

The Geology and Uranium Mineral Resources and Exploration Potential of the Parana Basin, Paraguay, South America.



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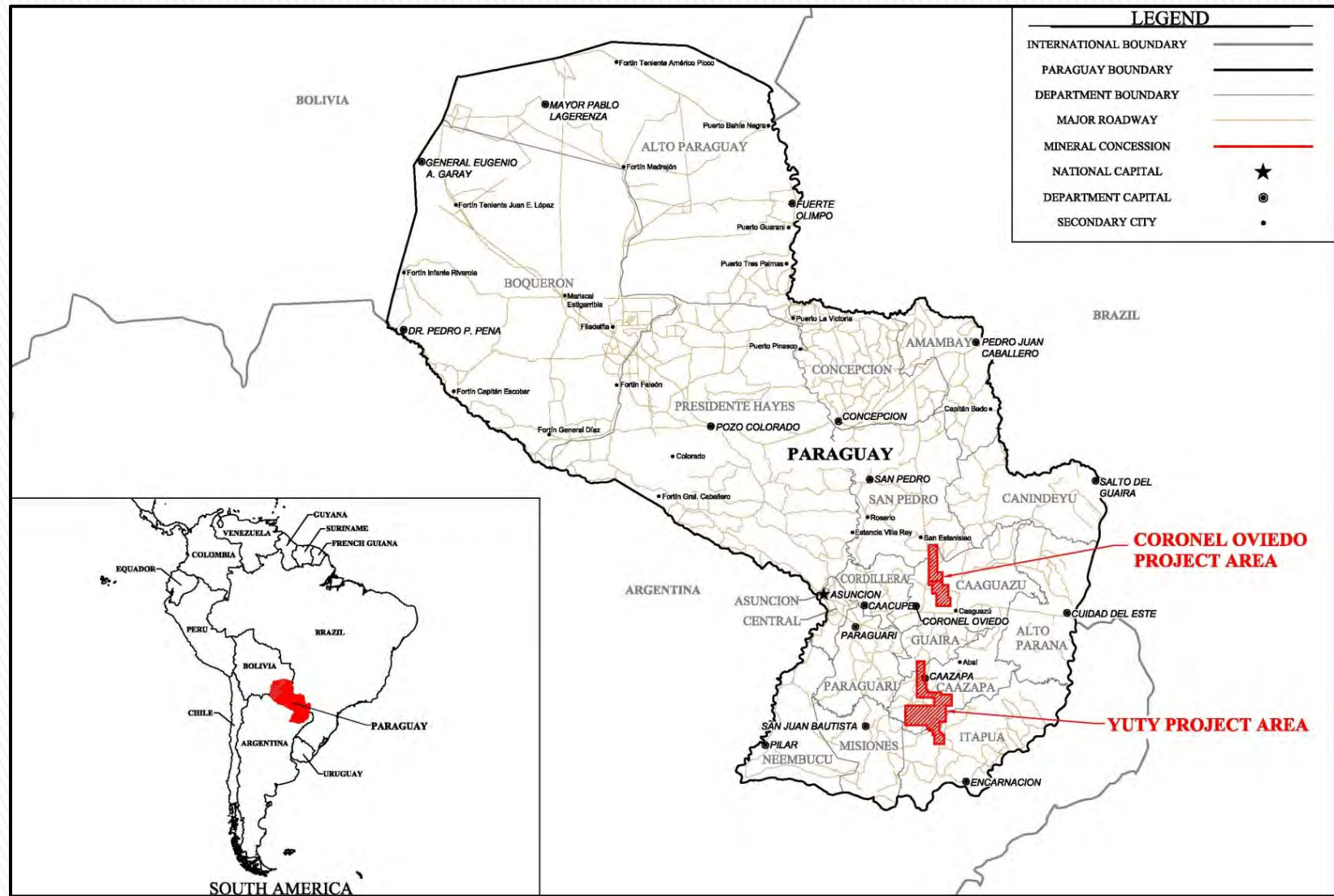
Doug Beahm, PE, PG
President/Principal Engineer
BRS Inc., USA

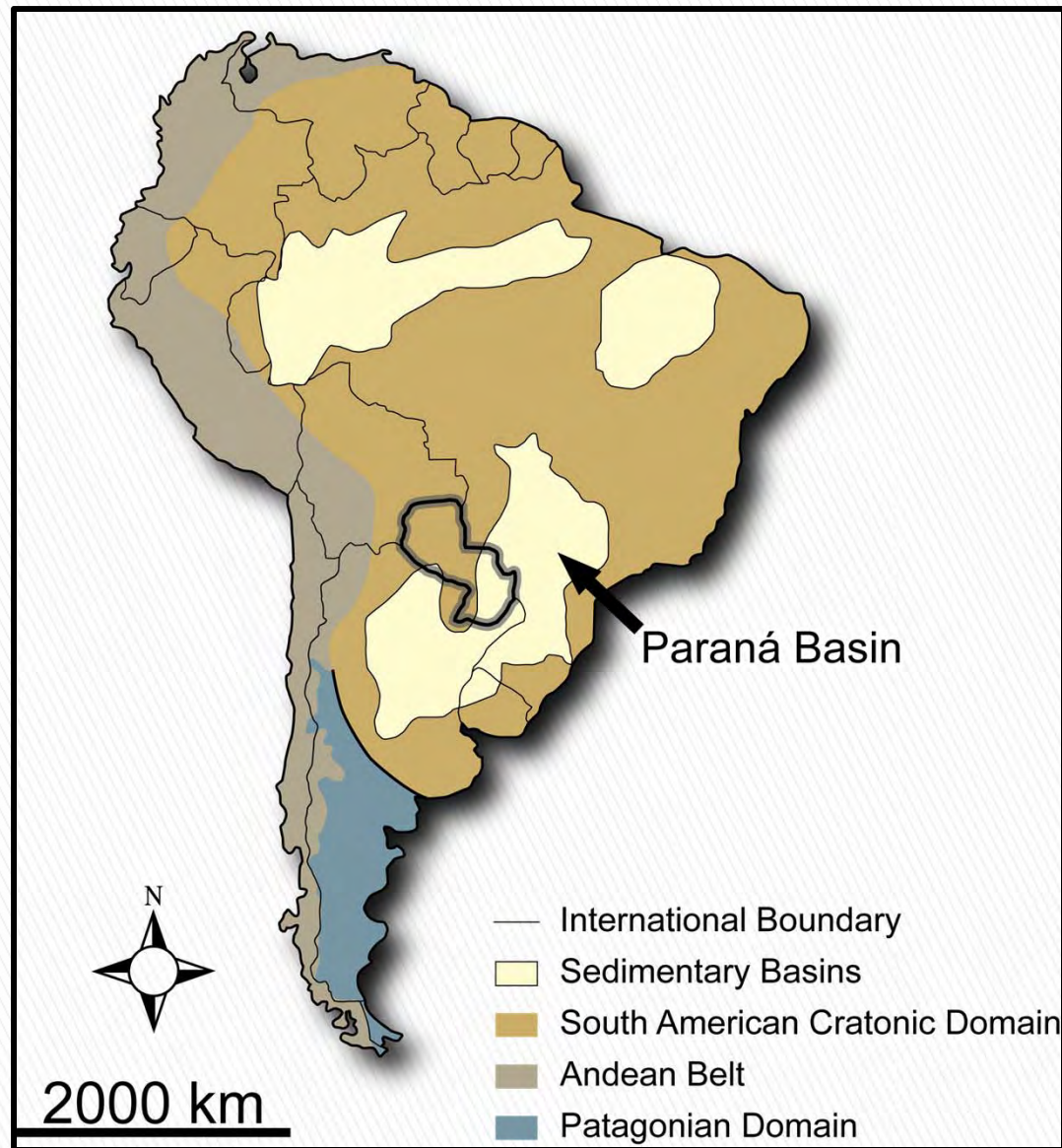
ACKNOWLEDGEMENT:

Uranium Energy Corporation (UEC)

