

# **Digitized Mackenzie Gas Project Data – Project Permit Applications**

**March 2008**

**Contract # A7133-06-0020**

**Prepared For:**  
**Land and Water Management / NRE**  
**Department of Indian Affairs and**  
**Northern Development**

**Prepared by:**  
**Raymond Baksi**

## **Executive Summary**

The project permit application images corresponding to granular resources along the proposed Mackenzie Valley Pipeline were georeferenced as a data check quality assurance/quality control method for points, lines, and polygons currently residing on the Mackenzie Valley Granular Resources Management website. Project Permit Applications images for the Gwich'in, Inuvialuit, Sahtu, and Dehcho regions were georeferenced against satellite images provided by CalData Ltd. currently in use on the website.

The Land Use and Quarry permits were extracted from the Northern Gas Project Secretariat website, recombined into complete documents then sequentially exported to a series of images. Using these images tables were created to represent page ranges for reports of various topics determined by the department representative through page extents (Range of page numbers, from start to end of section, or report).

All Data was exported and uploaded to CalData Ltd. where it will be incorporated into the current Mackenzie Valley Granular Resources Management website. Metadata consistent with current industry standards for all data outputs was created.

Continued refinement and addition of data to the Mackenzie Valley Granular Resources Management website will increase the value and usefulness of the site. Data management is and will continue to be vital in order to deal with the large volumes of information associated with large scale projects and vast areas of land.

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# **1 Introduction**

The author was commissioned by the Department of Indian Affairs and Northern Development (DIAND), under contract requisition number A7133-06-0020 starting January 3, 2007 to undertake the work described herein. The Department Representative for the project was Robert J. Gowan, P.Geol., of the Land and Water Management Directorate, DIAND. This report and associated digital products fulfill the requirements of the contract. The objective of this project was to monitor recent and emerging information on the proposed Mackenzie Gas Project, and to summarize, digitize and update any such information that was related to the identification, evaluation, and use of granular resources within the Northwest Territories.

The scope of work, as outlined in the contract, included the following tasks:

1. Review recent additions to the public registries for the environmental review process, obtain and review any additional or changed information on the Mackenzie Gas Project pertinent to its granular resource requirement
2. Continue to monitor the registries and provide ongoing analysis of potential value, timing and costs of obtaining digitized emerging information and establish, in consultation with the Departmental Representative, priorities and schedules for preparing and obtaining pertinent digital information.
3. Compile process and summarize recent project-specific information such as updated route and facilities plans that may affect the granular resource requirements of the project.
4. Prepare metadata consistent with current industry standards for all above data including source, compilation methods, etc.
5. Document, in tables, maps and a report, the work undertaken and results obtained as part of this project.

## **2 Background**

The Mackenzie Valley Granular Resources Management website is at a stage where many data layers are visually available for the Mackenzie Valley pipeline project. There is a need for data verification and the ability to enhance the value of the site with text based data retrieval.

This project will generate geopositioned images of the project area which will provide verification that various lines, polygons and points are positioned correctly on the satellite base images. Digital image files for Cold Fusion report generation for both the Land Use Permits and the Quarry Permits for the various regions in the Northwest Territories, involved in the pipeline project, will enhance the value one can get from the website.

## **3 Study Technology and Methodology**

Manifold GIS 8.0 Universal Edition was chosen as the preferred software program to complete the extraction, georegistration and analysis of the data. Manifold GIS has been used successfully in the past for this type of work. Some of the major tasks involved in processing the data were similar across the various regional areas. The georeferencing process within Manifold GIS is documented in the following reports previously prepared by the author:

- *Updating Selected Digital Information related to the Mackenzie Gas Project*, dated March 2006,
- *Digital Capture of Selected Mackenzie Gas Project Information Related to Granular Resources*, dated October 2005 and,
- *Summary of Granular Resources Requirements and Availability for the Mackenzie Valley Gas Pipeline Corridor*, dated March 2005.

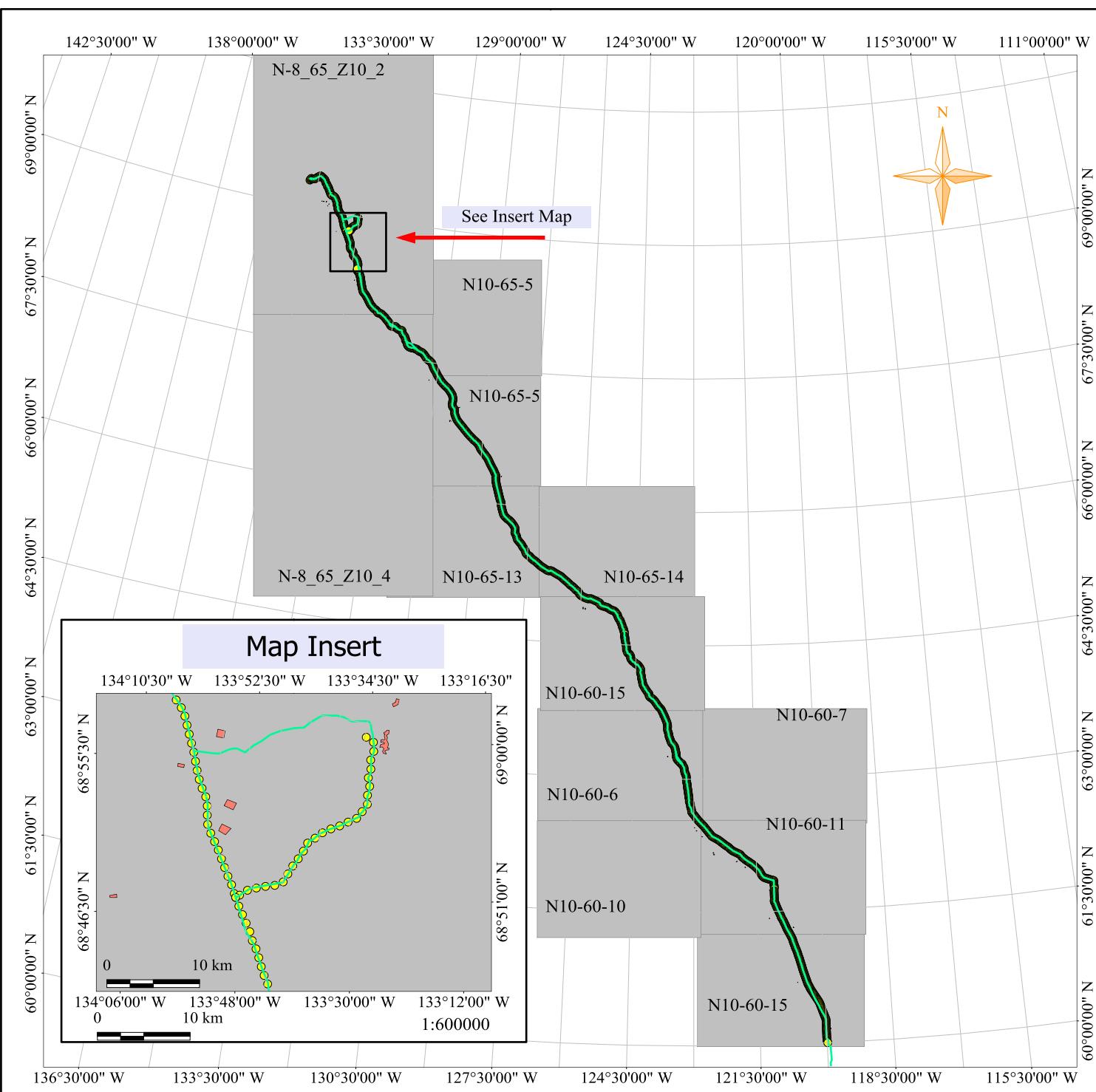
## 4 Project Permit Applications

All of the Project Permit Application figures with unique granular sources were downloaded from the Northern Gas Project Secretariat website in .jpg format. These individual figures had been removed from the full original document for posting on the website. The entire project permit website and all figures were searched and reviewed to find images for every proposed granular source. In many cases there were several figures that displayed the same granular source data. Preferential treatment was given to images from report sections dealing with the borrow sites, however the best overall image depicting the borrow site was ultimately selected. Each .jpg file required georegistration to represent correct special characteristics on the earth. This was accomplished through a georegistration process. The method in order to achieve this registration depended on the document and the supporting information available.

