

# ASX ANNOUNCEMENT



## ASX RELEASE

2 September 2025

## ASX CODE

PNN

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## Leach testing program commences on high-grade REE samples from Santa Anna Project, Brazil

### Highlights

- Leach testing of high-grade REE weathered zone for ionic clays from the Santa Anna Project in Brazil has commenced to assess recovery rates and processing pathways.
- The high-grade samples obtained from Power's recent RC drilling program consist of 23 individual samples, six intervals from five separate drillholes
- The drillhole test samples provided for leach testing average 0.75% TREO (7,523 ppm), and are considered representative of the high-grade weathered clay layer sampled to date at the Project
- Samples have been sent for leach testing at independent laboratory SGS Geosol in Brazil and results are expected in the current month.
- Power's drilling at Santa Anna has returned exceptionally high-grade results up to 4.34% TREO (43,385 ppm)<sup>1</sup>, containing 26.0% MREO
- These include Nd and Pr which are essential REE for permanent magnets in EVs, wind turbines, and other defence technologies
- Power's maiden RC drilling has shown that niobium and REE mineralisation extends deep into the fresh rock in addition to an exceptional REE-rich clay layer near-surface
- Power holds the entire Santa Anna Carbonatite Alkaline Complex under two permits covering 17.05km<sup>2</sup> and views the Project as a significant scale exploration and development opportunity

Power Minerals Limited (ASX: **PNN**, **Power** or the **Company**) is pleased to announce it has commenced a leach testing program on high-grade drilling samples from the weathered zone of the Santa Anna niobium-rare earth element (REE) carbonatite project ("Santa Anna" or "the Project") in Goiás State, central Brazil.

The leach testing program is being undertaken on samples from Power's recently completed maiden reverse circulation (RC) drilling program at Santa Anna, which returned exceptional high-grade clay-rich REE results and high-grade niobium intersections.

<sup>1</sup> Power Minerals ASX Announcement 2 August 2025.

An overview of the leach testing program, which is being conducted by SGS Geosol Laboratories in Brazil, is provided in Appendix 2.

The leach testing is targeting the near-surface layer of clay-rich REE-bearing clays, down to a potential depth of 50m of weathered material.

To date, only a small portion of the Santa Anna alkaline complex has been thoroughly drilled, leaving significant areas without sampling. Power's goal is to systematically map and sample the niobium and REE mineralisation both laterally and at depth.

### **Background to leach testing program**

Power is analysing 23 samples currently in the current leach testing program, which have been collected from six separate intervals across five individual drillholes from Power's recent drilling program (see Appendix 1).

The 23 drillhole samples average 0.75% TREO (7,523ppm). This average grade is considered representative of the high-grade weathered clay layer. There are multiple intervals exceeding 1.0% TREO, highlighting the consistent high-grade mineralisation in the sampled area.

