# Focused on Gold Based in Ontario



Dryden & Wabigoon Area - Goliath Project Update
Oct 30, 2012

Norm Bush V.P. Goliath Gold Project



www.treasurymetals.com

## TREASURY METALS INC. – PUBLIC MEETING – OCTOBER 30, 2012

# **Agenda**

- + Project and Corporate Update Norm Bush
- + Environmental Review Mac Potter
- + Mine Plan Overview Mark Wheeler
- + Summary and Questions?



## FORWARD-LOOKING STATEMENTS

This presentation contains projections and forward-looking information that involve various risks and uncertainties regarding future events. Such forward-looking information can include without limitation statements based on current expectations involving a number of risks and uncertainties and are not guarantees of future performance of the Corporation. These risks and uncertainties could cause actual results and the Corporation's plans and objectives to differ materially from those expressed in the forwardlooking information. Actual results and future events could differ materially from anticipated in such information. These and all subsequent written and oral forward-looking information are based on estimates and opinions of management on the dates they are made and expressly qualified in their entirety by this notice. The Corporation assumes no obligation to update forward-looking information should circumstances or management's estimates or opinions change. This presentation contains projections and forward looking information that involve various risks and uncertainties regarding future events. Such forward-looking information can include without limitation statements based on current expectations involving a number of risks and uncertainties and are not guarantees of future performance of the Corporation. These risks and uncertainties could cause actual results and the Corporation's plans and objectives to differ materially from those expressed in the forward-looking information. Actual results and future events could differ materially from anticipated in such information. These and all subsequent written and oral forward-looking information are based on estimates and opinions of management on the dates they are made and expressly qualified in their entirety by this notice. The Corporation assumes no obligation to update forward-looking information should circumstances or management's estimates or opinions change.



# GOLD FACTS: \$1,500 / OZ







The consumption of gold produced in the world is about 50% in jewelry, 40% in investments, and 10% in industry.



# TREASURY METALS INC.



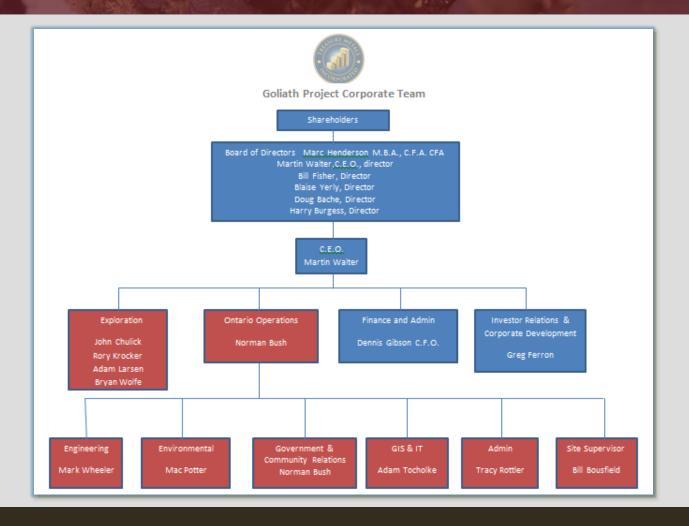


## TREASURY METALS | ABOUT US

- We are a leading exploration and development company in the Kenora Mining District
  - Goliath Project: 1.7 million ounces with a clear path to growth
  - Goldcliff Property: Early exploration with high grade surface samples
- TML's management and board have a successful record in building companies and developing world-class mining projects
  - Key members of the board include Marc Henderson (Aquiline) and Bill Fisher (Aurelian)
  - New management team appointed in December 2010 including Martin Walter, CEO
  - John Chulick, V.P. Exploration and Norm Bush, V.P. Goliath Gold Project added December, 2011
- Our future growth will come from developing existing assets and acquisition of other gold assets in Canada and the Americas



## GOLIATH GOLD PROJECT – CORPORATE TEAM





## TREASURY METALS - CORE VALUES AND RELATIONSHIPS

#### **SAFETY**

- ✓ Working safely is about "CARING FOR PEOPLE"
- ✓ Nothing we do is worth getting hurt over.
- ✓ Working towards "Zero" recordable injury rate

#### **ENVIRONMENT**

✓ Responsible Stewards of the lands on which we operate

#### PEOPLE / STAKEHOLDERS

- ✓ Work for the mutual benefit of all Communities and Stake Holders
- ✓ Treat people with Respect and Dignity
- ✓ Act with Integrity
- ✓ Demonstrate Ethical Behavior
- ✓ Act with Simplicity, Speed, Decisiveness