In order to register the images as accurately as possible to the existing Mackenzie Valley Mackenzie Valley Granular Resources Management website the ‘N’ series raster images from Caldata Ltd. were used. The following raster images were identified as background images surrounding the proposed pipeline route:

N-8_65_Z10_2.ecw	N10-60-6.ecw
N-8_65_Z10_4.ecw	N10-60-7.ecw
N10-60-10.ecw	N10-65-13
N10-60-11.ecw	N10-65-14
N10-60-15.ecw	N10-65-5
N10-60-2.ecw	N10-65-9

The large file sizes of these images required that they be used one at a time. To facilitate ease in identifying which file would be used for georegistration, footprints of each of the above noted files were created. A single manifold file was then created with the 12 footprints. The granular polygons and kilometre posts, digitized previously under separate contract, were used as layers to identify which ‘N’ image would be used for each Land Use Permit granular deposit and Quarry pit image. These footprints are shown in Figure 1.



**Figure 1 - 'N' Series Raster Image Footprints**

Legend			
Pipeline Lines Km Post	MGP 1_50000 - Pits Drawing Areas	'N' Series Footprints Areas	
Points			
0 200 km		1:7,000,000	
			Projection: Universal transverse Mercator - Zone 10 (N)
			Datum: World Geodetic 1984 (WGS84)
			Prepared by: Raymond Baksi, March 2008; 'N' Series Raster Image Footprints

Once the reference image was identified, a unique file identified by the .jpg figure name was created. The .jpg was cropped such that only the satellite image was visible, clipping off bordering data. A georegistration process was then carried out. The georegistration process within Manifold has been discussed previously under separate cover as documented in reports mentioned in section 3 above. All images referenced in this section were produced in Universal Transverse Mercator – Zone 10 North (UTM-10 N) World Geodetic 1984 (WGS84) in order to match the current granular resources website. Once the georegistered image was completed and the image was located to an acceptable visual precision, a footprint of the angle and rotation was created. For each georegistered image the footprint was given a corresponding attribute table with a field titled ‘Footprint’ where the image name was documented. This should facilitate the website in having a rollover popup identification tag. These footprints will allow for faster web based data searches. CalData can set up zoom rules to allow for the detailed images to only become visible once zoomed in to a predetermined scale. This method should aid in browsing and moving through the site by reducing refresh and download times.

An alignment check with the geocoded source was conducted to ensure accuracy. Any images out of alignment were reprocessed with additional control points. All data (georegistered images and their footprints) was exported to the standard .tif and .xml file format for uploading to Cal Data Ltd. for incorporation into the Mackenzie Valley Granular Resources Management website, and on the enclosed digital media for those with access to a GIS software package. The coordinate data of these files are all Universal Transverse Mercator – Zone 10 North and World Geodetic 1984 datum. These files were sent to CalData Ltd. for uploading onto the Mackenzie Valley Granular Resources Management website. Appropriate metadata meeting FGDC standards was prepared for each set of images. Metadata prepared can be found on the digital media enclosed within this report. A sample of metadata is included in Appendix A

## **4.1 Gwich'in Settlement Area**

The best imagery surrounding the proposed borrow sites within the Gwich'in settlement region came from a variety of sources as listed below:

1. GSA Crown Lands Application for a Type A Land Use Permit
2. GSA Private Lands Application for a Type A Land Use Permit
3. Gwich'in Land Use Plan – Application for an Exception
4. ISR and GSA Crown Quarrying Permit Application

A total of 27 images for this region required georeferencing to cover the various granular sources. A list of the images from the four project permit application for georegistration purposes noted above, are presented in Appendix B.

## **4.2 Inuvialuit Settlement Region**

The best imagery surrounding the proposed borrow sites for the Gathering Pipelines within the Inuvialuit settlement region came from the following two sources:

1. ISR Crown Lands Application for a Class A Land Use Permit
2. ISR Private Lands ILA Applications Report

A total of 24 images for this region required georeferencing to cover the various granular sources. A list of the images from the two project permit applications for georegistration purposes noted above, are presented in Appendix B.

## **4.3 Sahtu Settlement Area**

The best imagery surrounding the proposed borrow sites within the Sahtu settlement region came from a variety of sources as listed below:

1. SSA Crown Application for a Type A Land Use Permit
2. SSA Private Lands Application for Type A land Use Permit
3. SSA Application for a Type A Water License
4. SSA and DCR Crown Quarrying Permit Application

## 5. Application for Land Use Permits for Land within the Municipal Boundaries of Norman Wells, Fort Good Hope and Tulita

A total of 67 images for this region required georeferencing to cover the various granular sources. A list of the images from the five project permit application for georegistration purposes noted above, are presented in Appendix B.

### **4.4 DehCho Region**

The best imagery surrounding the proposed borrow sites within the DehCho settlement region came from a variety of sources as listed below:

1. Application for a Type A Land Use Permit in the DCR
2. DCR Application for a Type A Water Licence
3. SSA and DCR Crown Quarrying Permit Application

A total of 45 images for this region required georeferencing to cover the various granular sources. A list of the images from the three project permit application for georegistration purposes noted above, are presented in Appendix B.

A sample of the imagery that was georeferenced to the base satellite images (N-series) is presented in Figure 2.

