
7 Natural Resources: Mineral Resource Management

Summary

The Department of Natural Resources is not adequately managing mineral resources in the Province. While the Department is issuing mineral exploration licenses and leases in compliance with the Act and Regulations, many fundamental administrative practices are not completed. A number of our recommendations address the need to implement basic processes which should have been in place prior to our audit. Implementing our recommendations will strengthen and enhance the management of mineral resources in the Province.

The Department's monitoring of mining activity is not adequate. Operator annual reports are not received and reviewed, and site visits are not conducted by the Department as often as intended. The Department is not doing enough to ensure the security it holds is adequate to cover potential costs for reclaiming mining sites. There is inadequate documentation and approval supporting decisions to accept security which does not cover all future site reclamation costs. No assessment has been completed to evaluate the Department's overall exposure for site reclamation costs and whether the risk is being appropriately managed. Additionally, the Department did not track and ensure lease rental payments due for 2012 and 2013 were received as required.

The Department does not have adequate processes to ensure gypsum income tax and mineral royalty payments are complete and accurate. It does not regularly review quarterly returns and payments and it does not have processes to ensure late or inaccurate payments are addressed. We recommended the Department verify the accuracy and completeness of royalty and gypsum income tax payments and follow up on late or inaccurate returns. Without adequate verification the Department may not be receiving full compensation for mineral resources mined in the Province.

Administration of the mineral incentive program needs to be strengthened. We found grant application and reporting deadlines were not always tracked and enforced, and expense requirements were not always supported before final grant payments were made. We also made recommendations for improvement in these areas.

7 Natural Resources: Mineral Resource Management

Background

- 7.1 The Mineral Resources Act specifies that all mineral resources are owned by the Province. The Act and related Regulations outline the processes for application and issuance of mineral resource rights, annual reporting requirements, as well as royalty rates and payment to the Province. Although gypsum is not classified as a mineral under the Mineral Resources Act, the Gypsum Mining Income Tax Act and Regulations require an income tax be paid on all gypsum mined in the Province, similar to mineral royalties. In 2013, the Department started a review of the Mineral Resources Act and Regulations to identify areas for clarification or improvement to the existing legislation.
- 7.2 The Department of Natural Resources, through the Registry of Mineral and Petroleum Titles, is responsible for issuing rights to explore for, work, and remove minerals. The Department also coordinates policy and planning to guide development, management, and protection of mineral resources as well as to promote the scientific understanding of the geology of the Province for use by government, industry, and the public.
- 7.3 In August 2013, the Department launched an electronic information system for tracking and recording mineral claims in Nova Scotia called Nova Scotia's Registry of Claims or NovaROC. The system provides real time maps of mineral and petroleum claims in the Province, and replaces the paper-based system previously in use. Registered clients can apply for exploration licenses and mineral leases, and submit reports electronically. Development of the system started in the fall of 2011. As of January 2014, the Department was continuing work with the developer to address system implementation issues.
- 7.4 Mineral rights in the province are based on map claims, which are predefined areas established by the Department. Each claim is approximately 40 acres (16 hectares) in size. Up to 80 connected claims can be included under one license, and multiple licenses can be held. Mineral exploration licenses are required by anyone who wants to prospect and search for minerals or extract minerals. Licenses are renewed annually. License holders are required to perform a minimum amount of work for each license. Annual work requirements increase the longer a license is held. Work completed is documented in a prospector's statement, outlining the days of prospecting and the observations made, or in a technical report outlining observations, samples taken, aerial surveys, drill core samples, and other testing. Reports



are confidential for two years before they are released to the public. Credit for work in excess of the required amount can be carried forward for up to nine years. License holders may renew their license by paying a fee in lieu of the work requirements once in the first five years, and once every five years thereafter.

- 7.5 A mineral lease allows the holder exclusive rights to mine the specified minerals for the term of the lease, usually 20 years. Mineral leases are obtained once an applicant intends to proceed to developing an active mine. Applicants are required to provide a written intention to undertake production within two years and must provide information such as mine and reclamation plans. Applicants also provide reclamation security as determined by the Department. Mineral lease holders are required to maintain all approvals required by the Department of Environment; they must pay royalties to the Province on mineral production; pay an annual lease rental fee; and submit annual reports to the Department.
- 7.6 The Department launched the Nova Scotia Mineral Incentive Program in 2012 to promote mineral exploration activities in the Province. It provides approximately \$700,000 per year for grants under one of three streams.
- Prospector grants provide up to \$15,000 in financial assistance to registered prospectors for small scale mineral exploration activities in order to find economically viable mineral resources in Nova Scotia. To be eligible, applicants must have valid claims in good standing with the Registry of Mineral and Petroleum Titles.
 - Advanced project grants provide funding to move projects closer to the production stage. Advanced grants provide up to 50% of eligible costs, to a maximum of \$100,000, for approved activities such as trenching, core drilling, surface and underground sampling, and surveys. Any mineral exploration company or registered prospector is eligible to apply, provided they hold the mineral rights or an option to work the claims listed in the application.
 - Prospector marketing grants provide funding, up to \$1,250 per recipient, to any registered prospector to assist them in attending mineral industry conferences or trade shows to market their mineral property for option or sale. Any registered prospector having Nova Scotia mineral claims in good standing available for sale or option is eligible to apply.

