



REPÚBLICA DEMOCRÁTICA DE SÃO TOMÉ E PRÍNCIPE
MINISTRY OF NATURAL RESOURCES, ENERGY AND ENVIRONMENT

SÃO TOMÉ AND PRÍNCIPE 1ST (EEZ) LICENSING ROUND

GEO-TECHNICAL DATA



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1.0 INTRODUCTION

The Government of the Democratic Republic of São Tomé and Príncipe, through the Ministry of Natural Resources Energy and Environment (the “Ministry”) and the Agência Nacional do Petróleo de São Tomé e Príncipe (“ANP-STP”) (National Petroleum Agency of the Democratic Republic of São Tomé and Príncipe) invites Oil and Gas companies for the offshore Exclusive Economic Zone (“EEZ”) competitive bidding round to explore for hydrocarbons. Successful applicants will be granted a Production Sharing Contract (“PSC”) in respect of each block.

This document is intended to provide information for applicants in the São Tomé and Príncipe first licensing round of the Geo Technical Data available.

All information about the first licensing round and the availability of the Geo-Technical Data can be found in our websites www.anp-stp.gov.st and www.stp-eez.com.

If you have any queries or require further clarification or additional information please contact the ANP-STP directly on e-mail: info@stp-eez.com.

2.0 BLOCKS IN SÃO TOMÉ AND PRÍNCIPE 1st LICENSE ROUND

Within the EEZ there are nineteen (19) blocks grouped in to three separate zones, A, B and C as shown on the following map. Four blocks, two from zone A and two from zone B have awards pending.

For the first licensing round, ANP-STP has made available 7 blocks, 4 blocks located in zone A and 3 blocks located in zone B.

Applicants are reminded that they may submit applications for more than one block in each zone but a single company may not be awarded the totality of two blocks in the same zone as per Decree Law n° 52/2009, Article 7 which states;

“No single company shall, in any event, be awarded the totality of two blocks in the same exploration and production zone.”

Block	Zone	Area_sq_km	Status	1 st License Round
1	A	3,292	Open	Yes
2	A	4,969	Open	Yes
3	A	4,228	Open	Yes
6	A	5,024	Open	Yes
8	B	6,497	Open	Yes
7	B	6,384	Open	Yes
13	B	6,777	Open	Yes

