

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1828792 JIV report S/N: Nº 0000263

(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: 1828792 2. Type of incident\* OIL SPILL  
3. Name of Location 6" OBIGBO NORTH - OGALE PIPELINE  
4. Name of nearest community OGALE 5. State: RIVERS 6. LGA ELEME  
7. Type of Production facility/Installation OIL PIPELINE  
8. Asset owner/District THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LIMITED / PIPELINE

## B. INCIDENT INFORMATION:

9. Details of incident  
a. Date of incident: 28TH MARCH, 2017  
b. Start date/time of investigation: 1ST APRIL, 2017 / 12:12 HOURS  
c. Investigation End date: 5TH APRIL, 2017 Actual investigation duration, days: TWO (2) DAYS  
d. Description of spill point environment

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

Additional observations around the spill point: UPON EXPOSURE OF THE SPILL POINT, THE PIPELINE POLYKENE TAPE COATING SURROUNDING THE SPILL POINT WAS OBSERVED TO HAVE BEEN REMOVED BY UNKNOWN PERSON(S).

## 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 checked="" 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 |
| <input type="checkbox"/> Others(specify) _____                                 |   |  |

## f. Incident caused by:

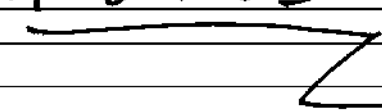
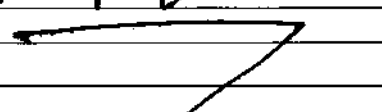
- Third party interference (Sabotage : crude theft ; Line theft : Accidental 3<sup>rd</sup> party damage   
 Operational  Others (including Mystery spills) \_\_\_\_\_

\*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 **(THEFT POINT)**  
 h. Measuring unit **WGS 84**

Northing:	Easting:
4.82003	7.15418
	

## 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

- 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) **PALM TREE**      **1 m**

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:

**RECOVERY OF FREE-PHASE OIL WAS DONE AND REPAIR WAS CARRIED OUT BY CLAMPING THE AFFECTED PIPELINE SECTION.**

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

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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
NONE WITHIN AREA OF IMPACT					