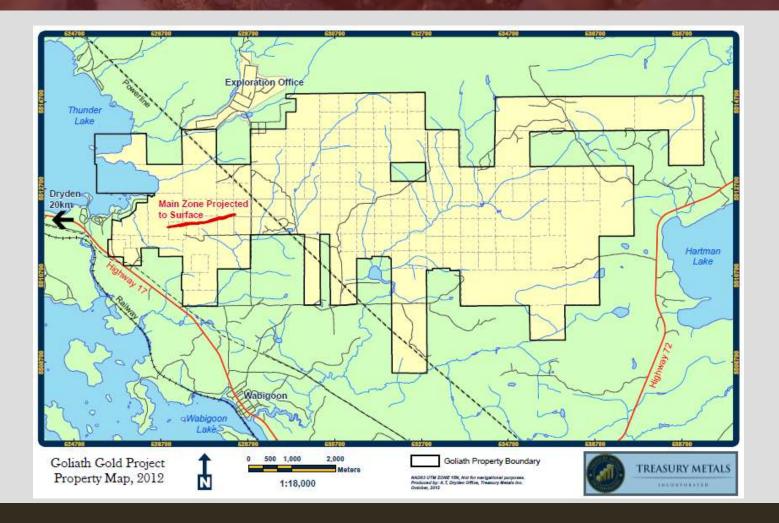


# PROPERTY LOCATION AND HISTORY



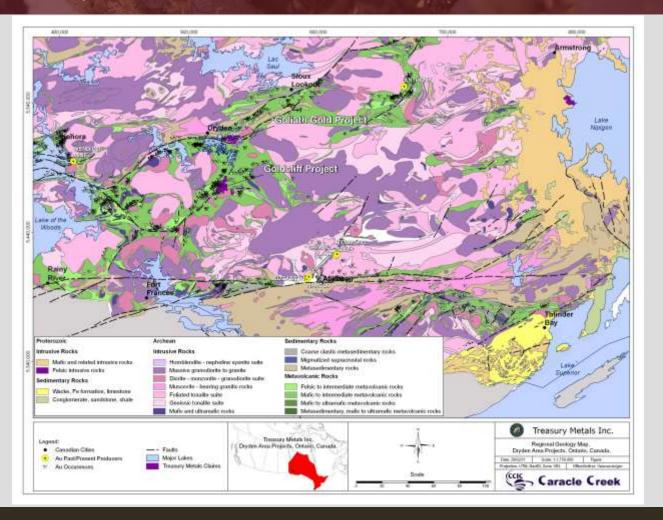


## GOLIATH GOLD PROJECT: INFRASTRUCTURE IN PLACE



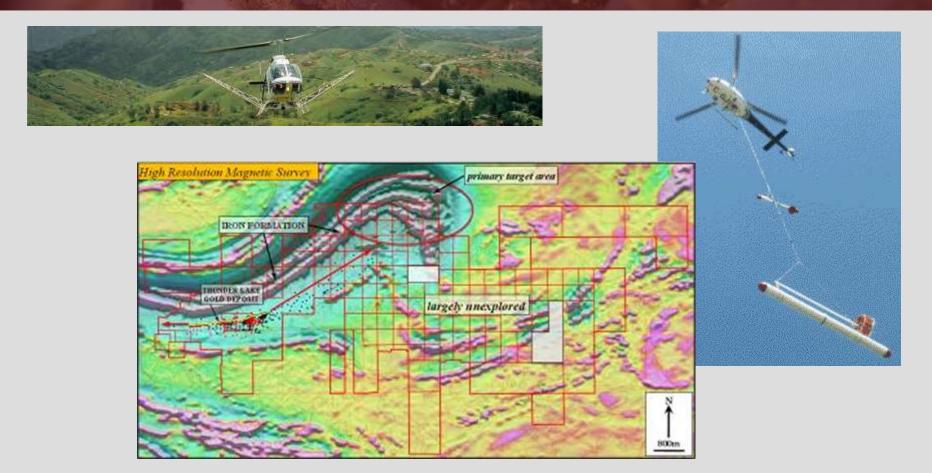


# KENORA/DRYDEN AREA - REGIONAL GEOLOGY





# **EXPLORATION TECHNIQUES: GEOPHYSICAL**





## **PROJECT TARGETS**

- Annual Gold Prod'n 98,000+ oz/annum
- Mill Daily Rate
- 2700t/d or better

Capex

- \$80 - \$90 MM

- Total Mine Life
- 10 12 years (5 open pit/5 UG)

