

Pine Point Pilot Project Public Hearing



Introduction

- Tamerlane Ventures Inc. is a publicly traded Canadian mining company engaged in exploration and development in North America and Internationally.
 - Ross Burns President & CEO
 - David Swisher V.P. & Project Manager
 - Brent Jones Manager Investor Relations
 - Wolfgang Schleiss Senior Geologist
 - Albert Siega Mining Engineer
 - Justin Smoak Mining Engineer
 - Jerry DeMarco Public Relations





Introduction

- Tamerlane proposes to construct and operate a Pb-Zn pilot plant to economically confirm:
 - Extraction of 1 Million Tonnes
 - Full-Scale Underground Mining Potential Utilizing
 - Perimeter Ground Freezing
 - Shaft Sinking
 - Vertical Conveyance
 - Dense Media Separation (DMS)
 - Flotation w/o cyanide
 - Injection Well
 - Long Term Mining Potential



Project Overview Settling Pond Design By: Checked By: Approved By: Dina Point Dilat Revisat

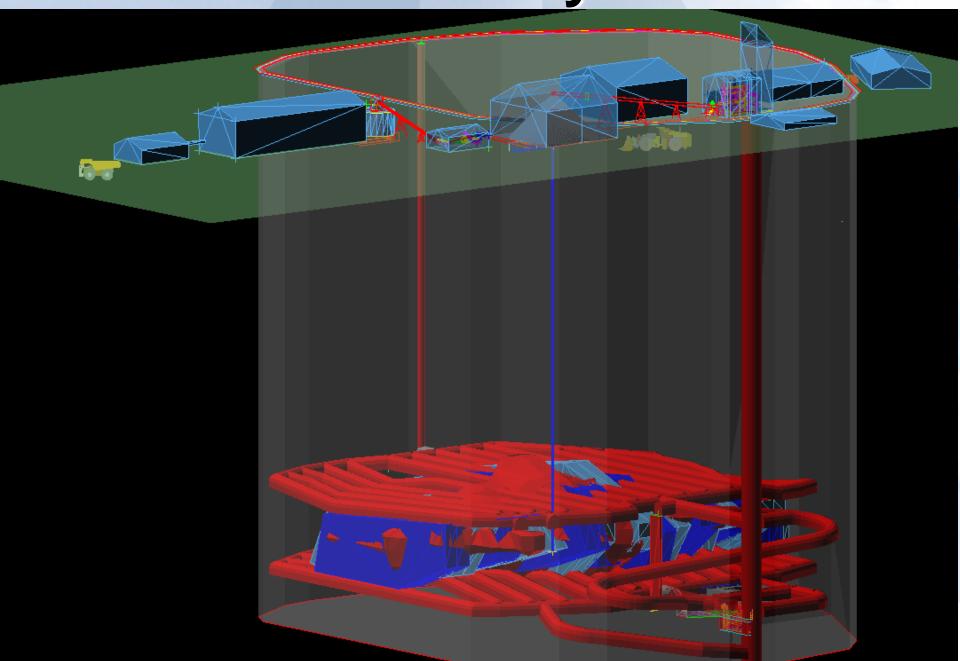
Schedule

- Permit Approval
- 12-15 Month Construction
 - Shaft and Freeze Perimeter Drilling
 - Shaft Sinking
 - Freeze Wall Development
 - Surface Infrastructure Development
 - Underground Development
 - Raisebore Ventilation Shaft
- 12-15 Month Operations
 - Long-hole Stope Mining Cycles
- Long Term Development & Mining



