Appia Announces Preliminary Desorption Results and Confirms Ionic Adsorption Clay Rare Earth Mineralization in Brazil

written by Raj Shah | May 6, 2024

May 06, 2024 (Source) – Appia Rare Earths & Uranium Corp. **(CSE: API) (OTCQX: APAAF) (FSE: A0I0) (MUN: A0I0) (BER: A0I0)** (the "**Company**" or **"Appia"**) announced today the confirmation of the presence of Ionic Adsorption Clay (IAC) rare earth elements (REE) at the PCH project. A total of 100 samples were sent to AGS Laboratories in La Serena, Chile and the results consistently indicated that the regolith developed over the Ipora Granite presented significant recoveries for Magnet Rare Earth Oxides (MREO) and Heavy Rare Earth Oxides (HREO) consistent with the expected profile of an IAC ore.

Stephen Burega, President, commented, "We are very excited with the recoveries of this first phase of testing. The desorbable Magnet and Heavy Rare Earth recoveries achieved in these initial desorption tests confirm high-grade ionic adsorption clay characteristics which compare very favourably to commercially viable operations in China and globally. We will now work towards fine-tuning the process to increase the level of recovery. Appia is confident that the expansion of our exploration efforts across the PCH project area will uncover many new targets exhibiting this same IAC profile and desorbability."

Highlights

- Samples selected from the different geological frameworks, and at distinctive grades, has led to the characterization of two REE mineralization styles. One is associated with the regolith originated from the weathering of the Ipora Granite intrusion, in which the IAC developed and favourable desorbability is present, and one is associated with a carbonatite intrusion-dyke with grades of from 269.7 to 95,156 parts per million (PPM) Total Rare Earth Oxide (TREO) (see Map 1).
- Selected samples from Reverse Circulation (RC) drill holes showed TREO grades ranging from 1,236 ppm to 39,881 ppm and Total Desorbable Rare Earth Oxides (TREO D) ranging from 178.9 ppm to 1,617.8 ppm. The representative results from the desorption tests are presented in Table 1 below. The full set of results are included in this LINK.
- Desorbable values from RC holes located in the weathered portion of the Ipora Granite show representative preliminary desorption results among the REE (Map 2) with Nd2O3 and Pr2O3 ranging from 0.5 ppm to 451.2 ppm, from 0.1% to 48.2% recovery, and Tb4O7 and Dy2O3 ranging from 0.2 ppm to 70.2 ppm, from 0.6 to 86.7% recovery (Table 1).
- These favourable REE desorption results within the regolith open the potential to identify new targets across Appia's very large project area of +40,000 ha which strategically cover the majority (71.4%) of the Ipora Granite extension in the region. (See map 3)
- The results presented are preliminary, and Appia's team will work to optimize the desorption process for future testing to maximize recoveries while minimizing operating and capital costs. As part of this process, samples from entire RC holes from Target IV and Buriti Zones as well as from selected new exploratory targets are being prepared to be sent for desorption test work.
- Desorbability results were conducted using Ammonium

Sulfate at 0.5M, pH4, for 20 minutes. No QAQC samples were introduced in this preliminary desorbability test.

Tom Drivas stated, “These results are another example of the exceptionally fast progress that we have made in less than a year, and we are confident that we will continue to maintain this momentum. Confirming the presence of the IAC mineralization style in the Ipora Granite is an important milestone for the PCH project, and as more data becomes available, we will expand our understanding of this IAC mineralization. We know now that we clearly have two styles of mineralization including the REE high-grade zone previously identified at Target IV, and the IAC that are in this geological unit above the Ipora granite that underlays the majority of our land package. This finding improves the potential for new IAC discoveries across the full extent of the PCH project.”