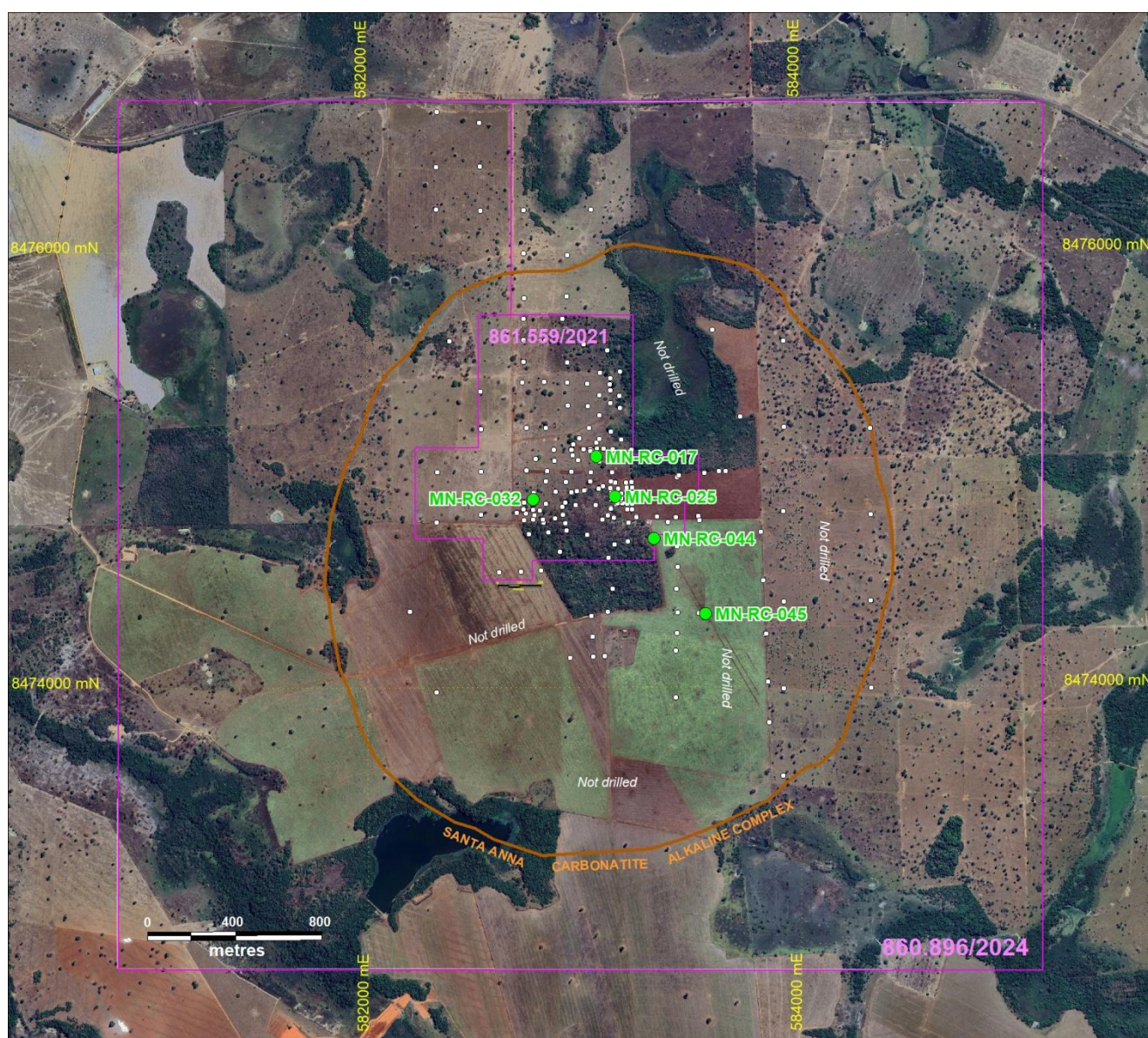
Each individual sample represents one metre and the intervals range from 3m to 5m. The five RC drillholes were selected to test various areas of the alkaline complex with the two furthest holes over 900m apart.

**"The leach testing program is an important next step in our exploration pathway at the Santa Anna Project. The independent leach testing of high-grade REE samples from our recent drilling at Santa Anna will provide us with a clearer picture of what may be recovered in terms of the key light rare earth elements, neodymium and praseodymium, as well as niobium from the Santa Anna Complex. This testing is set to confirm REE weathered zone for ionic clays which will allow for processing pathways to be advanced.**

**In turn, these results will help inform our targeting for our planned ongoing drilling at the Project, which aims to deliver a maiden Mineral Resource Estimate subject to results. The leach testing results are anticipated to be available in the current month."**

**Power Minerals Limited Managing Director, Mena Habib**





**Figure 1:** Santa Anna Power RC drillholes highlighted in green to be used for leach testing.

### Leach testing protocols

The leach testing being undertaken on Power's Santa Anna drill samples is an industry standard AMSUL (Ammonium Sulphate) leach test analyses, conducted by independent commercial laboratory SGS Geosol in Brazil (method ICM694). This method involves cold leaching of the pulverized sample with 160ml of 0.5mol/L ammonium sulfate ( $(\text{NH}_4)_2\text{SO}_4$ ) solution for 30 minutes.