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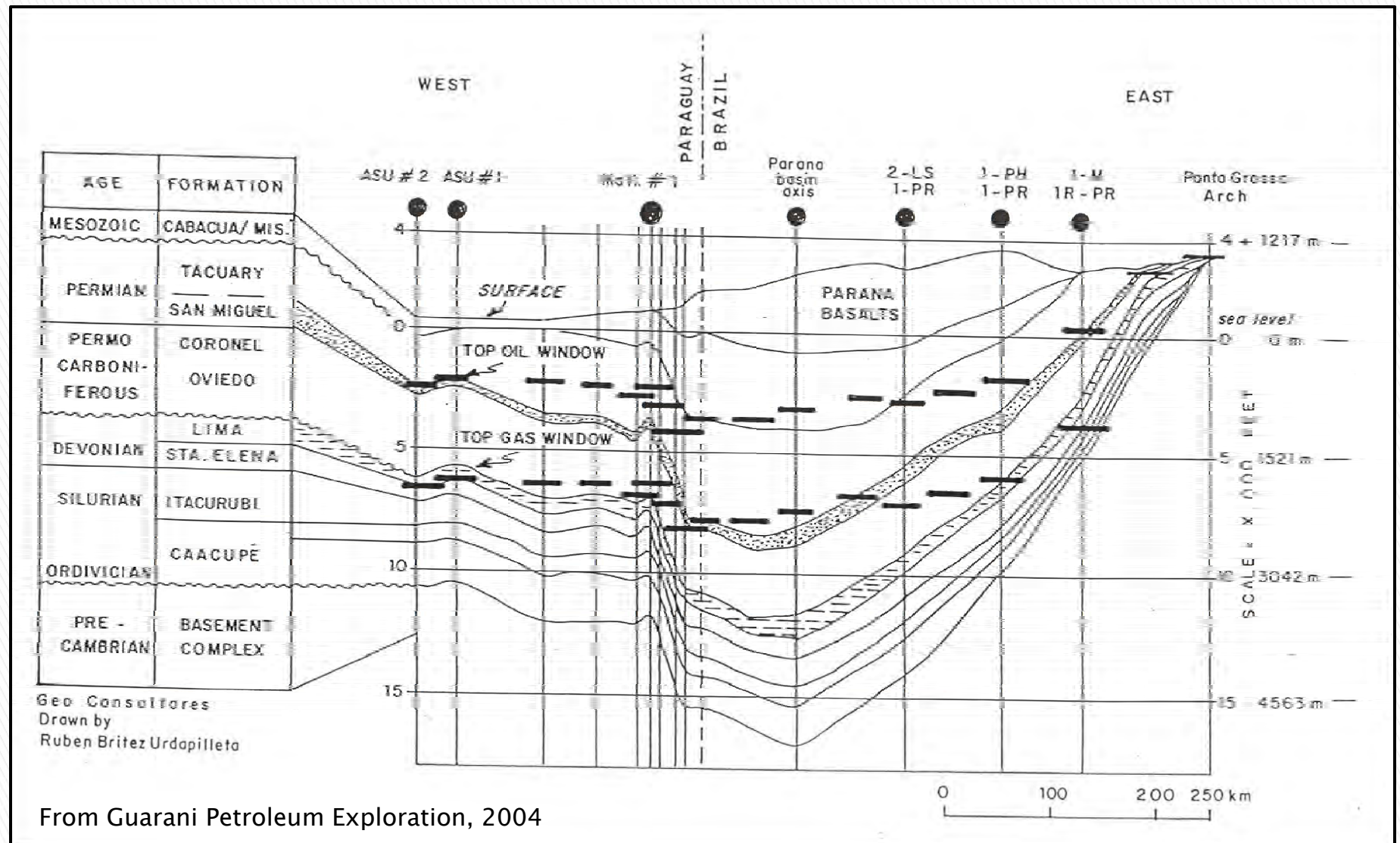


After Milani and Thomaz-Filho, 2000, and Baretto, 1985

- Intracratonic Basin
- Paleozoic and Mesozoic Sediments
- 1,600,000 km²
- Paraguay, Brazil, Argentina, and Bolivia
- Uranium Mineralization
 - Lower Devonian
 - Upper Permian Carboniferous

Geologic History, Parana Basin

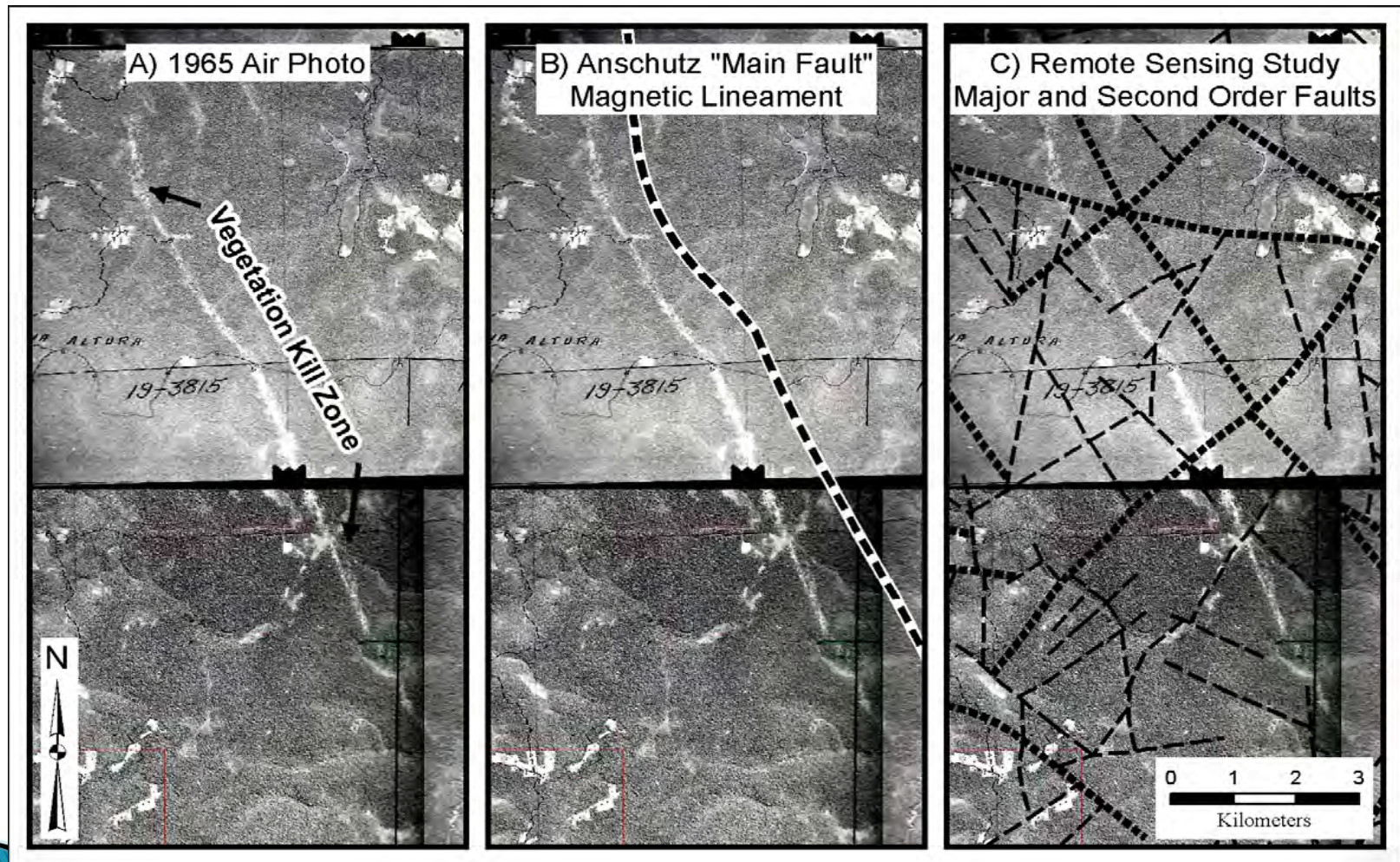
- ▶ Middle Silurian
 - Marine sequences of sandstone, siltstone, and shale
 - Transgressive sequence of coarse sediments
- ▶ Devonian
 - Continental sequences of sandstone, siltstone, shale
 - Uranium mineralization, Amarinópolis District Brazil
- ▶ Late Devonian to Late Carboniferous
 - Extended period of erosion
- ▶ Permo–Carboniferous
 - Following uplift in late Carboniferous
 - Sandstone, siltstone, shale, and coals
 - Uranium mineralization UPC
 - Figureira District, Brazil
 - Yuty and Coronel Oviedo, Paraguay



Description of Uranium Deposits

- ▶ Sandstone Type Deposits
 - Roll Front Type
 - Tabular Type
- ▶ Digenetic–Epigenetic, Low Temperature
- ▶ Source of Uranium
 - Overlying Cretaceous Volcanics
 - Surrounding Basement Rocks
 - Syngenetic
- ▶ Reductatant
 - H_2S gas and/or formation of sulphides (pyrite)
 - Interstitial carbonaceous materials

Faulting and H₂S Gas Migration?



