

8<sup>th</sup> August 2022

# Significant Historical Drilling Results at Saraya

### Highlights

- Saraya has been identified as a highly prospective uranium target following a review of historical drilling and exploration results, carried out by the Company's independent resource development consultants, RSC.
- Significant equivalent uranium intersections not previously reported from the historical drilling include:
  - o 47.8 m @ 1,630 ppm eU from 72.4 m in SAR327<sup>1</sup>
  - 46.2 m @ 1,548 ppm eU from 42.2 m in SAR30
  - o 10.1 m @ 5,537 ppm eU from 27.7 m in SAR183
    - Including<sup>2</sup> 4.6 m @ 8,669 ppm eU from 28.1 m
  - o 13.3 m @ 1,194 ppm eU from 88.2 m in SARA1007
    - Including<sup>3</sup> 7 m @ 1,843 ppm eU from 92.6 m
  - o 37.7 m @ 797 ppm eU from 81.2 m in SARA1003
    - Including<sup>3</sup> 9.1 m @ 1,160 ppm eU from 84.5 m
- A total of 441 holes for 48,975 m were drilled by COGEMA at the Saraya prospect in the '70s and '80s. A further 72 holes were drilled at the Saraya Prospect by Areva in 2009.
- Exploratory drilling of geophysical anomalies by Areva in close proximity to the Saraya prospect also returned positive results.
- A comprehensive diamond drilling programme to verify the historical results is anticpated to commence in September 2022, potentially leading to the estimation of a maiden Mineral Resource, classified in accordance with the JORC Code (2012).

#### Haranga Non-Executive Chairman Michael Davy commented:

"The Company has been highly encouraged by RSC's review of historical data, which has not previously been reported. Not only are we seeing significant widths of uranium across numerous holes at shallow depths, but also high-grade mineralisation. The anticipated commencement of drilling at the Saraya prospect will coincide well with the ongoing regional permit-wide termite mound sampling programme. Interestingly, historical drilling was only concentrated over ~0.5 km<sup>2</sup> of the 1,650 km<sup>2</sup> permit and numerous other large radiometric anomalies have already been identified for follow-up drilling. Once sampling is completed and overlayed with geophysics, this should confirm additional drill targets and lend itself well for the Company to potentially grow the

<sup>&</sup>lt;sup>1</sup> Calculated using a cut-off grade of 300 ppm eU, maximum consecutive internal dilution of 3 m and a minimum composite length of 3 m.

<sup>&</sup>lt;sup>2</sup> Calculated using a cut-off grade of 3,000 ppm eU, maximum consecutive internal dilution of 3 m and a minimum composite length of 3 m.

<sup>&</sup>lt;sup>3</sup> Calculated using a cut-off grade of 1,000 ppm eU, maximum consecutive internal dilution of 3 m and a minimum composite length of 3 m.

project. We are all very excited and look forward to updating shareholders as we continue to progress the project."

### **Review of Historical Exploration Results**

Haranga Resources Limited (ASX:HAR; 'Haranga' or 'the Company') is pleased to announce that a technical review of historical exploration results has highlighted the strong uranium prospectivity at the Saraya Project in Senegal.

As announced on 19 April 2022, Haranga secured access to records of historical exploration at Saraya from the '70s and '80s and from 2008–2010. This included numerous reports and a drilling database of 514 drillholes (Figure 1).

As with most uranium deposits, the equivalent uranium (eU) grades recorded at Saraya are derived from measurements of counts per second (CPS) recorded by down-hole radiometric probes, after the application of correcting factors.

The review by independent resource development consultants, RSC, included validating the drillhole database against the original drill logs and establishing a preliminary model of mineralisation to propose efficient verification drilling. RSC concluded that the data is suitable for exploration targeting and support the prospectivity of the project. RSC noted that if the data is to be considered for future resource classification in accordance with the JORC Code (2012), verification drilling will be required to validate the survey and eU values derived from the probe data.

A total of 23 diamond drillholes for 3,200 m has been planned across six areas to validate geological interpretations and eU grades from the historical drillholes. The proposed drilling will use a probe similar to the one used historically to enable comparisons between the datasets. Diamond drilling will also allow sampling for chemical assays to validate the K-factors used to convert the CPS values into eU grades. The proposed drilling should lead to a more robust understanding of the geological architecture of the Saraya deposit and a validated eU database that could support possible future mineral resource classification in accordance with the JORC Code (2012).

### **Historical Exploration**

The Saraya prospect was first recognised for potential uranium prospectivity by the French Atomic Energy Commission (Commissariat à l'Energie Atomique,CEA) in the late 1950s following kilometrescale aerial surveys and subsequent ground checking by radiometric mapping and trenching. In the 1970s, Compagnie Générale des Mines was created based on the uranium activities of the CEA. It was later renamed Compagnie Générale des Matières Nucléaire (COGEMA).

### COGEMA

Reconnaissance-level stream sediment geochemistry and geological and radiometric mapping of episyenite-type targets commenced in the mid-1970s. Several radiometric anomalies were identified, however, only the Saraya prospect was substantially drilled.

COGEMA's logs record a total of 452 drillholes for 48,975 m at the project, including 441 holes at the Saraya Prospect (Figure 1, Figure 2). The drilling was carried out by Groupement Afrique,

Madagascar (GAM) and involved a mixture of rotary and diamond holes with depths of 80–100 m. Gamma probes were used to establish eU grades downhole. Two types of gamma probes were used: ST31 and ST22-2T.

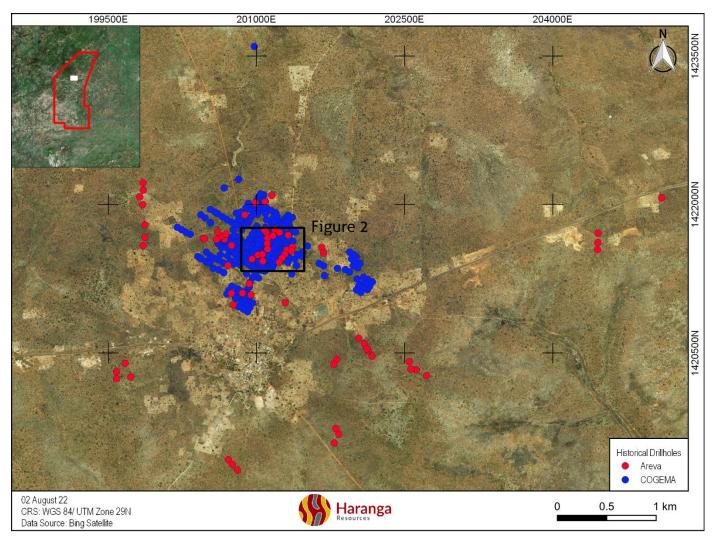


Figure 1: Plan map of historical drillhole collars at Saraya Prospect.

The following significant results were obtained (Error! Not a valid bookmark self-reference.):

- 47.8 m @ 1,630 ppm eU from 72.4 m in SAR327<sup>1</sup>
  - $\circ$  Including<sup>2</sup> 6.5 m @ 3,743 ppm eU from 91.5 m
- 10.1 m @ 5,537 ppm eU from 27.7 m in SAR183
  - Including 4.6 m @ 8,669 ppm eU from 28.1 m
- 46.2 m @ 1,548 ppm eU from 42.4 m in SAR30

COGEMA established that uranium mineralisation at Saraya was an episyenite-affiliated target likely related to the neoproterozoic unconformity and structurally controlled by N040 and N130 fault intersections.

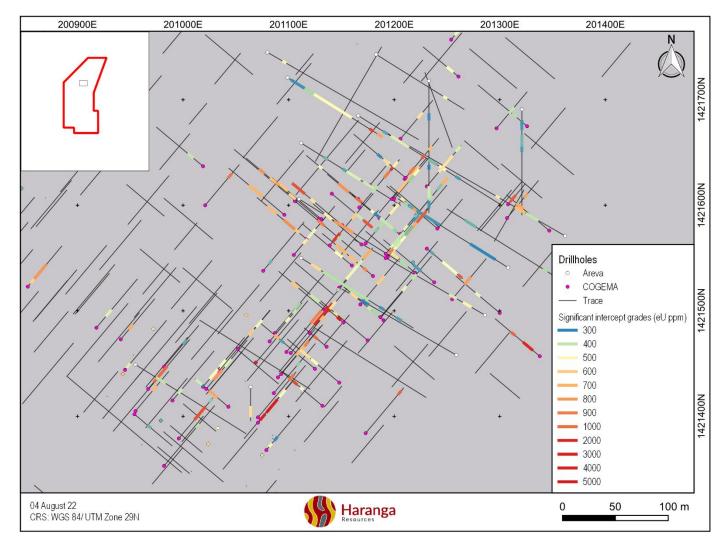


Figure 2: Planview of drillhole traces and significant intercepts at Saraya prospect.

COGEMA's exploration activities at Saraya ceased in the mid-1980s, as explorers shifted their focus to France, Canada and Niger. In June 2001, COGEMA became a part of the Topco group which was renamed Areva in September 2001.

A regional airborne survey was carried out by an international cooperation programme (Agence Française pour le Développement, AFD, and EU Programme de Renforcement du Secteur Miniere, PDRSM, and operated by FUGRO) in 2004. While the results were positive, the data was not released until 2008.

Hole ID		From (m)	To (m)	Interval (m)	eU (ppm)	eU3O8 (ppm)
SAR4		38.3	62.5	24.2	1,535	1,810
SAR17		44.3	55.9	11.6	1,804	2,127
SAR30		42.2	88.4	46.2	1,548	1,825
	Incl	60.2	66.4	6.2	3,542	4,176
SAR183		8.3	19	10.7	2,841	3,350
	Incl	11.8	16.8	5	4,758	5,610
		27.7	37.8	10.1	5,537	6,528
	Incl	28.1	32.7	4.6	8,669	10,221
		42.8	54.6	11.8	4,057	4,783
	Incl	47.3	53.5	6.2	7,009	8,264
SAR205		86.9	90.8	3.9	2,431	2,866
SAR256		11.4	20.6	9.2	1,535	1,810
SAR278		8.7	12.8	4.1	5,857	6,905
		35.3	41.7	6.4	1,655	1,951
SAR327		72.4	120.2	47.8	1,630	1,922
	Incl	91.5	98	6.5	3,743	4,413
SAR379		19.7	38.9	19.2	1,779	2,097
	Incl	33.5	36.9	3.4	4,389	5,175

Table 1: Significant intercepts from the COGEMA Saraya drilling (interval grade >1,500 ppm eU).

Intercepts aggregated at a 300 ppm eU cut-off grade with a maximum of 3 m consecutive internal dilution and a minimum composite length of 3 m.

High-grade inclusions aggregated at a 3,000 ppm eU cut-off grade with a maximum of 3 m consecutive internal dilution minimum composite length of 3 m.

### Areva

In 2006, COGEMA was renamed Areva NC. Areva reinitiated the Saraya Project in 2008, following an increase in global uranium prices. Areva initially reviewed the regional geophysical data and identified a limit of the deuteric alteration within the granites (favourable for uranium concentration) and several east-trending lineaments. A lineament running south of the Saraya Prospect was suspected as corresponding to an early faulted structure that could partly control the mineralisation.

From 2009, Areva largely focussed on infill diamond drilling of the Saraya prospect to establish an estimate of exploration potential and assess the continuation of mineralisation at depth (Figure 1– Figure 4). A total of 72 holes were completed at the Saraya prospect and a further 69 holes across several other prospects (56 at Diobi, seven at Kantafata and six at Samecouta). A DHT-27 gamma probe was used to establish equivalent U grades downhole. The following significant results were obtained (Table 2, Figure 4):

- 13.3 m @ 1,194 ppm eU from 88.2 m in SARA10071
  - $\circ$  Including<sup>3</sup> 7 m @ 1,843 ppm eU from 92.6 m
- 37.7 m @ 797 ppm eU from 126.7 m in SARA1003
  - Including 9.1 m @ 1,160 ppm eU from 84.5 m
- 3.8 m @ 1,277 ppm eU from 185.7 m in SARA1001

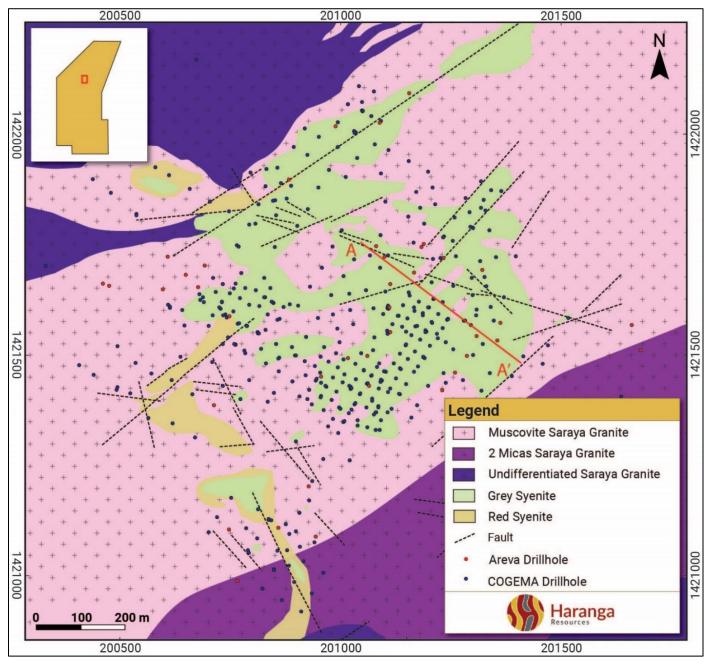


Figure 3: Interpreted geological map of the Saraya prospect and historical drillhole collars.

Hole ID	From (m)	To (m)	Interval (m)	eU (ppm)	eU3O8 (ppm)
SARA1001	185.7	189.5	3.8	1,277	1,506
SARA1001	202.4	210	7.6	774	913
SARA1003	81.2	118.9	37.7	797	940
Incl	84.5	93.6	9.1	1,160	1,368
SARA1004	24.6	41.4	16.8	558	658
SARA1007	88.2	101.5	13.3	1,194	1,408
Incl	92.6	99.6	7.0	1,843	2,173
SARA1009	47.1	65.2	18.1	610	719
SARA1010	57.3	80.6	23.3	552	651
SARA1012	152.2	156.1	3.9	512	604
SARA1014	35.5	38.5	3.0	510	601
SARA1016	89.7	107	17.3	667	786
Incl	92.8	100.7	7.9	1,135	1,338
	145.9	149.3	3.4	527	621
SARA1017	27.8	39.5	11.7	505	595
SARA1022	123	132.7	9.7	952	1,122
Incl	126.3	131.9	5.6	1,248	1,471
SARA1025	126.7	159.4	32.7	574	677
Incl	128.9	136.9	8.0	1,058	1,247

Table 2: Significant intercepts from the Areva Saraya drilling (interval grade>500 ppm eU).

