

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1529141 JIV report S/N: Nº 0000116

(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: 1529141 2. Type of incident\* OIL SPILL  
3. Name of Location AGBADA 1 WELL 50  
4. Name of nearest community DMUCHI 5. State: RIVERS 6. LGA IKWERRE  
7. Type of Production facility/Installation WELL HEAD  
8. Asset owner/District THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LIMITED / LAND 1

## B. INCIDENT INFORMATION:

9. Details of incident  
a. Date of incident: 22ND NOVEMBER, 2015  
b. Start date/time of investigation: 24TH NOVEMBER, 2015/13:10 HOURS  
c. Investigation End date: 24TH NOVEMBER, 2015 Actual investigation duration, days: ONE (1) DAY  
d. Description of spill point environment

- |   |                                     |  |
|---|-------------------------------------|--|
| <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 type="checkbox"/> Exposed pipe surface    |
| <input checked="" type="checkbox"/> Well Platform (on <u>LAND</u> ) | <input type="checkbox"/> Drill Rig  |  |

Additional observations around the spill point: THE JOINT INVESTIGATION TEAM OBSERVED, ON ARRIVAL AT SITE, THAT THE WELL HEAD SURVEY CAP, WING AND MASTER VALVES WERE MISSING (HAVING BEEN REMOVED BY UNKNOWN PERSON(S)). SOME LOOSENED NUTS WERE LEFT BY UNKNOWN PERSON(S) ON AND AROUND THE WELL HEAD CHRISTMAS TREE.

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

- |   |   |  |
|---|---|--|
| <input type="checkbox"/> Drilled hole                               | <input 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 |

Others (specify) WELL HEAD MASTER VALVES, WING VALVES AND SURVEY CAP REMOVAL BY UNKNOWN PERSON(S).

## 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) construction e) Encroachment f) Fire.

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g. Spill point coordinates

h. Measuring unit

WGS 84

Northings: <u>LATITUDE</u>	Easting: <u>LONGITUDE</u>
<u>04.93797</u>	<u>006.99865</u>

## 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

- |  |   |     |                   |
|--|---|-----|-------------------|
| <input type="checkbox"/> Government reserved and designated protected area | [ | .m] |                   |
| <input type="checkbox"/> Drinking water source                             | [ | .m] |                   |
| <input type="checkbox"/> Built up area                                     | [ | .m] |                   |
| <input checked="" type="checkbox"/> Farmlands                              | [ | .m] | FARMLAND IMPACTED |
| <input type="checkbox"/> Fish Farm/Pond                                    | [ | .m] | BY SPILL.         |
| <input type="checkbox"/> Fishing net                                       | [ | .m] |                   |
| <input type="checkbox"/> Others (specify).                                 | [ | .m] |                   |

12. Containment measures put in place:

- Booms     
  Trench     
  Dyke     
  Natural depression     
  Pit     
  None
- Others: \_\_\_\_\_

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:

NOT

APPLICABLE

15. Was there any disruption to the investigation?

[Y] [N]

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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
NONE WITHIN AREA OF IMPACT					

17. Crops/Economic Trees

S/N	Type of crops	Young	Medium	Matured	Quantity	Comments
1	PLANTAIN			✓	15 No.	WITHIN SPILL IMPACTED REGION OF 0.045Ha
2	PALM TREE			✓	1 No.	
3	CASSAVA			✓	WITHIN 0.045Ha	
4	BITTER LEAF			✓	WITHIN 0.045Ha	

