

THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LIMITED

JOINT INVESTIGATION REPORT FOR INCIDENT NO: 0238 / 813 695

(Note: As practicable as possible the JIT report is to be signed in the field by all the participating parties)

A. GENERAL INFORMATION:

1. Spill incident Number: 813695 2.Type of incident * OIL SPILL
 3. Name of Location 10" EKULAMA 1 - SANBARTU PIPELINE.
 4. Name of nearest community EKULAMA 1 5. State: RIVERS 6. LGA AKUKU-TORU
 7. Type of Production facility/Installation PIPELINE 8. Asset owner/ District NG/PINSP

B. INCIDENT INFORMATION:

9. Details of incident

- a. Date of incident: 13TH MAY, 2012.
- b. Start date/time of investigation: 17TH MAY, 2012.
- c. Investigation End date: 19TH MAY, 2012.
- d. Description of spill point environment
 - Firmed soil
 - Loose soil
 - Previously excavated area
 - Under water
 - Swampy
 - Exposed pipe surface
 - Well Platform (on Water)
 - Rig
- e. Description of leak point (tick as applicable);
 - Drilled hole
 - Hack saw cut
 - Explosive tear,
 - Complete Rupture
 - Inward dent,
 - Well head tampering
 - Failed Weld-on illegal hot tap valve,
 - Missing Pipeline/Flowline)
 - Crude oil theft (illegal) bunkering) point,
 - Third party tampering with Clamp
 - Third party tampering with valve setting,
 - Third party tampering with flange,
 - Corrosion
 - Saver-pit over flow,
 - Surge vessel overflow
 - Outward dent
 - Flare System/Bund wall failure
 - Valve Failure
 - com unit failure
 - Cold vent
 - Relief valve failure
 - Others (specify) _____
- f. Incident caused by:
 - Third party interference
 - Operational
 - Mystery _____

g. Spill point coordinates

Measuring unit ~~meters~~ **(MININA MID-BERT)**

Northing: <u>61689.10m</u>	Easting: <u>471584.17m</u>
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* This can be a) Oil spill b) Drilling fluid/Chemical c) siltation d) construction e) Encroachment f) Fire,

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C. RISK ASSESSMENT

10. Type of environment:

- Land Swamp Water Seasonal swamp

i. Type of environment to which oil has spread:

- Land Swamp Water River (identify) _____

ii. Weather condition

- Raining Sunny

11. Distance from the nearest sensitive habitat

- Government reserved and designated protected area [,m]
- Drinking water source [,m]
- Built up area [,m]
- Farmlands [,m]
- Fish Farm/Pond [,m]
- Fishing net [,m]
- Others (specify). [,m]

NOT APPLICABLE.

12. Containment measures put in place;

- Booms Trench Dyke

Others: _____

13. Any pictures or video coverage? [Y] [N]

14. Was there any disruption to the investigation? [Y] [N]

If yes give brief description:

NOT APPLICABLE.

D. TYPE/NUMBERS OF PROPERTIES, IF ANY, FOUND WITHIN THE AREA OF SPREAD OF OIL.

15. Structures / Properties

S/N	Type of Structures	Description	Size	Number	Comments
	NONE WITHIN AREA OF IMPACT.				

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16. Crops/Economic Trees

S/N	Type of crops	Young	Medium	Matured	Quantity	Comments
	NONE WITHIN AREA OF IMPACT					