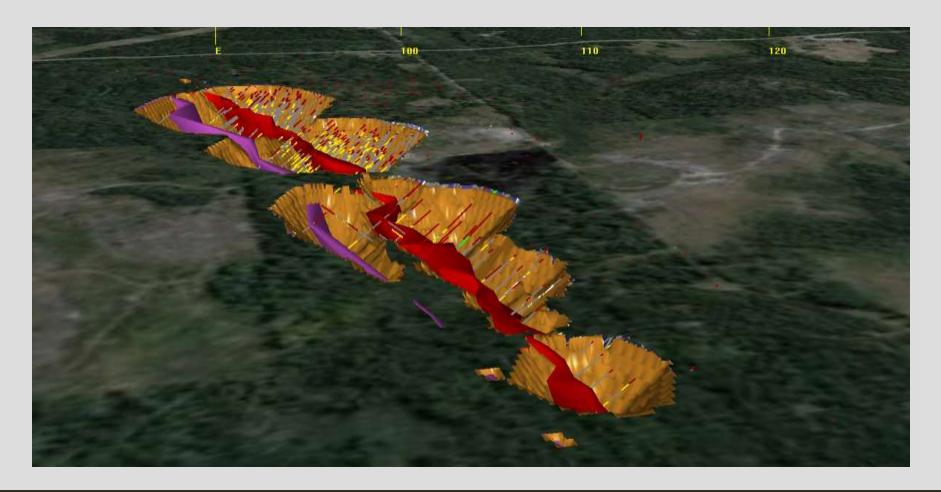


# TREASURY METALS – PROJECTED VIEW



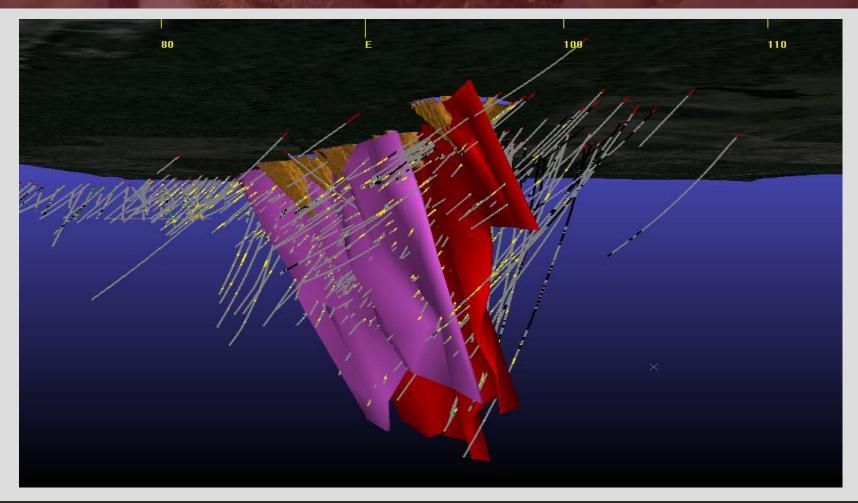


# PITS





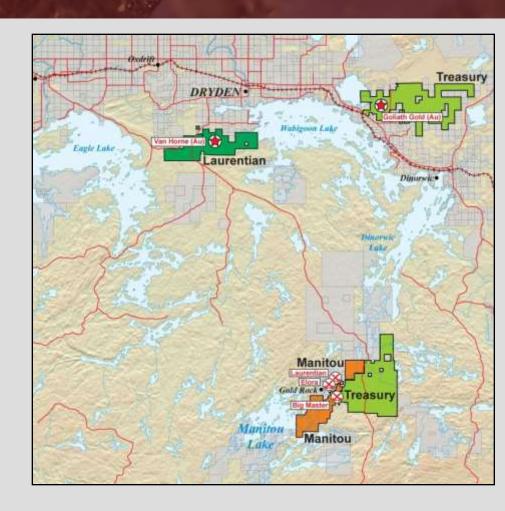
# UNDERGROUND IMAGE





## GOLDCLIFF PROJECT | A NEW GOLD DISCOVERY

- New gold discovery that covers 42 km<sup>2</sup>
- Goldcliff property is contiguous to Mantiou Gold (reported 53.7 kg per tonne au over a core length of 0.55 m)
- Several gold showings
  - Assays up to 106.4 g/t Au





# GOLDCLIFF PROJECT | OUR PLANS

- Exploration
  - Field based mapping (alteration/structures)
  - 2012 Drilling Program started in October 2012

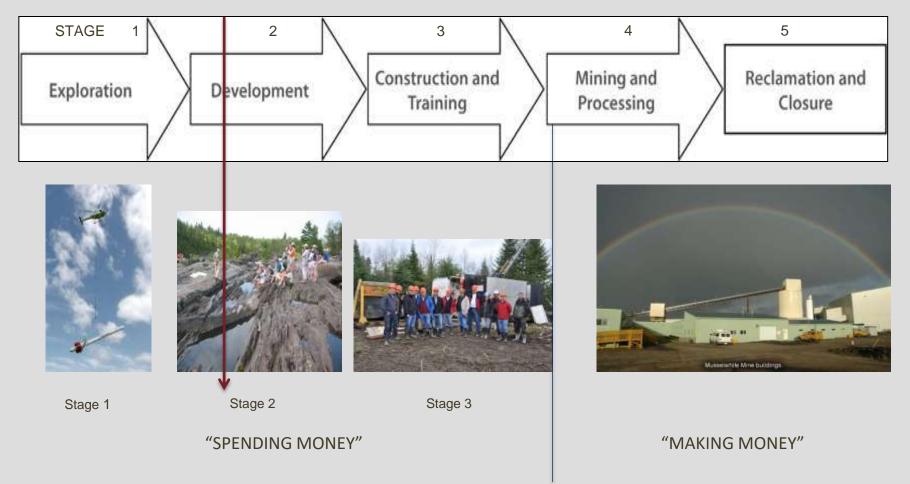


Visible gold from 2010 field mapping





# MINING SEQUENCE: EXPLORATION STAGES AND MINING CYCLE





## TREASURY METALS - COMMUNITY FOCUSSED

GOLIATH GOLD MINE – Built in N.W. Ontario by N.W. Ontarians

#### HIRE LOCALLY

- ✓ Where labour force and skills are available
- ✓ Develop sector specific skills and capacity working with Educational Institutes, First Nations, and other Local Industries

#### **PURCHASE LOCALLY**

- ✓ Purchase goods & services from Dryden and local businesses, assuming competitive pricing, service
- ✓ Mine Design & Construction seek to use N.W. Ontario design & construction services



## TREASURY METALS IN DRYDEN & AREA

### **Social and Economical Impacts**

	Current
Direct Employment	21
Indirect Employment Impact (4:1 Multiplier)	80
Total Employment Impact	100