After leaching, the pulp is filtered in a vacuum pump, and the residue is washed with 80ml of 0.1% ammonium sulfate solution. An aliquot of the solution is removed and diluted 25-fold with 2% nitric acid ( $\text{HNO}_3$ )<sup>2</sup>. The resulting solution is analyzed by ICP-MS (Inductively Coupled Plasma Mass Spectrometry). If the REE ICM694 analyses are over limit, additional solution dilution will be used (under method ICM694\_S). These leach tests will provide an indication of the proportion of REEs that adsorbed onto clay minerals (ionic REEs) compared to those trapped within acid-resistant REE-bearing minerals in the Santa Anna Project weathered zone.

<sup>2</sup> Power Minerals ASX announcement 25 August 2025

**Santa Anna drilling results**

The samples for the leach testing program have been taken from Power's recently completed RC drilling program at the Santa Anna Project. This drilling has been followed up with a shallow auger drilling program, which is ongoing.

Power's drilling at the Project, along with previous drilling by project vendor EDEM, has delivered numerous high-grade REE results.

Highlight results from Power's maiden RC drilling program include:

- **114m at 3,012ppm TREO** from surface, incl. **16m at 5,300ppm TREO** from 97m from MN-RC-028
- **60m at 9,202ppm TREO** from surface, incl. **14m at 18,768ppm TREO** from 30m in MN-RC-045
- **34m at 4,544ppm TREO** from surface containing **21.3% MREO**, incl. **14m at 6,936ppm TREO** from surface, and incl. **3m at 9,445ppm TREO** from 2m; and **16m at 5,957ppm TREO** from 84m to EOH in MN-RC-025
- **35m at 8,050ppm TREO** from 11m, incl. **7m at 17,163ppm TREO** from 21m in MN-RC-042.

Highlight results from Power's ongoing auger drilling program<sup>3</sup>:

- **15m at 13,212ppm TREO** from surface to EOH, containing **24.2% MREO**, including:
  - **4m at 28,827ppm TREO** from 9m, containing 26.5% MREO, including
  - **1m at 43,385ppm TREO** from 11m, containing **26.0% MREO** in MN-TM-004.
- **13m at 7,882ppm TREO** from surface to EOH, including
  - **3m at 12,295ppm (or 1.23%) TREO** from 10m to EOH in drillhole MN-TM-01
- **12m at 3,032ppm TREO** from surface to EOH in drillhole MN-TM-02
- **9m at 5,523ppm TREO** from surface to EOH, including
  - **4m at 7,687ppm TREO** from 5m to EOH in drillhole MN-TM-03
- **25m at 8,809ppm TREO** from surface, incl. **5m at 15,975ppm TREO** from 9m and **5m at 11,483ppm TREO** from 20m in MN-RC-041.

Highlight results from previous drilling by EDEM in 2022-2023<sup>3</sup>:

- **14.95m at 12,434ppm TREO** from surface to end of hole (EOH), incl. **6m at 22,284ppm TREO** from 6m, incl. **1m at 35,473ppm TREO** from 11m in auger drillhole MN-TH-0009
- **51m at 10,262ppm TREO** from surface to EOH, incl. **6m at 24,240ppm TREO** from 28m and **13m at 16,759ppm TREO from surface**, incl. **1m at 32,297ppm TREO** from 6m in RC drillhole MN-RC-0009
- **15m at 14,841ppm TREO** from surface to EOH, incl. **5m at 21,521ppm TREO** from 1m, incl. **1m at 31,365ppm TREO** from 4m in aircore drillhole MN-AC-0007.

With high-grade REE and niobium mineralisation established from multiple drilling campaigns at the Santa Anna project, and with leach testing now underway, Power is positioned to rapidly progress further drilling at Santa Anna to test new shallow areas and other zones at depth, with the aim of confirming a maiden Mineral Resource Estimate (MRE) and further demonstrating Santa Anna's potential as a significant REE and niobium project.

