

# JOINT INVESTIGATION REPORT

INCIDENT NO: 2771184 JIV report S/N:

0603

(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: 2771184 2. Type of incident\* OIL SPILL  
3. Name of Location 12" IMORIVER 2 - OGALE PIPELINE  
4. Name of nearest community IBIRIUKWU - ISIETIHOHA 5. State: ABIA 6. LGA UKWA WEST  
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: 29<sup>TH</sup> OCTOBER 2020  
b. Start date/time of Investigation: 1<sup>ST</sup> NOVEMBER 2020 / 12:35 HRS  
c. Investigation End date: 1<sup>ST</sup> NOVEMBER 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:

BAMBOO TREE WAS OBSERVED.

## 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

Distribution of copies: White (Asset Owner); Pink (DPR); Green (NOSDRA); Yellow (State Ministry of Environment); Blue (Host Community) Version 2020/01

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

h. Measuring unit

W U S 84

Northing:	Easting:
4.98052	7.17487
4.98051	7.17488

## 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     
  <sup>SEASONAL</sup> 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 [ .m]
- Fish Farm/Pond [ .m]
- Fishing net [ .m]
- Others (specify) \_\_\_\_\_ [ .m]

NONE SEEN  
WITHIN VICINITY

### 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:

OIL SPILL RECOVERY AND REPAIR ACTIVITIES ARE ON GOING.

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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
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

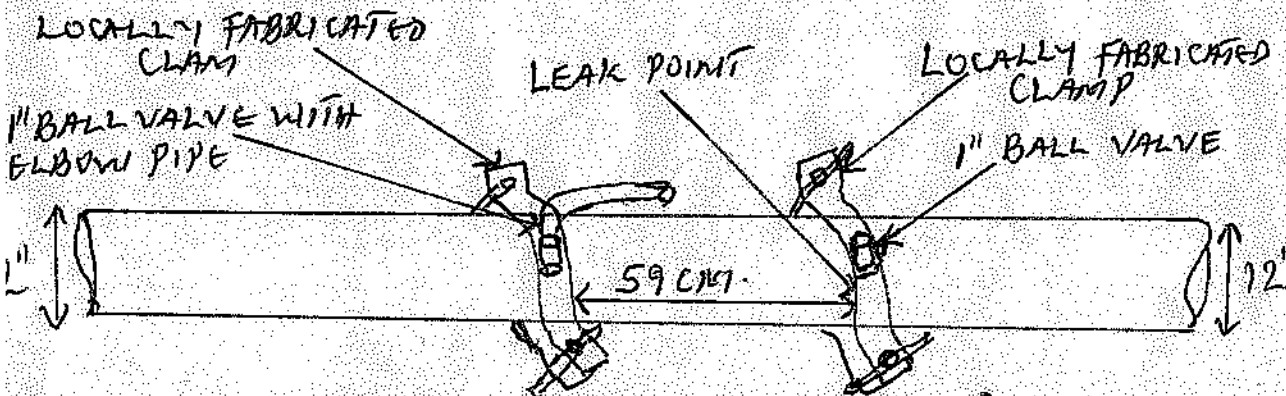
S/N	Fish/Nets/Ponds	Description	Quantity/Size	Comments
NONE WITHIN AREA OF IMPACT				

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)

SECTION OF 12" IMORIVER 2 - OBALE PIPELINE AT IGIRUKWU - SITIONHA OWAZA STANDING 2 NOS OF CRUDE OIL THEFT POINTS INSTALLED AT 12 O'CLOCK POSITIONS 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*)

S/N	Northing	Easting

Handwritten notes on the table grid:

- A vertical line with an arrow pointing down, labeled "RESEARCH".
- A large handwritten "S" in the lower left quadrant.
- Handwritten dates: "10-11-2020" and "10-11-2020" written vertically.
- Other scribbled lines and marks.

JIV ALONG 12" IMO RIVER 2 TO OGALE PIP- LINE AT IGIRIKWU ISI ETITIOHA OWA

PT_No	LAT	LONG	PT_No	LAT	LONG
1	4.98052	7.17485	44	4.98089	7.1759
2	4.98056	7.17489	45	4.98071	7.17575
3	4.98064	7.17476	46	4.98027	7.17546
4	4.9807	7.17464	47	4.98032	7.17536
5	4.98074	7.17464	48	4.98048	7.1752
6	4.9808	7.17459	49	4.98052	7.17507
7	4.98081	7.17459	50	4.98055	7.17499
8	4.98081	7.17465	51	4.98055	7.17491
9	4.98087	7.17469	52	4.9805	7.17488
10	4.98105	7.17464	SP 1	4.98052	7.17487
11	4.98106	7.17465	SP 2	4.98051	7.17488
12	4.98096	7.1747			
13	4.98083	7.17472			
14	4.98079	7.17482			
15	4.98081	7.17482			
16	4.98082	7.17481			
17	4.98084	7.17482			
18	4.98082	7.17488			
19	4.98078	7.1749			
20	4.98081	7.17495			
21	4.98081	7.17497			
22	4.9808	7.17499			
23	4.98075	7.17496			
24	4.9807	7.17492			
25	4.98064	7.17502			
26	4.98057	7.17503			
27	4.98056	7.17508			
28	4.98049	7.17523			
29	4.98056	7.17532			
30	4.98059	7.17529			
31	4.98067	7.17534			
32	4.98082	7.17537			
33	4.98095	7.17549			
34	4.98098	7.17558			
35	4.98106	7.17561			
36	4.98121	7.17571			
37	4.9812	7.17575			
38	4.98129	7.17577			
39	4.98125	7.17585			
40	4.98119	7.17585			
41	4.9811	7.17581			
42	4.98102	7.17589			
43	4.98098	7.17584			

*Handwritten signature*

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**G. INCIDENT INFORMATION:**

**a. Impacted Area Details \***

- Total calculated area of impact (Ha) 0.47 HA
- 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 ( $V_{\text{rec}}$ ):**

Recovered oil $V_{\text{rec}}$ :	62	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  $V_{\text{Est}}$  (bbls)\* =**

201.78 BARRELS

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

202 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 ( $\text{m}^3$ ) 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 = 0.35 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

