

# JOINT INVESTIGATION REPORT

INCIDENT NO: 3029862 JIV report S/N: 0000969

(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: 3029862 2. Type of incident\* OIL SPILL  
3. Name of Location 28" NKPOKU - BOMU PIPELINE  
4. Name of nearest community ETEO 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 (SPDC) PIPELINE.

## B. INCIDENT INFORMATION:

9. Details of incident  
a. Date Reported: 17<sup>th</sup> SEPTEMBER, 2021  
b. Start date/time of Investigation: 19<sup>th</sup> SEPTEMBER, 2021 / 1300HRS  
c. Investigation End date: 19<sup>th</sup> SEPTEMBER, 2021 Day(s) on site: ONE DAY  
d. Description of spill point environment  
☐ Firm soil ☒ Loose soil ☒ Recently excavated area  
☐ Under water ☐ Swampy ☐ Exposed pipe surface  
☐ Well Platform (on water) ☐ Drill Rig ☐ Sand bag(s)

Additional observations around the spill point:

NOT APPLICABLE

## 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

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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

Northings:	Easting:
SP 1. 4.755538	7.171541
SP 2. 4.755541	7.171535

## 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

☐ Government reserved and designated protected area [ ,m]  
☐ Drinking water source [ ,m]  
☐ Surface water ☐ Borehole  
☐ Built up Area [ ,m]  
☐ Residential Area ☐ Commercial/Industrial Area  
☒ Farmlands [ 1 ,m]  
☐ Fish Farm/Pond [ ,m]  
☐ Fishing net [ ,m]  
☐ 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:

REPAIR BY CLAMPING ON GOING

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

If yes to item 15 give brief description:

NOT APPLICABLE

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

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 SEEN WITHIN AREA OF IMPACTED</u>					

18. Crops/Economic Trees

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

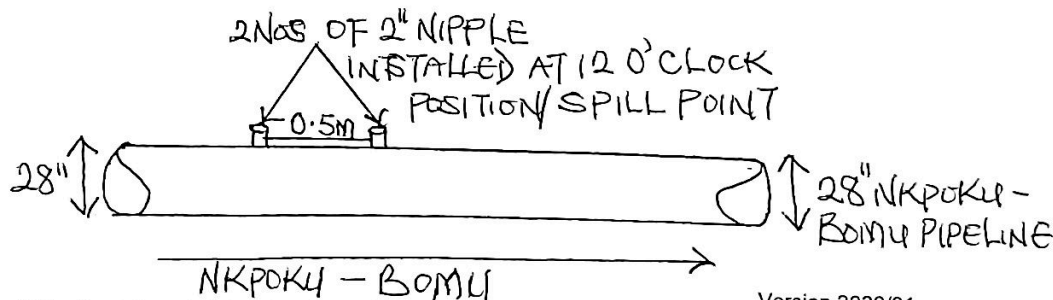
19. Fish/Nets/Ponds

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

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

S/N	Others	Description	Quantity/Size	Comments
<u>NONE SEEN WITHIN AREA OF IMPACTED</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) A SECTION OF 28" NKPOKU-BOMU PIPELINE AT ETEO SHOWING 2 NOS OF 2" NIPPLE INSTALLED AT 12 O'CLOCK POSITION BY UNKNOWN PERSON(S).



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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)

[illegible]

1	SPILL COORDINATES OF FID_3029862. 28" NKPOKU -BOMU PIPELINE AT ETEO			
2	FID	Comment	LAT	LONG
3	0	E1	4.75562	7.17149
4	1	E2	4.75561	7.17151
5	2	E3	4.75556	7.1715
6	3	E4	4.75557	7.17156
7	4	E5	4.75557	7.17159
8	5	E6	4.75549	7.17161
9	6	E7	4.75555	7.17144
10	7	E8	4.75569	7.17098
11	8	E9	4.75571	7.17096
12	9	E10	4.75576	7.17082
13	10	E11	4.75579	7.17078
14	11	E12	4.75579	7.1707
15	12	E13	4.75578	7.17068
16	13	E14	4.75558	7.17062
17	14	E15	4.75583	7.17061
18	15	E16	4.75585	7.17056
19	16	E17	4.75589	7.17049
20	17	E18	4.75559	7.17046
21	18	E19	4.75586	7.17041
22	19	E20	4.75589	7.1703
23	20	E21	4.75592	7.17019
24	21	E22	4.75596	7.17015
25	22	E23	4.75598	7.17016
26	23	E24	4.7556	7.17011
27	24	E25	4.75602	7.17012
28	25	E26	4.75607	7.17002
29	26	E27	4.75608	7.17005
30	27	E28	4.75597	7.17037
31	28	E29	4.75593	7.17042
32	29	E30	4.75591	7.17045
33	30	E31	4.75592	7.17051
34	31	E32	4.75559	7.17058
35	32	E33	4.75589	7.17062
36	33	E34	4.75587	7.17067
37	34	E35	4.75585	7.17068
38	35	E36	4.75583	7.17074
39	36	E37	4.75585	7.17075
40	37	E38	4.75586	7.17074
41	38	E39	4.75587	7.17075
42	39	E40	4.75584	7.17078
43	40	E41	4.75583	7.17077
44	41	E42	4.75582	7.17076
45	42	E43	4.75577	7.17093
46	43	E44	4.75578	7.17094
47	44	E45	4.75577	7.17096
48	45	E46	4.75575	7.17096
49	46	E47	4.75571	7.17107
50	47	E48	4.75568	7.17116
51	48	E49	4.75567	7.17117
52	49	E50	4.75564	7.17122
53	50	E51	4.75566	7.17128
54	51	E52	4.75565	7.17131
55	52	E53	4.75563	7.17132
56	53	E54	4.75558	7.17145
57	54	E55	4.75559	7.17146
58	55	E56	4.75563	7.17147
59	56	SP1	4.75554	7.17154
60	57	SP2	4.75554	7.17154
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## G. INCIDENT INFORMATION:

### a. Impacted Area Details \*

- Total calculated area of impact (Ha) 0.1105 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  $V_{\text{rec}}$ :

75 BARRELS

Barrels

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

NIL

Barrels

### c. Net Estimated Spilled Volume $V_{\text{Est}}(\text{bbls})$ = 135.73 BARRELS

Estimated Reported Volume\*\*  $V_{\text{rec}}(\text{bbls})$  = 136 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:

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 Volume ( $\text{m}^3$ )  $\times 6.29$ ; \*\*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

