

# Would LBMS be applicable to Offshore Oil & Gas construction

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#### Locations – High level



В

EL. 25900

**2**×160

MEZZANINE DECH

EL. 19500 TO DRAIN TANK PLATFOR

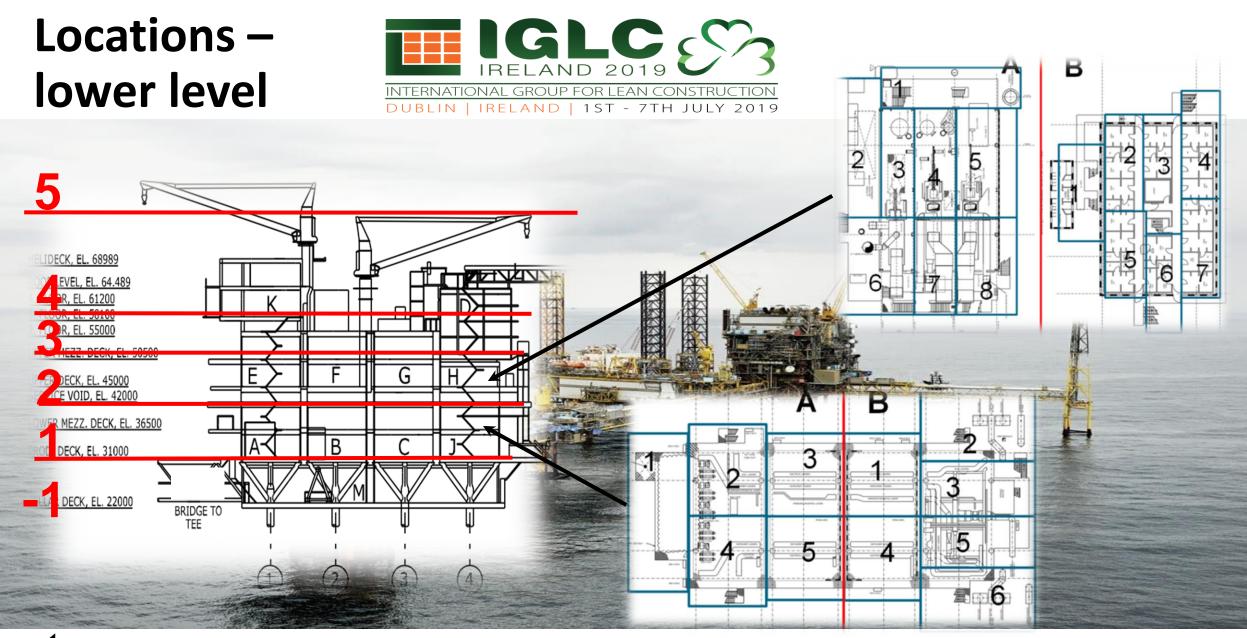
UPPER DECK, EL. 30000

VELLHEAD ACC. DECK, EL. 24500

RODUCTION DECK, EL. 22000

- Identifying identical locations
- Differentiating between platform sizes
- Segregate according to elevations