Holeid	Interval		TREO	TREO D	%TREO D	HREO	HREO D	%HREO D	NdPr	NdPr D	%NdPr D	DyTb	DyTb D	%DyTb D
	From	To		Desor-bed	TREOD/TREO*100		Desor-bed	HREOD/ HREO*100		Desor-bed	NdPrD/NdPrD*100		Desor-bed	DyTbD/DyTbD*100
	m	m	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%	ppm	ppm	%
PCH-RC-001	3.0	4.0	4505.8	**495.1**	11.0	724.6	**147.4**	**20.3**	889.4	120.4	13.5	124.9	**20.3**	16.3
PCH-RC-001	5.0	6.0	4215.9	**760.9**	18.0	806.6	**266.9**	**33.1**	822.9	169.7	**20.6**	141.6	**37.9**	**26.8**
PCH-RC-001	6.0	7.0	3404.6	**488.5**	14.3	815.9	**193.4**	**23.7**	574.3	99.6	17.3	121.6	**26.1**	**21.5**
PCH-RC-007	10.0	11.0	2214.6	**338.9**	15.3	362.8	**136.0**	**37.5**	471.0	74.1	15.7	46.1	15.8	**34.3**
PCH-RC-008	5.0	6.0	2545.4	**858.1**	**33.7**	453.0	**241.8**	**53.4**	508.0	**245.0**	**48.2**	71.3	**35.2**	**49.4**
PCH-RC-008	6.0	7.0	7940.4	**1617.8**	**20.4**	1523.5	**471.8**	**31.0**	1720.5	**451.2**	**26.2**	249.7	**70.2**	**28.1**
PCH-RC-008	7.0	8.0	5708.1	**1184.3**	**20.7**	1146.6	**359.4**	**31.3**	1180.0	**318.2**	**27.0**	181.6	**51.3**	**28.3**
PCH-RC-008	8.0	9.0	2645.2	**648.7**	**24.5**	483.6	**206.3**	**42.7**	535.4	168.5	**31.5**	72.4	**29.2**	**40.4**
PCH-RC-008	9.0	10.0	5741.7	**514.3**	9.0	990.8	**171.1**	17.3	908.1	122.2	13.5	153.9	**24.1**	15.6
PCH-RC-023	9.0	10.0	2163.1	215.2	9.9	236.7	**80.1**	**33.8**	416.3	39.7	9.5	37.9	7.8	**20.6**
PCH-RC-029	3.0	4.0	1548.1	256.3	16.6	93.7	45.7	**48.8**	263.3	81.8	**31.1**	15.5	5.8	**37.6**
PCH-RC-034	9.0	10.0	5357.4	**398.6**	7.4	604.5	**138.5**	**22.9**	1089.0	108.8	10.0	80.6	16.5	**20.4**
PCH-RC-037	4.0	5.0	3166.1	178.9	5.7	96.8	52.6	**54.3**	499.6	48.6	9.7	12.6	6.2	**49.7**
PCH-RC-043	3.0	4.0	2046.5	**380.9**	18.6	70.6	64.3	**91.1**	417.9	133.3	**31.9**	9.2	8.0	**86.7**
PCH-RC-047	6.0	7.0	1870.7	**333.8**	17.8	298.2	**105.7**	**35.5**	425.8	109.8	**25.8**	38.7	13.1	**33.8**
PCH-RC-047	7.0	8.0	2224.2	212.8	9.6	132.1	**70.2**	**53.2**	417.7	66.7	16.0	18.5	8.1	**43.7**
PCH-RC-050	3.0	4.0	1059.0	**307.6**	**29.0**	117.1	**94.1**	**80.4**	245.6	97.9	**39.9**	16.3	11.9	**73.4**
PCH-RC-050	4.0	5.0	1262.0	229.2	18.2	160.0	**82.4**	**51.5**	218.0	69.1	**31.7**	21.1	8.7	**41.3**
PCH-RC-050	5.0	6.0	1236.2	294.2	**23.8**	149.9	**98.9**	**65.9**	276.6	91.2	**33.0**	19.5	12.5	**64.1**
PCH-RC-051	4.0	5.0	9259.6	**560.1**	6.0	215.0	60.7	**28.2**	2042.7	**218.6**	10.7	41.1	8.1	19.6
PCH-RC-051	5.0	6.0	17538.4	**617.5**	3.5	422.1	**70.7**	16.7	3698.9	**242.0**	6.5	73.0	9.3	12.8
PCH-RC-051	7.0	8.0	7110.6	**630.8**	8.9	202.9	**91.2**	**44.9**	1557.1	**220.0**	14.1	31.1	10.4	**33.4**
PCH-RC-060	2.0	3.0	3001.4	**393.6**	13.1	122.1	49.8	**40.8**	631.5	106.8	16.9	20.6	5.9	**28.7**
PCH-RC-066	8.0	9.0	39881.2	**637.6**	1.6	1299.9	**302.9**	**23.3**	8089.2	126.7	1.6	166.9	**20.1**	12.0

Table 1 – Preliminary desorption results of representative samples. To view the full list of results, please click here.

