



**SHERATON PARKWAY, TORONTO NORTH, RICHMOND HILL  
OCTOBER 4 – 9, 2009**

**SUNDAY, OCTOBER 4, 2009**

**14:45 – 15:00** Field trip, bus leaves hotel, and returns on Monday, October 5, by 16:30

**TUESDAY, OCTOBER 6, 2009**

**07:45 – 08:30** WORKSHOP REGISTRATION (Markham Room)

**08:30 – 16:30** Advanced Diesel Engines and Emission & Control Technologies for Underground Mines

**18:00 - 20:00** CONFERENCE PRE-REGISTRATION & NETWORKING (York B & C Foyer)

**18:30 – 22:00** EXHIBIT ROOM SET UP (York B & C Foyer)

**WEDNESDAY, OCTOBER 7, 2009** (York B, C and Foyer)

**07:30** REGISTRATION

**08:30** CONFERENCE OPENING CEREMONIES:

*Welcome and Introduction, JP Ouellette (Kubota Canada Ltd.), Co-Chair MDEC Conference*

*Introduction of Keynote Speaker, David Young (Natural Resources Canada), Secretary & Treasurer MDEC*

*Keynote Address: Business Approach to Mine Air Quality and Ventilation, Michael J. Byrne, Vice President, Health and Safety Loss Prevention, Newmont Mining Corporation*

*Organization, Mahe Gangal (Natural Resources Canada), Co-Chair MDEC Conference*

**10:00** COFFEE BREAK

**10:30** SESSION 1: BIODIESEL  
CHAIRPERSON: Joe Stachulak (Vale Inco)

*Evaluation of the impact of using biodiesel fuel in mine production equipment, Brent Rubelj, Steve Hardcastle, and Mahe Gangal (Natural Resources Canada)*

*Controlling exposure to DPM: Diesel particulate filters vs. biodiesel, Aleksandar D. Bugarski and Xiao-Chun Shi (NIOSH)*

*The national renewable diesel demonstration initiative (NRDDI), Nancy Johns (Natural Resources Canada)*

**12:00 LUNCH - introduction of sponsors**

**13:00 SESSION 2: CONTROL TECHNOLOGIES**

**CHAIRPERSON: David Young (Natural Resources Canada)**

Success through fuel borne catalysts in the mining

NO<sub>2</sub> management in diesel exhaust streams, Joseph Holroyd (*Airflow Catalyst Systems*)

Retrofit SCR system for NO<sub>x</sub> control from heavy-duty mining equipment, M.A. Mannan (*Nett Technologies Inc.*)

**14:30 COFFEE BREAK**

**15:00 SESSION 3: AMBIENT DPM**

**CHAIRPERSON: John Blogg (Ontario Mining Association)**

An eight year look at diesel particulate matter (DPM) results – Vale Inco Ltd., Cheryl L. Allen and Doug F. O'Connor (*Vale Inco Ltd.*)

Real-time airborne diesel particulate matter monitoring in underground mines, Michel Grenier and Kevin Butler (*Natural Resources Canada*), Cheryl Allen (*Vale Inco Ltd.*), and Gordon Hnatiuk and Charlie Hazen (*Xstrata Nickel Sudbury*)

A real-time, wearable elemental carbon monitor for diesel particulate measurements in underground mines, Larry Takiff (*ICx Normadics*)

**16:30 ADJOURNMENT**

**16:30 – 18:30 RECEPTION & NETWORKING** (York B & C Foyer)

**THURSDAY, OCTOBER 8, 2008** (York B & C Foyer)

**08:00 REGISTRATION**

**08:30 SESSION 4: DIESEL AND MDEC PLENARY CONSULTATION**

**Keynote Address: Advanced Diesel Engines and the Exhaust Emission Controls,**  
*Presidential Professor John H. Johnson (Michigan Technological University)*

Review of last ten years of MDEC, *Edward Richards (LiquidPiston, Inc.)*

Final Plenary Consultation, *Mahe Gangal (Co-Chair MDEC Conference)*

Summary of comments from MDEC 2008

Review of MDEC 2009

Plans for MDEC 2010

Final remarks

**10:00 COFFEE BREAK**

**10:30 SESSION 5: ENGINE AND EMISSIONS****CHAIRPERSON: Edward Richards (LiquidPiston Inc.)**

Soot accumulation in diesel particulate filters using ULSD and B20 biodiesel fuel blends,  
*Paul Charbonneau and James S. Wallace (University of Toronto)*

Diesel engine development of aluminium alloys for high temperature applications in diesel  
engines, *W. Kasprzak, D. Emadi and M. Sahoo (CANMET-MTL, Natural Resources Canada)*

Performance evaluation of underground mine diesel engine exhaust insulation products,  
*John Stekar (Catalytic Exhaust Products Limited)*

**12:00 LUNCH - award of draw prizes****13:00 SESSION 6: DPM AND VENTILATION****CHAIRPERSON: JP Ouellette (Kubota Canada Ltd.)**

Partial diesel particulate filters – Practical experiences, *Chris Aniolowski, Paul Turpin, Shazam Williams (DCL International Inc.)*

New chemical tracers for diesel source emission apportionment in ambient fine particulate matter,  
*JeanPierre Charland, Gianni Caravaggio, Penny MacDonald, and Tony MacPhee (Natural Resources Canada), and Lisa A. Graham (Environment Canada)*

Optimized mine ventilation on demand (OMVOD), *Mark Anderson and Mark Laine (Simsmart Technologies)*

**14:30 COFFEE BREAK****15:00 SESSION 7: MDEC 2008 ROUNDTABLE FORUM REVIEW PANEL****Moderator: Michel Grenier (Natural Resources Canada)**

**Panellists:** Diesel Particulate Filters, *Michel Grenier (NRCan)*  
Fuels, *JP Ouellette (Kubota Canada Ltd.)*  
DPM and NO<sub>2</sub>, *Aleksandar Bugarski (NIOSH)*  
Engine and Vehicles, *John Vergunst Ontario Ministry of Labour*

**16:30 ADJOURNMENT****FRIDAY, OCTOBER 9, 2009**

ROUNDTABLE FORUM

	Room - Markham A	Room - Aurora
08:30	Diesel Particulate Filters (new technology, evaluation & certification, mines access for testing & development, safety with high temperatures/active regeneration) Facilitator: Aleksandar Bugarski (NIOSH)	Fuels (biodiesel – lower DPM and higher NO <sub>x</sub> , additives, low & ultralow sulphur, standards, alternative fuels) Facilitator: Brent Rubeli (NRCan)
10:00	COFFEE BREAK	COFFEE BREAK
10:30	DPM and NO <sub>2</sub> in Mines (DPM monitoring control and regulation, NO <sub>2</sub> reduction, DOCs with NO <sub>2</sub> suppression techniques) Facilitator: Addy Majewski (Ecopoint)	Engines (new tech, suitability of tier 3 & 4 for mines, emission, evaluation & certification, alternative, fuel cell) Facilitator: John Vergunst (Ontario MOL)
12:00	ADJOURNMENT	ADJOURNMENT