Audit Objectives and Scope

- 7.7 In winter 2014, we completed a performance audit of the Mineral Resources Branch at the Department of Natural Resources. The audit was conducted in accordance with Sections 18 and 21 of the Auditor General Act and auditing standards adopted by the Chartered Professional Accountants of Canada.
- 7.8 The audit objectives were to determine whether:
- exploration licenses and mineral leases are issued and monitored in compliance with the Act, Regulations and Department policies;
 - adequate processes are in place to ensure environmental concerns are addressed related to mineral extraction and reclamation;
 - mineral licensing and leasing processes are in line with Departmental strategic goals for geologic resources;
 - royalty payments comply with legislated requirements and are assessed for accuracy and completeness;
 - applications and payments under the Mineral Incentive Program are appropriately assessed against eligibility criteria and grant requirements; and
 - the effectiveness of the Mineral Incentive Program is monitored, measured and evaluated.
- 7.9 Generally accepted criteria consistent with the objectives of the audit did not exist. Audit criteria were developed specifically for this engagement using both internal and external sources. Criteria were accepted as appropriate by senior management of the Department.
- 7.10 Our audit approach included interviews with management and staff; documentation of systems and processes; testing licensing and lease applications and reporting against legislated requirements; testing of royalty payments and mineral incentive grants for compliance with requirements; and examination of legislation and policies. Our audit period included activities conducted primarily between April 1, 2011 and October 31, 2013.

Significant Audit Observations

Overall Comments

- 7.11 Throughout this chapter we identified many fundamental weaknesses in the management of mineral resources at the Department of Natural Resources.



Our observations highlight areas in which the Department has failed to adequately implement basic administrative practices to manage its activities. We noted, for example, there is no process to ensure royalty payments are correct or to follow up when lease rental payments are not received. These are fundamental processes which the Department should have identified and put into effect. Implementation of our recommendations will strengthen and enhance the management of mineral resources in the Province.

Mineral Exploration Licensing and Leasing

Conclusions and summary of observations

The Department is issuing exploration licenses and mineral leases in accordance with the Mineral Resources Act and Regulations. However, it is not doing an adequate job of monitoring mining activities and ensuring reclamation security for mining projects is sufficient to cover potential costs to reclaim the sites if operators fail to do so. Operator annual reports are not reviewed as required and site visits are not conducted as often as intended. The Department has not prepared guidelines for staff in estimating reclamation costs and does not regularly review and update estimated reclamation costs for specific sites to determine whether the security held is sufficient. The Department has not prepared a risk assessment to evaluate its overall risk for reclaiming mining sites. We found significant delays in the Department's review, approval and notification of claims renewals. The Department did not track and ensure lease payments for 2012 and 2013 were submitted. We recommended they track and follow up on lease payments not received.

- 7.12 *Reclamation security* – The Department is responsible for oversight and issuing licenses to explore for, and leases to develop, the province's mineral resources. To develop a mine site, a mineral lease holder must provide security to the Department to cover the cost to reclaim the site. The amount of security must be acceptable to the Department of Natural Resources as well as the Department of Environment. Reclamation of a site includes removal of any buildings and structures, filling in pits, stabilizing tailings disposal sites, surface contouring, and revegetation work. Depending on the mineral extracted and the mining method, sites which are not reclaimed may only require limited site work by the Department, such as erecting fencing, to safely secure the site and may not pose any ongoing environmental concerns to the surrounding land.
- 7.13 Security, in the form of cash, letter of credit from a bank, or bond from a third party, can be used to reclaim the site in the event the operator fails to do so. To arrive at the amount of security needed, the Department normally calculates its own estimate of the cost to reclaim the mine site. It uses this estimate in discussions with the mining operator about the methods to be used

to reclaim the site and the costs involved. Reclamation security estimates are reviewed by Department staff before a final amount is accepted.

- 7.14 The Department has not developed guidelines for staff in estimating reclamation costs. The Mineral Resources Regulations include the types of activities to be included in the reclamation security calculation; however, there are no guidelines addressing how estimates should be calculated. The lack of clear guidelines to calculate cost estimates could result in the Department establishing inadequate security on a project, creating a potential liability to the Province if the operator fails to reclaim the site. In August 2012, the Department, through participation on a multi-department committee, identified the need to formalize the process for setting reclamation security amounts. A subcommittee was established to address this issue. As of January 2014, this committee had not met.

Recommendation 7.1

The Department of Natural Resources should develop guidelines to assist staff in calculating reclamation cost estimates.

Department of Natural Resources Response:

Agree.

The Department will update and formalize the existing guidelines to provide direction and guidance for DNR staff in the preparation of reclamation cost estimates.

The ongoing review of the Mineral Resources Act (the Act) may include revisions to sections (e.g., Section 77 of the Mineral Resources Regulations) and may add new sections to provide clarity to government and industry on how reclamation securities will be calculated.

