

**Registration Pursuant to Section 49 of
The Environmental Protection Act**

- (i) Name of Corporate Body: Southern Labrador Development Association
Cranberry Plot Experiment
- (ii) Address: P O Box 160
Forteau, NL
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The Undertaking:

The Labrador Straits Development Corporation in partnership with the Southern Labrador Development Association is presently seeking a license from the Lands Division, Department of Environment and Conservation to develop and operate an experimental cranberry farm in the Forteau Bay area.

Description of Undertaking:

(i) **Geographical Location**

The Southern Labrador Development Association owns a section of crown lands, referred to as the Forteau Peat Bog Farm, Survey #115477. Access to the site is by access road from Route 510 to First Pond, referred to as First

Pond Road. The farm consists of approximately 4 ha and a ½ ha will be used for this project.

(ii) **Physical Features**

The site consists of peat bog that was previously used as farm land to grow root crops. Currently the site is being used to experiment with partridgeberry cultivation on peat bog. Area has drain ditches and dykes installed to control water levels and were approved by the Lands Division, Department of Environment and Conservation. The site is bounded by first Pond road on the east, crown lands on the North; crown lands on the West; and Trout Brook on the South with a 15m reservation buffer zone.

(iii) **Construction**

Subject to final design engineering and consultation, work will be carried out over a 4 year period. The first year will complete the ground work and plant ½ ha of cranberries. The remaining 3 years will be used to collect research data to determine if it is feasible to grow cranberries in Labrador. The field will be developed at a consistent width of 40m in width x 45m in length.

Construction will consist of:

- Ditching in the proposed berm locations and discharge areas
- Cranberry bed development, consisting of removing a layer of peat to level the bed, with the spoil to be used for berm construction
- Ditching between bed and the berm
- Construction of irrigation pond
- Construction of sediment pond
- Installation of water control structure
- Installation of drainage tile in bed
- Placement and leveling of approximately 20cm of sand on new cranberry beds

The potential sources of pollutants during the construction period are associated with machinery diesel fuel and lubricants. Machinery such as farm tractors, excavators, and dump trucks will be refueled and lubricated off the construction site. Refuse and human waste will be disposed of and addressed using procedures specified by the Department of Environment and Conservation.

Year 1: Start as soon as the finances are secured, commencing to develop ½ ha of cranberry producing field.

Year 2, 3, and 4: Collection of data and maintenance to established plot to determine if cranberries can be grown economically in Labrador.

The first stage of the construction, prior to site de-vegetation, will involve the building of the main ditches that will divert the surface water around the plot. The main drainage ditch will lead to the settling pond. This sediment pond would be the primary location for sediments to be trapped, until it is ready to be released into the previously constructed dyke system. The previously constructed system will need to be cleaned out to ensure all components work efficiently. The system already constructed at the plot covers a distance of at least 500 meters before it enters a bog adjacent to First Pond Road. At no time will there be any discharge water entering Trout Brook.

Construction work at the site will not proceed at times of extremely high precipitation, when high erosion potential is likely. Ditches will be inspected for stability, erosion, and sedimentation buildup on a regular basis. Areas that require attention will be maintained as soon as possible.

(iv) **Operations**

Long term management of this producing cranberry field is to promote a goal of being a model steward to the environment. No resource conflicts are expected throughout the life of this experiment. There will be no conflict with forest resources as there is none in the area.

Water source for this project will be a pond constructed near the field. The water table at the proposed site is very near the surface, probably the most cost effective way to obtain water for irrigation and flooding. Water will be pumped from the pond to the field using gas pumps. Dry harvesting techniques using a mechanical harvester will be used to harvest the berries. Flooding will be required for winter plant protection. Another potential source of water is Trout Brook approximately 200 meters from the proposed site. Water would be pumped from Trout Brook to the farm using gas pumps. Screen would be placed over the intake to prevent trout from entering the pumping system. This source of water will only be used if the constructed pond can't provide the required amount of water. In consultation with Abdul Razek of the Department of Environment and Conservation, in St. John's we will require approximately 5 centimeters of water per week for 20 weeks for farm operation.

If required, flood water discharge will be diverted to the sediment pond. Potential containments will be captured and stored in the sediment pond, then slowly released into a natural drainage area. Agricultural operational procedures will be consistent with appropriate environmental standards for sustainable agriculture.

The sand for this project will come from a pit located approximately 22 km northeast of Forteau on Route 510. The sand in this area was at one time beach sand and will be transported to the farm by heavy equipment (dump truck).

