / fatality
- Major uncontained spill offsite or into a waterbody (see Figure 2.3 Environmental Release Reporting Process)
- H_2S (Major uncontrolled or partially controlled sour release)
  - As with Level I, implement the site specific sour gas ERP or Shell complex ERP

Figure 2.3 Environmental Release Reporting Process
Flowchart For tracked Spills



WC&GO PROJECT EMERGENCY RESPONSE PLAN
EMERGENCY CONTACT LIST

PROJECT: Camp Farewell
LOCATION : 110 Km NW of Inuvik NWT
LAT : 69 12 35.09
LONG : 135 06 17.286
DIRECTIONS : BY AIR 110 KMS NW OF INUVIK OR BY BOAT USING EAST CHANNEL
RADIO FREQUENCIES : RECEIVE 157.47 TRANSMIT 168.15

WORKSITE CONTACTS	NAME	PHONE	FAX
Shell Site Supervisor 1	Blair Bennett	867 777-5460	867 777-5365
Camp Closed Phone Number	Blair Bennett	403 691-2660	402 269-7948
Shell Site Supervisor 2	Shane Millard	867 777-5460	867 777-5365
Camp Supervisor	Kevin Dellaire	867 777-5364	867 777-5365
Yard Supervisor	John Russell	867 777-5364	867 777-5365
MEDIC PARK AMBULANCE	Bob Brennan Dennis Bonin Steve Miller	867 777-5364	867 777-5365
PRIMARY OFFICE CONTACTS			
Shell Canada Limited	800 661-7378		
DAR Construction Manager	Randy Hetman Cellular Residence	403 691-2512 403 813-0408 403 275-0730	403 269-7948
HSSD	Jeff Oshust Cellular Residence	403 691-3949 403 651-1151 403 230-2342	403 269-7948
WG&CO Manager	Mike Read Cellular Residence	403 691-3323 403 245-9900 Pager 44202 403 243-0153	403 269-7948
FOR OTHER WC&GO NUMBERS , SEE WC&GO PHONE LIST			
SHELL OPERATIONS TECHNICAL ADVISORY CENTRE			
SHELL CENTRE, CALGARY, ROOM 902			403-691-3104
SHELL EMERGENCY COMMUNICATIONS TRAILER			
CUSTODIAN : C&V - TRAILER YARD, CALGARY			
CONTACT :	DOUG DELORME	403-620-0442 24HR	403-279-7451 MESSAGE

GOVERNMENTAL AGENCIES			
Fish and Wildlife area office		**867-777 -7230**	
NWT WCB		**867-902-3888**	
Rescue and Response		**867-874-5569**	

WC&GO PROJECT EMERGENCY RESPONSE PLAN
EMERGENCY CONTACT LIST

EQUIPMENT / SPECIAL SERVICES			
OFFICE/FIRE SERVICES			
Inuvialuit Business List			
Splash & Dore Safety Ltd	**Calgary**	**1-800-264-5691**	**24 hr**
Key Safety Services	**Emergency Line**	**1-866-FIRE - 911**	**24 hr**
Canadian Firemaster	**Red Deer**	**403-342-7500**	**24 hr**
Safety Boss	**Emergency Line**	**1-800-882-4967**	**24 hr**
AVEC BEAVOR			
Key Safety Services	**Emergency Line**	**1-866-FIRE - 911**	**24 hr**
Safety Boss	**Emergency Line**	**1-800-882-4967**	**24 hr**
WESTERN CANADA SPILL SERVICES			
WCSS Equipment : Envirotech	**Red Deer : Braidnor Construction Yard**		**780-387-3566 24 hr**
Local Area Co-Op			
AIRCRAFT			
HELICOPTERS			
Canadian Helicopters	**Inuvik**	**867 777-2424 or**	
		867-777-1012	
AKLAK AIR	**Inuvik**	**867-777-3777 or**	
		867 777-3555	