*Total Rare Earth Oxides: TREO = Y2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu2O3 + La2O3 + Ce2O3 + Pr2O3 + Nd2O3 + Sm2O3

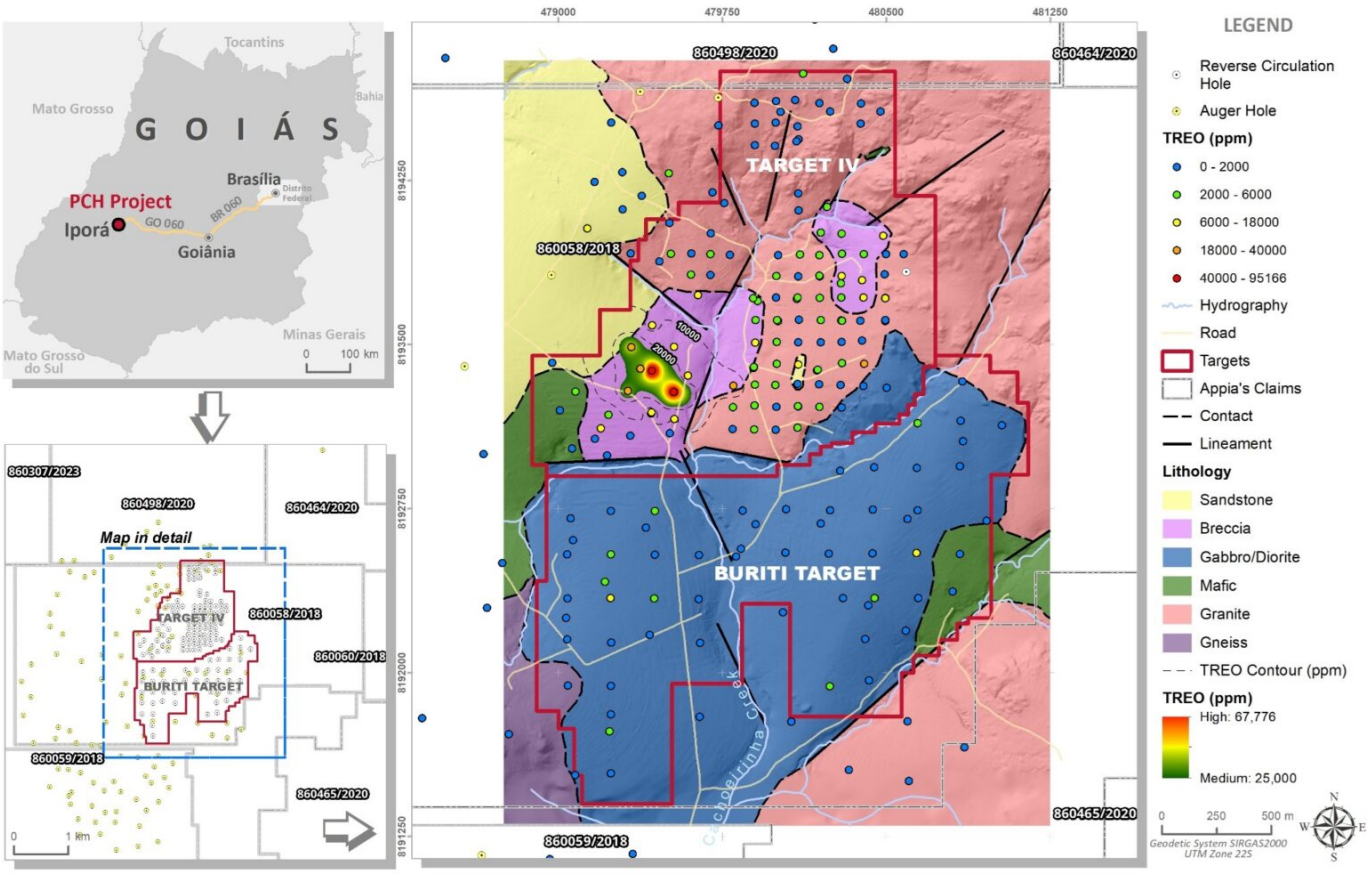
*Heavy Rare Earth Oxides: HREO = Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu2O3 + Y2O3