**Authorised for release by the Board of Power Minerals Limited.**

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<sup>3</sup> Power Minerals ASX Announcement 2 August 2025



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**ABOUT POWER MINERALS LIMITED**

Power Minerals Limited is an ASX-listed exploration and development company. We are focused on transforming our lithium resources in Argentina, exploring our promising niobium and other critical mineral assets in Brazil, and maximizing value from our Australian assets.

**Competent Persons Statement**

The information in this announcement that relates to exploration results in respect of the Santa Anna Project in Brazil is based on and fairly represents, information and supporting documentation prepared by Steven Cooper, FAusIMM (No 108265), FGS (No.1030687). Mr Cooper is the Exploration Manager and is a full-time employee of the Company. Mr Cooper has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Mr Cooper consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

**Compliance Statement**

The information in this announcement that are footnoted relates to exploration results that have been released previously on the ASX. Power Minerals confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that, all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's finding is presented have not been materially modified from the original market announcements.

**Forward-Looking Statements**

This announcement contains forward-looking statements based on current expectations and assumptions, which are subject to risks and uncertainties that may cause actual results to differ materially. These include project acquisition and divestment (including the Santa Anna Project), joint venture, commodity price, exploration, development, operational, regulatory, environmental, title, funding and general economic risks. The Company undertakes no obligation to update these statements except as required by law.

