THOR ENERGY PLC
AIM/ASX: THR
OTCQB: THORF

Technical Presentation

RIU Sydney
New Green Economy: Exploring for Uranium and Energy Metals

09 May 2023

Nicole Galloway Warland
Managing Director

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Competent Person Statement

The information in this report that relates to exploration results and exploration targets is based on information compiled by Nicole Galloway Warland, who holds a BSc in applied geology (Hons) and who is a Member of The Australian Institute of Geoscientists. Ms Galloway Warland is an employee of Thor Energy PLC. She has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Nicole Galloway Warland consents to the inclusion in the report of the matters based on her formation in the form and context in which it appears.

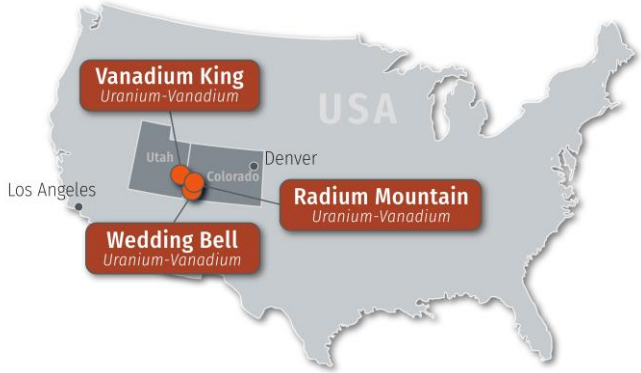
New Green Economy

Focused on Uranium and Energy Metals

USA Uranium Exposure

Uranium and Vanadium – Utah and Colorado, USA

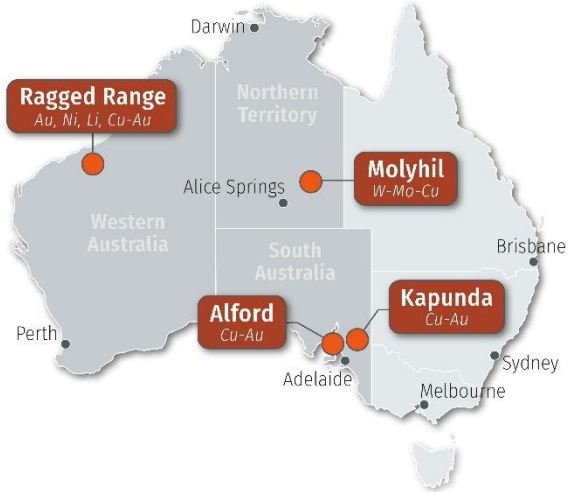
- Three 100% owned assets in a proven mining region
- Uranium demand driven by US desire to secure supply security
- Maiden drilling 2022 -Wedding Bell and Radium Mountain



Energy Metals, Australia

Gold/Nickel/Copper– Australia

- REE & Copper – Alford East, SA
- Gold, Nickel & Copper - Ragged Range Project, Pilbara WA
- (Molyhil – Divestment (IVR Earn-in) ASX/AIM:THR 24 November 2023)



Energy Metals and Uranium: Global Demand

Environment

World is transitioning to 'greener' economy - more than 130 countries have set net zero carbon emission targets by 2050

Copper

Global demand predicted to grow up to 10x by 2050

- Electronics
- Electric vehicles
- Renewable energy revolution

REE

China & Myanmar dominate supply chain

- Magnets – electric vehicles and wind turbines
- High tech applications

Uranium

Global demand

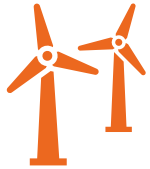
- Electrification
- Energy security
- Climate change initiatives – nuclear green energy emission green base is a carbon free base load energy source

Supply chain

- Geopolitical uncertainty
- USA largest consumer of uranium (28%)
- Infrastructure/reactor growth

Net Zero carbon mission targets

A fully electric vehicle 83kg of copper
A standard combustion uses 20kg of copper



Single wind turbine uses 4.7t of Copper and ~2t of REE (permanent magnets)

USA Uranium Exposure

- Geopolitical – USA national supply security
- USA is the largest consumer of uranium in the world (~28%)
- Climate change initiatives - Nuclear ‘green’ energy is a “carbon free” base load energy source
- “High-grade” sandstone hosted, shallow uranium targets in Uravan Mineral Belt
- Projects in proven mining jurisdictions - Utah and Colorado, USA
- Uranium experienced board and management team with successful track record

Experienced Board and Management

Uranium exploration and development expertise

Alastair Clayton
Chairman Non-Executive

25 years of experience in the mining and exploration industry, identifying, financing, and developing mineral, energy and materials processing projects in Australia, Europe and Africa.

Nicole Galloway Warland
Managing Director

More than 30 years in mining & exploration in Australia, Eastern Europe & South America.

Experience spans from grass roots exploration to project evaluation to open cut and underground mining with a commodity focus of gold, copper-gold, nickel, uranium and lithium.

Involved in the Discovery of Samphire uranium deposit, SA.

Director - Australian Institute of Geoscientists (AIG) and Councillor of AMEC.

Mark McGeough
Non-Executive Director

An experienced geologist who has explored for gold, IOCG copper-gold, silver-lead-zinc and uranium.

Involved in the discovery of the White Dam gold deposit in South Australia and the Theseus uranium deposit in WA.

Career includes Chinova Resources, Toro Energy, Xstrata Copper, Mount Isa Mines and AGIP Australia. He was also the Manager of the SA Geological Survey.

Ray Ridge
CFO & Joint Company Secretary

A chartered accountant with over 20 years accounting and commercial management experience.

Roles include Senior Audit Manager with Arthur Andersen, Divisional CFO with Elders Ltd, and GM Commercial & Operations at engineering and construction company Parsons Brinckerhoff.