17. Fish/Nets/Ponds

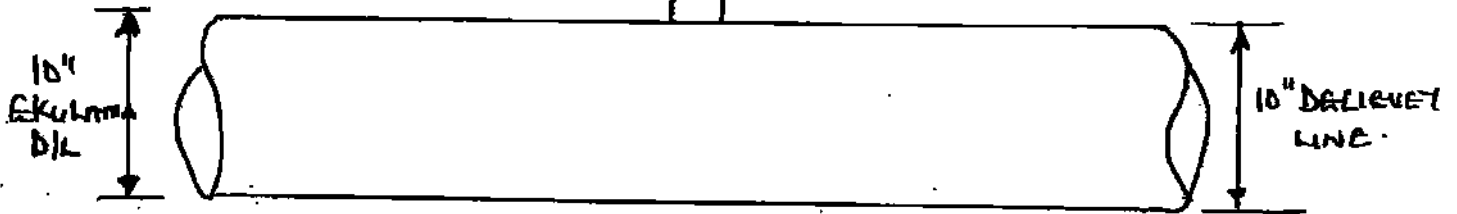
S/N	Fish/Nets/Ponds	Description	Quantity/Size	Comments
	NONE WITHIN AREA OF IMPACT			

18. Others (Specify) i.e. Animal Traps

S/N	Others	Description	Quantity/Size	Comments
	NONE WITHIN AREA OF IMPACT.			

E. GRAPHIC DESCRIPTION OF LEAK POINT *While detail report of the leak point should be contained in the Leak report, overview sketch of the site should be added as an appendix 1)*

FAILED 2" BALL VALVE
 BUNKERING FITTING AT 12 O
 CLOCK POSITION ON 10"
 EKULAMA 1 - SANBARTH
 PIPELINE AT EKULAMA 1



A SKETCH OF 10" EKULAMA 1 - SANBARTH PIPELINE AT EKULAMA.

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F: TABLE SHOWING SOME OF COORDINATES TAKEN DURING JIV FOR AREA CALCULATION

19. Impacted area boundary Coordinates (If more than 12 points, Attach as an appendix 2)

(MINNA MID-BERT)

S/N	Northing (METRE)	Easting (METRE)

PLEASE SEE ATTACHED COORDINATES.

G. INCIDENT INFORMATION:

20. Impacted Area Details

- Total calculated area of impact 8.39 Ha
- Impact within SPDC R.O.W YES
- Impact outside R.O.W YES

21. Volume of oil recovered before completion of JIV (V_{rec}):

Recovered oil V _{rec}	NIL	barrels
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20. Computation of the residual volume on site

- a. Computation of volume of pool of free phase oil (on land or confined water body)
 - i. Area (m²) occupied by pool of free phase oil 3,900 m²
 - ii. Average Depth (m) of pool of free phase oil 0.501 m

10th EKULAMA 1 - SAN BARTH PIPELINE SPILL @ EKULAMA (813695)