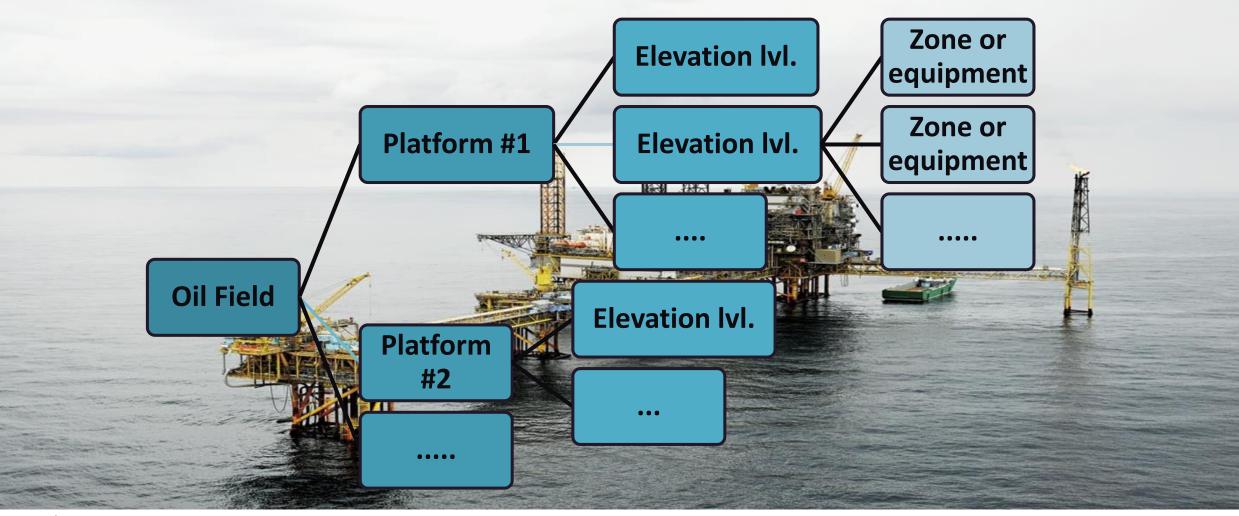






## Location Structure









## CPM

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Not Started

200348115-0010

- More than 3200 activity lines start / end
- **Equipment as locations**
- No clear dependencies

	Co	nstruction / R	efurbis	hmei	nt	5
status_code	task_code	task_name	user_field_start_date	end_date	Manning actv_code	actv_code
Activity Status	Activity ID	Activity Name	Material St (*)Start	(*)Finish	budgetted	remaining
In Progress	200005838-0010	602808-Udfasning af Long flowmåler	01-Apr-15	14-Jun-18	0,02 270	270
Not Started	200036667-0010	ldfasning af L flowmåler El rig	01-Jun-18	02-Jun-18	0,63 15	15
In Progress	200038209-0010	Udfasning af J flowmåler - SCAF	01-Apr-15	24-Jun-18	0,04 555	555
Not Started	200008140-0010	873459-Bypass ventil kan ikke åbnes, sk	01-Jan-19	08-Jan-19	0,47 45	45
Not Started	200059120-0010	Riser guard install. ROW 1	31-Mar-19	06-May-19	0 1400	1400
In Progress	200059121-0010	Riser guard install. ROW 1	01-Apr-15	12-Aug-19	0,14 2700	2700
In Progress	200059122-0010	Riser guard install. ROW 1 Page	Je 101-Apr-15	05-Apr-19	0,02 300	300
In Progress	200059123-0010	Riser guard install. ROW 1	01-Apr-15	29-Apr-19	0,03 500	500
		Back in op	eration	he de to	4	
Not Started	200365604-0010	TSBA Well 01 Inforce hook-up Inpf	01-Jan-20	12-Jan-20	<mark>1,04</mark> 150	150
Not Started	200278115-0010	TSB-05 6"-PHS-300501-FO flowline hook-up	01-Jan-20	06-Jan-20	<mark>1,04</mark> 75	75
Not Started	200278116-0010	TOP OF 2" OPS-290501-FE Liftgas hook-up	01-Jan-20	04-Jan-20	<mark>0,94</mark> 45	45
In Progress	200278117-0010	Tyra Syd Øst B - Well 05 hook-up. SCAFF	01-Mar-17	05-Jan-20	<mark>0,01</mark> 90	90
Not Started	200348113-0010	S-99 TSB-05 Lagger scope.	$-20^{01-Jan-20}$	05-Jan-20	<mark>1</mark> 60	60
Not Started	200348114-0010	S-99 TSB-05 Lagger scope. S-99 Well TSB-05 Prep work Inpf.	- 30 <sub>01-Jan-20</sub>	06-Jan-20	<mark>1,04</mark> 75	75

S-99 Well TSB-05 Prep work Elec.



12-Jan-20

01-Jan-20

1,01 145

145



- 1. External logical relationships between activities within locations.
- 2. External higher-level logical relationships between activities driven by different levels of accuracy.
- 3. Internal logic between activities within tasks.
- 4. Phased hybrid logic between tasks in related locations.
- 5. Standard CPM links between any tasks and different locations.