Corporate Snapshot

AIM/ASX code	THR
OTCQB code	THORF
Market cap	A$16.3
Cash (30 March 2023)	A$2.3M
Debt	NIL
Top 20 shareholders	58%

Strong corporate position with focus on advancing projects towards discovery and development success – creating shareholder value

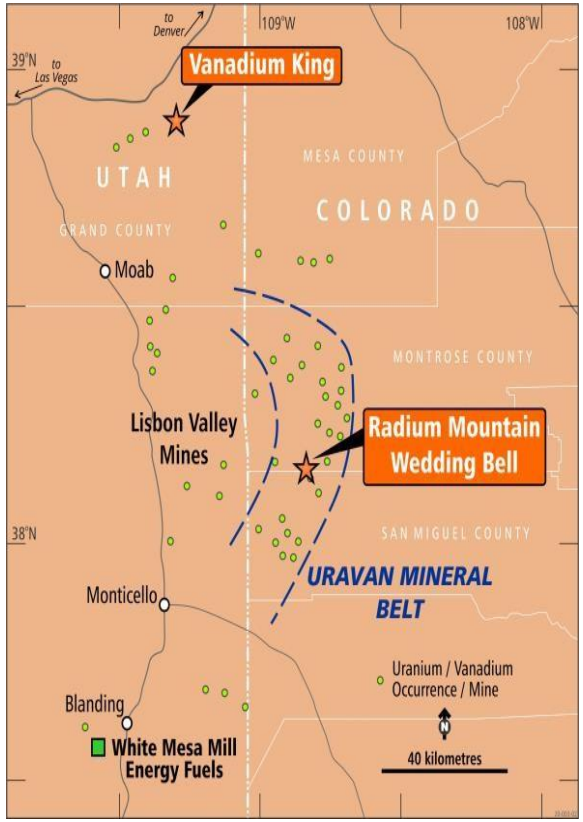
Bachelor Mine – Historic Uranium Workings

Uranium

Colorado & Utah, USA

Project Locations

- Uravan Mineral Belt, Utah and Colorado, USA
- 3 Projects – 100% owned by Thor Energy Plc
  - **Wedding Bell, Colorado**
  - **Radium Mountain, Colorado**
  - **Vanadium King, Utah**



Neighbours

Uranium Companies

- Energy Fuels, Inc
- Western Uranium and Vanadium Inc
- UVRE Ltd

Uranium Mill

- White Mesa Mill, Energy Fuels
- Only fully licensed and operating conventional uranium and vanadium mill in the USA.
- Processing plant with available capacity for toll treatment of uranium and vanadium ore

La Sal Complex- Measured/indicated Resource 1.14Mt @ 0.18% U_3O_8 (4.1 Mlbs) and 0.94% V_2O_5 (21.5Mlbs)
Energy Fuels Website

Whirlwind - Indicated Resource 0.2Mt @ 0.3% U_3O_8 (1Mlbs) and 0.97% V_2O_5 (3.3Mlbs)
Energy Fuels Website

Sunday Complex - 2.9Mlbs @ 0.25% U_3O_8 (non-NI 43-101/JORC)
Western Uranium Website

Community and Stakeholder Engagement (ESG)

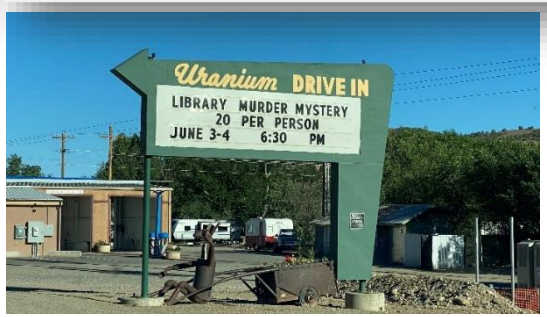
- Local geology and exploration team
- Projects are located on federal – Bureau of Land Management (BLM) owned land.
- Extensive history with strong connections to the uranium and vanadium industry
- Positive/favourable local attitude towards **uranium** exploration and mining

Uranium Price
May 16, 2022
$45.50 -3.00

San Miguel Basin Forum

INSIDE:
LOCAL VFW CELEBRATION
MAY 30 ...Pg. 5

smallminers.org
Western Small Miners Association
Serving Nucla, Naturita, Norwood & Surrounding Areas - May 26, 2022 · Volume 72 Issue 51 · 25¢



NUCLA NATURITA
Area Chamber of Commerce

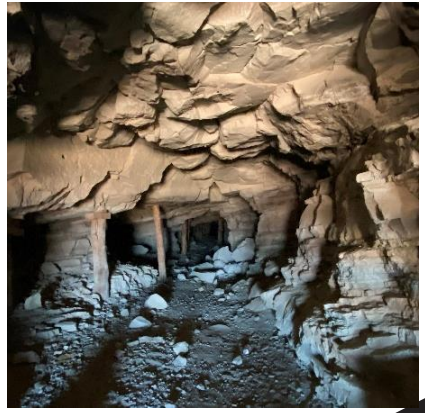
Western Small Miners Association
PROUD TO BE A MINER