name	east	north	long	lat	remarks
100	471584.173	61689.1	06° 42' 22.4" E	04° 33' 23.2" N	spill point
104	471749.576	61877.1572	06° 42' 27.7" E	04° 33' 29.3" N	heavy land impact
105	471740.315	61853.3446	06° 42' 27.5" E	04° 33' 28.6" N	heavy land impact
106	471762.849	61826.8662	06° 42' 28.8" E	04° 33' 27.7" N	heavy land impact
107	471843.503	61791.1674	06° 42' 30.8" E	04° 33' 26.5" N	heavy land impact
108	471752.222	61799.105	06° 42' 27.8" E	04° 33' 26.8" N	heavy land impact
109	471854.827	61720.6212	06° 42' 24.7" E	04° 33' 24.2" N	heavy land impact
110	471531.591	61624.708	06° 42' 20.7" E	04° 33' 21.1" N	heavy land impact
111	471355.346	61457.7918	06° 42' 15.0" E	04° 33' 15.7" N	heavy land impact
112	471347.408	61504.0939	06° 42' 14.7" E	04° 33' 17.2" N	heavy land impact
113	471387.096	61574.2066	06° 42' 16.0" E	04° 33' 19.4" N	heavy land impact
114	471275.971	61596.6982	06° 42' 12.4" E	04° 33' 20.2" N	heavy land impact
115	471553.434	61729.117	06° 42' 21.4" E	04° 33' 24.5" N	heavy land impact
116	471528.953	61788.7835	06° 42' 20.8" E	04° 33' 26.4" N	heavy land impact / boom
117	471543.522	61793.563	06° 42' 21.1" E	04° 33' 26.6" N	heavy land impact / boom
118	471537.124	61790.364	06° 42' 20.9" E	04° 33' 26.5" N	heavy land impact / boom
119	471550.266	61797.8622	06° 42' 21.3" E	04° 33' 26.7" N	heavy land impact / boom
101	471568.943	61765.947	06° 42' 21.9" E	04° 33' 25.7" N	heavy land impact
102	471606.929	61752.5321	06° 42' 23.1" E	04° 33' 25.3" N	heavy land impact
103	471691.367	61809.6883	06° 42' 25.9" E	04° 33' 27.1" N	heavy land impact
120	471549.308	61942.5305	06° 42' 21.2" E	04° 33' 31.4" N	heavy water impact
121	471553.519	61942.123	06° 42' 21.4" E	04° 33' 31.4" N	heavy water impact
122	471556.674	61941.8176	06° 42' 21.5" E	04° 33' 31.4" N	heavy water impact
123	471557.844	61938.2179	06° 42' 21.5" E	04° 33' 31.3" N	heavy water impact
124	471558.801	61935.2727	06° 42' 21.6" E	04° 33' 31.2" N	heavy water impact
125	471559.269	61932.2927	06° 42' 21.6" E	04° 33' 31.1" N	heavy water impact
126	471559.772	61929.0912	06° 42' 21.6" E	04° 33' 31.0" N	heavy water impact
127	471560.019	61924.8984	06° 42' 21.6" E	04° 33' 30.9" N	heavy water impact
128	471560.35	61919.2608	06° 42' 21.6" E	04° 33' 30.7" N	heavy water impact
129	471559.631	61915.1247	06° 42' 21.6" E	04° 33' 30.6" N	heavy water impact
130	471558.999	61911.4726	06° 42' 21.6" E	04° 33' 30.4" N	heavy water impact
131	471557.715	61905.2374	06° 42' 21.5" E	04° 33' 30.2" N	heavy water impact
132	471557.054	61902.0213	06° 42' 21.5" E	04° 33' 30.1" N	heavy water impact
133	471555.703	61894.5737	06° 42' 21.5" E	04° 33' 29.9" N	heavy water impact
134	471555.359	61891.8094	06° 42' 21.4" E	04° 33' 29.8" N	heavy water impact
135	471554.924	61887.8634	06° 42' 21.4" E	04° 33' 29.7" N	heavy water impact
136	471555.608	61883.3854	06° 42' 21.5" E	04° 33' 29.5" N	heavy water impact
137	471556.09	61880.2292	06° 42' 21.5" E	04° 33' 29.4" N	heavy water impact
138	471556.904	61874.4913	06° 42' 21.5" E	04° 33' 29.2" N	heavy water impact
139	471557.562	61869.7111	06° 42' 21.5" E	04° 33' 29.1" N	heavy water impact
140	471558.089	61866.1364	06° 42' 21.5" E	04° 33' 29.0" N	heavy water impact
141	471558.599	61862.5339	06° 42' 21.6" E	04° 33' 28.8" N	heavy water impact
142	471559.428	61857.8618	06° 42' 21.6" E	04° 33' 28.7" N	heavy water impact
143	471560.338	61852.735	06° 42' 21.6" E	04° 33' 28.5" N	heavy water impact
144	471562.039	61846.3441	06° 42' 21.7" E	04° 33' 28.3" N	heavy water impact
145	471563.391	61841.2622	06° 42' 21.7" E	04° 33' 28.2" N	heavy water impact
146	471566.052	61834.9197	06° 42' 21.8" E	04° 33' 27.9" N	heavy water impact
147	471566.736	61828.3875	06° 42' 21.8" E	04° 33' 27.7" N	heavy water impact
148	471567.913	61823.9628	06° 42' 21.9" E	04° 33' 27.6" N	heavy water impact
149	471568.873	61820.3915	06° 42' 21.9" E	04° 33' 27.5" N	heavy water impact
150	471569.058	61812.7596	06° 42' 21.9" E	04° 33' 27.2" N	heavy water impact
151	471566.38	61807.6748	06° 42' 21.8" E	04° 33' 27.1" N	heavy water impact
152	471558.794	61803.8689	06° 42' 21.6" E	04° 33' 26.9" N	heavy water impact
153	471555.121	61801.204	06° 42' 21.4" E	04° 33' 26.8" N	heavy water impact