WC&GO PROJECT EMERGENCY RESPONSE: TRANSPORTATION AND MEDEVAC PLAN

PROJECT: Farewell

DEVELOPED BY: Blair Bennett, R Hetman, C Mac Leod DATE: 21 August, 2002

EMERGENCY NUMBERS	Preferred hospital: **Inuvik Hospital** Number: **(867) 777- 8000** Preferred Ambulance: **Inuvik Ambulance Emergency** Number: **(867) 777-4444** Preferred Police: **RCMP** Number: **(867) 777-2935** Preferred Air :Evacuation **Canadian Helicopters** Number **867 777-2424** **867 777-4338** Alternate Air: **Aklak Air** Number **867 777-3777**
GENERAL INFORMATION **Note-** If travel distance to Health care facility is: **CLOSE** (< 20 min.) or **DISTANT** (20 min to 40 min) You may rely on ambulance service from that Health care facility, HOWEVER, if the travel distance of the worksite is greater then 40 min, then it is deemed: **ISOLATED (>40 min)** Therefore, you must have transportation that meets the following criteria: • Clean • Protects from weather • Equipped with communication • Accommodate a 200 cm stretcher **HELICOPTER RESPONSE TIME WILL QUALIFY**	Type of accident likely to occur: Lacerations, Slips/Trips/Falls Number of workers at site: 15 - 30 Distance from a Health Care Facility: greater than 40 min Availability of Ambulance Service: Air evacuation Ambulance emergency response time: Approximately 40min Time of day work is in progress: Day-time Type of transportation needed to get to the worksite: Helicopter or fixed wing Route to site: Flying 110km Northwest of Inuvik Does change in weather effect type of travel? Explain. Increase time by: Depends upon weather. Could be next day.
CONTACTS: ***LOCATION OF PHONES AND RADIOS***	• phones located in offices • hallway • radios on specific personnel • radios in office • specific personnel have cell phones

WELL CONSTRUCTION & GEOPHYSICAL OPERATIONS

TELEPHONE NUMBERS

BARNETT, R.T. (Bob) 691-3133 286-6234
..... [c] **680-2799** ..... [c] **403 /815-9338**
..... [m] **600 /700-4116**
BERRY, M. (Michael) ..... 691-2590 ..... [c] **850-0282**
..... [m] **600 /700-2930**
BELBECK, G.R. (Glen) 691-3003 251-4274
..... [c] **(403) 813-2879** ..... [p] 209-7440
BENNETT, B. (Blair) 691-2660 948-3430
* BONKE, C.A. (Carl) 691-3079 288-7253
..... [f] 288-7392 ..... [c] **620-7301**
BOOTH, J. (Judy) 691-2317 547-8988
BROWN, J.H. (John) ..... 691-3502 ..... [c] **861-1352**
BUJOLD, M. (Maurice) 691-4397 932-1411 .
CALVITTI, R. (Rino) ..... 691-3615 .....
* CARTWRIGHT, F.A. (Fred) 691-2573 288-4200
..... [c] **650-4200**
CHAN, K. (Ken) 691-2854 254-6418
* CONLON, M.M. (Marilyn) ..... 547-7594 ..... [c] **860-4661**
..... [Fax] 547-8590
* CROMBIE, D. (Dave) ..... 691-4411 ..... [c] **860-7460**
* CRAWFORD, D. (Del) 691-3902 242-4481
..... [c] **510-6127**
* CRUZ, C. (Claire) 691-2913 293-5242
* **DALLAIRE**, J. (Jean-guy) 691-3061 257-4306
DEREN, G.W. (Gary) 691-3697 285-2868
..... [c] **860-0734**
DOUSETT, J. (Jason) 691-4092 242-3949
DYCK, W. (Walter) 691-3435 202-0160
ELLIOTT, C (Carol) ..... 691-2012 ..... 403/ 637-0088
..... [c] **403/ 660-2825**
ERICKSON, N. (Neil) 691-3487 627-2754
..... [m] **620-4524**
FAREWELL STOCKPILE ..... 867/ 777-5364 ..... [Fax] 867/ 777-5365
* FERGUSON, L. (Larry) 691-2268 251-1629
FRIESEN, S. (Sheila) 691-4135 279-7192
* **GRAY**, J. (John) 691-3749 249-5582
..... [c] **850-0000**
GREIG, V. (Van) ..... 691-3770 ..... 403/ 646-2178
..... [c] **660-3143**
GROELLER, L. (Les) ..... 691-2713 ..... [c] **651-3021**
..... [h] 934-3252 ..... [s] **600/ 700-3459**
* **HALLAM**, G. (Glen) 691-3471 274-2734
HAMMINK, S. (Sandy) ..... 691-3174 .....
HARDING, D. (Dave) ..... 691-4478 ..... [c] **861-8091**
..... [h] 238-3273
**HETMAN, R.H. (Randy) 691-2521 275-0730
..... [c] **813-0408**
HISEY, M. (Mark) 691-3528 274-5680
* HIRSCH, R. (Ron) 691-3062 236-7731
..... [c] **803-3582**
HOPKINS, R. (Rick) ..... 691-2240 ..... 403/ 912-5689
..... [c] **815-5136**

COMPLETION CONSULTANTS

ANDERSEN, B. (Barry) ..... 403/ 346-8741 ..... [c] **403/ 350-9530**
(R.G Mallett)

EHERT, C. (Cliff) ..... 403/ 948-5577 ..... [c] **403/ 816-3044**
(Pajak Engineering, 403 /264-1197)