Block Summary STP 1st Licensing Round

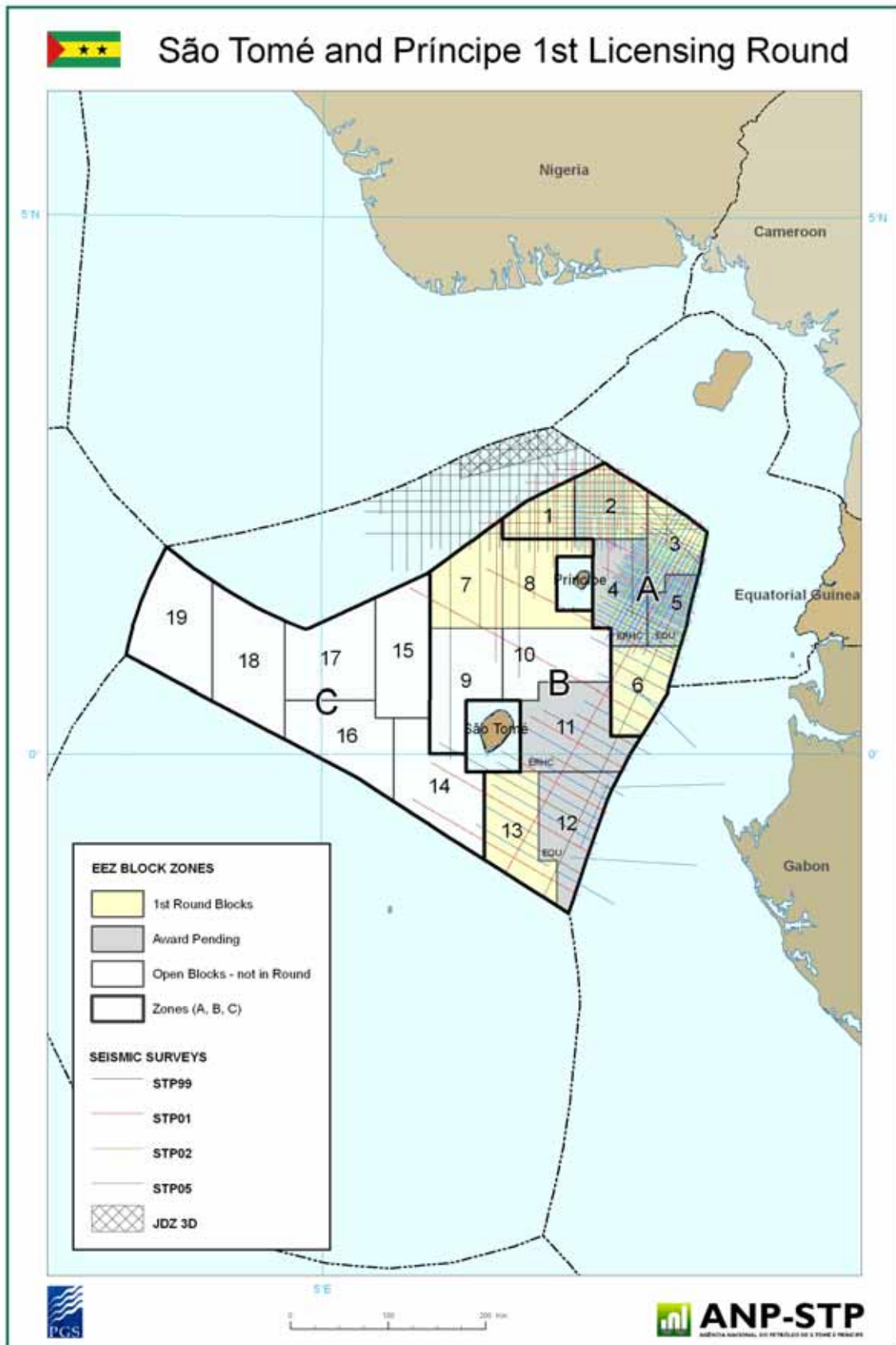
Schedule 4 provides more details of the blocks on offer in the 1st (EEZ) licensing round.

Geodetic Projection

The Geo-Technical Data package provided by ANP-STP for the EEZ first license round has been consolidated in World Geodetic System of 1984 (WGS84), UTM Zone 32N. Applicants are advised to use the same geodetic parameters.

The coordinates for each block are provided in both Lat/Long and XY. Note the Lat/Long coordinates take preference over XY.

The limits of the areas are defined geodetic lines between the given coordinates.



3.0 TECHNICAL DATA

The Geo-Technical Data package has been prepared from all the data available from within the ANP-STP archives and includes:

- Technical Reports
- Technical Presentations
- Well Data
- Petrographic Data
- Seismic Data
- Gravity & Magnetic Data
- Field Work Data
- Geochemical Data
- GIS Project
- Workstation Project

These data demonstrate the exploration history, petroleum potential and prospectivity of the EEZ of São Tomé and Príncipe.

The data packages maybe viewed in the data-rooms.

3.1 REPORTS

All reports are in digital format and together they form the definitive technical reference for hydrocarbon exploration in São Tomé and Príncipe.

The reports include:

- INTRODUCTION TO THE HYDROCARBON PROSPECTIVITY OF SÃO TOMÉ AND PRÍNCIPE – ANP-STP 2010
- EXXON Mobil Technical Evaluation Agreement Report
- Imperial College Report for Island Oil
- Geochemistry
- Gravity
- Well Reports
- Seismic Reports

3.2 WELL DATA

In 1972 two shallow holes were drilled by Texas Pacific of Portugal onshore São Tomé near oil seeps. The holes were named Cecilia Gonzalves-1 (155m TD) and Ubabudo-1 (155 m TD).

In 1990-1991, Island Oil drilled two wells on the island of São Tomé close to oil seeps. Esperança-1 drilled into Tertiary basalt with some Miocene carbonates, with TD at 859m. Of more interest is Ubabudo-1, as it reached 1,501 m and encountered Upper Cretaceous clastics.