119	471550.266	61797.6822	06° 42' 21.3" E	04° 33' 26.7" N	heavy water impact
117	471543.522	61793.563	06° 42' 21.1" E	04° 33' 26.6" N	heavy water impact
118	471537.124	61790.364	06° 42' 20.9" E	04° 33' 26.5" N	heavy water impact
116	471528.953	61788.7835	06° 42' 20.6" E	04° 33' 26.4" N	heavy water impact
159	471523.363	61786.775	06° 42' 20.4" E	04° 33' 26.4" N	heavy water impact
160	471517.914	61785.514	06° 42' 20.2" E	04° 33' 26.3" N	heavy water impact
161	471513.458	61787.5092	06° 42' 20.1" E	04° 33' 26.4" N	heavy water impact
162	471510.126	61792.509	06° 42' 20.0" E	04° 33' 26.6" N	heavy water impact
163	471505.761	61801.24	06° 42' 19.8" E	04° 33' 26.8" N	heavy water impact
164	471503.389	61805.4921	06° 42' 19.8" E	04° 33' 27.0" N	heavy water impact
165	471501.946	61812.035	06° 42' 19.7" E	04° 33' 27.2" N	heavy water impact
166	471501.061	61820.5746	06° 42' 19.7" E	04° 33' 27.5" N	heavy water impact
167	471501.061	61829.2908	06° 42' 19.7" E	04° 33' 27.8" N	heavy water impact
168	471499.333	61835.5811	06° 42' 19.6" E	04° 33' 28.0" N	heavy water impact
169	471497.569	61842.0039	06° 42' 19.6" E	04° 33' 28.2" N	heavy water impact
170	471495.31	61848.894	06° 42' 19.5" E	04° 33' 28.4" N	heavy water impact
171	471492.743	61856.7255	06° 42' 19.4" E	04° 33' 28.6" N	heavy water impact
172	471491.427	61861.7328	06° 42' 19.4" E	04° 33' 28.8" N	heavy water impact
173	471490.214	61866.3638	06° 42' 19.3" E	04° 33' 29.0" N	heavy water impact
174	471488.464	61871.8051	06° 42' 19.3" E	04° 33' 29.1" N	heavy water impact
175	471486.147	61877.0721	06° 42' 19.2" E	04° 33' 29.3" N	heavy water impact
176	471480.923	61879.806	06° 42' 19.0" E	04° 33' 29.4" N	heavy water impact
177	471445.871	61883.7662	06° 42' 17.9" E	04° 33' 29.5" N	heavy water impact
178	471361.419	61856.1012	06° 42' 15.2" E	04° 33' 28.6" N	heavy water impact
179	471322.268	61843.2726	06° 42' 13.9" E	04° 33' 28.2" N	heavy water impact
180	471295.221	61834.4159	06° 42' 13.0" E	04° 33' 27.9" N	heavy water impact
181	471276.847	61828.3969	06° 42' 12.4" E	04° 33' 27.7" N	heavy water impact
182	471251.951	61820.2413	06° 42' 11.6" E	04° 33' 27.4" N	heavy water impact