HOLM, R (Ron) ..... 306/ 634-8538 ..... [c] **403/ 819-7227**
(Fire Creek Resources)

STEFANIC, J (John) ..... 403/ 782-9973 ..... 403/ 318-4177

THOMAS, J (Jamie) ..... 403/ 271-7480 ..... [c] **403/ 860-6415**
(Pajak Engineering, 403 /264-1197) 860-6415 ..... [c] **403/ 850-5594**

WILSON, A. (Al) ..... 403/ 488-0723 ..... [c] **403/ 318-4747**

* HUCULAK, J (Jim) ..... 691-2163 ..... [c] **816-4667**
HURLBUT, M.E. (Murray) 691-3470 938-6202
ISENOR, B. (Brett) 691-3976 253-9139
JANZ, H. (Harold) ..... 691-3384 ..... [c] 874-9890
KLASSEN, B. (Brandi) 691-3368 568-1112
LANG, D.C. (Dennis) 691-2909 278-9046
..... [m] **403 /620-7448**
MACLEAN, G. (Gordon) ..... 691-4453 ..... 403/ 887-8787
..... [c] **818-7091**
* MACLEOD, D. (Dan) ..... 509-4352 ..... [c] **403/ 660-5024**
MCGRATH, S.E.R. (Shaun) 691-2948 932-7019
..... [c] **660-2932**
* MUELLER, B. (Brad) 691-3661 257-5280
..... [c] **403/ 660-0008**
** MURPHY, T. (Tom) 691-2980 335-4928
..... [c] **804-1713**
NASH, P (Phillip) 691-2050 246-7237
..... [c] **585-6228**
NECAS, E. (Eva) 691-4267 239-2866
NELSON, L. (Len) 691-2385 225-1799
NELSON, R. (Russ) 691-3030 547-0796
OSHUST, J. (Jeff) 691-3949 230-2342
..... [c] **651-1151**
* **PEACH**, S. (Steve) [Schlumberger] 691-2486 ..... [c] **860-7359**
* PERRY, A. (Amanda) [Baker Hughes] 691-2869
..... 537-3451 *[Baker Office]* ..... [c] **589-0796**
PRATT, C.A (Kip) 691-3143 932-5108
RAMAN, S. (Suresh) 691-2448 547-8365
..... [c] **816-5570**
READ, M. A. (Mike) 691-3323 243-0153
(PAGER for MAR or his Delegate) ..... ***Pager 228-8800 (44202)***
ROCK, B. (Barry) 691-2453 932-9340
..... [c] **815-7200** ..... [m] **551-1420**
RUSHKA, B. (Blair) 691-2707 638-4981
..... [c] **813-1804**
RYAN, D. (Darrin) 691-3591 209-0774
SCHAU, D. (Darcy) ..... 691-3583 ..... [c] **874-8374**
SEKELLA, A.J. (Alex) 691-3698 948-6504
..... [c] **540-3606**
SELBY, S.D. (Sylvia) 691-3121 201-5500
SIMONDS, M. (Michelle) ..... 691-3328 .....
SMITH, T.R. (Terry) 691-3076 938-5597
..... [c] **815-5189**
* SORKILMO, D. (Don) 691-3243 558-2187
..... [c] **669-6463**
* SWARTZ, C. (Calvin) 691-3079 873-1760
..... [c] **875-3746**
TETRAULT, R. (Rejean) 691-3106 262-8074
TONG, J. (James) ..... 691-3168 ..... [c] **403/ 818-9428**
WALL, C. (Calvin) ..... 691-3677 ..... [c] 403/ 651-8234
* WEISS, D.R. (Doug) 691-3109 239-9112
..... [c] **815-3778**
WHITE, D.W. (Dan) ..... 691-4298 ..... [c] **804-4833**
..... *[Satellite Phone] 997-2643* 249-0325

GEOPHYSICAL CONSULTANTS

BERRY, D (Dave) ..... [c] **403/ 815-6995**
KOSTYK, F (Floyd) ..... [c] **780/ 689-7686**
LUSIS, D (Don) ..... [c] **780/ 719-7780**

LIST OF EMERGENCY RESPONSE PLANS

Sewage Spill
Bulk Material Spill
Fuel Spill (water)
Fuel Spill (land)
Equipment List
Fire Procedure

4. COMMAND / MANAGEMENT

Order depends on specific factors

- Assign Incident Command System roles as resources become available.
- Initiate response to incident, taking existing conditions into account.
- Ensure safety precautions and operating plans and conditions are reviewed with the crew.
- Determine a need for roadblocks.
- Ensure proper permits are executed.

