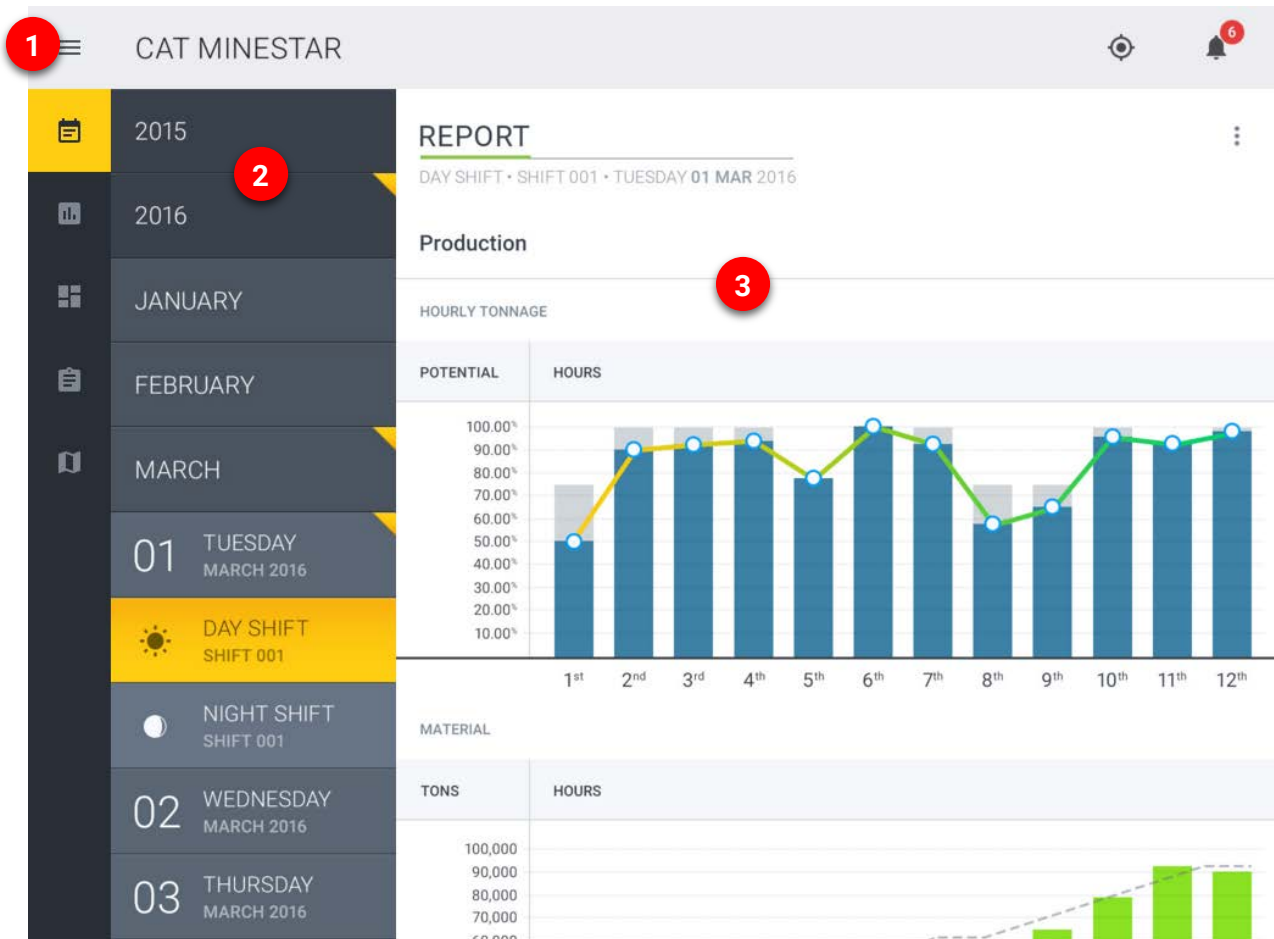


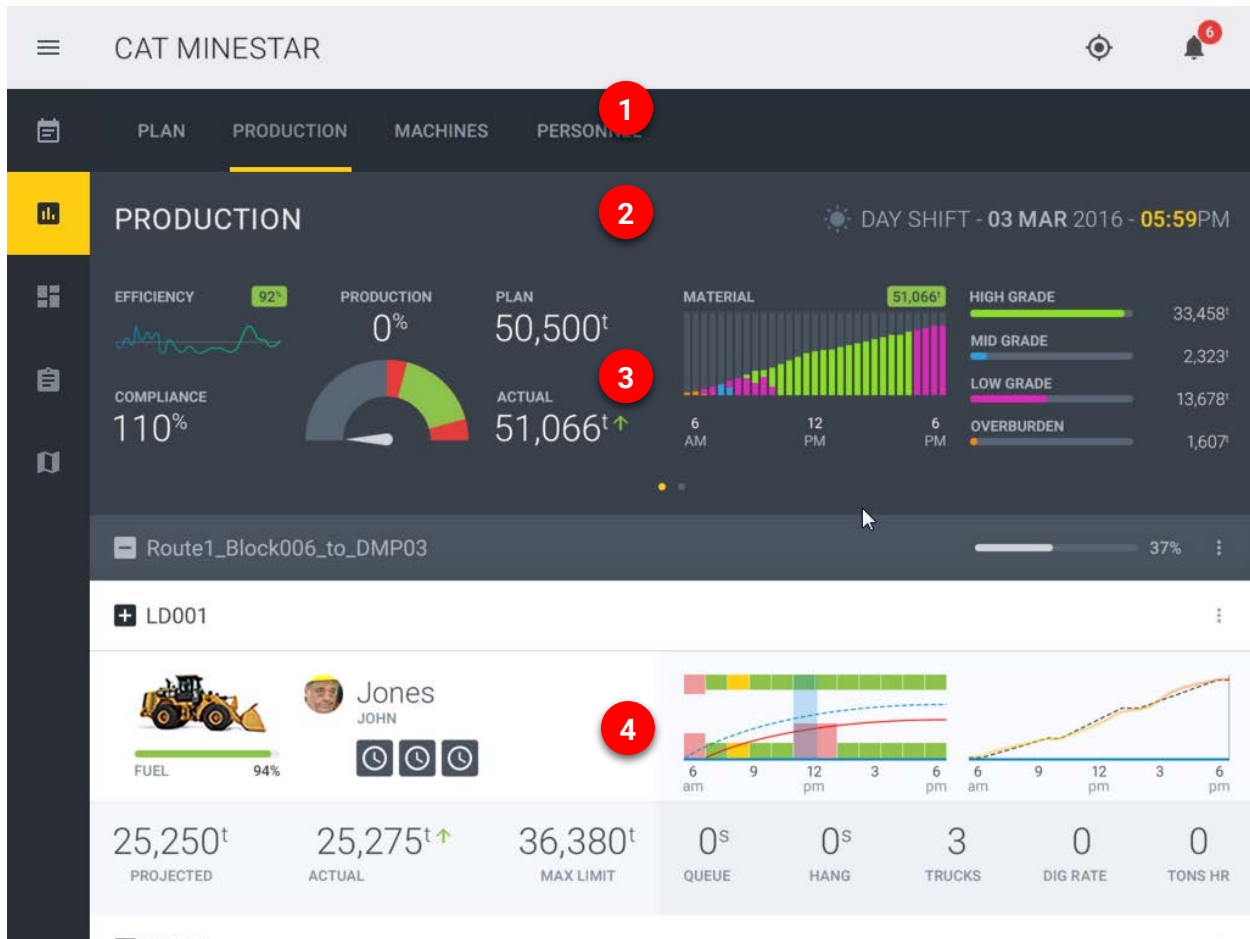
CMLP V1 – Usability Review

Prototype evaluation using general usability heuristics (Nielsen, ISO...) and ucd/hcd best practices



- 1 Main menu open as left drawer
 - Strive for Consistency: Utility Navigation already uses right drawer modal
- 2 Secondary navigation
 - Strive for Consistency: Shift Plan section uses horizontal top navigation
 - Minimalist Design: Date navigation could be simplified to a dropdown
 - Suitable for the task: Supervisor needs to consult last shift, last day report and verify shift progress against weekly, monthly and yearly objectives.
- 3 Report content
 - Controllability: View to display time span, data filter and sorting options
 - Cognitive load: Report to use more screen real-estate and less data density

Recommendations – Main menu to use utility nav drawer. Replace secondary nav with view control toolbar. Display report content in full screen. Consider split screen view for summary/details.