This project will be established to determine if cranberries can grow in Economic Zone 5. At the end of the experimental stage the site will be utilized for additional cranberry research or will be used for other experimental plot analysis.

Potential containments during the operational period will include common chemicals used during cranberry operations within NL, and include the following registered products:

- Herbicides; Devrinol, Callisto, Roundup
- Insecticides; Sevin, Drazinon
- Fungicides; Bravo, Furbon
- Fertilizers; 17-17-17/25kgs - ½ ha, 46-0/05kgs - ½ ha

Other potential sources of pollutants during the operational stage include the same as the construction period associated with machinery fuel and lubricants. Machinery such as farm tractors and trucks will be refueled and lubricated at a garage located in the Town of Forteau, NL. Refuse and human waste will be disposed of using procedures specified by the Department of Environment and Conversation.

(v) Occupations

Manager
Design Engineer
Grower
Pesticide Applicator
Labourer
Equipment Operator

(vi) Project Related Documents

Crown Lands Lease #115477

Approval of Undertaking

Following is a list of permits, licenses and approvals required for this project:

Approval/Certification/License/Permit	Authority
Environmental Registration	Department of Environment and Conservation
Permit to alter a body of water	Department of Environment and Conservation
Environmental Assessment Approval	Department of Environment and Conservation

Crown Lands

Permit #15477

Fuel Storage/Handling

Department of Government Services

Pesticides (Applicator/Operator)

Department of Environment and Conservation

Water Use License

Department of Environment and Conservation

Workers Health and Safety
Compensation

Workplace Health, Safety and Compensation
Commission

Schedule

The earliest construction date will be September 1, 2010. Construction and setup will be established in the first year, years 2, 3 and 4 years will be used for data collection and experimental work.

Funding

No application for funding will be submitted until the Environment Assessment has been approved. Cranberry bed development usually cost approximately \$35,000.00 per acre. Funding will be applied for under the Growing Forward Program.