Schedule: To be completed in 2014-15.

- 7.15 Management indicated they seek to obtain 100% of the estimated cost to reclaim a mine site at the point of greatest site disturbance. Some operators plan to reclaim a site while they mine, reducing the security required. Management noted there are sites which have less security in place than the estimated cost to reclaim the sites. Management indicated they may accept less than 100% of the estimated cost to reclaim a site, based on factors such as the size of the company and its ability to pay, and the Department's assessment of the risk associated with the mining operation. We found the rationale for accepting less than 100% of estimated reclamation costs was not adequately documented in the files and staff did not obtain senior management approval. These decisions involve an element of risk that should be clearly documented and approved at a senior level in the Department.



Recommendation 7.2

The Department of Natural Resources should document its rationale and obtain approval from senior management when less than 100% of the estimated reclamation cost is obtained as security.

Department of Natural Resources Response:

Agree.

In the future, the rationale for instances where less than 100% of the estimated reclamation cost is obtained as security will be documented.

As part of the review of the Act, and in consultation with Nova Scotia Environment (NSE), reclamation bonding issues will be addressed. DNR may study and propose a self-bonding process for some projects that would provide security for the province and allow for less than 100% of the reclamation security to be held by the province.

DNR acknowledges that most of the bonding issues are related to some mines which have been operating for a long time (>20 years) and have had neither bonds nor reclamation plans reviewed on a regular basis. For new projects, reclamation plans, costing and security bonds are thought to be adequately addressed by existing DNR and NSE policies.

Schedule: On completion of the Act review (anticipated 2016-17).

7.16 The Department does not maintain a complete list of currently-held reclamation security compared to the total estimated cost to reclaim mine sites. Although the Department determines the level of security it is prepared to accept on a project by project basis, it has not prepared an assessment of the overall risk for all projects. The lack of a global risk assessment could result in the Province being exposed to a level of risk the Department has failed to identify. The Province's potential liability for future reclamation work may be greater than anticipated if the risk of loss is not being appropriately identified and managed by the Department.

Recommendation 7.3

The Department of Natural Resources should assess the estimated cost to reclaim mining sites against the current security held, and complete an assessment of the overall risk to the Province. If the existing security is inadequate, steps should be taken to reduce identified risks to acceptable levels.

Department of Natural Resources Response:

Agree.

Commencing with the 2013 Annual Report review process and follow-up site visits, DNR will compare the existing estimated reclamation costs for each Mineral

Lease and Non-Mineral registration with the amount of security held, conduct an assessment of the risk to the province in cases where inadequate security is held and recommend ways to reduce the risk.

Schedule: To be completed in 2014-15.

- 7.17 The Department does not regularly review or update the estimated costs to reclaim mining projects. The Mineral Resources Regulations allow the Department to review reclamation security every two years. If the Department does not regularly review and update estimates, increases in fuel, labour or other significant costs could mean it does not have sufficient security to reclaim sites. Department management told us that significant changes to mine sites, such as changes to the remediation plans, or changes to the size of mining operations could trigger reviews of reclamation security.

Recommendation 7.4

The Department of Natural Resources should regularly identify and assess sites requiring updated cost estimates, and ensure adequate security is maintained.

Department of Natural Resources Response:

Agree.

Commencing with the 2013 Annual Report review process and follow-up site visits, DNR will identify those sites that need to have existing reclamation cost estimates updated in order to ensure that adequate security is maintained.

Schedule: Ongoing; to be completed in 2015-16.

- 7.18 *Mineral exploration licenses* – Mineral exploration licenses are required by anyone wanting to prospect and search for minerals. New applications or renewals of exploration licenses require an application form be completed and submitted, indicating the land claims requested and providing the appropriate fee. Applications are reviewed to determine if the land claimed is available, and to identify any which may have restrictions, such as those within provincial parks or ecologically sensitive areas. Applications are rejected if the land claimed is already held under an exploration license. Any restrictions or areas excluded are noted on the license.
- 7.19 We tested a sample of 30 mineral exploration license applications. We found all 30 applications were in compliance with the Act and Regulations, and were issued appropriately. We also tested a sample of five rejected applications, and found all five applications had been appropriately rejected.
- 7.20 *License annual reports* – Annual reports submitted to satisfy license requirements are reviewed by the Department. The review includes ensuring



lab sample results and geological data gathered during prospecting are included with the report. The reviewer also ensures the report format and layout meets Department standards. The 21 files we examined complied with annual report requirements.