There are no offshore wells in the São Tomé and Príncipe EEZ.

3.3 CORE DATA

Core data analysis is also available from some four outcrop samples collected by PGS in 2001.

Ubabudo-1 (drilled by Island Oil in 1990) was continuously cored from 650m to Total Depth (“TD”) of 1,501.28m. A lithology description of the core samples is available for reference.

A biostratigraphical and lithostratigraphical analysis carried out on selected ditch cutting and core pieces covering the interval 270.35m-1492.09m from an unidentified well offshore Cameroon is also included in the Imperial College Report.

Some 9 core samples were thin sectioned for petrographic work. SEM (Scanning Electron Microscopy) analysis was carried out on 5 samples, and a further 5 were submitted for XRD (x-ray Diffraction) investigations.

3.4 GEOCHEMICAL DATA

A geochemical report is available for shale samples belonging to the core interval in Ubabudo-1. The analysis include total organic carbon (“TOC”) percentage by weight, free hydrocarbons (roughly equivalent to solvent extractable hydrocarbons), pyrolysates (hydrocarbon produced by thermal cracking of the Kerogen), production index (“PI”), hydrogen index (“HI”) and the temperature of maximum rate of pyrolysate generation.

Also available is the geochemical report on the analysis carried out in 2001 on three different seep samples. Two of the samples were taken from São Tomé and one from island of Príncipe.

3.5 GRAVITY AND MAGNETIC DATA

The gravity and magnetic data can only be licensed through PGS.

3.5.1 Gravity Data

Shipborne gravity data was acquired simultaneously during the acquisition of the 2D seismic surveys acquired by PGS in 2001. The gravity data were acquired by Fugro-LCT and processed by GETECH.

Several gravity products are available, including free-air gravity, Bouguer gravity and high-pass residual Bouguer gravity.

The following formats are available for the 3km grids:

GRID FORMATS	
.grd	PC GEOSOFT format
.zycor	Zycor ASCII neutral format
.xyz	ASCII xyz format (x,y,z)

There are also reports on this data relating to the marine gravity acquisition and processing.

3.5.2 Magnetic Data

A marine magnetometer survey was obtained by PGS during Phase II of the 2D seismic data acquisition. The data are therefore very limited, being confined to the northeastern part of the STP survey area.

3.6 SEISMIC DATA

This Seismic Data can only be licensed through PGS.

Offshore Seismic Data Package

Offshore seismic data is available by survey or by individual line selection. The data is provided in SEG-Y.

Surveys over 1st Round Blocks

- STP99 Acquired 1999
- STP01 Acquired 2001
- STP02 Acquired 2002
- STP05 Acquired 2005

3.6.1 STP99 Survey

The seismic data was acquired for Mobil under a TEA (Technical Evaluation Agreement) license by Geco-Prakla in March 1999, with 44 lines shot, totalling 5,925 line kilometres. Water depths of the survey ranged from 1400 meters to 3500+ meters. This data now forms part of the PGS MC dataset.

3.6.2 STP01 Survey

Phase I seismic data was acquired and processed by PGS in 2001, and comprises 3,600 km of 2D seismic data throughout the EEZ. The line spacing was 30-60 km. In the southeastern sector, the line spacing was 50 km with a single strike line. In the northern sector, line lengths were 50-150 km, with 10-20 km line spacing.

3.6.3 STP02 Survey

Acquired and processed in 2002. This focussed on the infill of the north eastern area of the EEZ with 10km line spacing. It covers approximately 1,500 line km. and was acquired and processed using the same parameters as per Phase I STP01 Survey.

3.6.4 STP05 Survey

The STP05 survey consists of 5,800 km of data acquired and processed in 2005, infilling the earlier surveys. The data was processed to match the earlier 2002 data to provide a consistent high quality data set.

For the purposes of tying the seismic to well data, three seismic lines were acquired during the Phase IV seismic shoot which extend from the São Tomé and Príncipe to wells in deepwater Gabon.

3.7 PGS WORKSTATION PROJECTS

PGS has created “master” projects for ANP-STP in both GIS and SMT Kingdom.

