

# JOINT INVESTIGATION REPORT

INCIDENT NO: 2811238 JIV report S/N: 0734

(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: 2811238 2. Type of incident\* OIL SPILL  
3. Name of Location 36" NKPOKU - OGALE PIPELINE  
4. Name of nearest community OGALE 5. State: RIVERS 6. LGA ELEME  
7. Production Facility/Installation CRUDE OIL PIPELINE  
8. Asset Owner/Hub THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LIMITED / PIPELINE

## B. INCIDENT INFORMATION:

9. Details of incident  
a. Date Reported: 18TH DECEMBER 2020  
b. Start date/time of Investigation: 19TH DECEMBER, 2020 / 1433HRS  
c. Investigation End date: 19TH DECEMBER 2020 Day(s) on site: ONE 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:

NOT APPLICABLE

- e. Description of leak point (tick as applicable);
- |   |   |  |
|---|---|--|
| <input checked="" type="checkbox"/> Smooth round-edge hole <u>(DRILLED)</u> | <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 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

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

h. Measuring unit.

WGS 84

| Northing: <u>LATITUDE</u> | Easting: <u>LONGITUDE</u> |
|---------------------------|---------------------------|
| <u>4.82000</u>            | <u>7.14313</u>            |
|                           |                           |
|                           |                           |

## 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 WITHIN VICINITY |
| <input type="checkbox"/> Drinking water source  | [ | ,m] |   |                           |
| <input type="checkbox"/> Surface water <input type="checkbox"/> Borehole                      | [ | ,m] |   |                           |
| <input type="checkbox"/> Built up Area  | [ | ,m] |   |                           |
| <input type="checkbox"/> Residential Area <input type="checkbox"/> Commercial/Industrial Area | [ | ,m] |   |                           |
| <input type="checkbox"/> Farmlands  | [ | ,m] |   |                           |
| <input type="checkbox"/> Fish Farm/Pond   | [ | ,m] |   |                           |
| <input type="checkbox"/> Fishing net  | [ | ,m] |   |                           |
| <input type="checkbox"/> Others (specify) _____   | [ | ,m] |   |                           |

### 12. Containment measures put in place:

- Booms   
  Trench   
  Dyke   
  Pit   
  Natural depression   
  None
- Others: NOT APPLICABLE

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:

REPAIR DONE 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):

- Delayed Community Access Approval   
  Security Challenges   
  Access constraint due to terrain  
 Others (specify) NOT APPLICABLE

**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 |
|-----------------------------------|--------------------|-------------|------|--------|----------|
| <u>NONE WITHIN AREA OF IMPACT</u> |                    |             |      |        |          |

18. Crops/Economic Trees

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

19. Fish/Nets/Ponds

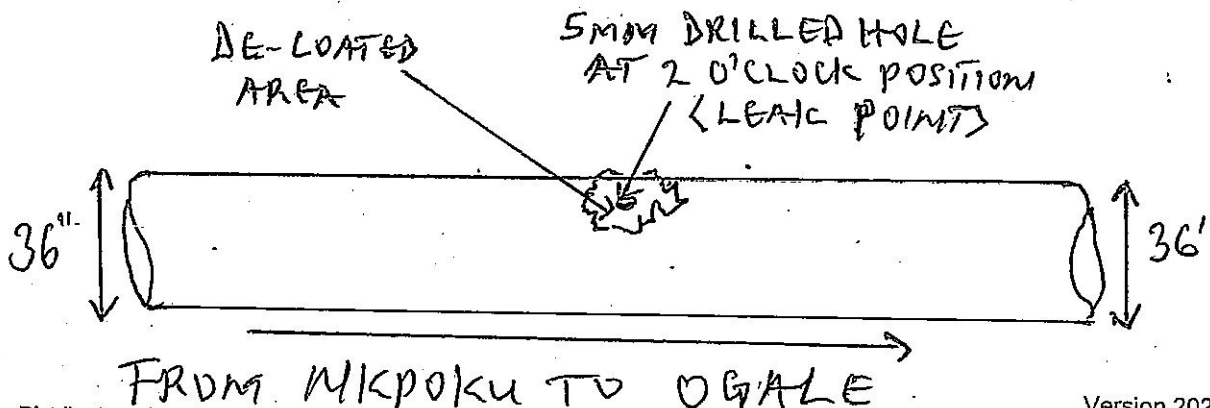
| S/N                               | Fish/Nets/Ponds | Description | Quantity/Size | Comments |
|-----------------------------------|-----------------|-------------|---------------|----------|
| <u>NONE WITHIN AREA OF IMPACT</u> |                 |             |               |          |

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

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

**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)

SECTION OF 36" NIKPOKU - OGALE PIPELINE AT OGALE SHOWING DRILLED HOLE AT 2 O'CLOCK POSITION BY UNKNOWN PERSONS.



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

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

WGS 84

| S/N | <del>Northing</del> | LATITUDE | <del>Easting</del> | LONGITUDE |
|-----|---------------------|----------|--------------------|-----------|
| 1.  | :                   | 4.81999  |                    | 7.14314   |
| 2.  |                     | 4.82000  |                    | 7.14314   |
| 3.  |                     | 4.82002  |                    | 7.14312   |
| 4.  |                     | 4.82000  |                    | 7.14311   |
|     |                     |          |                    |           |

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## G. INCIDENT INFORMATION:

### a. Impacted Area Details \*

- Total calculated area of impact (Ha) 0.0006 Ha
- Impact within SPDC R.O.W YES
- Impact outside SPDC R.O.W NO

\* 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 ( $V_{\text{rec}}$ ):

|                                  |            |         |
|----------------------------------|------------|---------|
| Recovered oil $V_{\text{rec}}$ : | <u>NIL</u> | Barrels |
|----------------------------------|------------|---------|

Controlled recovery/evacuation from source with no impact to environment:

|            |         |
|------------|---------|
| <u>NIL</u> | Barrels |
|------------|---------|

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

0.03 BARREL

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

0.1 BARREL

#### \*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:

NOT APPLICABLE

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 <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]:
- 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