- 7.21 *Application and renewal processing* – The Department does not monitor the time it takes to process claims applications. Although estimated waiting periods are listed on the application website, management told us the stated wait times do not accurately reflect the Department’s processing times. The longest waiting period for license processing listed on the website was 27 business days. We found 13 of 30 applications we tested took 100 days or more to be processed. The average processing time of these 13 samples was 223 days, with a maximum of 463 days between the application and approval notification. Of the five rejected applications we tested, four took 100 or more days between receipt of the application and notifying the client of the decision.
- 7.22 Licenses must be renewed each year. Once a renewal has been assessed and meets the requirements, a certificate of compliance is issued to the license holder, extending the license for one year. Until a certificate of compliance has been issued, prospectors cannot be guaranteed continued approval to work their claims. We noted instances in which approval decisions or notifications were delayed as detailed below.
- Two technical reports were not reviewed at least three months after they were received.
 - Six months after a technical report was reviewed and accepted, a certificate of compliance had not yet been issued.
 - Eight of the 21 renewal files tested had significant delays in signing and issuing the certificate of compliance, from four months into the renewal period to three months after the one-year extension had expired.
- 7.23 Failure to adequately monitor license applications and renewals to ensure decisions are made in a timely manner may result in unreasonable delays and in prospectors working on claims without authorization to do so. Department management told us that the staff position responsible for reviewing and assessing the reports was vacant between June 2013 and January 2014.

Recommendation 7.5

The Department of Natural Resources should implement and monitor processing time performance standards for mineral exploration license applications and renewals.

Department of Natural Resources Response:
Agree.

DNR is committed to reviewing and implementing process efficiencies in the Registry of Mineral and Petroleum Rights (the Registry) with a goal to reducing approval times. A significant step to improving efficiency was the introduction of the new, electronic registry in August 2013. The electronic application called NovaROC, has had some programming and data migration issues that are currently being resolved. NovaROC will enable timely processing of licenses and leases. Design and development of the NovaROC application required diversion of Registry staff duties and this contributed to a backlog of un-processed applications that is currently being addressed.

DNR has filled the position (replaces a retirement) responsible for review of assessment files in the Stellarton office. The backlog of assessment files should be reviewed and approved before the end of 2014.

Schedule: Ongoing.

7.24 *Mineral leases* – A mineral lease allows the holder exclusive right to mine specified minerals. Mineral lease applications are reviewed by the Department to ensure the applications meet legislated requirements. Staff use a checklist to make sure the requirements are appropriately addressed. We tested five mineral lease applications and renewals and determined all five were largely compliant with the Act and Regulations. We noted two deviations.

- One file did not have evidence the Department assessed the amount of reclamation security required and determined it to be appropriate. The Province may be holding inadequate security to reclaim the site in the event the operator fails to do so.
- One file only had a copy of the signed lease. The original of the document was not on file in the Registry of Mineral and Petroleum Titles as required.

7.25 Lease holders must submit an annual report on or before the first day of March. Reports provide information and maps on the layout and status of the site, information on the minerals remaining, changes to the mining method and changes to the approved reclamation plan. Reports also provide information on the amount of mineral produced and shipped during the year, which provides useful information to compare against quarterly royalty payments. We discuss this further in the royalties section later in this chapter.

7.26 We examined a sample of 10 annual reports from the 2011 and 2012 calendar years. We found five of the 10 reports were not submitted by the reporting deadline. Two reports were submitted 314 days late, while another report



was submitted 104 days late. We also noted issues concerning the quality of the information reported.

- One report did not provide drawings or maps showing the outline of the existing mine workings relative to the surface features, facilities, watercourses, property boundaries or waste storage areas.
- Two reports did not provide a plan clearly identifying the mineral development work, waste, and production intended for the coming year.
- Two reports did not provide a summary of the mineral extracted and the reserves.
- One report did not indicate the amount of the resource shipped and the destination.

7.27 There was no evidence the Department reviews lease annual reports to ensure they are compliant with regulated requirements. Staff indicated a review form was used in the past but was discontinued at least seven years ago. The Department does not record the reason if an annual report is not received. Based on a review of the 2011 calendar year, 18 companies did not provide an annual report as required. Eleven of those same companies did not provide a report in 2012. The Department maintains a list of reports received which has space for the reviewer's signature. This column was not used in either 2011 or 2012.

Recommendation 7.6

The Department of Natural Resources should review and assess lease annual reports to ensure they meet reporting requirements. The review should be documented and report deficiencies followed up.

Department of Natural Resources Response:

Agree.

DNR will develop check-lists and consistent, standard practices for reviewing Annual Reports (i.e., Form 16) and Mineral Leases, and will ensure that annual reports will be received from industry by deadlines. The revised forms will be used by DNR staff, beginning with the 2013 Annual Reports, to ensure that Annual Reports meet reporting requirements. In addition, relevant information in the Annual Reports will be relayed to the Mine Assessor regarding royalty/tax payments received. The availability of the electronic Registry system (NovaROC) will improve the tracking of annual reports.

Schedule: Formalization and implementation of a practice for reviewing reports is underway and is expected to be completed in 2014-15.

7.28 *Lease payments* – The Mineral Resources Act requires companies with mining leases to pay a lease rental fee to the Department for each claim

included under the lease. The Department does not have an adequate process for tracking lease rental fees and following up when they are not submitted. Of the 42 mining leases recorded for 2013, only 17 (40%) made lease payments as required, while the remaining 25 (60%) did not. The value of these lease payments range from \$114 to \$3,990 per lease, and totaled approximately \$32,000 for the year. For 2012, only 63% of lease payments had been made as required. The Province should collect all lease rentals owed as claims under an active lease are not available for other interested prospectors to develop.