THOR ENERGY PLC

“Saltwash” Style Uranium and Vanadium

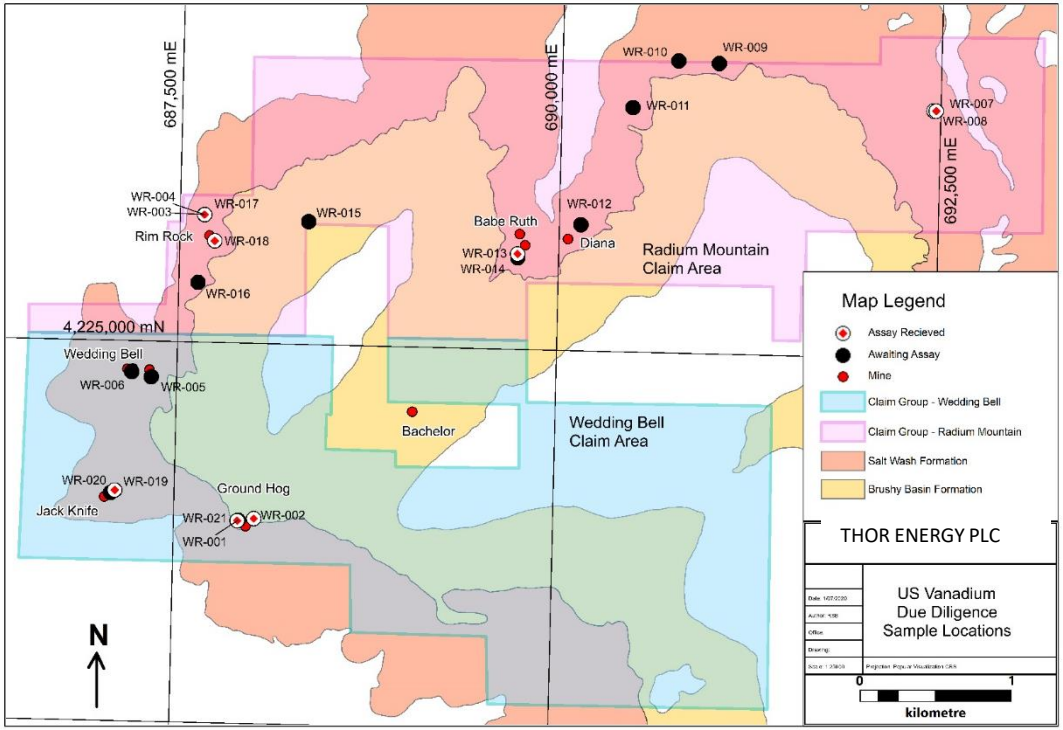
Geology

- “Saltwash Style” - Sandstone filled paleochannels hosting uranium and vanadium
- Laterally extensive deposits (kilometers), hosted mainly in the Salt Wash member of the Morrison Formation (Jurassic)
- High-grade ore generally adjacent to the oxidation-reduction boundary
- Some small, high-grade ore bodies consist of fossil logs and pod-like accumulations of carbonaceous material replaced with uranium and vanadium minerals
- Analogy to the Bigryli Deposit, Northern Territory Australia



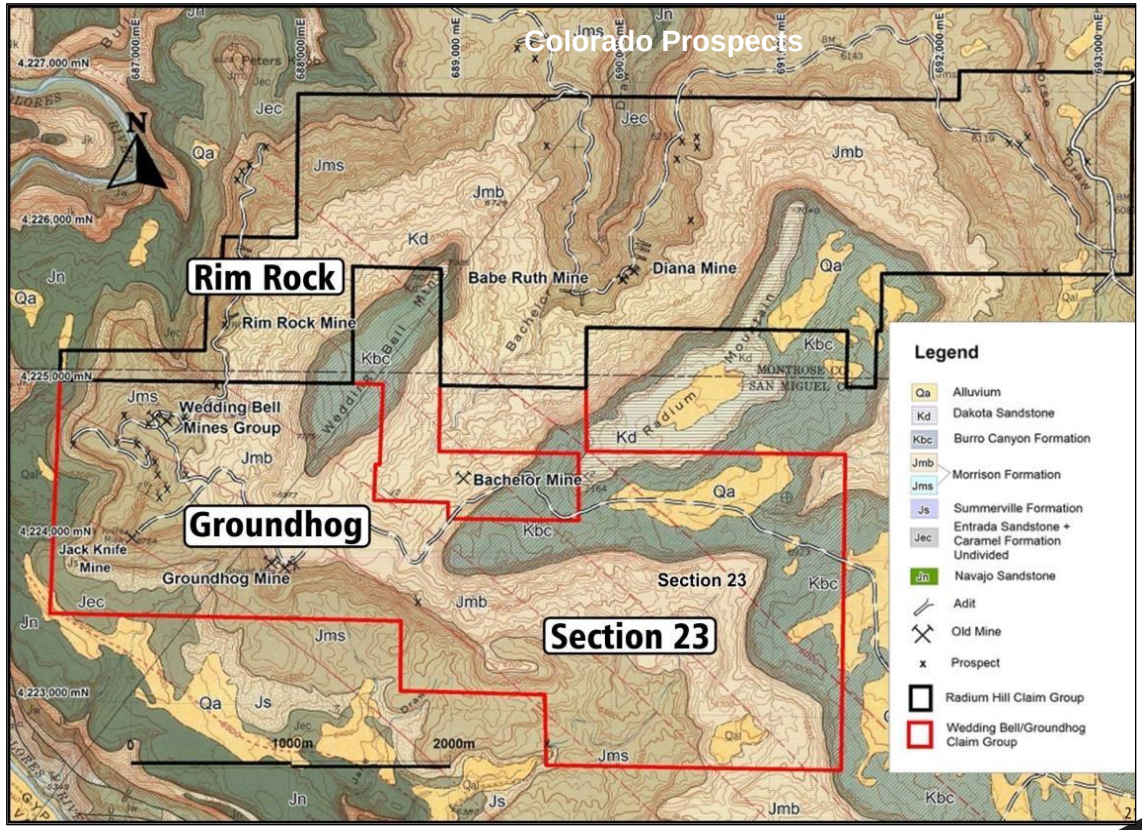
Exploration Activities

- Surface Sampling - Returned high-grade uranium (up to **1.25% U_3O_8**) and vanadium (up **to 3.4% V_2O_5**)
- Maiden Drilling Program – 15 Rotary holes; Confirmed uranium and vanadium mineralisation