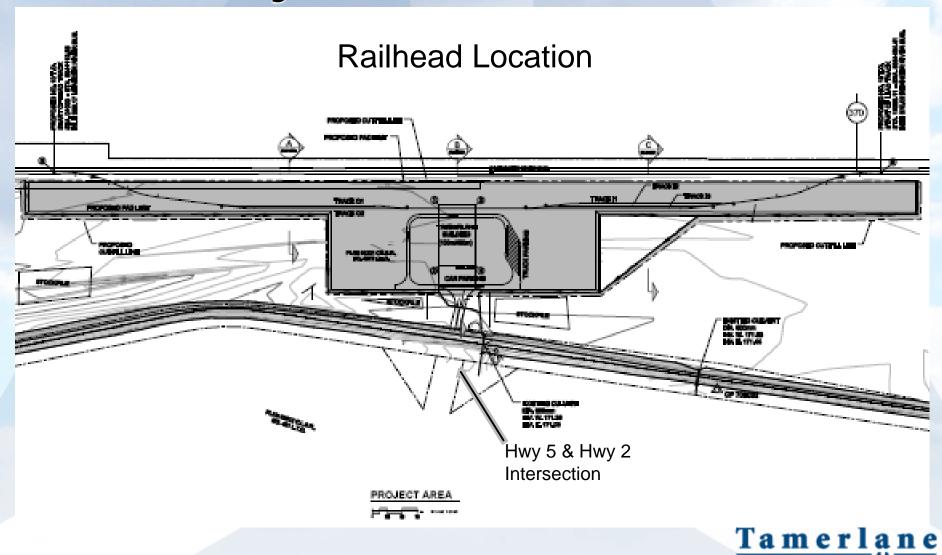


Material Cycle





Project Modifications



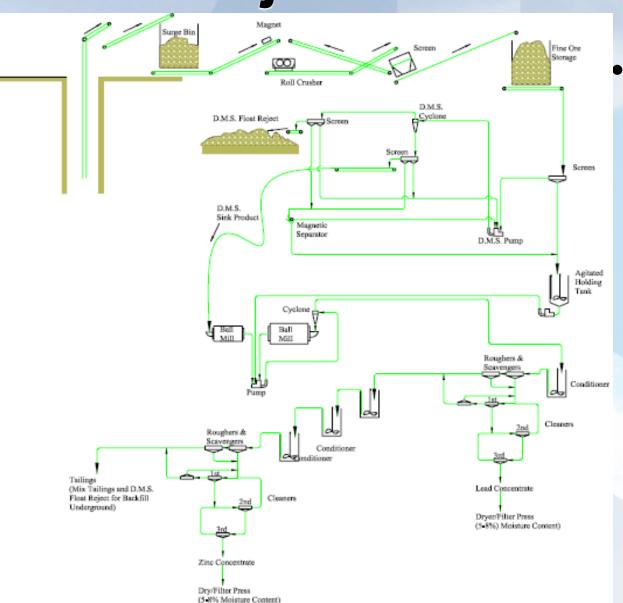
Project Modifications

- Line Power with Diesel Generation
 - Why?
 - Creates two power sources for back-up power
 - Reduces on-site diesel emmisions
 - Improves economics
 - Additions include installing approximately 900 metres of power line from Highway 5 to project site
 - Power line will run along access road to minimize further disturbance to area and provide maintenance access.
 - Location was chosen to be least intrusive to nearby fen areas and addresses Environment Canada's concerns



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Project Modifications

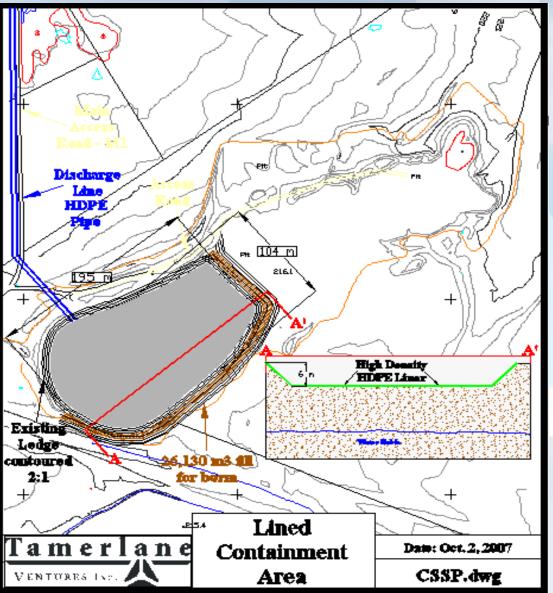


Flotation

- Why?
 - Through metallurgical testing, could not create direct shippable product without major penalties from smelter