Uranium Exploration – Parana Basin

▶ Brazil

- Uranium Occurrences Known Since 1950's
- Exploration by USGS and Brazil

▶ Paraguay

- Historic Uranium Exploration
 - Anschutz 1976 – 1983
 - JV with KEPCO and TPC
- Mineral Concession 182,000 km²
- Radiometric and Magnetic Surveys
- Follow-up Drilling
- Discovered Uranium Mineralization
 - Yuty and Coronel Oviedo

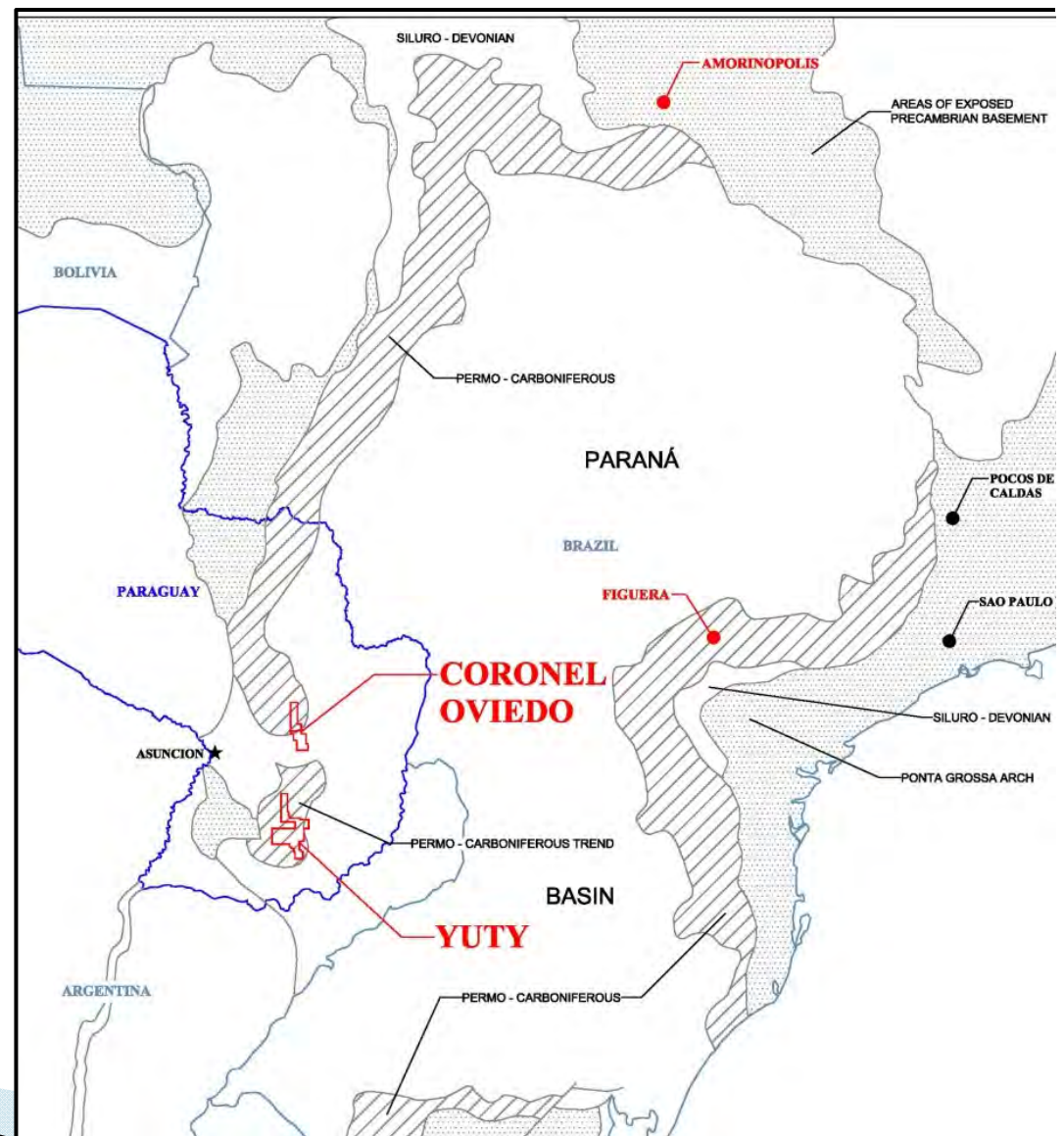
Uranium Occurrences, Parana Basin

UEC (BRS 2011,2012):

- Coronel Oviedo Project
 - Exploration Potential
 - 23 to 56 million lbs
- Yuty Project
 - 8.9 million lbs Measured and Indicated Resource
 - 2.2 million lbs Inferred

Past Producers (IAEA, 2009):

- Figueira Mine, Brazil
 - 10 to 20 million lbs
- Amorinopolis Mine, Brazil
 - 5 to 10 million lbs