183	471229.555	61812.9048	06° 42' 10.9" E	04° 33' 27.2" N	heavy water impact
184	471199.047	61802.911	06° 42' 09.9" E	04° 33' 26.9" N	heavy water impact
243	471207.961	61809.4175	06° 42' 10.2" E	04° 33' 27.1" N	heavy water impact
242	471259.914	61827.2297	06° 42' 11.9" E	04° 33' 27.7" N	heavy water impact
241	471371.24	61862.5673	06° 42' 15.5" E	04° 33' 28.8" N	heavy water impact
240	471397.662	61884.2289	06° 42' 16.3" E	04° 33' 29.5" N	heavy water impact
239	471392.912	61893.4319	06° 42' 16.2" E	04° 33' 29.8" N	heavy water impact
238	471266.742	61852.1689	06° 42' 12.1" E	04° 33' 28.5" N	heavy water impact
237	471233.492	61841.7764	06° 42' 11.0" E	04° 33' 28.1" N	heavy water impact
236	471222.46	61841.3521	06° 42' 10.7" E	04° 33' 28.1" N	heavy water impact
193	471234.671	61845.3658	06° 42' 11.1" E	04° 33' 28.3" N	heavy water impact
194	471255.359	61852.1685	06° 42' 11.7" E	04° 33' 28.6" N	heavy water impact
195	471281.494	61860.7575	06° 42' 12.6" E	04° 33' 28.8" N	heavy water impact
196	471313.508	61871.2811	06° 42' 13.6" E	04° 33' 29.1" N	heavy water impact
197	471356.408	61885.363	06° 42' 15.0" E	04° 33' 29.6" N	heavy water impact
198	471400.287	61899.807	06° 42' 16.4" E	04° 33' 30.0" N	heavy water impact
199	471431.413	61910.0387	06° 42' 17.4" E	04° 33' 30.4" N	heavy water impact
200	471448.626	61915.6969	06° 42' 18.0" E	04° 33' 30.6" N	heavy water impact
201	471463.431	61920.5636	06° 42' 18.5" E	04° 33' 30.7" N	heavy water impact
202	471476.544	61924.8741	06° 42' 18.9" E	04° 33' 30.9" N	heavy water impact
203	471481.844	61926.8164	06° 42' 19.1" E	04° 33' 30.9" N	heavy water impact
204	471488.863	61928.1839	06° 42' 19.3" E	04° 33' 31.0" N	heavy water impact
205	471495.748	61929.7209	06° 42' 19.5" E	04° 33' 31.0" N	heavy water impact
206	471502.093	61931.1383	06° 42' 19.7" E	04° 33' 31.1" N	heavy water impact
207	471508.347	61932.5349	06° 42' 19.9" E	04° 33' 31.1" N	heavy water impact
208	471516.62	61934.3823	06° 42' 20.2" E	04° 33' 31.2" N	heavy water impact
209	471521.763	61935.853	06° 42' 20.4" E	04° 33' 31.2" N	heavy water impact
210	471525.534	61936.9315	06° 42' 20.5" E	04° 33' 31.3" N	heavy water impact

