

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1635665 JIV report S/N: N° 0000165

(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: 1635665 2. Type of incident\* OIL SPILL  
3. Name of Location OBIGBO WELL 28  
4. Name of nearest community IMEH 5. State: RIVERS 6. LGA ETCHE  
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: 17TH MAY 2016  
b. Start date/time of investigation: 18TH MAY 2016/14:18 HOURS  
c. Investigation End date: 18TH MAY 2016 Actual investigation duration, days: ONE (1) DAY  
d. Description of spill point environment

- Firm soil  Loose soil  Recently excavated area  
 Under water  Swampy  Exposed pipe surface  
 Well Platform (on LAND ~~Water~~)  DrillRig

Additional observations around the spill point: OIL STAINS WERE NOTICED ON THE WELL 28 CHRISTMAS TREE. THE LEAK SOURCE (IDENTIFIED AS THE TUBING SPOOL ON THE 'S' ARM OF THE WELL) HAD BEEN FIXED PRIOR TO JIV THOUGH INITIAL PICTURES TAKEN OF THE LEAKING POINT BY THE ASSET OWNER WERE SHOWN TO J.I.T. MEMBERS PRIOR TO ARRIVAL AT SITE FOR J.I.V. THE TUBING SPOOL ON THE 'S' ARM OF THE WELL REPORTEDLY HAD TWO NUTS LOOSENED BY UNKNOWN PERSON(S) WHILE THE COMPANION FLANGE ON THE SAME ARM HAD THREE MISSING NUTS. THE SWAB VALVE REPORTEDLY HAD A BROKEN BOLT LEFT ON THE CONCRETE PLATFORM BY UNKNOWN PERSON(S).

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

- Drilled hole  Hack saw cut  Tear ( \_\_\_\_\_ ).  
 Complete Rupture  Inward dent,  Well head tampering  
 Failed Weld-on illegal hot tap valve  Failed Clamp,  Missing Pipeline/Flowline  
 Crude oil theft (illegal bunkering) point,  Saver-pit over flow  Third party tampering with Clamp  
 Third party tampering with valve setting  Bulging Outward  Third party tampering with flange,  
 Flare System/Bund wall failure  Cold vent  Surge vessel overflow,  
 Valve Failure  Relief valve failure  Accidental 3<sup>rd</sup> party equipment impact  
 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) construction e) Encroachment f) Fire.

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g. Spill point coordinates

h. Measuring unit

WAS 84

Northing:	Easting:
4.922042	7.068627

## 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 [ 30 ,m]
- Fish Farm/Pond [      ,m]
- Fishing net [      ,m]
- 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:

MOPPING OF SOME SPILL IMPACT WAS DONE USING  
ABSORBENT MATERIALS.

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

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If yes to item 15 give brief description:

~~THE ASSESSMENT OF SPILL-IMPACTED AREA WAS BRIEFLY DISRUPTED BY COMMUNITY MEMBERS WHO DEMANDED FOR INCREMENT IN LABOUR RATE FROM ₦3,000 TO ₦5,000 DAILY AND PROVISION OF LIQUID MILK FOR COMMUNITY WORKERS CLAIMING THIS WILL REDUCE THE IMPACT OF HYDROCARBON ON THE WORKERS.~~