Yuty and Coronel Oviedo Projects



Coronel Oveido Project

- Depth 70–200 m
- Width 80 – 125 m
- Thickness 4.0 – 5 m
- Grade 0.04 – .052 %

Yuty Project

- Depth 100–150 m
- Width 125 m
- Thickness 4.8 m
- Grade 0.052 %

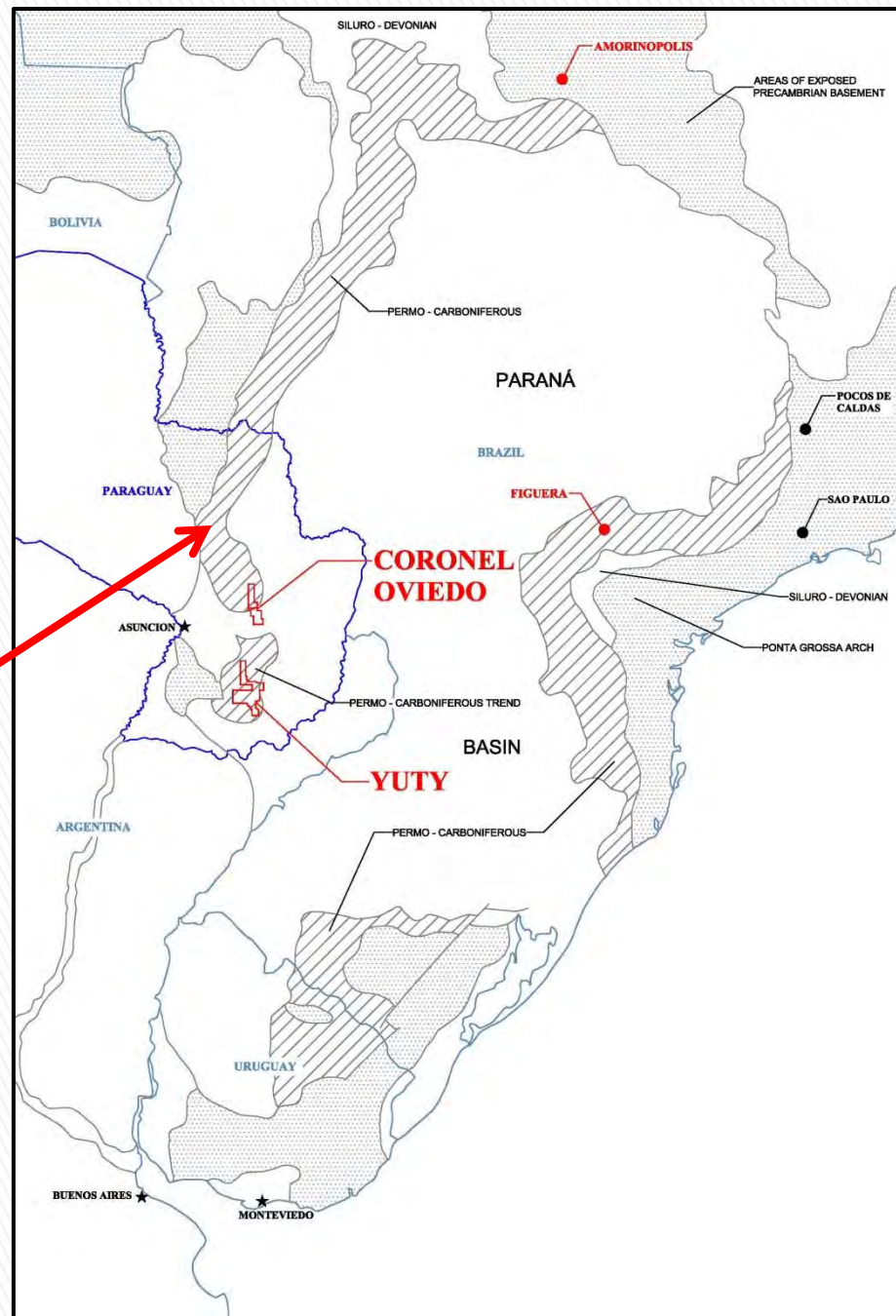


Geologic Setting

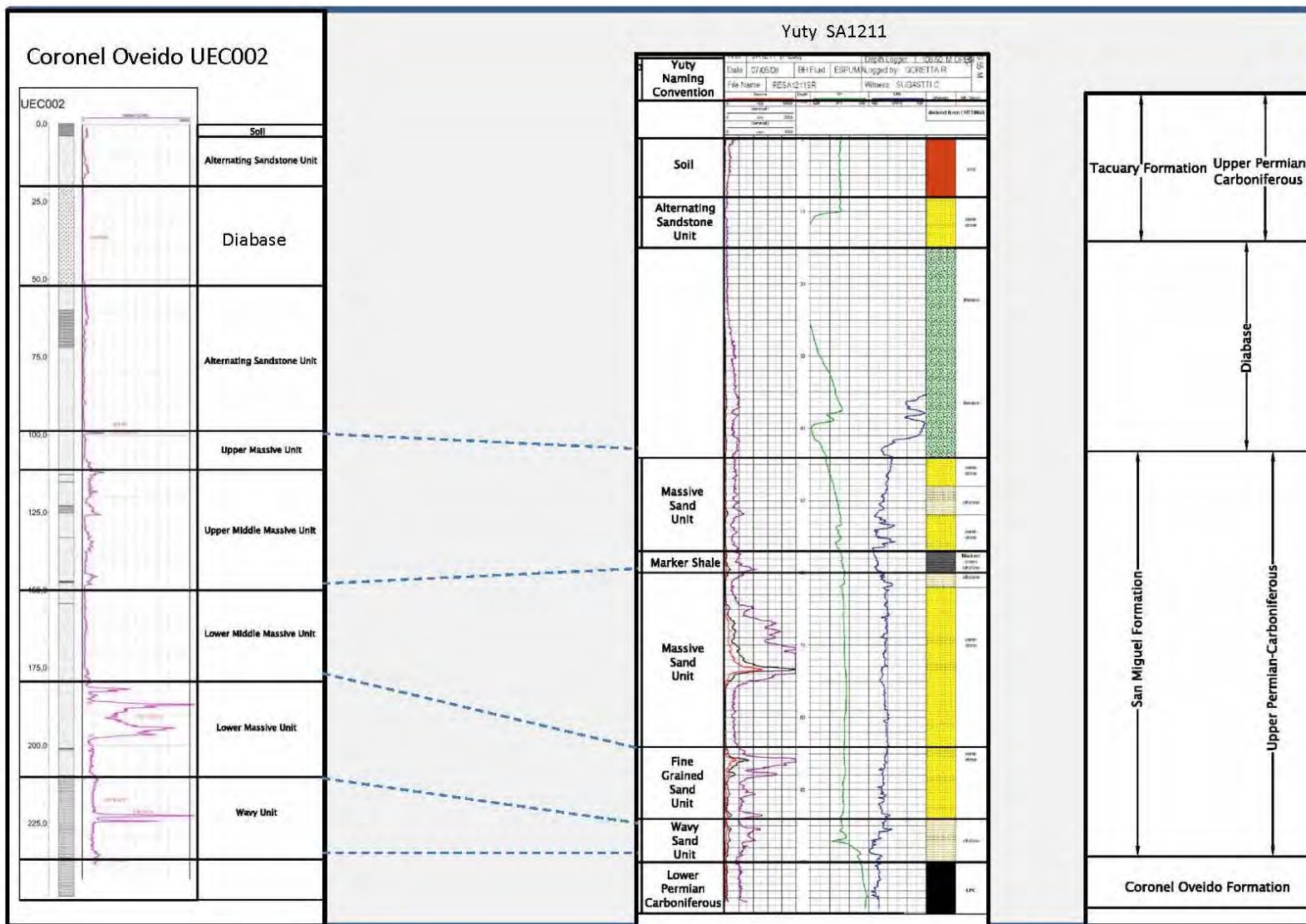
Parana Basin

PERIOD	SYSTEM	GEOLOGICAL UNIT				TARGET FORMATION
CENOZOIC	QUATERNARY	Quaternary				
		Tert. / Quat. undiff.				
MESOZOIC	TERTIARY	Alto Paraná Gr.	Acaray Fm.		Asunción Gr.	Magn.
			Mahm.			Palacios Fm.
			Misiones Fm.			
PALEOZOIC	CRETACEOUS	Cabacúa Fm.				
	JURASSIC					
	TRIASSIC					
	PERMIAN	Independencia Gr.	Tacuary Fm.			
			San Miguel Fm.			
CARBONIFEROUS		Cnel. Oviedo Gr.	Cnel. Oviedo diamict.			
			Aquidaban Fm.			

Upper Permian Carboniferous (UPC)