Intercepts aggregated at a 300 ppm eU cut-off grade with a maximum of 3 m consecutive internal dilution and a minimum composite length of 3 m.

High-grade inclusions aggregated at a 1,000 ppm eU cut-off grade with a maximum of 3 m consecutive internal dilution and a minimum composite length of 3 m.

Areva noted that the episyenite and deuteric muscovite-rich granite appear complexly imbricated with several residual granitic lenses and fingerings occurring within the main syenite stock (Figure 3, Figure 4). The contacts between the two dip steeply and are commonly marked by transitional quartz-syenite facies. Areva had expected to identify major shears or faulted corridors under the lateritic profile; however, only minor discreet faults or fractured corridors were identified throughout the prospect. The faults identified mostly strike in two orthogonal directions, N040–050 or N120–130 (Figure 3).

The most significant uranium mineralisation was found in the syenite preferentially associated with brecciated corridors, predominantly striking 040 and dipping ~80° to the southeast (Figure 4). Mineralized occurrences are commonly observed in late strongly hematitie-altered fractures in contact zones. It is unclear whether uranium was mobilised in hydrothermal fluids or percolated in meteoric water and precipitated in structural conduits.

Areva commented that further investigation into the geology of the prospect was required, however, no further drilling was completed.

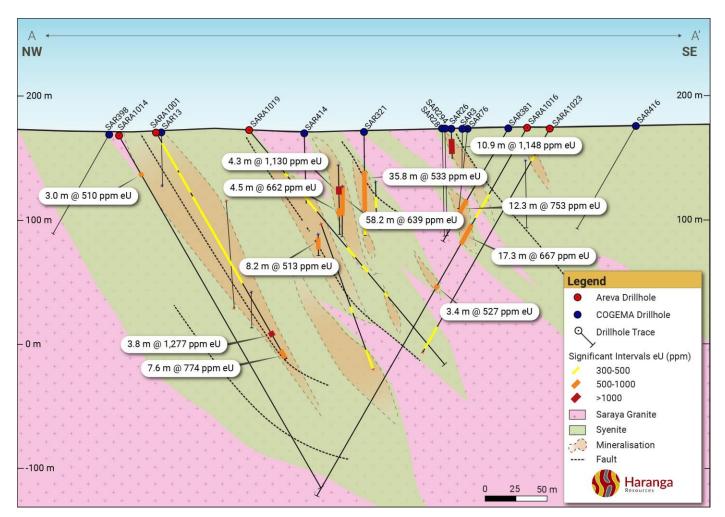


Figure 4: Interpreted geological cross-section in the main mineralised zone at Saraya (refer to Figure 3 for section location).

## Planed Exploration

While mineralisation appears to be hosted solely in structures within the grey syenite, additional investigation is required to fully understand the geological controls of mineralisation and verify the eU values derived from the probe data. A preliminary model of mineralisation above 300 ppm eU, based on an N130-trending, steeply dipping indicator interpolant, was used to propose verification drilling (Figure 5).

The validation drill plan consists of 23 drillholes for a total of 3,200 m over six areas. The drill holes were categorised into two passes. Pass 1 consists of 15 drillholes for 2,000 m and Pass 2 consists of 8 drillholes for 1,200 m. Drillholes in Pass 1 have been designed to twin historical holes, test the 040 geological model and test areas with an oblique or perpendicular mineralisation orientation. Drillholes in Pass 2 have been designed to further develop the geological model by targeting deeper mineralisation potential and targeting additional untested areas with unconstrained orientations.

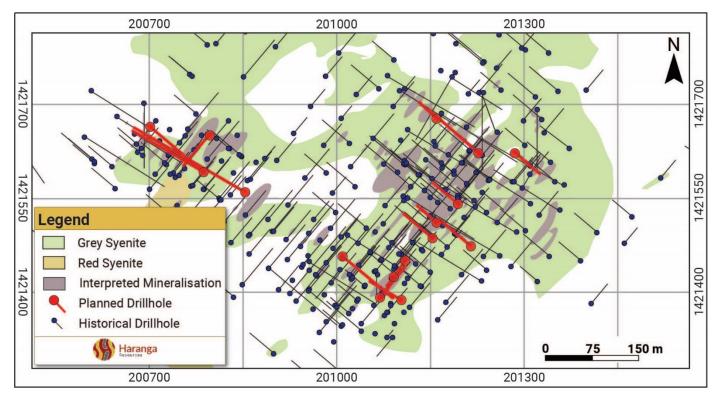


Figure 5: Interpreted plan map of uranium mineralisation within syenite and planned verification drillholes.

It was concluded that, if the validation drill programme proves successful, the historical database can be further validated and a pathway towards potential resource estimation and classification in accordance with the JORC Code (2012) can be established.

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This announcement has been approved by the Board of Haranga Resources Limited.

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#### **Competent Person's Compliance Statement**

The information in this announcement that relates to Exploration Results is based on and fairly represents information and supporting documentation compiled by Mr Jean Kaisin working under the supervision of Consulting Geologist Mr John Davis, a Competent Person, who is a Member of The Australasian Institute of Geoscientists (M AIG). Mr Davis has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he 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'. Mr Davis is the Non-Executive Director of Haranga Resources Limited and consents to the inclusion in this announcement of the Exploration Results in the form and context in which they appear. Mr Kaisin is a full-time employee of Haranga Resources Limited.

The forward-looking statements in this announcement are based on the Company's current expectations about future events. They are, however, subject to known and unknown risks, uncertainties and assumptions, many of which are outside the control of the Company and its Directors, which could cause actual results, performance or achievements to differ materially from future results, performance or achievements expressed or implied by the forward-looking statements in this announcement. Forward looking statements generally (but not always) include those containing words such as 'anticipate', 'estimates', 'should', 'will', 'expects', 'plans' or similar expressions.

#### **About Haranga**

Haranga Resources holds a uranium project in Senegal and interests in a range of gold projects located in Cote d'Ivoire and Burkina Faso, with a total of six tenements covering an area of 2,525 km<sup>2</sup>.

The Company has mapped out a two-year exploration and development budget for its key projects, namely the Saraya Uranium project in Senegal and the Issia Gold Project in Cote d'Ivoire. This exploration and development budget is inclusive of all requirements through to resource estimation. In addition, there is budget allocation for early-stage exploration programs for the Burkina Faso assets, while the Company will continue to identify and assess additional acquisition targets across the West African region.

Haranga's collective expertise includes considerable experience running ASX-listed companies, and financing and developing mining and exploration projects in Africa, Australia, and other parts of the world.