Project Modifications



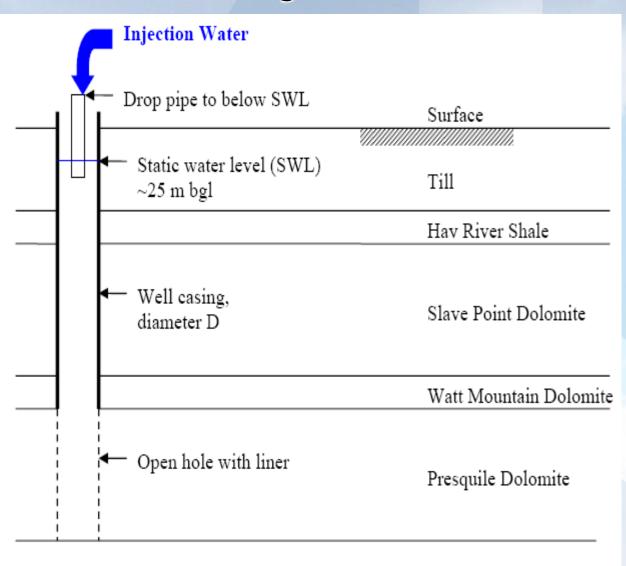
 Infiltration Basin changed to Injection Well and Settling Pond

- Why?

- Advice from Technical Experts for least intrusive process disposal
- Settling Pond as temporary back-up
- 11% reduction in project footprint
- No exposure to near surface waters



Project Modifications



Injection Well

– Why?

- Will Handle all dewatering requirements
- Negligible water balance change
- High dilution efficiency within 800 meters
- Easily monitored
- Added aquifer knowledge
- Easy maintenance
- Provides access to deep aquifer for reclamation monitoring



Pine Point Formation

Environmental Assessment





Environmental Baseline Work

Initial EBA Baseline Studies

- -Wildlife
 - Conducted: September, 2005
- -Stream Assessment and Water Quality
 - Conducted: September, 2005
- -Vegetation
 - Conducted: September, 2005



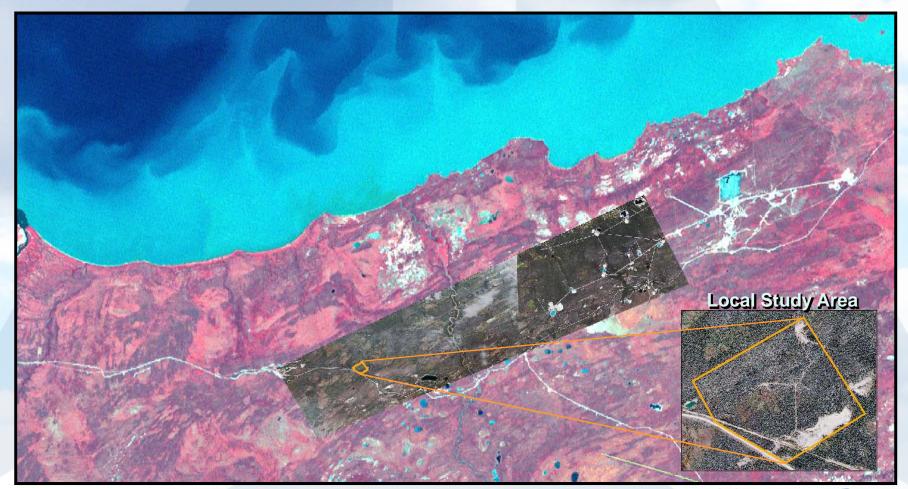
Environmental Baseline Work

EBA R190 Follow-Up Studies

- Owl Surveys
 - Conducted: April, May, 2006
- Amphibian Surveys
 - Conducted: May & June, 2006
- Breeding Bird Surveys
 - Conducted: June, 2006
- Rare Plant Surveys
 - Conducted: Late June/July & Early/Mid-August, 2006
- Water Quality Surveys
 - Conducted: May, June, July & August, 2006



Tamerlane Study Area





Valued Ecosystem Components

VEC Grouping	VEC's	
Air Quality	Air Quality (indicators)	
Water Quality	Surface / Groundwater Quality (indicators)	
Terrestrial Vegetation	Traditional Use Plants / Rare Plants	
Wildlife (SARA listed species)	Whooping Crane	
	Peregrine Falcon	
	Short-Eared Owl	
	Wood Bison	
	Woodland Caribou	