Recommendation 7.7

The Department of Natural Resources should establish and implement a process to track and receive lease payments on a timely basis.

Department of Natural Resources Response:

Agree.

The Registry and Mine Assessor will update the current hard-copy, manual ledger system and will establish a modern, electronic tracking and cross-reference system for all Mineral Leases designed to better record all lease rental and royalty payments received on a quarterly and annual basis.

Schedule: To be completed in 2014-15.

7.29 *Site visits* – The Department has an informal policy to visit active mine sites on an annual basis, with visits usually arranged after the lease annual reports are received. Site visits allow the Department to observe the mine sites and identify any issues. Visits are supposed to be documented in a report, outlining who went to the location, what was observed, and any future follow-up actions required. Of the 10 annual reports we tested, four did not have evidence of a site visit subsequent to filing the annual report. Although the Department also completes annual aerial flyovers and photos of mine sites which allows for observation of surface activity, site visits provide opportunity for more in-depth monitoring.

Recommendation 7.8

The Department of Natural Resources should develop and implement a policy on completing site visits, including documentation requirements and frequency.

Department of Natural Resources Response:

Agree.

As part of the ongoing review of the Act, DNR will revise and implement a policy on completing site visits, including documentation requirements and frequency, recognizing that not all projects will require an annual site visit.

Schedule: To be completed in 2015-16.



- 7.30 When a mining site ceases production, operators must reclaim the site to the satisfaction of the Department within 12 months, unless a longer period is approved. Since the Department of Environment is responsible for environmental matters related to mining projects, both departments work jointly to monitor progress on reclamation. When an operator indicates the reclamation of a site is complete or partially complete, staff from both departments visit and assess the site, including reviewing and evaluating the work done and estimating any work outstanding. We reviewed three projects where partial or full release of the reclamation security was requested, and found all three projects met the requirements, including appropriate approval from the Department of Environment.
- 7.31 *Electronic reporting* – The new information system for tracking and recording mineral claims initially included limited reporting functions. Additional reports were being developed when we completed fieldwork in January 2014. The system can provide financial reports on client fees paid and refunds issued, and information on clients, license renewals, regrouping or transfers of licenses, and summaries of work credits submitted. Management stated reports were run as needed during system implementation. Management told us they intend to have a regular reporting schedule once system implementation has been completed.

Recommendation 7.9

The Department of Natural Resources should identify their information needs and implement regular reporting from the mineral information system.

Department of Natural Resources Response:

Agree.

Once fully functional, the NovaROC application will provide data required to create reports on a monthly, quarterly and annual basis. These reports will provide current, accurate descriptions of the status of Nova Scotia mineral tenure. It is anticipated the reporting functions in NovaROC will be operational before the end of 2014-15. Any future reporting gaps or deficiencies in NovaROC will be identified and addressed through system maintenance and improvement.

Schedule: NovaROC reporting functions will be operational in 2014-15.

Mineral Royalties and Gypsum Income Tax

Conclusions and summary of observations

The Department does not have adequate policies and processes to ensure mineral royalty and gypsum income tax payments are complete and accurate. The Department does not regularly review quarterly returns, and late or inaccurate

payments are not followed up. We recommended the Department establish processes to assess whether royalty and gypsum income tax payments received from operators are complete and accurate.

7.32 *Royalty rates* – The Mineral Resources Act requires mine operators to pay a royalty to the Province. Royalty rates are established in the Mineral Resources Regulations based on the mineral being mined. Royalty payments are calculated either as a rate per ton, 1% of the net value received by the producer, or 2% of the net value at the mine.

7.33 The Mineral Resources Regulations do not define how net value is to be determined. The Department interprets net value as meaning net revenue based on the Mineral Resources Act. Although most mine operators calculate royalties based on tonnage, for those operators using net value, such as limestone producers, the Department has not communicated its interpretation of net value and is unaware of how the operators are calculating the royalties. The lack of clarity on the calculation method for net value could result in inaccurate payment of royalties to the Province.

Recommendation 7.10

The Department of Natural Resources should define and communicate the basis for calculation of mineral royalties to those operators not using a rate per ton.

Department of Natural Resources Response:

Agree.

To provide clarity, the Mine Assessor will prepare a definition for “net value” and provide it to the Lessees who do not use a rate-per-ton calculation method. The new definition will be included in the revised Act and Regulations. In the meantime, DNR will continue to meet with producers in advance of production to explain and demonstrate the royalty calculation.

Schedule: Ongoing. Clear methods for calculation of royalty payments will be included in the revised Act and Regulations (anticipated 2016-17).

7.34 Gypsum mine operators must pay an income tax on the amount of gypsum recovered. The gypsum income tax rate is established in the Gypsum Mining Calculation of Income Regulations. For purposes of this chapter, we include gypsum income tax payments in the following discussions on royalties.

7.35 *Quarterly returns* – Mine operators are required to submit quarterly returns for both gypsum and mineral royalties. The royalty or tax payment is based on tons reported by the operator and the rates as defined in the Regulations.