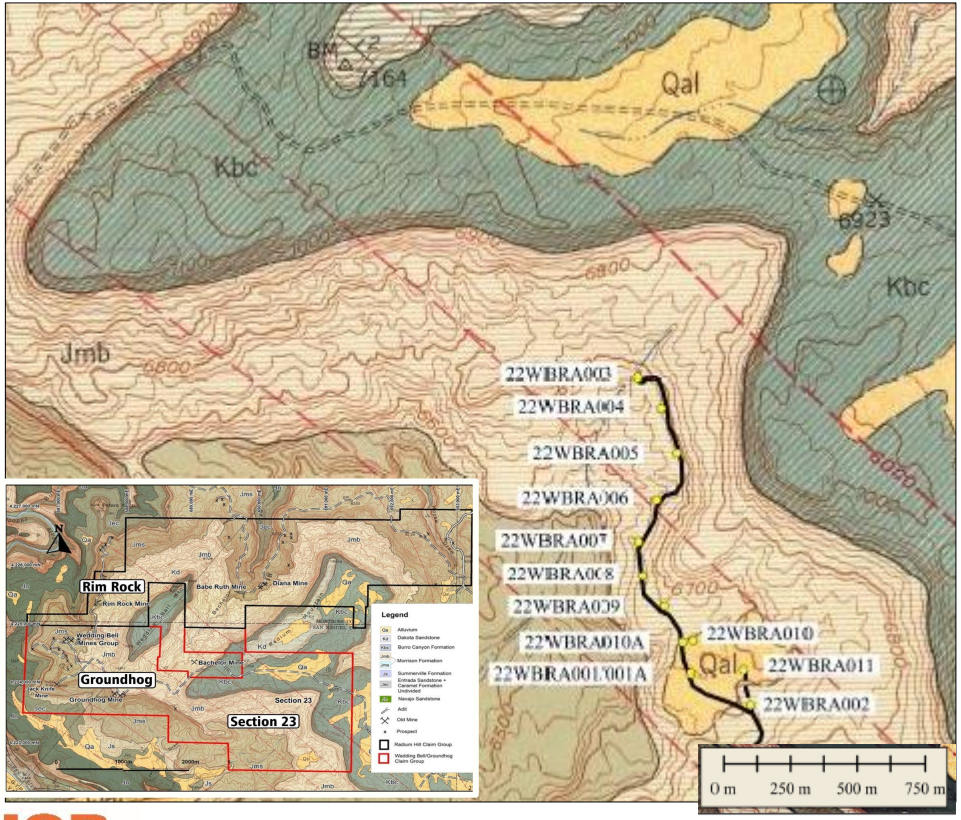


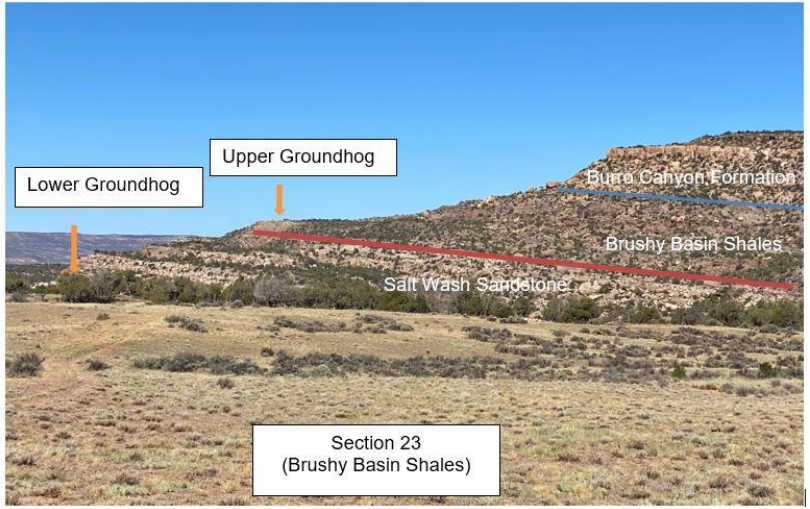
2022 Maiden Drilling Program

- Reconnaissance Program (15 Holes)
- Targeting the Salt Wash Sandstone
- Drilling testing high-grade uranium and vanadium mineralisation along strike at 3 areas:
  - Rim Rock
  - Groundhog
  - Section 23
- Downhole gamma (uranium) followed by a selection of geochemical samples to the laboratory (uranium & vanadium)



Section 23





- Section 23 had previously not been drill tested – no historic workings
- Targeting both the top rim and lower rim sandstone units of the Salt Wash Sandstone

Assays Validate Downhole Gamma and Highlight Vanadium Enriched Halo

Uranium and Vanadium results :

eU_3O_8 = Gamma and U_3O_8 = Assay

Groundhog

- 2.1m @ 360ppm eU_3O_8 from 85m (22WBRA012A), including
  0.3m @ 1400ppm eU_3O_8, and
  1.5m @ 601ppm U_3O_8 and 2660ppm V_2O_5 from 83.8m
- 3.0m @ 519 ppm U_3O_8 and 1640ppm V_2O_5 from 83.8m (22WBRA012)
- 1.2m @ 340ppm eU_3O_8 from 78m (22WBRA013), including
  0.5m @ 5000ppm eU_3O_8

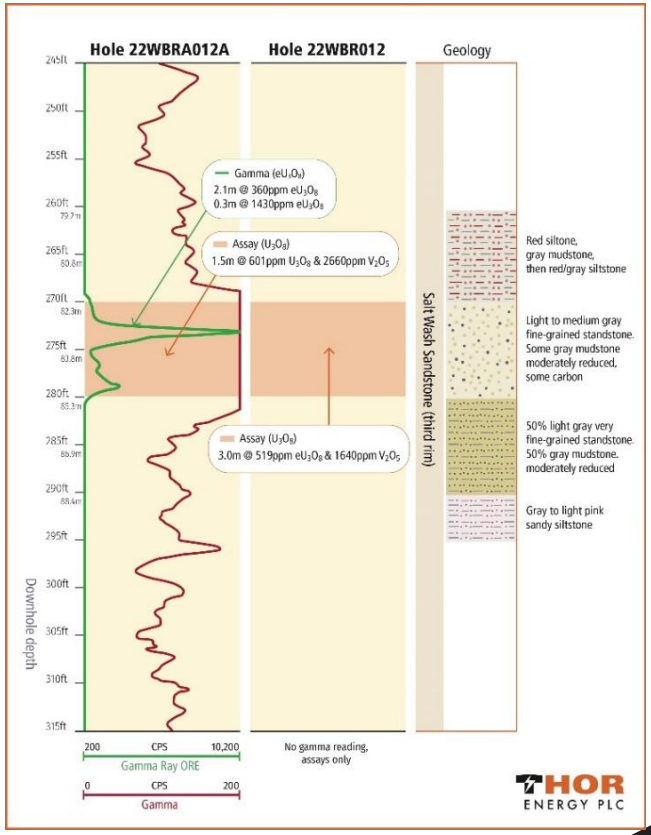
Rim Rock

- 1.5m @ 1776ppm V_2O_5 from 59.4m (22WB014)
- **0.3m @ 720ppm eU_3O_8** from 59.7m (22WBRA014)

Section 23

- **0.5m @ 510ppm eU_3O_8** from 102.6m (22WBRA002)
- 1.5m @ 100ppm U_3O_8 and 1026ppm V_2O_5 from 83.8m (22WB011), and
- 0.5m @ 300ppm eU_3O_8 from 100m