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### APPENDIX 1: DRILLHOLE INFORMATION HISTORICAL DRILLHOLES

Hole ID	Company	Easting (m)	Northing (m)	RL (m)	Dip (°)	Azimuth (°)	Hole Length (m)	Hole ID	Company	Easting (m)	Northing (m)	RL (m)	Dip (°)	Azimuth (°)	Hole Length (m)
SAR1	COGEMA	201688	1421282	176	60	140	149.25	SAR256	COGEMA	200761	1421660	166	60	40	150
SAR2	COGEMA	201255	1421655	170	60	340	150.5	SAR257	COGEMA	200761	1421522	166	90	0	134
SAR3	COGEMA	201295	1421566	174	60	30	111.75	SAR258	COGEMA	200786	1421564	166	60	40	134
SAR4	COGEMA	200792	1421612	166	60	40	156.7	SAR259	COGEMA	200727	1421603	168	60	40	128
SAR5	COGEMA	200826	1421673	167	60	220	101	SAR260	COGEMA	200744	1421538	166	90	0	122
SAR6 SAR7	COGEMA COGEMA	200850 200826	1421743 1421629	165 166	60 60	40 310	152.3 91.5	SAR261 SAR262	COGEMA COGEMA	200761 200758	1421521 1421523	166 166	60 90	40 0	131 150
SAR8	COGEMA	201057	1421627	175	60	40	101.25	SAR263	COGEMA	200783	1421523	166	90	0	150
SAR9	COGEMA	200843	1421619	167	60	310	116.2	SAR264	COGEMA	200811	1421550	166	60	40	150
SAR10	COGEMA	201089	1421696	172	60	40	100.6	SAR265	COGEMA	200834	1421590	166	90	0	146
SAR11	COGEMA	200828	1421629	166	90	0	49.45	SAR266	COGEMA	200847	1421616	167	90	0	150
SAR12	COGEMA	200807	1421645	166	90	0	73.95	SAR267	COGEMA	200846	1421617	167	90	0	150
SAR13	COGEMA	201107	1421724	171	60	40	50.8	SAR268	COGEMA	200870	1421607	168	90	0	150
SAR14	COGEMA	200815	1421609	166	90	0	52.4	SAR269	COGEMA	200856	1421577.9	166	60	40	119
SAR15	COGEMA	201261	1421722	171	60	310	87.05	SAR270	COGEMA	201168	1421506	177	60	40	115
SAR16	COGEMA	200840	1421650	168	90 90	0	43.95	SAR271	COGEMA	201147	1421520	176 175	90	0 40	146
SAR17 SAR18	COGEMA COGEMA	200783 200771	1421650 1421627	166 167	90 90	40	61.75 98.2	SAR272 SAR273	COGEMA COGEMA	201148 201105	1421551 1421553	175	60 60	40 40	115 120
SAR19	COGEMA	200748	1421638	167	60	40	88.15	SAR274	COGEMA	201180	1421533	176	60	310	125
SAR20	COGEMA	200710	1421673	167	60	220	55.3	SAR275	COGEMA	201160	1421543	175	60	310	122
SAR21	COGEMA	201254	1421757	170	60	40	71.8	SAR276	COGEMA	201218	1421546	175	90	0	146
SAR22	COGEMA	201226	1421718	169	60	40	118.5	SAR277	COGEMA	201220	1421536	175	60	310	122
SAR23	COGEMA	200861	1421580	166	60	40	89.75	SAR278	COGEMA	201152	1421489	177	60	310	118
SAR24	COGEMA	200884	1421613	169	60	40	49.65	SAR279	COGEMA	201134	1421501	176	60	310	113
SAR25	COGEMA	200806	1421796	165	60	40	64.45	SAR280	COGEMA	201175	1421472	179	60	310	116
SAR26	COGEMA	201308	1421601	172	60	40	50.55	SAR281	COGEMA	201194	1421551	174	60	40	119
SAR27	COGEMA	200757	1421649	166	90	0	38.7	SAR282	COGEMA	201169	1421563	175	60	310	119
SAR28 SAR29	COGEMA COGEMA	201279 200756	1421576 1421597	173 167	60 90	40 0	100 183.95	SAR283 SAR284	COGEMA COGEMA	201151 201131	1421581 1421587	174 173	60 60	310 310	122 122
SAR27	COGEMA	200733	1421588	168	60	40	90	SAR285	COGEMA	201131	1421507	176	60	310	122
SAR31	COGEMA	200769	1421570	166	60	40	100	SAR286	COGEMA	201207	1421571	174	60	310	122
SAR32	COGEMA	200732	1421523	168	60	310	100	SAR287	COGEMA	201186	1421588	174	60	310	128
SAR33	COGEMA	200724	1421606	168	60	310	100	SAR288	COGEMA	201166	1421606	173	60	310	128
SAR34	COGEMA	200640	1421600	172	60	310	100	SAR289	COGEMA	201167	1421598	174	60	40	118
SAR35	COGEMA	200681	1421623	170	60	40	100	SAR290	COGEMA	201129	1421587	173	60	310	119
SAR36	COGEMA	200709	1421588	168	60	40	105	SAR291A	COGEMA	201108	1421603	173	60	310	154.85
SAR37	COGEMA	200689	1421618	170	60	310	100	SAR291B	COGEMA	201106	1421604	173	60	130	162.75
SAR38 SAR39	COGEMA COGEMA	200708 200636	1421482 1421494	170 170	60 60	310 310	100 100	SAR292 SAR293	COGEMA COGEMA	201106 201117	1421606 1421568	173 174	60 60	310 310	120 122
SAR40	COGEMA	200635	1421565	170	60	310	100	SAR275	COGEMA	201117	1421500	174	60	40	122
SAR41	COGEMA	200608	1421612	175	60	310	100	SAR295	COGEMA	201139	1421562	175	60	40	128
SAR42	COGEMA	200663	1421409	168	60	295	100	SAR296	COGEMA	201136	1421466	177	60	310	55
SAR43	COGEMA	200616	1421441	171	60	310	100	SAR297	COGEMA	201202	1421519	177	60	40	122
SAR44	COGEMA	200570	1421456	174	60	310	47	SAR298	COGEMA	201241	1421578	174	60	310	125
SAR45	COGEMA	200534	1421480	175	60	310	100	SAR299	COGEMA	201243	1421579	173	60	310	122
SAR46	COGEMA	200493	1421518	175	60	310	63	SAR300	COGEMA	200536	1421815	174	60	40	120
SAR47	COGEMA	200730	1421619	168	60	40	100	SAR301	COGEMA	200478	1421866	175	60	310	122
SAR48	COGEMA	200812	1421547	166	60 60	310	100	SAR302	COGEMA	200437	1421897	177	60 60	310	122
SAR49 SAR50	COGEMA COGEMA	200814 200853	1421547 1421523	166 167	60 60	40 40	100 100	SAR303 SAR304	COGEMA COGEMA	200330 201069	1421700 1422040	178 173	60 60	310 310	122 88
SAR50 SAR51	COGEMA	200855	1421525	170	60 60	40 40	92.7	SAR304 SAR305	COGEMA	201089	1422040	173	60 60	40	122
SAR51	COGEMA	200703	1421010	167	60	40	102.5	SAR305	COGEMA	200203	1421721	180	60	310	83
SAR53	COGEMA	200859	1421461	170	60	40	100	SAR307	COGEMA	200198	1421770	182	60	310	90
SAR54	COGEMA	200898	1421497	170	60	40	100	SAR308	COGEMA	200406	1421475	178	60	310	85
SAR55	COGEMA	200941	1421473	172	60	40	100	SAR309	COGEMA	200439	1421453	177	60	310	100
SAR56	COGEMA	200906	1421404	173	60	40	100	SAR310-1	COGEMA	200491	1421419	176	90	0	319.3
SAR57	COGEMA	200781	1421508	166	60	40	100	SAR310-2	COGEMA	200493	1421425	176	90	0	294.35
SAR58	COGEMA	200982	1421447	174	60	40	102	SAR311	COGEMA	200522	1421411	175	90	0	103
SAR59	COGEMA	201024	1421423	176	60	40	100	SAR312	COGEMA	200563	1421355	174	60	310	100
SAR60	COGEMA	201052	1421464	175	60 60	40 40	95 95	SAR313	COGEMA	200618	1421343	171	60 60	310	100
SAR61 SAR62	COGEMA COGEMA	201006 201091	1421488 1421442	173 178	60 60	40 40	95 105	SAR314 SAR315	COGEMA COGEMA	200669 201221	1421311 1421591	171 174	60 60	310 40	100 90
SAR62 SAR63	COGEMA	201071	1421399	178	60	40 40	103	SAR315	COGEMA	201221	1421571	174	60	40 40	100
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SAM4         CCCRMA         201108         14330         11.0         60         40         100         SAM18         CCCRMA         20117         141.99         17.3         60         40         150           SAM4         CCCRMA         20118         141.29         17.3         60         40         150           SAM4         CCCRMA         20119         141.29         181.40         40         150         SAM19         CCCRMA         20119         141.40         17.3         60         40         100           SAM4         CCCRMA         20119         141.40         17.8         60         40         100         SAM19         CCCRMA         20118         141.40         17.4         60         40         100         SAM21         CCCRMA         20119         141.40         17.4         60         40         100         SAM23         CCCRMA         20119         141.40         17.4         60         40         100         SAM23         CCCRMA         20119         141.40         17.4         60         40         100         SAM23         CCCRMA         20119         141.40         17.4         60         100         117.5         50.40         117.5	Hole ID	Company	Easting (m)	Northing (m)	RL (m)	Dip (°)	Azimuth (°)	Hole Length (m)	Hole ID	Company	Easting (m)	Northing (m)	RL (m)	Dip (°)	Azimuth (°)	Hole Length (m)
Shebs         CCOPMA         20170         40198         80         0         0         0         0         0         0         0           Shebs         CCOPMA         20178         1014         101         Shebs         CCOPMA         20128         101418         107         0         0         0           Shebs         CCOPMA         20173         10141         101         Shebs         CCOPMA         20174         10143         101         101         Shebs         CCOPMA         20171         101428         107         0	SAR64	COGEMA	201038	1421350	176	60	40	100	SAR317	COGEMA	201177	1421619	173	60	40	56
SALF         COGEMA         20120         14/127         16         6         100           SALAF         COGEMA         20123         14/151         17         60         40         100           SALAF         COGEMA         20123         14/151         17         60         40         100         SAL32         COGEMA         20120         14/154         17         60         101           SALAF         COGEMA         20141         171         60         40         100         SAL32         COGEMA         20141         173         60         101           SALAF         COGEMA         20141         171         60         40         102         SAL32         COGEMA         20141         174         60         40         101           SALAF         COGEMA         20131         17184         60         40         103         SAL32         COGEMA         20141         174         60         40         174         SAL33         COGEMA         20141         174         60         30         174           SAL47         COGEMA         20191         171         60         40         40         41         41         40																
SAME         COCRMA         20120         14/147         180         6.0         100         SAM2         COCRMA         20121         171         6.0         100           SA77         COCRMA         20140         12140         174         6.0         100         SAM22         COCRMA         2012         12131         173         6.0         100         173           SA77         COCRMA         20110         12140         174         6.0         100         54322         COCRMA         12141         174         6.0         100         18323         COCRMA         12141         174         6.0         100         18323         COCRMA         12141         174         6.0         100         18323         COCRMA         12141         174         6.0         100         18333         COCRMA         2010         112         174         6.0         100         18333         COCRMA         2010         112         174         6.0         100         54333         COCRMA         2010         112         174         6.0         100         54333         COCRMA         2010         112         174         6.0         100         54333         COCRMA         2010 <t< td=""><th></th><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																
Shar         COGEMA         20120         44128         172         40         40         100           SAR7         COGEMA         20141         41249         17         40         41         17         54332         COGEMA         20174         171         40         310         173           SAR7         COGEMA         2018         121419         171         40         40         40         40         54332         COGEMA         2018         12144         17         40         310         131           SAR7         COGEMA         20171         14138         17         40         40         100         54332         COGEMA         20170         14140         17         40         30         10           SAR7         COGEMA         2019         14138         17         40         40         10         54332         COGEMA         2010         1414         11         40         30         10           SAR7         COGEMA         2019         14118         17         40         40         40         40         40         40         40         40         40         40         40         40         40         40<																
SAP7         COGEMA         201201         401400         178         60         400         100         54832         COGEMA         201201         42139         173         60         300         173           SAP7         COGEMA         20180         41137         171         60         40         184         54832         COGEMA         20118         1213         171         60         171         54832         COGEMA         20118         12144         171         60         100         54832         COGEMA         20118         12144         171         60         100         1213         1214         171         60         100         54832         COGEMA         20118         12144         174         60         100         54832         COGEMA         20118         174         60         100         54833         COGEMA         20118         174         60         100         54833         COGEMA         20181         1214         174         60         100         54833         COGEMA         20181         1214         174         60         100         54833         COGEMA         20181         1216         171         60         100         101         5483																
SAR7         COGEMA         201101         1/21/17         6/0         0         1/21         SAR32         COGEMA         20169         1/21         1/2         0         0         1/2           SAR72         COGEMA         20118         1/21/21         1/7         40         40         180         SAR32         COGEMA         20112         1/21/24         1/7         40         40         127           SAR72         COGEMA         20118         1/21/24         1/12         4/12/14         1/12																
SAPZ         COGEMA         20148         4/2152         17.4         60         40         86.325         COGEMA         20143         4.73         6.00         134           SAPZ         COGEMA         20113         14/154         17.4         60         40         10.0         SA8.327         COGEMA         20112         14/154         17.4         60         40         120         SA8.327         COGEMA         20114         1.74         60         40         125         SA8.327         COGEMA         20164         1.74         60         40         125         SA8.327         COGEMA         20174         1.74         60         40         125         SA8.33         COGEMA         20174         1.74         60         40         10         SA8.33         COGEMA         20164         1.74         40         40         10         SA8.33         COGEMA         20167         1.71144         172         40         40         10         SA8.33         COGEMA         20184         1.7114         174         40         40         10         SA8.33         COGEMA         20184         1.7114         174         40         40         10         SA8.33         COGEMA         20184 <th></th> <td></td>																
SAP7         COCRM         201173         14/1546         171         4.01         4.01         122         SAR27         COCRMA         201170         14/1546         173         4.01         4.01         153           SAP7         COCRMA         201307         14/1586         173         4.01         4.01         5.8.8230         COCRMA         20078         14/1174         4.01         4.01         153           SAP7         COCRMA         201797         14/1546         174         4.01         5.01         5.01         5.01         4.01         4.01         5.01         5.01         4.01         4.01         5.01         5.01         4.01         4.01         5.01         5.01         4.01         4.01         4.01         4.01         4.01         4.01         4.01         4.01         4.01         4.01         4.01         4.01         4.01         4.01         4.01         4.01         4.01         4.01         4.01																
SAP7         COGRMA         201191         1.91/ML         1.71         4.01         1.73         4.01         1.02         SAR327         COGRMA         20177         1.14         1.74         4.01         3.01         1.54           SAR77         COGRMA         201872         1.2158         1.73         4.01         5.01         SAR330         COGRMA         20197         1.2154         1.72         4.0         4.0         1.00         SAR330         COGRMA         20197         1.2116         1.72         4.0         4.0         1.00         SAR332         COGRMA         20187         1.2116         1.21         4.0         4.0         4.0         5.0         SAR332         COGRMA         20187         1.2116         1.0         3.0         1.22           SAR83         COGRMA         20197         1.21187         1.7         4.0         4.0         1.0         SAR333         COGRMA         1.0116         1.10         3.0         1.21           SAR84         COGRMA         20181         1.21187         1.7         4.0         4.0         4.0         4.0         4.0         4.0         4.0         4.0         4.0         4.0         4.0         4.0         4.0	SAR73	COGEMA	201058	1421379	177	60	40	180.4	SAR326	COGEMA	201125	1421445	177	60	310	134
SAT7         COCEMA         211907         142188         172         40         40         92         SAR29         COCEMA         20079         14179         171         40         40         175           SAT7         COCEMA         201992         142180         172         40         40         40         45         SAR33         COCEMA         20199         141197         40         40         172           SAR4         COCEMA         20197         142163         172         40         40         40         55         SAR33         COCEMA         20197         142180         172         40         40         40         55         SAR33         COCEMA         20197         142180         172         40         40         40         55         SAR33         COCEMA         20191         142180         172         40         40         40         55         SAR33         COCEMA         20191         142180         173         40         40         40         58         SAR33         COCEMA         20191         142180         175         SAR34         COCEMA         20181         142180         175         SAR33         COCEMA         20181         142181	SAR74	COGEMA	201173	1421564	174	60	40	102	SAR327	COGEMA	201102	1421460	177	60	40	122
SART         COCEMA         200792         14715         172         40         40         75         SAR330         COCEMA         20079         142107         170         60         40         94           SART         COCEMA         20102         142103         172         40         40         40         50         SAR33         COCEMA         20087         1421167         174         60         310         122           SAR81         COCEMA         20097         142163         172         40         40         40         50         SAR33         COCEMA         20087         1421187         172         40         40         40         50         SAR33         COCEMA         20087         142187         173         40         40         40         50         SAR33         COCEMA         20081         142180         178         40         40         40         50         SAR33         COCEMA         20097         142180         178         40         40         40         50         SAR34         COCEMA         20081         142185         178         40         40         40         50         SAR34         COCEMA         20081         142185 <t< td=""><th>SAR75</th><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	SAR75															
SAR7         COCEMA         200792         147180         172         40         40         64         SAR31         COCEMA         20079         147180         172         40         40         40         53         SAR30         COCEMA         20079         147180         172         40         40         45         SAR33         COCEMA         20079         147181         40         40         40         50         SAR33         COCEMA         20079         147181         40         40         40         80         SAR33         COCEMA         20079         147181         40         40         40         80         SAR33         COCEMA         20079         147181         40         40         40         80         SAR33         COCEMA         20079         147181         40																
SAR79         COCEMA         20192         1 471430         17         40         40         100         SAR32         COCEMA         20087         4/21147         40         60         102           SAR81         COCEMA         20077         1/21147         177         40         40         40         50         SAR33         COCEMA         20078         4/21147         40         40         40         50         SAR33         COCEMA         20088         4/21147         17         40         40         40         50         SAR33         COCEMA         20081         4/2118         40         40         40         40         50         SAR33         COCEMA         20081         4/2108         40         40         40         40         40         40         50         SAR34         COCEMA         20181         4/2108         40<																
SARB0         COGEMA         20979         14/164         172         40         40         67         SAR33         COGEMA         20087         14/2114         175         40         101         122           SARB2         COGEMA         20099         14/174         169         40         80         SAR35         COGEMA         20081         14/174         17         40         101         122           SARB2         COGEMA         20097         14/178         18         40         40         100         SAR35         COGEMA         20081         178         40         101         122           SARB4         COGEMA         20191         14/182         17         40         40         175         SAR37         COGEMA         20181         176         40         101         122           SARB4         COGEMA         20131         14/182         176         40         40         100         SAR34         COGEMA         20181         176         40         101         122           SARB4         COGEMA         20131         14/182         174         40         40         172         SAR44         COGEMA         2018         110																
SARE         COGEMA         200957         14/174         19         40         40         40         70         SARE3         COGEMA         20088         14/2108         172         40         310         122           SARE3         COGEMA         201002         14/178         10         40         40         80         SARE3         COGEMA         20104         14/148         10         40         10         SARE3         COGEMA         20104         14/148         10         40         40         80         SARE3         COGEMA         20104         14/148         10         40         40         40         40         40         50         SARE3         COGEMA         20134         14/172         10         40         40         70         SARE3         COGEMA         20134         14/172         17         40         40         71         SARE3         COGEMA         20134         14/172         17         40         40         40         40         83         SARE3         COGEMA         20134         14/172         17         40         310         122           SARE4         COGEMA         20134         14/1212         17         40         40<																
SARE3         COCEMA         20099         14/174         169         40         40         80         SAR53         COCEMA         200812         14/114         170         40         101         122           SARE4         COCEMA         20099         14/171         16         40         40         100         SAR33         COCEMA         20091         14/103         170         40         310         122           SARE5         COCEMA         20191         14/1132         171         40         40         40         85         SAR33         COCEMA         20091         14/1163         177         40         310         122           SAR85         COCEMA         20133         14/125         178         60         40         170         SAR34         COCEMA         20133         14/125         178         60         40         173         SAR34         COCEMA         20133         14/122         174         60         40         73         SAR34         COCEMA         20131         171         50         50         50         50         50         50         50         50         50         50         50         50         50         50																
SARBA         COCEMA         20102         14718         1.0         4.0         4.0         8.8         SAR33         COCEMA         20080         1.2118         1.00         1.30         1.20           SARBA         COGEMA         200901         1.41285         1.7         6.0         4.0         9.8         SAR33         COCEMA         200915         1.41280         1.7         6.0         1.7           SARBA         COGEMA         201318         1.41282         1.7         6.0         4.0         7.8         SAR34         COCEMA         201351         1.41282         1.7         6.0         4.0         1.00         SAR34         COCEMA         201351         1.41182         1.7         6.0         4.0         1.00         SAR34         COCEMA         201851         1.6         6.0         4.0         1.00         SAR34         COCEMA         201851         1.4         6.0         4.0         1.2         SAR34         COCEMA         201851         1.4         6.0         4.0         7.3         SAR34         COCEMA         20181         1.7         6.0         4.0         7.3         SAR34         COCEMA         20181         1.7         6.0         4.0         7.3																
SAR65         COGEMA         2007-94         147179         1.64         64         0         8.8833         COGEMA         20070         142101         1.87         0.0         78.75           SAR64         COGEMA         20174         141791         1.74         60         0.0         78.75         SAR33         COGEMA         201801         1.21         0.0         1.21           SAR57         COGEMA         20131         1.42182         1.78         60         40         98         SAR34         COGEMA         20310         1.42105         1.70         60         1.02           SAR50         COGEMA         20131         1.42182         1.74         60         40         83         SAR34         COGEMA         20130         1.42102         1.71         60         40         83         SAR34         COGEMA         20130         1.42172         1.74         60         40         83         SAR34         COGEMA         20101         1.74         60         40         71         SAR34         COGEMA         202011         1.74         60         40         73         SAR34         COGEMA         202011         1.71<6         60         40         73         SAR34																
SARBA         COGEMA         200701         14/2789         1/1         6         60         40         88         SARB3         COGEMA         200701         14/2030         1/7         60         310         1/22           SARB7         COGEMA         20138         14/2182         1/7         60         40         100         SAR34         COGEMA         20130         14/2182         1/7         60         40         100         SAR34         COGEMA         20131         14/2182         1/7         60         40         100         SAR34         COGEMA         20137         14/2182         1/7         60         40         100         SAR34         COGEMA         20137         14/2182         1/7         60         40         71         SAR34         COGEMA         20138         14/2182         1/7         60         40         73         SAR34         COGEMA         20038         14/2182         1/7         60         40         73         SAR34         COGEMA         20038         14/2181         1/7         60         1/2           SAR44         COGEMA         20148         14/2181         1/7         60         40         75         SAR34         COGEMA																
SAR5         COGEMA         20131         14.2182         177         40         40         49         SAR54         COGEMA         20185         14.2108         17         60         310         12.2           SAR59         COGEMA         20133         142165         17         60         40         100         SAR54         COGEMA         20075         142105         167         60         40         12.2           SAR50         COGEMA         20153         142165         17         60         40         73         SAR34         COGEMA         20087         142105         17         60         310         122           SAR74         COGEMA         20183         142187         17         60         40         73         SAR34         COGEMA         20088         142101         17         60         310         122           SAR74         COGEMA         20074         142081         171         60         40         73         SAR34         COGEMA         20088         142101         176         60         310         122           SAR74         COGEMA         20079         14209         171         60         40         53         <			200901		166	60		88					178	90	0	
SAR8         COGEMA         201341         142172         178         40         40         102         SAR841         COGEMA         20135         142105         18         0         40         102         SAR842         COGEMA         20135         142105         18         0         40         122           SAR91         COGEMA         201351         142125         174         40         40         83         SAR34         COGEMA         20185         174         60         310         122           SAR91         COGEMA         201351         142125         175         60         40         71         SAR34         COGEMA         200821         142102         76         310         122           SAR94         COGEMA         20145         124176         77         60         40         75         SAR34         COGEMA         20081         142102         76         310         112           SAR94         COGEMA         20070         142165         176         60         40         75         SAR35         COGEMA         20084         142102         176         60         310         120           SAR95         COGEMA         20079	SAR86	COGEMA	201294	1421789	174	60	40	75	SAR339	COGEMA	200907	1421063	177	60	310	122
SAREP         COGEMA         20133         141164         170         60         40         100         SARE42         COGEMA         20078         142105         16         60         40         122           SART0         COGEMA         201397         142122         174         60         40         71         SAR24         COGEMA         200878         142102         177         60         310         122           SART3         COGEMA         20138         142129         181         60         40         71         SAR24         COGEMA         120977         177         60         310         122           SART4         COGEMA         20148         142128         176         60         40         63         SAR34         COGEMA         200874         142096         177         60         310         116           SAR74         COGEMA         200791         1421049         171         60         40         75         SAR35         COGEMA         200874         142198         177         60         310         1105           SAR79         COGEMA         200879         142159         142         164         010         100         SAR35	SAR87	COGEMA	201318	1421832	177	60	40	98	SAR340	COGEMA	200856	1421054	176	60	310	122
SAR50         COGEMA         20137         14/1722         174         60         40         83         SAR54         COGEMA         20187         14/185         174         60         310         122           SAR71         COGEMA         20138         14/1297         181         60         40         87         SAR34         COGEMA         20189         177         60         310         122           SAR74         COGEMA         20188         14/1392         177         60         40         80         SAR34         COGEMA         20184         14/2075         177         60         310         112           SAR75         COGEMA         20188         14/2172         174         60         40         75         SAR34         COGEMA         20184         14/2175         176         60         310         110           SAR75         COGEMA         20071         14/2104         172         60         40         51         SAR35         COGEMA         20072         178         60         310         100           SAR74         COGEMA         20079         14/2185         164         40         40         58         SAR35         COGEMA <th>SAR88</th> <td>COGEMA</td> <td>201341</td> <td>1421872</td> <td>178</td> <td>60</td> <td>40</td> <td>102</td> <td>SAR341</td> <td>COGEMA</td> <td>200810</td> <td>1421082</td> <td>171</td> <td>60</td> <td>310</td> <td>122</td>	SAR88	COGEMA	201341	1421872	178	60	40	102	SAR341	COGEMA	200810	1421082	171	60	310	122
SARP1         COGEMA         20154         H12182         176         60         40         73         SAR24         COGEMA         20082         H21020         177         60         310         122           SAR73         COGEMA         201388         H21297         181         60         40         85         SAR34         COGEMA         20084         H20981																
SARP2         COCEMA         20138         142129         181         40         40         71         SAR346         COCEMA         20193         142095         177         40         310         122           SARP3         COCEMA         20148         142183         177         40         310         122           SARP5         COCEMA         20084         142101         176         40         40         43         SAR34         COCEMA         20084         142101         177         40         310         122           SARP5         COCEMA         20087         142104         172         40         40         75         SAR34         COCEMA         20084         142101         177         40         310         110           SARP5         COCEMA         20083         142126         172         60         40         75         SAR35         COCEMA         20084         142131         181         60         310         181           SAR10         COCEMA         20134         142137         178         60         40         75         SAR35         COCEMA         20181         142130         181         60         310         1103																
SAR3         COCEMA         20145         142132         17         60         40         80         SAR34         COCEMA         20084         142083         177         60         310         122           SAR5         COCEMA         20145         142118         176         60         40         75         SAR34         COCEMA         20084         1421010         176         60         310         1120           SAR5         COCEMA         2007         142104         172         60         400         73         SAR34         COCEMA         20084         142101         17         60         310         120           SAR7         COCEMA         20071         142104         171         60         40         75         SAR35         COCEMA         20082         142186         177         60         310         110           SAR10         COCEMA         20031         142135         171         60         40         75         SAR35         COCEMA         2013         181         60         310         110           SAR10         COCEMA         20131         142132         172         60         40         20         SAR35 <th< td=""><th></th><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>																