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## Conversion example

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- Resources and activities sequenced randomly
- Inconsistent start and stop
- Expected collisions between activities in same location

10	Wellhead	l paint assist We	ld	01-Feb-18	15-Feb-18	
10	Wellhead	I paint assist Sca	aff	21-Dec-17	13-Feb-18	
10	Well No	1 Paint.		17-Dec-17	18-Jan-18	
10	Well No 2	2 Paint		20-Dec-17	18-Jan-18	
10	Well No 3	3 Paint		21 200 17	10 Jun 10	
10	Well No 4	4 Paint		26-Dec-17	21-Jan-18	
10	Well No (			30-Dec-17	24-Jan-18	
10	Well No 6			02-Jan-18	27-Jan-18	_
10	Well No			27-Jan-18	31-Jan-18	_
				27-Jan-10	51-Jan-16	_
10	Well No 8					
10	Well No 9			03-Feb-18	07-Feb-18	
10	Well No 10 Paint			07-Feb-18	10-Feb-18	2
10	Well No 11 Paint			10-Feb-18	14-Feb-18	- 5
10	Well No 12 Paint			14-Feb-18	17-Feb-18	
10	Well No 1	13 Paint		17-Feb-18	21-Feb-18	
WELLHEAD PAINT ASSIST WELD		15 1-2-2018				
WELLHEAD PAINT ASSIST SCAFF		54.7 21-12-2017			़	
WELL NO 1 PAINT.		32.9 17-12-2017				
WELL NO 2 PAINT		29.9 20-12-2017 25.9 24-12-2017				
WELL NO 3 PAINT WELL NO 4 PAINT		26.9 26-12-2017				-
WELL NO 5 PAINT		25.9 30-12-2017				
WELL NO 6 PAINT		25.9 2-1-2018				
WELL NO 7 PAINT		4.9 27-1-2018			•	
WELL NO 8 PAINT		3.9 31-1-2018				
WELL NO 9 PAINT WELL NO 10 PAINT		4.0 0.0040			T_	-
WELL NO 10 P		4.9 3-2-2018 3.9 7-2-2018			• <u> </u>	
	AINT	3.9 7-2-2018				
WELL NO 10 P WELL NO 11 P WELL NO 12 P						
WELL NO 11 P	AINT AINT AINT	3.9 7-2-2018 4.9 10-2-2018				
WELL NO 11 P WELL NO 12 P WELL NO 13 P WELL NO 14 P	AINT PAINT PAINT PAINT PAINT	3.9         7-2-2018           4.9         10-2-2018           3.9         14-2-2018           3.9         17-2-2018           3.9         21-2-2018				
WELL NO 11 P WELL NO 12 P WELL NO 13 P WELL NO 14 P WELL NO 15 P	AINT AINT AINT AINT AINT AINT	3.9         7-2-2018           4.9         10-2-2018           3.9         14-2-2018           4.9         17-2-2018           3.9         21-2-2018           4.9         3-3-2018				
WELL NO 11 P WELL NO 12 P WELL NO 13 P WELL NO 14 P WELL NO 15 P WELL NO 16 P	AINT AINT AINT AINT AINT AINT AINT	3.9         7-2-2018           4.9         10-2-2018           3.9         14-2-2018           4.9         17-2-2018           3.9         21-2-2018           4.9         3-3-2018           3.9         7-3-2018				
WELL NO 11 P WELL NO 12 P WELL NO 13 P WELL NO 14 P WELL NO 15 P WELL NO 16 P WELL NO 17 P	AINT AINT AINT AINT AINT AINT AINT AINT	3.9         7-2-2018           4.9         10-2-2018           3.9         14-2-2018           4.9         17-2-2018           3.9         21-2-2018           3.9         7-3-2018           4.9         17-3-2018				
WELL NO 11 P WELL NO 12 P WELL NO 13 P WELL NO 14 P WELL NO 15 P WELL NO 16 P	AINT AINT AINT AINT AINT AINT AINT AINT	3.9         7-2-2018           4.9         10-2-2018           3.9         14-2-2018           4.9         17-2-2018           3.9         21-2-2018           4.9         3-3-2018           3.9         7-3-2018				
WELL NO 11 P WELL NO 12 P WELL NO 13 P WELL NO 14 P WELL NO 16 P WELL NO 16 P WELL NO 17 P WELL NO 18 P	AINT AINT AINT AINT AINT AINT AINT AINT	3.9         7-2-2018           4.9         10-2-2018           3.9         14-2-2018           4.9         17-2-2018           3.9         21-2-2018           3.9         7-3-2018           3.9         7-3-2018           4.9         17-3-2018           4.9         17-3-2018           4.9         21-3-2018				
WELL NO 11 P WELL NO 12 P WELL NO 13 P WELL NO 14 P WELL NO 16 P WELL NO 16 P WELL NO 17 P WELL NO 19 P WELL NO 20 P WELL NO 21 P	AINT AINT AINT AINT AINT AINT AINT AINT	3.9       7-2-2018         4.9       10-2-2018         3.9       14-2-2018         4.9       17-2-2018         3.9       21-2-2018         4.9       3-3-2018         4.9       7-3-2018         4.9       21-3-2018         4.9       21-3-2018         4.9       24-2-2018         3.9       28-2-2018         4.9       10-3-2018				
WELL NO 11 P WELL NO 12 P WELL NO 13 P WELL NO 14 P WELL NO 16 P WELL NO 16 P WELL NO 17 P WELL NO 18 P WELL NO 20 P WELL NO 21 P WELL NO 22 P	AINT AINT AINT AINT AINT AINT AINT AINT	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$				
WELL NO 11 P WELL NO 12 P WELL NO 13 P WELL NO 14 P WELL NO 16 P WELL NO 16 P WELL NO 17 P WELL NO 19 P WELL NO 20 P WELL NO 21 P	AINT AINT AINT AINT AINT AINT AINT AINT	3.9       7-2-2018         4.9       10-2-2018         3.9       14-2-2018         4.9       17-2-2018         3.9       21-2-2018         4.9       3-3-2018         4.9       7-3-2018         4.9       21-3-2018         4.9       21-3-2018         4.9       24-2-2018         3.9       28-2-2018         4.9       10-3-2018				