## Appendix 1

**Table 1:** REE data from drillholes to be used in the leach testing process

Drillhole	From m	To m	SAMPLE	TREO	Nb <sub>2</sub> O <sub>5</sub>	La <sub>2</sub> O <sub>3</sub>	CeO <sub>2</sub>	Pr <sub>6</sub> O <sub>11</sub>	Nd <sub>2</sub> O <sub>3</sub>	Sm <sub>2</sub> O <sub>3</sub>	Eu <sub>2</sub> O <sub>3</sub>	Gd <sub>2</sub> O <sub>3</sub>	Tb <sub>4</sub> O <sub>7</sub>	Dy <sub>2</sub> O <sub>3</sub>	Ho <sub>2</sub> O <sub>3</sub>	Er <sub>2</sub> O <sub>3</sub>	Tm <sub>2</sub> O <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	Lu <sub>2</sub> O <sub>3</sub>	Y <sub>2</sub> O <sub>3</sub>	%MREO
MN-RC-017	3	4	PMB-1036	6837	1117	1817	3316	319.4	939.9	106.5	25.80	63.35	7.22	35.05	6.06	14.01	1.76	9.30	1.15	174.7	19.0
MN-RC-017	4	5	PMB-1037	7904	2738	1962	3787	380.2	1177.8	144.8	36.44	88.00	10.14	48.55	8.20	19.05	2.28	12.80	1.50	225.6	20.5
MN-RC-017	5	6	PMB-1038	11688	4161	2274	5393	633.7	2208.0	305.8	79.42	184.07	20.90	97.24	15.88	35.08	4.17	21.50	2.50	412.5	25.3
MN-RC-017	6	7	PMB-1039	6696	3990	1311	3033	362.6	1273.4	177.5	45.82	108.34	12.37	58.68	9.65	21.99	2.75	14.80	1.84	262.8	25.5
MN-RC-025	2	3	PMB-0258	8971	2688	2256	4230	452.7	1469.1	173.7	41.00	89.70	9.95	43.72	6.47	14.52	1.64	8.70	1.01	173.0	22.0
MN-RC-025	3	4	PMB-0259	9600	2486	2592	4542	465.6	1451.0	164.2	38.73	85.56	9.57	42.82	6.44	14.44	1.70	9.00	1.10	176.0	20.5
MN-RC-025	4	5	PMB-0260	9762	3252	2785	4653	457.4	1364.7	148.2	34.86	76.21	8.70	38.85	5.98	13.70	1.59	8.90	1.03	164.5	19.2
MN-RC-025	11	12	PMB-0268	7805	661	2125	3758	371.1	1078.5	123.9	29.55	67.36	7.77	36.97	5.92	14.52	1.68	9.70	1.18	174.3	19.1
MN-RC-025	12	13	PMB-0269	9672	1372	2689	4670	450.0	1334.6	140.3	33.72	74.95	8.88	41.79	6.70	15.91	1.86	10.70	1.32	191.9	19.0
MN-RC-025	13	14	PMB-0271	5454	752	1383	2576	272.4	835.5	102.7	25.39	56.75	6.74	31.61	5.01	11.60	1.35	7.40	0.91	137.2	21.0
MN-RC-032	4	5	PMB-0924	6663	4749	1243	3040	354.4	1314.2	189.5	50.75	116.64	13.15	57.95	8.81	20.24	2.28	12.10	1.44	238.3	26.1
MN-RC-032	5	6	PMB-0925	12201	3349	2286	5544	695.2	2432.5	343.4	91.24	212.07	23.59	103.68	15.25	33.73	3.78	19.40	2.22	395.4	26.7
MN-RC-032	6	7	PMB-0926	7716	1890	1481	3508	408.9	1483.3	218.1	55.82	135.71	15.44	67.85	10.40	24.20	2.70	15.40	1.86	286.5	25.6
MN-RC-032	7	8	PMB-0928	5464	798	991	2464	285.1	1059.3	160.6	43.09	106.07	11.89	53.91	8.58	20.97	2.38	13.70	1.77	241.6	25.8
MN-RC-032	8	9	PMB-0929	7337	980	1398	3345	387.4	1411.3	199.8	52.95	124.86	14.01	64.45	10.28	23.78	2.92	15.90	1.80	284.2	25.6
MN-RC-044	0	1	PMB-2255	7981	2872	2129	3836	355.1	1102.4	136.0	34.56	80.22	9.14	45.41	7.24	17.15	1.98	11.50	1.34	214.5	18.9
MN-RC-044	1	2	PMB-2256	5338	4555	1240	2505	255.9	857.3	119.2	30.56	71.20	8.13	40.09	6.05	14.87	1.56	9.20	1.05	178.0	21.8
MN-RC-044	2	3	PMB-2257	6794	4020	1578	3185	322.6	1073.8	146.1	39.06	92.22	10.82	52.79	8.26	20.59	2.25	13.20	1.52	247.9	21.5
MN-RC-044	3	4	PMB-2258	6912	3234	1639	3220	328.5	1087.8	148.3	39.13	94.25	10.86	53.17	8.37	20.90	2.19	13.40	1.50	245.1	21.4
MN-RC-045	2	3	PMB-2361	5099	1389	1148	2513	242.9	811.5	108.5	27.20	60.67	7.13	32.18	5.14	11.33	1.43	7.90	1.00	121.3	21.4
MN-RC-045	3	4	PMB-2362	5535	1406	1205	2777	259.8	872.9	116.7	29.35	66.76	7.80	35.05	5.57	12.54	1.54	8.80	1.11	136.0	21.2
MN-RC-045	4	5	PMB-2363	6211	962	1127	3663	246.2	806.3	105.1	25.55	57.33	6.77	30.88	4.97	11.26	1.44	8.30	1.05	116.3	17.6
MN-RC-045	5	6	PMB-2364	5378	2080	1041	2972	238.1	786.5	101.5	24.58	54.81	6.33	28.49	4.46	9.88	1.20	6.60	0.86	102.2	19.7

Concentrations in ppm, results with full details previously provided in PNN ASX announcement dated 4 August 2025.

**Table 2:** Drillholes to be used in the leach testing process

Drillhole	Easting	Northing	Type	Tenement
MN-RC-017	583057	8475061	RC	861.559/2021
MN-RC-025	583144	8474876	RC	861.559/2021
MN-RC-032	582767	8474863	RC	861.559/2021
MN-RC-044	583323	8474684	RC	861.559/2021
MN-RC-045	583560	8474336	RC	860.896/2024
Coordinate datum WGS84, zone 22 South				

# Li Leaching with 0.5 mol/L Ammonium Sulfate and reading by ICPOES/MS



## 1. SAMPLE MATRIX

Samples of Clay Minerals – Ionic Clay.