SARP4         COGEMA         201498         1421478         176         60         400         6.3         SAR37         COGEMA         200848         1421012         176         60         310         1120           SARP5         COGEMA         200872         142265         165         60         400         75         SAR36         COGEMA         200810         1421016         177         60         310         110           SARP5         COGEMA         20070         142106         172         60         40         61         SAR351         COGEMA         20082         142168         176         60         310         110           SARP5         COGEMA         20083         1421125         166         60         40         75         SAR351         COGEMA         20082         142143         181         60         310         1103           SAR100         COGEMA         20171         142153         176         60         40         58         SAR354         COGEMA         20180         1421340         181         60         310         116           SAR104         COGEMA         20113         142143         181         60         310																
SARPS         COGEMA         200820         1422255         16.5         60         40         75         SAR346         COGEMA         200840         12010         17.6         60         310         110           SARPS         COGEMA         20070         1421049         17.2         60         40         51         SAR350         COGEMA         200861         1420742         17.8         60         310         110           SARPS         COGEMA         20070         1421049         17.1         60         40         61         SAR351         COGEMA         200821         142188         17.7         60         310         120           SARPS         COGEMA         200829         1421150         17.4         60         40         55         SAR353         COGEMA         20180         142139         181         60         310         1175           SAR100         COGEMA         20131         142159         17.4         60         300         SAR355         COGEMA         20180         142139         181         60         310         115           SAR104         COGEMA         20131         142149         178         60         30         120 <th></th> <td></td>																
SAR96         COGEMA         200672         142148         169         60         40         73         SAR39         COGEMA         200710         142104         177         60         310         110           SAR97         COGEMA         200700         142104         171         60         40         51         SAR300         COGEMA         200840         142098         177         60         310         110           SAR97         COGEMA         20083         142155         166         60         40         75         SAR352         COGEMA         20193         142184         181         60         310         110           SAR101         COGEMA         200179         142130         171         60         40         68         SAR354         COGEMA         20190         1421343         181         60         310         1115           SAR104         COGEMA         201079         142130         171         60         40         29         SAR357         COGEMA         20190         142134         181         60         310         116           SAR104         COGEMA         20117         142149         178         60         310																
SAR7         COGEMA         200700         1421096         172         60         40         51         SAR350         COGEMA         200864         142042         178         60         310         116           SAR9         COGEMA         200791         1421049         171         60         40         61         SAR351         COGEMA         20082         142108         175         60         310         120           SAR100         COGEMA         20082         142155         164         60         40         75         SAR353         COGEMA         20143         142133         181         60         310         117           SAR104         COGEMA         201231         142159         174         60         130         88         SAR355         COGEMA         20180         142138         181         60         310         116           SAR104         COGEMA         201131         142149         178         60         40         151         SAR356         COGEMA         20180         1421450         186         60         310         122           SAR104         COGEMA         201182         142140         178         60         310																
SAR99         COGEMA         200834         1421126         172         60         40         75         SAR352         COGEMA         200928         1421168         175         60         310         120           SAR100         COGEMA         200829         1421555         166         60         40         75         SAR354         COGEMA         201943         1421319         181         60         310         117           SAR102         COGEMA         201141         1421611         172         60         130         100         SAR354         COGEMA         201819         1421350         181         60         310         115           SAR104         COGEMA         20179         142132         175         60         40         28         SAR357         COGEMA         20189         142142         188         60         310         122           SAR104         COGEMA         20113         142149         178         60         40         51         SAR350         COGEMA         20192         142140         188         60         310         122           SAR105         COGEMA         20113         142149         178         60         310													178		310	
SAR100         COGEMA         200829         1421555         166         60         40         75         SAR353         COGEMA         20143         142134         181         60         310         117           SAR101         COGEMA         20171         1421130         171         60         40         68         SAR355         COGEMA         20190         1421343         181         60         310         115           SAR102         COGEMA         20121         1421559         174         60         130         88         SAR356         COGEMA         20124         1421340         184         60         310         116           SAR105         COGEMA         20179         142132         175         60         40         160         SAR356         COGEMA         20196         1421451         188         60         310         122           SAR106         COGEMA         20113         142149         178         60         310         172         SAR362         COGEMA         20196         1421470         187         60         310         122           SAR106         COGEMA         201187         1421471         178         60         310 <th>SAR98</th> <td>COGEMA</td> <td>200791</td> <td>1421049</td> <td>171</td> <td>60</td> <td>40</td> <td>61</td> <td>SAR351</td> <td>COGEMA</td> <td>200822</td> <td>1420968</td> <td>177</td> <td>60</td> <td>310</td> <td>120</td>	SAR98	COGEMA	200791	1421049	171	60	40	61	SAR351	COGEMA	200822	1420968	177	60	310	120
SAR101         COGEMA         200719         1421130         171         60         40         68         SAR354         COGEMA         20140         1421356         181         60         310         117           SAR103         COGEMA         201141         1421611         172         60         130         100         SAR355         COGEMA         20180         1421356         184         60         310         116           SAR104         COGEMA         20121         1421326         175         60         400         29         SAR357         COGEMA         20180         1421402         188         60         310         116           SAR104         COGEMA         20114         142140         178         60         400         51         SAR354         COGEMA         20149         142147         186         60         310         122           SAR107         COGEMA         20119         142149         178         60         400         57         SAR364         COGEMA         20141         142147         186         60         310         1101           SAR107         COGEMA         20129         1421471         187         60         400 <th>SAR99</th> <td>COGEMA</td> <td>200836</td> <td>1421126</td> <td>172</td> <td>60</td> <td>40</td> <td>75</td> <td>SAR352</td> <td>COGEMA</td> <td>200928</td> <td>1421168</td> <td>175</td> <td>60</td> <td>310</td> <td>120</td>	SAR99	COGEMA	200836	1421126	172	60	40	75	SAR352	COGEMA	200928	1421168	175	60	310	120
SAR102       COGEMA       201141       1421611       172       60       130       100       SAR355       COGEMA       201819       1421356       181       60       310       115         SAR104       COGEMA       20107       1421557       174       60       40       20       SAR356       COGEMA       20204       1421360       187       60       310       116         SAR104       COGEMA       20115       1421376       178       60       40       100       SAR357       COGEMA       20129       1421402       188       60       310       122         SAR106       COGEMA       20113       1421409       178       60       40       75       SAR361       COGEMA       20114       142147       187       60       40       75       SAR361       COGEMA       20118       142147       187       60       40       75       SAR361       COGEMA       20118       142147       187       60       40       75       SAR362       COGEMA       20194       142147       187       60       310       110         SAR110       COGEMA       20127       142167       176       60       40       75 <td< td=""><th>SAR100</th><td>COGEMA</td><td>200829</td><td>1421555</td><td>166</td><td>60</td><td>40</td><td>75</td><td>SAR353</td><td>COGEMA</td><td>201943</td><td>1421319</td><td>181</td><td>60</td><td>310</td><td>103</td></td<>	SAR100	COGEMA	200829	1421555	166	60	40	75	SAR353	COGEMA	201943	1421319	181	60	310	103
SAR103         COGEMA         201231         1421559         174         60         130         88         SAR356         COGEMA         201204         1421360         187         60         310         116           SAR104         COGEMA         20107         1421326         175         60         40         29         SAR356         COGEMA         20140         1421484         184         60         310         112           SAR105         COGEMA         20113         1421407         178         60         40         51         SAR356         COGEMA         20124         188         60         40         131           SAR107         COGEMA         20117         1421401         178         60         40         75         SAR361         COGEMA         20118         1421491         178         60         40         75         SAR362         COGEMA         20197         142147         187         60         310         98         SAR362         COGEMA         20197         142149         187         60         310         75         SAR364         COGEMA         20197         142149         187         60         310         98         SAR364         COGEMA																
SAR104         COGEMA         201079         1421328         175         60         40         29         SAR357         COGEMA         201980         1421384         184         60         310         116           SAR105         COGEMA         201134         1421376         178         60         40         100         SAR358         COGEMA         202006         1421420         188         60         310         122           SAR107         COGEMA         201134         1421409         178         60         310         100         SAR360         COGEMA         201963         1421451         185         60         40         131           SAR108         COGEMA         201187         1421491         178         60         40         75         SAR362         COGEMA         20197         1421491         178         60         40         90         SAR362         COGEMA         20197         1421491         184         60         310         101           SAR110         COGEMA         20127         142167         178         60         40         90         SAR364         COGEMA         20194         142159         184         60         310         101<																
SAR105       COGEMA       201115       1421376       178       60       40       100       SAR358       COGEMA       202047       1421402       188       60       310       122         SAR106       COGEMA       201132       1421401       178       60       40       51       SAR357       COGEMA       20206       1421425       186       60       310       122         SAR107       COGEMA       201187       1421491       178       60       310       100       SAR360       COGEMA       201073       1421491       178       60       310       122         SAR108       COGEMA       201190       1421491       178       60       310       98       SAR361       COGEMA       20197       1421494       187       60       310       112         SAR110       COGEMA       201297       1421673       170       60       40       95       SAR361       COGEMA       201171       142149       181       60       310       110         SAR113       COGEMA       201327       1421673       176       60       40       100       SAR361       COGEMA       202161       1421264       186       60																
SAR106         COGEMA         201134         1421409         178         60         40         51         SAR359         COGEMA         20206         1421426         186         60         310         122           SAR107         COGEMA         201132         1421410         178         60         310         100         SAR361         COGEMA         20193         1421471         185         60         40         131           SAR107         COGEMA         201187         1421491         178         60         40         75         SAR361         COGEMA         20197         1421471         187         60         310         122           SAR107         COGEMA         201231         1421491         178         60         40         75         SAR364         COGEMA         20174         1421471         187         60         310         110           SAR110         COGEMA         20127         1421431         181         60         40         70         SAR365         COGEMA         202180         1421424         186         60         310         181           SAR114         COGEMA         200794         1421471         181         60         310<																
SAR107       COGEMA       201132       142140       178       60       310       100       SAR360       COGEMA       201963       1421451       185       60       40       131         SAR108       COGEMA       201187       1421493       178       60       40       75       SAR361       COGEMA       202011       1421470       187       60       310       122         SAR109       COGEMA       201193       1421491       178       60       40       75       SAR362       COGEMA       201987       1421491       187       60       310       122         SAR110       COGEMA       20127       142163       170       60       40       90       SAR364       COGEMA       20174       1421218       186       60       310       170         SAR112       COGEMA       20127       1421471       181       60       40       90       SAR366       COGEMA       202184       1421242       186       60       310       98         SAR113       COGEMA       201977       1421376       174       60       40       63       SAR366       COGEMA       202164       1421178       183       60       310 <th></th> <td></td>																
SAR108         COGEMA         201187         1421493         178         60         40         75         SAR361         COGEMA         202011         1421470         187         60         310         122           SAR109         COGEMA         201190         1421491         178         60         310         98         SAR362         COGEMA         20187         1421494         187         60         310         122           SAR110         COGEMA         201243         1421500         173         60         40         67         SAR364         COGEMA         20174         1421218         186         60         310         110           SAR112         COGEMA         20137         142167         160         40         95         SAR364         COGEMA         202174         1421242         186         60         310         101           SAR114         COGEMA         201277         1421471         181         60         40         100         SAR364         COGEMA         202148         142174         185         60         310         83           SAR115         COGEMA         200971         1421376         174         60         40         88 </td <th></th> <td></td>																
SAR109         COGEMA         201190         1421491         178         60         310         98         SAR362         COGEMA         20197         1421491         187         60         310         122           SAR10         COGEMA         20123         1421580         173         60         40         67         SAR364         COGEMA         20194         1421519         184         60         310         110           SAR111         COGEMA         20127         1421633         176         60         40         95         SAR365         COGEMA         20217         142124         186         60         310         172           SAR113         COGEMA         20127         142141         181         60         40         100         SAR365         COGEMA         20216         142126         186         60         310         98           SAR114         COGEMA         20097         142136         174         60         40         63         SAR365         COGEMA         20216         142118         185         60         310         93           SAR115         COGEMA         200951         142136         173         60         40																
SAR111         COGEMA         201297         1421673         170         60         40         90         SAR364         COGEMA         202174         1421218         186         60         310         110           SAR112         COGEMA         201322         1421523         176         60         40         95         SAR365         COGEMA         202130         1421242         186         60         310         92           SAR114         COGEMA         201277         1421441         181         60         40         100         SAR366         COGEMA         202186         1421266         186         60         310         98           SAR115         COGEMA         200999         1421376         174         60         40         83         SAR366         COGEMA         202166         1421198         183         60         310         83           SAR116         COGEMA         200979         1421376         174         60         40         98         SAR367         COGEMA         20216         1421198         183         60         310         101           SAR117         COGEMA         200954         1421402         173         60         130																
SAR112       COGEMA       201322       1421523       176       60       40       95       SAR365       COGEMA       202130       1421242       186       60       310       92         SAR113       COGEMA       201277       1421441       181       60       40       100       SAR366       COGEMA       20286       1421266       186       60       310       92         SAR14       COGEMA       200996       1421379       174       60       40       100       SAR367       COGEMA       202166       142174       185       60       310       98         SAR15       COGEMA       200997       142136       174       60       40       63       SAR368       COGEMA       202166       142198       183       60       310       83         SAR116       COGEMA       200975       1421402       173       60       40       98       SAR371       COGEMA       202124       142148       181       60       310       80       310       80       310       80       310       80       310       80       310       80       310       80       310       80       310       80       310       80 </td <th>SAR110</th> <td>COGEMA</td> <td>201243</td> <td>1421580</td> <td>173</td> <td>60</td> <td>40</td> <td>67</td> <td>SAR363</td> <td>COGEMA</td> <td>201944</td> <td>1421519</td> <td>184</td> <td>60</td> <td>310</td> <td>110</td>	SAR110	COGEMA	201243	1421580	173	60	40	67	SAR363	COGEMA	201944	1421519	184	60	310	110
SAR113       COGEMA       201277       1421441       181       60       40       100       SAR366       COGEMA       202086       1421266       186       60       310       101         SAR114       COGEMA       200996       1421379       174       60       40       100       SAR367       COGEMA       202148       1421174       185       60       310       98         SAR115       COGEMA       200999       1421376       174       60       40       63       SAR368       COGEMA       202166       1421198       185       60       310       83         SAR116       COGEMA       200971       1421336       174       60       40       88       SAR369       COGEMA       202062       1421198       183       60       310       89         SAR117       COGEMA       200954       1421402       173       60       130       93       SAR371       COGEMA       202124       1421137       183       60       310       80         SAR118       COGEMA       201052       1421453       175       60       130       95       SAR371       COGEMA       202079       1421153       183       60       31	SAR111	COGEMA	201297	1421673	170	60	40	90	SAR364	COGEMA	202174	1421218	186	60	310	110
SAR114       COGEMA       200996       1421379       174       60       40       100       SAR367       COGEMA       202148       1421174       185       60       310       98         SAR115       COGEMA       200999       1421376       174       60       40       63       SAR368       COGEMA       20216       1421178       185       60       310       83         SAR116       COGEMA       200971       142136       174       60       40       68       SAR367       COGEMA       20216       1421188       185       60       310       83         SAR117       COGEMA       200955       1421402       173       60       40       98       SAR370       COGEMA       20212       1421139       183       60       310       80         SAR118       COGEMA       201052       1421402       173       60       130       93       SAR371       COGEMA       202124       1421133       183       60       310       80       80       80       301       76         SAR119       COGEMA       201052       1421433       176       60       130       95       SAR374       COGEMA       202057	SAR112	COGEMA	201322	1421523	176	60	40	95	SAR365	COGEMA	202130	1421242	186	60	310	92
SAR115       COGEMA       200999       1421376       174       60       40       63       SAR368       COGEMA       202106       1421198       185       60       310       83         SAR116       COGEMA       200971       1421336       174       60       40       88       SAR369       COGEMA       20202       1421198       185       60       310       89         SAR117       COGEMA       200955       1421405       173       60       40       98       SAR370       COGEMA       20202       1421198       183       60       310       101         SAR118       COGEMA       200954       1421402       173       60       130       93       SAR371       COGEMA       20212       1421133       183       60       310       80         SAR119       COGEMA       20105       142153       175       60       40       100       SAR373       COGEMA       20207       1421178       181       60       310       76         SAR120       COGEMA       201106       1421546       175       60       130       95       SAR374       COGEMA       202027       1421172       181       60       310																
SAR116       COGEMA       200971       1421336       174       60       40       88       SAR369       COGEMA       202062       1421198       183       60       310       89         SAR117       COGEMA       200955       1421405       173       60       40       98       SAR370       COGEMA       202018       1421248       181       60       310       101         SAR118       COGEMA       200954       1421402       173       60       130       93       SAR371       COGEMA       202124       1421139       183       60       310       80         SAR119       COGEMA       201052       1421433       176       60       130       100       SAR372       COGEMA       202124       1421133       183       60       310       76         SAR120       COGEMA       20105       1421543       175       60       40       100       SAR373       COGEMA       202012       1421178       181       60       310       76         SAR121       COGEMA       201166       1421543       175       60       40       51       SAR375       COGEMA       202057       1421112       181       60       310																
SAR117       COGEMA       200955       1421405       173       60       40       98       SAR370       COGEMA       20218       1421248       181       60       310       101         SAR118       COGEMA       200954       1421402       173       60       130       93       SAR371       COGEMA       202124       1421139       183       60       310       80         SAR119       COGEMA       201052       1421433       176       60       130       93       SAR372       COGEMA       202124       1421133       183       60       310       76         SAR119       COGEMA       201052       1421533       175       60       40       100       SAR373       COGEMA       202057       1421178       181       60       310       76         SAR120       COGEMA       201166       1421546       175       60       130       95       SAR374       COGEMA       202012       1421136       180       60       310       110         SAR121       COGEMA       201166       1421633       173       60       40       51       SAR376       COGEMA       202057       1421112       181       60       31																
SAR118       COGEMA       200954       1421402       173       60       130       93       SAR371       COGEMA       202124       1421139       183       60       310       80         SAR119       COGEMA       201052       1421433       176       60       130       100       SAR372       COGEMA       202079       1421133       183       60       310       76         SAR120       COGEMA       201105       1421553       175       60       40       100       SAR373       COGEMA       20205       1421178       181       60       310       76         SAR121       COGEMA       201106       1421546       175       60       130       95       SAR374       COGEMA       20202       1421136       180       60       310       170         SAR122       COGEMA       201166       1421633       173       60       40       51       SAR375       COGEMA       20207       1421121       181       60       310       123         SAR123       COGEMA       200978       142163       172       60       40       51       SAR376       COGEMA       20160       142130       176       60       310 <th></th> <td></td>																
SAR119       COGEMA       201052       1421433       176       60       130       100       SAR372       COGEMA       202079       1421153       183       60       310       76         SAR120       COGEMA       201105       1421553       175       60       40       100       SAR373       COGEMA       20205       1421178       181       60       310       76         SAR121       COGEMA       201106       1421546       175       60       130       95       SAR374       COGEMA       20202       1421178       181       60       310       161         SAR122       COGEMA       20116       1421546       175       60       40       51       SAR375       COGEMA       20202       1421136       180       60       310       123         SAR123       COGEMA       201978       1421634       172       60       40       88       SAR376       COGEMA       201680       1421380       176       60       310       115         SAR124       COGEMA       20106       1421677       171       60       40       51       SAR378       COGEMA       20138       1421435       180       60       310 <th></th> <td></td>																
SAR120       COGEMA       201105       1421553       175       60       40       100       SAR373       COGEMA       20235       1421178       181       60       310       76         SAR121       COGEMA       201106       1421546       175       60       130       95       SAR374       COGEMA       20202       1421178       181       60       310       110         SAR122       COGEMA       201156       1421633       173       60       40       51       SAR375       COGEMA       202057       1421112       181       60       310       123         SAR123       COGEMA       200978       1421634       172       60       40       88       SAR376       COGEMA       201680       1421380       176       60       310       115         SAR124       COGEMA       20106       1421677       171       60       40       51       SAR376       COGEMA       201636       1421404       176       60       310       101         SAR125       COGEMA       201030       142177       171       60       40       76       SAR378       COGEMA       20123       1421435       180       60       310 <th></th> <td></td>																
SAR121         COGEMA         201106         1421546         175         60         130         95         SAR374         COGEMA         20212         1421136         180         60         310         110           SAR122         COGEMA         201156         1421633         173         60         40         51         SAR375         COGEMA         20207         142112         181         60         310         123           SAR123         COGEMA         200978         1421634         172         60         40         88         SAR376         COGEMA         20160         142130         176         60         310         115           SAR124         COGEMA         20106         142167         171         60         40         51         SAR376         COGEMA         20163         1421404         176         60         310         101           SAR125         COGEMA         20100         142175         170         60         40         76         SAR378         COGEMA         20123         1421435         180         60         310         98           SAR126         COGEMA         20129         1421716         170         60         310																
SAR122         COGEMA         201156         1421633         173         60         40         51         SAR375         COGEMA         202057         1421112         181         60         310         123           SAR123         COGEMA         200978         1421634         172         60         40         88         SAR375         COGEMA         201680         1421380         176         60         310         115           SAR124         COGEMA         20106         1421677         171         60         40         51         SAR375         COGEMA         201680         1421404         176         60         310         115           SAR125         COGEMA         201006         1421677         171         60         40         56         SAR375         COGEMA         20136         1421404         176         60         310         101           SAR125         COGEMA         201030         1421715         170         60         40         56         SAR378         COGEMA         20138         1421435         180         60         310         98           SAR126         COGEMA         20129         142176         169         60         310 <th></th> <td></td>																
SAR124         COGEMA         201006         1421677         171         60         40         51         SAR377         COGEMA         201636         1421404         176         60         310         101           SAR125         COGEMA         201030         1421715         170         60         40         76         SAR378         COGEMA         201238         1421435         180         60         310         98           SAR126         COGEMA         201209         1421716         170         60         40         56         SAR378         COGEMA         201338         1421435         180         60         310         98           SAR126         COGEMA         201209         1421716         170         60         40         56         SAR379         COGEMA         201338         1421457         176         60         310         110           SAR127-1         COGEMA         201234         1421767         169         60         310         237.65         SAR380         COGEMA         201301         1421498         177         60         310         108           SAR127-2         COGEMA         201232         1421765         169         60			201156		173	60	40	51	SAR375		202057	1421112	181	60	310	123
SAR125         COGEMA         201030         1421715         170         60         40         76         SAR378         COGEMA         201238         1421435         180         60         310         98           SAR126         COGEMA         201209         1421716         170         60         40         56         SAR378         COGEMA         201238         1421435         180         60         310         98           SAR127-1         COGEMA         201234         142176         169         60         310         237.65         SAR380         COGEMA         201300         1421498         177         60         310         108           SAR127-2         COGEMA         201232         1421765         169         60         310         352.8         SAR381         COGEMA         201300         1421495         174         60         310         108           SAR127-2         COGEMA         201232         1421765         169         60         310         352.8         SAR381         COGEMA         201307         1421576         174         60         310         105	SAR123	COGEMA	200978	1421634	172	60	40	88	SAR376	COGEMA	201680	1421380	176	60	310	115
SAR126         COGEMA         201209         1421716         170         60         40         56         SAR379         COGEMA         201338         1421457         176         60         310         110           SAR127-1         COGEMA         201234         1421767         169         60         310         237.65         SAR380         COGEMA         201300         1421498         177         60         310         108           SAR127-2         COGEMA         201232         1421765         169         60         310         352.8         SAR381         COGEMA         201307         1421576         174         60         310         105													176	60		
SAR127-1         COGEMA         201234         1421767         169         60         310         237.65         SAR380         COGEMA         201300         1421498         177         60         310         108           SAR127-2         COGEMA         201232         1421765         169         60         310         352.8         SAR381         COGEMA         201300         1421498         177         60         310         108																
SAR127-2         COGEMA         201232         1421765         169         60         310         352.8         SAR381         COGEMA         201347         1421576         174         60         310         105																
JARIZO CUGENIA ZUIZOO 142101U 17U OU 4U 37    JARISEZ CUGEMA ZUIJAU 1421607 17Z 6U 31U 10U																
	JAR I 20	CUGEMA	201230	1421010	170	60	40	37	JARJOZ	COGEMIA	201340	1421007	1/2	00	310	100

