

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1757249 JIV report S/N: Nº 0000222

(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: 1757249 2. Type of incident\* OIL SPILL  
3. Name of Location BONNY TERMINAL TANK 15 10" DRAIN LINE FLANGE  
4. Name of nearest community BONNY 5. State: RIVERS 6. LGA BONNY  
7. Type of Production facility/Installation BONNY OIL AND GAS TERMINAL (BOGT)  
8. Asset owner/District THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LTD (SPDC)/BOGT

## B. INCIDENT INFORMATION:

9. Details of incident  
a. Date of incident: 28TH NOVEMBER 2016  
b. Start date/time of investigation: 1ST DECEMBER 2016/1000HRS  
c. Investigation End date: 1ST DECEMBER 2016 Actual investigation duration, days: ONE (1) DAY  
d. Description of spill point environment

- |   |                                     |  |
|---|-------------------------------------|--|
| <input checked="" type="checkbox"/> Firm soil     | <input type="checkbox"/> Loose soil | <input type="checkbox"/> Recently excavated area         |
| <input type="checkbox"/> Under water              | <input type="checkbox"/> Swampy     | <input checked="" type="checkbox"/> Exposed pipe surface |
| <input type="checkbox"/> Well Platform (on Water) | <input type="checkbox"/> Drill Rig  |  |

Additional observations around the spill point:

NOT APPLICABLE

## e. Description of leak point (tick as applicable);

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Drilled hole                               | <input type="checkbox"/> Hack saw cut         | <input type="checkbox"/> Tear (_____),                                     |
| <input type="checkbox"/> Complete Rupture                           | <input type="checkbox"/> Inward dent,         | <input type="checkbox"/> Well head tampering                               |
| <input type="checkbox"/> Failed Weld-on illegal hot tap valve       | <input type="checkbox"/> Failed Clamp,        | <input type="checkbox"/> Missing Pipeline/Flowline                         |
| <input type="checkbox"/> Crude oil theft (illegal bunkering) point, | <input type="checkbox"/> Saver-pit over flow  | <input type="checkbox"/> Third party tampering with Clamp                  |
| <input type="checkbox"/> Third party tampering with valve setting   | <input type="checkbox"/> Bulging Outward      | <input type="checkbox"/> Third party tampering with flange,                |
| <input type="checkbox"/> Flare System/Bund wall failure             | <input type="checkbox"/> Cold vent            | <input type="checkbox"/> Surge vessel overflow,                            |
| <input type="checkbox"/> Valve Failure                              | <input type="checkbox"/> Relief valve failure | <input type="checkbox"/> Accidental 3 <sup>rd</sup> party equipment impact |
- Others(specify) LEAKING FLANGE

## f. Incident caused by:

- Third party interference (Sabotage; crude theft; Line theft; Accidental 3<sup>rd</sup> party damage)  
 Operational  Others (including Mystery spills) \_\_\_\_\_

\*This can be: a) Oil Spill b) Drilling fluid/Chemical c) Situation d) construction e) Encroachment f) Fire.

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g. Spill point coordinates

h. Measuring unit

WGS 84

Northing:	Easting:
04.43201	007.15819
/	/
/	/
/	/

## C. RISK ASSESSMENT

10. Type of environment:

- Land     
  Swamp     
  Water     
  Seasonal swamp     
  Shoreline/Waterfront

i. Type of environment to which oil has spread:

- Land     
  Swamp     
  Water     
  River (identify) \_\_\_\_\_

ii. Weather condition

- Rain     
  Sunny     
 Dry     
 Wet     
 Windy     
 Hot     
 Cool

11. Distance from the nearest sensitive habitat

- |  |   |     |                                |
|--|---|-----|--------------------------------|
| <input type="checkbox"/> Government reserved and designated protected area   | [ | .m] | } NONE SEEN<br>WITHIN VICINITY |
| <input type="checkbox"/> Drinking water source                               | [ | .m] |                                |
| <input type="checkbox"/> Built up area                                       | [ | .m] |                                |
| <input type="checkbox"/> Farmlands   | [ | .m] |                                |
| <input type="checkbox"/> Fish Farm/Pond                                      | [ | .m] |                                |
| <input type="checkbox"/> Fishing net   | [ | .m] |                                |
| <input checked="" type="checkbox"/> Others (specify). <u>BONNY TANK FARM</u> |   |     |                                |

12. Containment measures put in place:

- Booms     
  Trench     
  Dyke     
 Natural depression     
 Pit     
 None
- Others: \_\_\_\_\_

13. Any pictures or video coverage?

[Y]  [N]

14. Further response/repair initiated as at the time of JIV?

[Y]  [N]

If yes to item 14, give brief description:

AND LINE WAS FURTHER DEPRESSURIZED

15. Was there any disruption to the investigation?

[Y]

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If yes to item 15 give brief description:

NOT APPLICABLE

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

16. Structures / Properties

S/N	Type of Structures	Description	Size	Number	Comments
<u>NONE WITHIN AREA OF IMPACT</u>					