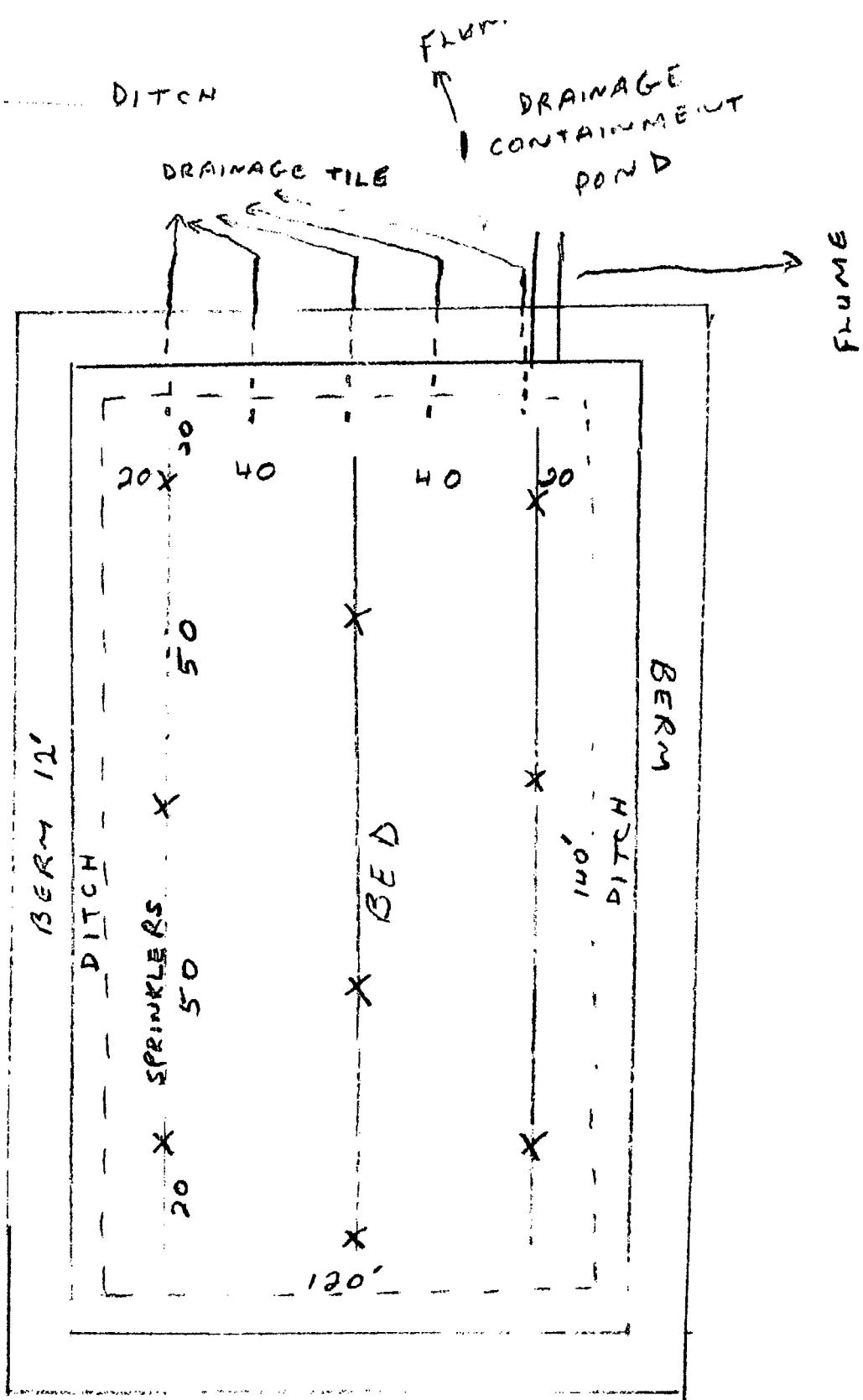
X April 28/10
Date

X Anthony Vaul (President)
Southern Labrador Development Association

X May 27, 2010
Date

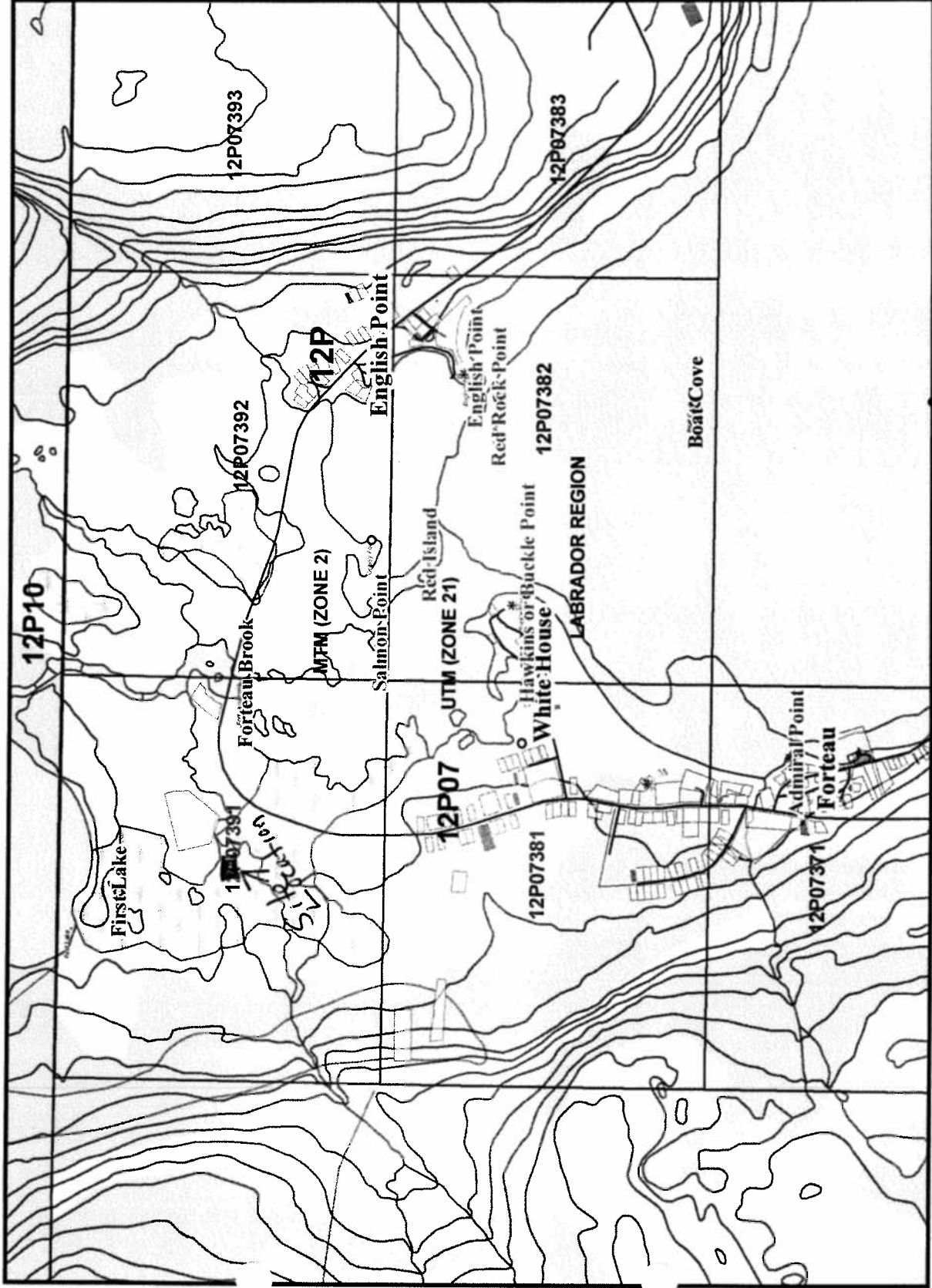
X B Marshall
Labrador Straits Development Corporation