Assessment Matrix

Project Component	Air Quality	Water Quality	Wildlife	Vegetation
Site Preparation and Construction	X	X	Х	X
Pilot Plant Site	Х	Х	Х	X
Process Waste Storage (Temp)	Х	X	Х	X
Underground Mining	Х	X		



Air Quality





Air Quality

Project Component	Potential Impact	Mitigation
Site Preparation and Construction	Temporary localized dust generation from clearing /surface construction activities	Dust suppression GNWT Guideline for Dust Suppression
Underground Mining	Limited air emissions CO, SO ₂ and NOx, particulates	GNWT, WCB standards for mine air quality
Processing	Negligible particulate emissions	Guideline for Ambient Air Quality Standards in the Northwest Territories
Other Infrastructure (e.g. access road)	Temporary localized dust generation	GNWT Guideline for Dust Suppression



Water Quality





Water Quality

Project Component	Potential Impact	Mitigation
Site Preparation and Construction	Localized short term sedimentation	Silt barriers for construction activities – no streams or lakes present in local study area
Underground Mining	Discharged mine water	Mine water used in process plant directed to deep gravity injection well
Processed Water	Suspended solids	Inert process water directed to underground by deep gravity injection well
Sewage	Nutrients and bacteria to groundwater	Treated using a packaged RBC plant or port-a- potties. RBC will meet the Camp Sanitation Regulations, R.R. N.W.T. 1990, c. P-12, Public Health Act, R.S.N.W.T. 1998, c. P-12
Water Consumption	Process water sourced from groundwater. Potable water transported to site	Excess water directed to underground to deep gravity injection well Domestic water directed to RBC plant for treatment
Hazardous Materials	Potential Impacts on water quality	Management Plan covering the transportation, use, disposal, and emergency response

Vegetation



Vegetation

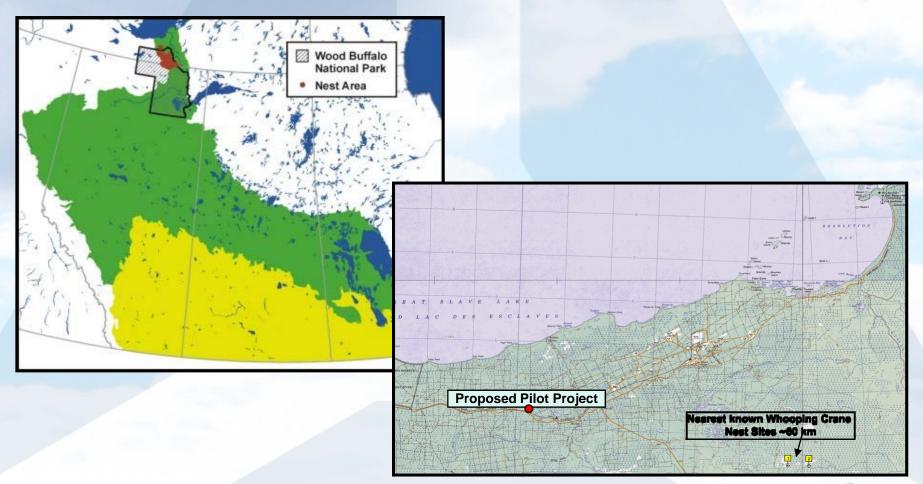
Project Component	Potential Impact	Mitigation
Site Preparation and Construction	Minor temporary loss of vegetation;	Minimize footprint – maximize use of existing disturbed terrain
Plant Site & associated infrastructure	Localized soil compaction	Minimize off-site activities; implement erosion control measures
		Use of dust suppressants;
A STATE OF THE PARTY OF THE PAR		Dispose of all hazardous wastes in approved manner.
		Progressive site reclamation



