

# JOINT INVESTIGATION REPORT

INCIDENT NO: 2504722 JIV report S/N: 1030172

(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: 2504722 2. Type of incident\* OIL SPILL  
3. Name of Location 24<sup>th</sup> TNP ROW AT NONWA (NKPOKU-BOMU PIPELINE)  
4. Name of nearest community NONWA 5. State: RIVERS 6. LGA TAI  
7. Type of Production facility/Installation OIL PIPELINE  
8. Asset owner/District THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LIMITED (SPDC) / PIPELINE

## B. INCIDENT INFORMATION:

9. Details of incident  
a. Date Reported: 12<sup>th</sup> NOV, 2019  
b. Start date/time of investigation: 14<sup>th</sup> NOV, 2019 / 1145 HRS  
c. Investigation End date: 14<sup>th</sup> NOV, 2019 Actual investigation duration, days: ONE (1) DAY  
d. Description of spill point environment

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Firm soil                | <input checked="" type="checkbox"/> Loose soil | <input 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:

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

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Drilled hole                               | <input checked="" 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 |
| <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, g) non leaking Theft point removal  
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g. Spill point coordinates

h. Measuring unit

KGS 84

| Northing: | Easting:  |
|-----------|-----------|
| LATITUDE  | LONGITUDE |
| 4.7658    | 7.21902   |
| /         | /         |
|           |           |

## 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 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"/> Built up 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] | } | WITHIN    |
|  | [ | ,m] |   |           |

12. Containment measures put in place;

- Booms     
  Trench     
  Dyke     
  Natural depression     
  Pit     
  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:

REPAIR BY CLAMPING

15. Was there any disruption to the investigation?

[Y]     [N]

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If yes to item 15 give brief description:

NOT APPLICABLE

16. Was JIV delayed?       YES     NO

If yes to item 16 give brief description: 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 |
|----------------------------|--------------------|-------------|------|--------|----------|
| NONE WITHIN AREA OF IMPACT |                    |             |      |        |          |

**18. Crops/Economic Trees**

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

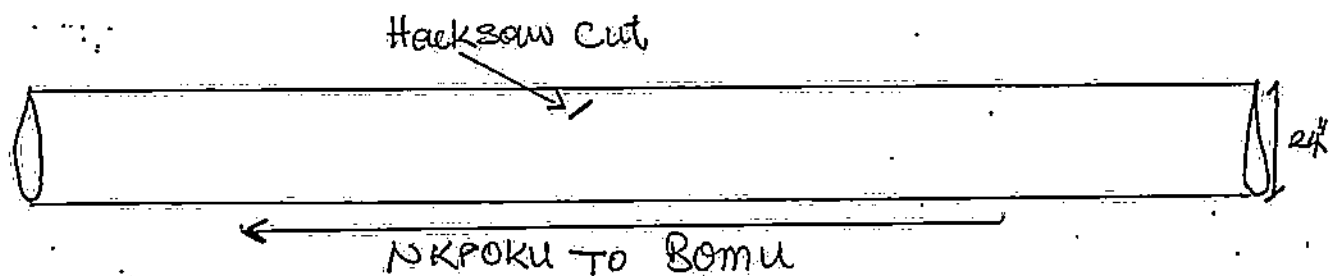
**19. Fish/Nets/Ponds**

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

**20. Others (Specify) 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) A SECTION OF 24" (TNP) NKPOKU - BOMU PIPELINE AT NONKIA SHOWING A HACKSAW CUT AT 11 O'CLOCK POSITION BY UNKNOWN PERSON





24" BOMU-BONNY TNP @ NONWA  
INC. NO.: 2504722

| PT_ID | LAT_Y    | LONG_X   |
|-------|----------|----------|
| SP    | 4.765765 | 7.218991 |
| 675   | 4.76575  | 7.21899  |
| 676   | 4.76575  | 7.21897  |
| 677   | 4.76579  | 7.21902  |
| 678   | 4.76585  | 7.219    |
| 679   | 4.76582  | 7.21905  |
| 680   | 4.76585  | 7.21902  |
| 681   | 4.76589  | 7.21896  |
| 682   | 4.76592  | 7.21895  |
| 683   | 4.76594  | 7.21899  |
| 684   | 4.76597  | 7.21899  |
| 685   | 4.76607  | 7.21887  |
| 686   | 4.76621  | 7.2187   |
| 687   | 4.7663   | 7.21862  |
| 688   | 4.76633  | 7.21862  |
| 689   | 4.76617  | 7.21888  |
| 690   | 4.76633  | 7.21868  |
| 691   | 4.76626  | 7.21881  |
| 692   | 4.7661   | 7.21895  |
| 693   | 4.76604  | 7.21898  |
| 694   | 4.76591  | 7.21911  |
| 695   | 4.76587  | 7.21915  |
| 696   | 4.76576  | 7.2191   |
| 697   | 4.76576  | 7.21913  |
| 698   | 4.76586  | 7.21908  |
| 699   | 4.76589  | 7.21903  |
| 700   | 4.76588  | 7.21901  |
| 701   | 4.765796 | 7.219002 |