These services are provided directly from PGS in cooperation with ANP-STP.

3.7.1 Seismic Workstation Projects

PGS can provide seismic workstation projects based on the data licensed:

- SMT Kingdom – inclusive, culture & wells
- Landmark Seisworks

These projects have been built from the reference ANP-STP SEG Y datasets and include where applicable:

- include static corrections
- multiple line processing
- scaling & filtering

3.7.2 Arc GIS Project

PGS can provide GIS projects based on the data licensed including the following:

- Culture Data
- New Blocks and Zones outlines
- Wells
- Water Depth
- Geology

A GIS Lite will be provided to visitors to the data room.

4.0 FURTHER INFORMATION

For further information about the São Tomé and Príncipe EEZ first license round please;

email to info@stp-eez.com or contact;



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GEO-TECHNICAL DATA

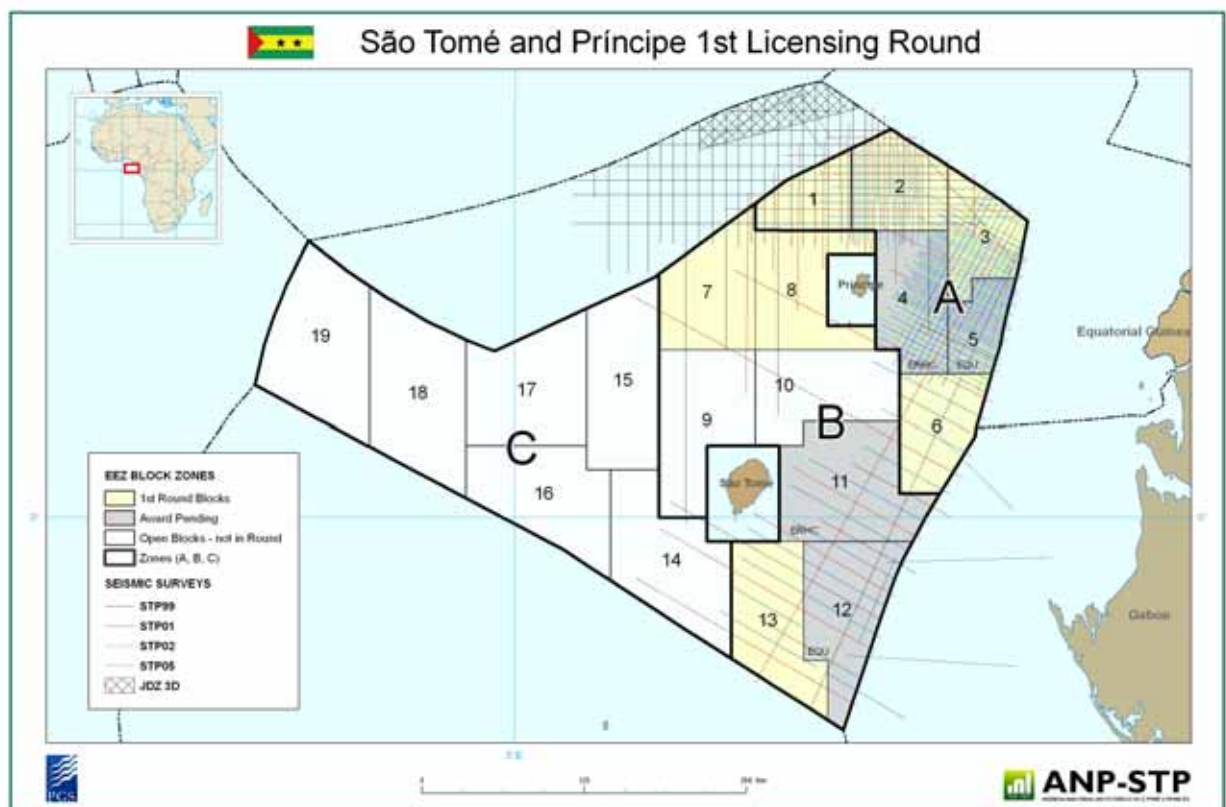
5.0 APPENDIX 1 – OFFSHORE SEISMIC DATA

5.1 OFFSHORE DATA LISTING

ANP-STP-Offshore Seismic Data Package

Offshore seismic data available for licensing is listed below and will be provided in SEG-Y format.