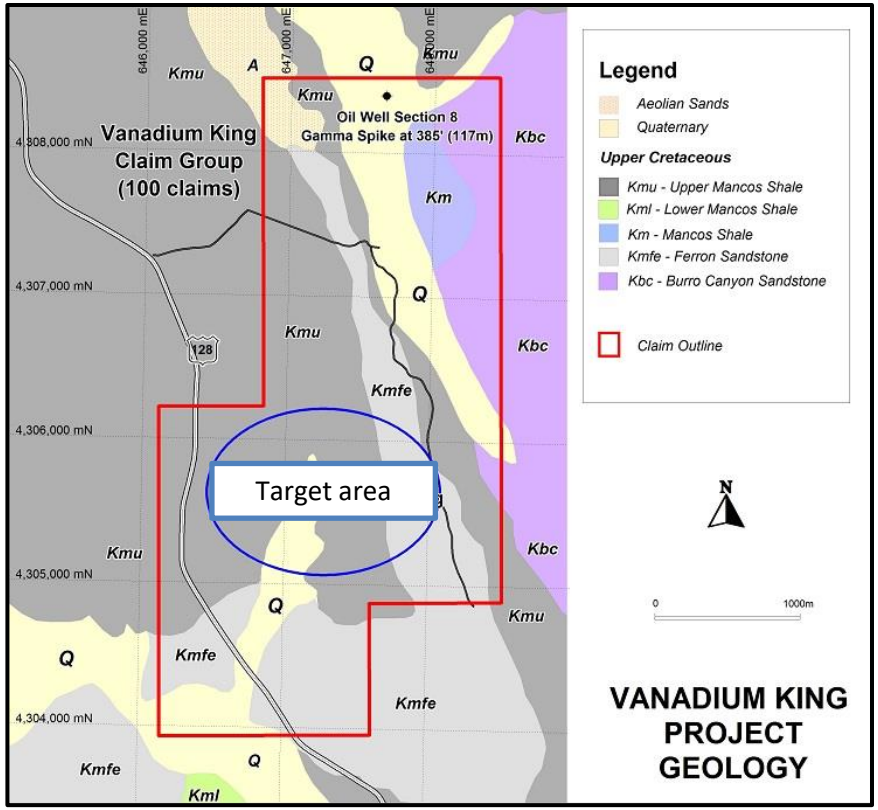
(ASX/AIM:THR 21 December 2022 and 24 April 2023)



Vanadium King, Utah

Previous Exploration

- Adjacent to Yellow Cat uranium historic workings
- 2 oil wells at the northern end of tenure recorded high gamma kicks at 117m reflecting the presence of uranium mineralisation



REE/Copper

Alford East, SA

Copper in South Australia

Geology

- Substantial near surface oxidised copper mineralisation, usually malachite or azurite trending at depth to readily leachable chalcocite, above primary chalcopyrite.
- Leachable gold can also be also present.

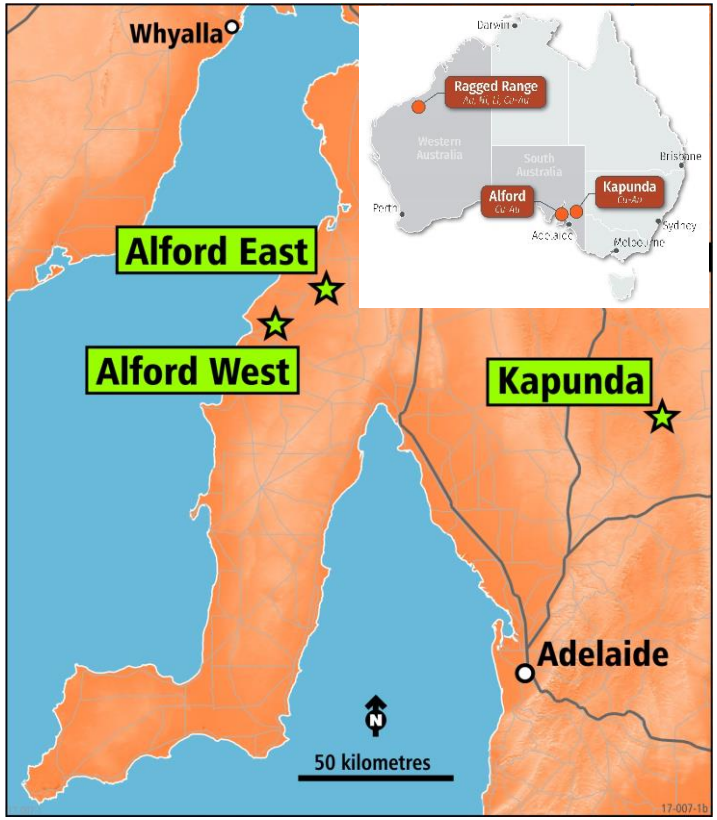
Infrastructure

- Many deposits are located adjacent to mains electricity and sealed highways and nearby towns that can a provide workforce on a daily commute basis

Objective

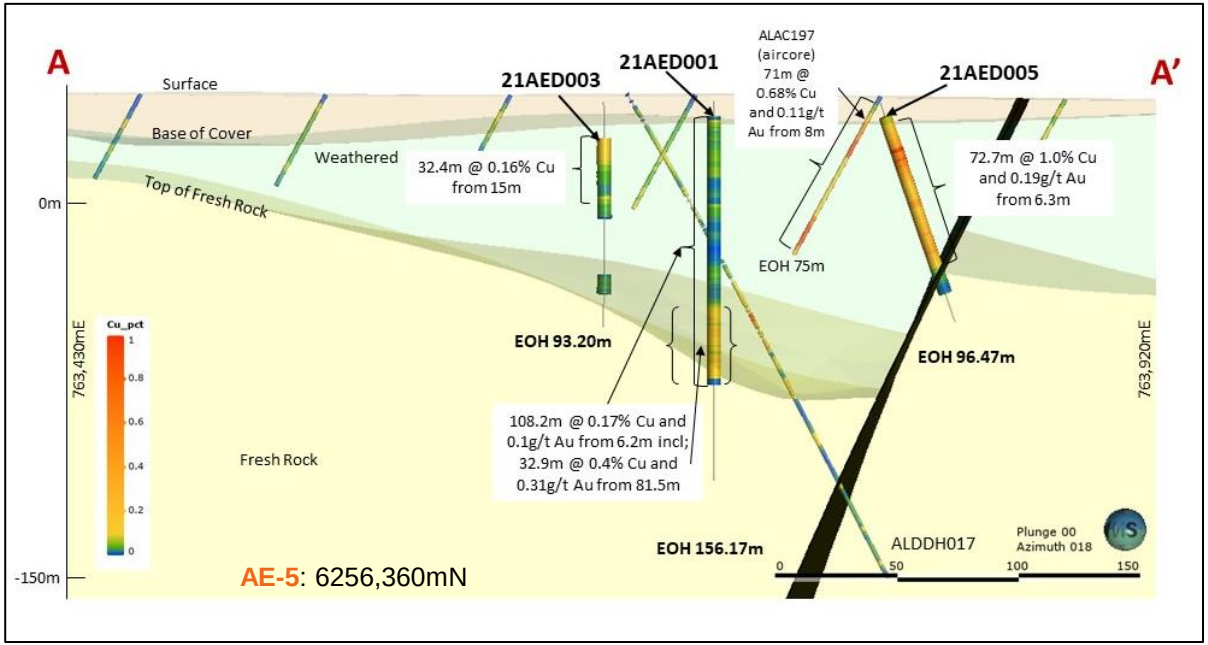
- Production of copper (with some gold credits) using low-impact In-Situ Copper Recovery (ISCR) techniques with a very small environmental footprint.
- Protect the environment with economic opportunities created