5. IDENTIFICATION AND HAZARD ASSESSMENT

Identify the Hazards and Assess the Risks

- Determine chemical makeup of substance (i.e.: WHMIS, TDG Placards, PIN No.s).
- MSDS (Material Safety Data Sheets – Chemical).
- Placards and labels (colours, markings).
- Shipping papers (Bill of Lading, Way Bill, etc).
- Technical information (CANUTEC).
- Other (specialists, monitoring devices).

6. PROTECTIVE EQUIPMENT

Ensure proper personal protective equipment is utilized, and know the level of equipment available

- Visibility stripes, safety glasses, goggles, life jackets, gloves etc.

7. CONTAINMENT AND CONTROL

Safe defensive containment

- If safe to do so, and if possible, stop the flow of material.
- If spill frozen shovel snow sewage mixture into containers.
- Deploy absorbent pads, socks as required.
- See list of emergency spill cleanup equipment in equipment list
- Recover sorbents and place in steel drums
- Notify and request assistance if required from external NWT Emergency Spill Response Line.
- Consider what resources /materials are available within close proximity; i.e.: crawler tractor, loaders, bobcats, vacuum /water trucks, fuel bladders / fiberglass tanks.

8. DECONTAMINATION AND CLEANUP

Collect, cleanup, and sample

- Decontaminate personnel as required if exposed to the spill. Wash hands and face after clean up.
- Priority is to high environmentally sensitive areas (municipality water sources, waterfowl staging areas, domestic fishing areas).
- Store the spilled material in proper containers for disposal;
- Implement remediation program for the area as required;
- Monitor the progress of remediation as required.

BULK MATERIAL RESPONSE PLAN

LOCATION: CAMP FAREWELL **REVISED: OCTOBER 2002**

The campsite is located between a small lake and a channel of the MacKenzie River. Bulk Materials are stored in seacans and various other containers.

TRANSPORTATION

There will be drilling products transported to and from the site.

MAINTENANCE AND CONTROL

This contingency plan is project specific and will be reviewed:

- As changes to applicable environmental legislation come into effect
- To take into account changes in environmental factors and in facility characteristics and policy
- During any on-site training exercises
- After each and every incident.

Changes to phone numbers and names of those individuals identified in this contingency plan will be made on an as required and when required basis.

1. SAFETY

Ensure personal safety

- Ensure your own personnel safety from existing and potential hazards and fellow worker safety.
- In addition to standard personal protective equipment, check MSDS sheets for additional requirements

2. ISOLATE AND DENY ENTRY

Isolate the area and deny / restrict entry

- Utilize vehicles or barricades for temporary control.
- Establish / adjust control perimeters.

3. NOTIFICATIONS

Immediately notify the following organizations.

- .Shell's onsite supervisor

Notify the following as soon as practical

- Shell's DAR/Construction manager
- Northwest Territory Emergency Spill Response Line
- Indian Northern Affairs Canada
- NEB if spill exceeds .20 m^3 (200litres) and/or spill is not contained and could result in further safety property or environmental damage.

9. DISPOSAL

Dispose of wastes, contaminated clothing and equipment if unable to decontaminate.

- Consider waste impacts in all decisions
- Remove the contaminated material and haul to an approved disposal site.

10. DOCUMENTATION

Document all actions and complete reports

- Assign a recorder to log activities
- Complete and submit a follow-up spill report to the Northwest Territories Spill Report line.

3. NOTIFICATIONS

Notify the following immediately.

- Shell's onsite supervisor
- Barge Captain

Notify the following as soon as practical.

- Shell's DAR/Construction manager
- Northwest Territory Emergency Spill Response Line
- Regional Operations Center (ROC)
- Indian Northern Affairs Canada
- NEB if spill exceeds .20 m^3 (200litres) and/or spill is not contained and could result in further safety property or environmental damage.

4. COMMAND / MANAGEMENT

Order depends on specific factors

- The Onsite Supervisor will assume the role of Incident Commander.
- Assign Incident Command System roles, as resources become available.
- Initiate response to incident, taking existing conditions into account.
- Ensure safety precautions and operating plans and conditions are reviewed with the crew.
- Ensure proper safe work permits are executed.

5. IDENTIFICATION AND HAZARD ASSESSMENT

Identify the Hazards and Assess the Risks

- Confirm product and determine chemical makeup of substance.
- MSDS (Material Safety Data Sheets – Chemical).
- Placards and labels (colors, markings).
- Shipping papers (Bill of Lading, waybill, etc).
- Technical information (CANUTEC).
- Other (specialists, monitoring devices).