*NdPr = Nd2O3+Pr2O3

*DyTb = Dy2O3+Tb4O7

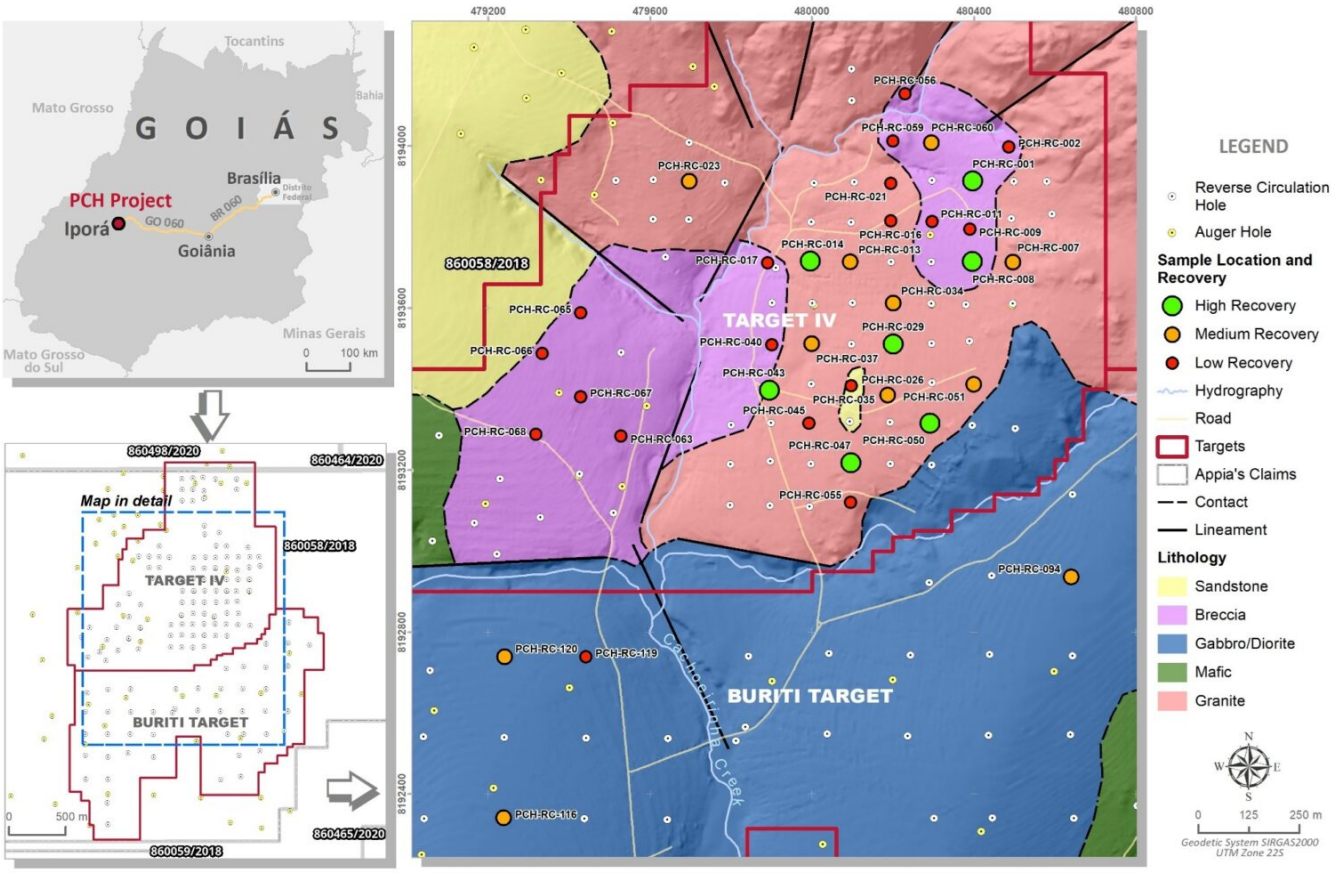
*Element to Oxide Conversion Factor – Cerium Ce2O3 1.1713, Cerium CeO2 1.2284, Dysprosium Dy2O3 1.1477, Erbium Er2O3 1.1435, Europium Eu2O3 1.1579, Gadolinium Gd2O3 1.1526, Holmium Ho2O3 1.1455, Lanthanum La2O3 1.1728, Lutetium Lu2O3 1.1371, Neodymium Nd2O3 1.1664, Praseodymium Pr2O3 1.1703, Praseodymium Pr6O11 1.2082, Samarium Sm2O3 1.1596, Terbium Tb2O3 1.1510, Terbium Tb4O7 1.1762, Thulium Tm2O3 1.1421, Yttrium Y2O3 1.2699, Ytterbium Yb2O3 1.1387