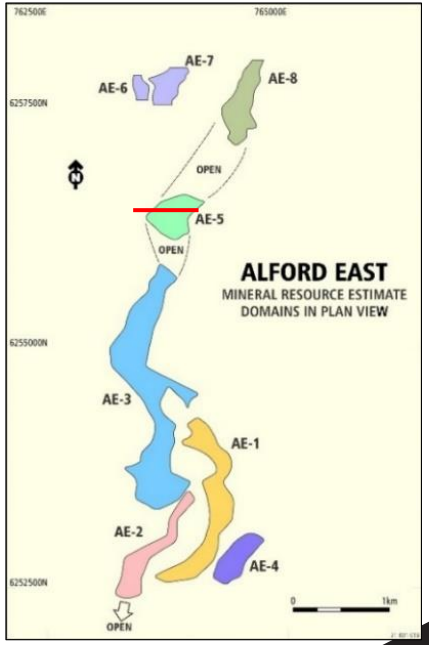
Thor Energy has a 30% Interest in a private company EnviroCopper Limited (ECL) that specialises in developing ISCR projects



Alford East Copper-Gold Project: High-Grade Results

- Broad high-grade copper-gold results (>500ppm) – ideal for ISR
- **Diamond drilling Phase 1 results included:**
  - 21AED005: **72.7m @ 1.0 % Cu and 0.19g/t Au from 6.3m,** including **18.2m @ 2.0% Cu and 0.34g/t Au**
  - 21AED001: **32.9m @ 0.4% Cu and 0.31g/t Au from 81.5m** (ASX:THR - 31 August 2021)





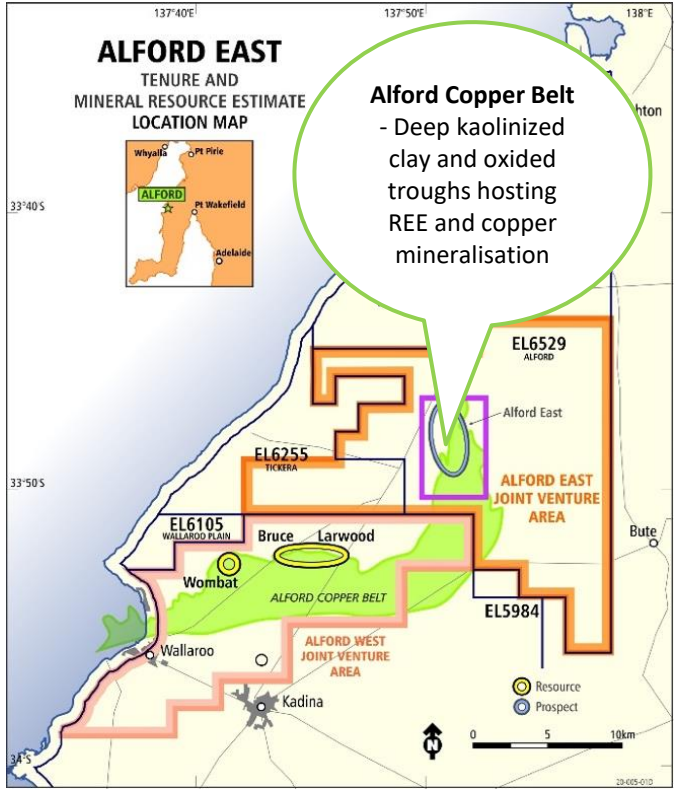
High-Grade REE Discovery

REE Review revealed:

- 8 out of 9 of the 2021 diamond drill holes intersected shallow wide zones of highly enriched REE's
- Mineralisation from 6.3m
- Including:

  1.8m @ 4597ppm TREO, 1279ppm MREO (28%), 2017ppm HREO (44%) and 3.62% Cu from 20m (21AEDD005)
- REE mineralisation is in kaolin clay altered, copper rich oxide zones of IOCG style mineralisation.
- Mineralisation is open over a ~5km trend
- The kaolin association may represent an ionic style of REE mineralisation.
- REE analysis of available historic core and rock chips is underway to generate drill targets

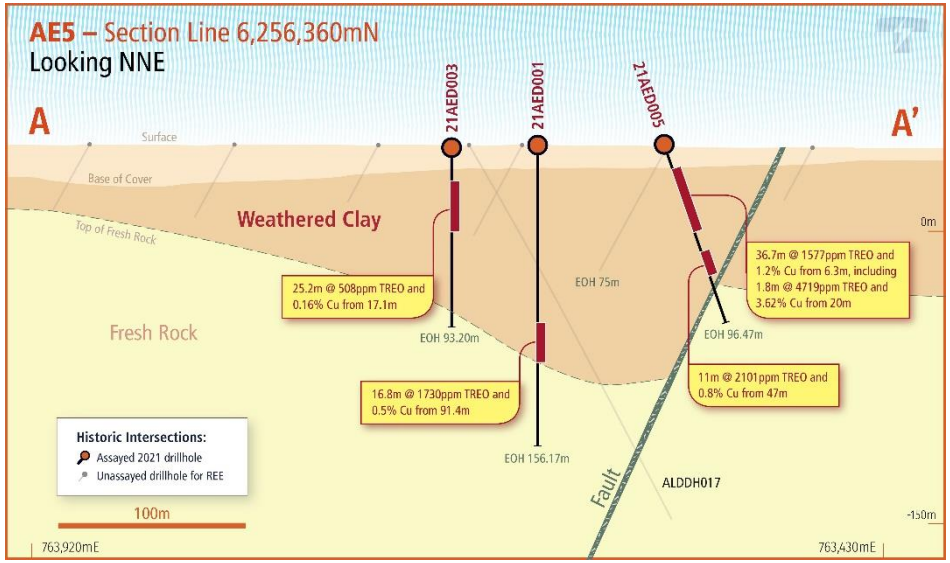
(ASX/AIM:THR 26 April 2023)