6. PROTECTIVE EQUIPMENT

Ensure proper personal protective equipment is utilized, and know the level of equipment available

- Fire retardant clothing, safety glasses, goggles, life jackets, gloves etc.
- Check MSDS sheets for additional requirements

SCENARIO

Fisheries and Oceans Canada - Coast Guard require an Oil Pollution Emergency Plan and Oil Pollution Incident Procedures, Equipment and Resources Scenario as required by regulation SOR/95-405. The scenario assumption is for a Level 1, category of Oil Handling Facility with a $150m^3/h$ maximum oil transfer rate and a Level 1 category of Oil Handling Facility with a minimum spill size of $1m^3$. The maximum oil transfer rate at time of unloading will be $85m^3/h$ and therefore falls within Level 1 category.

a) Nature and amount of oil

Shell will be unloading 2,000,000 liters of diesel fuel from barge. Aviation fuel is transported in drums. All equipment coming to site will be diesel powered so amount of gasoline on site is about 6 - 45-gallon drums. The most likely spill scenario is a hose leak. The volume used in this scenario for this type of spill is 2.0 m3.

b) Type of ship being unloaded

Series 1000 barges from NTCL will deliver the diesel fuel. The maximum pump rate is 85 m3/hour. The boat has a shut-off valve located on it for emergency shutdown of the fuel. The fill line is 150mm.

c) Tides and currents

There are no tides in this area. Current speed in this channel of the MacKenzie River is approximately 8 knots.

d) Meteorological conditions

Unloading of fuel will take place late fall at above or near freezing conditions. Some winds may be encountered (prevailing winds are from the northwest)

e) Environmental Sensitivities

There are no communities near Camp Farewell. The camp is located within a bird sanctuary. Whenever possible, unloading of fuel will take place in fall when most waterfowl have already left. Wildlife monitor is onsite at all times and is equipped with a firearm that can be discharged to scare away any waterfowl in vicinity if it is deemed necessary. Any requirement for long-term bird hazing will be accomplished by setting up automatic bird scare cannons as well as having the wildlife monitor patrol the channel with a boat to assist in scaring away any waterfowl.

There will be approximately 600 meters of fuel filling line. It will go from dock, across 200 meters of gradually rising ground to a hill. From there the line will go to the fuel tanks.

j) Scenario Details

The oil spill control boat will come complete with sorbents, boom, vane boom deployer and skimmers.

Time	Description	Person responsible
Pre Transfer	• Barge booms deployed • Spill Equipment readied • Product, hazards & controls identified • Prejob safety meeting held	Barge Captain Incident Commander Incident Commander Incident Commander
Zero	*Spill occurs & discovered* • Shut down pumps on barge • Radio order to shut valves on hoses	Barge Captain Incident commander
5 minutes	• Closing of valves on line	Source Control (Personnel located at each valve)
15 minutes	• Primary boom will be deployed. • First Aid (if required)	Spill Group Supervisor Medic
45 minutes	• If necessary, secondary boom will be deployed	Spill Group Supervisor
60 minutes	• Oil spill boat will start cleaning up spill • Land group will start cleaning up spill • Notifications	Spill Group Supervisor Spill Group Supervisor Incident Commander
Post Recovery	• Follow-up notifications • Decon & Cleanup • Disposal • Incident Debrief • Documentation	Incident Commander

k) Response Authorization

Response will be in accordance with Shell's Emergency Response plan for Camp Farewell. The on-site *Incident Commander* will be Blair Bennett (alternate Shane Millard) with backup as required from Calgary

l) Restart of unloading

Unloading will not be restarted until the causes of the spill have been determined and remedies to prevent a similar incident are in place. The spill will either have been cleaned-up or there will be sufficient workers to clean up the spill and unload before unloading is restarted.

Control Point Identifier:	Control Point Name: Farewell (Shell Canada Camp)	Issued: DRAFT #5 Lat. 69° 12.451 N Long. 135° 05.932' W

Location: On the East bank of Richards Island on the middle channel of the Mackenzie River. Site is operated by Shell Canada Limited.

Land Owner/Tenant Contact: Crown/Shell Canada Limited

Distance to Confluence: 9.5 km* **Waterbody:** Mackenzie Bay, Beaufort Sea
* In this case, interpreted to be at the downstream Control Point

Next Downstream Control Point: Farewell Downstream Control Point #1 (9.5 km)

Waterway Details:

Width: 0.5 km

Bed Description: Sand and gravel

Bank Height/Slope: Steep bluffs behind beach. Vehicle ramp to camp plateau from Control Point beach.

Work Space Details:

Size & Location: Size will vary depending on river height. There will normally be sufficient workspace at most times of the year. August 2002 an area 10 m wide and 120 m long was available.

Helicopter Pad: Helicopter pad on camp plateau above site. Helicopter fuel is normally available at this site.