**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
NONE WITHIN AREA OF IMPACT						

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

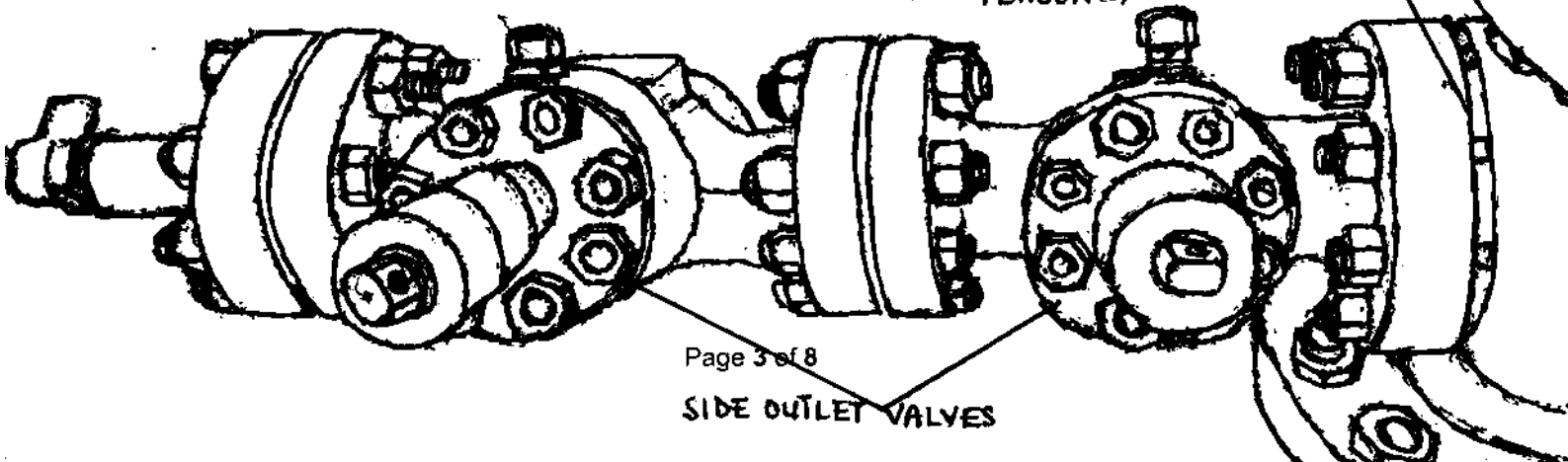
S/N	Others	Description	Quantity/Size	Comments
NONE WITHIN AREA OF IMPACT				

**E. GRAPHIC DESCRIPTION OF LEAK POINT** (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 OBIGBO WELL 28 AT IMEH SHOWING LEAK POINT (TUBING SPOOL) ON 'S' ARM.

OIL STAINS OBSERVED ON WELL CHRISTMAS TREE ON JIV DATE

LEAK POINT: TUBING SPOOL ON WELL 28 S ARM (OBSERVED WITH 6 NUTS REMOVED BY UNKNOWN PERSON(S) ON INCIDENT DATE)



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

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

S/N	Northing	Easting

*was 84*

*SEE ATTACHED APPENDIX A FOR IMPACTED AREA COORDINATES*

*EG*

**APPENDIX A****INC:NO=1635665****LOCATION=OBIGBO-NORTH WELL 028 AT IMEH****IMPACTED AREA COORDINATES (WGS 84)**

<b>PTS</b>	<b>NORTHINGS</b>	<b>EASTINGS</b>
214	4.92207	7.0684
215	4.922175	7.068161
216	4.921939	7.068792
217	4.921944	7.068401
218	4.92164	7.06864
219	4.92165	7.06872
220	4.92173	7.06869
221	4.92176	7.06862
222	4.92182	7.06872
223	4.92192	7.06886
224	4.92206	7.06879
225	4.92233	7.06891
226	4.92243	7.06858
227	4.92243	7.06852
228	4.92191	7.06852
229	4.92173	7.06854
230	4.9223	7.06835
231	4.92225	7.06847
232	4.92248	7.06856
233	4.92258	7.06865
234	4.92265	7.06873
235	4.92277	7.06874
236	4.92285	7.06871
237	4.92284	7.0686
238	4.92266	7.06854
239	4.92264	7.06851
240	4.92256	7.06844
241	4.92241	7.06849
242	4.92173	7.06851
243	4.922141	7.068887
244	4.92175	7.06858

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**G. INCIDENT INFORMATION:**

**a. Impacted Area Details**

- Total calculated area of impact 0.45HA
- Impact within R.O.W YES
- Impact outside R.O.W YES

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

Recovered oil $V_{rec}$ :	117	Barrels
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Controlled recovery/evacuation from source with no impact to environment:

NIL	Barrels
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<p><b>c. Net Estimated Spilled Volume <math>V_{est}</math> (bbls)* = 219.28</b></p>
<p><b>Estimated Reported Volume** <math>V_{rep}</math> (bbls) = 220 BARRELS</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:

THE VOLUME OF OIL INFILTRATION IN SOIL IS EXCLUSIVE OF THE AREA COVERED BY THE OIL-STAINED CONCRETE PLATFORM SURROUNDING THE WELL HEAD.

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