* Desorbability results were conducted using Ammonium Sulfate at 0.5M, pH4, for 20 minutes.



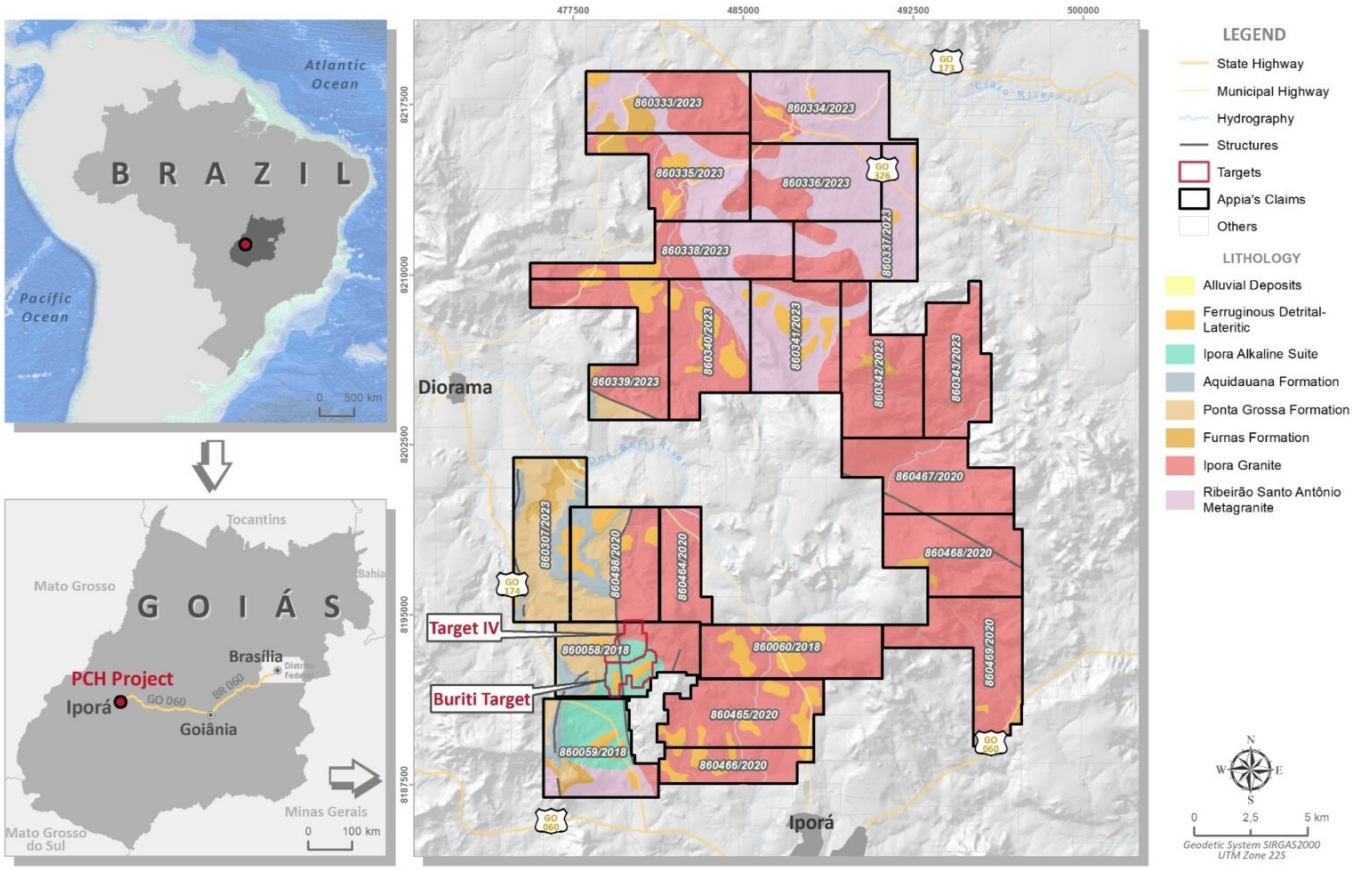
Map 1 – Location and structure of the TREO high grade zone