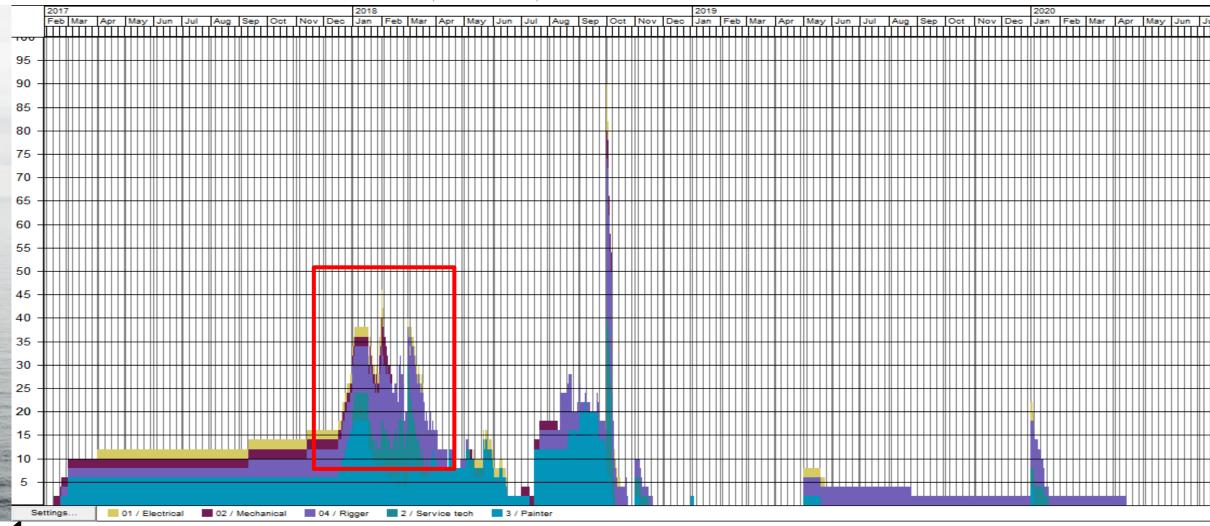
## Flowline view III IGLC 53



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## Resource levels







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