High grade REE results (TREO 500ppm Cut-off)

Hole ID	From (m)	To (m)	Interval	TREO %	TREO ppm	MREO ppm	HREO ppm	% HREO to TREO	Cu %
21AEDD005	6.3	43	36.7	0.16	1577	399	662	42	1.20
including	17.8	23.8	6	0.31	3077	776	1495	49	2.10
Including	**20**	**21.8**	**1.8**	**0.47**	**4719**	**1279**	**2017**	**43**	**3.62**
and	47	58	11	0.21	2101	467	1093	52	0.80
including	54	57	3	0.42	4165	767	2626	63	0.90

(ASX/AIM:THR 26 April 2023)



TREO = (Total Rare Earth Oxides) = (La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 +Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3)
MREO = (Magnet Rare Earth Oxides) = Nd2O3 + Pr6O11 + Tb4O7 + Dy2O3
HREO =(Heavy Rare Earth Oxides) = Ho_2O_3 + Dy_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3

Next Steps

News Flow

Scheduled on Ground Exploration Activities

URANIUM

Wedding Bell and Vanadium King Projects

- Airborne Geophysics – over all 3 Projects
- Permitting drilling program
- Follow up drilling at Section 23, Rim Rock and Groundhog
- Drilling at Vanadium King

REE/COPPER

Alford East Project

- Metallurgical assessment of REE & Copper-Gold recoveries
- Sampling of historic core – REE
- Geophysics - Ambient Noise Tomography
- Drilling

Magnetic & Radiometric Survey

Drilling –Wedding Bell & Vanadium King

Metallurgy –REE

Hydrogeology

Drilling –Alford East

Thor Energy (THR) – Key Takeaways

Uranium-Copper-REE - high value commodities with favourable fundamentals

Mining friendly jurisdictions – no sovereign risk

Strong pipeline of targets to drill test in 2023

Modest market cap – potential for significant rerating of share price with positive exploration results

Experienced board and management

Thank You

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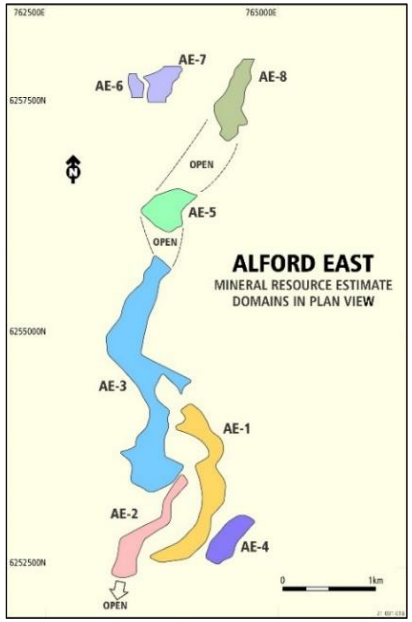
Supplementary Information

Alford East - Inferred Mineral Resource Estimate

Inferred Mineral Resource Estimate for the Alford East Project

22nd January 2021 – 0.05% Cu cut-off (oxide material only) (ASX:AIM/THR 27 January 2021)



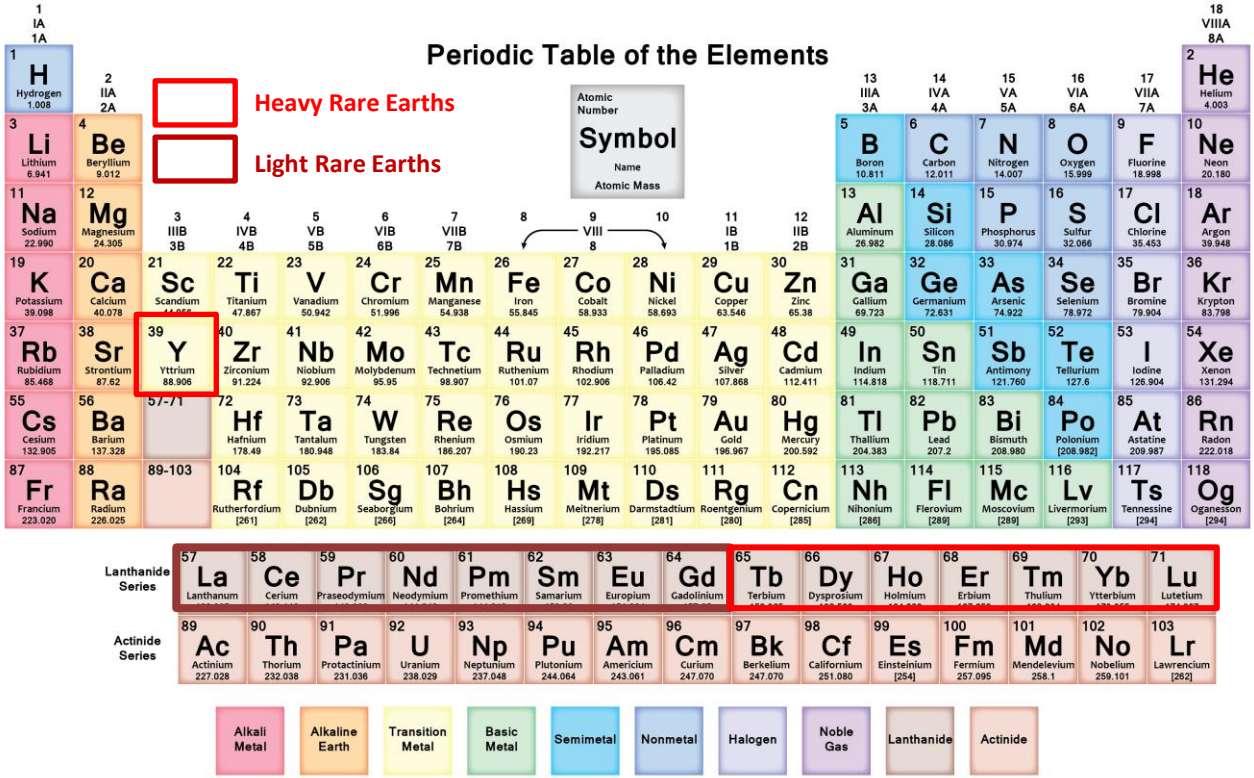
Domain	Tonnes (Mt)	Cu %	Au g/t	Contained Cu (t)	Contained Au (oz)
AE_1	24.6	0.12	0.021	30,000	16,000
AE_2	6.8	0.13	0.004	9,000	1,000
AE_3	34.9	0.09	0.022	33,000	25,000
AE_4	8.0	0.11	0.016	8,000	4,000
AE_5	11.0	0.22	0.030	24,000	11,000
AE-8 (NP)	31.3	0.19	0.008	61,000	8,000
AE-7 (LW_E)	7.7	0.14	0.025	10,000	6,000
AE-6 (LW_W)	1.3	0.13	0.011	2,000	500
Total	125.6	0.14	0.018	177,000	71,500