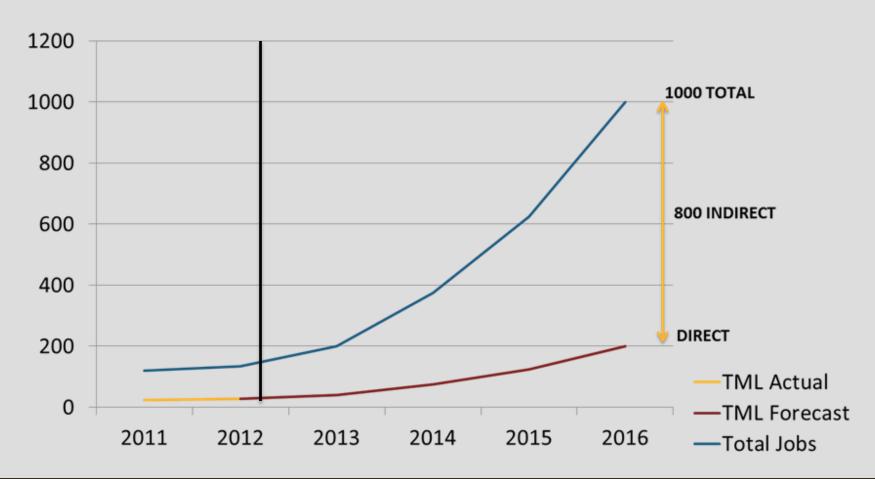
Future
(Projected)
200
800
1000

TML Total Vendor Spending 2011 Northwest Ontario \$ 7.4 Million
4.9 Million (Locally)

IN 2011 TML SUPPORTED OVER 75 NORTHWESTERN ONTARIO BUSINESSES WITH OVER 60 DRYDEN BASED.



## TREASURY METALS TIME PROJECTION





# **EMPLOYMENT OPPORTUNITIES: EXPLORATION**

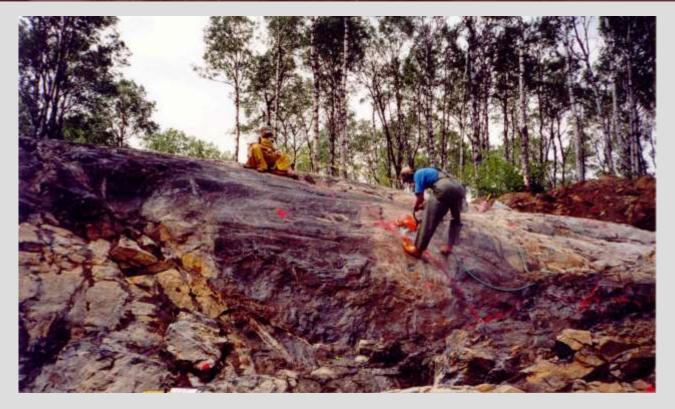


# Prospecting

Getting out there



# **EXPLORATION TECHNIQUES**

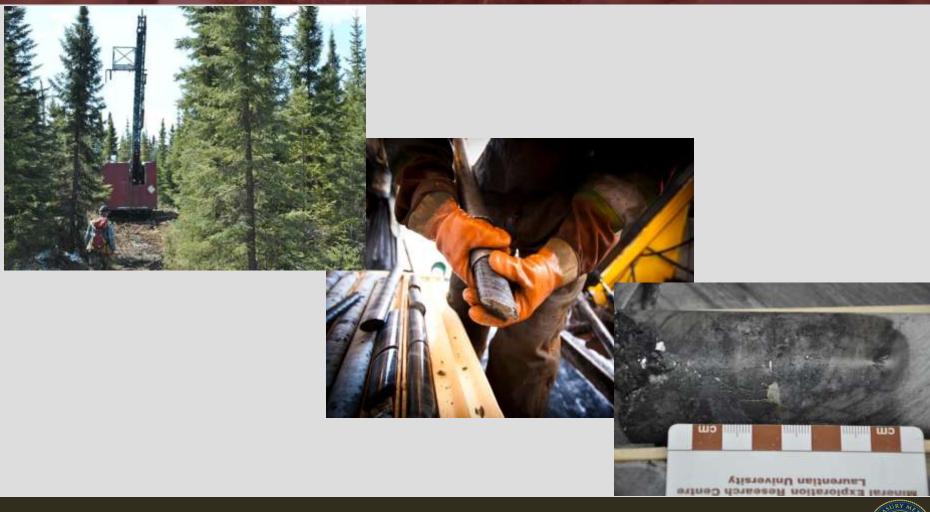


Trenching

Scratching the Surface



# **EXPLORATION TECHNIQUES: DRILLING**



# EMPLOYMENT: FIELD TECHNICIANS – LOGGING CORE



# INVENTORY MANAGEMENT

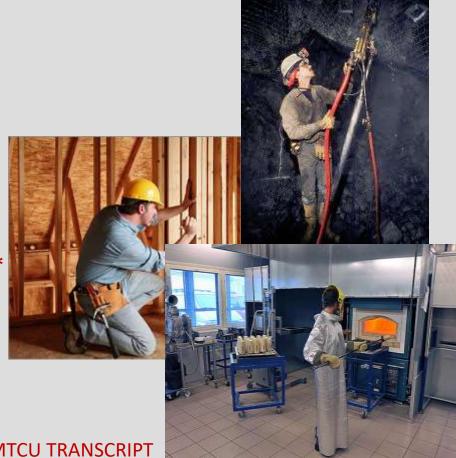




## **EMPLOYMENT OPPORTUNITIES: MINE OPERATION**

- ✓ Underground Miner
- ✓ Ore Processing Plant Operator
- ✓ Heavy Duty Equipment Operator\*
- ✓ Heavy Duty Equipment Technician\*
- ✓ Multi-Trades Craftsperson's\* (Pipefitter/Industrial Millwright Mechanic/Welder)
- ✓ Assay Lab Technician
- ✓ Instrumentation and Control Technician\*
- ✓ Industrial Electrician\*
- ✓ Environmental Technician
- ✓ Safety Professional