- STP99 Survey
- STP01 Survey
- STP02 Survey
- STP05 Survey

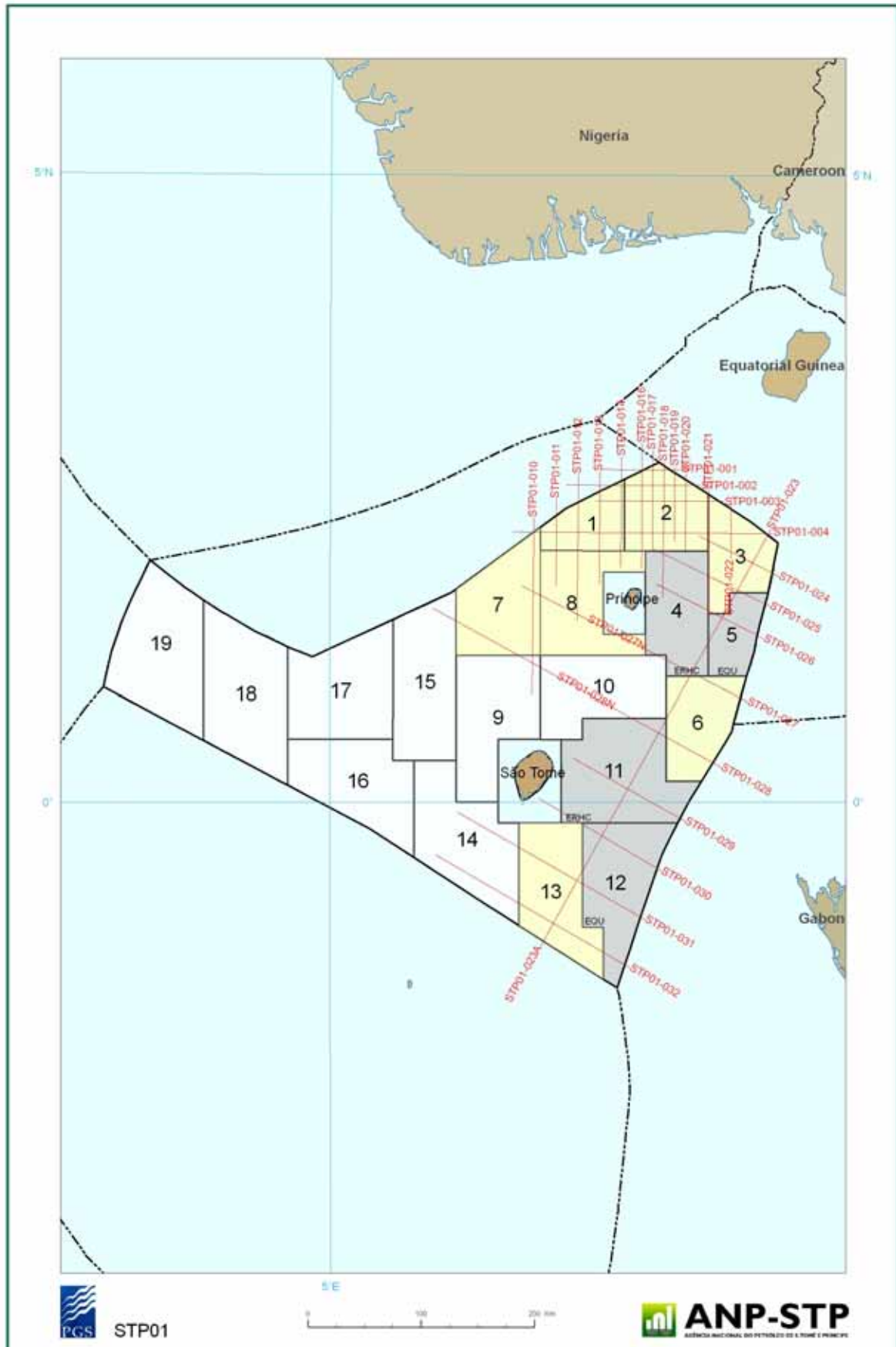


5.1.1 OFFSHORE STP99 SURVEY

Line	Start SP	End SP	Line Length (km)	SEGY
STP99_001	5384	917.7	167.541	yes
STP99_002	4744	917.7	143.460	yes
STP99_003	917.7	6419	206.374	yes
STP99_004	2162	917.7	46.654	yes
STP99_005	8113	917.7	269.936	yes
STP99_006	921.7	3207	85.692	yes
STP99_007	917.7	9201	310.773	yes
STP99_008	917.7	2435	58.893	yes
STP99_009	917.7	9697	329.366	yes
STP99_010	2695	917.7	66.645	yes
STP99_011	9474	917.7	321.000	yes
STP99_012	4010	917.7	115.962	yes
STP99_013	10245	917.7	349.496	yes
STP99_014	917.7	3921	112.625	yes
STP99_015	3267	918	88.123	yes
STP99_016	917.7	4084	118.747	yes
STP99_017	917.7	3207	85.878	yes
STP99_018	4956	917.7	151.462	yes
STP99_019	4512	3106.7	52.711	yes
STP99_020	4393	917.7	130.350	yes