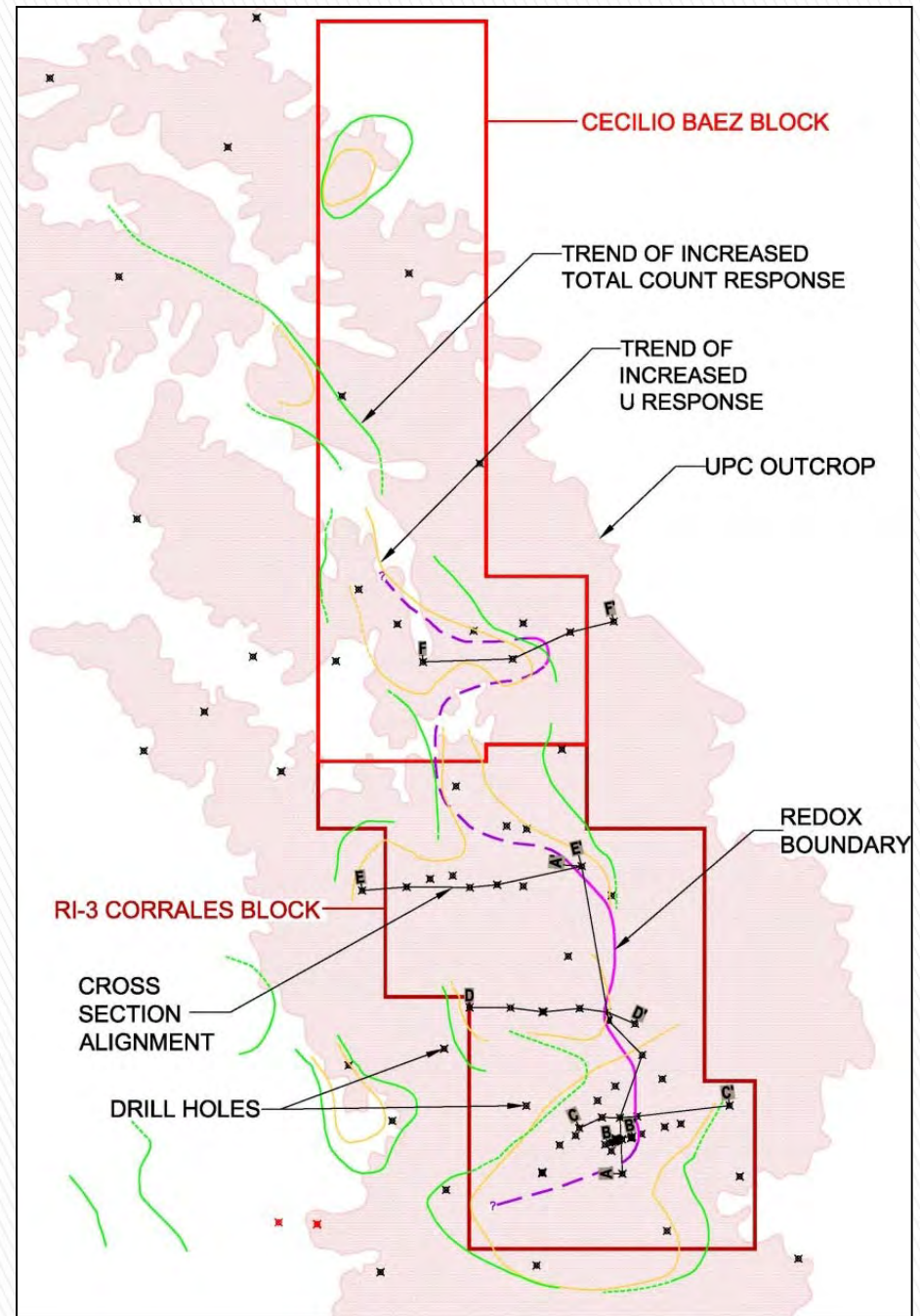
Type Log Correlation



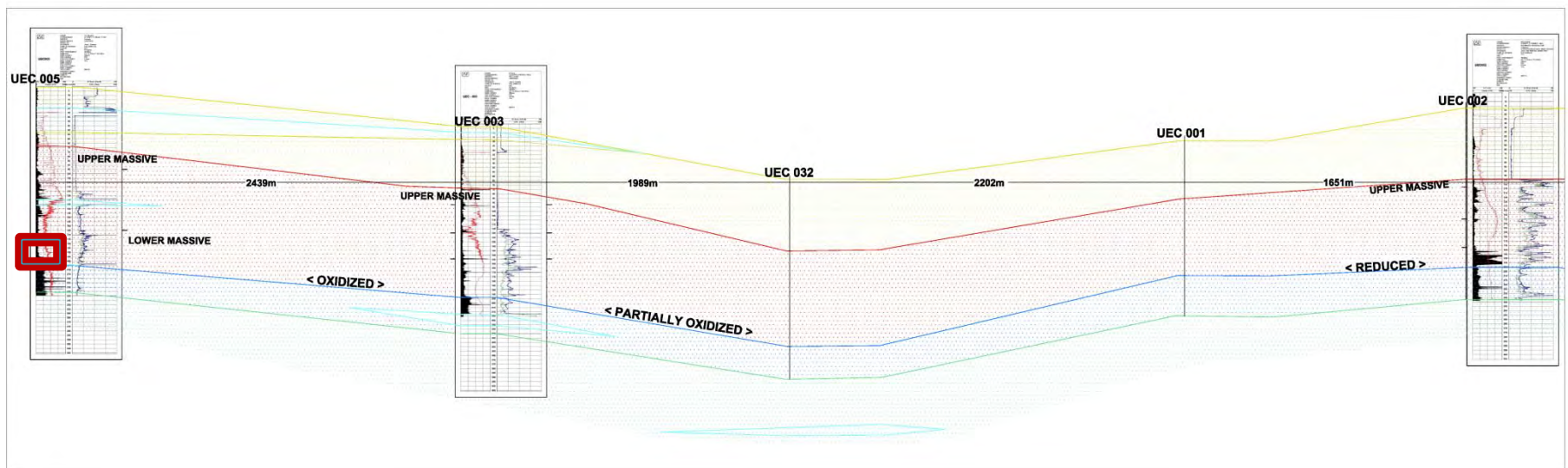
Coronel Oveido Trend Map

- Redox Boundary
- Defined by Drilling: 21 km
- Redox Trend Projected from
- Radiometric Anomalies: 40 km

Sample location for .064% U assay in intensely oxidized sands of the Lower Massive unit



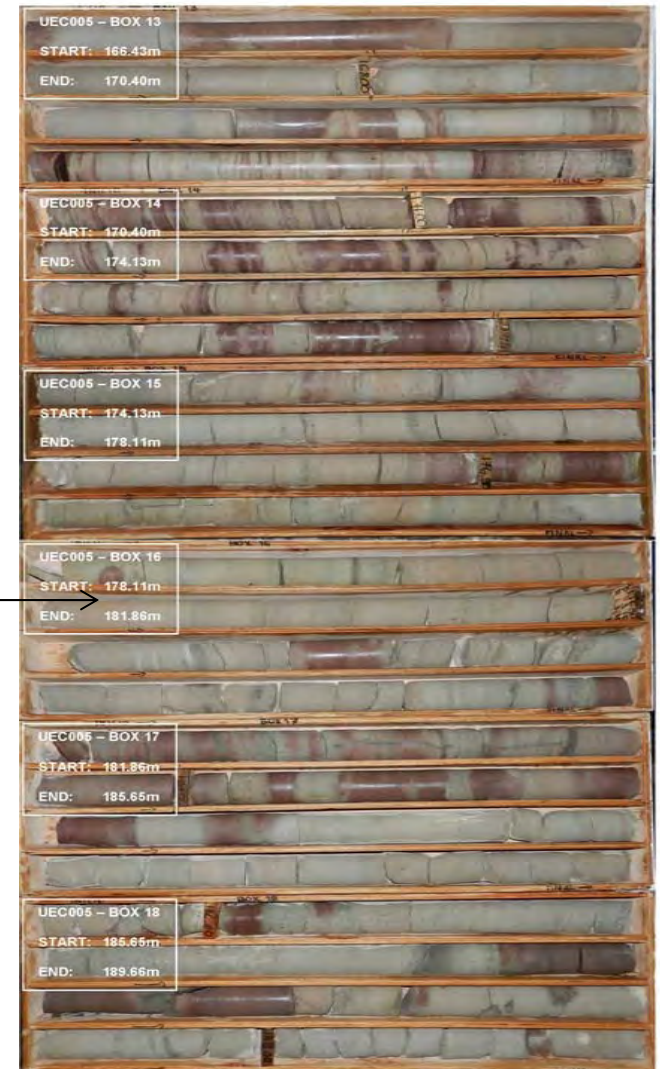
CROSS SECTION D-D'



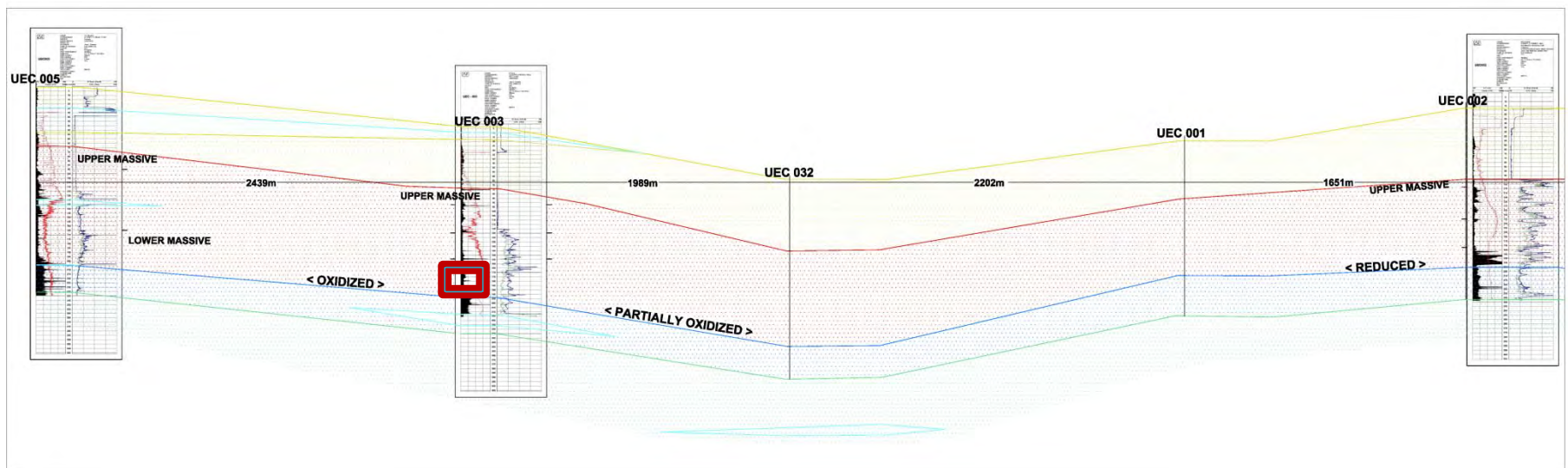
LEGEND	
	ALTERNATING SS
	MASSIVE SS
	DIABASE
	WAVY SS
	LPC

Photo of Core from Section D, UEC005

Oxidized



CROSS SECTION D-D'