- 1 Secondary navigation
 - Recognition rather than recall: Re-evaluate the need for secondary navigation
- 2 Page Header
 - Consistency: Double label tab/header. Header design inconsistent with Report page
 - Minimalist design: Shift date creates a cognitive distraction. Clock conventions?
- 3 Data priority and hierarchy
 - Visual priority: Data structure to help user acknowledge high-to-low priority data
 - Data hierarchy: Display summary goal, secondary goals then individual goals (Ryan)
 - System & real world match: Consider reviewing the page...
- 4 Data visualization
 - Visibility of System Status : Consolidate double chart use human units (Ryan's)

Recommendations: Consider using top status bar for header and define strategy for white label. Use this page for Plan instead of Production. Confirm the use of "Route" in the plan and consider reorganizing the flow (Stockpile > Loading tool > Hauling Truck > Destination).

The screenshot displays the CAT MINESTAR application interface. At the top, the title 'CAT MINESTAR' is visible alongside a notification icon with the number '6'. Below this is a secondary navigation bar with tabs for 'PLAN', 'PRODUCTION', 'MACHINES', and 'PERSONNEL', with 'PERSONNEL' highlighted by a red circle '1'. The main content area features a 'PERSONNEL' header with a search bar and filter options. A list of personnel is shown, including 'CREW001' (highlighted with a red circle '2'), 'David Smith', 'Daisy McGregor' (highlighted with a red circle '3'), and 'Brian Barrett'. Each personnel entry includes a profile picture, name, a line graph for 'TARGETS', 'ASSIGNED' machine, 'BREAKS', 'CONTINUOUS HOURS', and 'LOCATION'.