211	471530.129	61937.9849	06° 42' 20.6" E	04° 33' 31.3" N	heavy water impact
212	471535.042	61939.101	06° 42' 20.8" E	04° 33' 31.3" N	heavy water impact
213	471541.812	61941.2873	06° 42' 21.0" E	04° 33' 31.4" N	heavy water impact
243	471207.981	61809.4175	06° 42' 10.2" E	04° 33' 27.1" N	light water impact
184	471199.047	61802.911	06° 42' 09.9" E	04° 33' 26.9" N	light water impact
187	471158.307	61789.5654	06° 42' 08.6" E	04° 33' 26.4" N	light water impact
188	471148.83	61786.4608	06° 42' 08.3" E	04° 33' 26.3" N	light water impact
189	471114.852	61773.521	06° 42' 07.2" E	04° 33' 25.9" N	light water impact
190	471054.99	61750.7242	06° 42' 05.2" E	04° 33' 25.2" N	light water impact
191	471043.279	61746.2643	06° 42' 04.9" E	04° 33' 25.0" N	light water impact
192	471038.078	61744.3975	06° 42' 04.7" E	04° 33' 25.0" N	light water impact
214	471032.252	61742.4106	06° 42' 04.5" E	04° 33' 24.9" N	light water impact
215	471023.952	61739.5799	06° 42' 04.2" E	04° 33' 24.8" N	light water impact
216	471010.773	61735.0656	06° 42' 03.8" E	04° 33' 24.7" N	light water impact
217	471001.68	61731.9845	06° 42' 03.5" E	04° 33' 24.5" N	light water impact
218	470984.575	61726.1513	06° 42' 03.0" E	04° 33' 24.4" N	light water impact
219	470924.865	61705.7203	06° 42' 01.0" E	04° 33' 23.7" N	light water impact
220	470909.172	61700.2501	06° 42' 00.5" E	04° 33' 23.5" N	light water impact
248	470894.681	61694.5627	06° 42' 00.0" E	04° 33' 23.3" N	light water impact
247	470906.082	61700.6704	06° 42' 00.4" E	04° 33' 23.5" N	light water impact
246	470999.003	61733.7962	06° 42' 03.4" E	04° 33' 24.6" N	light water impact
245	471072.029	61758.6883	06° 42' 05.8" E	04° 33' 25.4" N	light water impact
244	471117.135	61778.1511	06° 42' 07.2" E	04° 33' 26.1" N	light water impact
236	471222.46	61841.3521	06° 42' 10.7" E	04° 33' 28.1" N	sheen
237	471233.492	61841.7764	06° 42' 11.0" E	04° 33' 28.1" N	sheen
238	471268.742	61852.1699	06° 42' 12.1" E	04° 33' 28.5" N	sheen
239	471392.912	61893.4319	06° 42' 16.2" E	04° 33' 29.8" N	sheen
240	471397.662	61894.2289	06° 42' 16.3" E	04° 33' 29.5" N	sheen
241	471371.24	61862.5573	06° 42' 15.5" E	04° 33' 28.8" N	sheen
242	471259.914	61827.2297	06° 42' 11.9" E	04° 33' 27.7" N	sheen
243	471207.981	61809.4175	06° 42' 10.2" E	04° 33' 27.1" N	sheen
244	471117.135	61778.1511	06° 42' 07.2" E	04° 33' 26.1" N	sheen
245	471072.029	61758.6883	06° 42' 05.8" E	04° 33' 25.4" N	sheen
246	470999.003	61733.7962	06° 42' 03.4" E	04° 33' 24.6" N	sheen
247	470906.082	61700.6704	06° 42' 00.4" E	04° 33' 23.5" N	sheen
248	470894.681	61694.5627	06° 42' 00.0" E	04° 33' 23.3" N	sheen
221	470698.984	61632.3609	06° 41' 53.4" E	04° 33' 21.3" N	sheen
222	470668.339	61638.1673	06° 41' 52.7" E	04° 33' 21.5" N	sheen
223	470676.327	61653.7135	06° 41' 53.0" E	04° 33' 22.0" N	sheen
224	470733.098	61670.4716	06° 41' 54.8" E	04° 33' 22.5" N	sheen
225	470832.937	61726.6408	06° 41' 58.0" E	04° 33' 24.4" N	sheen
226	470891.78	61741.4579	06° 41' 59.9" E	04° 33' 24.8" N	sheen
227	470953.34	61757.7012	06° 42' 01.9" E	04° 33' 25.4" N	sheen
228	470968.055	61760.9812	06° 42' 02.3" E	04° 33' 25.5" N	sheen
229	470985.605	61767.0907	06° 42' 03.0" E	04° 33' 25.7" N	sheen
230	471016.753	61776.8243	06° 42' 04.0" E	04° 33' 26.0" N	sheen
231	471045.933	61785.9431	06° 42' 04.9" E	04° 33' 26.3" N	sheen
232	471074.126	61799.5937	06° 42' 05.8" E	04° 33' 26.8" N	sheen
233	471103.614	61802.2851	06° 42' 06.8" E	04° 33' 26.8" N	sheen
234	471107.578	61803.5881	06° 42' 06.9" E	04° 33' 26.9" N	sheen
235	471193.749	61831.914	06° 42' 09.7" E	04° 33' 27.8" N	sheen