# TREASURY METALS – JOB QUALIFICATIONS

JOB	GRAD E 12	COLLEGE DIPLOMA	UNIVERSITY DEGREE	TRADES CERTIFICATION	OTHER
FIELD TECHNICIAN	٧				
UNDERGROUND MINER	٧				٧
ASSAY LAB TECH	٧				
HEAVY EQUIPMENT OPERATOR (MTCU Transcript)	٧				٧
ADMINISTRATIVE TECH	٧	٧			
ENVIRONMENTAL TECH	٧	٧			
HEAVY DUTY EQUIPMENT TECH (MTCU)	٧	٧		٧	
ELECTRICAL/INSTRUMENTATION & CONTROL TECHNICIAN (MTCU)	٧	٧		٧	
MULTI-TRADES CRAFTSPERSON (MTCU)	٧	٧		V	
GEOLOGIST	٧		٧		
MINE ENGINEER	٧		٧		
MINE MANAGER	٧		٧		



## TREASURY METALS – BASIC HIRING CRITERIA

#### **BASIC REQUIREMENTS**

#### **REASONS**

✓ MINIMUM GRADE 12/GED

✓ VALID DRIVERS LICENCE

- Higher level Education for Specialized (Including Gr 11/12 Math & English)
- Specialized Skills Requirements, use of Technology
- Comprehension, Report Writing
- Drive company vehicles on and off road
- ✓ PRE-EMPLOYMENT DRUG TEST

- Safety for Self and Others
- Working with Heavy Machinery/Equipment

- ✓ CRIMINAL BACKGROUND CHECK
- Screen-out Undesirables
- Reduce risk to Employees/Property
- Harassment Free Workplace

NOTE: ALL TRAINING THROUGH RECOGNIZED TRAINING INSTITUTE OR MTCU.



## GOLIATH GOLD PROJECT | PROGRESS TO DATE

- Expanded the NI 43-101 Resource calculation to 1.7 million ounces Au (in 2011)
- Preliminary Economic Assessment completed by A.C.A. Howe in 2010
  - Validated project potential and its economic viability.
  - Updated PEA completed in August 2012, supported 2010 PEA conclusions.
  - Detailed Project Description (PD) being developed for submission in October of 2012.
- 2012 exploration drilling program underway at Goliath site.
- Limited 2012 early exploration drilling program underway at Goldcliff site.
- A project schedule has been developed to bring the resource into production.
- Current employee base of 21 people in 2012 to support the project activities and schedule.



## **SUMMARY**

- TML has put together strong corporate and site teams to develop the Goliath project
- TML is staffing up to support the environmental permitting, engineering and project management activities needed to build a mine
- TML is committed to working closely with our local Communities.
- TML is committed to forging partnerships with local First Nations Bands and Metis Nation of Ontario
- Key project focus areas SAFETY, ENVIRONMENT
- Treasury Metals' Goal is to be,

Partners in Economic Development with our local Municipalities, First Nations communities and the Metis Nation of Ontario







For more information about us, please visit our website at <a href="https://www.treasurymetals.com">www.treasurymetals.com</a>



**Environmental Program and Permitting** 

Oct. 30, 2012 www.treasurymetals.com



## **GOLIATH GOLD PROJECT**

- + Baseline Study Review
- Environmental Assessment Process and Permitting
- + Questions?



# **BASELINE PROGRAM - OVERVIEW**



## BASELINE PROGRAM - WHY?

- + Baseline study is completed to:
  - Achieve an understanding of the natural environment before beginning development.
  - Support mine development.
  - Support successful monitoring and closure plans.

#### BASELINE PROGRAM – 2010 - 2011

- + Klohn Crippen Berger (KCB) reports received September 2012
- + KCB work has been reviewed by Federal Government (CEAA, DFO), and Provincial Government (MOE, MNR) with positive feedback.



#### BASELINE PROGRAM – CURRENT

- 2012 fieldwork has been completed with operational team of DST, TBT,
   AMEC, EcoMetrix and Treasury Metals personal.
  - Primary studies include:
    - Surface Water and Hydrology
    - Aquatics and Fisheries
    - Terrestrial Wildlife
    - Weather
    - Soils and Vegetation
    - Hydrogeology
    - Geochemistry
    - Geotechnical





#### BASELINE PROGRAM – SURFACE WATER & HYDROLOGY

- + KCB began program in November 2010.
- + Surface water sampling program has been upgraded from original size to **15 sites**, including Thunder Lake and Wabigoon Lake.
- + Sampling currently is occurring monthly.
- + Water flow conditions are being monitored and are measured every 2-3 weeks **and** after heavy storm events.