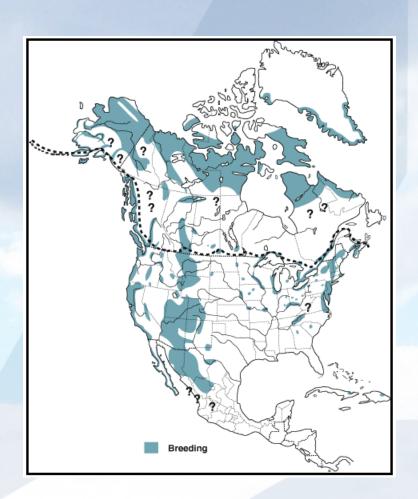
Wildlife

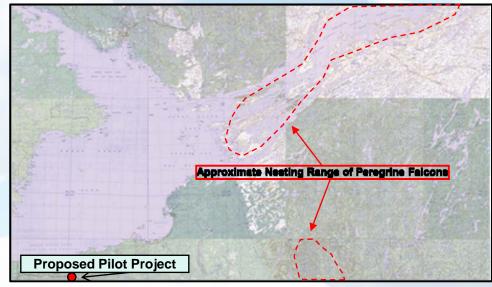


Wildlife: Whooping Crane



Wildlife: Peregrine Falcon

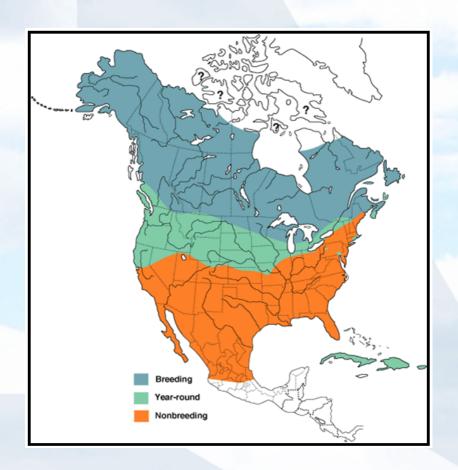






Wildlife: Short-Eared Owl

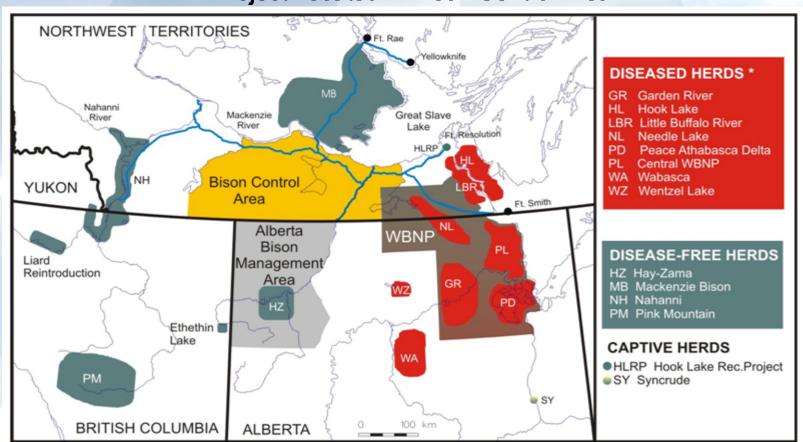
- No suitable habitat in local study area
- None found in local study area
- Nearest suitable
 habitat for nesting
 ~3km south of highway





Wildlife: Wood Bison

Project Located in Bison Control Area





Wildlife: Woodland Caribou

- Woodland Caribou occur in low numbers in Project area year-round
- Calve in upland wooded areas not present in Project area



Wildlife

Project Component	Potential Impact	Mitigation
Site Preparation and Construction	Disturbance and removal of wildlife habitat	Minimize footprint, maximize use of existing disturbed terrain, avoid sensitive areas
Plant Site	Disturbance and removal of wildlife habitat	Minimize footprint, maximize use of existing disturbed terrain, avoid sensitive areas
Underground Mining	No impacts anticipated	None required
Process Water	No impacts anticipated	Process water directed to underground via deep well injection
Domestic Wastes (Garbage)	Garbage can attract wildlife, and become a safety hazard	Garbage will be temporarily contained on site & disposed of in Hay River landfill
Other Infrastructure	Temporary, rapidly reversible disturbance	Traffic controls – wildlife has the right-of-way



Environmental Considerations

- The general area has experienced major exploration and mining activities for more than 100 years.
- The R-190 area has already been disturbed by historical exploration activities.
- The R-190 area is located immediately adjacent to an existing highway and power line infrastructure.
- The R-190 area has already and continues to experience quarrying activities.
- No significant effects on wildlife, including SARA-listed species are expected to occur.