STP99_021	917.7	2254	50.120	yes
STP99_022	917.7	426133	125.412	yes
STP99_024	4278	918.7	126.007	yes
STP99_026	917.7	7677	253.558	yes
STP99_028	917.7	4048	117.433	yes
STP99_030	917.7	3956	113.992	yes
STP99_032	3940	917.7	113.398	yes
STP99_034	5944	917.7	188.598	yes
STP99_036	3654	928.7	102.266	yes
STP99_038	917.7	3508	97.214	yes
STP99_040	917.7	9151	309.000	yes
STP99_042	3253	917.7	87.654	yes
STP99_044	917.7	3125.7	82.881	yes
STP99_046	3608	917.7	100.996	yes
STP99_048	917.7	3431	94.362	yes
STP99_050	3261	917	87.990	yes
STP99_052	917.7	1573	24.609	yes
STP99_054	917.7	4065.7	115.012	yes
STP99_056	917.7	2750	68.696	yes
STP99_058	2905	917.7	74.507	yes
STP99_060	917.7	330.7	90.478	yes
STP99_062	3306	917.7	89.562	yes
STP99_064	5929	917.7	187.992	yes
STP99_066	917.7	3376	92.168	yes
STP99_2013	11610.9	10035	60.230	yes
Total			6065.823	