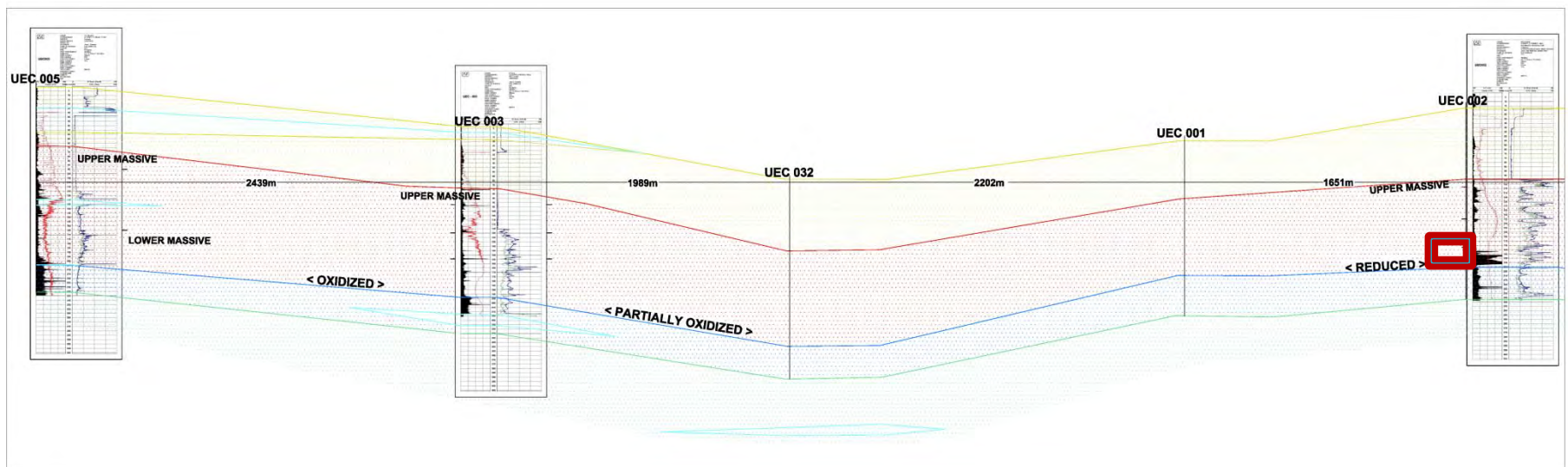
LEGEND	
	ALTERNATING SS
	MASSIVE SS
	DIABASE
	WAVY SS
	LPC

Photo of Core from Section D, UEC003

Partially Oxidized



CROSS SECTION D-D'



LEGEND	
	ALTERNATING SS
	MASSIVE SS
	DIABASE
	WAVY SS
	LPC

Photo of Core from Section D, UEC002

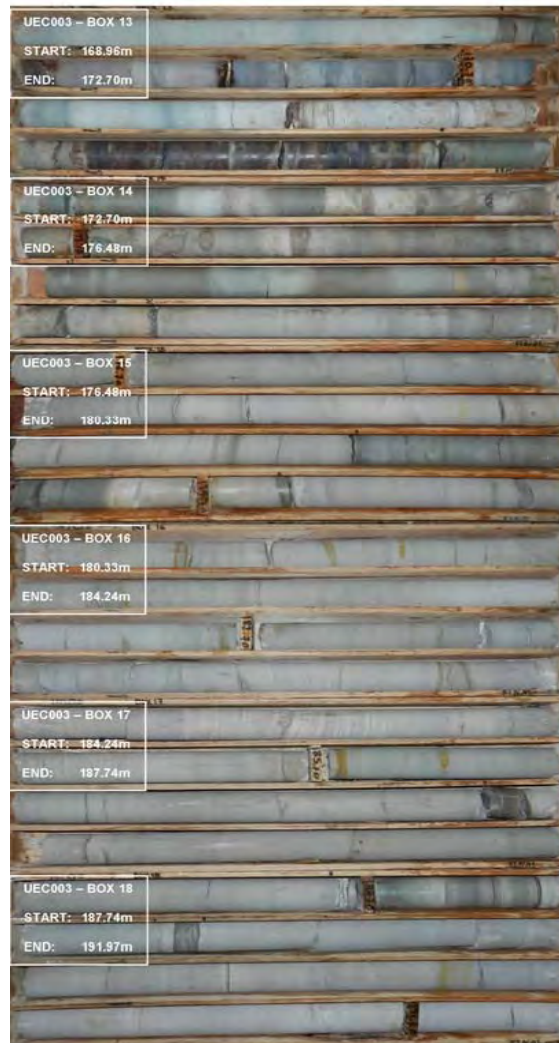
Reduced

Mineralized



Redox at Coronel Oveido

Oxidation

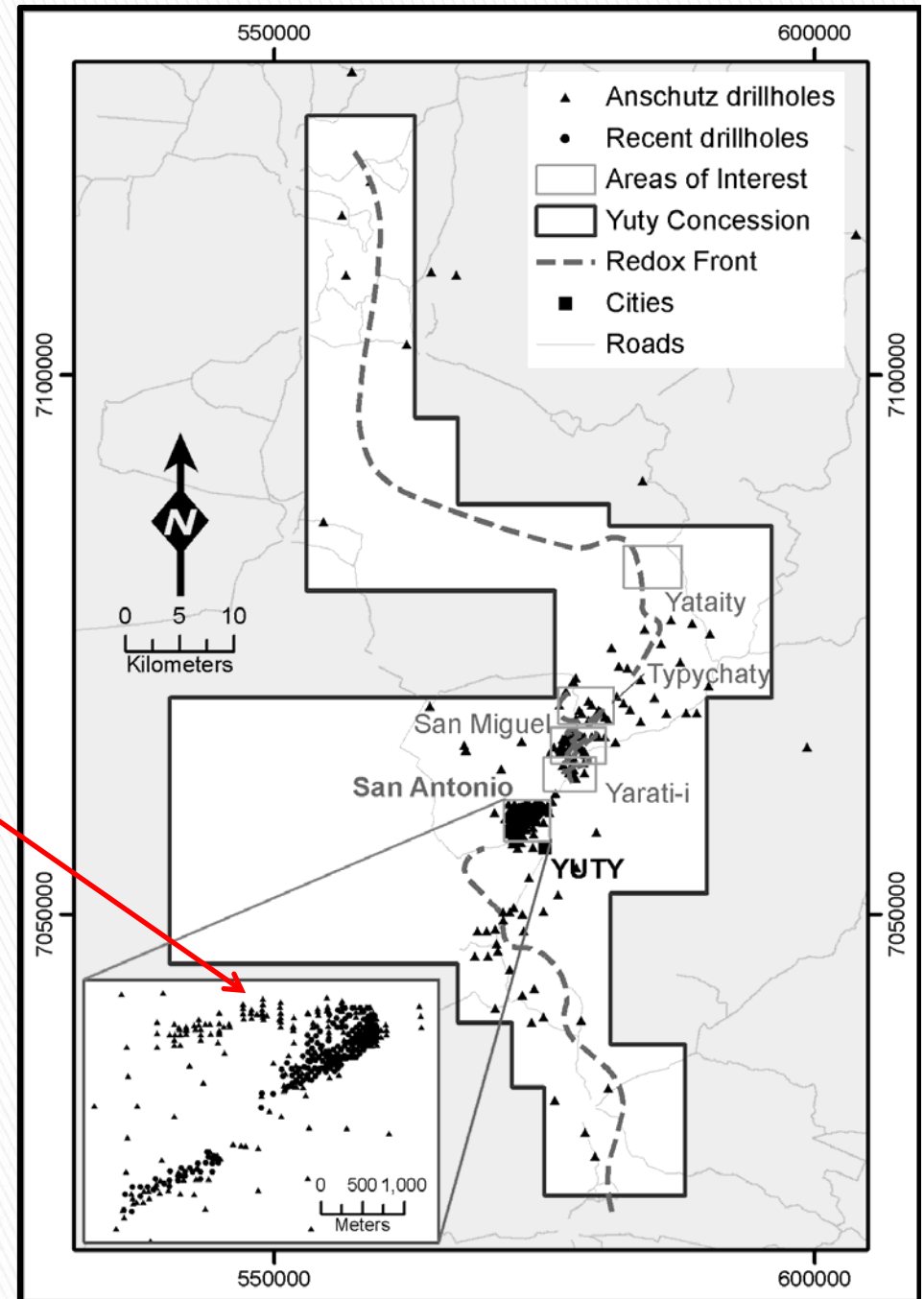
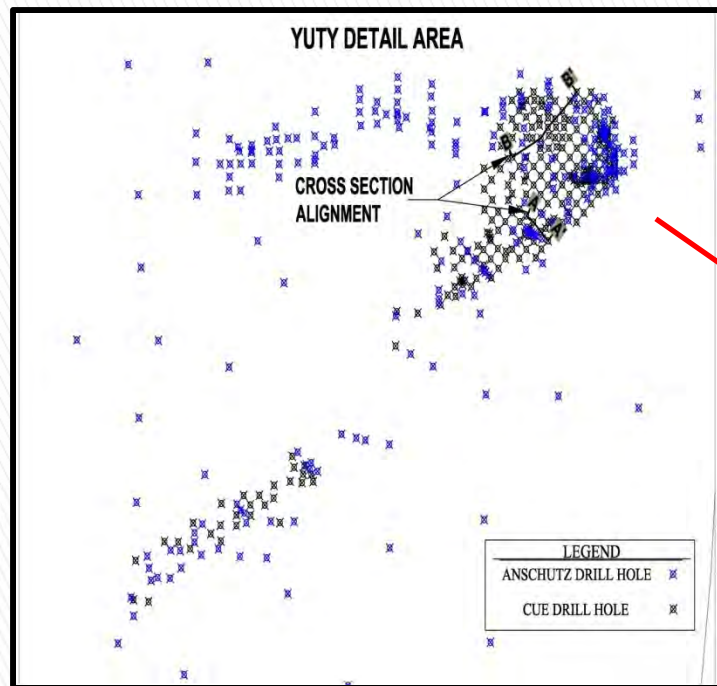