Mitigation Measures

- Application of Least Intrusive Method for Stabilizing Wet Ground
 - Freeze Curtain
 - Primarily Underground Operation
- Project Footprint Minimization
 - Installation of Project Infrastructure on Previously Altered Terrain
- No Streams or Lakes in Immediate Project Area
 - No Potential to Affect Streams, Lakes or Fisheries Resources
- Compliance with Water License Criteria
 - Process Water Recycling, Treatment (if necessary) and Discharge to Deep Groundwater (Presquile Zone)



Mitigation Measures

- Airborne Noise Minimization
 - Minimal Airborne Noise Due to Primarily Underground Operation
- Access Road Dust Suppression
- Access Road Traffic Controls
 - Wildlife will have the Right-of-Way
- Effective Waste Management and Spill Prevention / Response



Cumulative Effects

No Significant Cumulative Effects Expected to Occur

- Pine Point 1965 1987
- Limited Scope and Scale
- Current Operating Quarries
- Minimal Intervention Freeze Curtain Underground
- No Nearby Waterways
- Progressive Reclamation



Closure & Reclamation

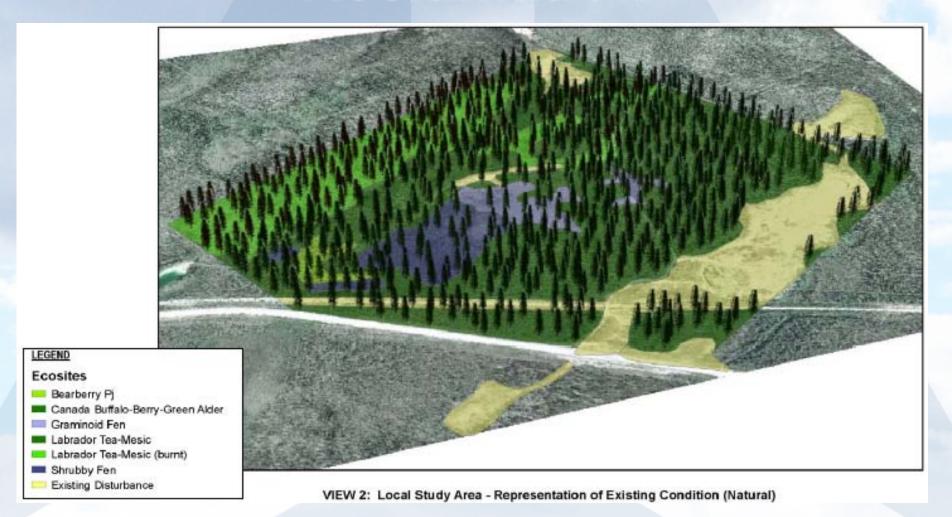
 Tamerlane will follow the reclamation guidelines set forth in Section 15 of the Mackenzie Valley Land Use Regulations and the 2007 INAC Mine Site Reclamation Guidelines as applicable



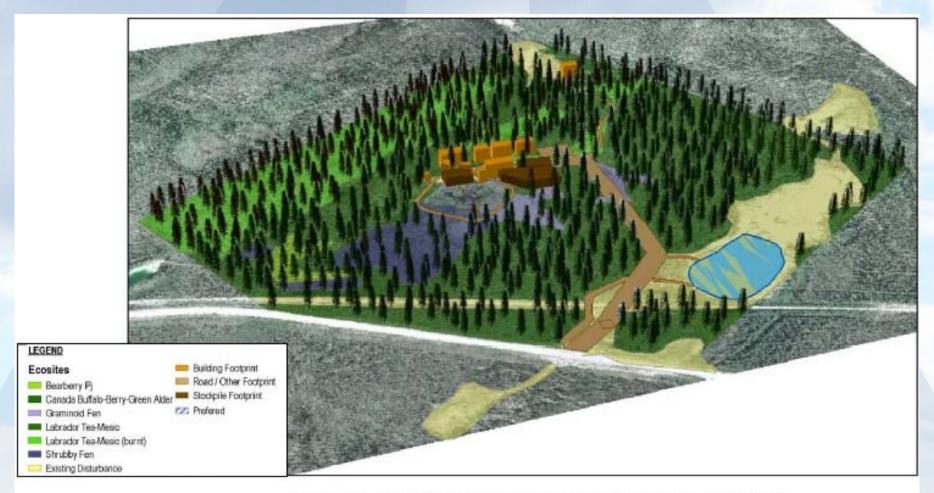


VIEW 1: Local Study Area - Existing Condition (Natural)