Hole ID	Company	Easting (m)	Northing (m)	RL (m)	Dip (°)	Azimuth (°)	Hole Length (m)	Hole ID	Company	Easting (m)	Northing (m)	RL (m)	Dip (°)	Azimuth (°)	Hole Length (m)
SAR129	COGEMA	201283	1421854	174	61	40	100	SAR383	COGEMA	201299	1421634	170	60	310	84
SAR130	COGEMA	201318	1421892	179	60	40	66	SAR384	COGEMA	201470	1421520	174	60	310	83
SAR131	COGEMA	200973	1421918	172	60	40	61	SAR385	COGEMA	201319	1421417	180	60	310	73
SAR132	COGEMA	201134	1421468	177	60	40	73	SAR386	COGEMA	201370	1421629	171	60	310	121
SAR133 SAR134	COGEMA COGEMA	201186 200994	1421593 1421321	174 172	60 90	40 0	100 192.85	SAR387 SAR388	COGEMA COGEMA	201326 201352	1421675 1421720	170 174	60 60	310 310	121 121
SAR134	COGEMA	200774	1421521	172	90 90	40	281.15	SAR388	COGEMA	201332	1421720	174	60	310	121
SAR136	COGEMA	200890	1421438	172	60	130	283.35	SAR390	COGEMA	201300	1421786	175	60	310	104
SAR137	COGEMA	201048	1422053	173	60	130	255.55	SAR391	COGEMA	201337	1421781	176	60	310	121
SAR138	COGEMA	201034	1422003	173	90	130	269.3	SAR392	COGEMA	201292	1421822	175	60	310	120
SAR139	COGEMA	200993	1421970	171	90	130	100.04	SAR393	COGEMA	201328	1421826	177	60	310	121
SAR140	COGEMA	201037	1421945	173	90	130	100.04	SAR394	COGEMA	201324	1421850	178	60	310	121
SAR141	COGEMA	201091	1421910	174	90	130	100	SAR395	COGEMA	201364	1421870	178	60	310	100
SAR142	COGEMA	201108	1421963	175	90	130	82.96	SAR396	COGEMA	201208	1421878	174	60	310	114
SAR143	COGEMA	201077	1421976	175	90	130	84.4	SAR397	COGEMA	201180	1421832	170	60	310	100
SAR144-1	COGEMA	201030	1422006	173 173	90 90	0	342.55	SAR398	COGEMA	201066	1421724	170 174	60 60	310 310	117
SAR144-2 SAR145	COGEMA COGEMA	201030 201031	1422006 1422002	173	90 90	130	129.9 76	SAR399 SAR400	COGEMA COGEMA	201019 201028	1421637 1421568	174	60 60	310	115 120
SAR145	COGEMA	201031	1422051	173	90	130	78.08	SAR400	COGEMA	201028	1421500	172	60	310	92
SAR140	COGEMA	201050	1422052	173	60	40	66	SAR402	COGEMA	200762	1421747	168	60	310	89
SAR148	COGEMA	201091	1422029	174	60	40	100.04	SAR403	COGEMA	200768	1421744	168	60	310	89
SAR149	COGEMA	201075	1422096	173	60	130	97.6	SAR404	COGEMA	200774	1421684	166	60	310	92
SAR150	COGEMA	201016	1422067	172	60	40	92.72	SAR405	COGEMA	200687	1421629	170	60	310	101
SAR151	COGEMA	201016	1422067	172	60	130	82.96	SAR406	COGEMA	200851	1421849	165	60	310	110
SAR152	COGEMA	201048	1422072	173	90	130	97.6	SAR407	COGEMA	200846	1421848	165	60	310	112
SAR153	COGEMA	200993	1422026	171	90	130	100	SAR408	COGEMA	200864	1421888	166	60	310	95
SAR154	COGEMA	200993	1422026	171	90	130	78.08	SAR409	COGEMA	200831	1421920	167	60	310	92
SAR155	COGEMA	200950	1421993	170	60	220	53	SAR410	COGEMA	200679	1421636	170	60	40	92
SAR156	COGEMA	200924	1421952	169	90	0	98	SAR411	COGEMA	200612	1421605	175	60	310	92
SAR157 SAR158	COGEMA COGEMA	201041 201088	1422108 1421328	175 176	90 60	0 220	100.04 80.52	SAR412 SAR413	COGEMA COGEMA	200700 201090	1421564 1421770	168 169	60 60	40 310	87 92
SAR158	COGEMA	201055	1421938	175	90	0	100	SAR413	COGEMA	201070	1421663	170	60	40	95
SAR160	COGEMA	201198	1421914	175	90	0	98	SAR415	COGEMA	201388	1421450	177	60	310	92
SAR161	COGEMA	201153	1421812	170	90	0	63	SAR416	COGEMA	201414	1421495	175	60	310	95
SAR162	COGEMA	201091	1421350	177	90	0	150	SAR417	COGEMA	201082	1421471	176	60	40	95
SAR163	COGEMA	201165	1421753	171	90	0	65	SAR418	COGEMA	201046	1421502	174	60	310	120
SAR164	COGEMA	201060	1421334	175	90	0	78	SAR419	COGEMA	200997	1421527	172	60	310	98
SAR165	COGEMA	201189	1421796	169	90	0	100	SAR420	COGEMA	201020	1421259	171	60	310	153
SAR166	COGEMA	201080	1421368	177	90	0	150	SAR421	COGEMA	200960	1421262	172	60	310	89
SAR167	COGEMA	201214	1421840	170	90	0	73	SAR422	COGEMA	200935	1421212	173	60	310	116
SAR168	COGEMA	201085	1421382	177 174	90 90	0	150 100	SAR423	COGEMA COGEMA	200898	1421302	172 170	60 60	310 310	101
SAR169 SAR170	COGEMA COGEMA	201171 201106	1421868 1421368	174	90 90	0	150	SAR424 SAR425	COGEMA	200834 200772	1421392 1421398	166	60 60	310	98 126
SAR170	COGEMA	201100	1421300	171	90	0	83	SAR425	COGEMA	200772	1421378	168	60	310	120
SAR172	COGEMA	200978	1423598	160	90	0	147	SAR427	COGEMA	200792	1421441	166	60	310	92
SAR173	COGEMA	201011	1421902	173	90	0	100	SAR428	COGEMA	200848	1421412	171	60	40	150
SAR174	COGEMA	201112	1421422	178	90	0	129	SAR429	COGEMA	200890	1421438	172	60	40	180
SAR175	COGEMA	200887	1421882	167	90	0	100	SAR430	COGEMA	201098	1421461	177	60	40	177
SAR176	COGEMA	201075	1421363	176	90	0	84.8	SAR431	COGEMA	201192	1421550	175	60	40	180
SAR177	COGEMA	200925	1421829	168	90	0	75	SAR432	COGEMA	200842	1421123	172	90	40	161
SAR178	COGEMA	201085	1421379	177	90	0	150	SAR433	COGEMA	201107	1421610	173	60	40	184
SAR179	COGEMA	200877	1421853	166	60	40	100	SAR434	COGEMA	200955	1421435	173	60	40	180
SAR180	COGEMA	201187	1421494	178	60	40	150	SAR435	COGEMA	200612	1421608	175	60	310	140
SAR181 SAR182	COGEMA COGEMA	201079 201107	1421368 1421414	177 178	60 60	40 40	100 150	SAR436 SAR437	COGEMA COGEMA	200789 200751	1421055 1421174	171 169	60 60	310 310	140 140
SAR182	COGEMA	20110/	1421414	178	60	40 40	100	SAR437 SARA1000	Areva	200751	1421174	174	80 90	0	60
SAR184	COGEMA	201071	1421374	178	60	40	122	SARA1000	Areva	201000	1422023	174	60	122	211
SAR185	COGEMA	201038	1421338	176	60	310	147	SARA1001	Areva	201112	1421659	174	60	122	222
SAR186	COGEMA	200829	1421881	165	60	310	150	SARA1003	Areva	201110	1421606	173	60	122	225
SAR187	COGEMA	200795	1421912	165	85	40	150	SARA1004	Areva	201112	1421550	175	60	122	250
SAR188	COGEMA	200853	1421815	165	90	0	150	SARA1005	Areva	201016	1421491	173	60	122	246
SAR189	COGEMA	200813	1421840	165	90	0	102	SARA1006	Areva	200955	1421449	173	60	122	247
SAR190	COGEMA	200856	1421923	167	60	40	100	SARA1007	Areva	200747	1421586	167	70	32	238
SAR191	COGEMA	200893	1421970	168	60	40	100	SARA1008	Areva	200676	1421652	171	70	122	250
SAR192	COGEMA COGEMA	200918	1422012	168	60	40	100	SARA1009	Areva	201060	1421496	175	90	0	195.8
SAR193		200746	1421824	165	60	40	100	SARA1010	Areva	201064	1421428	177	70	180	94