Reduction

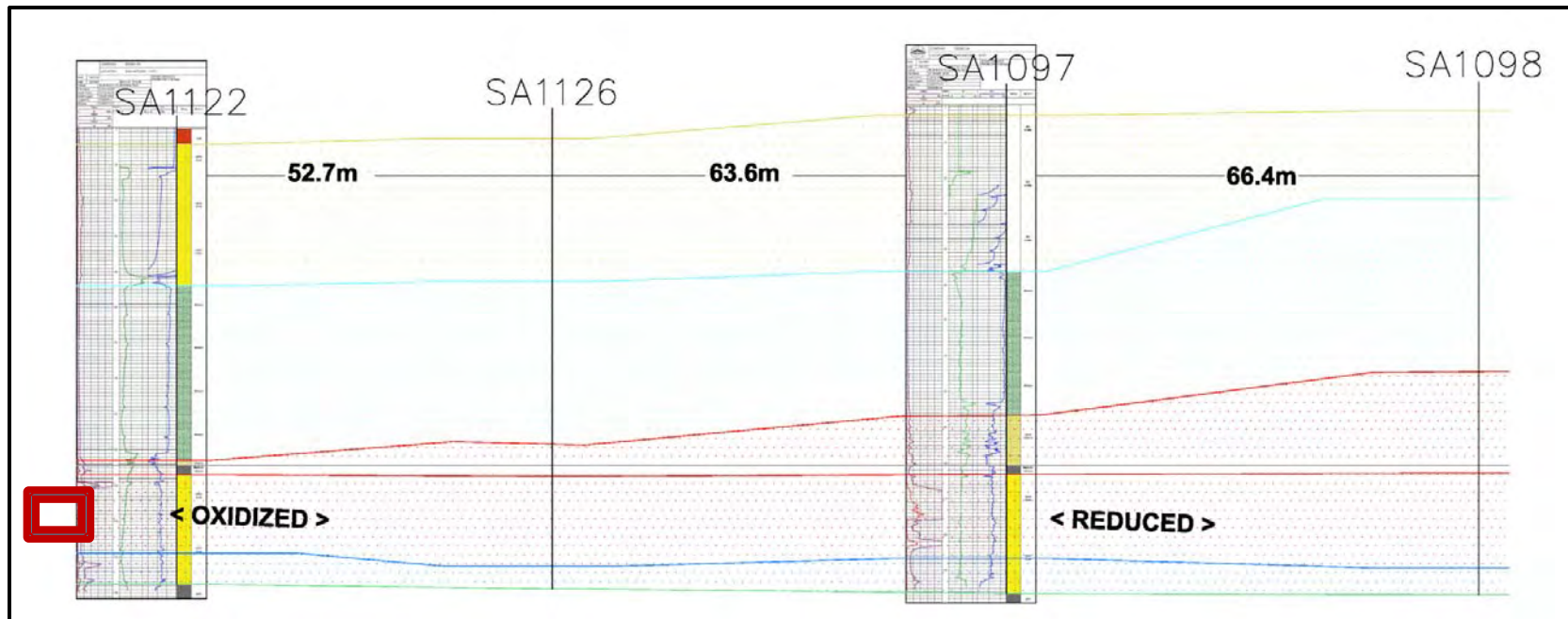


Yuty Trend Map

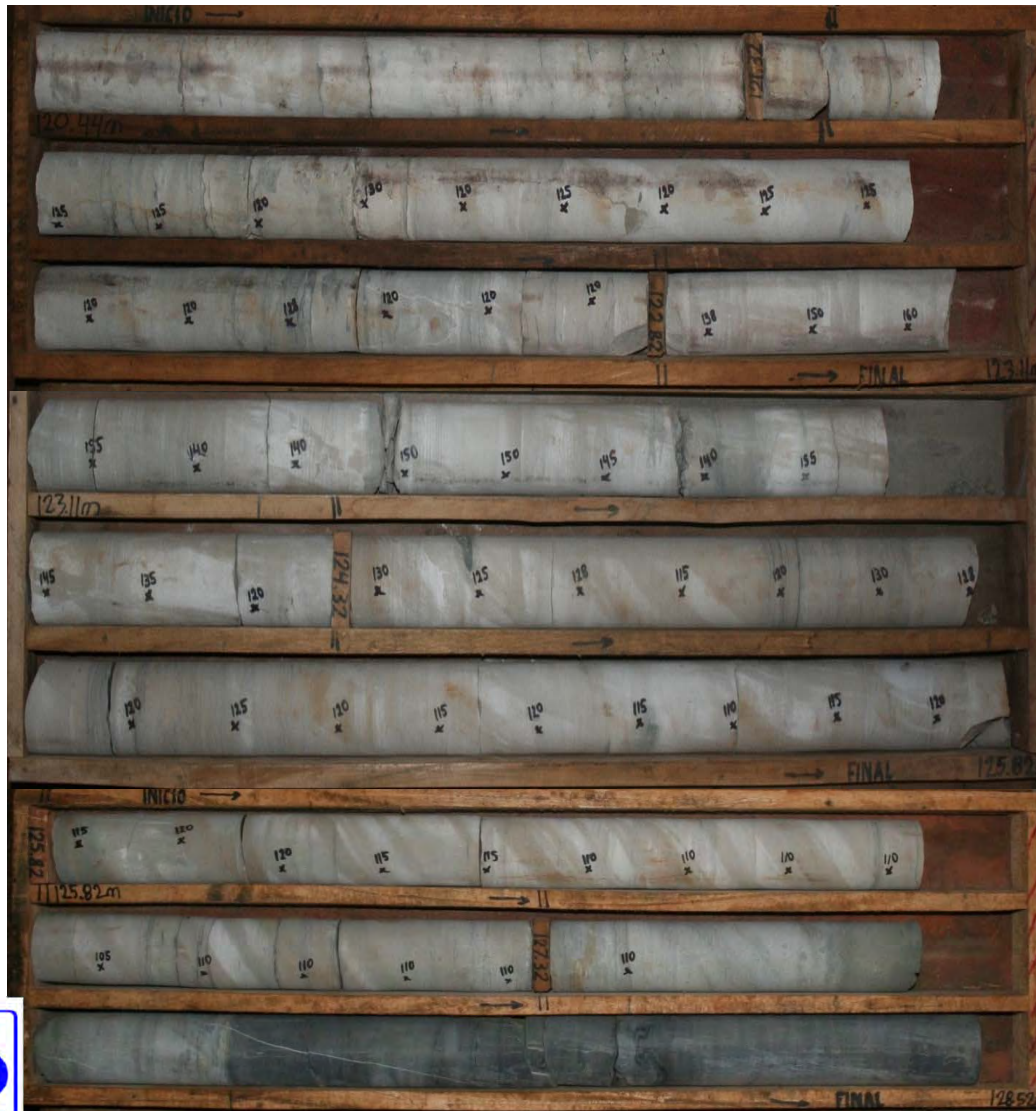
- 43-101 Compliant Mineral Resource



Yuty Section A-A'