# BASELINE PROGRAM – HYDROLOGY





## BASELINE PROGRAM – AQUATICS AND FISHERIES

- + KCB conducted principle fisheries, and aquatics work within the 2010-2011 field seasons.
- + Fisheries work has been completed for the 2012 field season.
  - DST served as the lead on the fisheries work. Work included a upgrade of the habitat mapping associated with habitat offsets.
- + Benthic invertebrate sampling has been conducted with DST.



# BASELINE PROGRAM – AQUATICS AND FISHERIES





#### BASELINE PROGRAM – TERRESTRIAL WILDLIFE

- + KCB completed surveys within the 2010-2011 field seasons. This included bird, amphibian, reptile, and mammal studies.
  - Work competed includes:
    - Forest Bird, and Songbird Survey
    - Migratory Bird Survey
    - Marsh and Waterfowl Survey
    - Whip-Poor-Will, Bobolink, and Common Nighthawk Survey
    - Bald Eagle Survey
    - Amphibian, and Reptile Survey
    - Mammal Encounter Survey
    - Bat Survey
    - Habitat Assessment

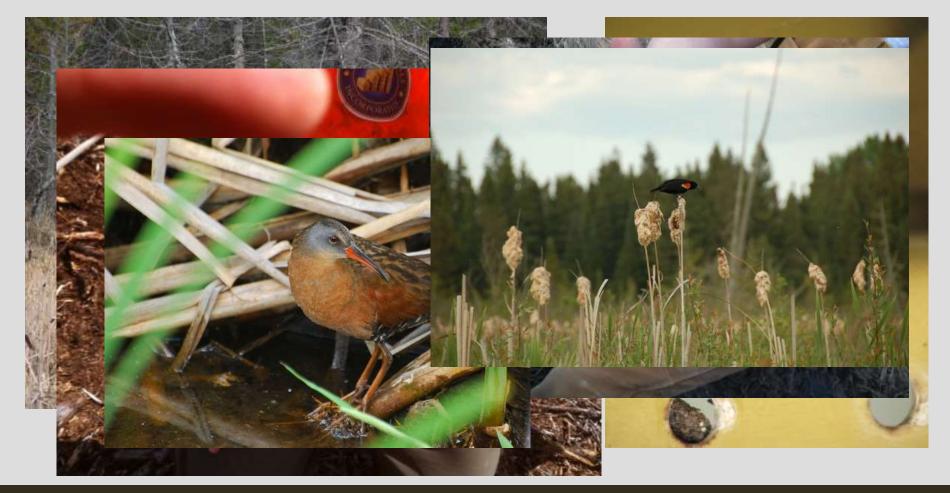


#### BASELINE PROGRAM – TERRESTRIAL WILDLIFE

- + DST has been the lead within the 2012 field season with Treasury aid.
  - Work completed includes:
    - Songbird Survey and Monitoring
    - Whip-Poor-Will, and Common Nighthawk Surveys
    - Waterfowl, and Marsh Bird Surveys
    - Amphibian, and Reptile Encounter Survey, and Monitoring
    - Bat Survey
    - Small Mammal Survey
    - Large Mammal Encounter Survey



# BASELINE PROGRAM – TERRESTRIAL WILDLIFE





# BASELINE PROGRAM – WEATHER

- + KCB and RWDI have completed principle desktop studies using Environmental Canada stations within 100 km of project, and Dryden Airport.
- Weather Station installed with aid of Signal Weather on site and is operational; the temperature yesterday on site was: -2.31°C at 12 PM



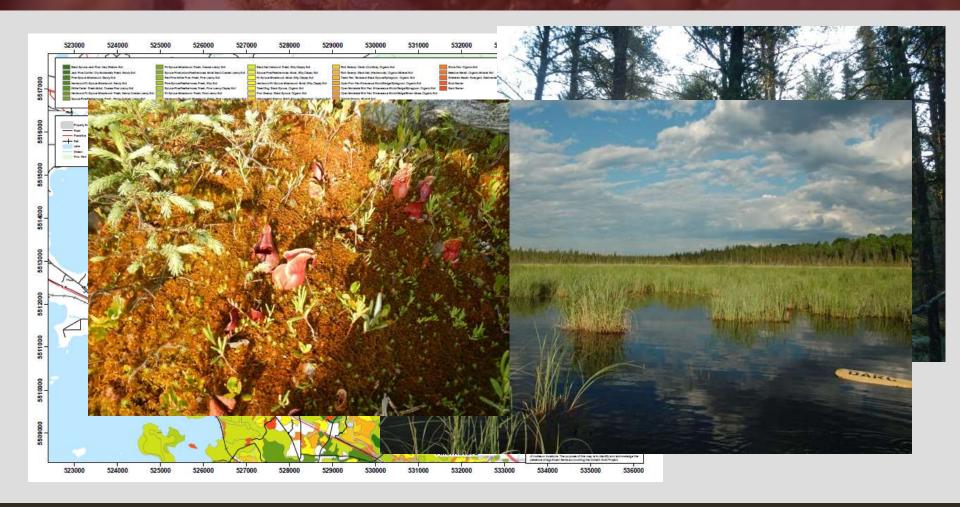


#### BASELINE PROGRAM – SOILS AND VEGETATION

- + KCB conducted principle soil studies within 2010 field season. This included a number of pit logs and chemical analysis of soil.
- + KCB completed vegetation surveys within the 2010-2011 field programs. Targeted surveys were completed in June, July, and August 2011.
- + Within 2012 field program DST and Treasury personal will continue to note vegetation and FRI inventory has been acquired for targeted survey areas.