- Thor Enery PLC to acquire 80% interest in the Alford East Project
- All figures are rounded to reflect appropriate levels of confidence. Apparent differences may occur due to rounding.
- The Company is not aware of any information or data which would materially affect this previously announced resource estimate, and all assumptions and technical parameters relevant to the estimate remain unchanged.

Alford East REE Key Intercepts (TREO 500ppm Cut-off) (ASX:AIM:THR 24 April 2023)

Hole ID	From (m)	To (m)	Interval	TREO %	TREO ppm	MREO ppm	HREO ppm	% HREO to TREO	Cu %
21AEDD001	17.4	25	7.6	0.07	703	172	128	18	0.11
and	55	58.7	3.7	0.07	681	139	308	45	0.05
and	91.4	108.2	16.8	0.17	1730	248	1189	69	0.50
including	105.5	107	1.5	0.49	4856	665	3545	73	0.72
21AEDD001	110	115	5	0.08	781	165	108	14	0.35
21AEDD002	30.4	42	11.6	0.17	1706	583	584	34	0.26
including	34	40.1	6.1	0.23	2269	769	840	37	0.35
and	50.2	53.3	3.1	0.12	1169	259	685	59	0.16
and	65.5	75.3	9.8	0.08	753	145	457	61	0.33
21AEDD003	17.1	42.3	25.2	0.05	508	92	123	24	0.16
21AEDD004	10.1	11.7	1.6	0.25	2454	680	188	8	0.23
21AEDD004	19	23	4	0.08	817	190	169	21	1.14
21AEDD004	28	38	10	0.08	803	173	145	18	0.62
including	35	36.4	1.4	0.23	2321	482	174	7	0.83
and	42.8	55.9	13.1	0.14	1387	273	388	28	0.45
including	50	51	1	0.21	2081	447	302	15	0.70
21AEDD005	6.3	43	36.7	0.16	1577	399	662	42	1.20
including	17.8	23.8	6	0.31	3077	776	1495	49	2.10
Including	20	21.8	1.8	0.47	4719	1279	2017	43	3.62
and	47	58	11	0.21	2101	467	1093	52	0.80
including	54	57	3	0.42	4165	767	2626	63	0.90
21AEDD006	18	47	29	0.1	974	222	197	20	0.07
including	25.2	26.5	1.3	0.26	2580	175	211	8	0.46
and	52	60.6	8.6	0.07	706	107	99	14	0.09
and	74.9	87.1	12.2	0.09	920	201	156	17	0.07
including	84.3	86	1.7	0.32	3204	755	249	8	0.11
21AEDD007	13	30	17	0.09	916	256	245	27	0.13
including	19	20	1	0.22	2237	700	547	24	0.16
and	33	40	7	0.1	1028	178	318	31	0.10
including	33	34	1	0.17	1680	286	542	32	0.15
21AEDD008	7.8	10.6	2.8	0.09	881	184	94	11	0.14

Period Table – Rare Earth Elements



TREO = (Total Rare Earth Oxides) = (La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 +Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3)

MREO = (Magnet Rare Earth Oxides) = Nd2O3 + Pr6O11 + Tb4O7 + Dy2O3

HREO =(Heavy Rare Earth Oxides) = Ho_2O_3 + Dy_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3

In Situ Recovery (ISR)

- ESG – Favourable alternative to traditional mining
- Low-cost / low environmental impact metal production
- Chemical process rather than a high-cost mining operation (no large pit / no crushing or grinding / no waste dumps etc
- ISR techniques have been utilised commercially in South Australia for >15 years – Thor has the expertise locally

Refer to Thor website for ISR explanatory video:

https://thorenergyplc.com/projects/alford-copper-projects/

ISR –Copper Projects (Arizona, USA)

- Florence Project – Taseko Mines
- Van Dyke Project Copper Fox Metals
- Gunnison Project, Excelsior Mining Corp

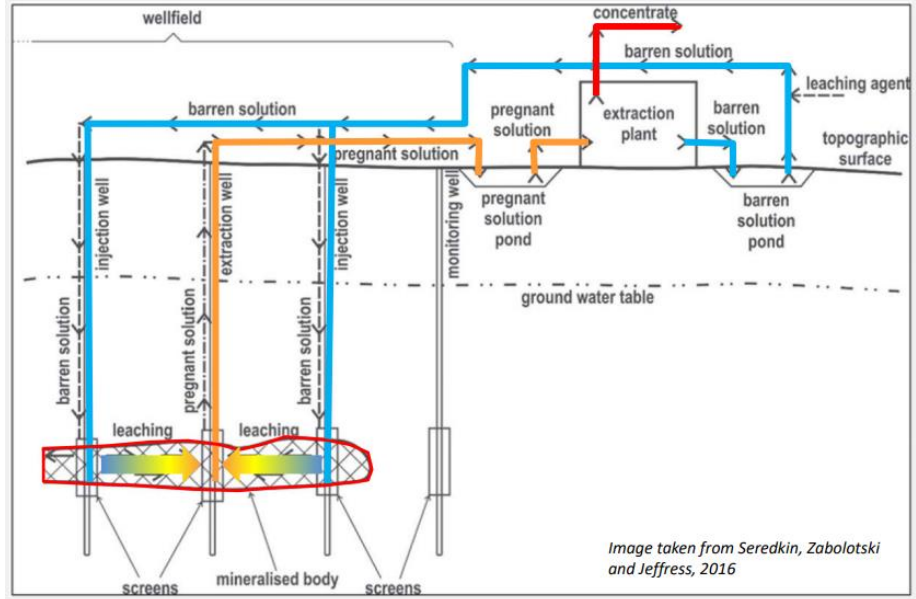


Image taken from Seredkin, Zabolotski and Jeffress, 2016

Thank You

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