

# JOINT INVESTIGATION REPORT

INCIDENT NO: 2006476 JIV report S/N: 0531

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

## A. GENERAL INFORMATION:

1. Fountain Incident Number: 2006476 2. Type of incident\* OIL SPILL  
3. Name of Location 8" NKALI - IMO RIVER DELIVERY LINE  
4. Name of nearest community ODAGWA 5. State: RIVERS 6. LGA ETCHE  
7. Production Facility/Installation OIL PIPELINE  
8. Asset Owner/Hub THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LIMITED (SPDC) PIPELINE

## B. INCIDENT INFORMATION:

### 9. Details of incident

- a. Date Reported: 17TH JUNE 2020  
b. Start date/time of Investigation: 18TH JUNE 2020/16:33HRS  
c. Investigation End date: 18TH JUNE 2020 Day(s) on site: ONE(1) DAY  
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             | <input type="checkbox"/> Sand bag(s)                        |

Additional observations around the spill point:

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

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Smooth round-edge hole                                | <input type="checkbox"/> Rough-edge hole      | <input type="checkbox"/> Hack saw cut                                      |
| <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"/> Tear ( _____ )  |   |  |
| <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) Siltation (d) Water Leak (e) Fire (f) Non leaking theft point removal  
Version 2020/01

Distribution of copies: White (Asset Owner), Pink (DPR), Green (NOSDRA), Yellow (State Ministry of Environment),  
Blue (Host Community)

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g. Spill Point Coordinates (\*Incidents  $\leq 100m$  apart to be aggregated into one Joint Investigation Report)

h. Measuring unit

Northing: <b>LATITUDE</b>	Easting: <b>LONGITUDE</b>
4.98462	7.13188

## C. RISK ASSESSMENT

### 10. Details of Environment

i. Type of environment where spill occurred (select one):

- Land     
  Swamp     
  Water     
  Seasonal swamp     
  Shoreline/Waterfront

ii. Type of environment to which oil has spread:

- Land     
  Swamp     
  Waterbody (specify) \_\_\_\_\_

iii. Weather condition

- Dry     
  Wet     
  Windy     
  Hot

### 11. Distance to Sensitive habitat within 100m radius

- |   |   |     |          |           |
|---|---|-----|----------|-----------|
| <input type="checkbox"/> Government reserved and designated protected area                    | [ | ,m] | }        | NONE SEEN |
| <input type="checkbox"/> Drinking water source  | [ | ,m] |          |           |
| <input type="checkbox"/> Surface water <input type="checkbox"/> Borehole                      |   |     |          |           |
| <input type="checkbox"/> Built up Area  | [ | ,m] |          |           |
| <input type="checkbox"/> Residential Area <input type="checkbox"/> Commercial/Industrial Area |   |     |          |           |
| <input type="checkbox"/> Farmlands  | [ | ,m] |          |           |
| <input type="checkbox"/> Fish Farm/Pond   | [ | ,m] |          |           |
| <input type="checkbox"/> Fishing net  | [ | ,m] | VICINITY |           |
| <input type="checkbox"/> Others (specify) _____   | [ | ,m] |          |           |

### 12. Containment measures put in place:

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

13. Any pictures or video coverage?

[✓] [N]

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

[✓] [N]

If yes to item 14, give brief description:

REPAIRS BY CLAMPING

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

If yes to item 15 give brief description:

NOT APPLICABLE

16. Was JIV delayed? [Y]  [N]

Reason(s): **NOT APPLICABLE**

- Delayed Community Access Approval     Security Challenges     Access constraint due to terrain  
 Others (specify) \_\_\_\_\_

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

17. Structures / Properties

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

18. Crops/Economic Trees

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

19. Fish/Nets/Ponds

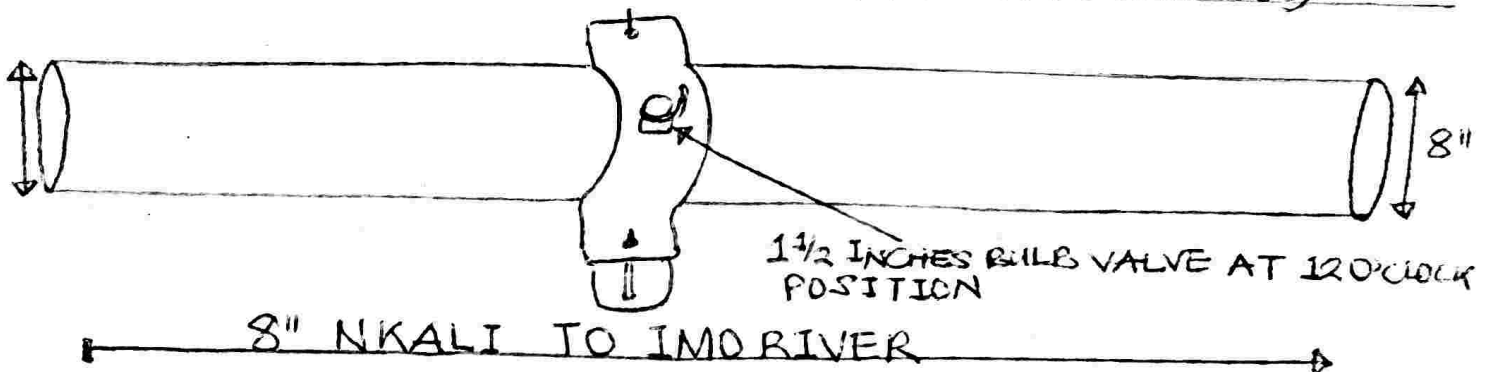
S/N	Fish/Nets/Ponds	Description	Quantity/Size	Comments
NONE WITHIN AREA OF IMPACT				

