

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1801845 JIV report S/N: Nº 0000238

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

## A. GENERAL INFORMATION:

1. Spill incident Number: 1801845 2. Type of incident\* OIL SPILL  
3. Name of Location IMO RIVER 1 WELL 36 FLOWLINE  
4. Name of nearest community IGIRI-UKWU (OWAZA) 5. State: ABIA 6. LGA UKWA-WEST  
7. Type of Production facility/Installation OIL FLOWLINE  
8. Asset owner/District THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LIMITED/LAND EAST HUB

## B. INCIDENT INFORMATION:

9. Details of incident  
a. Date of incident: 10TH FEBRUARY, 2017  
b. Start date/time of investigation: 15TH FEBRUARY, 2017/12:10 HOURS  
c. Investigation End date: 15TH FEBRUARY Actual investigation duration, days: ONE (1) DAY  
d. Description of spill point environment 2017

- |   |                                     |  |
|---|-------------------------------------|--|
| <input type="checkbox"/> Firm soil                | <input type="checkbox"/> Loose soil | <input type="checkbox"/> Recently excavated area         |
| <input type="checkbox"/> Under water              | <input type="checkbox"/> Swampy     | <input checked="" type="checkbox"/> Exposed pipe surface |
| <input type="checkbox"/> Well Platform (on Water) | <input type="checkbox"/> Drill Rig  |  |

Additional observations around the spill point: A HISSING SOUND WAS HEARD FROM THE LEAK POINT ON THE WELL 36 FLOWLINE AS AT TIME OF THE JOINT INVESTIGATION TEAM'S ARRIVAL AT SITE. WELLS 22 L AND S FLOW LINES AS WELL AS A 2" GAS LIFT LINE WERE OBSERVED ON THE SAME RIGHT OF WAY AS THE WELL 36 FLOWLINE.

### 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.

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1801845 JIV report S/N: 0000230

g. Spill point coordinates

h. Measuring unit

WGS 84

Northing: <u>LATITUDE</u>	Easting: <u>LONGITUDE</u>
<u>4.98090</u>	<u>7.18356</u>
<del>_____</del>	<del>_____</del>
<del>_____</del>	<del>_____</del>

**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 from the nearest sensitive habitat

- Government reserved and designated protected area [      .m]
- Drinking water source [      .m]
- Built up area [      .m]
- Farmlands [      .m]
- Fish Farm/Pond [      .m]
- Fishing net [      .m]
- Others (specify). PALMTREE      3 m

12. Containment measures put in place:

- Booms     
  Trench     
  Dyke     
  Natural depression     
  Pit     
  None
- Others: NO FREE PHASE OIL OBSERVED ON SITE

13. Any pictures or video coverage? [  ] [ N ]

14. Further response/repair initiated as at the time of JIV? [ Y ] [ N  ]

If yes to item 14, give brief description:

NOT APPLICABLE

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

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1801845 JIV report S/N: N<sup>o</sup> 0000238

If yes to item 15 give brief description:

NOT APPLICABLE

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

**16. Structures / Properties**

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

**17. Crops/Economic Trees**

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

**18. Fishing Nets/Fish Ponds**

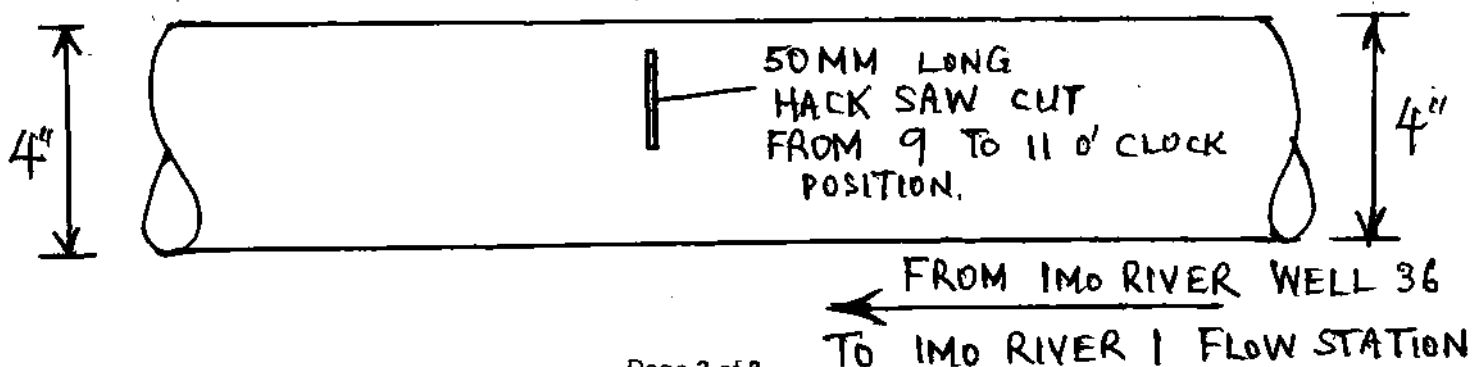
S/N	Nets/Ponds	Description	Quantity/Size	Comments
<u>NONE WITHIN AREA OF IMPACT</u>				

**19. Others (Specify) i.e. Animal Traps**

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

**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)

SECTION OF IMO RIVER I WELL 36 FLOW LINE AT  
IGIRI-UKWU (OWAZA) SHOWING POSITION OF HACK SAW  
CUT (LEAK POINT)



# JOINT INVESTIGATION REPORT

INCIDENT NO: 1801845 JIV report S/N: Nº 0000238

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

20. Impacted area boundary Coordinates *(If more, Print and attach as an appendix)*

WGS 84

S/N	Northing	LATITUDE	Easting	LONGITUDE
	4.98091			7.18355
	4.98091			7.18357
	4.98089			7.18357
	4.98089			7.18355

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1801845 JIV report S/N: Nº 0000238

**G. INCIDENT INFORMATION:**

**a. Impacted Area Details**

- Total calculated area of impact 0.0005HA
- Impact within R.O.W YES
- Impact outside R.O.W NO

**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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<p><b>c. Net Estimated Spilled Volume <math>V_{est}</math>(bbls)* = <u>0.04</u></b></p>
<p><b>Estimated Reported Volume** <math>V_{rep}</math>(bbls) = <u>0.1 BARREL</u></b></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 estimating the spilled in the box below:

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  $m^3$  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 = 0.35 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 volume estimation; record the calculation in a plain sheet of paper and attach to the JIV report.

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1801845 JIV report S/N: N<sup>o</sup> 9000238

## 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]:
- Asset Owner:
- Signatories agree with reported findings:
- Separate DPR form has been filled out with same findings:

*Tick as applicable*

# JOINT INVESTIGATION REPORT

Nº 0000238

INCIDENT NO: 1801845 JIV report S/N:

f. Appendix 1: Overview sketch of the site