To view an enhanced version of this graphic, please visit: https://images.newsfilecorp.com/files/5416/208113_e0981fb3742b7955_001full.jpg



Map 2 – Preliminary desorption results from Buriti and IV targets, High (green) above 20%, Medium (orange) between 10 and 20% and Low (red) below 10%.

To view an enhanced version of this graphic, please visit: https://images.newsfilecorp.com/files/5416/208113_e0981fb3742b7955_002full.jpg



Map 3 – Distribution of the Ipora Granite Unity under Appia's Claims.

To view an enhanced version of this graphic, please visit: https://images.newsfilecorp.com/files/5416/208113_e0981fb3742b7955_003full.jpg

Andre Costa, VP Exploration for Brazil, commented, "These preliminary desorption results shows the distinct rare earth mineralization in the PCH Project. The high-grade zone associated with a Carbonatitic intrusion or dyke, and the regolith developed above the Ipora granite, which hosts the IAC REE mineralization. We are directing our efforts on the latter with the exploratory auger campaign already initiated on numerous new targets."

On March 1st, 2024, the Company announced its maiden Mineral Resource Estimate (MRE) on Target IV and the Buriti Zone (Click

here for the Press Release), and the companion NI 43-101 technical report on the PCH Project was filed on April 16th, 2024. (Click here for the Press Release)

Qualified Person

The technical information in this news release, including the information related to geology, drilling, and mineralization, has been reviewed and approved by Andre L. L. Costa, current Appia's VP Exploration for Brazil, with more than 29 years of relevant experience. Mr. Costa is a Fellow of Australian Institute of Geoscientists (AIG) and is a Qualified Person (QP) as defined by National Instrument 43-101 – Standards of Disclosure for Mineral Projects.

About Appia Rare Earths & Uranium Corp. (Appia)

Appia is a publicly traded Canadian company in the rare earth element and uranium sectors. The Company holds the right to acquire up to a 70% interest in the PCH Ionic Adsorption Clay Project (See June 9th, 2023 Press Release – Click HERE) which is 40,963.18 ha. in size and located within the Goiás State of Brazil. (See January 11th, 2024 Press Release – Click HERE) The Company is also focusing on delineating high-grade critical rare earth elements and gallium on the Alces Lake property, and exploring for high-grade uranium in the prolific Athabasca Basin on its Otherside, Loranger, North Wollaston, and Eastside properties. The Company holds the surface rights to exploration for 94,982.39 hectares (234,706.59 acres) in Saskatchewan. The Company also has a 100% interest in 13,008 hectares (32,143 acres), with rare earth elements and uranium deposits over five mineralized zones in the Elliot Lake Camp, Ontario.

Appia has 136.3 million common shares outstanding, 145 million shares fully diluted.

Cautionary note regarding forward-looking statements: This News Release contains forward-looking statements which are typically preceded by, followed by or including the words "believes", "expects", "anticipates", "estimates", "intends", "plans" or similar expressions. Forward-Looking statements are not a guarantee of future performance as they involve risks, uncertainties and assumptions. We do not intend and do not assume any obligation to update these forward-looking statements and shareholders are cautioned not to put undue reliance on such statements.

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For more information, visit www.appiareu.com.

As part of our ongoing effort to keep investors, interested parties and stakeholders updated, we have several communication portals. If you have any questions online (X, Facebook, LinkedIn) please feel free to send direct messages.

To book a one-on-one 30-minute Zoom video call, please click here.

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