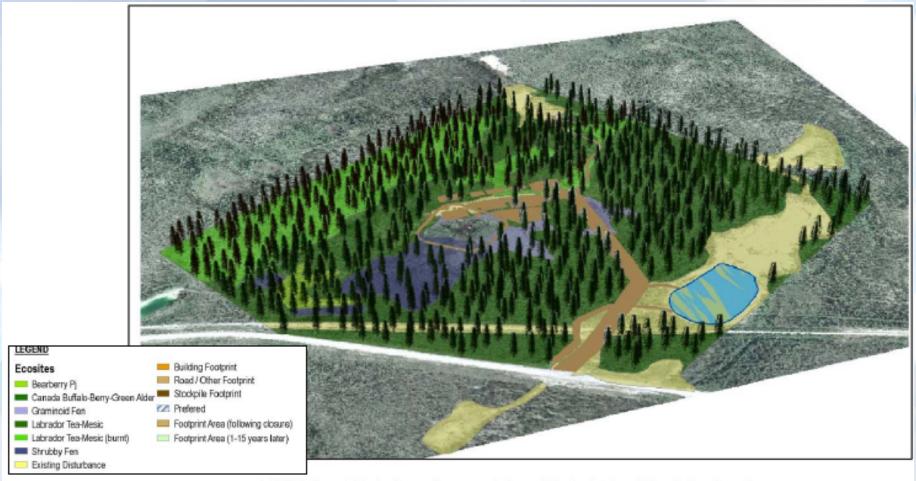






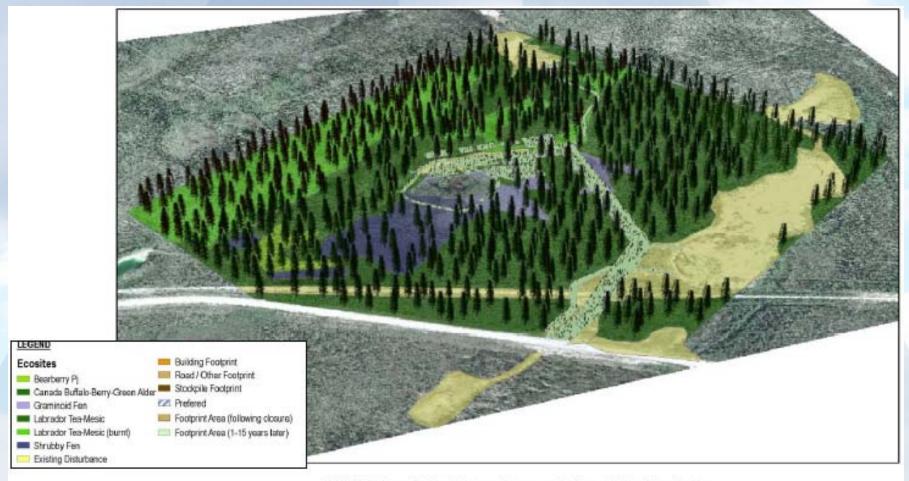
VIEW 3: Local Study Area - Representation of Existing Condition & Footprint