CROOK



SUCTION ☐ PUMP

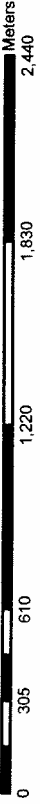
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Crown Lands Division

Scale 1:25,000

Compiled on Feb 11, 2010



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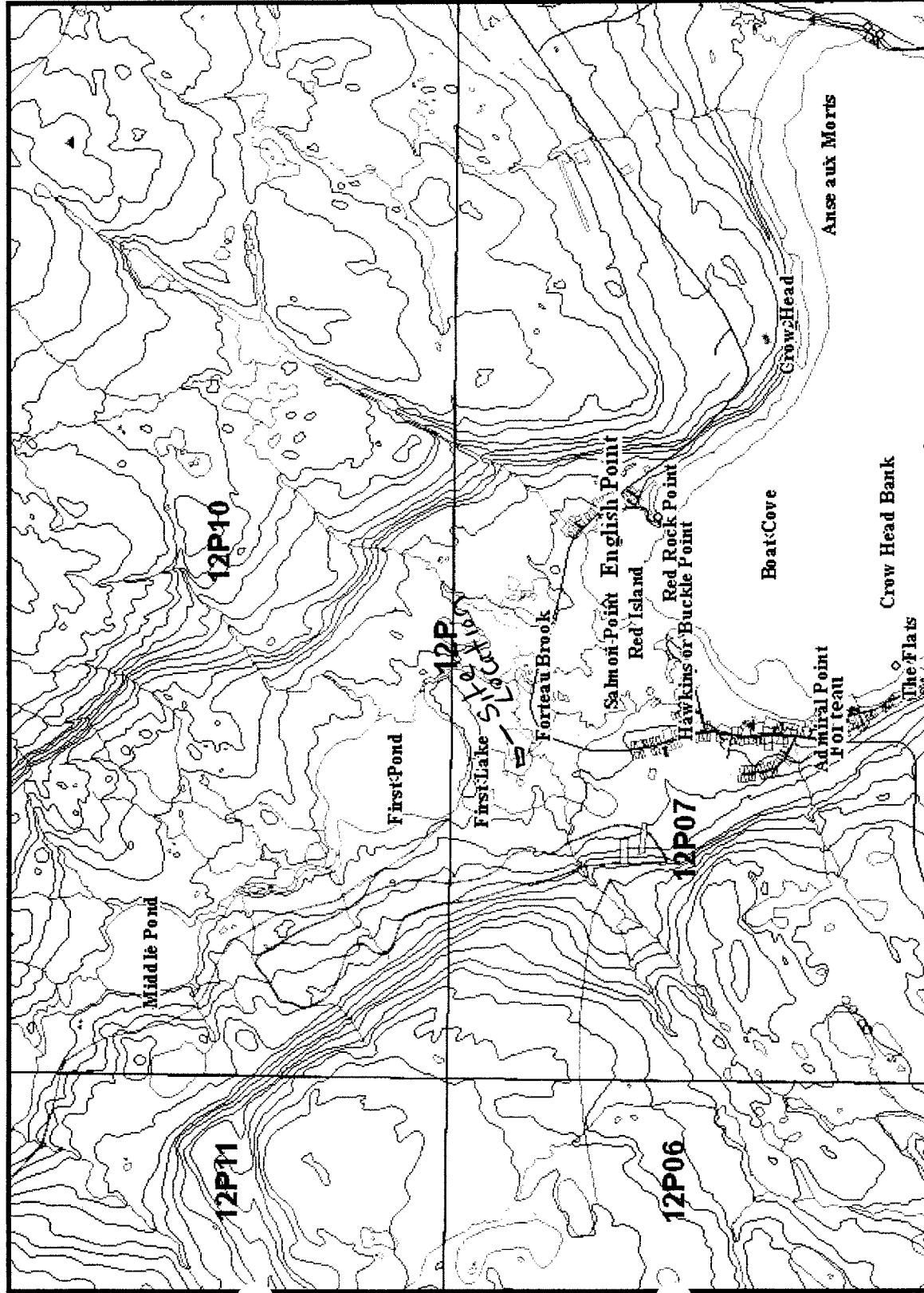
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For inquiries please contact a Regional Lands Office.
 Corner Brook - 637-2387
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 Goose Bay - 896-2488
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Crown Lands Division