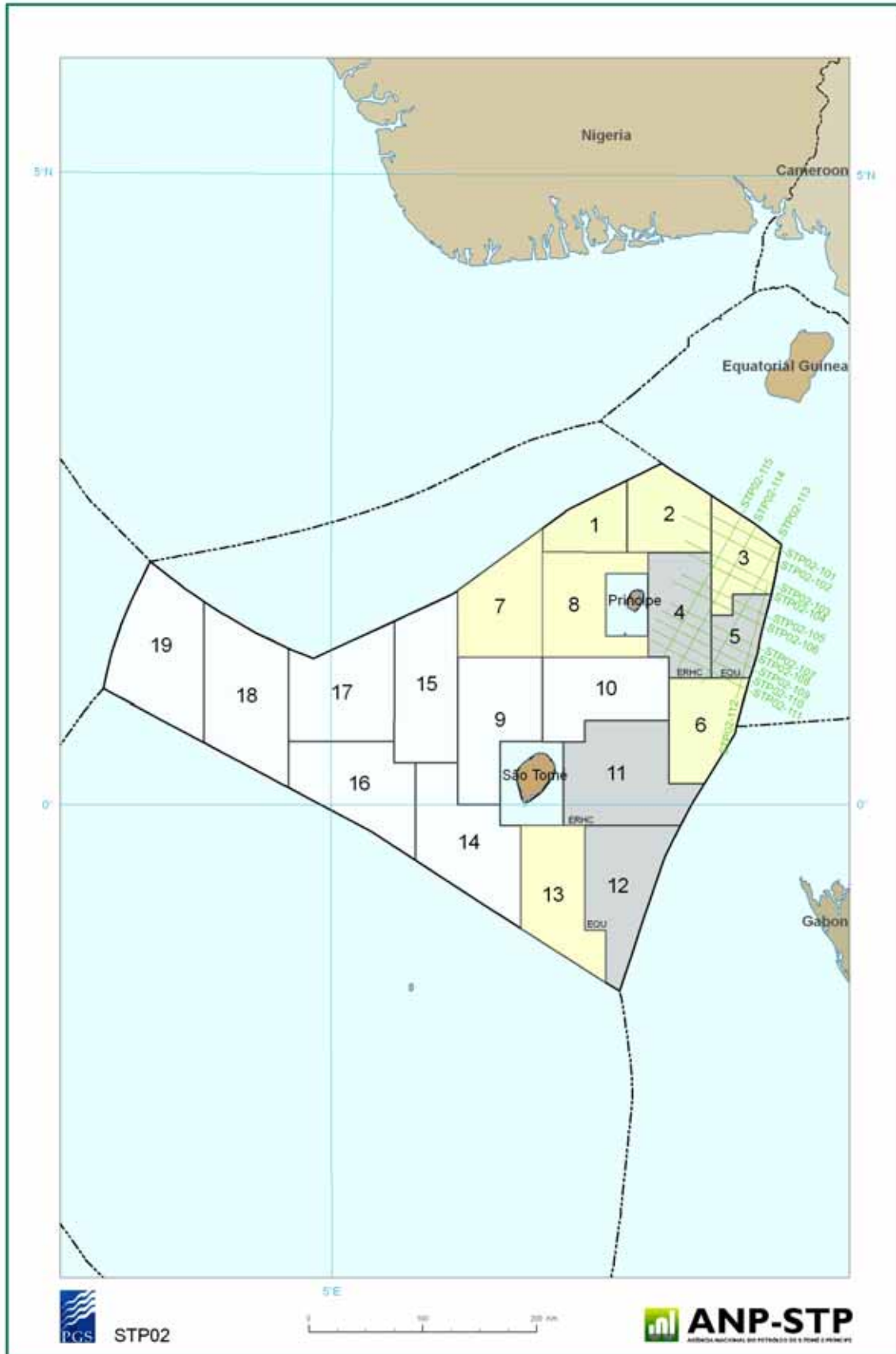
5.1.2 OFFSHORE STP01 SURVEY

Line	Start SP	End SP	Line Length (km)	SEGY
ST-001	5890.5	8816.5	73.154	yes
ST-002	5878.5	10717	120.966	yes
ST-003	8385	12986.5	115.099	yes
ST-004	6984.5	16244.5	231.498	yes
ST-010	10244	3879.5	159.12	yes
ST-011	6625	3480.5	78.622	yes
ST-012	8141	2884.5	131.432	yes
ST-013	6904.5	2884.5	100.512	yes
ST-014	5746	1773.5	99.315	yes
ST-016	5409.5	875	113.362	yes
ST-017	4554.5	875	92.005	yes
ST-018	5809	899	112.868	yes
ST-020	3766.5	886.5	72.005	yes
ST-021	5503.5	883.5	115.577	yes
ST-022	5511.5	891.5	116.148	yes
ST-023	16267	835.5	385.823	yes
ST-023A	17761.5	15884	46.94	yes
ST-024	878.5	4073.5	79.921	yes
ST-025	886	5516.5	115.767	yes
ST-026	938.5	5182	106.099	yes
ST-027	3498.5	9874.5	159.403	yes
ST-027N	879.5	2534.5	66.385	yes
ST-028	6840.5	13573	168.337	yes
ST-028N	1879	6885	125.164	yes
ST-029	930.5	5473.5	114.92	yes
ST-030	880	5868	126.477	yes
ST-031	886	8445.5	192.013	yes
ST-032	1044.6	8880	198.444	yes
Total			3617.376	