7.36 The Department’s review of quarterly returns is not adequate. Of the 30 returns we tested, 29 did not have evidence of review. We found two returns



used an incorrect royalty rate, resulting in underpayments totaling \$9,026. Following our identification of these differences, the Department contacted the operator and received the additional payments. One return did not have any information on how the payment was calculated. We were unable to verify the mathematical accuracy of the return or the appropriateness of the determination of net value.

- 7.37 The Department has not established guidelines or processes for the review of quarterly returns. Without an appropriate review process, incorrect royalty payments may not be detected and corrected by the Department, as the above examples demonstrate.

Recommendation 7.11

The Department of Natural Resources should establish and implement guidelines for the review of quarterly royalty or tax returns, including follow up of inaccurate returns or returns with incomplete information.

Department of Natural Resources Response:

Agree.

The Mine Assessor and the Registry are committed to implementing a structured process for tracking of quarterly royalty/tax returns, including following up of inaccurate returns or returns with incomplete information. Recommendation 7.11 highlights the need for DNR to provide additional support to the Mine Assessor, or to transition some of the current Mine Assessor's duties to the Registry. The Mine Assessor's duties will be reviewed in 2014-15

Schedule: To be completed in 2014-15.

- 7.38 Quarterly returns must be submitted to the Department by the 20th of the month after the quarter end. The Department does not track and monitor returns to ensure they are submitted as required. We tested 30 returns to determine if they were received before the deadline.
- Five returns were signed by the operator after the due date. The royalties were deposited from 33 to 243 days after the due date. In all five cases the Department took no action to follow up on returns not received on time.
 - For nine cases, we were unable to determine if the returns were submitted by the deadline because they were not dated. The royalties were deposited from 3 to 191 days after the due date.
- 7.39 The Mineral Resources Act and the Gypsum Mining Income Tax Act allow the Department to charge interest on late payments and charge penalties on inaccurate returns or for failing to submit required returns and reports. Management stated they do not normally charge interest or penalties on late



returns. Given the Department does not track when returns are received, it does not have the information needed to appropriately charge interest and penalties. Of the 30 returns tested, none of the five operators who filed late returns requested an extension to their filing deadlines. The Department did not charge interest or penalties on these late returns.

Recommendation 7.12

The Department of Natural Resources should establish and implement guidelines for the tracking and use of interest and penalties on late or inaccurate royalty or tax returns.

Department of Natural Resources Response:
Agree.

DNR will consult with the Department of Finance and may conduct a jurisdictional review to examine policies and tools for use of interest and penalties on late or inaccurate royalty/tax returns. Implementation may coincide with implementation of the revised Act.

Schedule: To be completed by the end of 2015-16.

7.40 Mine operators must submit annual reports to the Department as part of their lease terms. The reports submitted are to include information on mineral production and shipments during the year. The Department may also request other information, such as financial statements, reports, invoices or other documents to provide support for production amounts. The Department does not compare the annual reported shipments or production amounts to the quarterly returns for consistency, nor has it requested additional support. The comparison of annual reports or other supporting documents to quarterly returns could identify potential differences that the Department may wish to investigate further. It would also act as an important control to assess the reasonableness of royalty or tax payments received.

7.41 We obtained returns and annual reports for the 2011 and 2012 calendar years to identify any significant differences. We selected eight operators, one of whom did not have any production in 2011. Our analysis found discrepancies as noted below.

- There were four instances in which royalties paid were less than would have been paid if the annual production report amounts were used. The differences in reported quantities ranged from a low of 591 tons up to 573,844 tons, representing possible royalty values from \$77 to \$298,400.
- There was one instance in which royalties paid were more than would have been paid if the annual production was used. The difference reported was 18,015 tons, with an approximate royalty value of \$9,370.



- There were four operators who either did not provide an annual report, or did not provide the information in their annual reports to allow a comparison to be completed.

7.42 Since we do not know whether the annual reports or the quarterly returns are more accurate, we were unable to determine if any of these differences should have resulted in changes to the royalty payments made to the Province. However, such differences should be identified and investigated by the Department to ensure the correct royalties or taxes are received.

Recommendation 7.13

The Department of Natural Resources should compare information in operator's annual reports to royalty or tax payments received and investigate significant variances.

Department of Natural Resources Response:

Agree.

The Mine Assessor and the Registry are committed to implementing a structured process for comparing information in operator's annual reports to royalty/tax payments received and to investigate significant variances. Recommendation 7.13 highlights the need for DNR to provide additional support to the Mine Assessor, or to transition some of the current Mine Assessor's duties to the Registry. The Mine Assessor's duties will be reviewed in 2014-15.

Schedule: To be completed in 2014-15.

Recommendation 7.14

The Department of Natural Resources should establish and implement guidelines to identify and periodically request additional information, such as financial statements, reports, or other supporting information, to verify the accuracy and completeness of royalty or tax returns.

Department of Natural Resources Response:

Agree.

DNR will establish and implement guidelines to identify and periodically request additional information, such as financial statements, reports, or other supporting information, to verify the accuracy and completeness of royalty/tax returns using the authority of the existing Act and any enhancements accepted in the future, revised Act.

Schedule: Guidelines to be implemented by the end of 2015-16.

