

MEETING:	Jay Project Air Quality Assessment Discussion	DATE: May 7, 2015
ATTENDEES:	Dominion Diamond Corp. (Dominion) –Harry O’Keefe, Eric Denholm (E Denholm Consulting) Government of Northwest Territories, Environment and Natural Resources (GNWT) – Matt Seaboyer Environment Canada – Dave Fox Golder Associates Ltd. (Golder) –Chris Madland, Andrew Pickup, Tom Janiszewski, Kristine Mason	

Agenda Item / Discussion	Follow-up
Introduction <ul style="list-style-type: none"> All attendees introduced themselves. Environment Canada thanked Dominion Diamond for hosting the meeting and Dominion and Golder for the work they had done on the modelling. Dave Fox (Environment Canada) noted that the overall quality of the air quality assessment in the DAR was high. 	
Air Quality Monitoring and Management Plan <ul style="list-style-type: none"> The Air Quality Monitoring and Management Plan (AQMMP) for the Jay Project was discussed. Questions and discussions included the following: <ul style="list-style-type: none"> Could an adaptive management strategy be included in the draft AQMMP for early June? <ul style="list-style-type: none"> Dominion Diamond and Golder noted that an update to the Ekati Mine AQMMP was being considered to include the Jay Project and work had already been initiated on this. It would be expected that an adaptive management strategy would be similar to those implemented recently, such as at the De Beers Canada Inc. Snap Lake Mine and Gahcho Kué Mine. An initial conceptual draft of the Jay Project AQMMP for review would be completed and provided to the Mackenzie Valley Environmental Impact Review Board (MVEIRB) in early June. What is Dominion’s view on the Environment Canada and GNWT request for scheduled stack testing every three years as a change to the Incinerator Management Plan? <ul style="list-style-type: none"> Dominion noted that Claudine Lee was not present to answer the question, and that Claudine would be better suited to discuss Dominion’s position on any changes to the Incinerator Management Plan. Could the 2014 report on road dust (Ekati) be provided to Environment Canada? <ul style="list-style-type: none"> Dominion will provide. 	<p>Dominion is working on updating the AQMMP, with an initial draft for review in early June.</p> <p>Claudine to provide further input after her return from vacation; Dominion will commit to the 3-year incinerator stack testing cycle.</p> <p>Claudine to provide to Environment Canada; Discussed in Follow-up Item 6.</p>
Air Quality Modelling <ul style="list-style-type: none"> Dave Fox with Environment Canada had questions regarding the following modelling topics: <ul style="list-style-type: none"> Was geochemistry data used in the determination of source terms for metals emissions? <ul style="list-style-type: none"> Golder will check and confirm if local geochemistry data was used in the speciation of metals. Did the CALMET model use observations data (OBS) in conjunction with the MM5 data to create the meteorological data set? <ul style="list-style-type: none"> Golder will check and confirm if local OBS were used in the development of the CALMET model. Could Golder provide a description of the receptor grid point nomenclature? <ul style="list-style-type: none"> Golder provided a brief description during the meeting, and will follow 	<p>Golder to confirm if geochemistry data were used; discussed in Follow-up Item 1.</p> <p>Golder to confirm if OBS were used; discussed in Follow-</p>

<p>up with a more robust description of the receptor grid nomenclature.</p> <ul style="list-style-type: none"> ○ Could the date of manufacture of the haul trucks be provided, regarding determining engine tier? <ul style="list-style-type: none"> ▪ Golder noted that it is the engine that dictates the emissions tier level, not the date of purchase of truck itself. Dominion would see if this information was available. Golder noted that as vehicles are maintained and rebuilt that tier upgrades could occur, but only engines manufactured after the regulated dates of tier 1 to 4 compliance could be guaranteed to meet those tier ratings. Older tier (or pre-tier) stock may still exist. ○ Was the approach of using pre-tier emissions and a mix of pre-tier and tier 2 emission for the Base Case and Application Case assessments appropriate? <ul style="list-style-type: none"> ▪ Golder explained the rationale behind the decision, and why they considered this to be a conservative approach. The conservative assumption was made that for the Base Case all engines were pre-tier with respect to emission ratings, as it is reasonable that most of the older fleet vehicles would be pre-tier. New haul trucks are planned for the Project, and emission ratings for these vehicles were assumed to be tier 2. This is also a conservative assumption, as it is possible that these units could be tier 4, and some of the pre-tier rated fleet could in actuality be tier 1 or tier 2. Environment Canada noted that they were satisfied that Dominion had taken a conservative approach for the Environmental Assessment that is acceptable (i.e., pre-tier for the Base Case and up to tier 2 for the Application Case). 	<p>up Item 3</p> <p>Golder to provide a description of the receptor nomenclature; discussed in Follow-up Item 2</p> <p>Discussed in Follow-up Items 5 and 4.</p> <p>Golder to provide a more formal description of the tier emission rationale. Discussed in Follow-up Item 4.</p>
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Follow-up Request from Dave Fox (Environment Canada) via E-mail on May 15, 2015	Follow-up
<p>Q1. In effort to understand the emission estimates for the mine fleet EC/GNWT requested the year and model the each of the trucks currently operating at the mine. Ekati provided model and year of acquisition of each truck. In addition, please provide the year that the engines of the mine haul trucks were manufactured.</p>	<p>Dominion to provide the requested information; discussed in Follow-up Item 5</p>
<p>Q2. EC/GNWT questioned Ekati on its assumption that the effectiveness of its dust control was continuously 80%. Ekati said that its dust control assumption was justified based on its 2014 report on the effectiveness of dust suppression. Please submit a copy of this report to the board.</p>	<p>Dominion to provide the 2014 report and Golder to provide justification of the 80% dust effectiveness assumption; discussed in Follow-up Item 6</p>
<p>Q3. EC/GNWT noted that other mines have included adaptive management triggers levels in their air quality management plans. Please include adaptive management trigger levels and associated actions to the Ekati Air Quality Management Plan.</p>	<p>The proposed trigger levels will be presented in the proposed AQMMP for the Project.</p>