1

Secondary navigation

- Recognition rather than recall: Re-evaluate the need for secondary navigation

2

Page Header

- Minimalist design: Prominent triple row header takes valuable real estate

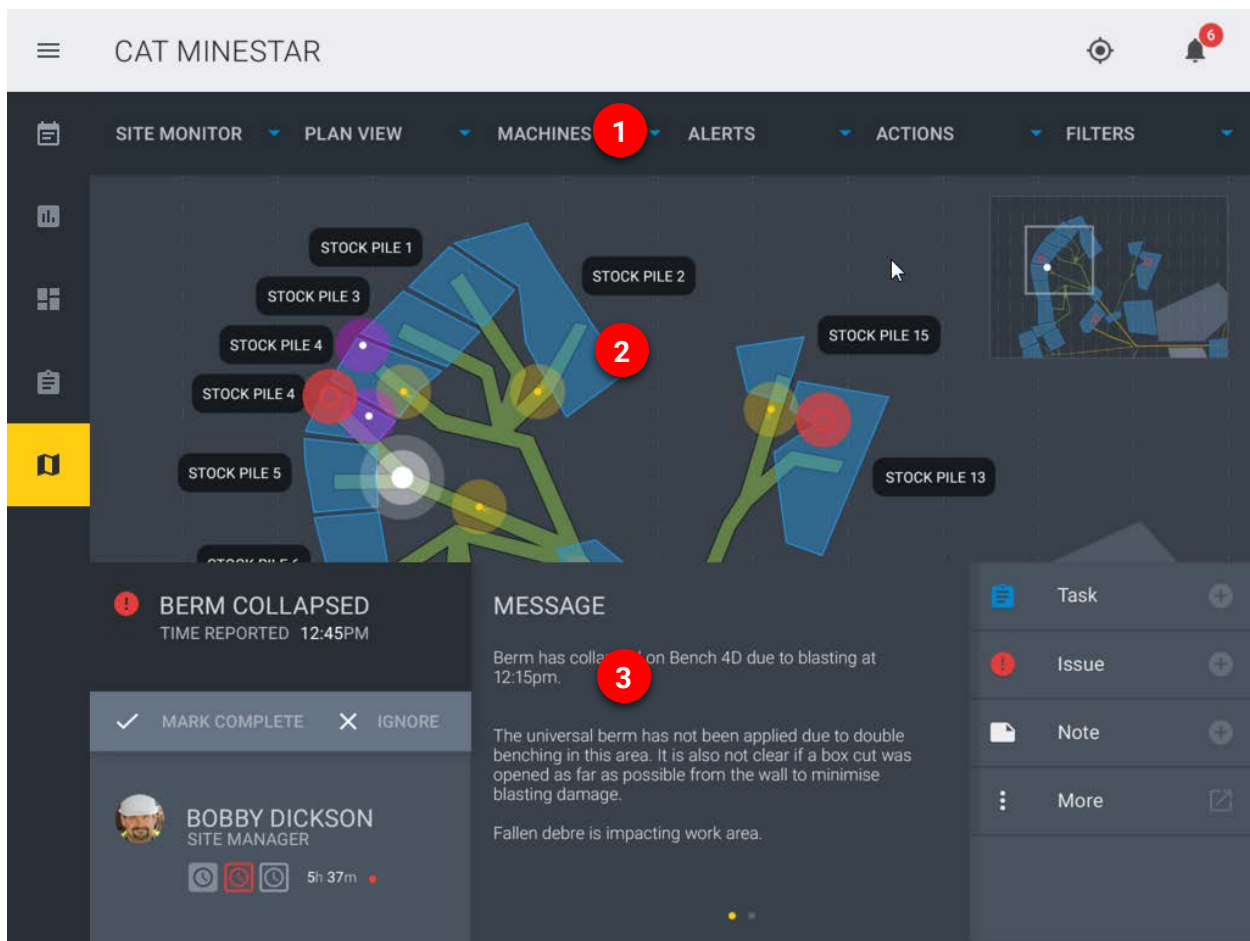
3

Data Presentation

- Strive for Consistency: Find universal way of presenting data
- Flexibility & efficiency of use: Allow user to manage assets in preferred view

Personal observations considering tight deliverables, initial Lite version and ease of development:

- Allowing supervisor to display personnel, machines & materials as card, list or map view
- Positive feedback was received from early fuel card display design and assets
- Considerable effort was put into designing multilevel data structure
- Card and list item display is in line with Material Design UI components
- Developing a filtering and sorting engine is a powerful and reusable enabler



- 1 View Control Bar
 - Self-Descriptiveness: Over use of dropdown pattern
- 2 Map View
 - Self-Descriptiveness: Machine and issue icons should be added to Circle Color
- 3 Issue Panel 2
 - Strive for Consistency: Multiple Issue panel creates confusion and complexity of use

Recommendations: Re-evaluate dropdown Toolbar and consider using icon toggles. Missing map view controls, North indicator, edit polygon, timeline playback controls. Always display issue panel the same way.

CAT MINESTAR LITE

PLAN PRODUCTION MACHINES PERSONNEL

SHIFT PLAN

NIGHT SHIFT • SHIFT 001 • TUESDAY 01 MAR 2016

Plan Allocation Collapse all

VOK PRIMARY CRUSHING

CRUSHER	PRIORITY	SOURCES	ORE TYPE	BLEND RATIO / LOADS	TONNES PER HOUR
VOK Crusher	1	VOK_ROMS_303	VK3	3	2,077
		VOK_ROMS_302	VK02	3	2,077
		KFR_ROMS_301	KF01	3	2,077
		EX8105	HGCU/BACU	4	2,769
VOK Crusher	2	KFR_ROMS_301	VK3	1	3,000
		VOK_ROMS_302	VK02	1	3,000
		EX8105	HGCU/BACU	1	3,000

1 Secondary Nav

- Controllability: Secondary nav is not necessary. Production, Machines, Personnel and Allocation can be displayed in separate sections

2 Header

- Strive for Consistency: Header title is different from Production and Personnel section
- Real estate usage: Header uses 50% of the screen while Table requires vertical and horizontal scrolling