Hole ID	Company	Easting (m)	Northing (m)	RL (m)	Dip (°)	Azimuth (°)	Hole Length (m)	Hole ID	Company	Easting (m)	Northing (m)	RL (m)	Dip (°)	Azimuth (°)	Hole Length (m)
SAR194	COGEMA	200703	1421846	166	60	40	90	SARA1011	Areva	201308	1421541	176	60	302	246
SAR195	COGEMA	200657	1421875	166	60	40	100	SARA1012	Areva	201183	1421743	171	60	122	196
SAR196	COGEMA	200610	1421906	170	60	40	88	SARA1013	Areva	201188	1421750	170	60	210	250
SAR197	COGEMA	200579	1421924	173	60	310	80	SARA1014	Areva	201080	1421745	169	60	120	330
SAR198	COGEMA	200532	1421951	175	60	310	73	SARA1015	Areva	200648	1421680	171	65	122	300
SAR199	COGEMA	200536	1421818	174	60	310	81	SARA1016	Areva	201362	1421571	174	60	300	389
SAR200 SAR201	COGEMA COGEMA	201006 201018	1421346 1421366	175 175	60 60	310 310	78 78	SARA1017 SARA1018	Areva	201286 201259	1421496 1421458	178 180	55 60	300 300	250 250
SAR201 SAR202	COGEMA	201018	1421386	175	60	310	80	SARA1018	Areva Areva	201237	1421438	173	50	122	230 248
SAR202	COGEMA	201031	1421409	177	60	310	82	SARA1017	Areva	201100	1421418	181	60	302	250
SAR204	COGEMA	201059	1421433	177	90	0	141	SARA1020	Areva	201660	1421566	177	60	302	250
SAR205	COGEMA	201069	1421451	177	90	0	150	SARA1022	Areva	200596	1421647	174	60	122	300
SAR206	COGEMA	201008	1421348	175	90	0	150	SARA1023	Areva	201355	1421531	174	60	302	247
SAR207	COGEMA	201024	1421374	175	90	0	150	SARA1024	Areva	201680	1421509	177	90	0	148
SAR208	COGEMA	201033	1421389	176	90	0	120	SARA1025	Areva	200691	1421701	167	65	180	246
SAR209	COGEMA	201044	1421411	177	90	0	150	SARA1026	Areva	205104	1422069	199	50	130	98
SAR210	COGEMA	201061	1421434	177	60	40	150	SARA1027	Areva	200460	1421660	175	60	0	180
SAR211	COGEMA	201070	1421452	177	60	40	150	SARA1028	Areva	200474	1421655	174	60	145	200
SAR212	COGEMA	201087	1421479	176	60	40	150	SARA1029	Areva	200607	1421721	171	65	122	246
SAR213	COGEMA	201034	1421443	175	60	40	150	SARA1030	Areva	201233	1421718	170	60	180	250
SAR214	COGEMA	201022 200982	1421421	176	60	40	139	SARA1031	Areva	201321	1421691	171	60	180	200
SAR215 SAR216	COGEMA COGEMA	200982	1421353 1421396	174 174	60 90	40 0	149 150	SARA1032 SARA1033	Areva Areva	200712 200746	1421384 1421102	169 170	90 90	0	200 216
SAR210	COGEMA	200777	1421376	174	60	40	122	SARA1033	Areva	199852	1422220	187	55	180	96
SAR218	COGEMA	200967	1421426	174	60	40	122	SARA1034	Areva	199853	1422146	185	55	180	96
SAR219	COGEMA	201022	1421426	176	60	40	120	SARA1036	Areva	199818	1422077	185	50	180	96
SAR220	COGEMA	201093	1421440	178	60	40	122	SARA1037	Areva	199848	1421999	187	50	180	96
SAR221	COGEMA	201090	1421437	178	60	40	125	SARA1038	Areva	199870	1421796	190	50	180	96
SAR222	COGEMA	200928	1421419	173	90	0	150	SARA1039	Areva	199871	1421668	189	50	180	108
SAR223	COGEMA	200943	1421440	173	90	0	122	SARA1040	Areva	199853	1421586	188	50	180	99
SAR224	COGEMA	200953	1421458	173	90	0	122	SARA1041	Areva	202723	1420270	203	50	125	99
SAR225	COGEMA	201004	1421436	175	60	220	122	SARA1042	Areva	199584	1420238	192	50	180	96
SAR226	COGEMA	201008	1421454	174	60	40	122	SARA1043	Areva	202617	1420331	204	50	125	99
SAR227	COGEMA	201033	1421478	174	60	40	122	SARA1044	Areva	199583	1420312	193	50	180	96
SAR228	COGEMA	200993	1421470	173	60	40	122	SARA1045	Areva	202563	1420338	204	50	125	97
SAR229 SAR230	COGEMA COGEMA	201019 200945	1421428 1421444	175 173	60 60	40 40	122 122	SARA1046 SARA1047	Areva Areva	199670 202547	1420394 1420413	191 203	50 50	180 125	96 98
SAR230	COGEMA	200743	1421398	173	60	40	116	SARA1047	Areva	202347	1420413	175	90	0	247
SAR232	COGEMA	200934	1421386	173	60	40	122	SARA1049	Areva	204454	1421544	198	50	180	98
SAR233	COGEMA	200961	1421373	173	90	0	122	SARA1050	Areva	200988	1422017	171	90	0	250
SAR234	COGEMA	200972	1421483	172	90	0	122	SARA1051	Areva	204457	1421615	195	50	180	96
SAR235	COGEMA	200989	1421502	172	60	40	119	SARA1052	Areva	201291	1421007	178	90	0	149
SAR236	COGEMA	200954	1421494	172	60	40	122	SARA1053	Areva	204459	1421708	195	50	180	98
SAR237	COGEMA	200920	1421452	172	60	40	120	SARA1054	Areva	200858	1421106	174	90	0	244
SAR238	COGEMA	201073	1421509	175	60	40	120	SARA1055	Areva	200882	1421896	168	90	0	250
SAR239	COGEMA	201076	1421538	174	60	40	120	SARA1056	Areva	201813	1420435	191	50	35	77
SAR240	COGEMA	200965	1421428	173	60	40	122	SARA1057	Areva	200943	1421086	179	90	0	250
SAR241	COGEMA	200860	1421492	168	60	40	122	SARA1058	Areva	201784	1420385	191	50	35	78
SAR242	COGEMA	200918	1421484	171	60	40	120	SARA1059	Areva	200927	1421200	174	90	0	234
SAR243 SAR244	COGEMA COGEMA	200896 200921	1421497 1421539	169 169	60 60	40 40	122 122	SARA1060 SARA1061	Areva	199728 201804	1420256 1419737	188 201	90 55	0 180	80 84
SAR244 SAR245	COGEMA	200921	1421557	172	60	40 40	122	SARA1061	Areva Areva	201804	1419737	193	50	325	80
SAR246	COGEMA	200889	1421516	168	60	40	120	SARA1062	Areva	201832	1419680	200	55	180	78
SAR247	COGEMA	200858	1421490	168	60	40	101	SARA1064	Areva	201787	1419590	197	55	180	78
SAR248	COGEMA	200819	1421512	166	60	40	120	SARA1065	Areva	200765	1420986	171	90	0	248
SAR249	COGEMA	200787	1421564	166	60	40	122	SARA1066	Areva	202130	1420525	191	50	325	80
SAR250	COGEMA	200766	1421569	166	60	40	122	SARA1067	Areva	200716	1419421	199	55	90	100
SAR251	COGEMA	200741	1421583	168	60	40	122	SARA1068	Areva	200756	1419374	201	50	138	100
SAR252	COGEMA	200738	1421590	168	60	40	122	SARA1069	Areva	200807	1419317	202	50	138	100
SAR253	COGEMA	200730	1421618	168	90	0	125	SARA1070	Areva	202094	1420592	191	50	325	80
SAR254	COGEMA	200716	1421641	168	90	0	124	SARA1071	Areva	202117	1420541	192	50	145	105
SAR255	COGEMA	200732	1421659	167	90	0	122	SARA1072	Areva	202036	1420648	189	50	325	80