20. Others (Specify) e.g. Animal Traps

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

**E. GRAPHIC DESCRIPTION OF LEAK POINT** (while detailed description of the leak point should be contained in the leak report, overview sketch of the site should be added as appendix 1)

A SECTION OF 8" NKALI TO IMO RIVER DELIVERY LINE AT ODAGWA SHOWING 1 1/2 INCHES BULB VALVE AT A 12 O'CLOCK POSITION BY UNKNOWN PERSON(S)



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TABLE SHOWING SOME OF COORDINATES TAKEN DURING JIV FOR AREA CALCULATION

2) Impacted area boundary Coordinates (If more, Print and attach as Appendix)

S/N	Northing	Easting
	4.98464	7.13197
	4.98461	7.1319
	4.98461	7.13185
	4.98463	7.13178
	4.98467	7.13178
	4.98469	7.13186
	4.98478	7.13187
	4.98485	7.13185
	4.98486	7.13192
	4.98469	7.13196

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## G. INCIDENT INFORMATION:

### a. Impacted Area Details \*

- Total calculated area of impact (Ha) 0.021Ha
- Impact within SPDC R.O.W YES
- Impact outside SPDC R.O.W YES

\* Round off to 2 decimal places if area is  $\geq 100 \text{ m}^2$  or to 4 decimal places if area is  $< 100 \text{ m}^2$  (e.g. 14.55, 0.0051, 0.0009)  
 \* Express in Hectares (Ha)

### 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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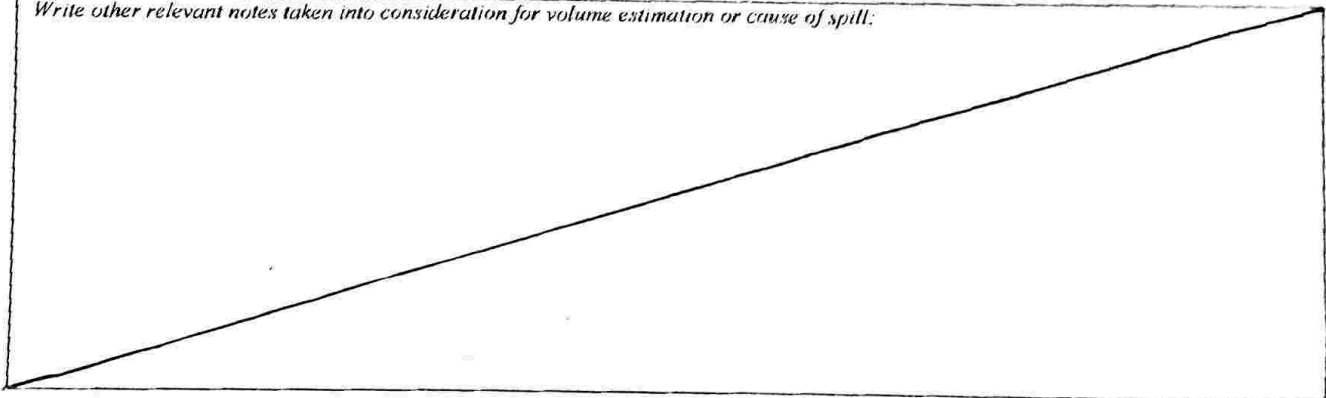
c. Net Estimated Spilled Volume  $V_{Est}$  (bbls)\* = 7.60

Estimated Reported Volume\*\*  $V_{rep}$  (bbls) = 8 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 volume estimation or cause of spill:



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  $\text{m}^3$  to barrels is  $\text{Volume (m}^3) \times 6.29$ ; \*\*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 column 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
- ii. Investigation of the incident site showed that there is residual impact on site requiring further works

## 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]:
- The Shell Petroleum Development Company [SPDC]:
- *Separate DPR form has been filled out with same findings*
- *Separate NOSDRA form has been filled out with same findings*
- *Separate SME form has been filled out with same findings*

*Tick as applicable*

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f. Appendix 1: Overview sketch of the site