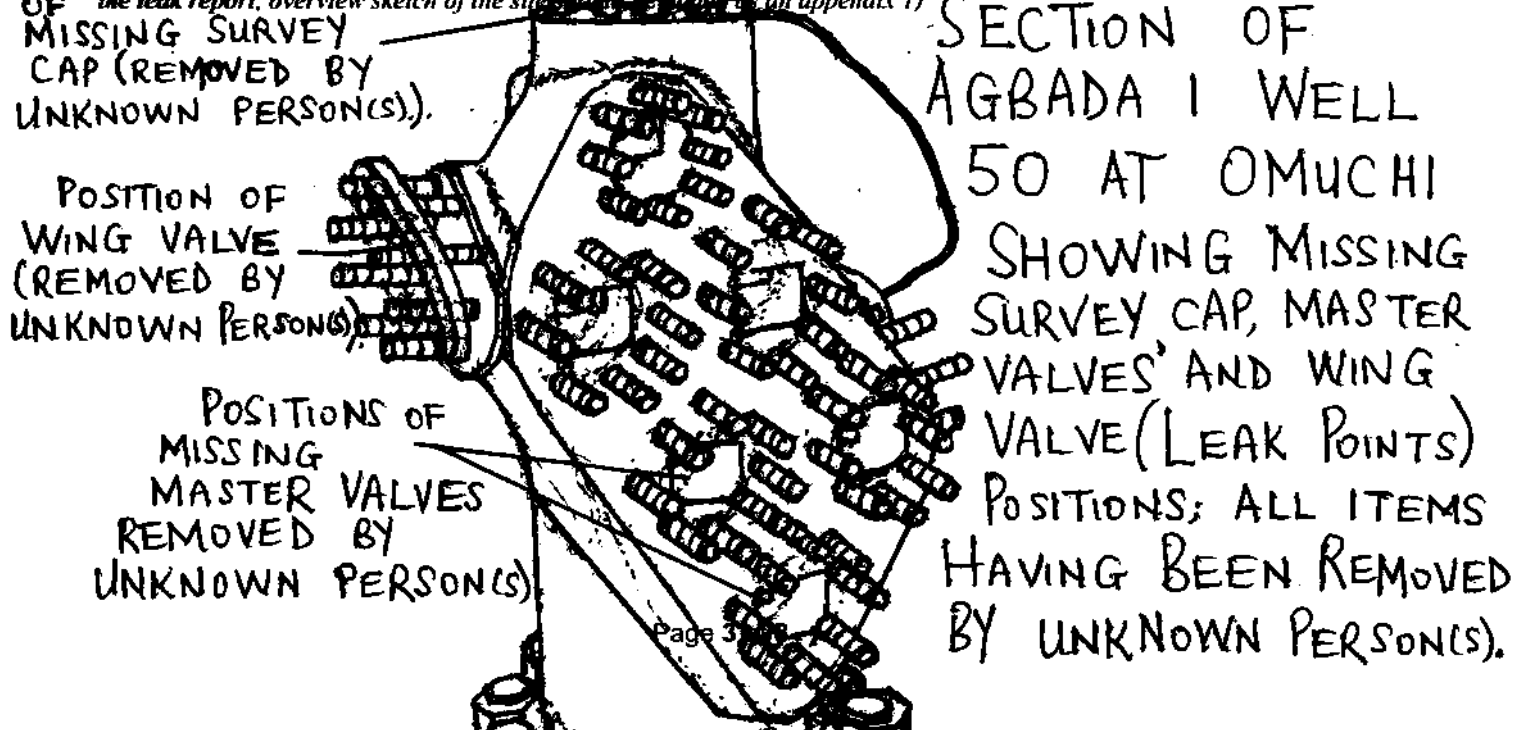
18. Fishing Nets/Fish Ponds

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

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

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

**E. GRAPHIC DESCRIPTION OF LEAK POINT** (The detail report of the leak point should be contained in the leak report, overview sketch of the site should be attached as an appendix 1)



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## 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)

S/N	Northing	Easting

SEE ATTACHED  
APPENDIX A FOR IMPACTED  
AREA COORDINATES

<b>APPENDIX A</b>		
<b>AGBADA WELL 50 WELLHEAD SPILL</b>		
<b>INCIDENT NO. 1529141</b>		
<b>WGS84</b>		
<b>POINT</b>	<b>LATITUDE</b>	<b>LONGITUDE</b>
34	4.93789	6.99878
35	4.93781	6.99875
36	4.93792	6.99853
37	4.93786	6.99844
38	4.93775	6.99833
39	4.93772	6.99833
40	4.93775	6.99825
41	4.93786	6.99839
42	4.93789	6.99844
43	4.938	6.99856
44	4.93808	6.99856
45	4.93817	6.99853
46	4.93822	6.9985
47	4.93831	6.99839
48	4.93842	6.99831
49	4.93844	6.99825
50	4.93853	6.99869
51	4.9385	6.99878
52	4.93844	6.99886
53	4.93828	6.99878
54	4.93814	6.99881
55	4.93803	6.99881
56	4.93764	6.99836
57	4.93758	6.99833
58	4.93758	6.99836
59	4.93761	6.99839
60	4.93756	6.99844
61	4.93772	6.99825
62	4.93781	6.99831
63	4.93775	6.99831
64	4.9385	6.99814
65	4.93856	6.99814
66	4.93856	6.99819
67	4.93858	6.99822
68	4.93858	6.99825
69	4.93853	6.99842
70	4.9385	6.99844
71	4.93844	6.99853
72	4.93842	6.99856
73	4.93842	6.99858
74	4.93806	6.99861
75	4.93808	6.99864
76	4.93808	6.99869

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**G. INCIDENT INFORMATION:**

**a. Impacted Area Details**

- Total calculated area of impact 0.31HA
- Impact within R.O.W YES
- Impact outside R.O.W YES

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

Recovered oil $V_{rec,I}$ :	NIL	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  $V_{Est}(bbls)^* =$  84.8**

**Estimated Reported Volume\*\*  $V_{rep}(bbls) =$  85 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 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.

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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):
- Asset Owner:
- Signatories agree with reported findings:
- 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