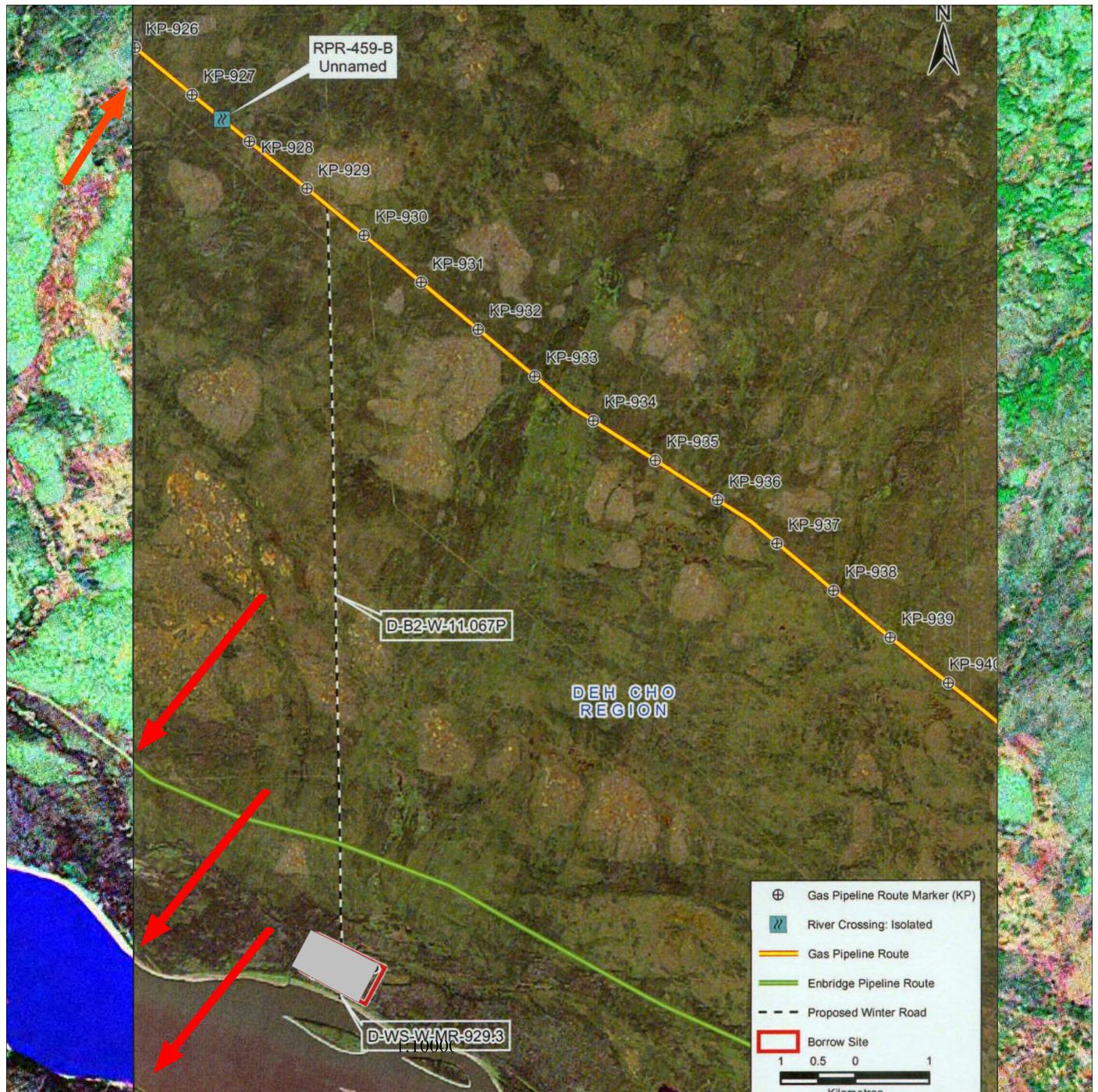


Figure 2 - DehCho Region Permit Application  
Image Quarry\_SSADCR\_Figure\_3.71 Overlain on Satellite Base Image N10-60-11

Legend		Projection:	Universal Transverse Mercator - Zone 10 (N)
MGP 1_50000 - Pits Drawing Areas Quarry_SSADCR_Figure_3.71 N10-60-11 Noticeable Transition points	1:80,000	Datum:	World Geodetic 1984 (WGS84)
	0 2 km	Prepared by: Raymond Baksi, March 2008 Quarry SSADCR Figure 3.71 overlain on Satellite Base N10-60-11	

## **5 Project Report Generation Database – Land Use and Quarry Permits**

Land Use Permit applications are provided, as Adobe Acrobat .pdf files, on the Northern Gas Project Secretariat website for both the private and crown lands. In all cases, borrow site data was presented in section number five of the applications for the Gwich'in, Inuvialuit, Sahtu, and Dehcho Settlement regions.

Quarry permits for the Mackenzie Gas Project were also pulled from this website as separate documents. The quarry permits for Crown lands were combined in two reports, for the Sahtu and Dehcho regions, and the Inuvialuit and Gwich'in regions, respectively.

The project permit applications provide an overview of the activities within each geographic area for Private and Crown lands, including the potential biophysical and human environment effects of development and mitigation. In order to provide improved access to the application information, various reports will be linked to digital polygons representing granular deposits in the Mackenzie Valley Granular Resources Management website. The linked reports, described in the following section, will be automatically generated using Adobe ColdFusion.

### ***5.1 Land Use Permits***

The land use permit applications were (for easier downloading) separated into several smaller-sized .pdf files on the Northern Gas Project Secretariat website. In addition, some figures from these documents were stripped and posted separately as .jpg images. For improved accessibility, the .pdf and .jpg files were re-combined into a single document through the following steps: 1) The .jpg Figures were run through a batch process to allow the files to be modified. 2) The files were then recombined using Adobe Acrobat to recreate the original documents into a single .pdf. 3) This single file was then exported

using Adobe Acrobat to individual sequentially numbered .jpg images. 4) These images were renamed using freeware software called Rename Master (v2.7.5 build 2175). Files were sequentially numbered with Region, document type, land type and a page number. An example of the naming protocol is DCR\_LUP\_C\_0001.jpg where DCR stands for Dehcho region, LUP is for land use permit, and C is for crown land.

The following is a list of ‘reports’ requested by the INAC representative for automated generation on the Mackenzie Valley Granular Resources Management website for the Land Use Permits:

## Full Report:

- Full Land Use Application

### Sub Reports:

- o Site Description including Access, Surface Conditions, Subsurface information, and any figures - maps, photos, etc.
- o Development
- o Environment

### Sub-Sub Reports

- Soils, Landforms and Permafrost - Including Setting, Potential Effects and Mitigation
- Vegetation - Including Setting, Potential Effects and Mitigation
- Hydrology and Groundwater - Including Setting, Potential Effects and Mitigation

Each report was identified with page extent identification in a spreadsheet for each region for private and crown lands. An example of this is presented in Figure 3.

FileNamePrefix: DCR_LUP_C_																
Site_No	Full Report		Full Site		Site Description		Development		Environmental		Soils,Landforms, Permafrost		Vegetation		Hydrology_groundwater	
	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg
9.044PB	0001	0724	0019	0040	0019	0021	0021	0022	0022	0037	0023	0023	0023	028	0028	0035
9.044PA			0041	0062	0041	0043	0043	0044	0044	0060	0044	0045	0045	0046	0050	0052
9.091P			0063	0076	0063	0065	0065	0065	0065	0075	0066	0066	0067	0068	0071	0073
10.001P			0077	0092	0077	0079	0079	0079	0080	0083	0081	0081	0081	0082	0086	0088
10.003P			0093	0106	0093	0095	0095	0095	0095	0104	0096	0097	0097	0098	0101	0103
10.004P			0107	0120	0107	0109	0109	0109	0110	0119	0110	0111	0111	0112	0116	0117
10.007P			0121	0136	0121	0124	0124	0124	0124	0133	0125	0126	0126	0127	0130	0132
10.013P			0137	0158	0137	0139	0139	0139	0139	0156	0140	0141	0141	0143	0146	0154
10.014AP			0159	0181	0159	0162	0162	0162	0162	0178	0163	0163	0163	0165	0169	0175
10.020P			0181	0200	0181	0184	0184	0184	0184	0197	0185	0185	0186	0187	0190	0196
10.022P			0201	0222	0201	0204	0204	0204	0219	0205	0206	0206	0207	0211	0218	
10.030P			0223	0236	0223	0226	0226	0226	0226	0235	0227	0227	0227	0229	0232	0233
10.033P			0237	0256	0237	0239	0239	0239	0240	0255	0240	0241	0241	0242	0245	0252

Figure 3 - Example of page extents table for Land Use Permit report generation

Each image and the report page extents table was sent to CalData Ltd. CalData Ltd. will take these images and using Adobe ColdFusion generate report outputs that will be linked to individual granular polygons on the Mackenzie Valley Granular Resources Management website.

Table 1 below, is a summary showing the number of granular sites and reports possible for each region.

<b>LOCATION/TYPE</b>	<b>NUMBER OF GRANULAR SITES</b>	<b>TOTAL REPORT PAGES</b>	<b>TOTAL POSSIBLE REPORT COMBINATIONS</b>
DEHCHO/CROWN	42	724	295
GWICH'IN/CROWN	7	110	50
GWICH'IN/PRIVATE	9	152	64
INUVIALUIT/CROWN	8	152	57
INUVIALUIT/PRIVATE	7	130	50
SAHTU/CROWN	19	334	134
SAHTU/PRIVATE	33	558	232

**Table 1 - Possible number of Land Use Permit related reports**

The page extents report tables are presented in Appendix C.