7.43 The Department does not regularly monitor or assess the appropriateness of the Province's royalty rates. Management noted royalty rates were last reviewed when legislation was updated in 2004. Rates have been periodically

adjusted by the consumer price index as part of Government's general assessment of fees, the latest in April 2013. These changes do not take into consideration the competitiveness of the resources markets, the demand for specific minerals, or Government's economic goals. Without regular review of royalty rates, the Government may not be receiving the full benefit from the Province's mineral resources or providing an appropriate competitive environment for mineral resource development.

Recommendation 7.15

The Department should determine an appropriate timeframe and implement regular review of royalty rates to ensure they reflect the optimum economic benefit to the Province.

Department of Natural Resources Response:

Agree.

DNR is committed to implementing a predictable, transparent and competitive royalty regime in Nova Scotia as part of the review of the Act. A jurisdictional review will provide background on how royalties are calculated and set elsewhere in Canada. The revised Act may include a requirement that royalty rates be reviewed and revised on a regular basis. DNR will continue to work with the provincial/territorial Mine Assessors to regularly review Canadian royalty rates in the context of competitiveness of the resource markets, the demand for specific minerals and the economic goals of governments.

Schedule: On completion of the Act review (anticipated 2016-17).

Mineral Incentive Program

Conclusions and summary of observations

The Department's administration of the mineral incentive program needs to be strengthened. We found instances in which the Department issued grants to applicants who did not meet eligibility criteria. The Department does not always enforce deadlines for grant applications and reports. We identified completed projects for which the grant recipients did not submit support for their expenses before final payment was made. Grant applicants are required to obtain three quotes for expenses over specific thresholds; this requirement was not enforced by the Department. We also found HST was reimbursed to applicants when they may be eligible for federal government reimbursement for the tax.

7.44 *Program goals* – The Department's overall objective for the mineral incentive program is to promote and increase exploration and mineral development activities in the Province. At the time of our audit, the three-year program was in its second year of operation. To determine whether the program



should continue after the three-year period, the Department needs to evaluate whether it has been successful in achieving its objectives.

Recommendation 7.16

The Department of Natural Resources should evaluate the success of the mineral incentive program in achieving its objectives prior to making a decision on whether to continue the program.

Department of Natural Resources Response:
Agree.

In consultation with industry stakeholders, DNR will evaluate the success of the first two years of the Mineral Incentive Program.

Schedule: Program evaluation to be completed before the end of 2014 (calendar year).

- 7.45 *Eligibility criteria* – The Department’s eligibility criteria for the three grants under the mineral incentive program are clearly communicated to grant applicants. The Department’s website includes information on deadlines for applications, contact information, and application forms. Information on the grant evaluation process and the considerations to be used to evaluate the applications is also clearly documented. To determine if applications met all eligibility criteria, we tested a sample of 15 prospector grants (for small scale mineral exploration), 15 advanced project grants (for moving mining projects closer to production), and three marketing grants (for attendance at industry trade shows and conferences).
- 7.46 Of the 33 successful applicants selected, five did not meet the eligibility criteria. There was no evidence the applicants held the mineral rights which the application related to.
- Two advanced project grant applicants indicated they had the option to work claims on behalf of another license holder. There was no agreement filed with the Registry of Mineral and Petroleum Titles and no evidence the Department verified the agreements existed.
 - Two prospector grant applicants did not hold the rights to all the claims included in their applications. There was no evidence this difference was identified or followed up by staff reviewing the applications.
 - One marketing grant applicant did not hold the rights to any of the claims included on the application.
- 7.47 Management stated the risk in these situations was very low as it would be unlikely applicants would undertake work for which they would not be able to benefit. While we recognize the risk may not be high, good practice

would require the Department verify successful applicants meet eligibility requirements.

Recommendation 7.17

The Department of Natural Resources should verify and document that successful grant applicants meet established eligibility criteria.

Department of Natural Resources Response:

Agree.

The existing grant application and review process is robust, although DNR recognizes that business relationships between prospectors/companies may change throughout the year and during a 'grant cycle'. There are also occurrences when one prospector may be assigned to attend a trade show to market mineral prospects on behalf of other prospectors, and there are occurrences of prospectors dropping or lapsing claims during the year. These examples of changing business relationships may suggest an appearance of ineligibility. To confirm eligibility, the Registry will work with companies to register option agreements with the Registry.

Schedule: Verification and documentation of successful grant applicants meeting eligibility criteria will be completed during the 2015-16 application process.

- 7.48 *Evaluation of applicants* – Advanced project grants and prospector grants are evaluated by a review committee comprised of three Department staff. Applicants who do not have the capability to do the proposed work, or potential conflicts which could prevent the project from proceeding, such as working in a protected wilderness site, are rejected. Applications are assessed based on a variety of factors including the market potential of the resource, the quality of the application, the degree of innovation of the proposal, and the likelihood of positive results. All 30 advanced project grants and prospector grants we tested were evaluated by the review committee using a consistent process.
- 7.49 Management indicated marketing grant applications are evaluated through discussions between review committee members and other staff. Applicants are selected based on the Department's assessment of the marketability of their claims. This process is not documented in the files.
- 7.50 *Application and reporting deadlines* – To be considered for funding, applications must be submitted by the Department's application deadline. For one prospector grant and one advanced project grant, we found no evidence that the applications were received by the application deadline.
- 7.51 Prospector grant and advanced project grant recipients must file a final report by an established reporting deadline to receive their final payment. The



Department is not adequately ensuring reports are received on time. We found no indication that five of 17 final reports were received by the reporting deadline. Final reports for the remaining 13 projects were not due at the time of our testing.