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iii. Emulsification factor: 30%

iv.

Volume of pool of free phase oil, V_{pool} :	17.17	barrels
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b. Computation of volume of infiltrated oil in the soil (V_{inf}).

- i Area *(m²) covered by the oil: 30,000 m²
- ii Area of the pool of free phase oil in touch with soil: _____
- iii Average Depth (m) below ground surface of infiltration of oil: 0.001 m
- iv Soil type: CLAY
- v P_e (effective porosity of the soil): 8%

iv.

Volume of infiltrated oil, V_{inf} :	15.16	barrels
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21. Computation of volume of oil on open water based on standard coloration.

- i. Total area of oil on open water: 50,000 m²
- ii. Table of average depth of oil on water based on coloration**

	Thickness (mm)	Percentage coverage	Volume (m ³)
Barely Visible	0.00004	-----	
Silvery	0.00008	-----	
Slight Color	0.00015	-----	
Bright Color	0.0003	-----	
Dull	0.001	-----	
Dark	0.002	80%	0.68 m ³
Black oil	0.1	20%	1 m ³
Emulsion (30% Oil)	1	-----	
Percent Total		100%	Total Volume 6.79 bbl

iii.

Volume of oil on open water, V_{oil} :	6.79	barrels
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22. Calculation of evaporated volume:

- i. Oil type: BONNY LIGHT
- ii. E-Factor: 25%

iii.

Volume of evaporated oil, V_{evap} :	13.02	barrels
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Evaporation Factors (E-Factor) for SPDC Crude oil			
Oil Type	Days on site	Bonny Light	Bonny Medium
Period Since Oil Spill	< 1 day	10%	5%
	1-7 days	25%	15%
	> 7 days	40%	25%

*If area is not same as the total area of impact, please indicate in the overview sketch
 ** Spill Factor from USCG FOG (2000 Edition)

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<p>23. Gross Total Estimated Spilled Volume</p> $V_{est}(bbls) = V_{evap}(bbls) + V_{wa}(bbls) + V_{inf}(bbls) + V_{pool}(bbls) + V_{recf}(bbls)$
<p>$V_{est}(bbls) = 13.02 + 6.79 + 15.10 + 17.17 + NIL = 52.08 \text{ Barrel}$</p>
<p>24. Net Total Estimated Spilled Volume</p> $V_{Est}(bbls) = V_{evap}(bbls) + 0.6 * V_{wa}(bbls) + V_{inf}(bbls) + V_{pool}(bbls) + V_{recf}(bbls)$
<p>$V_{Est}(bbls) = \text{Nil} + 6.79 + (13.02 + (6.79 \times 0.6)) + 15.10 + 17.17 = 49.36 \text{ Barrel}$</p>

*Calculation of the respective estimated volume is to be done on site as far as practicable using the new spill volume estimation software on site

TOTAL OIL SPILL = 49.36 BARRELS

*Conversion of m3 to barrels is Total volume VT (m3) x 6.29

*Emulsification factor for spill on water to consider is 60% of volume of oil.

25. GENERAL STATUS OF THE SITE

<p>A. Joint investigation of the incident site found that there is no residual impact after the initial response and therefore recommend that the site be closed out <input type="checkbox"/></p>
<p>B. Investigation of the incident site showed that there is residual impact on site requiring further works <input checked="" type="checkbox"/></p>

26 REPRESENTATIVES

This report was filled and signed on the 19/05/2012 at incident site by joint investigation representatives from

- Host Community
- Department of Petroleum Resources [DPR]:
- National Oil Spill Detection and Response Agency [NOSDRA]:
- State Ministry of Environment [SME]:
- Nigeria Police Force [NPF]:
- Shell Petroleum Development Company [SPDC]:

Tick as applicable

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27. Appendix 1: Overview sketch of the site