LEGEND	
	ALTERNATING SS
	MASSIVE SS
	DIABASE
	WAVY SS
	LPC



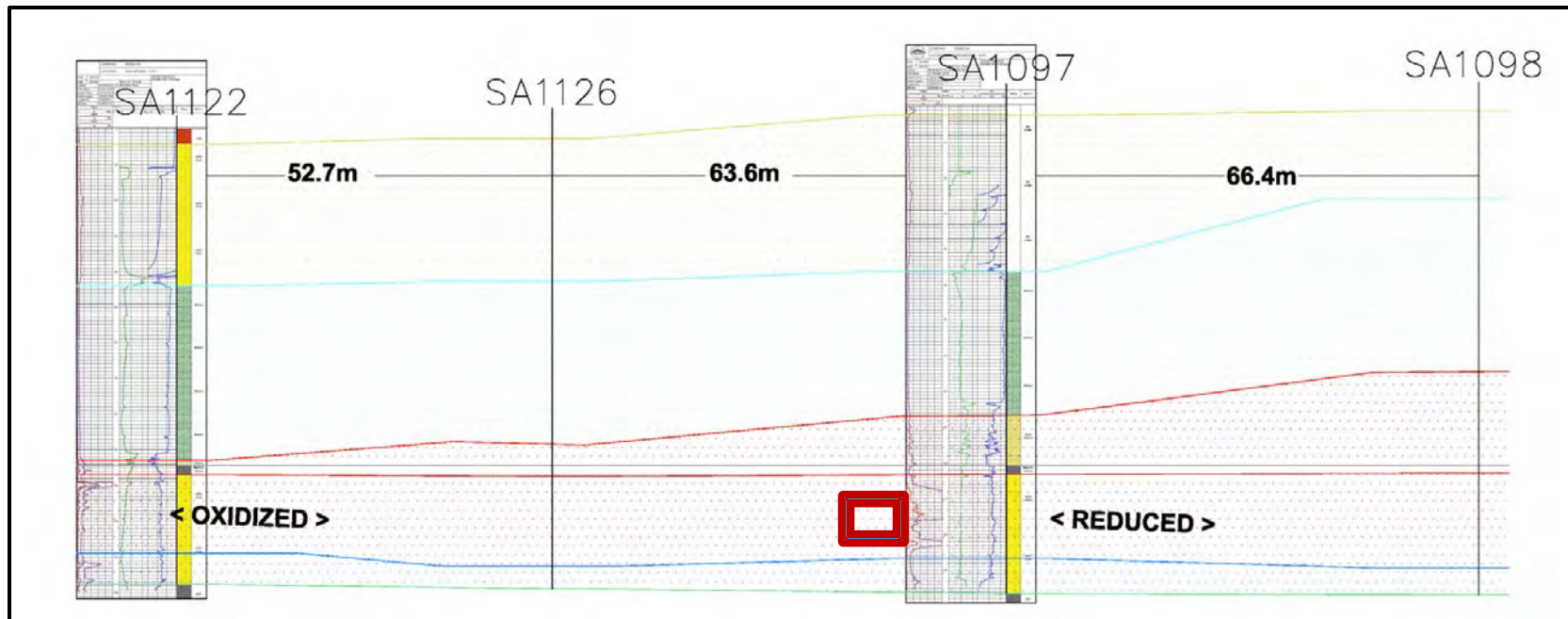
YUTY Hole SA 1122

Oxidized

Lower Massive

LPC contact

Yuty Section A-A'



LEGEND	
	ALTERNATING SS
	MASSIVE SS
	DIABASE
	WAVY SS
	LPC



YUTY Hole SA 1097

Reduced and
Mineralized

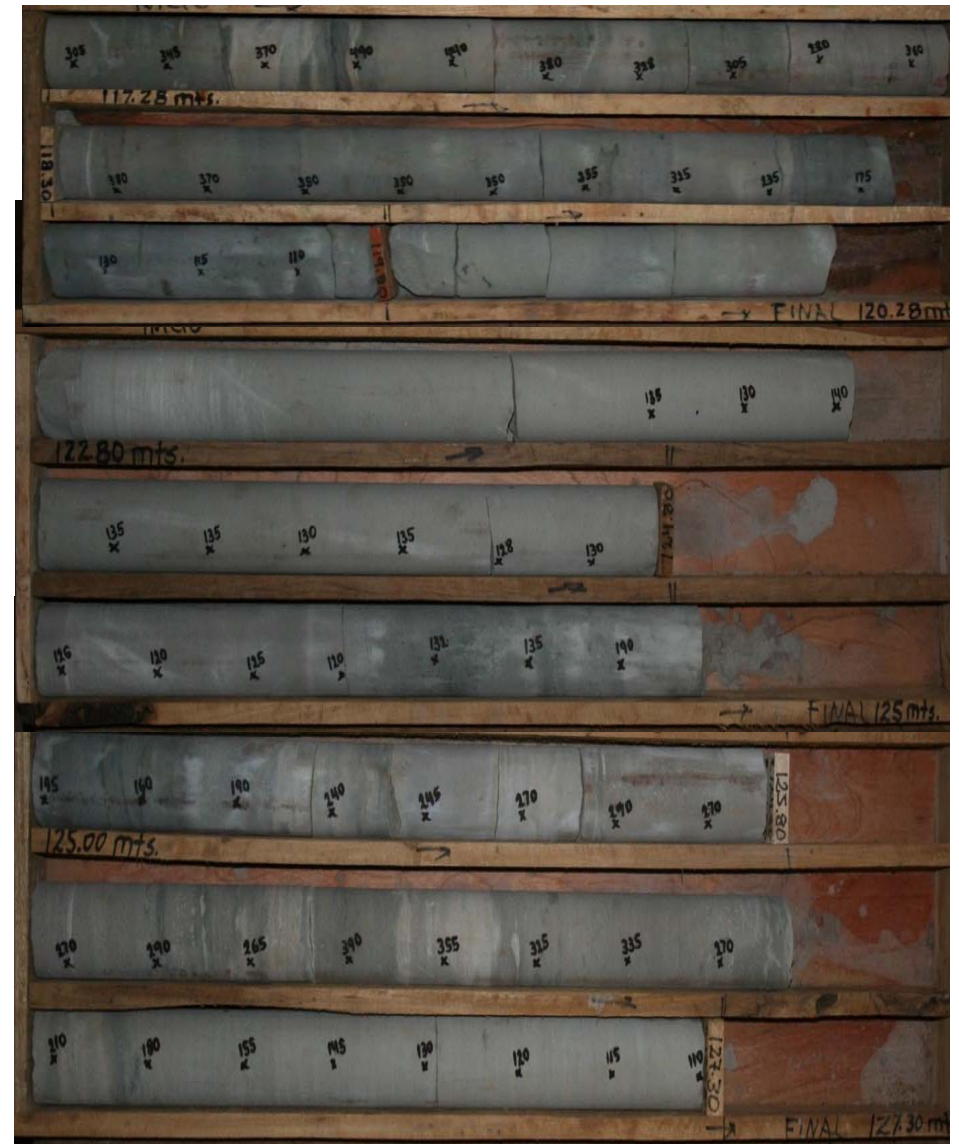
Lower Massive

Redox at Yuty

Oxidation



Reduction



Conclusions

- ▶ Significant Uranium Mineralization Occurs in the Parana Basin in the UPC and Devonian.
- ▶ Uranium Mineralization is Sandstone-Type (IEA) both Roll Front and Tabular Deposits.
- ▶ Mineral Concessions held by UEC in Paraguay, Yuty and Coronel Oveido, have Demonstrated Uranium Mineral Resources and Exploration Potential.
- ▶ Metallurgical and Aquifer Testing Indicates Favorability for ISR Extraction or Conventional Mining

Yuty Project – UEC Summary

- **11.1M lbs. NI 43-101*** compliant resource established after exploration on 5% of 500,000 acre concession
- Subject to **uranium exploration** by The Anschutz Corporation (1976-1983) and Cue / Cameco (2007-2010)
- Determined to be **ISR-amenable** indicated by initial aquifer test

Measured Resource 2.054M tonnes @ 0.062 % U3O8 containing **2.801M lbs. U3O8**

Indicated Resource 5.783M tonnes @ 0.048 % U3O8 containing **6.113M lbs. U3O8**

Inferred Resource 2.139M tonnes @ 0.047 % U3O8 containing **2.226M lbs. U3O8**

Coronel Oviedo Project – UEC Summary

- NI 43-101 Exploration Target of **23 to 56 Million Pounds** U₃O₈
- Prospecting permits for **500,000 acres** located in the area of Coronel Oviedo, Paraguay
- Subject to limited **uranium exploration** by The Anschutz Corporation (1976-1983) and Crescent Resources (2006-2008)
- Property characterized by **mineralization very similar to the South Texas** uranium trend, holds large-scale potential
- Determined to be **ISR-amenable** indicated by initial aquifer test

IN CLOSING

- ▶ Complementary flash drives are available from BRS containing a copy of this presentation.
- ▶ The flash drive also contains information about BRS and some of our recent and/or current projects including;
 - UEC, Coronel Oviedo and Yuty Uranium Projects, Paraguay, SA.
 - EFR, Sheep Mountain Uranium Project, Wyoming, US.
 - Juniper Ridge Uranium Project, Wyoming, US.
 - Cyclone Energy, West Divide and New Fork Uranium Projects, Wyoming, US.
 - Arcadia Minerals, Zircon, Titanium, and Light RE Project, Wyoming, US.
- ▶ Thank You for your time and consideration.