Scale 1:50,000

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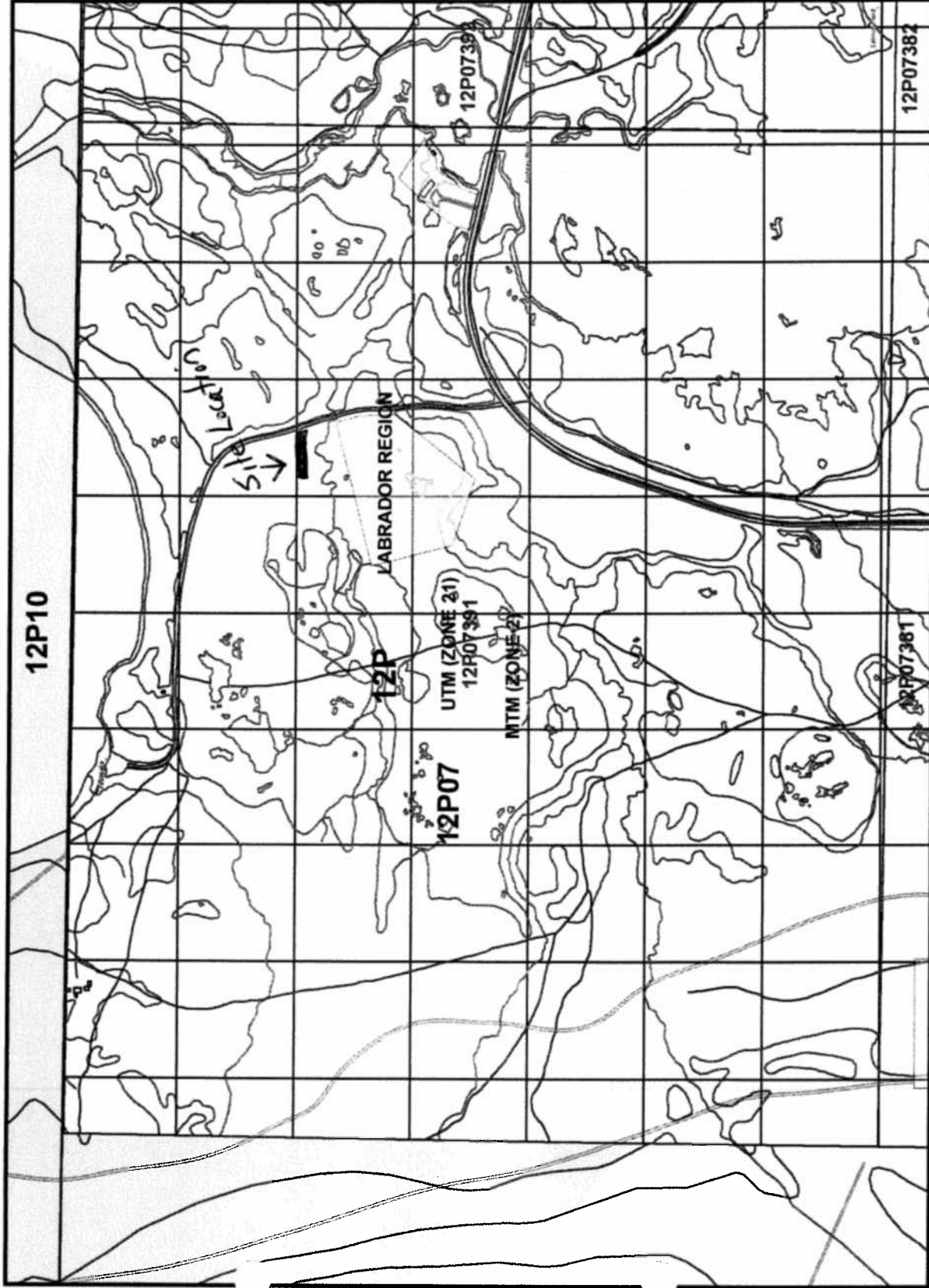
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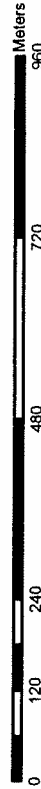
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