## **5.2 Quarry Permits**

Quarry permits posted on the Northern Gas Project Secretariat website are similar to the Land Use Permits, except that only Quarry Permits for Crown land are included. These .pdf and .jpg were processed like the Land Use Permits. The Quarry permit reports are shorter and less complex documents, as a result the page extents file generation was simpler. Figure 4 presents an example of the Quarry permit application page extents table. The complete set of report pages are presented in Appendix D.

FileNamePrefix: ISR_GSA_C_					
Site_No.	Full Report		Full Site		
	StartPg	EndPg	StartPg	EndPg	
0001	0001	0106	0019	0024	
1.002P			0025	0030	
2.022P			0031	0036	
2.020P			0037	0042	
2.029P			0043	0048	
2.029PB			0049	0054	
20.038P			0055	0060	
2.052P			0061	0066	
2.061P			0067	0072	
20.073P			0073	0078	
2.064BP			0079	0084	
5.013P			0085	0090	
5.020P					

Figure 4- Example of page extents page table for Quarry Permit report generation

Table 2 is a summary showing the number of Quarry sites and reports possible for each region.

LOCATION/TYPE	NUMBER OF SITES	TOTAL REPORT PAGES	TOTAL POSSIBLE REPORT COMBINATIONS
DEHCHO/CROWN	52	354	53
INUVIALUIT/GWICH'IN/CROWN	12	106	13

Table 2- Possible number of Quarry Permit related reports

## 6 Study Outputs

The final outputs of the work under this contract consist of 1) a series of georeferenced images of granular deposits and quarry pit locations along the proposed Mackenzie Valley Pipeline and their footprints, 2) a series of regionally and numerically organized images of the pages of Land Use and Quarry Permits along with corresponding page extents Microsoft excel tables for report generation purposes, 3) corresponding metadata for digital data, 4) this report, and 5) the all of the digital archives commissioned under this phase of work and are included in Appendix E.

## **7 File Structure**

The file structure for this project is kept quite simple as a result of Manifold's ability to incorporate most of the data into a single project file. Figure 5 displays the file structure of the enclosed digital disk. In order to keep readers of this report from having to dig through many gigabytes of data, only the most relevant data was extracted and included. Intermediary steps, images, phases, and miscellaneous work will reside with the author. These files can be obtained at any time via a request through the department representative Robert J. Gowan, of Land and Water Management/NRE, Department of Indian Affairs and Northern Development. The Report folder in the file structure contains the file for this report.

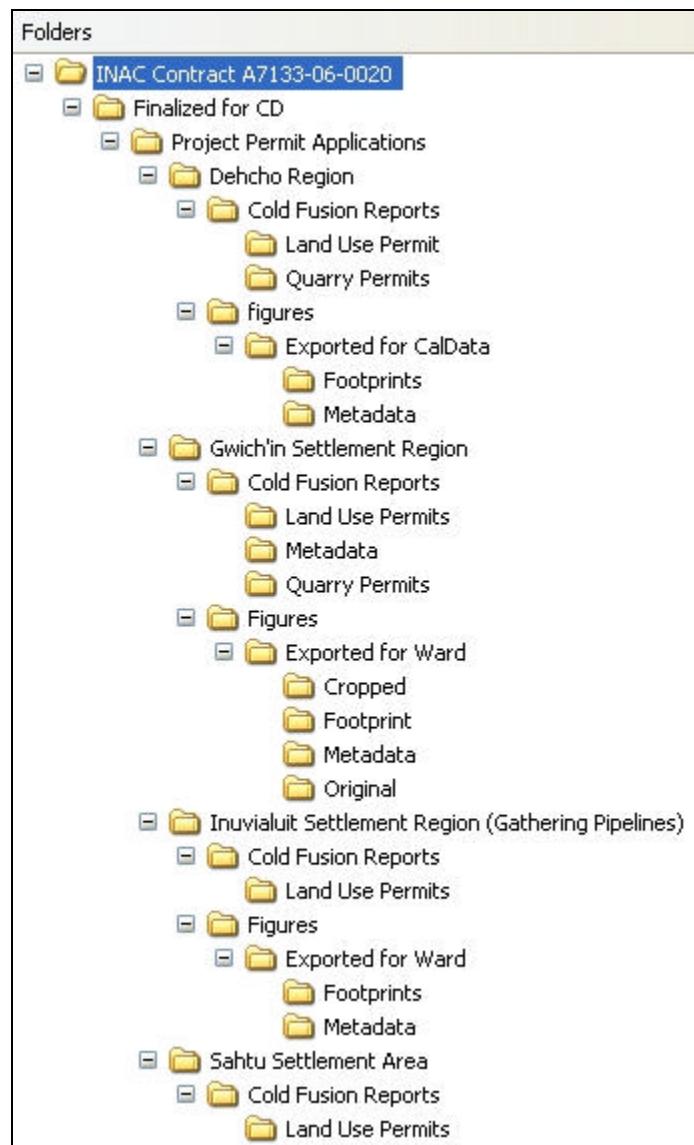


Figure 5 – File Structure of enclosed digital disk

## **8 Recommendations**

The addition of the Land Use and Quarry permits onto the Mackenzie Valley Granular Resources Management website through report generation linked to specific features (i.e. granular polygons) adds value and usefulness to the website. As data continues to come available the website is a great storage mechanism to provide targeted information on an area or feature. Value enhancement of the Mackenzie Valley Granular Resources Management website as new data becomes available and as old data becomes digitized is recommended. Also, one might find it useful if there was a link that would take a user to a text based webpage where full reports were available for viewing or downloading in a user friendly format such as a portable document format (.pdf) file. Data management and access to data should continue to be a focus of the Land and Water Management Division of Indian Affairs and Northern Development.

## **Appendix A – Metadata Sample meeting FGDC standards**

Identification\_Information:

Citation:

Citation\_Information:

Originator: Raymond Baksi(ed.)

Publication\_Date: 20071209

Publication\_Time: Unknown

Title: DCR\_LUP\_C series

Edition: 1.0

Geospatial\_Data\_Presentation\_Form: map

Description:

Abstract:

Project permit application - Land Use Permit - Dehcho  
[/www.ngps.nt.ca/ppa/dcr/dcr.html](http://www.ngps.nt.ca/ppa/dcr/dcr.html)

Purpose: Sequential pages of the Land Use Permits.

Time\_Period\_of\_Content:

Time\_Period\_Information:

Range\_of\_Dates/Times:

Beginning\_Date: 20070109

Ending\_Date: 20071231

Currentness\_Reference: Publication Date

Status:

Progress: Complete

Maintenance\_and\_Update\_Frequency: None planned

Spatial\_Domain:

Bounding\_Coordinates:

West\_Bounding\_Coordinate: -142.00

East\_Bounding\_Coordinate: -111.00

North\_Bounding\_Coordinate: +70.00

South\_Bounding\_Coordinate: +59.00

Keywords:

Theme:

Theme\_Keyword\_Thesaurus: Economy

Theme\_Keyword: Pits

Theme\_Keyword: granular resource

Theme\_Keyword: sand and gravel

Access\_Constraints: None

Use\_Constraints: None

Point\_of\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Robert J. Gowan

Contact\_Organization: DIAND, Land Programs

Contact\_Position: Manager

Contact\_Address:

Address\_Type: mailing and physical address

Address:

Les Terrasses de la Chaudiere

10D13 - Eddy Tower

10 Wellington St.

City: GATINEAU (HULL)

State\_or\_Province: QC

Postal\_Code: K1A 0H4

Country: Canada

Contact\_Voice\_Telephone: 819-994-7464

Contact\_Facsimile\_Telephone: 819-997-7623

Contact\_Electronic\_Mail\_Address: gowanb@ainc-inac.gc.ca

Metadata\_Reference\_Information:

Metadata\_Date: 20071231

Metadata\_Contact:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Raymond Baksi

Contact\_Address:

Address\_Type: mailing address

Address: 141 Marsi Road

City: Richmond Hill

State\_or\_Province: Ontario

Postal\_Code: L4C5R3

Country: Canada

Contact\_Voice\_Telephone: XXX-XXX-XXXX

Contact\_Electronic\_Mail\_Address: raybaksi@gmail.com  
Metadata\_Standard\_Name: FGDC Content Standards for Digital Geospatial Metadata  
Metadata\_Standard\_Version: 1994

## **Appendix B – Geo registered Project Permit Application Images**

## Inuvialuit Settlement Region

ISR_Private_Figure_4_4.jpg	LUP_ISR_Crown_Figure_6_12.jpg
ISR_Private_Figure_5_10.jpg	LUP_ISR_Crown_Figure_6_13.jpg
ISR_Private_Figure_5_13.jpg	LUP_ISR_Crown_Figure_6_14.jpg
ISR_Private_Figure_5_19.jpg	LUP_ISR_Crown_Figure_6_16.jpg
ISR_Private_Figure_5_26.jpg	LUP_ISR_Crown_Figure_6_17.jpg
ISR_Private_Figure_6_3.jpg	LUP_ISR_Crown_Figure_6_18.jpg
LUP_ISR_Crown_Figure_4_4.jpg	LUP_ISR_Crown_Figure_6_2.jpg
LUP_ISR_Crown_Figure_5_13.jpg	LUP_ISR_Crown_Figure_6_3.jpg
LUP_ISR_Crown_Figure_5_23.jpg	LUP_ISR_Crown_Figure_6_5.jpg
LUP_ISR_Crown_Figure_5_28.jpg	LUP_ISR_Crown_Figure_6_6.jpg
LUP_ISR_Crown_Figure_5_42.jpg	LUP_ISR_Crown_Figure_6_8.jpg
LUP_ISR_Crown_Figure_6_10.jpg	
LUP_ISR_Crown_Figure_6_11.jpg	

## Dehcho Settlement Region

DCR_LUP_Crown_Figure_5.115.jpg	Quarry_SSADCR_Figure_3.100.jpg
DCR_LUP_Crown_Figure_5.127.jpg	Quarry_SSADCR_Figure_3.103.jpg
DCR_LUP_Crown_Figure_5.131.jpg	Quarry_SSADCR_Figure_3.106.jpg
DCR_LUP_Crown_Figure_5.144.jpg	Quarry_SSADCR_Figure_3.11.jpg
DCR_LUP_Crown_Figure_5.45.jpg	Quarry_SSADCR_Figure_3.17.jpg
DCR_LUP_Crown_Figure_5.63.jpg	Quarry_SSADCR_Figure_3.2.jpg
DCR_LUP_Crown_Figure_5.87.jpg	Quarry_SSADCR_Figure_3.20.jpg
DCR_WL_Figure_4.15.jpg	Quarry_SSADCR_Figure_3.32.jpg
DCR_WL_Figure_4.16.jpg	Quarry_SSADCR_Figure_3.35.jpg
DCR_WL_Figure_4.27.jpg	Quarry_SSADCR_Figure_3.38.jpg
DCR_WL_Figure_5.1.jpg	Quarry_SSADCR_Figure_3.41.jpg
Quarry_SSADCR_Figure_2.11.jpg	Quarry_SSADCR_Figure_3.47.jpg
Quarry_SSADCR_Figure_2.17.jpg	Quarry_SSADCR_Figure_3.53.jpg
Quarry_SSADCR_Figure_2.2.jpg	Quarry_SSADCR_Figure_3.56.jpg
Quarry_SSADCR_Figure_2.20.jpg	Quarry_SSADCR_Figure_3.62.jpg
Quarry_SSADCR_Figure_2.23.jpg	Quarry_SSADCR_Figure_3.68.jpg
Quarry_SSADCR_Figure_2.26.jpg	Quarry_SSADCR_Figure_3.71.jpg
Quarry_SSADCR_Figure_2.28.jpg	Quarry_SSADCR_Figure_3.77.jpg
Quarry_SSADCR_Figure_2.31.jpg	Quarry_SSADCR_Figure_3.80.jpg
Quarry_SSADCR_Figure_2.34.jpg	Quarry_SSADCR_Figure_3.86.jpg
Quarry_SSADCR_Figure_2.37.jpg	Quarry_SSADCR_Figure_3.89.jpg
Quarry_SSADCR_Figure_2.5.jpg	Quarry_SSADCR_Figure_3.95.jpg
Quarry_SSADCR_Figure_2.8.jpg	

## Gwich'in Settlement Region

GSA_Crown_LUP_Figure_4.2.jpg	GSA_Private_LUP_Figure_5.13.jpg
GSA_Crown_LUP_Figure_5.12.jpg	GSA_Private_LUP_Figure_5.18.jpg
GSA_Crown_LUP_Figure_5.16.jpg	GSA_Private_LUP_Figure_5.44.jpg
GSA_Crown_LUP_Figure_5.20.jpg	GSA_Private_LUP_Figure_5.8.jpg
GSA_Crown_LUP_Figure_5.23.jpg	GSA_Private_LUP_Figure_6.2.jpg
GSA_Crown_LUP_Figure_5.28.jpg	GSA_Private_LUP_Figure_6.3.jpg
GSA_Crown_LUP_Figure_5.8.jpg	GSA_Private_LUP_Figure_6.4.jpg
GSA_Crown_LUP_Figure_6.10.jpg	Quarry_ISRGSA_Figure_2.17.jpg
GSA_Crown_LUP_Figure_6.2.jpg	Quarry_ISRGSA_Figure_2.2.jpg
GSA_Crown_LUP_Figure_6.8.jpg	Quarry_ISRGSA_Figure_2.5.jpg
GSA_Crown_LUP_Figure_6.9.jpg	Quarry_ISRGSA_Figure_2.8.jpg
GSA_GLUP_Amendment_FigureB1.jpg	Quarry_ISRGSA_Figure_3.2.jpg
GSA_GLUP_Amendment_FigureB2.jpg	Quarry_ISRGSA_Figure_3.5.jpg
GSA_GLUP_Amendment_FigureB4.jpg	