5.1.3 OFFSHORE STP02 SURVEY

Line	Start SP	End SP	Line Length (km)	SEG Y
ST02-101	962.5	4107.5	78.635	yes
ST02-102	881	4741	96.511	yes
ST02-103	981.5	4711.5	93.268	yes
ST02-104	881	4230	83.755	yes
ST02-105	982.5	4560.5	89.476	yes
ST02-106	881	4581	92.52	yes
ST02-107	980.5	4726.5	93.712	yes
ST02-108	881	4721	96.039	yes
ST02-109	994.5	5084.5	102.265	yes
ST02-110	881	4884	100.029	yes
ST02-111	934.5	5074.5	103.523	yes
ST02-112	5041	881	104.014	yes
ST02-113	6741	881	146.531	yes
ST02-114	7050.5	959.5	152.318	yes
ST02-115	7041	881	154.01	yes
Total			1586.606	



5.1.4 OFFSHORE STP05 SURVEY

Line	Start SP	End SP	Line Length (km)	SEGY
ST05A01	2303	14552	153.243	yes
ST05A02	1994	14182	152.687	yes
ST05A03	1984	11188	113.756	yes
ST05A04	8234	1994	78.347	yes
ST05A05	8224	1984	76.705	yes
ST05A06	8224	1984	76.702	yes
ST05A07	8234	1994	74.324	yes
ST05A08	8234	1994	78.339	yes
ST05A09	8224	1984	76.705	yes
ST05A10	8252	1994	77.135	yes
ST05A11	8222	1984	76.676	yes
ST05A12	8232	1994	78.312	yes
ST05A13	8222	1984	76.678	yes
ST05A14	1994	8232	78.318	yes
ST05A15	8222	1984	76.678	yes
ST05A16	8232	1994	78.317	yes
ST05B01	1994	9830	98.291	yes
ST05B02	1994	9854	98.59	yes
ST05B03	1984	9834	96.828	yes
ST05B04	1984	9670	94.777	yes
ST05B05	1994	9540	94.662	yes
ST05B06	1994	9534	94.588	yes
ST05B07	1984	9412	91.554	yes
ST05B08	1984	9366	90.978	yes
ST05B09	1994	9290	91.54	yes
ST05B10	1994	9236	90.864	yes
ST05B11	1984	9118	87.879	yes
ST05B12	1984	9064	87.203	yes
ST05B13	1994	8713	84.298	yes
ST05B14	1984	8912	85.305	yes
ST05B15	1994	8846	85.99	yes
ST05B16	1984	8788	81.375	yes
ST05B17	1994	8708	84.466	yes
ST05B18	1994	8355	79.826	yes
ST05B19	1984	8636	81.855	yes
ST05B20	2303	8512	77.925	yes
ST05B21	1994	8508	81.766	yes
ST05B22	1994	8107	76.724	yes
ST05B23	1984	8370	78.53	yes
ST05B24	2303	8326	75.598	yes
ST05B25	1994	8270	78.789	yes
ST05B26	1994	8122	76.941	yes

Cont....



Line	Start SP	End SP	Line Length (km)	SEGY
ST05B27	1984	8080	74.906	yes
ST05B28	1984	8050	74.533	yes
ST05B29	1994	7876	73.866	yes
ST05B30	14642	1984	156.924	yes
ST05B31	14568	1994	157.508	yes
ST05B32	14626	1984	156.722	yes
ST05B33	14620	1994	158.156	yes
ST05B34	14216	1984	151.601	yes
ST05B35	13204	1994	140.457	yes
ST05C01A	9756	15484	68.449	yes
ST05C01B	1994	9194	86.324	yes
ST05C02	2303	7434	64.399	yes
ST05C03	2303	12188	123.876	yes
ST05C04	1994	11849	123.5	yes
ST05C05	1984	9826	96.726	yes
ST05C08	2303	12708	130.377	yes
ST05C07	8172	1984	76.056	yes
ST05C09	2303	12462	127.297	yes
ST05C10	1994	9826	98.24	yes
ST05D01	1994	10317	104.353	yes
ST05D02	1984	10626	106.726	yes
ST05D03	1984	8376	78.603	yes
ST05D04	1994	8542	82.191	yes
ST05D05	1976	10162	100.098	yes
Total			3670.064	