Recommendation 7.18

The Department of Natural Resources should develop and implement processes to receive grant applications and reports by established deadlines.

Department of Natural Resources Response:

Agree.

DNR notes that of the 30 advanced project and prospector grants reviewed by the Office of the Auditor General (OAG), only two lacked documented evidence that the applications were received on time. DNR will reinforce processes to ensure that all incoming documents are time stamped.

DNR suggests that the existing program announcement, application, review and approval processes are robust. DNR will review existing program administration practices to ensure application and reporting deadlines are met. DNR notes the OAG observation that, "All of the 30 advanced project grants and prospector grants we tested were evaluated by the review committee using a consistent process" (OAG Report, Section 7.48).

Schedule: Review and improvements of the program administration are ongoing.

- 7.52 *Grant expenses and payments* – Successful grant applicants must obtain quotes for expenses in excess of \$5,000 for prospector grants, and in excess of \$10,000 for advanced project grants, unless the Department has approved sole sourcing in advance. Of the 17 completed projects we tested, 13 had expenditures requiring three quotes. None of the files contained evidence that three quotes were obtained. One of the 13 files included a note outlining why a specific contractor would be used. There was no evidence the Department approved the use of sole sourcing in this instance.
- 7.53 Of the 17 completed prospector grants and advanced project grants, we identified two which did not have invoices supporting all expenses claimed. One advanced project grant had no supporting invoices for \$72,008 of eligible expenses and one prospector grant was missing an invoice for \$250. The Department paid the approved grant funds. Failure to obtain supporting documentation for expenses claimed could result in grant payments when the required expenses were not incurred. It also prevents the Department from verifying the reasonability of expenses paid.



Recommendation 7.19

The Department of Natural Resources should verify and document mineral incentive grant requirements are met before final payments are made.

Department of Natural Resources Response:

Agree.

DNR will strengthen existing processes for reviewing expense reports from grant recipients and ensure that all requirements are met before final payments are made. Regarding the absence of a supporting invoice for \$72,008 (see OAG Report, Section 7.53), a February 21, 2013 letter from the program coordinator to the grant recipient states, “I am pleased to inform you that the report is suitable and that you [the grant recipient] have included all the necessary invoices pertaining to the NSMIP-funded activities”. The letter appears to demonstrate that an invoice was included with the final reporting. We are working with the applicant to obtain a copy of the missing receipt.

Schedule: DNR will verify and document that all grant requirements are met before final payments are made in 2014-15.

7.54 *HST eligibility* – At a minimum, advanced project grant recipients must incur eligible expenses equal to twice the approved grant. If the grant recipient does not spend the minimum amount, the grant is reduced. Of the eight completed advanced project grants we tested, four included HST (harmonized sales tax) as an eligible cost. The applicants may be eligible for federal government reimbursement of HST. Of the four projects, we identified two in which the applicants would have received less overall grant funding totalling \$4,467 had HST not been included. The remaining two applicants had sufficient eligible expenses and would not have received reduced grant payments. We were unable to determine whether one of the applicants included HST as invoices were not provided to support the expenses claimed. The remaining three applicants did not claim HST.

Recommendation 7.20

The Department of Natural Resources should exclude HST as an eligible grant expense for applicants eligible for federal government reimbursement of the tax.

Department of Natural Resources Response:

Agree.

The Department of Natural Resources will exclude HST as an eligible grant expense for applicants eligible for federal government reimbursement of the tax.

Schedule: To be implemented in the program in 2014-15.



Department of Natural Resources Additional Comments

This audit by the Office of the Auditor General (OAG) is timely for several reasons. Aligned with the goals of the Natural Resources Strategy, the Department of Natural Resources (DNR) launched a review of the Mineral Resources Act (the Act) in 2013 and many of the OAG recommendations proposed will be addressed in the review. DNR recognized prior to this audit that some basic processes needed to be addressed, and DNR is working on those as part of the Act review. The review of the Act is anticipated to be completed in 2016-17. The launch of the NovaROC application in the Registry of Mineral and Petroleum Rights in August 2013 will provide government with modern reporting and monitoring tools and better, more timely and accessible service for industry.

DNR agrees with the OAG comment that the *“implementation of our [OAG] recommendations will strengthen and enhance the management of mineral resources in the province”*. DNR is pleased that the OAG audit also recognized the examples of professional and effective oversight by staff, especially those processes and decisions that are compliant with the Act and Regulations. DNR is confident in the abilities of staff to support the Act, manage the province’s mineral resources and provide sound advice to decision makers.