**17. Crops/Economic Trees**

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

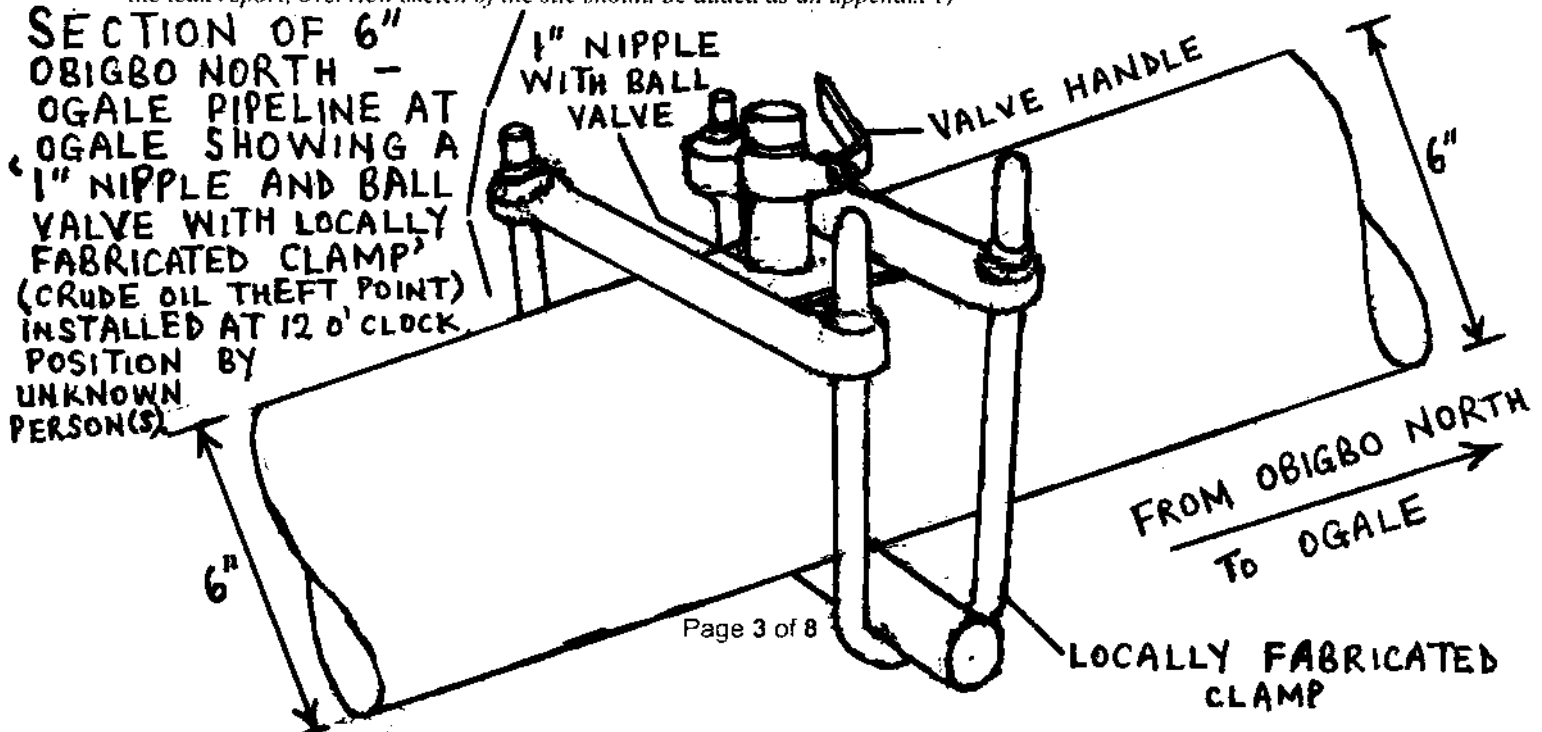
**18. Fishing Nets/Fish Ponds**

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

**19. 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)





**APPENDIX A****INC.NO: 1828792****6" OBIGBO-NORTH - OGALE D/L SPILL AT OGALE  
IMPACTED AREA COORDINATES (WGS 84)**

<b>PTS</b>	<b>NORTHING</b>	<b>EASTING</b>
176	4.81997	7.15418
177	4.82007	7.15412
178	4.82014	7.15411
179	4.82021	7.15411
180	4.82023	7.15414
181	4.82027	7.15413
182	4.82015	7.1542
183	4.82006	7.15423
184	4.81996	7.15413
185	4.81996	7.15427
186	4.82029	7.15438
187	4.82051	7.15431
188	4.82042	7.15418
189	4.82028	7.15414
190	4.82027	7.15405
191	4.82026	7.15402
192	4.82035	7.154
194	4.82038	7.15404
195	4.82029	7.15365
196	4.82027	7.15362
197	4.81993	7.15359
198	4.81983	7.15359
199	4.81982	7.15357
200	4.81997	7.15356
201	4.8202	7.15357
202	4.82033	7.15353
203	4.82055	7.15354
204	4.82055	7.15365
205	4.82044	7.15362
206	4.82032	7.15364
207	4.82032	7.15346
208	4.82044	7.15325
209	4.82051	7.15303
210	4.82057	7.15256
211	4.8206	7.15235
212	4.82027	7.15214
213	4.81977	7.15172
214	4.81951	7.15146
215	4.81927	7.15114
216	4.81924	7.15096
217	4.81915	7.15095
218	4.81917	7.15104

**APPENDIX A (CONTINUED)**

**INC.NO: 1828792**

**6" OBIGBO-NORTH - OGALE D/L SPILL AT OGALE  
IMPACTED AREA COORDINATES (WGS 84)**

219	4.81915	7.15109
220	4.81921	7.15113
2140	4.819528	7.151436
2130	4.819799	7.151703
2120	4.820309	7.152117
2110	4.820632	7.152338
2100	4.820599	7.152574
2090	4.820485	7.153026
2080	4.820418	7.15324
2070	4.820294	7.153445

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**G. INCIDENT INFORMATION:**

**a. Impacted Area Details**

- Total calculated area of impact 0.36 HA
- Impact within R.O.W YES
- Impact outside R.O.W YES

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

Recovered oil $V_{rec}$ :	11	Barrels
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Controlled recovery/evacuation from source with no impact to environment:

NIL	Barrels
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**c. Net Estimated Spilled Volume  $V_{Est}$ (bbbls)\* = 81.6**

**Estimated Reported Volume\*\*  $V_{rep}$ (bbbls) = 82 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:

THE ASSESSMENT OF THE SPILL-IMPACTED AREA IN LIEU OF ESTIMATING THE SPILLED VOLUME WAS CARRIED OUT ON THE FIRST DAY OF INVESTIGATION. HOWEVER, ON THE SECOND DAY OF INVESTIGATION, A POOL OF FREE-PHASE OIL PREVIOUSLY OBSERVED AS PART OF THE SPILL IMPACT OUTSIDE THE SPDC RIGHT OF WAY WAS OBSERVED TO HAVE BEEN BURNT BY UNKNOWN PERSON(S)

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 ( $m^3$ )  $\times$  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

Wherever 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 in 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 findings:

*Tick as applicable*



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f. Appendix 1: Overview sketch of the site