## 2. SAMPLE AMOUNT

For analysis 40 grams

To ensure internal check and possible reanalysis, we request that you send at least 150 grams of sample.

## 3. METHOD OF ANALYSIS

Cold leaching of the sample with 160ml of 0.5 mol/l ammonium sulfate solution for 30 minutes. After leaching, the pulp is filtered in a vacuum pump, and the residue is washed with 80ml of 0.1% ammonium sulfate solution.

An aliquot of the solution is removed and diluted 25 times with 2% HNO<sub>3</sub>. The resulting solution is analysed by ICP-MS.

## 4. DETECTION LIMIT

Analyte	ICM694		Analyte	ICM694		Analyte	ICM694	
	LI (mg/kg)	LS (mg/kg)		LI (mg/kg)	LS (mg/kg)		LI (mg/kg)	LS (mg/kg)
Al	2	8000	In	0.08	200	Sc	0.24	800
Ba	20	800	K	20	8000	Sm	0.04	200
Be	0.4	800	La	1	800	Sn	1.2	200
Bi	0.8	800	Li	0.4	800	Sr	0.16	800
Ca	10	8000	Lu	0.04	200	Ta	0.2	200
Cd	0.12	800	Mg	2	8000	Tb	0.08	200
Ce	0.2	800	Mn	0.4	8000	Th	0.2	200
Co	0.2	800	Mo	0.2	200	Ti	5	8000
Cr	1	800	Na	20	8000	Tl	0.08	200
Cs	0.2	200	Nb	0.2	200	Tm	0.012	200
Cu	0.04	800	Nd	2.4	800	U	0.04	200
Dy	0.028	200	Ni	0.2	800	V	2	800
Er	0.02	200	P	4	8000	W	1	800
Eu	0.02	200	Pb	0.32	800	Y	0.2	800
Fe	2	8000	Pr	0.06	800	Yb	0.4	200
Gd	0.028	200	Rb	0.8	200	Zn	0.5	800
Ho	0.016	200	Re	0.4	200	Zr	0.2	800

ICM694 / ICM694\_S

# Li Leaching with 0.5 mol/L Ammonium Sulfate and reading by ICPOES/MS



## 4.2 ICM694\_S – Overlimit

Analyte	ICM694_S		Analyte	ICM694_S		Analyte	ICM694_S	
	LI (mg/kg)	LS (mg/kg)		LI (mg/kg)	LS (mg/kg)		LI (mg/kg)	LS (mg/kg)
Al	8000	200000	In	200	5000	Sc	800	20000
Ba	800	20000	K	8000	200000	Sm	200	5000
Be	800	20000	La	800	20000	Sn	200	5000
Bi	800	20000	Li	800	20000	Sr	800	20000
Ca	8000	200000	Lu	200	5000	Ta	200	5000
Cd	800	20000	Mg	8000	200000	Tb	200	5000
Ce	800	20000	Mn	8000	200000	Th	200	5000
Co	800	20000	Mo	200	5000	Ti	8000	200000
Cr	800	20000	Na	8000	200000	Tl	200	5000
Cs	200	5000	Nb	200	5000	Tm	200	5000
Cu	800	20000	Nd	800	20000	U	200	5000
Dy	200	5000	Ni	800	20000	V	800	20000
Er	200	5000	P	8000	200000	W	800	20000
Eu	200	5000	Pb	800	20000	Y	800	20000
Fe	8000	200000	Pr	800	20000	Yb	200	5000
Gd	200	5000	Rb	200	5000	Zn	800	20000
Ho	200	5000	Re	200	5000	Zr	800	20000

### Acronyms:

LI = Lower Limit

LS = Upper Limit

### Notice:

The initial and final pH of the solution is also reported on the certificate.

**ICM694\_S:** Used only as an ICM694 overlimit (ICM694 solution dilution).

ICM694 / ICM694\_S