#### **APPENDIX 2: MATERIAL RESULTS FROM HISTORICAL DRILLHOLES**

Intercepts below were aggregated at a 300 ppm eU cut-off grade with a maximum of 3 m consecutive internal dilution and a minimum composite length of 3 m. Any holes not specified in the table below only reported intercepts below these conditions.

Hole ID	From	To	Width	eU	eU <sub>3</sub> O <sub>8</sub>	Hole ID	From	To	Width	eU (nam)	eU <sub>3</sub> O <sub>8</sub>
CAD4	(m)	(m)	(m)	(ppm)	(ppm)	6 A D 0 7 0	(m)	(m)	(m)	(ppm)	(ppm)
SAR4 SAR7	38.3 8.5	62.5 71.1	24.2 62.6	1535 1296	1810 1528	SAR270 SAR271	52.1 22.7	68.3 28.1	16.2 5.4	580 398	684 469
SAR7	0.5 11.8	37	02.0 25.2	1344	1526	SAR271 SAR274	17.5	20.1	5.4 4.4	878	1035
SAR7	7.3	14.5	7.2	1169	1378	SAR274 SAR275	26.5	38.8	12.3	488	575
SAR12	2.8	9.7	6.9	450	531	SAR275	78.3	83.6	5.3	327	386
SAR12	15.5	26.3	10.8	483	569	SAR270	21	36.1	15.1	385	454
SAR16	4.1	14.8	10.7	852	1005	SAR278	8.7	12.8	4.1	5857	6905
SAR17	9.4	27.2	17.8	1427	1682	SAR279	66.9	79	12.1	633	746
SAR18	46.5	93.9	47.4	1375	1621	SAR280	76.6	81.3	4.7	568	670
SAR19	15.4	44.2	28.8	962	1134	SAR281	11.7	49.2	37.5	477	562
SAR21	13.4	19.2	5.8	459	541	SAR282	75.8	89.1	13.3	515	607
SAR26	8.7	19.6	10.9	1148	1353	SAR283	70.2	75.8	5.6	537	633
SAR29	73.7	81.7	8	337	397	SAR284	85.7	105.8	20.1	633	746
SAR30	42.2	88.4	46.2	1548	1825	SAR285	34.4	49.3	14.9	316	373
SAR31	60.5	87.7	27.2	571	673	SAR286	14	18	4	371	437
SAR37	39	42.3	3.3	422	498	SAR287	78.3	99.2	20.9	829	977
SAR48	65.3	69.5	4.2	343	404	SAR288	91.7	95.3	3.6	464	547
SAR50	10.4	15.9	5.5	569	671	SAR289	39.2	50.7	11.5	397	468
SAR55	26.4	33.9	7.5	722	851	SAR290	61.1	71.8	10.7	571	673
SAR57	62.9	67.9	5	714	842	SAR291B	58.7	70.9	12.2	900	1061
SAR58	59.1	63.9	4.8	326	384	SAR292	77.4	85.9	8.5	819	966
SAR60	56.1	68.6	12.5	464	547	SAR293	20.2	25.4	5.2	602	710
SAR63	93.8	103.5	9.7	952	1122	SAR295	12.8	27.3	14.5	1484	1750
SAR66	98.4	102.2	3.8	1078	1271	SAR296	24.9	29.3	4.4	998	1177
SAR69	39.1	52.4	13.3	795	937	SAR298	55	58.4	3.4	774	913
SAR71	33.7	39.5	5.8	672	792	SAR304	22.8	30.4	7.6	380	448
SAR72	23.1	53.3	30.2	463	546 422	SAR315	39.1	44.9	5.8	395	466
SAR74 SAR75	30.4 19.8	34.9 78	4.5 58.2	358 639	422 753	SAR316 SAR317	44.6 51.5	55.6 55.9	11 4.4	373 450	440 531
SAR75 SAR76	53.1	57.5	36.2 4.4	762	898	SAR317 SAR319	18.1	21.1	4.4 3	430 448	528
SAR78	70	76	4.4 6	946	1115	SAR317 SAR320	11.9	18.4	6.5	448	528
SAR102	64.2	73.1	8.9	409	482	SAR321	37.9	73.7	35.8	533	628
SAR102	11.4	14.7	3.3	322	380	SAR322	16.2	26	9.8	942	1111
SAR107	49	52	3	472	556	SAR323	43.8	52.5	8.7	552	651
SAR109	15.5	26.6	11.1	379	447	SAR324	55.6	85.3	29.7	678	799
SAR111	39.3	49.2	9.9	401	473	SAR325	55.6	67	11.4	489	577
SAR114	92.5	95.7	3.2	363	428	SAR326	79.1	83.1	4	317	374
SAR117	52.2	59.7	7.5	676	797	SAR327	72.4	120.2	47.8	1630	1922
SAR118	35.5	38.7	3.2	333	393	SAR335	32	35.8	3.8	388	457
SAR120	29.9	36.9	7	527	621	SAR351	20.4	23.8	3.4	507	598
SAR140	9.6	17.2	7.6	386	455	SAR379	19.7	38.9	19.2	1779	2097
SAR176	41.3	46.6	5.3	421	496	SAR380	50.8	57	6.2	454	535
SAR180	67.4	74.3	6.9	454	535	SAR381	66.4	78.7	12.3	753	888
SAR181	10.5	13.8	3.3	465	548	SAR387	28.5	34.4	5.9	392	462
SAR183	8.3	19	10.7	2841	3350	SAR397	71.3	76.2	4.9	474	559
SAR184	70.1	74	3.9	367	433	SAR399	26.3	35.3	9	403	475
SAR186	12.8	39.9	27.1	715	843	SAR406	32.7	37.2	4.5	323	381
SAR190	70.7	76.7	6	529	624	SAR410	35.4	62.2	26.8	1084	1278

Hole ID	From	То	Width	eU	eU <sub>3</sub> O <sub>8</sub>	Hole ID	From	То	Width	eU	eU <sub>3</sub> O <sub>8</sub>
noie iD	(m)	(m)	(m)	(ppm)	(ppm)	Hole ID	(m)	(m)	(m)	(ppm)	(ppm)
SAR197	34.2	37.9	3.7	369	435	SAR414	53.2	62.6	9.4	536	632
SAR203	29.3	44.9	15.6	757	893	SAR417	50.8	56.7	5.9	469	553
SAR205	86.9	90.8	3.9	2431	2866	SAR430	73.8	99.6	25.8	885	1043
SAR207	55.4	98.1	42.7	558	658	SAR431	12.8	20.1	7.3	882	1040
SAR208	107.1	114	6.9	487	574	SARA1001	10	35.5	25.5	305	360
SAR212	62	71.8	9.8	379	447	SARA1002	51.9	57.2	5.3	336	396
SAR213	90.5	100.6	10.1	583	687	SARA1003	81.2	118.9	37.7	797	940
SAR215	96.8	101.5	4.7	393	463	SARA1004	24.6	41.4	16.8	558	658
SAR216	65.4	73.5	8.1	328	387	SARA1006	48.6	64.4	15.8	399	470
SAR217	19.6	26	6.4	414	488	SARA1007	88.2	101.5	13.3	1194	1408
SAR218	19	53.4	34.4	1039	1225	SARA1008	115.4	118.6	3.2	310	365
SAR219	24.7	44.7	20	806	950	SARA1009	47.1	65.2	18.1	610	719
SAR220	71.6	78.9	7.3	898	1059	SARA1010	57.3	80.6	23.3	552	651
SAR221	56.6	74.6	18	678	799	SARA1011	31.1	82.2	51.1	300	354
SAR223	8.8	12.9	4.1	634	747	SARA1012	152.2	156.1	3.9	512	604
SAR229	22.1	40.8	18.7	494	582	SARA1014	35.5	38.5	3	510	601
SAR230	7.2	13.4	6.2	436	514	SARA1015	39.7	47.8	8.1	395	466
SAR234	27.4	46	18.6	425	501	SARA1016	60.8	83	22.2	401	473
SAR239	19.5	22.5	3	336	396	SARA1017	27.8	39.5	11.7	505	595
SAR242	30.4	42.1	11.7	442	521	SARA1018	193.9	205.8	11.9	300	354
SAR252	92.3	96.1	3.8	358	422	SARA1019	45.2	48.8	3.6	322	380
SAR253	99.2	116.9	17.7	934	1101	SARA1022	123	132.7	9.7	952	1122
SAR255	43.5	46.9	3.4	524	618	SARA1023	25.7	30.7	5	382	450
SAR256	11.4	20.6	9.2	1535	1810	SARA1025	126.7	159.4	32.7	574	677
SAR257	64.5	78.8	14.3	513	605	SARA1028	124.9	129.1	4.2	360	424
SAR258	62.3	68.7	6.4	662	780	SARA1030	64.1	72.6	8.5	304	358
SAR260	117.1	122	4.9	648	764	SARA1031	23.3	26.6	3.3	306	361
SAR263	73.2	80.6	7.4	353	416	SARA1033	162.1	171.2	9.1	318	375
SAR266	14.2	18.2	4	331	390	SARA1057	201	204.1	3.1	391	461



APPENDIX 3: JORC TABLE 1

# JORC Code, 2012 Edition – Table 1

### **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Drilling described in this announcement comprised rotary, RC and diamond exploratory drilling conducted by COGEMA from 1979–1984 and Areva in 2009, comprising         <ul> <li>3 DD from COGEMA (1979) totaling 411.5 m</li> <li>26 DD from COGEMA (1981) totaling 2,310.4 m</li> <li>277 Rotary holes from COGEMA (1982–1983) totaling 29,838.7 m</li> <li>125 Rotary holes from COGEMA (1984) totaling 14,282.75 m</li> <li>DD from COGEMA (1984) totaling 1994.15 m</li> <li>76 RC (including 7 holes with diamond tails) from Areva (2009) totalling 5,672.7 m</li> </ul> </li> <li>The main sampling method for all holes drilled has been by downhole geophysical gamma logging: ST31 and ST22-2t probes pre-1985 and DHT27 in 2009. Numerical data are available.</li> <li>Additional SPP2 logging on core and RC cuttings :             <ul> <li>3 reading/m on cuttings</li> <li>This information is only available on paper logs as histograms, no numeric data are available.</li> </ul> </li> <li>Gamma data (as counts per second) from calibrated probes were converted into equivalent uranium values (eU) using appropriate calibration factors (K factor) and all other applicable correction factors.</li> <li>No samples from the COGEMA drilling are known to have been</li> </ul>