## Sahtu Settlement Region

MACA_SSA_Figure_5_10.jpg	SSA_LUP_Crown_Figure_5_22.jpg
MACA_SSA_Figure_5_18.jpg	SSA_LUP_Crown_Figure_5_36.jpg
MACA_SSA_Figure_5_6.jpg	SSA_LUP_Crown_Figure_5_50.jpg
MACA_SSA_Figure_6_6.jpg	SSA_LUP_Crown_Figure_5_52.jpg
Quarry_SSADCR_Figure_2_17.jpg	SSA_LUP_Crown_Figure_5_58.jpg
Quarry_SSADCR_Figure_2_28.jpg	SSA_LUP_Crown_Figure_5_62.jpg
Quarry_SSADCR_Figure_3_100.jpg	SSA_LUP_Crown_Figure_5_65.jpg
Quarry_SSADCR_Figure_3_103.jpg	SSA_LUP_Crown_Figure_6_48.jpg
Quarry_SSADCR_Figure_3_106.jpg	SSA_LUP_Private_Figure_5_104.jpg
Quarry_SSADCR_Figure_3_11.jpg	SSA_LUP_Private_Figure_5_108.jpg
Quarry_SSADCR_Figure_3_17.jpg	SSA_LUP_Private_Figure_5_113.jpg
Quarry_SSADCR_Figure_3_2.jpg	SSA_LUP_Private_Figure_5_117.jpg
Quarry_SSADCR_Figure_3_20.jpg	SSA_LUP_Private_Figure_5_126.jpg
Quarry_SSADCR_Figure_3_26.jpg	SSA_LUP_Private_Figure_5_129.jpg
Quarry_SSADCR_Figure_3_32.jpg	SSA_LUP_Private_Figure_5_132.jpg
Quarry_SSADCR_Figure_3_35.jpg	SSA_LUP_Private_Figure_5_16.jpg
Quarry_SSADCR_Figure_3_38.jpg	SSA_LUP_Private_Figure_5_23.jpg
Quarry_SSADCR_Figure_3_41.jpg	SSA_LUP_Private_Figure_5_33.jpg
Quarry_SSADCR_Figure_3_47.jpg	SSA_LUP_Private_Figure_5_46.jpg
Quarry_SSADCR_Figure_3_50.jpg	SSA_LUP_Private_Figure_5_61.jpg
Quarry_SSADCR_Figure_3_53.jpg	SSA_LUP_Private_Figure_5_66.jpg
Quarry_SSADCR_Figure_3_56.jpg	SSA_LUP_Private_Figure_5_7.jpg
Quarry_SSADCR_Figure_3_62.jpg	SSA_LUP_Private_Figure_5_71.jpg
Quarry_SSADCR_Figure_3_65.jpg	
Quarry_SSADCR_Figure_3_68.jpg	SSA_LUP_Private_Figure_5_74.jpg
Quarry_SSADCR_Figure_3_74.jpg	SSA_LUP_Private_Figure_5_77.jpg
Quarry_SSADCR_Figure_3_77.jpg	SSA_LUP_Private_Figure_5_87.jpg
Quarry_SSADCR_Figure_3_80.jpg	SSA_LUP_Private_Figure_5_90.jpg
Quarry_SSADCR_Figure_3_83.jpg	SSA_LUP_Private_Figure_5_94.jpg
Quarry_SSADCR_Figure_3_86.jpg	SSA_LUP_Private_Figure_6_33.jpg
Quarry_SSADCR_Figure_3_89.jpg	SSA_LUP_Private_Figure_6_43.jpg
Quarry_SSADCR_Figure_3_95.jpg	SSA_WL_Figure_4_3.jpg
SSA_LUP_Crown_Figure_5_12.jpg	SSA_WL_Figure_4_44.jpg
SSA_LUP_Crown_Figure_5_18.jpg	SSA_WL_Figure_4_49.jpg

## **Appendix C – Land Use Permits Page Extents Tables**

## INUVALUIT SETTLEMENT AREA CROWN LANDS USE PERMITS

FileNamePrefix: ISR\_LUP\_C\_

Site_No.	Full Report		Full Site		Site Description		Development		Environmental		Soils, Landforms, Permafrost		Vegetation		Hydrology groundwater	
	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg
1.002P	0001	0152	0017	0036	0017	0020	0020	0020	0020	0034	0021	0022	0022	0024	0027	0029
2.025P			0037	0052	0037	0039	0039	0040	0040	0049	0041	0041	0041	0043	0047	0049
2.028P			0053	0072	0053	0057	0057	0057	0058	0069	0058	0059	0059	0061	0065	0066
2.022P			0073	0088	0073	0077	0077	0077	0077	0087	0078	0079	0079	0080	0084	0086
2.020P			0089	0104	0089	0093	0093	0093	0093	0103	0094	0094	0094	0096	0100	0102
2.029P			0105	0120	0105	0109	0109	0109	0109	0119	0110	0111	0111	0113	0116	0118
2.029PB			0121	0135	0121	0124	0124	0124	0124	0134	0125	0126	0126	0127	0131	0132
20.038P			0136	0152	0136	0139	0140	0140	0140	0150	0140	0141	0141	0143	0147	0148

## INUVALUIT SETTLEMENT AREA PRIVATE LANDS USE PERMITS

**FileNamePrefix: ISR\_ILA\_P\_**

Site_No.	Full Report		Full Site		Site Description		Development		Environmental		Soils, Landforms, Permafrost		Vegetation		Hydrology groundwater		
	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	
	0001	0130															
1.004P			0015	0036	0015	0018	0018	0018	0019	0035	0019	0020	0020	0021	0025	0033	
1.008P			0037	0054	0037	0041	0042	0042	0042	0052	0043	0043	0044	0045	0049	0050	
1.005P			0055	0068	0055	0057	0058	0058	0058	0067	0059	0059	0060	0061	0064	0066	
1.009P			0069	0084	0069	0069	0072	0072	0073	0073	0083	0074	0074	0074	0076	0080	0082
2.008PA			0085	0100	0085	0087	0087	0088	0088	0098	0088	0089	0089	0091	0095	0097	
2.008PB			0101	0114	0101	0103	0103	0104	0104	0113	0104	0105	0105	0107	0111	0112	
2.017P			0115	0130	0115	0119	0119	0119	0119	0128	0120	0120	0121	0122	0126	0127	

## DEHCHO SETTLEMENT AREA CROWN LANDS USE PERMITS

FileNamePrefix: DCR\_LUP\_C\_

Site_No.	Full Report		Full Site		Site Description		Development		Environmental		Soils, Landforms, Permafrost		Vegetation		Hydrology groundwater	
	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg
9.044PB	0001	0724	0019	0040	0019	0021	0021	0022	0022	0037	0023	0023	0023	028	0028	0035
9044PA			0041	0062	0041	0043	0043	0044	0044	0060	0044	0045	0045	0046	0050	0052
9.091P			0063	0076	0063	0065	0065	0065	0065	0075	0066	0066	0067	0068	0071	0073
10.001P			0077	0092	0077	0079	0079	0079	0080	0089	0081	0081	0081	0082	0086	0088
10.003P			0093	0106	0093	0095	0095	0095	0095	0104	0096	0097	0097	0098	0101	0103
10.004P			0107	0120	0107	0109	0109	0109	0110	0119	0110	0111	0111	0112	0116	0117
10.007P			0121	0136	0121	0124	0124	0124	0124	0133	0125	0126	0126	0127	0130	0132
10.013P			0137	0158	0137	0139	0139	0139	0139	0156	0140	0141	0141	0143	0146	0154
10.014AP			0159	0180	0159	0162	0162	0162	0162	0178	0163	0163	0163	0165	0169	0175
10.020P			0181	0200	0181	0184	0184	0184	0184	0197	0185	0185	0186	0187	0190	0196
10.022P			0201	0222	0201	0204	0204	0204	0204	0219	0205	0206	0206	0207	0211	0218
10.030P			0223	0236	0223	0226	0226	0226	0226	0235	0227	0227	0227	0229	0232	0233
10.033P			0237	0256	0237	0239	0239	0239	0240	0255	0240	0241	0241	0242	0245	0252
10.120P			0257	0270	0257	0259	0259	0259	0259	0268	0260	0260	0261	0262	0265	0267
10.037P			0271	0284	0271	0237	0274	0274	0274	0282	0275	0275	0275	0276	0279	0281
10.038PA			0285	0300	0285	0288	0288	0288	0288	0298	0289	0289	0289	0290	0294	0295
10.043P			0301	0318	0301	0304	0304	0304	0304	0317	0305	0305	0305	0307	0310	0314
10.044BP			0319	0334	0319	0321	0322	0322	0322	0333	0323	0323	0323	0325	0329	0330
10.055P			0335	0348	0335	0337	0337	0337	0338	0347	0338	0339	0339	0340	0344	0345
10.071P			0349	0370	0349	0351	0352	0352	0352	0367	0353	0353	0353	0354	0359	0364
10.072P			0371	0386	0371	0374	0374	0374	0374	0384	0375	0375	0375	0377	0381	0382
20.015P			0387	0404	0387	0389	0389	0389	0389	0403	0390	0390	0390	0392	0395	0401
11.019P			0405	0420	0405	0407	0407	0407	0408	0418	0408	0409	0409	0411	0415	0416
11.021P			0421	0436	0421	0424	0424	0424	0424	0434	0425	0425	0425	0427	0431	0432
11.033P			0437	0450	0437	0439	0439	0439	0439	0448	0440	0440	0441	0442	0445	0446