# BASELINE PROGRAM – SOILS AND VEGETATION





#### BASELINE PROGRAM - GEOCHEMISTRY

- + Initial Acid Base Accounting (ABA) done with KCB during 2011 Study.
  - Low sulphide content in general, with higher concentrations in Gold bearing Material
  - Possible Acid generating material, with recommendations for further study.
- Commenced further study with EcoMetrix in 2012.
  - Will continue ABA, Metal Leaching and Neutralization Potential on 80 additional samples from various zones of the main resource.
  - Will also test process solids and decant from metallurgical testing.
  - Treasury personal will test and sample field cells.
- + Geochemistry studies will allow for calculated management (chemistry, volume) of Acid Rock Drainage (ARD).



# BASELINE PROGRAM - GEOCHEMISTRY





#### BASELINE PROGRAM - HYDROGEOLOGY AND GEOTECHNICAL

- + Commenced detailed Hydrogeological Study with AMEC and TBT in 2012.
  - Approximately half complete with final results for 4<sup>th</sup> quarter of 2012.
- + Detailed geotechnical study will also be completed within 4<sup>th</sup> quarter of 2012.
  - Will conduct overburden sampling in the Waste Rock Storage and Tailings Storage facilities.



# BASELINE PROGRAM - HYDROGEOLOGY AND GEOTECHNICAL





## **BASELINE PROGRAM - SUMMARY**

- Comprehensive baseline study work has been ongoing since Nov.
   2010 with various environmental consultant companies.
- + Treasury is continuing to complete the environmental baseline work necessary to support mine development and closure plan submission.



#### **ENVIRONMENTAL ASSESSMENT PROCESS AND PERMITTING**

#### + Federal

- Canadian Environmental Assessment Agency (CEAA)
  - Triggers include a Gold mine processing greater than 600 tonnes per day and the potential to disturb fish habitat.
  - Environmental Impact Study will be completed as part of federal regulations.

#### + Provincial

- 40 + provincial permits may be required.
- EA Process will follow Provincial Regulations (Individual or Class EA).

**Environmental Assessment and Permitting process on schedule** 



# QUESTIONS?





Mine Planning and Engineering

Oct. 30, 2012

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# **GOLIATH PROJECT**

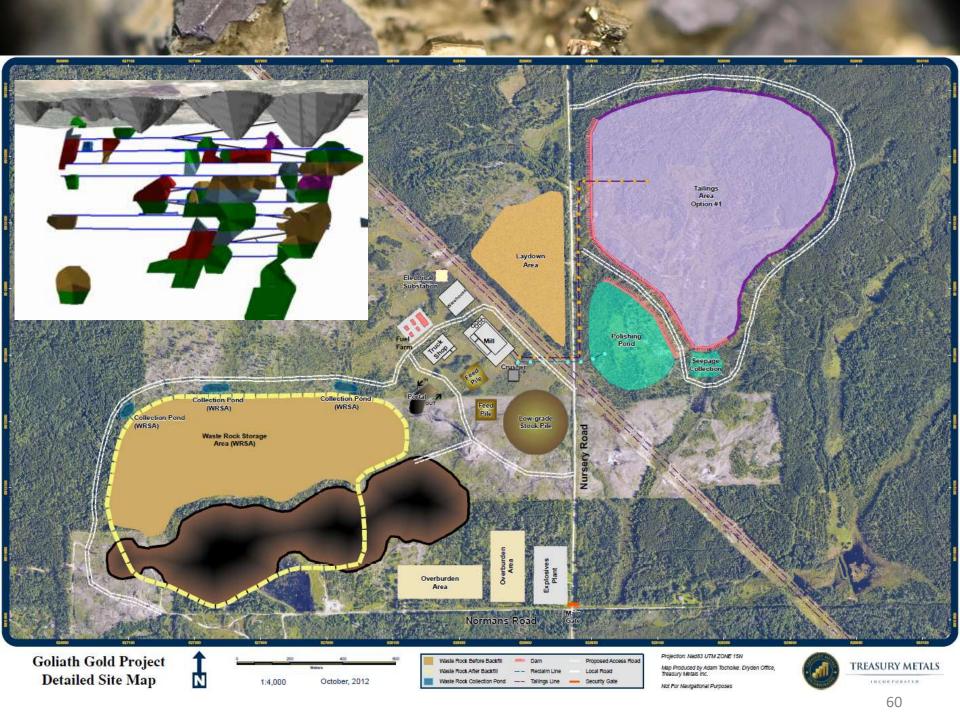
- + Mine Layout Open Pit and Underground
- + Processing Plant
- + Project Timeline
- + Questions?



## **GOLIATH GOLD PROJECT – HIGHLIGHTS**

- + Open pit and Ramp Access Underground Mining, Approx. 10+ year Mine life.
- Waste Rock storage of approx. 25 MM tonnes, remainder to be backfilled into pits.
   Approx. 9:1 Stripping Ratio
- 2,500 TPD C.I.L. Mill. Mill discharge reporting to Tailings Storage Facility for treatment.
- + Very Near to infrastructure. Few roads to be built. Easy electrical power access, natural gas access.
- + Small Footprint, Suitable office/warehousing infrastructure currently in place.