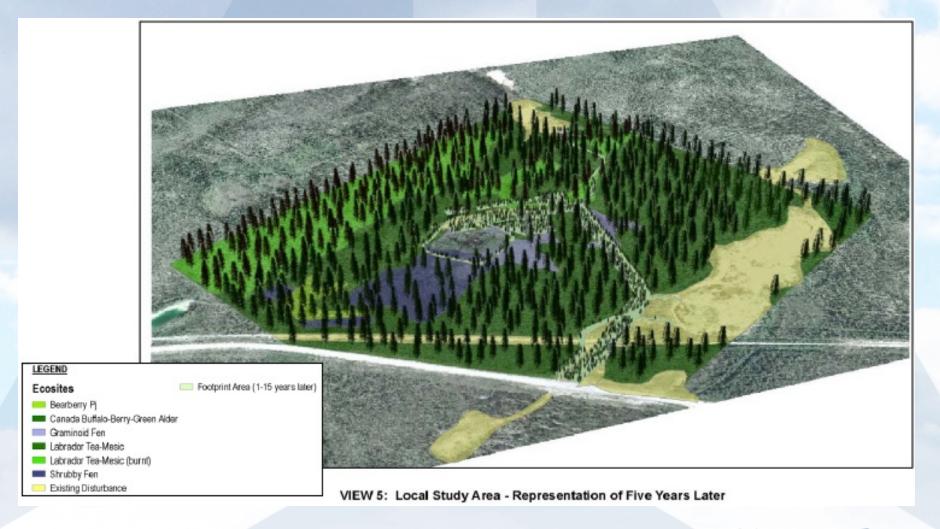
VIEW 3 Local Study Area - Representation of Footprint Condition Following Closure



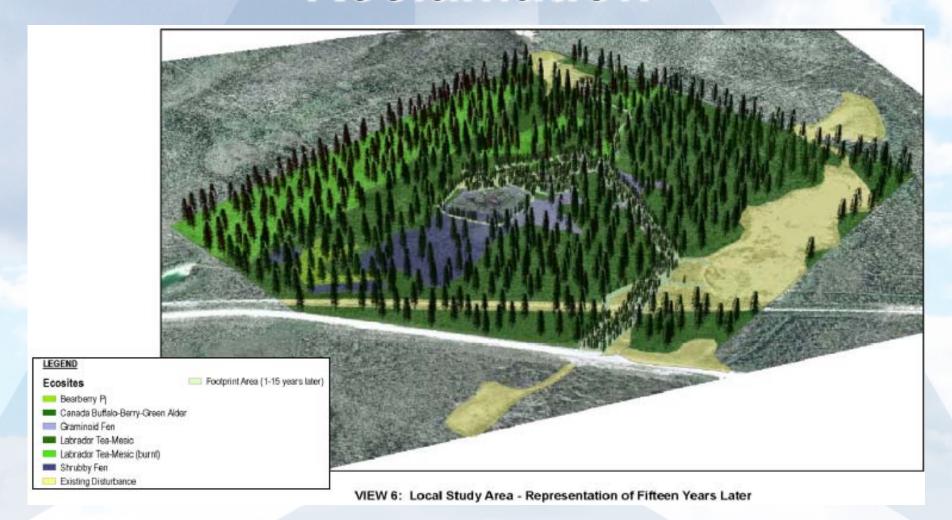


VIEW 4: Local Study Area - Representation of One Year Later



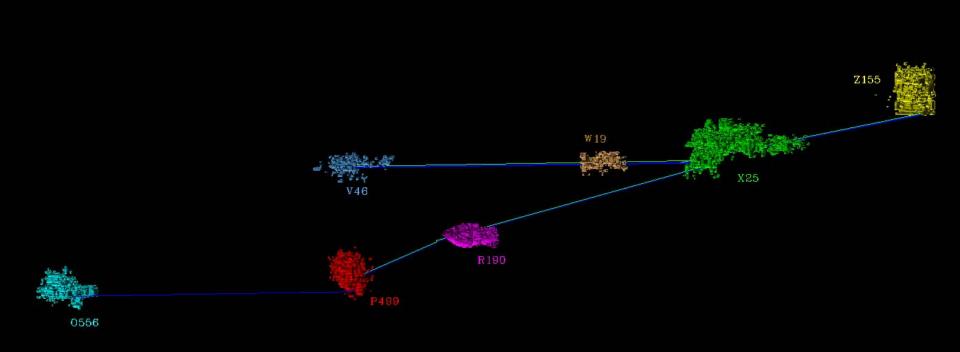








Potential Future Mining Utilizing R190 Infrastructure





Summary

- Confirm Viability and Economics for Underground Mining
- Adhere to High Level of Environmental and Safety Standards
- Compliance with Regulatory Requirements and Conditions
- Create Jobs and Business Opportunities
- Benefits to Local & Regional Economy

Tamerlane VENTURES INC.

QUESTIONS?