Criteria	JORC Code explanation	Commentary
		collected for laboratory analysis. Core/chips from the Areva drilling (seven holes with diamond tails) were reportedly sampled and assayed; however, no assay results have been found in the records obtained by Haranga.
Drilling techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>Rotary drilling, reverse circulation drilling, diamond drilling or both combined (RC with diamond tail) were the main drilling techniques used. The diameter of the holes varies from PQ, HQ, NQ to BQ for diamond drilling and from OD to 64mm for Rotary/RC.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>There are no records available regarding sample recovery from either COGEMA or Areva. However, recovery is not relevant for equivalent analysis by gamma probe.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All chip and core samples were geologically logged and used to assist in the interpretation of the resistivity and gamma-ray logs from the downhole geophysical probes. The logging is appropriate to support basic geological domaining and to support potential future resource estimation and classification.</li> <li>The geological logging completed was both qualitative (rock type, mineralogy, colour, degree of oxidation, etc.) and quantitative (recording of specific depths and various geophysical data)</li> </ul>
		<ul> <li>Most historical core and chips have been discarded. Some historical core has been obtained; however, storage was inadequate and the source holes and depths are unable to be established.</li> </ul>
		<ul> <li>Logging is mainly qualitative. There are no records of sample photographs from the COGEMA programme. Core from seven of the Areva drillholes was photographed, however, some photographs are out of focus and there are inconsistencies in the labels.</li> </ul>
		<ul> <li>Most of the historical holes were logged with the downhole geophysical probes.</li> </ul>

Criteria	JORC Code explanation	Commentary
		There is no evidence that the core was geotechnically logged.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>No samples from the COGEMA drilling are known to have been collected for laboratory analysis. Core/chips from the Areva drilling were reportedly sampled and assayed; however, no sampling procedures or assay records have been obtained by Haranga.</li> <li>Core and chips have not been suitably preserved from historical programmes by COGEMA or Areva.</li> <li>Rotary drilling does not provide a sufficiently clean sample geochemical assaying (because it involves an open hole with no control on contamination or smearing of the sample between meters) and, as such, no samples were collected from the COGEMA rotary holes for geochemical assay. However, this type of drilling does allow the passage of geophysical probes which can provide an equivalent value for uranium mineralisation.</li> <li>The Competent Person is not aware of the sampling and quality control procedures implemented by COGEMA or Areva.</li> <li>There are no records of any field duplicates or other quality control sub-sampling methods being applied.</li> <li>The relevance of sample size to grain size has not been investigated at this stage and is not relevant to results obtained from downhole probes.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Analytical (equivalent uranium) results were obtained from downhole geophysical gamma logging using an ST31 and ST22-2t probes pre-1985 and a DHT27 probe in 2009, each equipped with two counting devices, crystal (scintillometer) and two Geiger-Muller (GM) tubes.</li> <li>Only CPS recorded by the GM tubes were used for grade evaluation, logging upward at speed of 1m/minute.</li> <li>The probe parameters are not specified in the records; however, former COGEMA and Areva staff reported that they used standard procedures and parameters.</li> <li>The standard DHT27 probe parameters are dead time: 45µs (2 tubes Philips Z100), Diameter: 27mm, and Coefficient corrected CPS to eU ppm (cAVP): 24.500.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>The standard ST22-2t probe parameters are dead time: 40µs (2 tubes Philips Z100), Diameter: 22mm, and Coefficient corrected CPS to eU ppm (cAVP): 26.500. Attenuation using a coefficient of absorption of metal casing(0.0430) and of mud (0.0047).</li> <li>The detail of quality control procedures are not known. Former COGEMA and Areva staff have reported that they defined the K factor in the Bessine dedicated sites using seven drums (stabilized U grades: 0, 500, 1000, 1900, 2900, 4800, 9700 ppm) and that daily control of probe counting occurred at the beginning and end of each shift using cylindrical certified sources (one low, one high). An intra-probe coefficient of calibration was reportedly used by COGEMA to ensure a correct correspondence of the data acquired with each of the probes. Radon control reportedly involved logging immediately after the end of drilling and clear water circulation for 30 minutes. Highly mineralised holes were relogged 3 days later. No radon problems were experienced at the project.</li> <li>No samples from the COGEMA drilling are known to have been collected for laboratory analysis. Core/chips from the Areva drilling (seven holes with diamond tails) were reportedly sampled and assayed, however, no assay procedures or results have been found in the records obtained by Haranga.</li> <li>The accuracy and precision of the probe data cannot be</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> </ul>	<ul> <li>established at this stage and verification drilling is required.</li> <li>There are no records of verification of significant intersections during the drilling programmes.</li> <li>No twinned holes were drilled during the historical programmes.</li> </ul>
	<ul> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Full details on data documentation and entry protocols are not known. However, the Competent Person has reviewed scanned copies of hand-written paper logs from COGEMA, scanned paper and electronic logs by Areva and a digital database of drillholes from the Saraya Prospect compiled by Areva.</li> </ul>
		<ul> <li>For drillholes by COGEMA, probe data were reportedly measured for the entire hole length; however, the database and digital logs only include results from anomalous/mineralised zones. Reporting was allegedly done daily on paper logs. All radiometric logs were recorded on a Nagra magnetophone. The</li> </ul>

Criteria	JORC Code explanation	Commentary
		COGEMA drillhole records have incomplete elevation data.
		<ul> <li>For the Areva drilling, continuous probe measurements (including radiometry and resistivity, calliper, and deviation) are recorded for the entire hole.</li> </ul>
		• There are no records currently available regarding the equivalent uranium grade calculation from the raw probe data. It is not clear if the database, compiled by Areva, takes into consideration all the corrections involved (background and K-factor of the probe, casing, water or dead-time). The potential issue of disequilibrium is not addressed in the historical reports. However, former COGEMA and Areva staff have noted that they used standard procedures and parameters, as detailed in the previous sections of this table.
		<ul> <li>eU grades were converted to eU<sub>3</sub>O<sub>8</sub> for intercept reporting using the standard conversion multiplier of 1.179.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>COGEMA (pre-1986): all historical collar locations were measured by topographic surveying (fixed grid, baseline). The location accuracy (x,y) is not known but is expected to be ±5–10 m. Downhole survey (deviation) measurements using an Eastman photo compass were recorded in logs and summary reports for ~50 of the 450 drillholes. The COGEMA drillholes have incomplete elevation data in the original logs.</li> </ul>
		<ul> <li>Areva (2009): Records indicate that collar positions (z,y,z) were measured by GPS, however, it is unclear whether a handheld or differential method was used. Former Areva staff have indicated that dGPS was in use by Areva in 2009, however, the exact method used at Saraya is still to be confirmed. Areva also verified ~50% of the COGEMA drillhole collars at Saraya (using the same GPS). A gyroscopic tool was used to measure downhole surveys in the Areva program (Geovista probe).</li> </ul>
		<ul> <li>Holes were drilled vertically or inclined at 60° with four main directions (040; 310, 122 and 220)</li> </ul>
		• Elevations in the drilling database (compiled by Areva and used by Haranga) were assigned by projection onto the area's Satellite DEM (Shuttle Radar Topographic Mission, SRTM)
		<ul> <li>Approximately 10% of historical collars have been verified in the field by Haranga by handheld GPS.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>The grid system used in this report is Universal Transverse Mercator, zone 29N (WGS 84 datum).</li> <li>Drillhole elevations in the drilling database have been projected onto the Satellite DEM (SRTM), the reference topographic surface for the area, which has a 30 m resolution in z.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drillholes are irregularly spaced across the Project. Holes are on a relatively close spacing around the main mineralised zones, around 25 m X 25 m in the main mineralization zones.</li> <li>The Competent Person considers that following the planned verification drilling and database updates, the data spacing and distribution of the historical drillholes could be sufficient to imply continuity as required for future mineral estimation and classification.</li> <li>No samples are known to have been taken for assay, therefore, no sample compositing has been applied.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Mineralisation is interpreted to be structurally controlled, dominantly striking ~040 and dipping ~80° to 130. A second perpendicular mineralised structure is speculated and may be evidenced by results from several drillholes oriented to intersect this ESE-WNW striking structure (e.g. SARA0183). From this interpretation, it is clear that some of the drillholes dip within, or partly within, the mineralisation. This is unavoidable in areas where the two perpendicular orientations are both present. However, alternative orientations have not been completely ruled out.</li> <li>Any possible bias in the probe data from the drilling orientations is unknown at this stage.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>No samples from the COGEMA drilling are known to have been collected. Core/chips from the Areva drilling were reportedly sampled and assayed, however, no records of assay results have been obtained by Haranga. Security and storage of the historical core and chips are largely unknown. While some historical core has been obtained, storage was inadequate and the source drillholes and depths are unable to be established.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>Haranga is not aware of any external audits or reviews of the historical sampling techniques or data other than the current high-level review by RSC on behalf of Haranga, where the key</li> </ul>

Criteria	JORC Code explanation	Commentary
		deliverable was to establish drill targets. The drilling database is appropriate for exploration targetting. Further validation and verification drilling are required to be able to model geology and uranium for potential resource estimation and classification.

# Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The Saraya Project is a joint venture between Haranga and Mandinga Resources SARL and relates to a single active license, PR 02208 which covers 1,650 km<sup>2</sup> in Senegal.</li> <li>Haranga has earned a 70% interest from Mandinga Resources. Mandinga has a 30% free carry-through to PFS. After PFS, Mandinga will have to contribute to costs or dilute to royalty.</li> <li>The granted license is in good standing with no known impediments, having been recently renewed for a second term (further 3 years).</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>A compilation of historical exploration work has been completed.</li> <li>Historical work included reports, rock sampling, geochemistry (hydrogeochemistry, emanometry) geological mapping, geophysical surveys, drilling, and estimates of exploration potential.</li> <li>This report summarises the material exploration drilling undertaken at Saraya prospect. Historical drillholes reported here were undertaken by COGEMA and Areva at the Saraya Prospect. Additional historical drilling has been undertaken at minor prospects but is not considered material to this release.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The Saraya Project is situated within the Paleoproterozoic Kedougou- Kenieba Inlier (KKI) of the West African Craton. In Senegal, the KKI contains two major units separated by a major shear zone, the Main Transcurrent Zone (MTZ); the Mako NE-trending volcanic belt in the west and the Dialé-Daléma metasedimentary basin in the east. The MTZ strikes northeast in the south and rotates to a northwesterly trend as it crosses the Falémé River into Mali.</li> <li>Both the Mako volcanic belt and the Diale-Dalema sedimentary series are intruded by granitoids of variable ages and geochemical signatures. The most voluminous are the plutons of the Saraya batholith, probably emplaced around 2.1 Ga. The Saraya batholith occurs as an N30 axis. The northern half of the batholith is characterized by deuteric alteration marked by a coarse-grained muscovite-rich leucogranite. The complex is poorly faulted, mainly affected by quite late N120 and N30–40 structures, typically pegmatite veins and dolerite dikes respectively.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>Uranium mineralisation at Saraya is understood to be structurally controlled with uranium being either mobilised in hydrothermal fluids or percolating meteoric water and precipitated in structural conduits. Mineralisation is found preferentially in brecciated lenses (up to 100- m long) within the episyenite but further investigation into the geological controls on mineralisation is required. No geological model has been constructed yet given the two proposed deposit types: Episyenite type deposit (Na Metasomatism) or deuteric alteration deposit.</li> </ul>
		• A preliminary mineralisation model using indicator kriging appears to support a dominant orientation of ~040 and dipping SE at ~80°. A second perpendicular (WNW striking) mineralised structure is speculated. However, alternative orientations have not been completely ruled out.
		<ul> <li>There are two major types of clays present; uraninite (and U-Ti compounds) disseminated in the chloritised zones and coffinite in post-albitization fractures. Strongly hematite-altered fractures are present in the contact zone.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Summary information for material drillholes from the Saraya Prospects is provided in Appendix 1. Drillholes with intercepts &gt; 3m and &gt;300 ppm eU were considered material for this release (Appendix 2).</li> <li>Additional high-grade intercepts are provided in Table 1 and Table 2 within the body of the report.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of</li> </ul>	<ul> <li>Significant intersections were calculated using averages derived from applying a 300 ppm eU cut-off, with maximum of 3 m consecutive internal dilution and a minimum composite width of 3 m. No cutting of high grades was undertaken.</li> <li>Internal high-grade intervals are specified using 3,000 ppm eU COG</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul><li>(COGEMA, Table 1) and 1,000 ppm eU COG (Areva, Table 2).</li><li>No metal equivalents are reported.</li></ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>The orientations of mineralised structures are not fully accepted and no geological model has been established. Mineralisation is speculated to be structurally controlled striking approximately 040 and dipping ~80° to 130. From this interpretation, it is clear that some of the drillholes dip within, or partly within, the mineralised syenite. However, alternative orientations have not been completely ruled out. Only downhole intercept lengths are reported as true width is not known.</li> </ul>
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	<ul> <li>Maps and sections are included in the body of the report.</li> </ul>
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	<ul> <li>Historical results that are considered relevant have been presented here in a balanced manner to avoid misleading reporting. It is not practicable to report all assay results from all 514 drillholes at the Saraya Prospect, hence a cut-off of 300 ppm eU has been used in Appendix 2. The reported results reflect a range of intersected widths and grades available to the Company at the time of this report. No relevant information has been omitted.</li> </ul>
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>Additional historical exploration data exists including drilling by COGEMA and Areva at several other prospects (Diobi, Dalafin, Fanta Diama, Badioula, Samecouta and Kanta Fanta), geophysical &amp; radiometric surveys, petrography, mineralogy and metallogeny, however, these data are still being reviewed. If considered material, they will be reported in future.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale stepout drilling).</li> <li>Diagrams clearly highlighting the areas of possible</li> </ul>	• A total of 3,200 m of diamond drilling is planned to commence in September 2022. The campaign aims at validating historical data (using twin holes) and verifying the geological architecture. Hole lengths vary from 80–230 m. Drill holes are typically oriented at

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	extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	approximately 130 or 310 and typically dip at 60°. Drilling will use a similar gamma probe in order to facilitate the inference of regression analysis with the historical data.