Recommended Deployment Strategy/Equipment Requirement: Boom to contain and recover at the downstream portion of the Control Point beach. 500' of boom can be deployed at most stages of river level. Deflection booms in a cascade can be deployed upstream of the site, if required. Permanent shore anchors are located at various points along the beach at this Control Point.

Other Comments: The river flow at the site is affected by tidal influences. There is a well maintained 700m gravel airstrip at this site. Survey conducted August 2002.

Control Point Identifier:	Control Point Name: Farewell Downstream Control Point #1	Issued: DRAFT #4 Lat. 69° 16.138' N Long. 135° 12.331 W

Location: On a prominent point on the east bank of Richards Island on the middle channel of the Mackenzie River where the river widens as it flows into Mackenzie Bay.

Land Owner/Tenant Contact: Crown/ILA

Distance to Confluence: 0* **Waterbody:** Mackenzie Bay, Beaufort Sea
* This Control Point is interpreted to be at the confluence.

Next Downstream Control Point: None. Open water containment and recovery or treatment would be required downstream of this location.

Waterway Details:

Width: 1 km

Bed Description: Sand and Gravel

Bank Height/Slope: Pebble and cobble beach with dense brush behind on a gently rising slope.

Work Space Details:

Size & Location: Size will vary depending on river height. There will normally be sufficient workspace at most times of the year. During August 2002 an area 10 m wide and 120 m long was available.

Helicopter Pad: A helicopter could operate from the beach, if required.

Recommended Deployment Strategy/Equipment Requirement: Boom to contain and recover spill at the point as it is swept round the upstream bay. A cascade of deflection booms could be placed to divert a spill from the main channel, if required. 500' containment boom will be required to guide spill from anchor point to beach for recovery.

Other Comments: This site is affected by tidal influences and is exposed to winds. The point on which the Control Point stands is difficult to differentiate from the one immediately upstream. This one has a 0.3 meter square white blank sign on a metal post in the bush at the back of the beach. It can be seen in the center of the photograph. This Control Point is 9.5 km downstream of Farewell, computed at river centerline. Survey conducted August 2002.

FUEL/SPILL EMERGENCY RESPONSE PLAN (LAND)

LOCATION: CAMP FAREWELL **REVISED: OCTOBER 2002**

The campsite is located between a small lake and a channel of the MacKenzie River. All fuel on site is stored in tanks within secondary containment. This ERP also applies to non-fuel spills (motor oil, hydraulic oil, cooking oil etc.). A minor spill to water could develop if a land spill is not contained immediately.

TRANSPORTATION

Liquid fuels will be stored in a closed system during transportation. Diesel fuel will be delivered from Camp Farewell by fuel truck. Aviation fuel will be transported in drums. All equipment coming on site will be diesel powered so amount of gasoline on site is minimal.

MAINTENANCE AND CONTROL

This contingency plan is project specific and will be reviewed:

- As changes to applicable environmental legislation come into effect
- To take into account changes in environmental factors and in facility characteristics and policy
- During any on-site training exercises
- After each and every incident.

Changes to phone numbers and names of those individuals identified in this contingency plan will be made on an as required and when required basis.

1. SAFETY

Ensure personal safety

- Ensure your own personal safety from existing and potential hazards and fellow worker safety.

2. ISOLATE AND DENY ENTRY

Isolate the area and deny / restrict entry

- Utilize vehicles or barricades for temporary control.
- Establish / adjust control perimeters.

3. NOTIFICATIONS

Immediately notify the following

- .Shell's onsite supervisor

Notify the following as soon as practical

- Shell's DAR/Construction manager
- Northwest Territory Emergency Spill Response Line
- Indian Northern Affairs Canada
- Regional Operations Center (ROC)
- NEB if spill exceeds .20 m^3 (200 litres) and/or spill is not contained and could result in further safety property or environmental damage.

8. DECONTAMINATION AND CLEANUP

Collect, cleanup, and sample

- Decontaminate personnel as required if exposed to the spill
- Priority is to high environmentally sensitive areas (municipality water sources, waterfowl staging areas, domestic fishing areas).
- Store the spilled material in proper containers for disposal;
- Implement remediation program for the area, as required
- Collect and analyze soil samples from the remaining spill area, if required
- Monitor the progress of remediation as required.

9. DISPOSAL

Dispose of wastes, contaminated clothing and equipment if unable to decontaminate.

- Consider waste impacts in all decisions
- Remove the contaminated material and haul to an approved disposal site.

10. DOCUMENTATION

Document all actions and complete reports

- Assign a recorder to log activities
- Complete and submit a follow-up spill report to the Northwest Territories Spill Report line.

