

# JOINT INVESTIGATION REPORT

INCIDENT NO: 1459164 JIV report S/N: N<sup>o</sup> 0000048

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

## A. GENERAL INFORMATION:

1. Spill incident Number: 1459164 2. Type of incident\* OIL SPILL  
3. Name of Location KOLOCREEK WELL 13  
4. Name of nearest community IMIRINGI 5. State: BAYELSA 6. LGA OGBIA L  
7. Type of Production facility/Installation WELL HEAD  
8. Asset owner/District THE SHELL PETROLEUM DEVELOPMENT COMPANY OF NIGERIA LTD

## B. INCIDENT INFORMATION:

9. Details of incident  
a. Date of incident: 7TH AUGUST, 2015  
b. Start date/time of investigation: 11TH AUGUST, 2015 / 4:13 PM  
c. Investigation End date: 11TH AUGUST 2015 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 ~~Water~~ LAND)  Drill Rig

Additional observations around the spill point: JOINT INVESTIGATION TEAM OBSERVED NO LEAK POINT. THEY ALSO OBSERVED TRUCK TIRE MARKS IN THE WELL HEAD AREA.

## 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) MYSTERY SPILL

## f. Incident caused by:

- Third party interference (Sabotage ; crude theft ; Line theft ; Accidental 3<sup>rd</sup> party damage   
 Operational  Others (including Mystery spills) MYSTERY SPILL

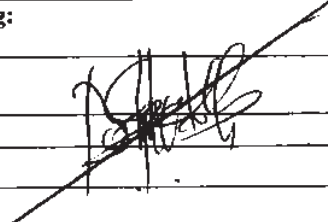
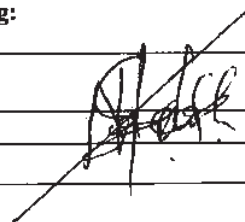
\*This can be: a) Oil Spill b) Drilling fluid/Chemical c) Siltation d) construction e) Encroachment f) Fire.

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g. Spill point coordinates

h. Measuring unit

Northing:	Easting:
	

## 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 NONE OBSERVED [      ,m]
- Built up area WITHIN THE AREA OF IMPACT [      ,m]
- Farmlands AS AT THE TIME OF [      ,m]
- Fish Farm/Pond JOINT INVESTIGATION VISIT [      ,m]
- Fishing net
- Others (specify).

12. Containment measures put in place;

Booms       Trench       Dyke       Natural depression       Pit       None  
 Others: PERIMETRE FENCE

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:

CRUDE OIL RECOVERY AND CLEAN UP

15. Was there any disruption to the investigation?

[Y]

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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
	<u>NONE WITHIN THE AREA OF IMPACT</u>				

17. Crops/Economic Trees

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

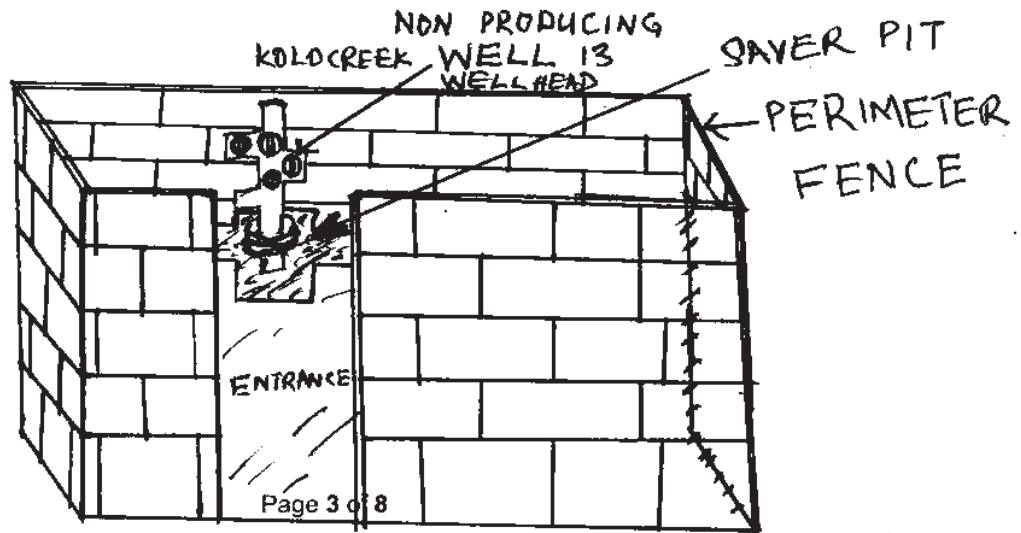
18. Fishing Nets/Fish Ponds

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

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

S/N	Others	Description	Quantity/Size	Comments
	<u>NONE WITHIN THE 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) OVERVIEW OF KOLD CREEK WELL 13 WELL HEAD.



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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)

~~MINNAPPA~~ MID BELT

S/N	Northing (m)	Easting (m)
58	98266.04	436910.92
59	98258.29	436914.23
60	98250.55	436910.87
61	98246.16	436899.76
62	98255.03	436895.35
63	98259.47	436888.71
64	98256.17	436884.26
65	98241.81	436877.56
66	98274.96	436889.87
67	98260.58	436888.71
68	98256.13	436897.58
69	98243.77	436958.57
70	98239.35	436956.33
71	98251.51	436959.70
72	98261.52	436941.98
73	98251.57	436939.73
74	98290.73	436868.82
75	98290.44	436853.33
76	98291.45	436861.36
77	98273.65	436849.31
78	98252.71	436850.46
79	98239.21	436853.90
80	98236.63	436949.90

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**G. INCIDENT INFORMATION:**

**a. Impacted Area Details**

- Total calculated area of impact 0.21Ha
- 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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**c. Net Estimated Spilled Volume  $V_{Est}$  (bbls)\* =**

67.01 BBLs

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

68 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:

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<sup>3</sup>) 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 finding:

*Tick as applicable*

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f. Appendix 1: Overview sketch of the site