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**G. INCIDENT INFORMATION:**

**a. Impacted Area Details**

- Total calculated area of impact 0.074 Ha
- Impact within SPDC R.O.W YES
- Impact outside SPDC R.O.W No

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

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

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

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

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

|   |  |
|---|--|
| <p><u>15.37 bbls</u> <u>8 bbls</u> </p>   |  |
| <p>Estimated Reported Volume** <math>V_{rep}</math> (bbls) = <u>16 bbls</u></p> |  |

**\*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  $m^3$  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 = 0.33 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:

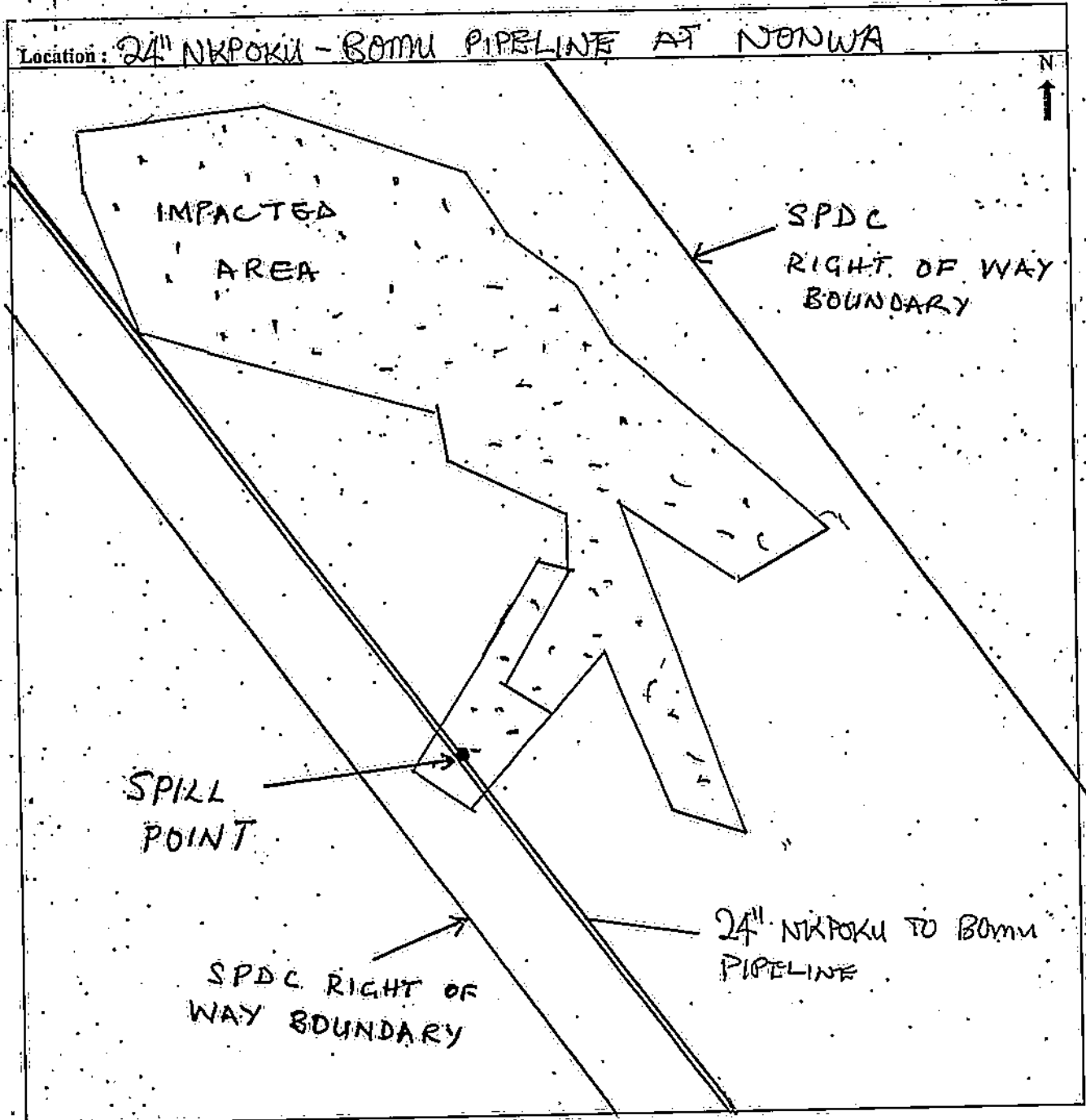
- Host Community:
- Department of Petroleum Resources [DPR]:
- National Oil Spill Detection and Response Agency [NOSDRA]:
- State Ministry of Environment [SME]:
- Shell Petroleum Development Company [SPDC]:
- *Separate DPR form has been filled out with same findings*

*Tick as applicable*

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f. Appendix 1: Overview sketch of the site



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