17. Crops/Economic Trees

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

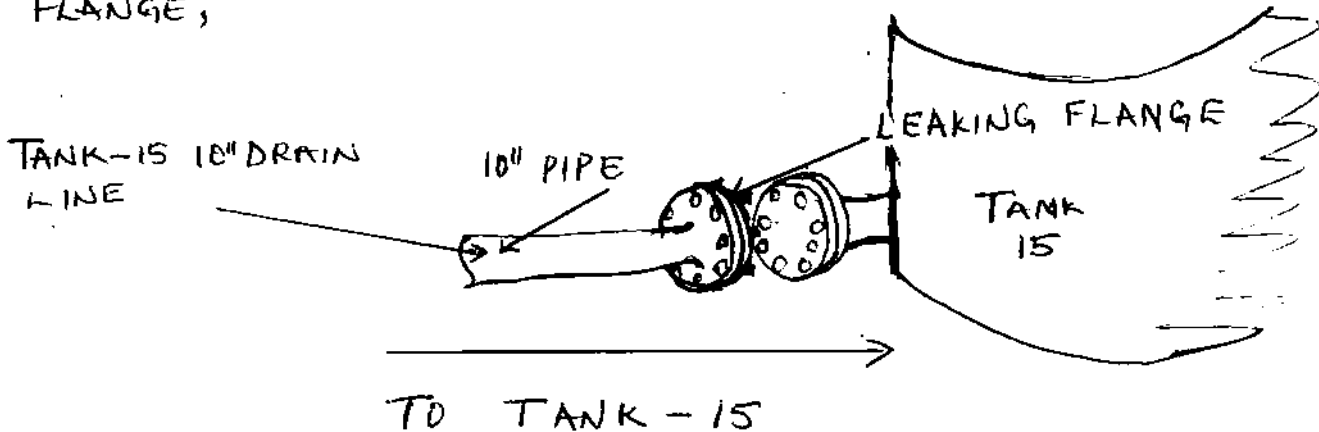
18. Fishing Nets/Fish Ponds

S/N	Nets/Ponds	Description	Quantity/Size	Comments
<u>NONE WITHIN AREA OF IMPACT</u>				

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

S/N	Others	Description	Quantity/Size	Comments
<u>NONE WITHIN AREA OF IMPACT</u>				

**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) A SECTION OF BONNY TERMINAL TANK-15 10" DRAIN LINE AT BONNY SHOWING LEAKING FLANGE,



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

20. Impacted area boundary Coordinates (If more, Print and attach as an appendix)

W9584

S/N	Northing	Easting
	04.43208	007.15812
	04.43208	007.15821
	04.43203	007.15825
	04.43198	007.15818

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## G. INCIDENT INFORMATION:

### a. Impacted Area Details

- Total calculated area of impact 0.01HA
- Impact within R.O.W YES
- Impact outside R.O.W NO

### b. Volume of oil recovered before completion of JIV ( $V_{rec}$ ):

Recovered oil $V_{rec}$ :	<u>NIL</u>	Barrels
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Controlled recovery/evacuation from source with no impact to environment:

<u>NIL</u>	Barrels
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### c. Net Estimated Spilled Volume $V_{Est}$ (bbls)\* =

0.94 BARRELS

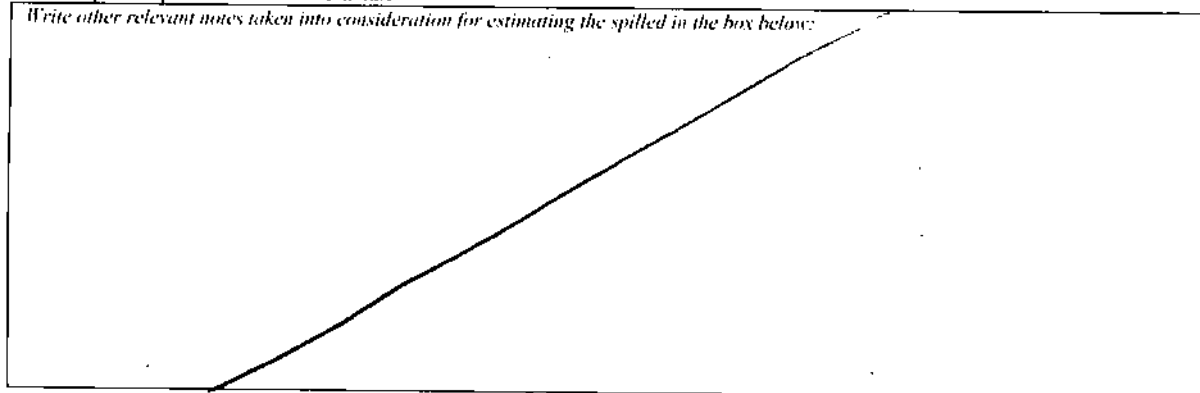
### Estimated Reported Volume\*\* $V_{rep}$ (bbls) =

1.0 BARRELS

#### \*Notes:

- Volume estimation was done using an excel based tool. (see attached for details on the calculation)
- Reported spilled volume is an estimate

Write other relevant notes taken into consideration for estimating the spilled in the box below:



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; Conversion of  $m^3$  to barrels is Volume ( $m^3$ ) x 6.29; \*\*Round up estimated volume to next whole number using the following rules:

- Any spill volume in excess of 1 bbl is rounded up to the next whole number.
- Any spill volume in less than 1 bbl is rounded up to the next 0.1 bbl.

Examples. Calculated volume = 15.3 bbl ----- Reported volume = 16 bbl  
Calculated volume = 0.35 bbl ----- Reported volume = 0.4 bbl  
Calculated volume = 0.01 bbl ----- Reported volume = 0.1 bbl

Whenever this estimation tool is not applicable please refer to paragraph 6c (Deviations) of the JIV procedure to use appropriate steps for volume estimation, record the calculation on a plain sheet of paper and attach to the JIV report.

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## d. General Status of the site

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

## e. Representatives

This report was filled, agreed and signed by the following joint investigation team representatives:

- Host Community:
- Department of Petroleum Resources [DPR]:
- National Oil Spill Detection and Response Agency [NOSDRA]:
- State Ministry of Environment [SME]:
- Asset Owner:
- Signatories agree with reported findings:
- Separate DPR form has been filled out with same finding:

*Tick as applicable*

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f. Appendix 1: Overview sketch of the site