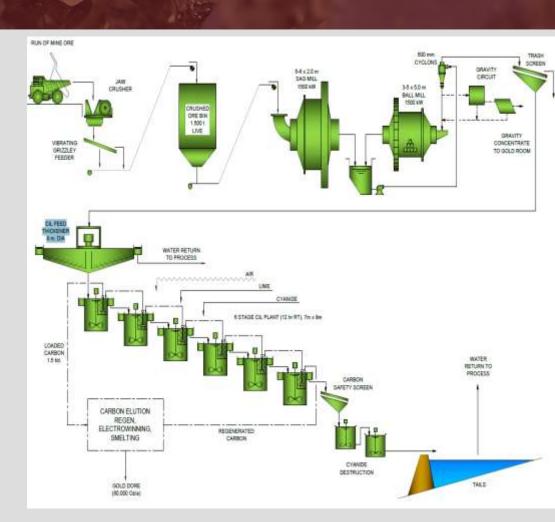






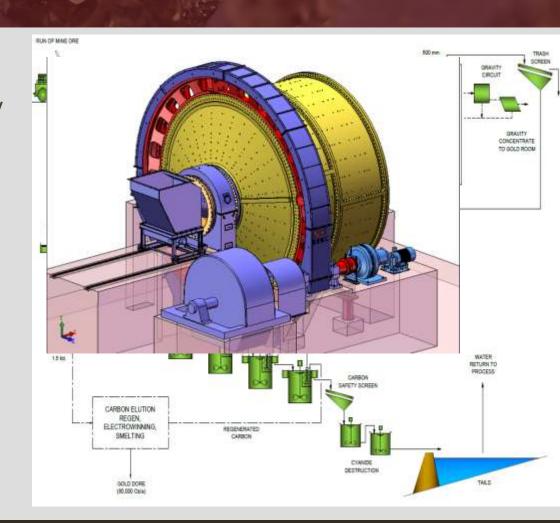


- High recoveries by Gravity
   Separation, remaining recoveries by
   Carbon In Leach using cyanidation
- + Extremely low leach times with low concentrations of Cyanide
- + 2,500 tonnes per day
- High proportion of recycled water



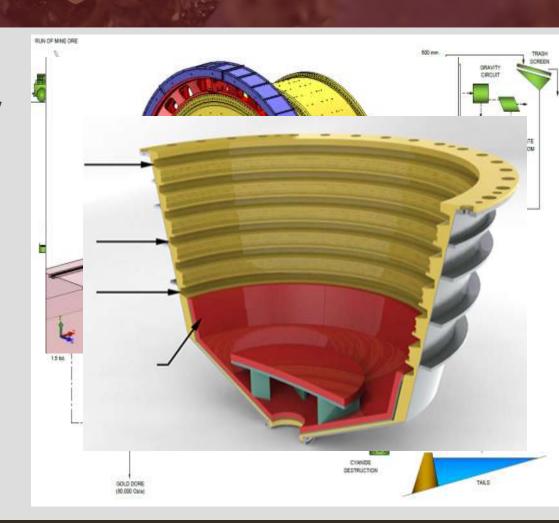


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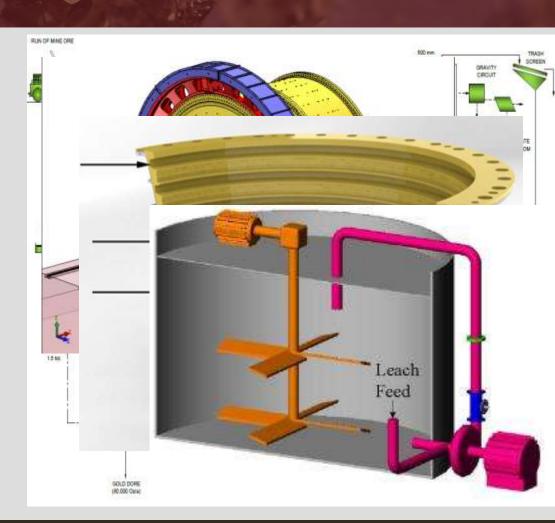


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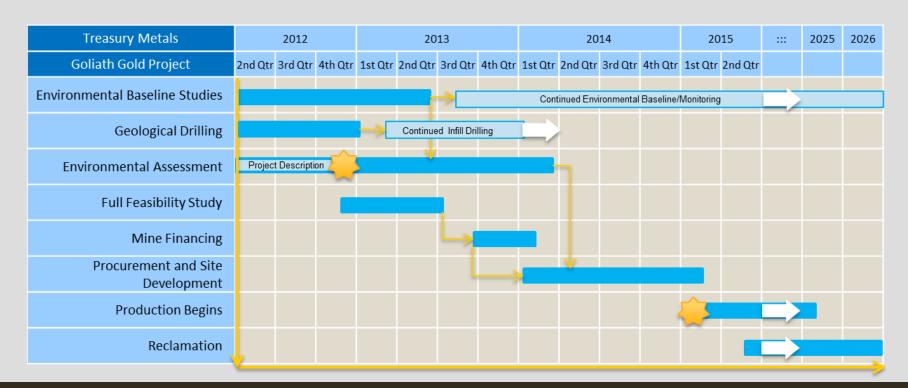
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- + Continue Hydrogeology and Geotechnical programs in parallel with Exploration/Infill drilling program.
- + Submit Project description to initiate Permitting Process and E.A.
- + Select consultant to Initiate Full Bankable Feasibility with latest metallurgy results.









Questions?

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