11.055PA		0451	0464	0451	0453	0453	0453	0454	0462	0454	0455	0455	0456	0459	0461
11.055PB		0465	0478	0465	0467	0467	0467	0467	0477	0468	0469	0469	0470	0474	0475
20.018P		0479	0492	0479	0481	0481	0481	0481	0490	0482	0483	0483	0484	0487	0489
11.067P		0493	0508	0493	0495	0495	0495	0495	0505	0496	0497	0497	0499	0502	0504
11.071P		0509	0522	0509	0512	0512	0512	0512	0521	0513	0513	0513	0515	0518	0519
11.174P		0523	0542	0523	0526	0526	0526	0526	0541	0527	0527	0527	0529	0532	0538
11.192P		0543	0562	0543	0545	0545	0545	0545	0560	0546	0546	0547	0548	0551	0557
11.204PB		0563	0576	0563	0566	0566	0566	0566	0575	0567	0567	0567	0569	0572	0573
11.204PA		0577	0592	0577	0580	0580	0580	0580	0589	0581	0581	0581	0583	0587	0588
20.057P		0593	0606	0593	0595	0596	0596	0596	0604	0597	0597	0597	0598	0601	0602
20.002P		0607	0620	0607	0609	0609	0609	0609	0618	0610	0610	0611	0612	0615	0616
20.064P		0621	0634	0608	0623	0623	0623	0623	0633	0624	0624	0625	0626	0629	0631
20.004PC		0635	0652	0635	0637	0637	0637	0637	0650	0638	0639	0639	0640	0643	0648
20.004PA		0653	0670	0653	0655	0655	0655	0655	0668	0656	0658	0657	0658	0661	0667
20.006P		0671	0684	0671	0673	0673	0673	0673	0682	0674	0674	0675	0676	0679	0681
20.008P		0685	0704	0685	0687	0687	0687	0687	0702	0688	0689	0689	0691	0694	0700
20.068P		0705	0724	0705	0707	0707	0707	0707	0723	0708	0709	0709	0711	0714	0720

## GWICH'IN SETTLEMENT AREA CROWN LANDS USE PERMITS

FileNamePrefix: **GSA\_LUP\_C\_**

Site_No.	Full Report		Full Site		Site Description		Development		Environmental		Soils, Landforms, Permafrost		Vegetation		Hydrology groundwater	
	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg
2.061P	0001	0110	0017	0032	0017	0020	0021	0021	0021	0030	0022	0022	0022	0023	0028	0029
20.073P			0033	0046	0033	0034	0035	0035	0035	0044	0036	0036	0036	0038	0042	0043
2.064BP			0047	0062	0047	0050	0050	0050	0050	0060	0052	0052	0052	0053	0058	0059
4.103PB			0063	0078	0063	0066	0066	0066	0066	0076	0067	0068	0068	0069	0073	0075
5.013P			0079	092	0079	0081	0081	0081	0081	0091	0082	0083	0083	0084	0088	0090
5.013P			0079	0092	0079	0081	0081	0081	0081	0091	0082	0083	0083	0084	0088	0090
5.020P			0093	0110	0093	0096	0096	0097	0097	0108	0097	0098	0098	0100	0105	0107

## GWICH'IN SETTLEMENT AREA PRIVATE LANDS USE PERMITS

FileNamePrefix: **GSA\_LUP\_P\_**

Site_No.	Full Report		Full Site		Site Description		Development		Environmental		Soils, Landforms, Permafrost		Vegetation		Hydrology groundwater	
	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg
2.051PA	0001	0152	0017	0032	0017	0020	0020	0020	0021	0030	0021	0022	0022	0023	0027	0028
4.026P			0033	0048	0033	0036	0036	0036	0037	0047	0037	0038	0038	0042	0044	0045
4.023P			0049	0062	0049	0052	0052	0052	0052	0040	0053	0053	0053	0054	0058	0059
4.038APB			0063	0078	0063	0066	0066	0066	0066	0076	0067	0067	0067	0069	0073	0074
4.038APA			0079	0094	0079	0082	0082	0082	0082	0093	0083	0084	0084	0085	0089	0090
4.020P			0095	0108	0095	0098	0098	0098	0098	0107	0099	0099	0099	0100	0104	0105
4.039P			0109	0122	0109	0112	0112	0112	0112	0120	0113	0113	0113	0114	0117	0119
4.059AP			0123	0138	0123	0126	0126	0126	0126	0136	0127	0128	0128	0129	0133	0134
4.100P			0139	0152	0139	0041	0141	0141	0141	0150	0142	0143	0143	0144	0148	0149

## SAHTU SETTLEMENT AREA CROWN LANDS USE PERMITS

**FileNamePrefix: SSA\_LUP\_C\_**

Site_No.	Full Report		Full Site		Site Description		Development		Environmental		Soils, Landforms, Permafrost		Vegetation		Hydrology groundwater	
	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg
	0001	0334														
5.043AP			0019	0034	0019	0022	0022	0023	0023	0031	0024	0024	0024	0026	0029	0030
20.112P			0035	0048	0035	0037	0037	0037	0037	0046	0039	0039	0039	0040	0043	0044
6.089P			0049	0064	0049	0052	0052	0052	0052	0062	0053	0054	0054	0056	0059	0061
7.003AP			0065	0082	0065	0068	0068	0068	0068	0081	0069	0070	0070	0071	0074	0080
20.114P			0083	0098	0083	0086	0086	0086	0068	0096	0087	0088	0088	0090	0093	0095
7.006P			0099	0114	0099	0103	0103	0103	0103	0113	0104	0106	0105	0106	0109	0111
7.015P			0115	0138	0115	0118	0118	0119	0119	0137	0120	0121	0121	0124	0127	0134
7.016P			0139	0154	0139	0142	0142	0142	0142	0153	0143	0144	0144	0145	0149	0151
7.049P			0155	0176	0155	0158	0158	0158	0158	0173	0159	0160	0160	0161	0164	0171
7.054P			0177	0198	0177	0180	0180	0180	0180	0197	0181	0182	0182	0184	0188	0195
7.090P			0199	0212	0199	0201	0201	0201	0202	0210	0203	0203	0203	0204	0205	0208
20.201P			0213	0224	0213	0214	0213	0213	0215	0222	0216	0216	0216	0217	0218	0221
7.155AP			0225	0240	0225	0228	0228	0228	0228	0238	0229	0230	0230	0231	0235	0236
8.058P			0241	0254	0241	0243	0243	0243	0243	0252	0244	0244	0245	0245	0249	0251
9.010PA			0255	0270	0255	0258	0258	0258	0258	0268	0259	0259	0260	0261	0264	0267
9.034PB			0271	0286	0271	0273	0273	0273	0274	0283	0275	0275	0275	0277	0281	0282
9.034PA			0287	0302	0287	0289	0289	0290	0290	0300	0291	0291	0292	0293	0297	0299
9.037PA			0303	0318	0303	0305	0305	0306	0306	0316	0307	0307	0307	0309	0313	0314
9.037PB			0319	0334	0319	0321	0321	0322	0322	0331	0323	0323	0324	0325	0328	0330