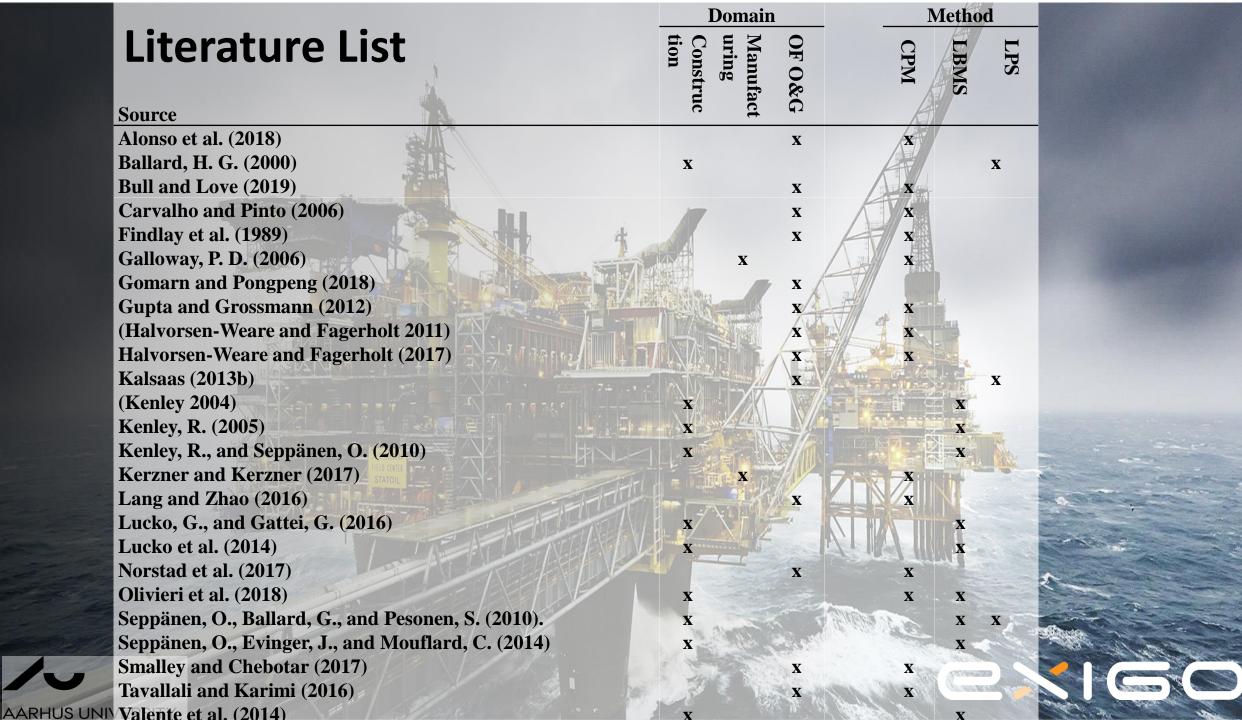




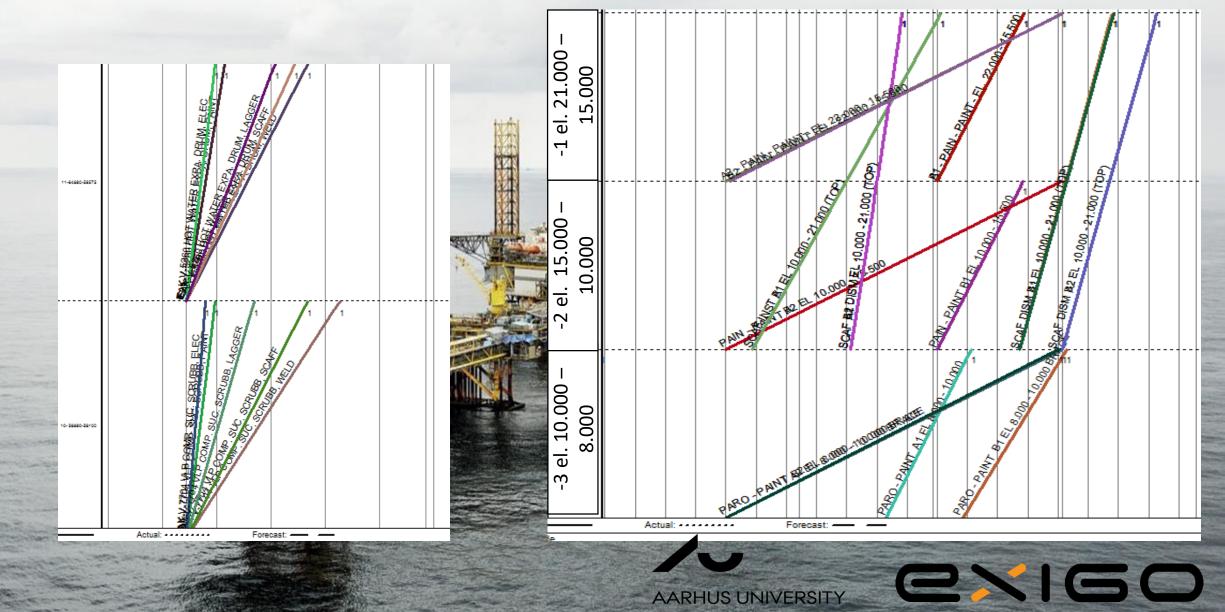
# **BACK UP SLIDES**







#### **Location Break Down example**



#### **Current flowline overview**