2	each	Halogen Lights with Stands	Power
4	each	Halogen Work Lights	Power
1	each	Herman Nelson	Power
12	each	6 Volt Batteries	Safety
6	each	Blankets	Safety
2	each	Fire Axes	Safety
2	each	Fire Extinguishers - 20lb ABC	Safety
1	each	First Aid Kit - 10 Man #3	Safety
8	each	Flashlights	Safety
10	each	Highway Cones	Safety
5	each	Highway Vests	Safety
5	each	Roadside Flares	Safety
1	each	Tool Box	Tools
1	each	50' Tape Measure	Tools
1	set	Allen Key Set	Tools
1	each	Chainsaw File	Tools
1	each	Crescent Wrench - 10"	Tools
1	each	Crescent Wrench - 12"	Tools
1	roll	Duct Tape	Tools
1	roll	Electrical Tape	Tools
1	each	Flat File	Tools
1	each	Hacksaw	Tools
4	each	Hacksaw Blades	Tools
1	each	Hammer - Ball Peen 24 oz	Tools
1	each	Hammer - Claw 20 oz	Tools
1	roll	Mechanics Wire	Tools
1	each	Pipe Wrench - 18"	Tools
1	each	Pipe Wrench - 24"	Tools
1	each	Pipe Wrench - 36"	Tools
1	each	Pliers - Needle Nose	Tools
1	each	Pliers - Regular	Tools
1	each	Screwdriver - Large Flat Blade	Tools
1	each	Screwdriver - Multi Tip	Tools
1	set	Socket Set - 20 piece	Tools
1	each	Tin Snips - 3 piece	Tools
1	each	Utility Knife	Tools

Special Equipment for Barge unloading

During fuel unloading from a barge, a completely equipped oil spill control boat will be on site. It will have sorbents, booms, vane boom deployer and skimmers.

ROLE OF ENVIRONMENT CANADA

Environment Canada's Role in Environmental Emergencies includes the following:

- Maintenance of a national spill reporting and alerting system;
- On-scene response to spills of federal concern;
- Leadership for inland boundary spills;
- Leadership and guidance in development and exercise of contingency plans;
- Encouragement of sound spill prevention practices;
- Research to develop, test and demonstrate new emergency equipment;
- Advice on weather, ice, sea-state and air quality, including enhanced meteorological support during emergencies;
- Preparation and distribution of weather warnings;
- Modeling the movements of pollutants;
- Wildlife advice and monitoring;
- Emergency training programs for EC and others;
- Enforcement of legislation within mandate;
- Assessment of environmental damages;
- Provision of leadership, training and education to industry and other government and non-government players on Shoreline Cleanup Assessment Team (SCAT) process including wildlife protection;
- Documentation on natural resource damages.

ROLE OF REGIONAL ENVIRONMENTAL EMERGENCIES TEAM (REET)

REET's Role in the Event of a Major Oil Spill:

- Provision of environmental advice;
- Identification of environmentally sensitive areas;
- Spill behavior, fate and effects;
- Use and acceptability of dispersants;
- In-situ burning and other innovative technologies;
- Wildlife protection and rehabilitation strategies;
- Oily waste and disposal;
- Provision of assistance during spill response operations and planning;
- Environmental impact monitoring and evaluation of cleanup effectiveness;
- Oil spill sampling and monitoring of environmental aspects of cleanup operations;
- Up-to-date information on environmentally sensitive resources and sensitivity maps;
- Spill surveillance;
- Spill trajectory modeling; and
- Atmospheric and hydrologic data and weather forecasts.

National Energy Board

Office national de l'énergie

NOTICE TO OPERATORS

NEB: 9720-A000-7-2
6 February 2002

Ms. Shelley H.E. Brown
Administrative Assistant
Foothills E&P Business
Shell Canada Lt.
400, 4th - Ave. SW
P.O. Box 100, Station M
Calgary, AB
T2P 2H5

Dear Ms. Brown:

Revised Spill Reporting Procedures for NEB-Authorized Works or Activities in the Northwest Territories and Nunavut under the *Canada Oil and Gas Operations Act*

The attached Notice to Operators refines spill reporting requirements for National Energy Board (NEB) authorized activities under the *Canada Oil and Gas Operations Act* (COGOA) in the Northwest Territories and Nunavut.

Following NEB's review of the 2001 N.W.T. Spill Reports, we noted a number of reporting irregularities and omissions. Consequently, the NEB reminds all oil and gas operators of the following requirements. Please note in particular items 3 and 7 in the attached. Item 3 represents a change in reporting to the NEB and item 7 is intended to correct a common reporting problem.

Please ensure that these reporting requirements are distributed to the appropriate field personnel and any contractors responsible for reporting spills. The remainder of the NWT Spill Report Form should be filled out as appropriate. If you have any questions regarding these revised requirements, please contact Mr. John Korec, Environmental Assessment Officer at (403) 292-6614. Thank you.