## SAHTU SETTLEMENT AREA PRIVATE LAND USE PERMITS

**FileNamePrefix: SSA\_LUP\_P\_**

Site_No.	Full Report		Full Site		Site Description		Development		Environmental		Soils, Landforms, Permafrost		Vegetation		Hydrology groundwater	
	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg
0001	0558		0019	0028	0019	0021	0021	0021	0021	0027	0022	0023	0023	0025	0025	0026
20.200P		0029	0046	0029	0033	0033	0033	0033	0045	0034	0036	0036	0038	0041	0041	0043
5.036P		0047	0062	0047	0049	0049	0049	0049	0060	0050	0051	0051	0054	0057	0057	0058
20.043P		0063	0078	0063	0065	0066	0066	0066	0076	0067	0068	0068	0069	0072	0072	0074
5.041PB		0079	0094	0079	0082	0082	0082	0082	0092	0083	0084	0084	0086	0089	0089	0091
6.011P		0095	0108	0095	0097	0098	0098	0098	0107	0099	0099	0100	0101	0104	0104	0106
6.012P		0109	0122	0109	0112	0112	0112	0112	0121	0113	0114	0114	0115	0118	0118	0120
6.011PB		0123	0140	0123	0126	0126	0126	0126	0139	0127	0128	0128	0129	0133	0133	0136
6.034PA		0141	0152	0141	0124	0143	0143	0143	0150	0144	0144	0144	0146	0147	0147	0149
20.202P		0153	0170	0153	0155	0155	0156	0156	0168	0157	0158	0158	0159	0163	0163	0168
6.036AP		0171	0186	0171	0174	0174	0174	0174	0185	0175	0177	0177	0178	0182	0182	0184
6.042CP		0187	0202	0187	0190	0190	0190	0190	0200	0191	0192	0192	0194	0197	0197	0199
6.042P		0203	0218	0203	0206	0206	0206	0206	0216	0207	0209	0209	0210	0213	0213	0215
6.042BP		0219	0238	0219	0222	0222	0223	0223	0237	0224	0225	0225	0226	0229	0229	0235
6.053P		0239	0254	0239	0241	0242	0242	0242	0252	0243	0243	0244	0245	0249	0249	0250
20.113P		0255	0276	0255	0258	0258	0258	0258	0274	0259	0260	0260	0263	0266	0272	
7.005P		0277	0298	0277	0279	0279	0279	0279	0296	0280	0281	0281	0282	0287	0287	0294
7.018P		0299	0312	0299	0301	0301	0301	0301	0311	0302	0303	0303	0304	0308	0308	0309
7.021P		0313	0332	0313	0316	0316	0316	0316	0330	0317	0318	0318	0320	0325	0327	
7.025P		0333	0350	0333	0335	0335	0335	0335	0348	0337	0337	0337	0339	0344	0344	0346
7.035P		0351	0364	0351	0353	0353	0353	0353	0363	0355	0355	0355	0356	0360	0360	0362
7.046P		0365	0382	0365	0368	0368	0368	0368	0381	0369	0370	0370	0371	0376	0376	0379

7.073PB		0383	0400	0383	0386	0386	0386	0386	0398	0387	0388	0388	0389	0393	0396
7.073PA		0401	0418	0401	0403	0403	0404	0404	0416	0405	0405	0406	0407	0411	0413
7.078P		0419	0436	0419	0421	0421	0422	0422	0434	0423	0423	0423	0425	0429	0431
7.115BP		0437	0450	0437	0440	0440	0440	0440	0449	0441	0441	0442	0443	0446	0448
20.086P		0451	0466	0451	0453	0453	0453	0454	0464	0455	0455	0456	0457	0461	0462
9.002PA		0467	0486	0467	0469	0469	0470	0470	0484	0471	0471	0471	0473	0478	0481
9.00PB		0487	0500	0487	0490	0490	0490	0490	0498	0491	0492	0492	0493	0496	0497
9.017P		0501	0516	0501	0504	0504	0504	0504	0515	0505	0506	0507	0508	0512	0514
9.024AP		0517	0534	0517	0519	0519	0519	0520	0533	0521	0521	0521	0523	0527	0530
9.038PB		0535	0546	0535	0537	0537	0537	0537	0544	0538	0538	0538	0540	0541	0543
9.038PA		0547	0558	0547	0549	0549	0549	0549	0556	0550	0551	0551	0552	0553	0554

**SAHTU SETTLEMENT AREA (MUNICIPAL BOUNDARIES OF NORMAN WELLS, FORT GOOD HOPE AND TULITA LAND) LAND USE PERMITS**

FileNamePrefix: SSA\_MACA\_

Site_No.	Full Report	Full Site		Site Description		Development		Environmental		Soils, Landforms, Permafrost		Vegetation		Hydrology groundwater	
		StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg	StartPg	EndPg
0001	0104														
7.049P		0017	0038	0017	0020	0020	0020	0020	0035	0021	0022	0022	0023	0026	0033
7.057P		0039	0052	0039	0042	0042	0042	0042	0050	0043	0043	0043	0044	0047	0049
7.054P		0053	0074	0053	0056	0056	0056	0056	0073	0057	0057	0058	0060	0064	0071
6.080P		0075	0090	0075	0078	0087	0078	0078	0088	0079	0080	0080	0081	0081	0087
6.077P		0091	0104	0091	0094	0094	0095	0095	0101	0096	0096	0097	0098	0098	0100

## **Appendix D – Quarry Permits Page Extents Tables**

## INUVELUIT AND GWICH'IN SETTLEMENT AREA QUARRY PERMITS

**FileNamePrefix:** ISR\_GSA\_C\_

<b>Site_No.</b>	<b>Full Report</b>		<b>Full Site</b>	
	StartPg	EndPg	StartPg	EndPg
	0001	0106		
1.002P			0019	0024
2.022P			0025	0030
2.020P			0031	0036
2.029P			0037	0042
2.029PB			0043	0048
20.038P			0049	0054
2.052P			0055	0060
2.061P			0061	0066
20.073P			0067	0072
2.064BP			0073	0078
5.013P			0079	0084
5.020P			0085	0090

## DEHCHO AND SAHTU SETTLEMENT AREA QUARRY PERMITS

**FileNamePrefix:** DCR\_SSA\_QP\_C\_

<b>Site_No.</b>	<b>Full Report</b>		<b>Full Site</b>	
	StartPg	EndPg	StartPg	EndPg
	0001	0354		
5.043P			0027	0032
20.112P			0033	0038
6.089P			0039	0044
7.003AP			0045	0050
20.114P			0051	0056
7.006P			0057	0062
7.015P			0063	0068
7.090P			0069	0074
20.201P			0075	0078
7.155AP			0079	0084
8.058P			0085	0090
9.010PA			0091	0096
9.034PB			0097	0102
9.034PA			0103	0108
9.037PA			0109	0114
9.037PB			0115	0120
9.44PB			0121	0126
9.044PA			0127	0132
10.001P			0133	0138
10.003P			0139	0144
10.004P			0145	0150

10.007P		0151	0156
10.013P		0157	0162
10.014AP		0163	0168
10.020P		0169	0174
10.022P		0175	0180
10.030P		0181	0186
10.033P		0187	0192
10.037P		0193	0198
10.043P		0199	0204
10.044BP		0205	0210
10.055P		0211	0216
10.072P		0217	0222
20.015P		0223	0228
11.019P		0229	0234
11.021P		0235	0240
11.033P		0241	0246
11.055PA		0247	0252
20.018P		0253	0258
11.067P		0259	0264
11.071P		0265	0270
11.174P		0271	0276
11.192P		0277	0282
11.204PA		0283	0288
20.057P		0289	0294
20.002P		0295	0300
20.064P		0301	0306
20.004PC		0307	0312
20.004PA		0313	0316
20.006P		0317	0322
20.008P		0323	0328
20.068P		0329	0334

## **Appendix E – Digital Version of Data and Report**