Yours truly,

T. M. Baker
Chief Conservation Officer

444 Seventh Avenue SW
Calgary, Alberta T2P 0X8

444, Septième Avenue S.-O.
Calgary (Alberta) T2P 0X8

Canada

Telephone/Téléphone : (403) 292-4800
Facsimile/Télécopieur : (403) 292-5503
http://www.neb.gc.ca

NOTICE TO OPERATORS

06 February 2002

Revised Spill Reporting Procedures for NEB-Authorized Works or Activities in the Northwest Territories and Nunavut under the *Canada Oil and Gas Operations Act*

The NEB is a signatory[1] to the *Northwest Territories / Nunavut Spills Working Agreement (July 1999)* and is the Lead Agency for oil and gas exploration and production related spills[2]. The following revised requirements apply to spills in the Northwest Territories and Nunavut.

General

1. The Operator, i.e., the company authorized under the COGOA to carry out the exploration or production work or activity, must ensure that the spills are promptly reported, controlled and cleaned up as per the Operator's approved Spill Contingency Plan. This includes any spills by contractors employed by the Operator.

2. Report all spills, regardless of volume, to the 24-Hour Report Line (867-920-8130; fax 867-873-6924). The Spill Line administrator will assign the Lead Agency and notify the NEB and other agencies.

3. **The Operator is not required to provide a separate spill notification to the NEB unless:**
   (a) the spill is not yet contained and could result in further safety, property or environmental damage; and/or
   (b) the spill exceeds 0.20 m^3 (200 litres) or slightly more than a standard-sized barrel.
   The NEB contact list is attached.

N.W.T. Spill Report Form

4. **Boxes A & B.** Report all spills as soon as possible after appropriate, safe action has been taken as per the Operator's approved Spill Contingency Plan to contain and control the spill and any damage.

5. **Box C.** Provide an updated report once the Operator is satisfied that the spill cleanup is complete.

6. **Box D.** In addition to the specified requirements, indicate whether the spill occurred into or on
   - a water body (e.g., stream or lake),
   - Crown Land, or
   - First Nation owned land

   The Spill Line administrator requires this information to determine the appropriate Lead Agency. For instance, the Inuvialuit land Administration would be assigned as the Lead Agency for spills on Inuvialuit Settlement Land, also known as 7(1)(a) and 7(1)(b) land.

---

[1] Other signatories to the Spills Working Agreement include Canadian Coast Guard (CCG), Environmental Protection Branch of Environment Canada (EPB), Government of the Northwest Territories (GNWT), Government of Nunavut (GN), Indian and Northern Affairs Canada (INAC), and Inuvialuit Land Administration (ILA)

[2] The Lead Agency designation is assigned by the Spills Working Agreement administrator according to the "Spill Line Contractor Procedures (April 2000)". For exploration and production oil and gas spills, the Lead Agency is typically the NEB. Lead Agency for spills on Inuvialuit-owned Land is the ILA.

N.W.T. SPILL REPORT

(Oil, Gas, Hazardous Chemicals or other Materials)

lational Energy Board
ne (403) 299-3926
(403) 292-5875

24-Hour Report Line
Phone (867) 920-8130
Fax (867) 873-6924

A Report date and time Report ASAP after appropriate, afe action has been taken	B Date and time of spill (if known)	C Original Report Update when cleanup is completed Update Report	Spill number

D Location and map coordinates (if known) and direction (if moving)
ndicate if spill is into or on: a water body; Crown Land; or First Nation private land (e.g., Inuvialuit ettlement land)

Party responsible for spill
e.g., geophysical contractor for Operator (name) for NEB-authorized program (name)

Product(s) spilled and estimated quantities (provide metric volumes/weights if possible)

Cause of spill

H Is Spill erminated? yes no	I If spill is continuing, give estimated rate	J Is further spillage possible? yes no	K Extent of contaminated area (m2)

Factors affecting spill recovery (weathering conditions, terrain, snow cover,)	M Containment (natural depression, dykes, etc.)

Action, if any, taken or proposed to contain, recover, clean up or dispose of product(s) and contaminated materials

Do you require assistance? yes, describe:	P Possible hazards to persons, property, or environment

Comments and/or recommendations
Corrective actions taken;
Disposal of contaminated materials (e.g., soil, snow, sorbent pads, etc.);
Anticipated final cleanup date;
Inspector/agency on site

FOR SPILL LINE USE ONLY

Lead Agency

Spill significance

Lead Agency contact and time

Is this file now closed?

rted by	Position, Employer, Location	Telephone
ed to	Position, Employer, Location	Telephone